entreaty of a poor fellow for whom death was imminent, and who, knowing fully all the risks, begged hard that he might encounter them, as his last and only hope. This recently occurred with a patient who, after seven years of suffering, came to me from the Cape—a mere skeleton worn out by disease. I declined, but offered an appeal from my decision, in the form of a consultation with my friend Mr. Paget. The refusal was confirmed, and, in despair, the patient sent for a well-known physician, and begged to learn why he should be denied the only hope of life, for which he had at so much cost of time and of pain crossed half the globe. The result was that we consented. I cut him, and he recovered. Is it not, then, almost impossible to say there is no hope? And if there be a single chance, how difficult to deny it! It was among such cases as these—cases of advanced age and of large stones—that I met the 6 deaths among the 16 of my lithotomy cases.

The fourth proposition is—“That by exercising an ordinary degree of vigilance for adult patients suffering from symptoms of urinary disorder, every case of calculus may be discovered in an early stage; may be successfully treated by lithotripsy; and, consequently, that the operation of cutting for stone in the adult may be rendered obsolete, or applicable only for some very exceptional example which has been developed as the result of extreme neglect or ignorance.”

It may seem a bold assertion, that every case of stone in the adult may be treated by lithotripsy. Depend upon it, this will be the case, and that its realisation is simply a question of time. I suppose no one will deny that it is an easy thing to diagnose the presence of calculus in an early stage, while it is yet small, and easily amenable to the crushing process. Very rarely does a calculus reach the size of a bean without giving marked symptoms of its presence; enough to send the patient to his surgeon; enough for his surgeon to suspect its existence. At all events, with anything like ordinary intelligence on the part of the patient and on that of his attendant, no stone should reach the weight of 100 grains, or measure an inch in its longest diameter; in other words, arrive at the size of a filbert without discovery.

Now, by way of proof, I wish to call your attention to the striking fact that among the 84 cases of lithotripsy, *all such stones were successful cases*. Each one of the fatal cases were stones of much larger size, occurring in patients worn out not merely by age, but by the long existence of the calculus and its fearful consequences. I am entitled therefore to say that every calculus being discoverable with proper vigilance while it is still small, it is removable by proper means, with an almost certain prospect of success. I regard the operation of lithotomy, then, attractive as it is to the practical surgeon by its brilliancy, and by the qualities which it demands for its successful performance, as destined ere long to be unknown, or nearly so, in the cases of the adult. For myself, I should resign it, with all its glories and excitements, with a profound regret, if I may be so permitted to speak, yet with a conviction that it will, though decreasing in frequency year by year, yet last perhaps during this century. The limits of time do not permit me to enter upon that fertile and interesting topic, the mode of its performance. Suffice it to say, that almost all the cases here recorded have been cut on the median and medio-bilateral methods; opening up a subject which I should have been glad to discuss had it come within the limits of our time. My object here has been rather to illustrate and enforce the capabilities of lithotripsy, and to establish for it if possible a higher place in the estimate of British surgeons than I think it has hitherto attained. It is with this end that I have brought these facts before you to-day, believing that under no other circumstances should I find so good an opportunity of submitting them to the consideration of the profession at large.

ON

THE NATURE AND THE MODE OF PROPAGATION OF CONSUMPTION.

By RICHARD PAYNE COTTON, M.D., F.R.C.P. L.,
SENIOR PHYSICIAN TO THE HOSPITAL FOR CONSUMPTION,
BROMPTON.

THE paper under the above heading which appeared in THE LANCET of the 12th inst., from the pen of Dr. William Budd, deserves, as well from its source as from its novelty, the gravest consideration. Dr. Budd tells us that he regards phthisis as a

disease of specific and contagious nature, closely allied in this respect to the most contagious diseases with which we are acquainted—viz., typhus and scarlet fevers; the tuberculous matter itself being the specific and morbid poison from which the disease is produced. If such views be correct, they will completely revolutionise both the medical and social treatment of consumption; they will make the poor consumptive sufferer a being as much to be dreaded as the leper of old; and they will at once crush every hope of our lessening the ravages of this terrible scourge, by the manifest impossibility of our ever being able to “stamp out” so universally prevalent a poison. If Dr. Budd’s views be incorrect, the interests of both the consumptive and the healthy require that they should be proved to be so.

Continued and very anxious thought upon this subject, based, too, upon an unusual amount of personal observation, has long ago brought me to a conclusion directly opposed to that of Dr. William Budd. The more I see of consumption the more am I convinced that its lamentable prevalence is to be ascribed to causes very different from that which he suggests. I have never met with a case of true pulmonary consumption, however apparently due to contagious influence,—and that such cases often present themselves I readily admit,—which could not be more easily accounted for upon generally recognised causes than upon specific and contagious influences.

The subject is a very comprehensive one, and its due consideration greatly exceeds both the space I can expect in the pages of THE LANCET, and the time which I have at present at my command. Following the example of Dr. William Budd, I must content myself with briefly stating my own conclusions, reserving for some future communication the grounds upon which such conclusions have been formed.

1st. I believe phthisis to be a purely constitutional disease, which may be either inherited or acquired, but which is incapable of being communicated by one person to another *in the ordinary sense of a contagious disease*.*

2nd. I regard tubercle as the product of such constitutional disease, just as lithate of soda is of gout, and sugar of diabetes.

3rd. I consider that a person may be really consumptive, or, in other words, may have this constitutional disease, whilst the tuberculous elements are still in the blood—that is to say, before they are deposited as tubercle in the lung or other tissues.

4th. Although I think it very possible that tuberculous matter, like many other diseased products, may be introduced into the system by artificial inoculation, producing its like, or something more or less similar to it, I do not believe that tubercle can exist naturally in such a state as to be, as Dr. Budd expresses it, “disseminated through society” *by the ordinary principle of contagion*.

5th. I think it probable, although at present not perhaps quite demonstrable, that there are varieties of consumption, both in degree and kind; but I am unacquainted with any such variety forming an exception to the general principles which I have stated above.

A little practical proof is worth a large amount of theory, however plausible such theory may be, and however highly and ably supported. A great experiment upon the zymotic character of phthisis has been going on for some years in the Consumption Hospital at Brompton. If Dr. William Budd’s views be correct, this hospital, as well as every like institution, must be nothing more nor less than a pest-house, and must afford sad and repeated proofs of its banefulness. But what are the facts of the case? I cannot do better than give them in the following letter kindly furnished by Mr. Edwards, the long-experienced resident medical officer of the institution.

“Consumption Hospital, Brompton, S.W., Oct. 25th, 1867.

“MY DEAR SIR,—The following statistics represent, as fairly as I can recall them, the result of my own observations, during the seventeen years that I have myself resided within the hospital. They are submitted to you in reply to inquiries you have made of me upon the subject.

“The present building was partially opened in the year 1846 with 90 beds. Ten years later it was completed; and, for several years past, 200 beds have been constantly occupied. To the present time 15,262 in-patients and 102,369 out-patients have been under treatment.

“*Resident officers*.—I remember personally fifty-nine resident clinical assistants, whose duration of office has averaged quite six months. To the best of my belief, all but two are living

* It is not impossible that, under certain circumstances, into which I cannot now enter, but which do not affect the question nor give any support to Dr. Budd’s views, this constitutional condition may be conveyed from husband to wife, and, perhaps, but with less probability, *vice versa*.

(forty-nine having their names in the Medical Directory for this year, and others are known to be in the army, &c.) Of the two deceased, one died of aneurism, and the other from a cause unknown to me, but he had left the hospital some years. Three now living are said to be consumptive. One of them is known to you to be so. He was resident here in 1854, and left us before the usual time to join the Crimean army. He afterwards married, and commenced private practice, where his health failed. He is now in Australia, and in the active pursuit of his profession. The second, *I have been told*, has had hæmoptysis; but, as his name is in this year's Directory, I presume he is still living. It is more than five years since he left us. The third is said to have tubercle at one apex; and is now on his way to Australia as surgeon on board ship. He left the hospital four years ago.

"*Chaplains.*—The present chaplain (not resident) has held office for more than seventeen years, and his two predecessors are living. He has no other duty.

"*Matron.*—The matron has been resident in the hospital more than sixteen years. The former two matrons are living.

"*Secretary and Clerks* (not resident).—The secretary has been here nearly ten years, and his predecessor held the appointment for fourteen years. The latter is now in Canada. Seven *junior clerks* have been here for periods varying from a year and a half to four years. All are, I believe, living and well, except one, who left us six years ago. Two years since he had symptoms of phthisis, and spent the winter of '65-66 in Madeira. When seen a few weeks ago he was looking well.

"*Dispensary Officers.*—Ten have been in the dispensary; their work is not among the in-patients, but the dispensary opens into the out-patient department by two small windows, through which medicines are dispensed. Of those now there, one has been in office eight years, one five years, and one three years and a half. A former dispenser was here eleven years, and another three years; both are living, and for part of their time were resident. One died, at the age of nearly seventy, of heart disease; a second, a youth, died of phthisis; a third was here for a year and a half, and, I am informed, died of phthisis six months after leaving to join a private business.

"*House-porters.*—Eight porters have resided in the hospital; and all are, I believe, living, except one, who died from the effects of an accident. Part of their duty is to remove the dead from the wards, and attend to their subsequent removal from the dead-house. The last post-mortem room attendant was here many years, and died at the age of fifty-four from the effects of intemperate living. His successor has been here five years. One porter, four years resident, is now engaged in the out-patient department for several hours daily, in rooms crowded at times with patients.

"*Nurses and servants.*—Very many nurses and servants have been in residence for periods varying from months to several years. The staff consists of four head nurses, ten under nurses, and four gallery or ward maids. The head nurses sleep each in a room opening into a gallery containing fifty patients; the others sleep on a floor above. Two head nurses only are known to have died. One, after a residence of several years, at the age of sixty. Her death was from apoplexy; though a few days before her decease cavernous breathing was heard in one lung, but its tubercular origin was doubtful. The other head nurse was here seven months, and left to be married. Her husband deserted her. She had much trouble, and obtained a situation at the Millbank Penitentiary, where her health, I believe, first failed. She died of phthisis in this hospital. Of the nurses now in residence: one has been here twenty-four years, and is now only nominally on duty; two have been here twelve years; one, eight years; one, seven years (whose husband previously died a patient in the hospital); one, six years and a half; one, five years. Of nurses and servants who have left, and are believed to be still living, one was here twenty-three years; one, thirteen years; one, six years and a half; two, four years and a half; one, five years; two, three years. No under nurse, so far as I am aware, has been the subject of phthisis.

"The *gallery maids* are young women. Their chief duty is to sweep and scrub the floors of the wards, in which they are occupied several hours daily. I know of the death of only two of these girls. One was here for fifteen months; had subsequent situations of all work; in the last one she fell ill, and came into this hospital as a patient and died here. The other died of organic heart-disease. Many of these girls obtained better situations, and several left to be married.

"All the *physicians* who have attended either in- or out-patients here during the past seventeen years are living, except

two: one died from causes not connected with disease of the lungs; and the other died abroad—from disease unknown—after an absence from the hospital of about twelve years.

"I thankfully add, in conclusion, that, after a residence myself of just seventeen years, I am in good health.

"I remain, my dear Sir, very faithfully yours,

"Dr. R. P. Cotton, &c. &c."

"VERTUE EDWARDS,

"Resident Medical Officer.

During the four years preceding Mr. Edwards's connexion with the hospital, one assistant-physician and one clinical assistant fell victims to consumption. Of the hereditary claims of the former to the disease I am unacquainted; but the latter belonged to a consumptive family, one of his sisters having, to my knowledge, previously died of the same malady. These were the only phthical cases in those officially connected with the hospital during this period.

My experience of one of the largest metropolitan general hospitals during a period equal to that described by Mr. Edwards, as regards the frequency of phthisis amongst its official staff, is decidedly in favour of the Hospital for Consumption. In the same number of years I have known at the former institution one physician, one surgeon, one chaplain, two house-surgeons, and four or five former dressers or clinical assistants succumb to this fatal disorder. So far as phthisis is concerned, I am convinced that the Hospital for Consumption can show a cleaner "bill of health" than the General Hospital.

Upon such evidence few, I think, will be disposed to include phthisis amongst infectious diseases. Should any doubt exist upon the subject I would suggest a comparison of the foregoing statistics of the Consumption Hospital with those of any other hospital exclusively devoted to the treatment of so-called zymotic disease.

Clarges-street, Piccadilly, Oct. 1867.

CASES IN PRACTICAL SURGERY.

By T. J. ASHTON, Esq.,

CONSULTING SURGEON TO THE MARYLEBONE INFIRMARY.

No. II.

DISEASE OF KNEE-JOINT; AMPUTATION OF THIGH; DEATH;
EXTREME FATTY DEGENERATION OF KIDNEYS AND LIVER.

M. B—, aged thirty-eight, a married woman, had suffered for five years from disease of the right knee. In the hope of benefiting her general health, which had become greatly impaired, she had been some months at Margate, whence she was admitted into the Marylebone Infirmary. At that time the soft tissues on each side of the knee were greatly disorganised from the repeated formation of abscesses; several sinuses existed, and a probe passed down them entered deeply into the cancellous structure of the head of the tibia; the shaft of the bone for several inches was also discovered to be implicated in the disease, and the condyles of the femur were felt to be rough and denuded of periosteum; crepitation was readily felt on slight motion of the joint. Her appetite was failing, her pulse was quick and irritable, and she complained of great pain, which materially interfered with her rest at night. The state of her constitution and the condition of the limb precluded all hope of recovery, except by an operation for the removal of the cause of so much local and constitutional irritation. The upper part of the shaft of the tibia being so involved in the disease, excision of the joint could not be entertained, and amputation presented the only alternative. The patient having had chloroform administered, I proceeded to remove the limb. First making a short anterior semilunar flap, by cutting from without inwards, the incision, commencing about four inches above the external tuberosity of the femur, was carried down to the upper edge of the patella, and terminated on the inner side of the leg at a point opposite to where it was commenced; the knife was then passed through the limb, and a long posterior flap formed; the bone was then divided at its lower fifth. The femoral artery was secured, and, as is usually the case where there has been long-standing disease of a joint, a number of small vessels required ligatures. The flaps were brought together at once by sutures and strips of plaster, and a bandage applied. After the operation, the patient was calm, and gratified at its having been performed. For six days she took nourishment freely, was comparatively