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THOMAS LANG,
General Secretary for India and the East,
CALCUTTA.

Original Communications.

PRECIS OF OPERATIONS PERFORMED IN THE WARDS OF THE FIRST SURGEON, MEDICAL COLLEGE HOSPITAL, DURING THE YEAR 1890.

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THE following record is the tenth of the series, and is drawn up according to the same classification and arrangement as the preceding nine. These wards were under my charge during the whole year with exception of a short period of leave in October. Some of the operations were performed by the Resident Staff, and the name of the operator is attached to them. My assistant during the whole period was Assistant-Surgeon Syama Nirod Das Gupta, M.B., for whose willing and skilful aid I am greatly indebted, both as regards the practical ward work and the preparation of these records.

Table of Operations performed during 1890.

I. OPERATIONS ON ARTERIES.		No. Died.
1. Ligature of internal pudic artery	...	1 0
II. OPERATIONS ON VEINS.		
1. Ligature and excision of varicocele after exposure by antiseptic incision	...	2 0
III. OPERATIONS ON JOINTS.		
1. Reduction of dislocation—		
<i>a</i> Hip-joint	...	6 0
<i>b</i> Knee-joint	...	1 0
<i>c</i> Elbow-joint	...	3 0
2. Forcible movement of stiff joints—		
<i>a</i> Knee...	...	2 0
<i>b</i> Elbow	...	1 0
<i>c</i> Wrist...	...	2 0
<i>d</i> Temporo-maxillary	...	1 0
3. Incision of knee-joint—		
<i>a</i> for injury	...	1 0
<i>b</i> for suppuration	...	2 0
4. Erasion of joints—		
<i>a</i> Astragalo-scaploid	1 0	
<i>b</i> Calcaneo-cuboid	1 0	
<i>c</i> Scaphoid-cuneiform	1 0	
6. Excision of elbow-joint	...	5 0
7. Removal of astragalus for dislocation	...	1 0
Total	...	28 0
IV. OPERATIONS ON BONES.		
1. Sequestrotomy and erasion	...	22 0
2. Wiring fractured patella	...	1 0
Carried over	...	23 0

IV. OPERATIONS ON BONES.		No. Died.
Brought forward	...	23 0
5. Resection of bones—		
<i>a</i> femur in conical stump	...	1 0
<i>b</i> humerus for compound fractures	...	2 0
<i>c</i> radius for compound fracture	...	2 1
<i>d</i> ribs for empyema	...	2 1
4. Trephining of mastoid process	...	1 0
5. Trephining of skull—		
<i>a</i> for recent fracture	...	2 2
<i>b</i> for traumatic epilepsy	...	1 0
Total	...	34 4

V. AMPUTATIONS.		
A.—For Injury.		
1. Primary through shoulder joint	...	1 0
2. " of arm	...	1 0
3. " of forearm	...	2 0
4. " of fingers and toes	...	3 0
5. " of leg	...	2 1
6. Secondary of arm for gangrene	...	2 0
7. " of fingers and toes for necrosis	...	3 0
Total for Injury	...	14 1

B.—For Disease.		
1. Of the thigh for disorganized knee-joint...	...	2 0
2. " for sarcoma	...	1 0
3. Of the leg for gangrene or necrosis	...	3 0
4. Syme's for mycetoma	...	1 0
5. " for diseased tarsus	...	3 0
6. Chopart's for necrosis	...	1 0
7. Hey's for necrosis	...	1 0
8. Of toes for gangrene	...	1 0
Total for Disease	...	13 0
GRAND TOTAL OF AMPUTATIONS	...	27 1

VI. REMOVAL OF TUMOURS (BY EXCISION.)		
A.—Malignant.		
1. Epithelioma—		
<i>a</i> of cheek	...	1 0
<i>b</i> of tongue	...	1 0
<i>c</i> of penis	...	3 0
<i>d</i> of scrotum	...	1 0
<i>e</i> of hip	...	1 0
2. Scirrhus—		
<i>a</i> of jaw	...	1 0
<i>b</i> of neck	...	1 0
3. Sarcoma—		
<i>a</i> of antrum	...	1 0
<i>b</i> of lower jaw	...	1 0
<i>c</i> of testis	...	1 0
4. Naso-pharyngeal polypus (by ecraseur and avulsion)	...	2 0
Total	...	14 0

B.—Non-Malignant.		
1. Elephantiasis—		
<i>a</i> of prepuce	...	1 0
<i>b</i> of scrotum	...	24 0
<i>c</i> of labia	...	2 0
2. Fibroma—		
<i>a</i> of upper jaw	...	1 0
<i>b</i> of lower jaw	...	1 0
<i>c</i> of ischio-rectal fossa	...	1 0
<i>d</i> of thigh	...	1 0
<i>e</i> of leg	...	1 0
3. Myxoma of nose (avulsion)	...	1 0
4. Angioma of lip (injection)	...	1 0
" (excision)	...	1 0
5. Adenoma of mamma	...	2 0
6. Lymphadenoma of axilla	...	1 0
7. Keloid of shoulder	...	1 0
8. Exostosis of external meatus	...	1 0
Carried over	...	40 0

B.—Non-Malignant.		No. Died.
Brought forward		... 40 0
9. Cyst—		
a	Sebaceous of scalp	... 2 0
b	„ of neck	... 1 0
c	„ of groin	... 1 0
10.	Condyloma	... 2 0
11.	Gumma	... 1 0
12.	Lupus of nose	... 1 0
13.	Diseased glands—	
a	cervical	... 2 0
b	axillary	... 1 0
c	inguinal	... 14 0
14.	Hæmorrhoids	... 3 0
Total		... 68 0
Grand Total of Tumours		... 82 0

VII. REMOVAL OF FOREIGN BODIES.

1.	Piece of wood from neck	... 1 0
2.	Stalk of grass from bladder	... 1 0
Total		... 2 0

VIII. REMOVAL OF CALCULI.

1.	Vesical, by litholapaxy	... 7 1
2.	„ by lithotomy—	
a	lateral	... 4 0
b	Median	... 2 0
Total		... 13 1

IX. INCISIONS.

1.	Laryngo-tracheotomy...	... 1 0
2.	Laryngotomy	... 1 1
3.	Herniotomy for strangulation (sac opened)...	... 6 4
4.	Radical cure of hernia—	
a	inguinal	... 19 2
b	ventral	... 1 1
5.	For imperfectly descended testis	... 1 0
6.	Laparotomy—	
a	for injury	... 1 1
b	for obstruction	... 1 1
7.	Tenotomy—	
a	for contracted hamstrings	... 2 0
b	for talipes equinus	... 1 0
c	for talipes equino-varus...	... 4 0
8.	Division of congenital contraction of meatus urinarius	... 2 0
9.	Internal urethrotomy	... 1 0
10.	External urethrotomy—	
a	Cock's	... 3 2
b	Syme's	... 7 1
c	Wheelhouse's	... 5 1
11.	Incision for imperforate anus	... 1 0
12.	„ stricture of anus	... 1 0
13.	„ „ of rectum	... 2 0
14.	„ „ recto-vaginal fistula	... 1 0
15.	Scrotal abscesses	... 6 0
16.	Abscesses	... 24 0
17.	Sinuses	... 9 0
Total		... 100 14

X. REPARATIVE OPERATIONS.

1.	For ectropion	... 2 0
2.	„ closing a gap in the cheek	... 2 0
3.	„ restoring perineum	... 2 0
4.	„ ulcers on bony prominences...	... 2 0
Total		... 8 0

XI. OPERATIONS NOT CLASSED.

1.	Cauterising prolapsed rectum	... 3 0
2.	Radical cure of proclidentia recti	... 1 0
3.	Paracentesis of bladder	... 1 0
Carried over		... 5 0

XI. OPERATIONS NOT CLASSED.

Brought forward		No. Died.
4.	Erasion of lupus	... 3 0
5.	„ of rodent ulcer	... 1 0
6.	Continuous dilatation of stricture	... 6 0
Total		... 15 0
GRAND TOTAL		... 312 20

Death-rate per cent, ... 6.41

OPERATIONS ON ARTERIES.

I. *Ligature of internal pudic.*—Hindu male, *æt.* 3. Lateral lithotomy was performed on the 27th of July. The stone was successfully extracted with slight loss of blood. On the 31st the wound bled profusely from the left side. Plugging failed to stop the hæmorrhage, and immediate ligature was tried without effect. A loop of catgut was passed round the left internal pudic artery with a curved needle and tied firmly. The hæmorrhage stopped at once, and did not recur. Patient was discharged well on the 12th of August.

OPERATIONS ON VEINS.

i. *Ligature and excision of varicocele after exposure by antiseptic incision.*—East Indian male, *æt.* 21. Varicocele of left cord of four years' duration. The mass was exposed and ligatured in two places—above the testicle and at the internal ring—and then excised. The wound remained aseptic and healed by first intention in 11 days.

ii. Hindu male, *æt.* 23. Varicocele of right side of one and a half years' duration. A similar operation was performed. The upper end accidentally escaped out of the catgut loop into the inguinal canal, but was "fished" out by clamp forceps and retied after transfixion. The wound healed by first intention in ten days. A hydrocele on the same side was successfully tapped and injected a few days after.

* * * In both these cases a small drainage tube was inserted and retained for a few days. The result of the operation in both cases was highly satisfactory.

III. OPERATIONS ON JOINTS.

1a. *Reduction of dislocation of hip-joint.*—In two of these cases of 3 and 42 days' duration reduction was effected by manipulation under chloroform. The joint was kept at rest for a fortnight, and movement was then resumed. In another case of 36 days' duration extension by pulleys was required and succeeded after manipulation had failed. In another case of seven days' duration the rim of the acetabulum had been broken and the head of the bone escaped out of the cavity as soon as the traction was discontinued. A satisfactory result was obtained by continued extension by means of pulley and weight for a month. The joint was a little stiff but useful. In another case of dorsal dislocation of ten days' standing reduction was effected

by manipulation, but on removing the long splint after 16 days the head of the femur was found to have escaped. A second reduction was effected by manipulation, and after 29 days' rest the joint was found to be in a satisfactory and serviceable state.

1b. *Reduction of knee-joint.*—This was a case of oblique fracture of the head of the right tibia in a Hindu male, *æt.* 40, caused by a fall off a tree. There was well marked dislocation outwards of the tibia and fibula. This was remedied by traction with pullies, and the limb was kept on a Macintyre splint for a month. The result was satisfactory.

1c. *Reduction of dislocation of elbow-joint.*—i. European male, *æt.* 33. Backward dislocation of radius caused by a fall off a phaeton. Reduced under chloroform by forcible flexion. Good result in 36 days.

ii. Hindu male, *æt.* 18. Backward dislocation of both bones of six weeks' standing. Limb (right) nearly straight. Reduction was effected under chloroform, and by subsequent manipulation a useful joint was obtained. He remained 42 days in hospital.

iii. Hindu male, *æt.* 22. Backward dislocation of both bones of right elbow-joint with fracture of the head of the radius caused by fall off horse back. The limb was nearly straight. By forcible flexion under chloroform partial reduction was effected. Subsequent manipulation was repeatedly resorted to, but mobility could not be permanently restored and excision of the joint became necessary (see case III, 6, iv *infra.*)

2a. *Forcible movement of stiff knee-joints.*—In both these cases the joint was fixed in a flexed position and forcibly straightened under chloroform. In one case movement was restored, in the other, the ligamentum patellæ gave way under manipulation, and the limb was treated for ankylosis in a straight instead of angular position.

2b. *Forcible movement of stiff elbow-joint.*—The stiffening resulted from arthritis of gonorrhœal origin in a Hindu male of 30. Repeated manipulations under chloroform were required; but eventually a useful range of movement was obtained.

2c. *Forcible movement of stiff wrist-joint and fingers.*—In one of these cases the stiffening was due to compound Colles's fracture, in the other to cellulitis and ulceration induced by tight bandaging. In both cases the joint and tendons were moved in detail under chloroform, and the use of the hand restored.

2d. *Forcible movement of temporo-maxillary joint.*—Hindu male child, *æt.* 6. Both joints stiffened in consequence of severe parotitis and the condition of atresia established. Movement was restored by repeated application of the screw-gag.

3a. *Incision of knee-joint for injury.*—Hindu male, *æt.* 35. Struck the inside of the knee with an axe two days ago. Wound sloughy-looking and discharge putrid. The joint has been opened and is inflamed; thigh and leg puffy, temperature 101.8.° Patient was chloroformed, and a free incision was made into the joint above the patella on its inner side. The joint cavity was thoroughly irrigated with bichloride lotion, and a tube passed through the wound, another across the joint above the patella; antiseptic dressing was applied. Pyrexia subsided in three days. One tube was removed in five days, and the other gradually shortened and removed in 38 days. Wound closed in 43 days. The joint was rather stiff but useful when he left hospital after a residence of 92 days.

3b. *Incision of knee-joint for suppuration.*—i. Hindu male, *æt.* 25. His left knee-joint filled with fluid while he was suffering from remittent fever. On exploring, the fluid was found to be purulent. Patient emaciated and suffering from fever, spleen enlarged. The joint was laid open under antiseptic precautions and a drainage tube inserted. The fever subsided and discharge, which was at first copious, gradually diminished. The tube was gradually shortened, and the wound closed in 37 days. Patient discharged after 104 days with a stiff but useful joint.

ii. Hindu male, *æt.* 18. Acute arthritis of left knee-joint of six days' duration. Limb œdematous. Suffering from high fever. Joint greatly distended. Fluid found on exploration to be purulent. A free incision was made under antiseptic precautions and a tube inserted. This was gradually shortened and removed after 33 days; but re-accumulation occurred and re-insertion became necessary. Two counter-openings had to be made on the 68th day, on account of bagging and tubes were inserted. These openings gradually closed, and patient left hospital after a stay of 184 days with a straight stiff-joint.

4a. *Erasion of astragalo-scaploid joint.*—Hindu male, *æt.* 40. History of syphilis: Admitted with open astragalo-scaploid joint, the result of inflammation, commencing five months ago. There were three sinuses converging towards the joint. These were laid open, and their walls and the joint cavity thoroughly scraped with a sharp spoon. The cavity was stuffed with borated lint sprinkled with iodoform. The case did well for a few weeks when the foot became painful and puffy. Bare bone was discovered, and amputation performed by Syme's method.

4b. *Erasion of the calcaneo-cuboid joint.*—Native Christian female, *æt.* 25. Sprained her right ankle about a month previously. Inflammation ensued, which resulted in an abscess situated opposite to the calcaneo-cuboid joint. This was laid open. The cuboid was found bare and joint open. The cavity was scraped thoroughly,

and the wound healed antiseptically. It did well for ten days, and then swelling, pain and fever recurred, and Syme's amputation was performed. There was also a history of syphilis in this case.

4c. *Erasion of the scaphoid-cuneiform joint.*—East Indian male, *æt.* 21. This patient, who had recently suffered from syphilis, got disease of the calcaneo-cuboid joint, which was treated by erasion in December 1889. The cavity healed kindly, but a small sinus remained. In July 1890, a similar condition was found to exist in the joint between the scaphoid and cuneiform bones. The old sinus was laid open and well scraped, and the diseased joint also laid open by a fresh incision, and the carious tissue removed. The process of repair was very slow, but eventually the wounds closed, and patient left hospital in January 1891 with a useful foot.

6. *Excision of the elbow-joint.*—i. Hindu female, *æt.* 50. Admitted with an open left elbow-joint, the result of a puncture made by a barber for suppurative inflammation about six weeks ago. The joint was found to be thoroughly disorganized, and the articular ends of the bones were removed through a straight posterior incision. Repair was somewhat delayed by the sharp edge of the humerus working through the skin. This required a small operation. Eventually an excellent result was obtained. Remained in hospital 78 days.

ii. Armenian male, *æt.* 45. Sustained a wound of left elbow-joint in Burmah six months ago. Firm ankylosis has resulted. The joint was exposed by straight posterior incision, the olecranon process removed, the articular ends forcibly separated and excised. The wound remained aseptic and healed by first intention. Passive motion was resorted to on the 19th day. Discharged with a useful arm in 60 days.

iii. Hindu male, *æt.* 35. Sustained dislocation and fracture of elbow 36 days ago. Joint fixed in a nearly straight position. It was opened by straight incision from behind, and the ends of the bones removed. The external condyle and coronoid process were detached and found embedded in callus. There was troublesome oozing for a week, but the wound remained sweet and healed by first intention. Discharged with a useful arm in 56 days.

iv. Hindu male, *æt.* 22. This was also a backward dislocation of the elbow-joint, in which an unsuccessful attempt at reduction had been made. [See case III, 1c, iii *supra.*] The ends of the bones were removed as in the last case. The wound healed by first intention, and a satisfactory result was obtained. Spent 69 days in hospital.

v. Hindu male, *æt.* 25. Left elbow-joint fixed in a nearly straight position in consequence of gonorrhœal arthritis. Movement had been restored by manipulation three months ago, but only for a time. The joint was excised in the usual

manner. The wound healed by first intention, and a satisfactory result was obtained in 31 days.

7. *Removal of the astragalus for dislocation.*—Hindu male, *æt.* 53. Sustained outward dislocation of right ankle-joint two months ago. Foot extremely inverted, and the limb is quite useless for support or progression. The left lower extremity useless from congenital atrophy. The astragalus was exposed by a T-shaped incision and removed in two portions. The dislocation was reduced and the wound treated for aseptic closure by granulation. This took place in 31 days. The patient left hospital in 61 days with a serviceable limb.

IV. OPERATIONS ON BONES.

1. *Sequestrotomy and erasion.*—The twenty-two cases included under this head present a considerable variation in respect of causation and degree of bone disease; but they were treated on precisely the same principles, namely, free exposure of the site of disease by incision and thorough removal of diseased and dead tissue (hard and soft) by forceps, chisel, gouge, sharp spoon and osteotrite. Antiseptic measures were invariably employed, in some cases preventively when the skin remained whole, but in most cases correctively when sinuses led to the cavity containing the dead or carious bone. Several of the cases were due to injury recent or remote; and in some of the latter constitutional conditions accentuated or perpetuated the mischief caused by the noxa. Some were the result of broken down gummata, strumous or syphilitic. But in many cases the bone death was due to acute inflammatory processes untreated or aggravated by maltreatment and unrest. In one such case neglected abscess of the scalp in a Hindu lad of 19 led to extensive necrosis of the skull. Notwithstanding free opening and removal of loose fragments of dead bone, paralysis and epileptiform fits supervened, and the patient was removed in a moribund state. In another case acute abscess of the cheek causing alveolar necrosis was due to the eruption of a wisdom tooth in a lad of 18. Cases of atresia oris caused by inflammatory changes in the soft parts set up by the lower wisdom teeth in process of eruption are not uncommon in India. Extraction of the wisdom tooth or of the second molar is generally necessary, and division of the cicatricial band with subsequent use of the screw-gag. The great majority of the cases responded satisfactorily to the measures employed, but in some cases very slowly; while in others repeated operations were necessary. In all cases constitutional remedies were resorted to when they appeared to be advisable or necessary.

2. *Wiring fractured patella.*—Mahomedan male, *æt.* 35. Sustained an injury of right knee-joint 17 months ago. The joint was laid open, and patella severed in two by the tusk of a

wild boar. The wound healed in six months, leaving the fragments of the patella far apart, and the joint in a stiff and semiflexed position. The joint can now be flexed, but not extended beyond an angle of 120°. The limb is almost useless. The hamstring tendons were first divided subcutaneously, and the limb straightened on a Macintyre splint, and seven days afterwards, the part continuing weak, a return of flexion threatening owing to the absence of extensor power, the following operation was performed. The fragments were exposed by a longitudinal incision.

They were about three inches apart, the upper large and firmly fixed to the trochlear surface of the femur, the lower small and sunk into the intercondyloid notch. Some cicatricial tissue was removed from between them, their opposed surfaces freshened by the chisel and the upper loosened from its adhesions to the femur. It was now found that approximation of the fragments was impossible. The incision was accordingly prolonged upwards, and the quadriceps extensor divided by a W-shaped incision after the manner of Lister. The fragments then came together, and were drilled and wired. The tips of the W were united by catgut. Lateral openings were made for drainage, and the wound put up antiseptically. The wound remained aseptic, and healing took place without local or constitutional disturbance. The tubes were gradually shortened, and finally withdrawn on the 16th and 20th day. The limb was put up in gum and chalk after the wounds had quite healed, and patient was allowed to get about on crutches. He was discharged 109 days after operation. The joint was free of swelling and pain; he could walk with comfort. No movement existed at the knee-joint, which was ankylosed in a nearly straight position. Bony union had taken place between the fragments. The wires remained *in situ* and caused no irritation.

3a. *Resection of femur for conical stump.*—Hindu male, *æt.* 30. This was a phthisical patient who had undergone amputation at the middle of the thigh for disorganized knee-joint and abscesses. The healing process was very slow and feeble, and the soft parts fell away from the bone which protruded out of the centre of the wound. Forty-two days after the amputation a straight incision was made over the bone, and the protruding portion sawn off. This wound healed slowly by granulation, and the patient left hospital two months after the last operation.

3b. *Resection of the humerus for compound fracture.*—One of these cases was recent in a Hindu male child of 8. The lower end of the upper fragment protruded, and had to be sawn off. Sound union of the fracture took place in 84 days. In the other case, a Hindu male child of 7, an epiphysial simple fracture of the lower

end of the humerus had taken place threemonths before admission. The end of the shaft had been pushed in front of the epiphysis and union has taken place in that position, seriously impeding flexion of the joint. The projecting bone was reached by straight incision, removed by cutting forceps, trimmed by chisel, reduced and retained in position by a rectangular splint. The wound healed in 11 days, and the child was discharged with a useful joint in 27 days.

3c. *Resection of the radius for compound fracture.*—(i) Hindu male, *æt.* 13. Fell from a tree two days ago and sustained compound Colles's fracture; lower end of upper fragment protruding through the skin. The protruding portion was removed by cutting forceps, and the bone was reduced after the wound had been enlarged. The wound healed very slowly, and a small bit of dead bone was removed through a sinus which remained obstinately open. It closed speedily after this. Passive motion was repeatedly resorted to. The child remained under treatment for 145 days. Ultimate result satisfactory. (ii) Hindu male, *æt.* 14. Sustained compound fracture of both bones of the forearm by fall from a height of 24 feet three days before admission, radius protruding, discharge fœtid. The projecting portion of the radius was removed by cutting forceps and the bone reduced. A large collection of matter was found on the flexor aspect of the forearm four days afterwards and laid freely open. Pyrexia set in on the fifth day and tetanus on the sixth, which proved fatal next day.

4d. *Resection of the ribs for empyema.*—i. Hindu female, *æt.* 30. This patient had been suffering from acute pleurisy of left side for several weeks. She was admitted under the care of Dr. Birch on 19th August. Respiration being very embarrassed and circulation very rapid. 62 ozs. of blood-tinged serum were removed by aspiration on that day. This gave some relief; 28 ozs. were removed on the 21st, and 13 ozs. on the 27th. Re-accumulation taking place somewhat rapidly. Dr. Birch thought that diminution of the capacity of the chest would probably favour collapse after evacuation. Accordingly on the 2nd of September, pieces about 1½ inches long were taken out of the 5th, 6th, and 7th ribs in the line of the axilla. In denuding the 6th rib the pleura which seemed to be friable gave way. A drainage tube was inserted through this hole, and an antiseptic dressing applied. Patient suffered from shock after the operation, and did not rally. Death took place in 52½ hours. Free discharge took place through the tube.

ii. East Indian child, *æt.* 9. This boy was admitted for empyema of two months' standing. A piece of the 6th rib was removed, so as to facilitate insertion and retention of a tube. Fever subsided after the operation; the dis-

charge became scanty ; the tube was gradually shortened, and withdrawn when the discharge became serous and scanty. The wound healed, and patient was discharged 26 days after operation.

4. *Trephining of the mastoid process.*—Hindu male, *æt.* 50. Has been suffering from disease of right ear for a year. There is a sinus in the posterior wall of the meatus, through which a probe passes and impinges on loose dead bone ; discharge very offensive. Mastoid process enlarged and soft tissues over it puffy. A straight incision was made behind the ear ; the mastoid process was laid open and a cavity exposed full of dead and carious bone, and very friable granulation tissue. This was fully scraped out and the cavity healed slowly by granulation in 105 days.

5a. *Trephining the skull for recent fracture.*—i. East Indian male, *æt.* 28. Sustained a wound of right temple four days before admission. Skull broken at site of wound, which had not been treated antiseptically. Has high fever ; loss of control over left upper extremity and stiffness of neck. During two days after his admission the symptoms became worse. He got semicomatose, pupils contracted, pulse and respiration quick. Both legs stiff. Passes motions involuntarily. The skull was trephined at the seat of fracture. No fragments. *Dura mater* dull and yellow at one spot where it was divided. A few drops of pus issued. Membranes very vascular. He lived for 22 hours. The symptoms progressed and he died of coma. Acute diffuse purulent meningitis was found on *post mortem* examination.

ii. Hindu male, *æt.* 22. Fell off a coach-box 2 $\frac{3}{4}$ hours before admission. Sustained a wound of left occipital region and a depressed fracture of skull beneath the wound ; breathing irregular, p. 140. Conjunctival reflex absent. Three hours after admission violent spasms of right upper and lower extremities set in. 5 $\frac{1}{2}$ hours after this, his condition getting worse, Dr. Adie exposed the seat of fracture, trephined the skull, and removed several pieces of bone which were pressing on the brain. No relief followed except that the breathing got more regular and spasms ceased. Died 26 hours after operation.

5b. *Trephining for traumatic epilepsy.*—East Indian male, *æt.* 24. Admitted 1st December. Fell off a dog-cart in March 1887, and was stunned. Hurt the upper occipital region where there was a swelling, on whose subsidence a depression was perceived. Got an epileptic fit about a month after the accident, and since then fits have occurred at irregular intervals with increasing frequency of late. On admission, a depression was found at the upper angle of the occipital bone which was somewhat tender on pressure. A circle

of bone was taken out of the skull at this place by the trephine under strict antiseptic precautions. A thickened ridge was found to extend across the inner plate. The operation was performed on the 6th of December. The wound healed shortly by first intention ; no constitutional disturbance. He had a fit on the 29th. The cavity of the wound was found to be distended with clear serum which was evacuated and a small tube inserted. Another slight fit occurred on 17th January. Discharged in excellent health on 7th February. He had two slight fits shortly after discharge ; but when last heard of had been free of fits for three months and was in perfect health, doing his work as a clerk in a Government Office at Simla very efficiently.

(To be continued.)

EPIDEMIOLOGICAL SOCIETY OF LONDON.

IS COLONIZATION IN CENTRAL AFRICA BY
EUROPEANS POSSIBLE?

DR. EWART, *President.*

SIR WILLIAM MOORE, after adverting to the services rendered to sanitary science and medicine in India by the newly-appointed President, Dr. Ewart, mentioned that it is now some thirty-six years since the President and himself were serving in the same province. Sir Henry Lawrence was then engaged in establishing his schemes for the education of European children on the Indian hill ranges, and for the establishment of time-served European soldiers as settlers. The one scheme still bears fruit in the several existing Lawrence Asylums. But the second scheme never had even a commencement. Although a young officer at the time Sir William Moore was asked his opinion. He then wrote that "the policy was unquestionable, for "European colonists would prove a source of "strength in a possible hour of need." But as regards practicability, he observed, "that it is "questionable if suitable and remunerative employment could be found for settlers on Indian "mountain ranges. . . . Much of the hill-side "is rock or too steep for even terrace cultivation " . . . that cultivation of the hill-side under a "tropical sun is not work fitted for an European, "and that valleys in the hills are so deadly malarious that the pioneers of colonisation would "be destroyed." And as a matter of fact, during the past thirty years, no colonisation has taken place. Shortly afterwards Sir William Moore became intimately associated with one of the hill schools established by Sir Henry Lawrence, where he had an opportunity of watching the development of the children, and also of instituting an enquiry into the after-life of such children. Companies have been formed for the civilization and colonisation of Africa. The