cause was, in this instance, one affecting the *portio dura* after its separation from the *portio mollis*, is proved, probably, by the partial retention of the sense of hearing on the injured side. May we suppose the fissure in the temporal bone to have crossed the aqueduct of Fallopius, and after the lapse of four or five days, some attempt at ossific union to have been set up, which would probably diminish the calibre of the canal at that point to the extent of partially compressing the nerve? That the pressure was caused by a solid deposit, is proved, I think, by the partial persistence of the paralysis up to the present time.

The delay of the paralysis of the muscles of the tongue for thirty-six hours longer, viz., until the evening of the sixth day, was a peculiarity in this case hitherto, I believe, unobserved. I shall not attempt to explain it; but would only remark, that the divergence of the apex of the tongue to the right side made it probable, but by no means certain, that the motor nerves affected were those supplying the right side of the organ.

The fracture of the zygomatic process of the malar bone was another peculiarity of the case. Was it the result of a species of *contre-coup*, or, of what is perhaps almost the same thing, the jar given to the whole cranium by the blow? That it was not caused by direct violence, as *e.g.*, by the cheek coming into contact with any part of the carriage in falling, was proved by the absence of any, even the slightest, external mark of contusion.

The appearance on the injured side of the head of two distinct contused wounds of the scalp, was a point of some interest in a medico-legal sense. Had my patient been driving alone, doubt might have arisen whether the two wounds could have been produced by the fall from the vehicle. They were accounted for by the extreme roughness of the road.

AMPUTATION OF THE FOOT AT THE ANKLE-JOINT, ILLUSTRATED BY A CASE.

By HENRY THOMPSON, M.B., F.R.C.S., Honorary Surgeon to the St. Marylebone Infirmary.

[Read before the Medical Society of London, Feb. 16th, 1856.]

I HAVE selected this subject more for the purpose of bringing before the Medical Society of London a good practical case, than for that of reading a paper upon it at any considerable length, especially as the observation appeared to be one well suited for notice or remark, in conformity with a plan the adoption of which is new to the Society, and the utility of which is now in progress of proof by its Fellows.

This case of amputation at the ankle-joint according to the method first adopted by Mr. Syme, I would gladly have presented to the Society within six weeks of the date of the operation, at which time it was almost as sound, and almost as firm and capable of bearing pressure, as it is at the present moment. Our Society, however, was not then sitting, the last summer recess having commenced. I had, however, the pleasure of showing it to two or three gentlemen, Fellows of our Society, who will, I know, bear testimony to my report respecting it. Moreover, its present condition can be verified, as the patient will be presented for that purpose. Without further preliminary remark, I will briefly detail her history as follows.

CASE. L. O., a girl, aged 10 years, was admitted to the Marylebone Infirmary in April 1855. During the previous four years she had been a patient in the Margate Infirmary, in consequence of indolent glandular swellings and ulcerations in various parts of the body, together with carious disease of the tarsus and metatarsus of the right foot, which had commenced some twelve months before her admission there. She appeared not to have gained much by her long residence at the seaside.

The foot was now considerably swollen, and presented sinuses in various parts, through which it was easy to de-

tect, with a probe, carious bone to a large extent in the tarsal as well as in the metatarsal bones. Her state of health did not appear to be favourable to an operation in the spring; she was therefore watched carefully, her diet regulated, and cod-liver oil administered, until July, when, as she had greatly improved, I decided to remove the foot at the ankle-joint.

July 4th. The operation was performed in the following manner. I entered the bistoury at nearly the posterior margin of the external malleolus, and carried it firmly down to the bone, in a direction somewhat obliquely downwards and backwards beneath the heel, the incision being directed sufficiently far back to fall well behind the larger tubercle on the inferior surface of the os calcis, then upwards to a point situated a little posterior to the centre of the inner malleolus. The point of the knife was then introduced at the commencement of the incision just described, and carried over the dorsum of the foot, to meet the other extremity of that incision at the inner malleolus. The foot being raised so that the plane of the sole was perpendicular, the soft parts were carefully dissected up, so as not to cut or score the flap, by keeping the point of the knife close to the os calcis, and following its contour until the insertion of the tendo Achillis was arrived at. Next, taking the foot into my own hand, and depressing it, I opened the joint, divided the lateral ligaments, and lastly the soft parts, close to the posterior aspect of the astragalus and os calcis, separating from the latter the tendo Achillis, which completed the amputation. A thin slice of bone, including the two malleoli, was sawn from the lower ends of the tibia and fibula; the vessels were tied; the heel flap brought up into accurate approximation with the upper surface, and maintained there by three sutures, a strip or two of plaster, and a light compress.

About the third day after, the dressings were changed in the usual manner. There was no kind of constitutional disturbance. Diet to be nutritive.

July 10th. It was evident that union by the first intention had taken place through a large portion of the wound. The other parts were suppurating healthily.

The healing process went on without a check; and on the 14th of August, less than six weeks from the time of the operation, the wound had firmly cicatrised: there were no sinuses, pain, or even tenderness in the stump.

REMARKS. I have detailed the steps of the operation with somewhat more of minuteness than perhaps some of the Fellows of the Society may deem to have been necessary. I have done so, however, because I am anxious to lay some stress upon two or three points in connexion with the manner of performing this amputation, as I believe its success greatly depends upon attention to them.

Without referring to the records of our journals for the purpose of supporting my assertion, I shall assume that it will be admitted that the operation in question is often followed in our hospitals by a rather long and tedious convalescence: in short, that it has been observed by most of my surgical brethren to be a very uncommon occurrence for the flaps to unite by the first intention; that there are almost invariably at first, non-union, œdema of the lower flap, considerable suppuration; and that not unfrequently a portion of that flap becomes gangrenous, and sloughs.

These unfavourable results are, I believe, mainly attributable to three circumstances—

1. To the division of the posterior tibial artery too high up.
2. To the infliction of injury upon the heel flap, either by the knife or by too forcibly handling it during the operation.
3. To the hollow or cup-shaped form of the heel flap when it is cut unnecessarily large, by carrying the lower incisions too forward on the sole of the foot. With this form of heel flap, it is impossible to obtain union by the first intention.

My remarks upon these points will be exceedingly brief. Respecting the first, or that of the spot at which the tibial artery ought to be cut, the importance of leaving this

vessel in the heel flap, and cutting it as low as possible, sometimes even below its division into the terminal plantar branches, in order to secure an adequate vascular supply to the tissues which compose the flap, has been so fully insisted upon by all practical surgeons, and especially by the author of this operation, Mr. Syme, that it will be unnecessary to do more than allude to it here. The object can only be attained by keeping the point of the knife close to the bone in the dissection, and carefully defining its contour throughout.

The principle of not injuring the flap is equally important, and is to be secured by the same method of manipulation. Moreover, no violence should be used in endeavouring to turn or push the flap backwards over the posterior extremity of the os calcis, in order to facilitate the dissection: the part does not possess a very high degree of vitality, being composed largely of cellular and adipose tissues. These structures, with their capillary circulating apparatus, may very easily be crushed by undue handling. This is a point which Mr. Syme conceives to be one of no slight importance. For the same reason, it is highly essential that the dressings should be simple, and lightly applied. Nothing should be permitted to interfere with the circulation. There is no more important part of the operation than this, if it may be so called, as I believe it ought. In none is it more necessary for the surgeon to act with care and delicacy. The indication consists in approximating and supporting the flaps, in making none but gentle pressure, and in using no force or constriction.

The third point is that to which I venture to request particular attention.

It has always appeared to me that the thick and hollow flap which it has been customary here to make from the heel in this operation, has opposed considerable obstacles to the subsequent well-doing of the case. In the first place, it is physically impossible that such a flap can be brought into apposition with the surface with which it is nevertheless intended to unite. Secondly, it becomes a receptacle for the blood which must, more or less, be effused after the operation when no support exists upon the parts to prevent it; and afterwards it retains by its form the suppurative discharge which is often present in considerable quantity. With these obstacles, the granulating process is often greatly delayed, and the wound is very slow to heal. Lastly, the distal portion of the flap not unfrequently sloughs, the result of which is an improvement in its form, and at the same time an indication by nature, as it would appear, of that which should have been assigned to it at the outset by the surgeon.

These sources of delay, depending as they do upon the form of the flap, might, I think, be very advantageously removed by carrying the lower incision further back than it is generally the custom to make it here. Not only does the case do better, which is the primary consideration, but the dissection of the heel flap becomes infinitely easier of performance—a matter which it would be affectation to overlook or regard as unimportant.

In a clinical lecture published in the *Lancet* of March 25th last, Mr. Syme points out the inconveniences which may arise from the too great length of the heel flap; and I think he seems to recognise them more fully there than in any other description of his operation which he has previously given to the profession.

The accompanying diagram illustrates my meaning.

The figure shows the inner aspect of the skeleton of the foot and lower third of the leg, with an outline representing the relation of the overlying soft parts. The dotted lines, *ab*, *ac*, represent the upper and lower lines of incision described: *a* also points out the inner malleolus. The prominence on the under surface of the os calcis is seen just above *c*, with the hollow immediately in front of it. It will be sufficiently obvious that, if we draw a line of incision from *a*, in a nearly vertical direction downwards to *d*, the knife will enter the hollow, and, in the subsequent dissection of the flap, encounter that prominence, which the operator will probably have some difficulty in clearing successfully, be-

sides having a large hollow flap to deal with, the disadvantages of which have been already pointed out.

In fact, all that is wanted is a flap, taken in part from the thick cushion which forms the posterior part of the heel, sufficiently large to amply cover the cut surfaces above the ankle-joint—a flap in which some, if not a considerable portion, of union by first intention may be reasonably anticipated. It is no small objection, I conceive, to that modification of this operation by Professor Pirogoff in which he retains the posterior half of the os calcis, and thus gets rid of the dissection of the heel flap, that the union of the two bony surfaces thus involved must be tedious, on account of the suppuration, granulation, and secondary adhesion by which the cicatrization of the wound must necessarily be preceded. I have reason to know that it is so in practice, and do not make that statement on *a priori* grounds alone. What advantage it offers in compensation for this somewhat serious result, I am at a loss to understand.

Association Medical Journal.

SATURDAY, FEBRUARY 23RD, 1856.

THE MEDICAL REFORM BILL.

MR. HEADLAM'S Medical Reform Bill was read a second time on Wednesday last, without a division; and stands for committal on the first Wednesday after Easter. In the interval which will elapse before that day, it behoves every member of the profession who values the position of his own body, and the interests of medical science, to bestir himself in favour of this excellent measure. There is not a town in the kingdom which has not at least several medical men among its inhabitants; and there is not a town, consequently, which ought not to send up a petition to Parliament in support of Mr. Headlam. We earnestly impress on every member of the Association the duty of thus exerting himself: on the energy displayed in petitioning will depend in a great measure the success of this best attempt to settle finally the question of medical reform.

Many medical men, we are aware, are hanging back at this juncture, under the impression that any exertion they may make will be thrown away, as similar efforts have often been before. But let them at once undeceive themselves in this respect. This Bill is no flash in the pan: it has been brought in by an earnest and able man, who understands the work of legislating, and has succeeded previously in passing more than one contested measure; it