The history of this case, since it came under your notice, gives a fair illustration of an ordinary example of the kind, wherein an operation has been successful. No peculiar treatment was resorted to before the proceeding, excepting what has been already referred to; no unusual difficulty was experienced in cutting into the bladder or extracting the stone further than had been anticipated, and after the shock of the operation had gone off there was not in the whole progress of the case a single bad symptom. According to my usual custom, I made a free opening in the skin, but a very limited one internally. This, doubtless, caused more difficulty in extracting the stone; and the advocates for free incisions in the neck of the bladder contend that both contusion and laceration are thus produced. Even admitting this (and I am not prepared to deny it), I believe that there is less danger in such a mode of operating than by a free division of the prostate with the knife. So long as a portion of this gland remains entire, I am of opinion that there is less chance of inflammation extending from the surface of the wound to the bladder and peritoneum, and less probability of infiltration of urine than when the parts have been extensively divided with the knife. With a very large stone I should not hesitate about taking the latter course, if I found that division of a portion of the right lobe of the prostate, as well as the left, would not suffice, but with such a stone as you saw removed in this instance (one far above the average size), an additional incision was not deemed necessary; and as the result of this practice is probably the best means of judging of its value, I need only refer to it in this instance. I do not ground these opinions, however, on one example alone, but on many, which I have witnessed, both in my own practice and that of others. In various instances in which you have seen me perform lithotomy in this theatre, I did not find it necessary to use the knife after my finger was once in the bladder, and in all these a very limited incision was made in the deep part of the wound, yet there has been neither serious difficulty in extraction nor bad results afterwards. The boy on whom I operated two days before this old man was cut, was treated in this way, and the result has here also been most satisfactory.

The progress of the case since the few first days after the operation, affords me no opportunity for especial remarks. It was stated in one of the reports in the case-book, that a slough had separated from the surface of the wound, but this, as you may remember, was a very small one, and such as is often seen in similar instances. The urine leaves a concretion on the surface, and, mingled with the layer of lymph first deposited on the wound, forms a cake, which assumes the appearance of a slough of thicker dimensions than it is in reality. Perhaps in these cases there is no loss of the original textures, the newly formed lymph being all that is thrown off with the concrete surface.

Nov. 24. Since the last report the patient has gone on favorably. He now walks about the ward in excellent health and spirits for one at his age. Part of the urine still comes by the wound, which is now closed to a small point. A pad has been ordered to be retained with a T bandage, and the orifice has been touched with the sulphate of copper.

CLINICAL LECTURES

DELIVERED AT THE

METROPOLITAN FREE HOSPITAL,

BY MR. BENNETT LUCAS,

Senior Surgeon to the Institution, and one of the Lecturers on Anatomy and Physiology at the Westminster Hospital School of Medicine.

Lecture I.—Nov. 18, 1842.

GENTLEMEN,—It has been the usual custom, since the foundation of this medical charity, for the physicians and surgeons connected with it to offer practical observations to the students in attendance upon its practice, on the nature of the several cases, as each presented itself; and to follow up, as far as the peculiar constitution of the charity permitted, the history of each case and the effects of the remedies prescribed, from the time the patient was first admitted, to the period of his name being erased from the books, or to his having delivered up his letter.

In addition to this beneficial method of practical instruction, the physicians and surgeons have deemed it advisable to deliver distinct and regular courses of lectures, which will embody the most instructive cases; by which arrangement many circumstances connected with their history, nature, and treatment, which might have escaped observation, or which might not have impressed themselves forcibly on the mind of the student, will be again brought before him and fixed more permanently upon his remembrance. In pursuance of these intentions, I have been requested to give the introductory discourse, and I shall avail myself of the present opportunity to make a few observations upon the constitution and objects of the Metropolitan Free Hospital, and upon the materials it affords for accomplishing our purpose.

The Metropolitan Free Hospital was established in the year 1836, and since that time to the present it has unostentatiously and steadily progressed in extending the benevolent intentions of its supporters, and in acquiring the countenance and good wishes of the public generally. When it was first established, it rested its claims to public support and confidence on the grand principle of not requiring at the hands of any patient a letter of recommendation from a governor. Destitution and sickness have always been recognised as the only passports essential to the admission of their unfortunate representatives; and it is not advancing too much, when I state that in this particular the Metropolitan Free Hospital differs from many of the medical charities which abound in this metropolis.

As you may readily anticipate, the moment the existence of such an institution became known, crowds of poor patients thronged its doors—a fact which at once testified to its value and indispensability; and the yearly increase of patients from its foundation to the present time is a further proof of the great amount of good it has been daily effecting, and of the confidence the poor patients themselves have in the means placed at the disposal of the medical officers for their relief, and in the manner such means are employed. The founders of the institution, in their zealous anxiety to emulate the philanthropy of other but wealthier medical charities, and accommodate a number of in-door patients—and cal-

culating upon being supplied with means to effect so desirable an end—named their institution, in anticipation, “The Metropolitan Free Hospital.” They immediately established a building fund, which has been gradually accumulating, but which, I am sorry to say, is even now far short of this desirable object. Our operations have, in consequence, been confined for the most part to what is generally known by the term dispensary practice; but, at the same time, whenever an urgent case requiring operation presented itself, it has always been received. On many occasions, also, when patients desired to have operations performed at their own houses, and where nothing to forbid doing so presented itself, we have invariably acceded to their wishes; I have thought it my duty to offer these preliminary remarks in explanation of the name under which our institution is flourishing, and I trust is rapidly progressing to the consummation we all wish for, in consequence of our having been accused of assuming a position for the charity to which it had no title. Hospital, infirmary, dispensary, or any other name under which our institution is conducted, appears to me to be a question of little moment, so long as it continues to carry out the objects of its benevolent supporters, and so long as its medical officers, as they have hitherto done, sedulously abstain from representing the Metropolitan Free Hospital as more than it really is.

Besides thus affording immediate relief to the poor sufferer laboring under disease, by establishing an institution of this kind, the governors have also had in view the instruction of those who intend to make medicine their profession, and with their usual liberality have permitted the practice of its medical and surgical officers to be witnessed and participated in by pupils; and for many years the practice of the Metropolitan Free Hospital has been recognised by the Worshipful Company of Apothecaries, and the military and naval medical boards. The cases which present themselves to us are not those which are designated, and too often absurdly so, “capital cases;” neither are they cases of “great rarity.” It is occasionally our lot, in common with the other medical charities of this metropolis, to admit cases which are not to be met with in everyday practice, but the majority is constituted of those which every medical practitioner should be acquainted with, and which, I am sorry to say, are sometimes heedlessly passed over by the student in medicine, who often imagines they are not worth attending to.

It cannot be too frequently impressed, however, upon the student's mind, that diseases the most trifling in their nature merit his minutest attention, and that in his after practice he will find patients to be just as anxious to get rid of a comparatively uninteresting affection, as of one, which from its rarity or some other cause, he might think the reverse. Besides, it is for the cure of less urgent cases that the young practitioner is especially called upon to act; and it is unnecessary for me here to mention the many instances I could adduce of the highest advancement being the attendant of such services. Your attention, therefore, in these lectures will be principally directed to the nature and treatment of those cases which are certain to fall to your lot to deal with in your after practice; and whenever any infrequent cases of disease present

themselves, these also shall receive at our hands all the attention they are deserving of.

That our means of practical instruction in the Metropolitan Free Hospital are very great, cannot but be admitted upon all hands, when I mention to you that no less than 42,049 patients have been treated by the medical officers within the short period of six years—“a number,” as the report of our committee justly remarks, “which has not been exceeded, and which they believe has not been equalled, in the same space of time by any similar charity in Great Britain.”

It is not unimportant to state to you the arrangements the medical officers observe in their attendance, and the manner in which the cases are seen and recorded. At the foundation of the institution six medical officers were appointed, besides a resident apothecary; vacancies have occurred since that time, and each was anxiously sought after as it took place; so that the medical staff has always been efficiently and respectably filled. Of the medical officers, three are physicians and three are surgeons. The former must be licentiates of the College of Physicians in London, and the latter must be members of the College of Surgeons in London. Every day, except Sundays, a physician and surgeon are in attendance at one o'clock, and the resident medical officer is always upon the spot to give his immediate assistance when required. In cases demanding consultation, all the medical officers are summoned; you thus see that the same attendance and medical etiquette are observed in this institution as in the largest hospital in London. As each case presents itself, the age, residence, and disease of the patient are recorded in a folio kept for that purpose, and to which you can always have access should you desire at any time to refer to it. Notwithstanding that our committee of management has scrupulously abstained from appropriating any part of the building fund from its legitimate object, yet it has sanctioned the admission of cases, as in-door patients, when the nature of their diseases was a subject of interest to the medical or surgical officers; and although the expenses attending the admission of such were borne in the first instance by the medical officers under whose care they were received, yet the money was always refunded to them by the committee.

Amongst the in-door surgical patients, the one which certainly excited the greatest interest amongst the profession was that of Thomas Young, whose case at the time was faithfully and fully reported in the Provincial Medical and Surgical Journal. He was grievously afflicted with stutter, and presented every hope of being relieved, if not cured, of his infirmity by the application of an operation somewhat formidable, but which came strongly recommended by Professor Dieffenbach, who published the history and results of some cases in which he stated he had been eminently successful. These cases were submitted after their cure to several medical men, and an account of them was laid before the Royal Academy of Medicine, Paris, in a memoir by Professor Dieffenbach himself. The professor's memoir, besides being published in the pages of the Provincial Medical and Surgical Journal, also underwent translation by Mr. Travers, and was published by him in the form of a pamphlet, with plates and full directions how to perform the operation. I have been informed that

Mr. Travers saw the cases, and that at the time of his pamphlet being published, he was not in this country. Professor Dieffenbach having been already well known to the British public, for his ability as a surgeon and his boldness in the operative department of medicine, in both which characters he had already gained so much deserved reputation for his cure of squint by the section of muscles, was justly entitled to receive credit for the success which he stated to have attended his new operation for stammer; and, acting upon the professor's representation, together with the collateral evidence of the happy results of the cases which I have mentioned, I did not hesitate to perform the operation in the case of the man now before you. I removed a wedge-shaped portion of his tongue, having guarded against any formidable hæmorrhage during the time the divided portions of the tongue were being brought together, by inserting curved needles (manufactured by Weiss) previously to making the section of the organ. For some time after the operation this patient held out the most sanguine hopes of cure. The poor fellow lay in bed, unable, from the condition of his tongue, to take any but the most fluid nourishment. When asked at this time to pronounce certain words, he did so *slowly*, but without impediment. This state lasted until the ligatures were removed, when he again found an impediment to his utterance, and gradually relapsed into his former condition, and now, as you can test for yourselves, he suffers under a painful stutter. The cicatrix in the dorsum of the tongue is very visible, and also on its sides, marking the depth to which the incision extended. Before Young was operated upon, several medical gentlemen besides my colleagues saw him, and coincided in the opinion that it was just the case to test the utility of the operation recommended. Although he suffers very much at present, yet he certainly is not so bad as he was when he left the hospital; but I do not attribute this improvement to the effects of the operation. He has told us himself that he can speak more fluently, but that he can do so much better at one time than another, which variable condition must certainly depend upon causes over which operative surgery cannot effect control. He is, moreover, in much better health and condition than when I saw him last.

In this institution, also, some of the first operations for the cure of strabismus were performed, and several of the cases which I have published in my treatise upon that deformity were seen here by many of the profession, so that at the Metropolitan Free Hospital the two operations which have excited more interest, and created more fuss in operative surgery than has occurred for the last ten or twelve years, were performed, their real merits and utility tested, and their results made known to the profession. Besides the operation recommended by Professor Dieffenbach for the cure of stammer, I have also performed here the milder ones, from excision of the uvula to division of the genio-hyo-glossi-muscles, and it would be to suppress the truth did I not state to you that in numerous cases of hesitation in speech I have witnessed the happiest results from the removal of a part or the entire of the uvula, of the tonsils, and occasionally of all three. The indiscriminate application of one method of treatment to every disease tends to bring

the remedy into disrepute, from the failures which must necessarily be the result; and lately it has been common to hear of modern surgery being rampant in its spirit, of mutilated throats laid to its charge, and of the substitution of fixed bull's eyes for squinting ones. All this may be very true, and very likely is attributable to want of mature reflection before undertaking an operation for either squint or stammer. I have seen mutilated throats without the impediments of the patients operated upon being removed, and also frightfully disfigured eyes from the division of the recti muscles; but because such have occurred, it surely does not follow that those who are less rampant with the knife should lay aside operations which, when conducted with caution and discrimination, are certain to lead to beneficial results. So long as I do not inflict a permanent injury by the removal of an enlarged or an elongated uvula, and enlarged or too projecting tonsils, or do not injure or disfigure the eyes by the section of their muscles, I shall continue to perform these operations in cases which hold out a fair and reasonable hope of happy results. No later than last week I removed more than half the uvula from a stammering patient, and with every hope of a successful issue. The case was simply this: he suffered when a boy from repeated attacks of "quinzy," to use his own expression; whether the hesitation in his speech was previous to these attacks, he could not tell. His uvula rested upon the dorsum of his tongue, even in inspiration, when it is almost always contracted, in some cases even to disappearance. It was carried forwards, and moved to and fro without leaving the tongue. He had no cough, as is often the case when the uvula is elongated; and the absence of this symptom I attribute to the parts being accustomed for many years to the unnatural condition of the uvula. On removing the elongated part, he spoke much more fluently, and a day or two ago I received a letter from him, saying, "I am much better, and my friends say I am much improved in my speech." I am not prepared to say that patients suffering under hesitation in speech, without their tonsils or uvula being enlarged, will be benefitted by their removal, because I never attempted such operations; but this I can testify to, that the removal of an elongated uvula, of enlarged tonsils, or of all three, in patients who stuttered or hesitated in their speech, has been attended in my hands, as well as in the hands of others, with a success sufficient to warrant a repetition of similar operations in similar cases; and during your attendance upon this course of lectures you shall be afforded many opportunities of judging for yourselves.

Gentlemen, within the last six years the number of cases admitted to the benefit of the Metropolitan Free Hospital has been 42,049. Of these, about two-thirds were under the care of the physicians, and one-third under the care of the surgeons. Out of the number of surgical cases, there were 3,695 afflicted with diseases of the genito-urinary organs, exclusive of those of the kidneys—thus forming something more than one-fourth of all the surgical cases. Since I have made this calculation, I find that the diseases of these organs bear fully the same ratio, if not more, to the surgical cases applying for relief; and as I am thus furnished with numerous practical illustrations of these interesting and important diseases, I shall confine my ob-

servations this session to their nature and treatment.

At our next meeting, which will be this day fortnight, I shall lay before you a classification which I have drawn up, of the 3,395 cases which have been admitted during the six years I have mentioned, and shall then direct your attention to the nature and treatment of urethral discharges, of which we shall in the interim doubtlessly be furnished with some forty or fifty new cases to illustrate the remarks I purpose to make upon their nature and treatment. Before we separate, Gentlemen, there are a few cases of interest which have undergone operations, and which are still in attendance.

The first is a case of varicocele, in which I removed more than one half the corresponding hemisphere of the scrotum. This operation was recommended very strongly by the late Sir Astley Cooper. In this man's case, many circumstances contributed to demand the operation. He had been the subject of the disease for four or five years; it supervened on an attack of hernia humoralis, and he suffered excruciating agony when the testicle was permitted to hang unsupported for any length of time. He constantly wore a suspensory elastic bag, but it did not afford him more than temporary relief, and after taking exercise, notwithstanding he had the artificial support, he suffered greatly, and, as is generally the case, the disease is on the left side. He is now capable of taking his usual exercise without inconvenience. The cicatrix of the wound is, as you perceive, not more than an inch, although the wound itself was at least three inches, and required six stitches of uninterrupted suture to bring its edges together. The varicose condition of the veins still exists, but from the support now constantly applied, the drag of the testicle being taken off, it is probable that healthy changes in the varicose vessels may supervene.

ENCYSTED HYDROCELE OF THE CHORD.

This patient applied some time ago with an encysted hydrocele of the spermatic chord. It was the size of a walnut, and situated just above the testicle, so that the tumor could be insulated. It had the appearance of a third testicle. I evacuated the fluid in the first instance by a single puncture of a common sewing-needle; the fluid escaped into the cellular tissue, and thence was absorbed, the entire disappearing in two hours. The tumor returned again in the course of a few days, as large as ever. I repeated the same operation with the same results, and at last I evacuated the tumor by a small trochar, received its contents into an elastic syringe, and injected back the fluid. By these means a sufficient degree of inflammation was excited within the tumor, and after the usual changes which take place in such instances, it totally disappeared.

STRABISMUS.

This girl was the subject of divergent squint; when I divided the external muscle of the left eye, that affected, it became straight and prominent; indeed, so prominent was it immediately after the division of the muscle, that all who were present were struck with the difference between both eyes. Now you perceive the eye has lost all unnatural fullness, and so successful has been the operation, that it is impossible to detect which eye had been operated upon. This is

an interesting case in the history of strabismus, and on this account I have made these few observations respecting it.

In conclusion, Gentlemen, permit me to say that it will always afford me the greatest pleasure to meet at these lectures any of my former pupils, as well as those now in attendance upon my anatomical and physiological lectures at the Westminster Hospital School of Medicine.

ACADEMY OF SCIENCES, PARIS.

November 28, 1842.

NEUTRAL AZOTISED PRINCIPLES OF ORGANIC BODIES.

M. Dumas read a memoir on this subject, in his own name and that of M. Cahours.

Chemists have long since pointed out the existence in animals of the neutral azotised substances. These are albumen, fibrine, and caseine. In a memoir presented to the academy, eighteen months ago, by MM. Dumas and Boussingault, the authors showed that albumen, fibrine, and caseine exist in plants; that these substances pass ready formed into herbivorous, and from the latter into carnivorous animals; and finally, that plants alone furnish the three substances just named. The same principle was extended to fatty substances, which, according to the authors, are essentially derived from the vegetable kingdom, and, passing into animals, contribute to combustion. The authors likewise pointed out the necessity of grouping together all organic substances which have the property of being converted by fermentation into lactic acid, and which, like sugar and fecula, are important ingredients in the process of nutrition, while they are mere products of vegetable life.

These views and their results are comprised in the following table:—

THE VEGETABLE	THE ANIMAL
<i>Produces</i> neutral azotised substances,	<i>Consumes</i> neutral azotised substances,
“ fatty substances,	“ fatty substances,
“ sugar, fecula, gums.	“ sugar, fecula, gums.
<i>Decomposes</i> carbonic acid,	<i>Produces</i> carbonic acid,
“ water,	“ water,
“ ammoniacal salts.	“ ammoniacal salts,
<i>Disengages</i> oxygen.	“ oxygen.
<i>Absorbs</i> heat,	<i>Produces</i> heat,
“ the electric fluid.	“ the electric fluid.
Is an apparatus of <i>reduction</i> .	Is an apparatus of <i>oxidation</i> .
Is <i>immovable</i> .	Is <i>locomotive</i> .

The granivorous bird finds all the elements of its nutrition in corn. The dog procures from bread every thing necessary for its support and development. The mare finds in oats and barley not only what is requisite for nutrition, but the caseine which exists in her milk. All kinds of grain, therefore, independently of the starchy or saccharine principles which they contain, must likewise furnish to animals the neutral azotised principles which they contain, but which they are incapable of creating. This is proved to be the case by analytic chemistry. In cases where starch, dextrine, and sugar, disappear from the alimentary substance, they are replaced by fatty substances, as we see occur in the nutrition of carnivorous animals; and we find that nearly the whole of the aliment of herbivorous animals is formed by an association of the