remember, when practising in London, and meeting the late Dr. Merri-man, that he told me of an infant of three months dying from the effects of two drops of laudanum; but here, gentlemen, I hear of infants so educated to it, if I may say so, that they give them doses of Godfrey and laudanum that perfectly stagger all my preconceived notions. Can we then wonder, after what I have narrated, that there should be so great a mortality amongst the infants of this country, or such miserable, feeble, and brownish yellow countenances so striking amongst many of its inhabitants? What can or should be done to discourage this almost wholesale murder amongst infants, and contamination amongst adults? I am not able to answer this question, but grieve at so extensive a cause of degeneracy and ruin.

I am sure you will excuse my calling your notice to these poisons of the blood; as they demand, I think, a most anxious consideration. I had intended to have named two or three interesting cases of the morbus Addisonii that I have met with in practice, where I was able to follow them up to their issue in death, and to verify the diagnosis of each by a *post mortem* examination; but I am admonished by time that I have already detained you sufficiently long, and must not, therefore, enter on so large a subject.

ON A RARE FORM OF INJURY OF THE LEG.

By RICHARD QUAIN, F.R.S.

IN his able Address in Surgery at the late anniversary meeting of the British Medical Association in Dublin (BRITISH MEDICAL JOURNAL for August 17th), Dr. R. W. Smith describes an instance of very rare form of injury—the separation of the lower epiphysis of the tibia. “The disjunction” (to quote some of Mr. Smith’s words) “of the lower epiphysis of the tibia is undoubtedly among the rarest in this class of injuries. I am not aware of any well authenticated example of its having been placed upon record, with the exception of one that I published in 1860.”..... “The patient was a boy aged 16 years.”..... “I did not see him until six months after the occurrence of the accident.”

On account of the infrequency noticed by Dr. Smith, it occurs to me that the publication of a case observed by myself very soon after the accident which caused it, may contribute something towards completing the history of the injury. I therefore send an outline of the case from notes made at the time.

On October 22nd, 1851, a well built, healthy-looking lad, 17 years of age, was admitted into University College Hospital, on account of an injury near his left ankle, which occurred on the same day a short time before his being brought to the hospital. The patient stated that, while dragging a piece of iron about twelve feet long over a heap of earth in the street, he slipped and fell, his left foot being doubled under him. No further account of the position of the limb in the accident could be got.

The entire injury was found to be at the lower part of the leg. “The tibia there projects forwards; and below the prominence is a depression—between it and the foot. The projection of the bone is an inch and half higher than the lower margin of the fibula, and three-quarters of an inch above the lower edge of the malleolar process of the tibia. The space between the prominent tibia and the end of the great toe on the injured side measures three-quarters of an inch less than in the other foot.” The ankle-joint was uninjured.

Two other facts I looked upon as peculiar to this injury—diagnostic of it; namely: 1. The edge, so to call it, of the displaced bone was rounded; and the end or lower surface was felt to be smooth, and as it were rugous—very unlike the hard, angular, almost sharp feel of actual broken bone, and corresponding exactly with the condition of a bone not fully developed, where the epiphysis is connected with it by cartilage. 2. There was an absence of the soft swelling which surrounds the broken ends of bone where any displacement exists—the swelling occasioned by the effusion of blood from vessels torn by the sharp bone at the seat of fracture. Swelling likewise accompanies the displacement of bone at a joint. In that case, however, it results from increased secretion of synovia, not from blood. It was, no doubt, the freedom from swelling which permitted the outline of the prominent bone and the hollow below it to be so clearly defined as they were. The same circumstance permitted the easy examination of the edge and the end of the bone where it projected.

The diagnosis made out at the time was, separation of the shaft of the tibia from the epiphysis. The case has not hitherto, I believe, been published, except in the account of it given to pupils in the ward of the hospital and in a clinical lecture.

The replacement of the bone and the treatment (by means of starched apparatus) presented no difficulty and no circumstance requiring notice.

CASE OF TRAUMATIC APHASIA.

Recorded by the Patient; with Remarks by J. P. BRAMWELL, M.D.,
Perth, President of the Perthshire Medical Society.

WHEN about twenty years of age, being incited by exaggerated descriptions of the genial climate and fertile soil in the western states of America, I emigrated from Scotland to those parts; and, having purchased land, began, along with the other pioneers of civilisation, to cut down the forest and cultivate the ground. Having brought, in the course of three years, a considerable space of land under cultivation, I was enabled to let, as a favour, to Wilson, a man with a family, who had recently come to that quarter, half of a field for the purpose of raising wheat, retaining the other half for my own use. When the wheat harvest came (about the middle of July), I hired two men (Vert and his son) to cut down my half of the field; but, when they were thus employed, Wilson and his family came and began to cut, insisting that half of the wheat of the whole field was his, and not what grew on his half of it. High words arose; but, through the intervention of Vert, it was agreed to refer the matter to the man who sowed the wheat when he returned towards evening; and that, in the meanwhile, each party should begin to reap on opposite sides of the field. Accordingly, Vert, putting aside with his hands some very tall rye, was proceeding towards the house, I following close after; when, as it were, a flash of lightning passed before my eyes, and I became on the instant unconscious. On recovering my faculties (which I thought I did immediately, although, as I was afterwards informed, I lay senseless for the space of ten minutes), I was sitting with my hands full of blood, which continued to trickle from my head. On looking around, I saw Wilson* at some distance behind with a club in his hand, and Vert amongst the rye some paces in advance, and became immediately aware of what had happened. As I perceived that Vert was terrified, I attempted to say something for his encouragement; but, to my surprise and horror, I found I could only utter unintelligible sounds. I remained sitting for some time, not from inability to rise, but from amazement, making repeated attempts to speak. At length, having taken Vert’s arm, I went to my house at about two hundred yards distance, and sat down, hoping that in a short time I should recover the faculty of speech; but, finding I was deceived in this respect, I determined to call in the only medical practitioner in the district, who lived at the distance of about three miles. Accordingly, having intimated to Vert by signal to hand me writing materials, I took a sheet of note-paper for the purpose of writing the doctor, with whom I was intimate, that I wished his attendance. But here a new surprise awaited me; for, having dipped the pen in the ink, I found that I could not express my desire by any words whatever. I attempted to write the word “Doctor”, but could proceed no further than the initial “D”; however, by showing that letter to Vert, and pointing in the direction in which the doctor lived and other pantomimic gestures, I made him understand my desire; and he accordingly sent his son for the medical man, after which I went to bed, and soon fell into what appeared to be a placid sleep, out of which I was with some difficulty aroused on the doctor’s arrival. On perceiving the doctor, I immediately extended my right arm, and drew up my shirt sleeve; in reply to which signal the doctor said, “You wish to be bled, which is exactly what is required.” After failing to draw blood from any vein in the right arm, he had recourse to the left, and succeeded: dark blood flowing very slowly at first, but afterwards in a full stream. To what extent he bled me, I cannot exactly say; but several who saw the quantity said that they had never seen so much drawn from any man. I may here mention that this doctor’s medical education consisted only of an apprenticeship to another practitioner in one of the older states; and, although I think he erred in using his lancet too freely, having repeated the bleeding twice or thrice to a less extent afterwards, at intervals of two or three days, in other respects his treatment was judicious.

For the first six days and nights I lay on my back, almost motionless, having no pain, nor uneasiness, nor sensation of hunger or thirst; and, although I was observant of all that was said and done in my presence, I distinguished the lapse of time only by the light of day and the darkness of night. I did not sleep during all this time; but, on the morning of the seventh day, I awoke apparently from quiet sleep; and, as the fringe of the bed-quilt tickled my upper lip, I attempted to remove it with my right hand; but, to my surprise, my hand was not obedient to will. I discovered also that the nerves of sensation were completely paralysed from the points of the finger to the shoulder. Sensation was also gone in my right leg and foot. On discovering this, I attempted to pray mentally, but failed, not from any confusion of ideas, but from

* Wilson was a left-handed man; and, being behind when he dealt the blow, struck me on the left side of the head immediately above the ear.

some inexplicable cause—possibly from the want of words to convey my requests; but, what seems most mysterious and almost incredible, while I was in this state I perfectly understood what was spoken by others. For some days (I cannot exactly say how long) after this time, my mind was in a state of apathy as to what was passing; and I was with difficulty induced to take medicine or sustenance—my bowels at the same time being torpid and the action of the kidneys being in a great measure suppressed. At length, I began gradually to recover my general health, the inability to speak or write still remaining. I rapidly recovered the use of my right arm and hand. The nerves of sensation remained long paralysed, but recovered gradually their function from the shoulder downwards towards the fingers, in which it has never fully returned.

When I was able to get out of bed, being desirous to regain the use of my vocal organs, I sat for hours at a time anxiously attempting to repeat the first letters of the alphabet. After numerous attempts, I succeeded in uttering the sound A; which accomplished, I could repeat it any number of times without difficulty; but, on attempting to pronounce B, I repeated the sound A. At last, having succeeded with B, I had as great difficulty in returning to A. These repeated and anxious efforts at pronunciation caused my ignorant attendants to think that I had become perfectly idiotic; and they expressed themselves accordingly in my presence. I being irritable, or rather irascible from weakness, my assaults upon them when they made such remarks confirmed them in their opinion; but, as they found that I was quite acute in matters of business and could calculate, they at last concluded that I was "more rogue than fool." After a while, I was able to repeat the first five or six letters of the alphabet in succession, where my memory failed me as to the order in which the letters succeed each other. Notwithstanding all my efforts to speak, my recovery was so slow that I could converse with none but a man (Davis) who had been in my employ previously, and was my constant attendant after the accident, to whom I communicated my ideas and desires, partly by gestures and partly by my attempts at speech. So much was this the case that, at the trial of Wilson, which occurred nearly three months after my injury, he had to be sworn as my interpreter. My examination in court, on account of this, was so grotesque, and at the same time interesting to the members of the bar, that it was continued till I was quite exhausted; and it affected the audience as laughable or deplorable, according to their different bent of mind.

At this time I understood what others said, by taking the words of every clause collectively; but when I attempted to analyse it into its constituent words, I utterly failed. For instance, Davis having replied to an interrogatory, "I don't know", rapidly, as if he had said *I don't know*, after attempting for hours to separate this expression into words, I concluded them to be *I don't*; and it was somewhat remarkable that, in my attempts to speak, it was not a single word that I pronounced intelligibly, but a short sentence. Several persons were sitting in my company disputing as to the number of dollars in the English pound. At last, they asked me to settle the question by representing the number in figures; but, as the dollar is not a British coin, I could not do this, which made them conclude that I had lost all knowledge of such matters. On perceiving this, I became angry, and exclaimed "No dollars there." This surprised all present so much, that they started to their feet, and besought me to repeat what I said; but this I could not do, although I made several efforts, and it was months afterwards before I could utter an intelligible sentence. Of course, I could not read,* nor did I attempt it for a long while; but I understood what was read to me by others. Though perseverance, and the partial recovery of my faculties, in the course of a year I was able to return to Scotland alone; the strangers with whom I met on the way conceiving, some of them, that I was a foreigner who could speak the English language very imperfectly, and others that I had a natural impediment in speech.

[The subject of this narrative still speaks with hesitancy, and specially so if agitated. He is often at a loss for the right word; but generally finds it if allowed time. There is both an irregularity and a depression appreciable to touch over the seat of his old injury—about an inch above the left ear, and close to the squamous suture. The power of motion is all but restored in his right arm; but the sensation is still so defective, that he would drop his knife at dinner if not watched by the eye, and this because he does not feel it in his grasp. He was 23 years of age when injured, and is now 64 years old.]

REMARKS.—What, it may be asked, is simple aphasia? To this question there have been various answers. M. Trousseau says: "A loss of the memory of words"; but this definition, while true to a certain extent, does not account for all the strange phenomena sometimes present; for, in the case just recorded, we have the patient telling us that

he could neither speak nor write "doctor", although it was in his mind. There can be little doubt that, in some cases of aphasia, the chief obstacle in the way of speech is the inability to remember the word wanted, and when this is supplied it is at once repeated, with an "Oh, yes, that is it" (as we ourselves have seen); but there are other aphasic subjects who remember more than they can say, and, stranger still, more than they can write, although there be no paralysis of the right arm. In such cases, it is probable, as M. Broca has indicated, that the inability so to do is often caused by an ataxy of the muscles. There may be no paralysis. The patient can put out his tongue straight, or move his arm well; but when he tries to speak, or write, there is a want of muscular co-ordination in these finer movements which defeats him. This hypothesis is rendered all the more probable by a curious case given by M. Trousseau, in which the aphasic subject, an artist, not only spoke like a child, but drew like a child; showing that there was impaired co-ordination in the hand as well as the tongue.

The case recorded would seem, so far as it goes, to favour the opinion that words are indispensable vehicles of thought—at least, in the case of those who are not deaf-mutes; for our patient tells us, "I tried to pray mentally, but I could not put two words together, even in thought." "I attempted the Lord's Prayer, but gave it up as hopeless. I could have used the expression 'mercy' in thought, but beyond this I could not go." He could not pray, even in thought, because he could not remember words to pray with. It may be different, however, with untaught deaf-mutes, who have never learned to clothe their thoughts in words, but, on the contrary, have always dealt with the real things, and not with their equivalent words. We do not see what should prevent them from reasoning without the aid of language—within, at least, certain limits. Of course, the range must be very restricted, and must, of necessity, exclude all questions of an abstract character. This case presents some very exceptional and strange phenomena, which I have not previously seen noticed; viz., a total want of all chronological computation, a minute and an hour being all alike; also, no sense of hunger, or drowsiness, although there had been no sleep for six nights nor food taken for days together. Are there particular portions of the brain on the integrity of which these functions depend, which received injury in the case under consideration? and are they dual or single, as the lobe of articulate language is supposed to be?

Although cases of aphasia are often associated with impaired mental powers, simply because a pure case of this disorder is rarer than a complicated one, we believe that, in simple aphasia, the reasoning powers are quite intact, and that, in cases where it is otherwise, the brain has sustained a complex lesion, which gives rise to complex cerebral phenomena; but then this is sometimes more than mere aphasia; neither do we regard paralysis as a necessary accompaniment. We may have aphasia without paralysis, and paralysis without aphasia, or both simultaneously when the middle cerebral artery is plugged, injuring thus at one time the corpus striatum and middle cerebral lobe—parts performing, as we know, very different functions indeed. For the brain is not, as has been well remarked, a simple organ, but a congeries of many (Brown-Séquard). We consider that M. Trousseau has fallen into error, when he says that lesion of the corpus striatum alone will produce aphasia.

It is a curious circumstance, that paralysis of the right arm and leg did not come on for six days after the accident. One would have expected *a priori* that it would have been contemporaneous with the aphasia, seeing that the case was a traumatic one; but, in point of fact, we find it was not so.

It is not easy to offer a solution of this strange phenomenon. Probably, at first, the lesion was all but confined to the posterior portion of the middle cerebral lobe, but that afterwards the diseased action set up by the injury penetrated to the corpus striatum, the pons Varolii, and the optic thalami. Such a hypothesis, at least, would account for the order of these phenomena as they presented themselves before us in this case—first aphasia and then paralysis.

In conclusion, the case recorded is one more in favour of M. Broca's views which, although still *sub judice*, have much proof to render their correctness highly probable. If otherwise, how comes it about that aphasia, with paralysis on the left side, is a phenomenon scarcely ever witnessed, while aphasia, with paralysis on the right side, is a common occurrence. The exception proves the rule; and, although some cases recorded by M. Trousseau and others render it somewhat doubtful whether Broca has exactly defined the true limits of the lobe of articulate language, none of them go so far as to show that it is in any way remote from the position which he, by a careful induction, has assigned to it.

* Some of Trousseau's cases seemed to enjoy a book; but one of them afterwards confessed that "she read only with her eyes, but not with her stomach."—See his Lecture on Aphasia (English translation).

BEQUESTS.—Mr. Dangar, of Hampstead, has left legacies to the following hospitals: University College, the London, Royal Free, King's College, and St. Mary's.