gress of his illness, and communicate the nature of any decisive change which may occur.

In concluding his course, Dr. Alison said, had his other numerous avocations permitted him, he would have been enabled to render it more improving to the clinical students; as it was, however, he had spared no exertion to point out to them the really important points which were so soon to occupy their attention in the practice of their profession; he had also, in his observations on the several cases, attended especially to the doubts and speculations which must inevitably have arisen in the course of the treatment of disease; in fine, in a few pithy and feeling remarks, he took leave of his class, amidst loud tributes of affectionate approbation.

Since reporting the preceding observations, the most extraordinary case we ever witnessed has been admitted into Dr. Duncan's ward; that of a girl affected with acute and well-marked catalepsy. We have no doubt but that it will be made the subject of a lecture before our next report, in which we shall commence the lectures of Dr. Duncan.

LITHOTRITY.

To the Editor of THE LANCET.

SIR,—I beg to transmit, for insertion in your widely-extended journal, the first of a series of cases treated by Baron Heurteoup in this country. Each case will be accompanied with observations by the Baron, which will throw new light on the pathology of calculous diseases. My own part in the production of these papers is merely that of a translator. The name of Major Moore is inserted in the present case by his own express desire.

I have the honour, &c.

DAVID OWEN EDWARDS.

Westminster Hospital,

Feb. 14th, 1830.

CASE OF STONE IN THE BLADDER, TREATED BY BARON HEURTELOUP.

Major William Moore, of Dublin, forty six years of age, of an active constitution and irritable temperament, enjoyed fair health until his fortieth year, when he experienced in succession two attacks of icterus, pains in the region of the kidneys, and all the symptoms of well-marked nephritis. The attacks of nephritis occurred at first every six weeks, lasted from four to twelve

hours, and were accompanied with violent vomitings; the attacks became more frequent, and finally terminated suddenly in April, 1829. The Major found himself at this period entirely relieved from the pains in the renal regions, but he soon experienced certain unwonted and disagreeable sensations in the bladder.

He at first observed, that the urine was arrested in the middle of its jet; occasionally he could not make water at all whilst in the upright posture, and in such emergencies he was obliged to lie on the side, in order to obtain relief. In the different movements which he made, he felt a body move from right to left in the bladder. These particular sensations were at first the only ones of which the patient was conscious, but after a calm of three months, the symptoms were much aggravated. The difficulty of voiding the urine became greater and greater, the desire was experienced more frequently, a continual spasm prevented sleep, and the urine became muco-purulent; walking on uneven ground, or riding in a carriage, rendered this fluid sanguinolent.

In this painful state, Major Moore came to London, to consult a surgeon of justly great eminence,* who sounded the patient without finding a stone; he assured him, however, that the symptoms were so well characterised, as to leave no doubt in his mind as to the nature of the malady. Being desired by this gentleman to take the opinion of Mr. Green, the patient presented himself to that surgeon, who refused to sound him, as he was convinced, from the symptoms, of the existence of stone. He now proceeded to another surgeon in London, of the highest reputation, by whom he was sounded, and assured that no calculus whatever existed, and that the symptoms were ascribable to an "engorgement" of the third lobe of the prostate.

The Major returned to Dublin, uncertain as to the exact nature of his disease. He there consulted Mr. Crampton, surgeon-general to the forces, who, after having raised the pelvis considerably, introduced the sound, and discovered a moveable and uneven calculus. This he attempted to extract with Weiss's forceps, but without success. The stone was too large to be included in the branches, although they expanded three quarters of an inch.

Mr. Crampton, who had previously done me the honour of examining my instruments, thought this a favourable case for lithotrixy, and sent it to me.

The patient came from Dublin to London by sea, for the purpose of avoiding the joltings of the carriage, and the painful consequences resulting from these. Contrary to

* Mr. Brodie

his expectations, however, his voyage was productive of much suffering. The motion of the vessel, communicated to the stone, occasioned an almost constant desire of micturition, and violent spasms.

Upon his arrival in London, I found him in a state of great wretchedness. The irritation of the bladder at night urging him to repeated attempts at expelling his urine, and a continually spasmodic state of the urethra, produced by the stone in the cervix, entirely deprived him of sleep. The urine was muco-purulent and striated with blood, and the left testicle, with its chord, was extremely painful.

I waited some days, and prescribed some soothing remedies, without much alleviation of symptoms: the urine, however, lost its sanguine tint.

Notwithstanding these untoward circumstances, I submitted the patient to the action of the lithotrite. The stone was destroyed in two sittings, the one took place on the 9th January, the other on the 12th. After waiting some days to be assured that there remained no more fragments, I observed the urine not to flow with a satisfactory regularity. I introduced the instrument, and at first discovered nothing; but having raised the pelvis considerably by means of my rectangular bed,* a small fragment was apprehended and destroyed.

From this time the urine flowed in a full, even, and uninterrupted stream. No pain was experienced on micturition; all the movements of the body became perfectly easy; and exercise, whether on foot or in a carriage, was unattended with the slightest inconvenience. The urine has become clear and limpid, and no catarrh or vesical irritation exists.†

REFLECTIONS.—The facts of this case, notwithstanding its simplicity, give rise to some interesting remarks. The patient suffered a great deal, the parts were in a nearly continual state of spasm, and the urine was mucose and often purulent. This assemblage of grave symptoms excite surprise, when it is considered that Major Moore was affected with stone for a short time only, which, consequently, could not be expected to excite such serious disorder as in old cases.

It may in general be remarked that patients who have soft stones with a basis of lime, and which are of known frangibility,

suffer much more than those affected with other calculi, although of small volume. This depends upon their being generally spherical, and of a specific gravity which does not differ much from that of the liquid in which they are held in suspension. They move about with facility, and, obeying the impulse which is communicated from behind during the emission of the urine, these calculi present themselves more easily to the cervix. Happy are those patients in whom the neck of the bladder does not present a capacity sufficiently large for stones of this sort to introduce themselves, and be embraced by its sides. In such a case intolerable pains are experienced as in the instance of Mr. Moore.

These brittle stones are easily retained by the contracted cervix, and cannot be expelled thence, in consequence of the slippery smoothness which is observed, especially in uric-acid calculi. From this arises spasmodic contractions of this portion of the bladder, which closes on the stone and gives rise to pain, and that state of catarrh which was carried to so high a degree in the present case.

In order to reconnoitre the stone more particularly in this patient, I used a curved gum-elastic bougie, which, on being introduced immediately touched it, for the stone being placed in the neck of the bladder could not but be immediately encountered. It has been seen that ordinary catheterism, although practised by very able surgeons, with difficulty detects the existence of the calculus. It is then a useful expedient, when the patient presents the particular symptoms observed in Major Moore to sound in the upright position with a curved gum-elastic bougie, and to choose the moment when the cervix is in a state of spasm; for then the stone has a determined situation.

These observations give rise to a very important question; it is, whether, now that lithotritry constitutes a part of the domain of surgery, it is proper to attempt the extraction of stones from the bladder by means of Weiss's forceps.

I have stated that Mr. Crampton thought it expedient to make some attempts with this instrument, and that, notwithstanding the ability of this surgeon, they were fruitless; in fact, they were necessarily so, for the stone was too large for the capacity of the forceps.

Even whilst supposing this instrument to be of easy and convenient application in the apprehension of small stones in the bladder, and not to occasion much pain to the patient by the pressure which is made on the base of the organ, whilst the stone is being seized, I believe the rest of the operation, which consists in drawing the stone through

* A short account of Baron Heurteloup's rectangular bed, is given in No. 309 of THE LANCET, and has been incorporated in the last edition of Cooper's Surgical Dictionary. Article, *Lithontripton*.—D. O. E.

† I have received a letter recently from Dublin, in which the Major announces his continuance in a state of perfect health.

the urethra, presents disadvantages sufficiently serious to excite reflection.

When a surgeon undertakes to extract a stone by means of Weiss's forceps, it is always upon a patient who is supposed to have a small stone. The body to be seized is either very small, that is of a diameter of from three to four lines; or it is of a diameter of from eight to nine lines, which is the almost bulk which the branches of the instruments in common use can embrace; or it exceeds this diameter.

Let us reason on these three hypotheses. If the stone be very small, it may, doubtless, be extracted, but the surgeon will incur some risk of too much distending the urethral canal, as he cannot know whether the stone is grasped by the branches near their extremities, or near their articulation. In this last case the branches will be so much expanded, as greatly to distress the urethra during the process of extraction.

If it happen that the stone is of such a size as to be received into the cervix, but, at the same time, to be arrested in the canal, an operation will be necessary; we must enlarge the canal, and 'practise *la boutonnière*.* If this be a trivial operation compared with lithotomy, it is a much more serious one in respect to lithotritry. How, in this case, can the surgeon know if there exist more than one stone in the bladder? If there be two, three, or more calculi, in that viscous, it will be necessary to wait until the incision shall have cicatrised before recommencing; for it is not probable that the surgeon would pursue his researches with the forceps, immediately after the patient had submitted to an incision of the penis; and the bladder, if irritated, would immediately render all subsequent attempts fruitless, and insupportable to the patient. In the case of two small stones, I would rather submit to the lateral section than to the chances which extraction by these forceps presents; for, over and above the inconveniences already stated, the traction may be made too strongly, and the urethra lacerated, so as to produce infiltration of urine.

Finally, if the calculus have eight lines' diameter or more, all essays with this instrument will be fruitless, as its expansive power is inadequate. Indeed, in all cases, whatever may be the instruments, want of success must always attend violent and prolonged manœuvres.

We may safely conclude, now that we possess the means of seizing and crushing stones in the urinary bladder, that it is better to have recourse to this means than to the extracting forceps of Weiss, which,

although an ingeniously-constructed instrument, and one to which some examples of cure are fairly attributable, is not equal to our present exigencies. It may continue useful in attempts at seizing and extracting fragments of stone, or entire stones entangled in the urethra; for then the simple fact of the arrest of the foreign body, demonstrates to the surgeon that it is not of a size too considerable to pass the whole length of this conduit.

1. In the instance of a small stone of four lines' diameter, it is better to crush it; for the comminuted portions will, at the first effort, be carried away by the urine.

2. In cases of stones between nine and ten lines in diameter, it is also most advisable to use the saxifrage, for the cure will be effected without incurring the risk of perforating the urethral canal, or the pain of submitting to an incision of the meatus urinarius, and, above all, without the chance of the operation being rendered useless by the presence of another stone in the bladder.

3. And if the stone exceed the bulk of ten lines, lithotritry must be resorted to, for Weiss's forceps is inapplicable, from its imperfect expansion.

It has been stated, that when Major Moore came to London, he was in a very miserable state, suffering much from spasms, with a considerable catarrh of the bladder, and pain of the right testicle and its chord. This assemblage of symptoms arrested me at first, and I intended not to practise lithotritry until they were diminished; but seeing that the state of the patient did not improve, I decided upon operating. It was not the state of catarrh which seemed to me to contra-indicate the operation, for I thought that the destruction of the stone once effected, this group of symptoms would entirely disappear. In fact, the spasm ceased immediately after the first *séance*, and the catarrh had diminished one half the day after the operation. What I considered was the inflammation of the testicle, which I feared to aggravate, by the introduction of an instrument, and the ejaculation of the fragments. Experience then has, in this instance, shown that painful tumefaction of the testicle, and of its chord, is not always a contra-indication of the lithotritic process.

With respect to the manner in which this patient became subject to the disease, it may be said to indicate clearly the process which nature employs in producing these affections. Pains of the kidneys; pains of the ureters; nephritis, with all its characters; cessation of these symptoms; the immediate consecutive appearance of symptoms of stone; the progressive development of these symptoms, are a characteristic train of events. One only circumstance was absent in this case, and that was a feeling

* *La boutonnière*, an incision of the meatus urinarius towards the frænum preputii.—D. O. E.

of irritation or pinching at the extremity of the penis—a sympathetic sign of irritation in the cervix.

After seeking for the last fragment in the horizontal posture without effect, I seized it with facility, upon raising the pelvis considerably, by means of the “lit rectangle.” This manœuvre saved the patient much pain, from the reiterated attempts which would otherwise have been necessary, and perhaps after all fruitless, in the horizontal position.

Major Moore was operated upon with the “perceperre,” for the stone was small and soft, and entirely within the power of this instrument.

The following gentlemen witnessed the operation:—Mr. Pierrepont, surgeon of the Worcester Infirmary, Dr. Boyton, Messrs. Faurtely Quin, Quillett, Benson, &c.

DERBY INFIRMARY.

CASE OF STRANGULATED HERNIA—OPERATION, AND DEATH.

“FRANCIS CARRINGTON, aged 78 years, (admitted under the treatment of Dr. Baker, the junior physician,) has been exposed to the severe cold of the season, and since Thursday has not had any passage through the bowels. Colicky pain in lower part of abdomen; has an inguinal hernia in the right side, which has not given him trouble, generally returning with ease; has not been able to return it since Thursday; but it is not painful, though hard. (Dr. Baker did not examine him by the touch.)

℞ *Hydr. submur.* ʒss;

Pil. sapon. cum opio, gr. vi. M. ft. pil. iv. sumat i. 3tiis horis, deinde sumatur mist. sennæ cum quassia ʒj. 2nda q. hora donec alvus responderit.

19. Free from any severe pain; had one small evacuation. (We heard nothing of this at the consultation.) Omit pil. Habeat ol. ricini, ʒj.

19. (Hora vespertina 11.) Not any motion; a good deal of flatulent distension; vomited much, and a considerable quantity.

℞ *Hydr. submur.*, gr. vi., in pil. i., statim.

20. No evacuation, distension the same; slight tenderness on lower and right side of the abdomen. The hernia continues down, but is partially reducible, and not tender when handled. Had a clyster this morning at ten a.m., which was imperfectly administered, owing to the faulty state of the injecting syringe. Quarter past twelve, injection repeated, Mr. Haden to see him.

℞ *Ammonia mur.*, ʒj.;
Potassa nit., ʒj.;
Aqua, ℥b iss. M. ft. lotio sæpe utend. (inguini).

22. A consultation was holden yesterday. Dr. Baker, Mr. Haden, Dr. Fox, Mr. Wright. It was resolved that no operation was necessary. Considered doubtful whether the hernia was the cause of the constipation. A large quantity of warm water was ordered to be injected by the rectum; a good deal of it was retained. The abdomen ordered to be rubbed with tincture of opium.”

This last false entry was a source of astonishment to us. The truth is, a consultation was held at about eleven a.m. on Thursday, January 21, to which all the medical officers were summoned. Dr. Baker was not present. Dr. Fox, Mr. Wright, and Mr. H. Haden, only attended, when it appeared that the patient was labouring with the symptoms of strangulated hernia. We were informed that he had not had a stool for eight days, during which period the hernia had never been returned into the abdomen, (the patient's own words were, “It has never gone clean up since last Thursday.”) The man had vomited excessively the day before, and had voided fecal matter by the mouth. Pulse good, and the constitutional state favourable for the operation.

It was stated at this consultation, that it was a great question whether any further time should be allowed to pass before the operation, which was one of no great danger, if performed before the intestine had been long incarcerated. This opinion having been given, the case was left to the management of the surgeon to whom it in fact belonged.

Dr. Baker has been asked, how he came to put his own name in his report, as if he had attended the consultation; he replied, “it was a mistake of his.” He was then asked why he made the other false entries (unjustly tending to fix a part of the blame for the delay upon Drs. F. Fox and W. Wright); to this Dr. Baker answered, “he had been misinformed.”

We now return to the Doctor's report, as it stands in his own hand-writing in his case-book.

“Eleven a.m. Sickness continues occasionally; the distension not quite so great; no tenderness, either of the abdomen or hernia; no evacuation hitherto. (Mr. Haden appeared to be forgotten altogether.)

℞ *Olei sem. croton. tig.*, gtt. vj.;
Olei carui, gtt. iv.;
Saponis Hispania, ʒss. M. ft. pil. xii., sumantur ii. 2uda q. hora donec responderit alvus,

22. Hora vespertina 10.