ART. XVI.—*Case of Periostitis of the Head successfully treated by free division.* By ARCHIBALD BLACKLOCK, Esq. Surgeon, Dumfries, late Surgeon to the Royal Navy.

OCT. 12, 1830.—**M**R W. V. aged 24, about eighteen months ago, began to be affected with severe pain in the left side of his head, which has seldom or never intermitted, although there have been daily remissions, or periods of mitigated suffering. The pain is most distressing during the day, and least so when warm in bed. He feels always cold when not in bed, and inclined to be near the fire, where he sits in silence, holding his head occasionally with both hands. Pulse seldom under 100, and often much above that number, and of moderate strength. Appetite bad; thirst distressingly urgent; and he can hardly be prevailed upon to resist drinking large draughts of cold water. Tongue sometimes covered with a white film, but upon the whole pretty natural. Bowels regular. Perspires a good deal in his sleep.

Mr V. consulted me by letter five or six weeks ago, in which he stated, that he had been attended through the greater part of his illness by two practitioners of eminence and experience, under whose direction he had taken, in large doses, carbonate of iron and sulphate of quinine, mercury and sarsaparilla, and other medicines, with which he was not acquainted. The head also had been leeches and blistered. Having received little or no benefit from these remedies, he went in July last to Dublin, for the purpose of consulting Abraham Collins of that city, who was of opinion that the pericranium was thickened, and recommended its division with the scalpel. This, however, was not done. In my reply to Mr V., I advised him to try the effect of the arsenical solution, and, at the same time, called attention to the recommendation of Mr Collins as a means of relief. He took the solution in doses of six or seven drops twice a-day for nearly a month without any amendment, and this morning he came to Dumfries to be under my care.

Still suspecting the disorder to be of a neuralgic nature, I again tried the arsenical solution, administering the doses myself, and pushing the medicine as far as I considered safe. I afterwards cupped him on the back of the neck to twelve ounces. His sufferings progressively increasing, he went by the mail to Edinburgh on the 24th Oct., and saw Dr Abercrombie the same evening, who wrote to me as follows. "After all that has been done without benefit in this distressing case, I have no hesitation in stating to you at once the measure which I would re-

commend. It is a free crucial incision through the portion of the scalp which is tender to the touch. This seems to be about the size of a dollar, and I would carry the incisions quite through the pericranium, and dress them so as to prevent adhesion, and let them heal slowly, with free suppuration. This will certainly be attended with present relief. Should the benefit not be permanent, I would repeat the incisions more freely, and always quite through the pericranium, and endeavour to keep them longer in a discharging state." Next day Mr V. returned to Dumfries; and on the forenoon of the 26th, I made a very free crucial incision through the pericranium covering the posterior part of the left parietal bone, and quite traversing the part most tender to the touch. The hemorrhage was profuse. Having ascertained that the pericranium was only partially divided, I drew the scalpel alongst it, which produced excruciating pain, and a kind of convulsive trembling, if I may so speak, over all his body, although he had not previously complained. The bone appears sound, but, from the acute suffering which attended the division of the pericranium, there can be no doubt of that membrane being in a morbid condition. I think it is thicker than usual; and in this opinion I am joined by Mr M'Lauchlan, an intelligent surgeon here, who was present at the operation. The scalp, indeed, at the line of division is unusually thick.—10 P. M. Has been quite free from pain since the operation, and uncommonly cheerful.—Oct. 27th. He rested well during the night, without uneasiness in the wound, or on that side of his head; feels a little uneasiness on the opposite side, to which he has not been accustomed. Pulse 100.—4 P. M. The pain has left the right side of his head, where it continued to give some slight annoyance the greater part of the day. He complains now of deep-seated pain in the occiput. No uneasiness near the incision. Pulse 120.—Oct. 28th. Had a good night; feels a little pain in the right side of his head, but not the slightest uneasiness in the left. Says he has not for many months been so exempt from all suffering on the left side of his head as since the operation. The deep-seated occipital pain complained of yesterday evening is gone.

Oct. 29th.—Slept well during the night, and feels no pain whatever this morning.—Oct. 30th. Since yesterday morning, has occasionally had a little uneasiness in the right side of his head, and towards the occiput. Pulse 96. In the afternoon the dressing was removed after a poultice had been applied for a few hours to facilitate separation. The wound, which was very open, was discharging sufficiently for the time. The pericranium is extremely irritable, the gentlest touch with the probe causing agony. Does not complain when the probe is pressed against

the other parts of the wound.—Nov. 2d. Has been almost entirely without headach since last report. Wound has a healthy aspect, but is still exquisitely sensible at the bottom. When the pericranium is touched, he compares the sensation to a sharp instrument passing through the brain.—Nov. 5th. For the last three days, a little pain has come on toward evening; it is principally felt in the lower part of the occiput, and occasionally shoots as it were through the brain to the left eye. This suffering soon goes off after retiring to bed. There is no uneasiness in the wound, nor in its immediate neighbourhood.

Nov. 12th.—Has had no headach, nor uneasiness of any kind since the 5th. The wound is to-day quite healed, notwithstanding the nicest care has been taken to prevent its closing, by daily filling it from the bottom with small pieces of lint spread with resinous ointment.—Nov. 17th. Continues well, and this afternoon he set off in good spirits for Liverpool. It may be proper to add, that Mr V. has taken no medicine, with the exception of a little Epsom salt, since the operation.

After Mr V. had quitted Dumfries about two weeks, I was somewhat disconcerted by receiving from him, on the 5th December, a letter, in which he states, that his headach had returned, and for some days had been so severe as to induce him to think of having the scalp and pericranium again divided. This he ascribed to the accident of having struck his head a few days after returning rather forcibly against a bird-cage suspended from the ceiling. The injury was received near the spot where the incision was made, and caused very acute pain at the moment. A few days after he again came to Dumfries, and put himself under my care with the purpose of having the operation repeated.

On carefully examining the head, however, I found that the suffering was not in the situation in which the parts had formerly been divided, but in the lower part of the occipital region towards the nape of the neck. In the latter part I introduced a seton, with the view of establishing a thorough counter-irritation; and even since the discharge became copious the pain has seldom or never been troublesome. I conceive, therefore, that since the latter pain has no connection with the former seat of disease, the crucial division of the scalp was completely effectual in removing the periosteal inflammation, and that the cure is now (14th February 1831) completed.

By a letter dated the 19th current, (May,) Mr V. informs me, that he removed the seton some weeks ago; and while he states he is in good health, he makes no mention of the return of the original complaint, nor of the pain of the inferior occipital region, for which the seton was inserted.

I cannot say whether the second affection, for which the seton was introduced, was connected with the previous pericranial disease. It is, nevertheless, probable, that the blow on the head removed in some measure that morbid action which had been so recently arrested by the incision.

In this manner, therefore, this case, which completely baffled, during the long period of eighteen months, the whole class of tonics, as well as the most energetic treatment by leeching, blistering, mercury, &c. was permanently cured by free incisions.

In the course of the last few years I have met with two cases similar to the above, in women between forty and fifty years of age, which were ultimately treated by incision; and in both instances I found the bone eroded over a space nearly as large as a sixpence. The incisions were healed by granulation, and no exfoliation occurred in either case. The relief, although considerable, and in the end complete, was by no means so immediate as in Mr V.'s case.

The same painful affection, no doubt, sometimes attacks the covering of other bones as well as that of the skull. I have met with it on the front of the *tibia*, and in one instance of this kind the patient was a little boy not more than five or six years old, who, as far as could be ascertained, had not received any external injury, and in whom it was pretty evidently an idiopathic disease, an incision through the periosteum at once put an end to it.

I think, with Dr Crampton, who has written so well upon this subject, that *periostitis*, both acute and chronic, very often occurs unconnected with any specific disease, and in such cases mercury, instead of mitigating, aggravates the suffering. It appears also that this disease is, in its commencement, strictly confined to the *pericranium*, from which it extends, if not interrupted by an incision, to the subjacent bone, and, I presume, ultimately to the *dura mater*. That it proceeds from the *pericranium* to the bone was well exemplified, I think, in the cases of the two women alluded to; for although the bone was bare and a little eroded in both of them, the disease proceeded no further after the pericranium was divided; no exfoliation, as I observed, took place. It is now upwards of two years since the last of these cases occurred, and the patients are still living.

It is, moreover, not a little remarkable, that inflammation of the pericranium, when produced by disease *extending from the subjacent tissues*, is by no means an acutely painful affection;—it is very frequently quite the reverse. In 1813, I received a young French soldier into the Pegase Hospital Ship at Portsmouth, for a slight febrile attack, so very slight, that the late Dr W. B. Smith, who had the principal charge of the sick,

doubted the propriety of his admission. A day or two after, my attention was drawn to a little fulness over the root of the left mastoid process, which was tender to the touch, and communicated an indistinct feeling of fluctuation. It was immediately punctured, and a trifling quantity of a thin sanious liquor escaped. He now told us, that he had been long subject to a purulent discharge from his left ear, which for a few days had ceased. He had not been troubled with headach. Next day he was comatose, and soon died. The pericranium was found detached under the swelling which had been punctured, and the bone porous, so much so, that at several points the probe could be easily passed to the brain. The dura mater was more extensively separated from the bone than the pericranium, and covered, where the separation had taken place, with purulent matter of a greenish tint. The left lateral sinus terminated in a *cul de sac*, where it enters the *foramen lacerum*, and, instead of blood, contained pus.—I mention this case merely as an example of disease proceeding *from the interior to the exterior* of the skull, and of the little disturbance which is occasioned by the pericranium becoming inflamed and disorganized even in that way. It is not at all a rare case. Had it been so, I would have hesitated to introduce it here, for what is very uncommon, is seldom of much importance in pathology.

Dumfries, 23d May 1830.

ART. XVII.—*An improved Instrument for Extracting Teeth.*

By THOMAS HARDY, Esq. Fellow of the Royal College of Surgeons, Edinburgh.

SINCE my communication to this Journal in 1819, describing the double fulcrum tooth-key, I have had upwards of ten years' additional experience of its operation; and I am more than ever satisfied that it extracts firm molares with less pain and danger to the patient than any form of tooth-key I am acquainted with. Still the tooth-key has faults inseparable from its principle, which every operator must have felt; for instance, the claw requires to be placed and held *in situ*, by a finger of the hand not occupied with the instrument, which, greatly interfering with the sight, often compels him, after placing the instrument, to finish the extraction in the dark, trusting to the accuracy and continuance of his first position. In many cases, when pressure has commenced, the relative position of the claw, fulcrum, and tooth, is very different from what the operator would have wished or risked, had his sight been uninterrupted.