

Haguenot, ‡ Navier, § and Maret, || relate similar cases. Of these cases, however, it will be enough to say, that we entirely coincide with M. Thackrah, when he ascribes Ramazini's loss of appetite on examining a tan-yard, to the squeamishness of his epicurean stomach; and that we fully agree with Professor Orfila, when he says of the other authorities just referred to,

"The preceding observations are far from proving the dangers of disinterments. Many are apocryphal, others are full of evidently exaggerated details, and the serious accidents therein mentioned cannot be correctly ascribed to putrid animal exhalations."—*Traite des Exhumations Juridiques*, p. 11.

Again, at page 12 of the same work, he says,

"--- We shall even go further, and say that we are persuaded that in numerous instances of this kind the putrid exhalations have been accused of producing fevers and epidemic maladies referable altogether to other causes."

The same remark is pertinent to the article by Merat in the *Dictionnaire des Sciences Medicales*, art. Exhumations; a perusal of which will convince any unbiassed reader that the cases it contains are either referable to asphyxiating gases, to the production of moral predisposition, or to the influence of other agents. We regret much that our space does not allow us to enter into a fuller account of these several papers.

We should also add that in an important article on the latent period of fever, by Dr. Marsh, in the third volume of the *Dublin Hospital Reports*, there are several facts related which seem to prove that the exhalations from the living bodies of fever-patients were capable of engendering that disease, and that the persons attacked perceived an offensive smell at the instant of their infection. Of the truth of this we have not the slightest doubt, for we have long been converts to Dr. Marsh's opinions, but we must again repeat, what we advanced in a preceding number, that the living and dead bodies are amenable to entirely different laws, and that while the former can indisputably generate the most fearful diseases, the latter are free from that pernicious property. The

plague which devastated Athens in the year 429 A. C., described by Thucydides, lib. 2; cap. 49; Plutarch in Pericles, p. 171; Diodorus Siculus, p. 101, and Lucretius, p. 6; is evidently to be ascribed to exhalations from living bodies. And can we not in this recognise the operation of a beautiful principle of conservation and protection for each succeeding generation? How soon would the earth have been depopulated if the exhalations from the dead were fraught with virulent poison to the living! Are we not then justified in concluding from these several facts that, no matter what the architectural speculators of the present day may declaim upon the subject, still sepulture within cities is not so dangerous as has been imagined? Nevertheless, we conceive it highly necessary that moral means should always be taken to counteract the terror so easily generated when exhumations are to be performed, and that the potent aid of chemistry should be pressed into our assistance whenever it becomes indispensably necessary that they should be carried on. Of these means, and of the manipulations essential to the perfect safety, or to the luxury of the squeamish in individual examinations, and of the soils most suitable for public cemeteries, we shall treat at sufficient length in a distinct article in an early number of this Journal.

## LITHOTRITY;

ITS APPLICABILITY AS AN OPERATION FOR  
THE CURE OF STONE IN THE BLADDER.

ILLUSTRATED BY CASES.

By W. B. COSTELLO, Esq., *late Assistant to the Inventor, Dr. Civiale.*

(Lately read before the Royal Society.)

‡ Mem. lu à la Soc. de Montpellier. December, 1746.

§ Reflexion sur les Dangers des Exhumations. Published 1775. p. 9.

|| Journal Encyclopédique, 1773.

At a moment when the domain of surgery, the most useful of the sciences, has been extended by the discovery of lithotritry, or a new method for the cure of stone in the bladder, and when the eyes, not only of the medical world, but of the public in general, are fixed on it, in order to ascertain whether the benefits it pretends to offer be not more specious than real, I presume that a communication, having for its object to exhibit the extent to which this method is applicable, cannot fail to be interesting. On its first announcement in France, the

Royal Academy of Sciences of Paris appointed a commission to inquire into its merits, and report accordingly. This step, on the part of that learned body, was no doubt a signal benefit to the method, as well as to the public; for thus an operation, which might have lingered on in neglect, and which, by accident, might have been lost to the world, was subjected to the scrutiny of the Academy. The approbation of this assembly was so warmly expressed, and so munificently proclaimed, that it stamped a currency on lithotripsy from its very infancy. Upwards of two hundred cases of stone cured by this method, and witnessed by some of the most eminent professors, not only of medicine, but of the sciences in general, have since confirmed this opinion of its value.

Impressed with a deep sense of the importance of a similar testimony in its favour in my own country, I feel anxious to lay before the Royal Society of London, a series of cases, calculated to exhibit the different gradations of difficulty which its application may encounter, beginning by the simplest forms under which calculous affections occur, and passing in review the successive degrees of their complications, until we arrive at those severe cases, in which the size, the number of calculi, the organic alterations, or the constitutional irritation, &c., forbid its application, or render it impossible to effect a cure by this method. This exposé is particularly called for at the present moment; first, in order to set bounds to the enthusiasm of those who expect more from it than this method can accomplish; 2ndly, to enable practitioners in general to discriminate those cases which are within the scope of this operation; and lastly, to impress on the minds of the sufferers themselves the necessity of applying in time, the cure of this cruel disease by the new method being always certain; and attended with very little pain in its early stages.

To render this exposé complete, I have selected from my own private cases, and from those which occurred during my connexion with the inventor Dr. Civiale, such as seemed to me best calculated to illustrate the view I had taken. The differences of complication between individual cases are endless; I have only chosen general characters to establish my scale of gradation. In the narration of these cases, I shall endeavour to be as concise as possible, consistently with my plan. The time of this Society is too precious to be occupied in listening to long and unnecessary details of medical treatment; these shall, therefore, be curtailed as much as possible, and none shall be introduced that are not necessary to the development of the subject. Some,

however, are indispensable, and will, I trust, be received with indulgence, when it is remembered that they relate, not to any case of cure obtained by the hitherto-practised forms of operation, but to a method which had been for ages the object of scientific research—to a method altogether novel—difficult in its application as it is efficacious in its results, and which by preventing the necessity of having recourse to more painful and perilous methods, changes at once the treatment of an entire class of surgical diseases in such a manner as we can only find paralleled in the vaccine discovery. In fact, when this operation comes into general use, like its prototype vaccine, in the case of the dreadful disease which it prevents, lithotripsy will cause vesical calculus to be regarded as a comparatively mild, and by no means dangerous, affection; indeed of all the diseases that have their seat in the bladder, it will be decidedly the least serious. In thus submitting lithotripsy to the consideration of the Royal Society, it claims only to be judged on its merits. In the country in which it had its origin, most surgeons make it a matter of conscience to give it a trial before they recommend the “dernier resort,” the knife. Lithotripsy aspires to a similar footing in England, in the speedy attainment of which, independently of its own merits, much will depend on the sanction it obtains from the first learned body in the realm.

*Simple Cases of Lithotripsy, in which the Calculus is of recent formation—the Urinary Apparatus healthy.*

1st CASE.—Mr. F., aged 40, good constitution, had for six months experienced pains in the region of the pelvis. During the latter three months, these pains had increased considerably, notwithstanding the various means employed to relieve them, the excretion of the urine now became much disordered, and the slightest attempt to exercise the body, brought on exasperation of all his symptoms: the patient was therefore obliged to give up all active employment. His strength and habit of body wasted rapidly. Alarmed at these symptoms he consulted me. After detailing to me his sufferings, I declared my suspicion that his bladder contained a stone. He very willingly consented to be sounded, and my suspicion was instantly changed to certainty. As soon as the sound penetrated into the bladder, it came in contact with a calculus, which appeared to be small. The shock produced by the collision of the stone and sound was distinctly heard by the patient as well as myself. The bladder was spacious, and in a nearly healthy state. The urine contained a little mucus, which was somewhat fetid. The operation of sound-

ing was painful, the sensibility of the urethra being exquisite. In order to blunt this excessive sensibility, wax bougies were passed down the urethra for five or six successive days, and allowed to remain ten minutes each time. On the sixth day, the passage of the bougie produced no other sensation than that of mechanical dilatation.

The seventh day after he had been first sounded, having been fixed on for the operation, Mr. F. came to my house, where several practitioners had already arrived to witness it. The sound being introduced, the stone was felt; an injection of tepid water was now thrown into the bladder, and the sound was withdrawn. The lithotrite, three lines in diameter, was now introduced. The stone was immediately seized and drilled. After being thus perforated, the stone yielded to the pressure of the branches of the lithotrite, and fell into fragments. One of these was now seized, but being too large to be extracted entire, it was crushed. The lithotrite was now withdrawn, loaded with the *debris* of this fragment. During the operation, the patient experienced no other inconvenience than that of an inordinate desire to make water, and a disagreeable feeling of tickling whilst the branches were being expanded to seize the stone. This operation did not last five minutes. The injection, which was voided soon after, carried down with it a quantity of *detritus* in powder and small fragments. The patient returned home on foot; a bath was ordered, and quiet enjoined. During the night, this gentleman voided four or five large-sized fragments, together with a quantity of powder. The expulsion of these portions of the stone caused him to be disturbed till four o'clock next morning, when he fell soundly asleep. During the four or five following days, the urine had regained its limpidity, and his feelings were as comfortable as ever they had been before he first felt the symptoms of his disease. He was now sounded, and no portion of the stone could be detected in the bladder. His health has continued perfect since that period, now upwards of a year.

2nd CASE.—Mr. Desarbres, aged 35, good constitution, was received into the hospital of St. Anthony, and sounded by M. Beauchene, senior surgeon of that establishment. The existence of a stone in the bladder was ascertained. The symptoms did not differ in any essential point from those which usually characterise the descent of renal calculus. There was acute pain in the left lumbar region; urine bloody, sometimes carrying down clots of pure blood, when Desarbres endeavoured

to resume his daily labour, or whenever he undertook to walk to any distance. This pain persisted for a long time, notwithstanding the employment of proper means for its alleviation. It was at length observed to shift, and seemed to follow the progress of a foreign body in the course of the left ureter. These symptoms soon disappeared, and were succeeded by others altogether different from those he had previously felt. The expulsion of the urine became difficult, pain commencing at the neck of the bladder, was propagated down the urethra to the glans penis; the stream of urine was diminished in size, and often interrupted; there was a sense of fullness and weight in the perineum, to which part the patient often applied his hand; this sensation was frequently so insupportable, that he was obliged to introduce his finger into the rectum, in order to push back the calculus, which seemed on those occasions to have wedged itself into the neck of the bladder.

Mr. Beauchene was of opinion, that this patient ought to be operated on by the lithotritic method, and accordingly M. Civiale was requested to perform the operation, which took place on the 19th of May. The patient was placed upon his bed, and the sacrum was raised by means of a cushion; the lithotrite was introduced with the greatest facility, and without causing any pain. A small friable stone was instantly grasped and crushed by the pressure of the branches and drill, perforation being unnecessary; portions of this stone were extracted in the instrument, the remaining portions were voided with the urine during the day. A bath was sufficient to calm the irritation produced by this operation. Four days after an exploration of the bladder was carefully made, when it was ascertained that it contained no fragment of the stone. He was subsequently examined by several surgeons, who could detect no vestige of the foreign body. This patient had been suffering for more than twelve months, the greater part of which time he was unable to work.

CASE 3.—M., aged 28, curate at Provins, came to Paris in the beginning of May. His habits of life had always been sedentary, to which he attributed the gravel he passed occasionally. During the last three months, the excretion of his urine was disordered, and not unfrequently accompanied with expulsion of a little blood in small clots. There were pain and scalding at the neck of the bladder, and down the course of the urethra. The urine was voided very frequently; and when but even a few drops could be forced away, and the patient was sensible, the bladder

contained no more urine, still the desire to void it persisted, and forced him to strain, until his face became flushed, and drops of perspiration rolled from his forehead. Alarmed at these symptoms he consulted a surgeon, who advised him to repair immediately to Paris. He had heard enough of the new method to give him the most perfect confidence in its safety and efficacy, and he was fully aware of the great advantage of resorting to it, while his general health remained good, and the calculus was still small. "All calculi," he reasoned with himself, "are small before they become large, and now is my time to obtain my cure on the easiest terms." Simple as the curate's reasoning is, it is much to be regretted that those afflicted with calculus do not adopt it more generally. Indeed, the curate's truism should be the motto of all those who dread calculous affections. He came to town without delay. He was sounded, the existence of stone in the bladder was ascertained, and a few days were allowed for repose. At the end of this time a lithotrite was passed into the bladder, a small stone was seized, and being held firmly in the grasp of the branches, the lithotrite thus charged with stone was used as a sound, with a view to ascertain whether the bladder contained any other calculi; none other having been detected, the drill was passed through the small stone, and the pressure of the branches having been then applied, it was broken without difficulty. Portions of it were voided during that and the following day; the curate was now able to attend without inconvenience to some business in town. He set out on his return home on the 23d of May. A careful examination of the bladder was made on the preceding day, but no portion of the stone could be discovered in that organ.

CASE 4.—M. Newhouse, clerk in the bank of France, aged 33, had experienced the symptoms which indicate the presence of stone in the bladder for the last fifteen months. There was great distress, particularly on the nights which followed days of exertion; and as the occasions for this exertion recurred very frequently, he was at the latter part of this period obliged to discontinue altogether the duties of his situation; his urine was mucose and fetid; his appetite had failed; his sleep was broken every hour to satisfy his desire to make water; his whole person was much wasted; he was very subject to chills and consecutive perspirations. With this sum of symptoms he consulted Baron Dubois, whose reputation as a surgeon is sufficiently known to render any compliment to his genius and acquirements superfluous. M.

Dubois, after ascertaining that the patient had stone in the bladder, addressed him in the following words:—"My friend, you are in the same predicament as myself; for my own part I shall have recourse to lithotritry for my cure, and I recommend you to do the same;" the result of Baron Dubois's determination in favour of this important improvement in surgery is generally known. The profession and the public have reason to rejoice that a life so valuable to humanity and science has not been risked on the issues of an operation which he had himself so often performed during a long and eminent professional career, extending to half a century. Lithotritry, in thus sparing him the torture and risk of the knife, repays M. Dubois in some degree for the many important services he has rendered to science. But to return to the subject of the present observation, M. Newhouse adopted the advice of M. Dubois, and had the happiness of setting him the example in submitting to the operation. M. Dubois expressed a wish to be present, and as soon as the irritability of the bladder had been subdued in some degree, the operation was commenced. A lithotrite, three lines in diameter, was passed gently into the bladder, and a calculus was instantly seized, measuring somewhat more than an inch in diameter. I applied the supporter to the lithotrite, imagining, from the size of the stone, that it would be necessary to perforate; but the drill penetrated with so much ease, that the supporter and bow were laid aside, and the stone yielded and fell into fragments by the mere pressure of the branches. One of the fragments thus produced was now seized and crushed also. The lithotrite being now withdrawn, the water of injection gushed out, carrying along with it a considerable quantity of sabulous matter, partly in angular fragments, such as are usually voided after this operation, and partly in gravel of a nearly globular form. These grains were easily separated from each other, and crumbled down on being slightly pressed between the fingers, being only held in a state of aggregation by a small portion of animal mucilage. When these grains were separated, their forms seemed sufficiently distinct to warrant the opinion that they had been originally solidified apart, and that on descending from the kidneys they adhered to the nucleus by means of the animal mucilage already noticed.

At a second sitting the destruction of the remaining fragments was effected. The same sort of *detritus* was voided during the following day and night; the next morning he complained of pain and swelling of the left testicle, he was directed to support it by means of a suspensory bandage, and to

apply cold lotions. Under this treatment it was soon reduced to its natural size. Some days after an exploration of the bladder took place, it was found to contain no stone. M. N. returned to his occupations almost immediately; the anxiety this gentleman felt at the bare suspicion of being afflicted with this disease, was intense, which accounts to a certain extent for the remarkable degree of wasting which took place in him during the month which preceded the application of lithotripsy. He could not without horror think of the cutting operation, a feeling which he referred to the circumstance of his having been present some years before at an operation for stone which happened to be laborious. The impression which it left on his mind was so painful that it would have for ever deterred him from submitting to it. This avowal he made to us at the time of the final exploration, and he added smiling, "As to regimen I shall not trouble myself any more about it, for if my disease return it is only five minutes' work to be rid of it." This gentleman continues to enjoy perfect health.

These four cases exhibit the operation of lithotripsy in the most favourable point of view, and are well calculated to show the efficacy and safety of this method when applied to simple cases, by which I mean those in which the calculus is of recent formation. The urethra, bladder, and kidneys, are in the normal state, and the general health unimpaired. It is obvious that the earlier this operation is resorted to, the more certain and easy will be the cure; when time is not given to bring on the general sympathy of the constitution with the local irritation, and when local irritation has not gone the length of producing organic alterations in the urinary apparatus, then is the application of lithotripsy certain in its effects, and attended with little or no pain, or to speak more strictly, with none beyond that produced by ordinary catheterism. The importance of an early application of this method is well established by our practice in France. In 1824 only one third of the sufferers who sought for relief by lithotripsy were considered in a fit state for its application. Progressively their numbers augmented to one half and two-thirds. During the last year M. Civiale had occasion to perform the cutting operation in only two instances out of upwards of thirty cases, and he lately observes in his correspondence with me that he has not had any of those formidable cases so frequent in the commencement of his practice. Lithotripsy in France has thinned the numbers of calculous patients, and those who have the misfortune to be afflicted with stone in that country now begin to apply for relief in time. The establishment of a lithotritic ward in the

Hopital Necker, under the care of my friend M. Civiale, will contribute mainly to the advancement of an era in surgery, when cutting for stone will be a rare event indeed. Though unsupported by the great dexterity and surgical tact of the creator of this operation, yet I am fain to hope that its progress in this country will be equally prosperous. Indeed such must be the wish of every friend to suffering humanity.

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## ST. THOMAS'S HOSPITAL.

### CLINICAL LECTURE

DELIVERED BY

DR. ELLIOTSON,

March 31, 1831.

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LAST CLINICAL LECTURE FOR THE SEASON.

*Corruption of Medical Terms—Obscure Case—Fever—Chronic Dysentery—St. Vitus's Dance—Morbidity of the Retina—Discharge of Oil from the Bowels, and Sugar from the Urinary Passages—Hay Fever—Clinical Lectures—Finale.*

THE books from the wards will be here in a short time, Gentlemen; and as I spoke in the last lecture of inhalation, I may just as well, while they are coming, tell those who were not present when I was going round the hospital the other day, that a patient who had been inhaling for chronic bronchitis, when speaking of it to me, said he had regularly used the *inward healing*. I told some of my private patients, who had derived great benefit from the inhalation of chlorine, and they thought it the most appropriate corruption of terms imaginable. I recollect one man having had erysipelas, who said he had the *hairy septars*. Another, who had laboured under typhus fever, said he had been attended for the *tightish-fever (laughter)*; I suppose he had a pretty tightish attack. Another person who was in the hospital this week, for rheumatic pains, when I inquired of him what was the matter, said he had got *romantic pains*; and I begged to assure him he would soon be well, as we had plenty of romantic medicines. One man, whose bowels were confined, told me he was *caustic*. I recollect a woman who came to me with the lumbago, and when she was asked what was the matter with her, put her hands behind her, and looking down in the most shamed manner possible, said she believed she had the *bumbay*.