The recital of this case has occupied so much larger a space than I anticipated, that the others must necessarily be postponed till next week. In the meantime, it may not be unprofitable briefly to advert to three topics, which must necessarily present themselves to the contemplation of every one who attentively peruses the foregoing account.

1. *What was the Cause of the Diabetes?*—The pathology of this generally incurable affection is even yet very imperfectly understood. Some writers place the seat of lesion in the kidneys, others in the stomach, others in the chyle vessels, others in the bowels, others ascribe it to self-pollution; whilst M. Bouchardat attributes the origin of the disease to suppressed perspiration, the acids from which, he supposes, become associated with distaste in the digestive apparatus. It is not necessary to make any observations on these various theories. I prefer endeavoring to ascertain what was the *point du depart* in the preceding case, and we shall then see how far it supports or illustrates one or other of these different views. My patient was a married man with two children, and had heretofore enjoyed good health. He worked near a hot fire, and usually perspired profusely. We do not learn, from the history of the case, that there was any sudden suppression of the perspirable matter, although he was in the habit (as most workmen in this neighbourhood are) of passing out of his hot workshop into the open air whilst the perspiration was very profuse. We often see men who work at the furnaces go deliberately into the cold, outer air, whilst the perspiration is literally streaming from their bodies. That it is occasionally checked, by such exposure, there can be no doubt; but diabetes is by no means a common disease amongst this class of persons; on the contrary, it is of very rare occurrence. But, on examining the case, we find that his complaints commenced with *pain in the stomach and bowels*, accompanied by thirst. When he was admitted into the infirmary his mouth was parched, and the tongue red (some evidence of gastric irritation). During the course of the disease the gastro-enteritic mucous membrane was often the seat of irritation or inflammation, and after death the lining membrane of the stomach was found to be excessively thickened, whilst the entire viscus was considerably contracted, the intestinal mucous membrane being also greatly injected, and partially ulcerated. I confess that to me it appears to be in the highest degree probable that in this case the *point du depart* was a subacute gastro-enteritis, in consequence of which the assimilating powers of the stomach were impaired, sugar was formed, and afterwards absorbed, and, being carried into the general circulation, operated as a stimulant to the kidneys. These organs, I believe, in the course of time became hypertrophied, in consequence of constant overaction. These views, I need scarcely remark, are very similar to those entertained, in reference to the general cause of diabetes, by Dr. Barlow and some other writers.

2. *The Effect of Treatment.*—When Mallander was first admitted into the infirmary, he was passing between four and five gallons of urine, of specific gravity 1·040, in the twenty-four hours. A line of practice was immediately adopted, and steadily persevered in, during the time he remained in the house. During this period there were occasional variations in

the amount of the secretion, both with respect to quantity and specific gravity. At the time he was made an out-patient it had, for several days, amounted to four quarts and a pint, having a specific gravity of 1·038. Some degree of amendment had obviously been effected, but by no means sufficient to encourage any hope respecting the ultimate result. The warm baths appeared to have a good effect, since copious diaphoresis was speedily induced. Perhaps the Dover's powder and antimony contributed to this. Opium was not pushed to any considerable extent, as he never took more than fifteen grains a-day. The administration of opium in diabetes has been carried to a greater extent by Dr. Elliotson than by any other physician with whose writings I am acquainted. In one case he gave as much as *forty-five grains three times a-day*, but the quantity of urine remained steadily above the healthy standard (six pints per diem, it had been eight or ten), and the specific gravity ranged between 1·040 and 1·050. Dr. Warren, who may be regarded as the great advocate of the opium treatment, rarely gave it in larger doses than six grains twice a-day.

3. *The Post-mortem Appearances.*—Morbid anatomy has hitherto thrown but little light on the etiology of diabetes. Perhaps the foregoing account will not add much to the information we already possess, but it is nevertheless not devoid of interest. The complication of phthisis with diabetes has often been remarked. In the present case, the deposition of tubercular matter was very great, for not only were the lungs studded with tubercles, but they were also met within the peritoneal covering of the liver, and the mesenteric glands were very much enlarged, doubtless in consequence of tubercular disease. The kidneys were in a state of hypertrophy; a condition which Andral believes to be the most frequent morbid change met with in diabetes. The stomach and intestines, moreover, afforded the most decided evidence of having been the seat of long-continued disease. The changes observed in the bladder were unquestionably secondarily induced. Here, then, we perceive a lengthened chain of morbid changes. The question again presents itself, which should be regarded as the first link? My own mind is satisfied, and I leave the simple facts for the careful consideration of others.

Sheffield, August 24, 1843.

CASE OF RUPTURE OF THE LIGAMENT OF THE PATELLA.

By JONATHAN TOOGOOD, Esq.

The rupture of this ligament is an accident of such rare occurrence, that the following case, drawn up by the patient, may not be uninteresting to the Association. I have lately had an opportunity of examining the limb, which presents the following appearance. The ligament has been torn from its attachment to the tibia; the patella is drawn up, and become fixed in front of the thigh; the knee-joint is, therefore, quite uncovered; no bandage can be borne, as it is found materially to impede the motions of the limb:—

“Sir,—The accident to my knee, which happened

four years ago the 27th of last May, occurred, as nearly as I can remember, in the following manner :—

"I was running very fast, and, fearing the object of my pursuit (a rat) would escape me, was in the act of endeavouring to propel myself faster by springing further at a time, when, the moment I made the effort, which was with my right leg, I felt a strong shock all over me, very similar to that of a tolerably good sized Leyden jar, highly charged, accompanied by a deep, dull sound, much resembling that produced by the breaking in of the covering stone of a shallow drain gutter. I got a tremendous fall, and, as soon as possible, I endeavoured to get on my feet, but found my right leg almost useless, and immediately discovered that I had injured my knee, and being alone I proceeded to walk home (about three-quarters of a mile), which I was only enabled to do by having a strong support in my hand, and keeping my left leg constantly in advance of my right, and bringing that up at every step, even with my left, without being able to move it one inch further forward at that time. As soon as I came home I sent for Mr. Kendall, who attended on me, examined my knee, and bandaged it up immediately. I then went to bed, when a considerable enlargement of the joint took place, accompanied by much pain, both of which continued to increase until about two o'clock the next morning, when the swelling ceased to enlarge, and the pain began to abate. I remained in bed about eight or nine days, during which time I kept my leg and thigh extended in a right line, as near as I possibly could, and, for a length of time afterwards, when I got out of bed (which was only to sit in a chair), I had always some one to assist me, and keep my leg and thigh in a straight position. I went on, I thought, doing tolerably well, until about the 24th of August (nearly three months), when I unfortunately got another fall, by my left foot slipping two or three inches into a wheel rut; my right knee immediately bent forward, and I came down on my back, and, while I was in the act of falling, I heard something in my knee snap, very much like the sudden breaking of a small dry stick; I then felt such very severe pain that it made my teeth chatter in my head, and a considerable enlargement of my knee again took place, which obliged me to lie in bed some days, as near in my former position as I possibly could. I had walked and rode on horseback frequently before I met with my second fall, and in the early part of that day I had walked nearly three miles, and I have also flattered myself that I could walk much better, faster, and stronger than ever I have been able to do since that time. After leaving my bed again, I continued to sit in a chair for a fortnight or three weeks, with my leg and thigh in the position I have just before described, the swelling gradually diminishing, and the pain abating, until my knee was reduced to its original size, which it took two or three months to do, and up to the present time I have never felt any pain whatever in my knee, except it may be a little fatigued at times in over-walking; I am never without a strong stick in my hand, for fear of an accident, for I am as liable to fall now, by the sudden giving way of my knee, as I was when the accident first happened. If I bring my thigh into an horizontal position, with my leg unsupported, it will immedi-

ately fall down to a right angle with my thigh, and I am not able, by any power in my knee, to move my foot forward out of that position; I can move it backwards or sideways as well, I believe, as I can the other.

"The above is the chief part of the particulars relating to the accident in my knee that I can at present recollect; but if there are any more questions respecting it that you would wish me to answer, I will at any time give you the best information in my power, and if you should feel desirous of any further examination of my knee, you shall be very welcome to do so at any time when it may be convenient to you.

I remain, Sir,

Your obedient servant,

JAMES WHITEFIELD.

Water-farm, Stocourey, August 29."

COMPOUND DISLOCATION OF THE ASTRAGALUS.

TO THE EDITORS OF THE PROVINCIAL MEDICAL
JOURNAL.

GENTLEMEN,—The perusal of Mr. Turner's elaborate paper on Dislocations of the Astragalus, in the last volume of our Transactions, reminded me of a case of that description, which occurred a few years ago in my practice, the particulars of which, from notes taken at the time it happened, I should have had much pleasure in forwarding to that gentleman, had I been aware of his intention to publish on the subject. I now subjoin them for insertion in the pages of your valuable Journal, should you deem the communication of sufficient interest.

I have the honor to be, Gentlemen,

Your obedient servant,

T. W. W. SMART.

Cranborne, Dorset, August 24, 1843.

October 22, 1831. Robert Bush, an agricultural laborer, aged fifty, healthy, with the exception of having experienced repeated attacks of ague during the last three years, required my assistance, having met with the following accident :—

In attempting to change the station of an empty waggon which was standing on a declivity, it rushed down the hill, knocking him down backwards, and dragging him along with it, his clothes having become entangled in some part of the gear. I saw him about four hours after the accident, and found there was a clean, apparently incised, wound, extending from the right external malleolus across the ankle-joint to the inner edge of the tendo Achillis. The wound was gaping, and engaged between its edges, in front of the joint lay a considerable nodule of bone, which, upon close inspection, presented the superior articulating surface, and the anterior rounded head of the astragalus. The lower end of the fibula was exposed, but neither fibula nor tibia fractured. The foot was slightly inverted. The dislocated astragalus was still connected to the os calcis by a few ligamentous fibres, and, as it appeared to me to be useless to attempt its reduction, these were divided by the scalpel, and the bone removed. The operation was very painful, and caused syncope. No hæmorrhage followed, nor had there been much at the time of the