

ventilation would certainly exert as beneficial an influence in hip cases as when the amputation takes place at the shoulder; and thus one might almost venture to predict that operations at the coxo-femoral articulation will in future days be more readily performed than hitherto. There is, however, one circumstance which will ever render both amputations (and in fact the removal of a great portion of a limb wherever it is taken off) somewhat dangerous—viz., the congestion of internal organs consequent upon the removal of a large portion of the frame. That pneumonia, apoplexy, &c. &c., do not more frequently follow such operations, is probably owing to the loss of blood inseparable from the ablation of limbs; but there is sometimes so little lost, that the absence of congestive symptoms must be partially referred to the drain occasioned by the secretion of pus. At all events, it is plain that the hæmorrhage which accompanies amputation, and the suppuration attending upon the healing of the stump, need not be looked upon with apprehension, except the patient be very weak and exhausted by previous disease.

We must in some degree apologize for alluding too largely to amputation at the hip-joint; but in reviewing the cases of encephaloid cancer of the upper part of the femur which were reported in a late "Mirror," (THE LANCET, vol. ii. 1852, p. 7—10,) we could not help noticing that removal of the limb at the hip-joint might have afforded a shade more hope as to the non-recurrence of the affection. Regarding the shoulder, surgeons now do not hesitate one moment when disease or accident imperatively call for the operation. We merely wish, therefore, in mentioning the following cases, to adduce facts which are likely to strengthen principles of practice already pretty firmly established. The first case was treated by Mr. Cock, and from Mr. Pininger's notes we gather the following particulars:—

H. S—, aged 30, a leather-dresser, was admitted July, 12, 1851, into Luke ward, under the care of Mr. Cock, in consequence of a severe gun-shot wound of his right arm. The patient states that on the morning of the accident he was shooting rooks, when, having occasion to get over some railings, he placed his gun (which was loaded, but not cocked) on the inner side of, and leaning against, the railing. When he had climbed over the latter, he drew the gun through it by the muzzle, and the trigger, being directed downwards, came to be partially raised by being pulled against a bar. The gun unfortunately went off, and its contents (common shot) passed through the man's right arm, close to the shoulder.

Upon examination, the humerus was found completely shattered, from about half an inch below its head to four inches down the shaft; there was extensive laceration of the soft parts around the limb, but the axillary artery and plexus appeared to have escaped injury. The men who brought the patient to the hospital said that he had lost much blood; and as the hæmorrhage was still going on, Mr. Cock amputated at once at the scapular articulation, though the man was still in a state of collapse. The operation was speedily completed, the patient being, in the mean time, kept up by the administration of brandy. The greater part of the deltoid muscle had been destroyed, but a tolerable, although somewhat scanty, flap was obtained from each side. The margins of the wound were brought together in the usual manner after the vessels were secured; and when reaction had set in, half a drachm of laudanum was given to the patient.

The progress of the case was marked by two principal features—cough and the formation of abscesses: of the latter, some formed about the latissimus dorsi, others in the axilla, and one even about the crest of the ilium; but by good diet, tonics, the successive opening of the purulent sacs, and careful dressing, the patient left the hospital with a good cicatrix, about three months after the operation.

*Severe injury to the upper part of the Arm by Machinery.
Amputation at the Shoulder-joint.*

(Under the care of Mr. POLAND.)

The following particulars were noted by Mr. Morris:—

George C—, aged seventeen, a healthy lad, of regular habits, and employed for some years in a paper factory, was admitted October 4, 1851. It appears that whilst the boy was pursuing his occupation at the mill, on the day of admission, his left hand and arm were caught in the machine, whereupon the wheel completely crushed the arm in its upper third, tearing the integuments and muscles for some way above that region. There was little or no hæmorrhage at the time, and, after a temporary dressing, he was sent to Guy's Hospital, where he arrived about three hours after the accident.

On admission, the boy had somewhat rallied from the shock; the arm was unbound, and the following condition observed:—The whole of the left upper extremity was irregularly torn off about the insertion of the deltoid; the bone was obliquely and jaggedly broken, the integuments on the inner side hanging in long shreds, with the brachial vessels and nerves exposed to the extent of an inch. On the outer side the integuments and muscles were lacerated and torn off much higher up. Immediate amputation was evidently unavoidable; and it was determined to remove the remaining portion of the limb at the shoulder-joint, as there was not sufficient soft parts to form a covering to the bone if an endeavour were made to save any part of the head of the humerus. Mr. Bransby Cooper entirely coincided with this view, and took charge of the subclavian artery during the operation.

As much outer flap as could be made was taken from the deltoid; but there was only sufficient to form one-third of the stump; consequently the inner flap had to be made from the soft parts of the arm, including the brachial vessels and nerves. After the ligatures were applied to the vessels the patient was put to bed, scarcely any loss of blood having taken place. About three hours afterwards the flaps were brought evenly together and maintained by eight sutures, with suitable support by means of well-adjusted strips of plaster. The patient was ordered eight ounces of wine, one pint of porter, and a chop, daily.

The case progressed favourably, without a bad symptom; the stump was dressed about every fourth day, and great care taken that no collection of pus should be formed. The sutures were removed on the sixth day, and the ligatures came away on the third week; the stump healing, partly by granulation, and partly by first intention, in the space of one month.

At the end of the fourth week the boy's appetite began to fail, he had chilling sensations, and looked pale. As there were two cases in the ward dying of phlebitis, it was feared that the patient might become the subject of this fearful affection; he was therefore immediately despatched into the country, where he soon regained his failing appetite, and became stout and hearty. He presented himself at the hospital two weeks afterwards, in perfect health, and the stump nearly cicatrized.

The next case, treated by Mr. Coulson, will afford an interesting illustration of the dependence of success on the state of health previous to the accident, as also on the age of the patient. It will likewise be seen, in Mr. Coulson's case, (as was observed in the two preceding ones,) that, after accidents about the shoulder, the surgeon must take his flaps, not according to methodical directions, but do the best he can to form a satisfactory stump from parts often sadly lacerated.

ST. MARY'S HOSPITAL.

Injury to the upper part of the Left Arm; Amputation at the Shoulder-joint; Death.

(Under the care of Mr. COULSON.)

THE notes of this case were taken by Mr. Bullock, house-surgeon to the hospital.

E. H—, aged four years and eight months, who is stated to have been an unhealthy child, and to have suffered from chest affection, was admitted at nine A.M., March 8th, 1852, under the care of Mr. Coulson, with a compound comminuted fracture of the left arm. It appeared that the girl had been run over by an empty railway truck about fourteen miles from the hospital, and was brought up by railway. She was considerably collapsed, the surface of the body was pale, and the feet cold; the child was perfectly quiet; she had been so since the accident; and she had not lost any blood.

On examination, a lacerated wound was perceived, which extended nearly the whole length of the arm on its anterior and inner surface; the bone was extensively comminuted from the elbow-joint (into which the fracture extended) to within an inch and a half of the shoulder-joint, the muscles being nearly all torn through, except at the posterior part. The artery seemed to have escaped; the wound extended nearly up to the acromion process, but the child could move her fingers. No hæmorrhage had occurred. At eleven A.M., the little patient had somewhat rallied, and amputation at the shoulder-joint was therefore performed, chloroform having been previously administered by Mr. Trotter. No definite mode of performing the operation could be adopted, on account of the laceration of the integuments; the principal flap was made of the deltoid, and a smaller inner one was taken from the soft parts towards the chest. The subclavian artery was com-