

second sound is caused by the forcible propulsion of the blood through the semi-lunar valves. The bruits in diseases of the heart are also more naturally and correctly explained by this theory, as may be proved by an analysis of the various treatises on auscultation, especially the admirable Treatise by Dr. Skoda, (fourth edition, 1850, Vienna,) a work no one can read without feeling the highest esteem for the candour and logical acumen of the learned professor. But it is not necessary to make vivisections or experiments on dead hearts; every man carries in his own breast evidence sufficient to prove that the impulse occurs during the diastole. I have myself made the following experiment several times: if a person lies in bed on the left side and listens attentively, he can hear the second sound most distinctly; should his heart palpitate or beat somewhat violently, he will feel at the same time, synchronous with the second sound, a shock or concussion in the chest, extending even to the carotid arteries.

Each contraction of the ventricles causes one pulsation throughout the arterial system, before another contraction takes place; and as the arteries are elastic tubes, a certain interval or space of time, be it more or less, elapses, before the pulsatory wave, caused by the contraction of the left ventricle, reaches the extremities of the arterial system. The carotid artery, just before its bifurcation, may be considered as a middle point between the heart and the capillaries in the brain; consequently the pulse at that point ought to be intermediate between two contractions of the ventricle; and if the impulse of the heart is caused by its dilatation, it ought also to occur in the interval between two contractions of the ventricle: now the impulse of the heart and the pulse of the carotid are synchronous. This explanation also accounts for the impulse not being synchronous with, but immediately preceding, the pulse at the ankle. I conclude, therefore, that the impulse of the heart takes place during the diastole.

Würzburg, Dec. 1851.

PROFUSE SALIVATION AND SLOUGHING, CAUSED BY THREE SMALL DOSES OF MERCURY.

By ROBERT HARPER, M.R.C.S., L.S.A., London.

W. W—, aged eleven years, a delicate boy, was attacked, in the early part of last month (November), with fever, and for which he was treated in the usual manner, namely, salines, antimonials, &c., followed by wine and other support, and under which he greatly improved. The bowels, however, being in a torpid state, mild aperients, with mercury and chalk, were administered, when required. Altogether only three doses of this mercurial were given, one of six grains on the 14th, a similar dose on the 17th, and four grains on the 20th; but most profuse salivation followed, the salivary glands and features becoming swollen to an enormous size, the saliva flowing constantly away, and the breath having the foetid mercurial odour. Port wine, arrowroot, good beef-tea, in fact all the support that could be got down, was given, and lotions employed to the mouth; but nothing would stop its fearful ravages: sloughing commenced in both cheeks, and rapidly extended through them; that on the right cheek was not larger than a shilling, but on the left side it extended from one-third across the lips backwards to the edge of the great masseter muscle, and from the malar bone to the lower edge of the inferior maxilla; it presented a frightful appearance, the whole of the teeth on that side being exposed. Everything that could suggest itself was done for the poor boy, but all was of no avail, and he died four days after the commencement of the sloughing.

Farringdon-street, 1851.

EXTRACT OF BULLOCK'S BLOOD IN THE ANÆMIA OF INFANTS.—Dr. Mauthner, physician to the St. Ann's Hospital at Vienna, has lately proposed the above extract, he being convinced that there are many cases of anæmia in the young where steel cannot be given. The extract is prepared in the following manner:—The fresh blood of the ox is first strained, and then exposed in the water-bath to complete dryness. The powder is given dissolved in water, in doses varying from ten to eighty grains, and the best results have been obtained by Dr. Mauthner, after repeated trials. He considers that the children are benefited by this remedy, as the latter supplies the very elements the little patients are wanting; viz. fibrine and hæmotosin. The preparation is especially fit for cases of anæmia depending on chronic diarrhœa, typhus fever, pneumonia, on extensive and long-continued suffocation, and on serous accumulation after scarlatina.

A Mirror OF THE PRACTICE OF MEDICINE AND SURGERY IN THE HOSPITALS OF LONDON.

Nulla est alia pro certo noscendi via, nisi quam plurimas et morborum, et dissectionum historias, tum aliorum proprias, collectas habere et inter se comparare.—MORGAGNI. *De Sed. et Caus. Morb.*, lib. 14. Proœmium.

KING'S COLLEGE HOSPITAL.

Compound Fracture of the Thigh; Severe Injury; Recovery.

(Under the care of Mr. FERGUSSON.)

THE present case offers a very striking example of the amount of crushing force which may be borne by some portions of the human frame, with an ultimate recovery and complete repair of the injured parts. It is true that the thigh offers much resistance, by its strong muscular structure; but it happens but seldom that the wheel of an omnibus, with its full complement of passengers, remains for a few seconds on the thigh of an individual pretty far advanced in age, without inflicting such injuries as to endanger life or require amputation. Here, however, very satisfactory consolidation has taken place, and the patient is likely to leave the hospital with a useful limb. We are therefore induced to offer the following rapid sketch of the case:—

John B. O'C—, aged fifty-four, an Irishman, of spare make and nervous temperament, was admitted, Oct. 9, 1851, under the care of Mr. Fergusson. The patient had some years ago received a violent injury to the right ankle, which since that time has been rather weak. On the day of his admission, whilst he was hurriedly crossing the Strand, the horse of an omnibus knocked him down, and the vehicle passed over his right femur and left ulna, fracturing both. The patient says that the wheel of the crowded omnibus actually remained for a few seconds on his thigh, before he could be extricated. The vehicle had been stopped abruptly, and though one of the fore-wheels was crushing the patient's thigh, the driver was prevented from advancing, as the body was so situated that the least onward movement would have caused the hind-wheel to pass over the sufferer's head. At last he was released from this perilous situation, and brought senseless to the hospital.

The usual means for reviving the poor man were assiduously employed, and he was soon able to undergo an examination. It was now found that a compound fracture of the femur had taken place, the wound being small, but the contusion extensive. The left ulna was likewise fractured, but the arm presented no external wound. The thigh was at first put on the double-inclined plane, the lesion of the soft parts attended to, the ulna put up in the usual way, and the bladder evacuated, as some amount of retention existed.

None of the symptoms which sometimes follow severe crushing, as sloughing, phlegmonous inflammation, erysipelas, loss of sensation in the parts below, or their actual death, occurred in this instance. The patient progressed very favourably; and thirteen days after the accident, M'Intyre's was changed for the long splint, the latter reaching from the mamma to the toes. In about a month from this time, consolidation was found to be taking place; the splints were removed two months after admission, and the limb has suffered but an inconsiderable shortening. The medium of union is extremely thick.

While on the subject of fractured thigh, we may mention that some of our most esteemed hospital surgeons still find the long splint of very great service, though much ingenuity has of late been displayed in improving the apparatus for fractured thigh-bone. We shall soon bring one of these under the notice of our readers; but we should not omit to say, that Mr. Cock, at Guy's Hospital, has taken frequent opportunities of obligingly showing us extremely favourable results obtained by the use of the long splint. Mr. Cock considers that all the necessary movements of the patient can be made, without interfering with the fractured bone; that extension and counter-extension can very conveniently be effected; and has found that the amount of shortening in his cases has been very trifling.