They have succeeded in detecting and cultivating a bacillus which could generally be found in the blood and tissues of syphilitic patients who had not been subjected to the influence of mercury, or who at any rate had not taken it long. In a contribution to THE LANCET of April 10th, 1886, they say: "In none of the cases from which cultivations were obtained had mercury been administered for any length of time, and a long series of failures have led us to reject entirely cases which have been long under mercurial treatment." With this fact in view, the importance of obtaining a thorough and certain permeation of mercury in the system is apparent, and without claiming any originality in this method of treatment, the lecturer wished to bring before them the extremely favourable results he had obtained from it.

BILOCULAR EMPYEMA; THORACENTESIS; DIVISION OF SEPTUM; COMPLETE RECOVERY.

By GEORGE PADLEY, L.R.C.P. LOND, &c.,
CONSULTING PHYSICIAN TO THE SWANSEA HOSPITAL.

ON the morning of December 18th last I was sent for to see a young lady, aged between seventeen and eighteen, who had been seized somewhat suddenly soon after midnight with a very severe pain in the right side, preceded by a sharp rigor. She had gone to bed feeling quite well, and awoke at the time named with the above symptoms, accompanied by intense headache and thirst. The only cause to which they could be traced was exposure the previous day to an open window in a covered waggonette. When I saw her she was in a state of high fever, side acutely painful, temperature 104.8° F., pungent heat of skin, pulse 120, respiration 38, subsequently reaching as high as 45; short cough and dyspnoea. These symptoms were soon followed by fine crepitation at the base of the right lung—rusty expectoration, and some friction sound,—in fact, the ordinary symptoms of an attack of acute pleuro-pneumonia. She passed through the earlier stages of the malady favourably, the more urgent symptoms having gradually subsided until the morning of the sixteenth day (Jan. 3rd), when the temperature had fallen to 99.8° . It is needless therefore to give further details of the case, which pursued the ordinary course of this disease, or of its treatment, up to this time. In the evening of Jan. 3rd there occurred a fresh accession of acute symptoms, without any apparent cause beyond some stomacic disturbance, and the temperature rose to 103° and continued averaging from about 101° morning to 103° (on two occasions 104°) evening, until the 24th, when the morning temperature fell to 100.2° . As time advanced the percussion dullness had become more dead, the breath sounds, clear and even exaggerated immediately beneath the clavicle, were inaudible elsewhere, excepting in a space beneath the angle of the scapula; vocal fremitus absent, respiratory movements almost *nil*, voice bronchophonic and distant. Such symptoms, together with the history of the case, plainly indicated effusion within the right chest. The dictum of Dr. Wilks—that "if the case be one of pleuro-pneumonia, and there result, after the acute attack, the same local physical signs (localised dullness with absence of breath-sound, and perhaps distant tubular breathing), then also an empyema is present,"¹ a most valuable inference derived from his large experience—also pointed to the same conclusion. On the other hand, not only was there an absence of any enlargement of the right side, or bulging of the intercostal spaces, but the reverse, the right side appearing rather smaller than the left, and even somewhat contracted. In addition to which there was the localised respiratory murmur near the angle of the scapula, at which spot the air appeared to enter more freely than before. These conditions, though subsequently explained, inculcated caution at this time with regard to operative interference. I could not help also feeling some anxiety as to the state of the lung. The evidences of effusion, however, became more pronounced as the case progressed, and these were corroborated by some displacement of the heart towards the left side, and slight bulging of the right. The general condition had, notwithstanding, some-

what improved, and the average of temperature had fallen about a degree. Before proceeding further, it was thought advisable to have a consultation, and on Jan. 18th Sir Andrew Clark was written to, and kindly came down the following day. He confirmed my diagnosis as to the effusion, but advised postponement of paracentesis for a time, unless rise of temperature, growing embarrassment of the breathing and heart's action, failing general condition, or indications of hectic, should render it necessary at an earlier period.

On the morning of the 24th the patient continued in much the same condition; in the evening, however, there was a marked change for the worse. She had had a restless, feverish day; and when I visited her at about 9 P.M. I found her symptoms had assumed a serious aspect. The axillary temperature was 103° ; pulse small, about 135 (partly no doubt accelerated by emotion); breathing distressed; respiration above 40. I therefore determined to postpone the operation no longer, and that night, with the assistance of Mr. Farrant Fry, tapped the chest, under ether spray, with the aspirator in the seventh intercostal space, below where the breath-sounds were heard, and in the posterior axillary line, and withdrew rather more than half a pint of purulent fluid. After this quantity had been taken the aspirator, although the cannula was cleared, ceased to act. As we found the tube of the instrument blocked by fibrinous coagula, we assumed, incorrectly as the sequel showed, these to be the cause of the stoppage. Very material relief, however, especially to the breathing, was afforded by the operation. After the subsidence of some coughing the patient had a good night, having slept calmly for more than four hours continuously. At 11 A.M. (25th) the temperature was 99° , at 9.30 P.M. 100.5° , the pulse and breathing quieter, and the general condition much improved. As, however, the nature and the quantity of the fluid withdrawn, together with some remaining symptoms, indicated the necessity for further relief, a free incision into the pleural cavity was determined on, which was accordingly made the next morning at the site of the previous aspiration, but without the slightest appearance of pus or any other fluid. I had cut into an empty sac. It was evident, however, that there was more fluid pent up somewhere. I passed my finger freely into the cavity, and found the sac from which the pus had been withdrawn surrounded, especially above, by firm adhesions. I then passed a silver catheter through the wound, and made its point project into the ninth interspace, and (as I originally purposed for more efficient drainage) cut down upon it, but with no result whatever in the way of discharge. The remaining pus was clearly encysted above, the dense adhesions felt in that direction probably forming the floor of the cavity. I asked Mr. Fry (who most efficiently administered the anæsthetic, and whose kind co-operation I have to acknowledge) to pass his finger in, and he thought he felt slight fluctuation. I then passed a small long cannula (belonging to the aspirator case) up to this septum—a distance, as near as I could guess, of between two and three inches,—keeping it as near as I could to the parietes of the chest, to avoid the chance of wounding the lung, and through this thrust a trocar, and pushed both onwards. On withdrawing the latter, to our infinite relief, a drop of pus made its appearance at the mouth of the cannula. I at once enlarged the opening thus made with a bistoury, and a gush of pus took place and flowed freely through both external wounds. A full pint was measured, and at least half a pint or more in addition must have escaped. The patient was greatly relieved. A large-sized drainage-tube was inserted through the upper wound into the upper cavity, the lower wound being also kept open to allow of the escape of any pus that might find its way to the lower part of the pleural cavity from the upper cyst. The wounds and drainage tube were then completely covered over with a thick layer of carbolised tow, and this again by some layers of carbolised gauze. A hypodermic injection of morphia was then given, and the patient left to rest.

The morning and evening temperature on the 27th was 99° , and varied but little from this for about a week, when the average was somewhat higher. The drainage appeared perfect, some fibrinous shreds being discharged with the pus, which was not in the least offensive. The secreting action of the cavity first opened appeared also to have ceased. During the subsequent dressings night and morning the atmosphere surrounding the patient was impregnated by the vapour of pine wood oil diffused by

¹ Brit. Med. Journal, vol. i., 1879.

means of a steam kettle, into the water of which three teaspoonfuls of the oil were poured. This, acting as an antiseptic, together with the carbolic dressings, &c., though not perhaps strictly Listerian, contributed, I believe, to preserve the purulent discharge in the pure and inoffensive condition which was maintained during the whole period of the treatment. It is, perhaps, unnecessary to say that all the drainage-tubes and other instruments were immersed in a carbolic lotion before being used.

As the case progressed there were occasional periods of febrile disturbance which had to be met, but as the interest of the case centres in what I have above described, I will not prolong this paper by any detail concerning these, nor occupy space and time by a record of the general treatment, medicinal, dietetic, &c., which was adopted. One thing, however, I may note as having had a favourable influence in hastening the satisfactory result. The pyogenetic cavity being situated at a high level—i.e., opposite the submammary region—I adopted the plan of raising the patient to an upright sitting position during the dressings, and afterwards for half an hour out of bed before them, when she was also desired to walk about the room. The consequence was a freer discharge and more complete emptying of the cavity. This appeared to have a decided effect upon the temperature (which had varied from 99° to 100° or 101°) and upon the subsequent progress of the case. I gradually reduced the length and calibre of the drainage-tubes, until the last used, and finally withdrawn about March 18th, was a portion of a No. 4 catheter à boulé, a little fibro-serous discharge being all that remained at that time. The temperature was normal on March 15th and continued so. The upper wound healed satisfactorily soon after the withdrawal of the catheter, the lower one having been allowed to close some time before. The general health rapidly improved, the breath-sounds became more distinct and extended, the percussion note clearer, the heart also returning to its normal position. At one time there was some contraction of the right side, with slight curvature of the spine, but these gradually diminished, and her strength, breathing power, and capacity for exertion steadily increased. I examined her carefully twice in April and again about a week ago. The spine is straight and almost perfect symmetry has been regained. The percussion note and respiratory murmur are normal in front, or very nearly so—not quite so clear or distinct behind, although fairly restored, excepting at the lowest part of the base of the lung. She is able to take active exercise, rides on horseback, mounts stairs or a hill without embarrassment, and nearly as well as before the attack, from which, indeed, she may now be said to have completely recovered.

The case was of course one of great and continued anxiety. In 1879, Dr. Wilks thus writes: "Amongst the numberless affections of the lungs and their appendages which, during the last two or three years, have presented the most difficult problems of treatment, have been localised pleuritic effusions or empyemata." The views upon this question of treatment, especially in regard to operative measures and subsequent management, have undergone a marked change during the last few years. It was stated by an eminent authority, M. Jaccoud, in 1879,² that he "had acquired proof that multilocular pleurisies do not bear thoracentesis satisfactorily;" and that "multilocular acute pleurisy ought not to be treated by thoracentesis; puncture is only authorised in order to relieve in emergency the vital indication resulting from really imminent suffocation,"—a doctrine entirely opposed to the lesson derived from the case I have described, as well as probably from some others, more or less similar in character, of which two have been recorded by Professor Morgan of Manchester,³ and one by Dr. Darwin,⁴ though in the latter the empyema pointed in the thoracic wall, and was there opened. There are few also who would now, I think, be disposed to adopt, "even if the case should run altogether a normal course," the heroic measures recommended in an exhaustive article on this subject, largely read and quoted, in Ziemssen's Cyclopædia, involving the frequent cleansings of the pleural sac with water, followed for several days with a solution of common salt; then, after a few days, replacing this with compound tincture of iodine, in 20 to 50 times its bulk of water, or solutions of permanganate of potash or of carbolic acid, "even if there is no fever and the contents of the pleural sac are not fetid."

With regard to the localisation of the purulent cavity, the only instance I have met with, partially corresponding to the one I have given, is recorded by the late Dr. Fagge, in which fluid was found, post mortem, filling the upper part of the pleural cavity, while crepitant lung tissue still existed in the lower part. He states, also, that the limitation of such effusion by adhesion is seldom so complete as to lead to the formation of two or more collections of fluid entirely cut off from one another. Here the limitation was complete.

I have recently (July 27th) examined the patient, and find the right lung fully expanded and the respiratory and percussion-sounds normal.

Swansea.

CASES OF URINARY DIFFICULTIES OCCURRING IN BOYS.¹

By WILLIAM THOMAS, F.R.C.S.,

HON. SURGEON TO THE BIRMINGHAM AND MIDLAND FREE HOSPITAL
FOR SICK CHILDREN.

URINARY troubles in children present many points of interest, though they may not perhaps be of so serious a nature as similar conditions in adults. The following cases appear worthy of record, partly from their comparative rarity, and partly from the treatment adopted. All of them occurred at the Birmingham Children's Hospital, and I am indebted to the various resident officers for most of the notes appended.

Extravasation of Urine.

CASE 1.—George R.—, aged four, was brought to the Birmingham Children's Hospital on Oct. 2nd, 1880. His mother gave the following history. The child had always complained of pain in his abdomen. When he was three years old his mother was in the workhouse infirmary, and the boy in the children's ward of the same institution. The nurse told his mother that he could not hold his urine, which was constantly dribbling. Medicine was prescribed, and on leaving the infirmary his mother noticed nothing wrong with him, nor was any peculiarity observed about the penis. He was quite well for some time until Sept. 20th, 1880, when he complained of being unable to micturate. During the whole day he strained very hard, holding on by the bedpost like a woman in labour. He was seen by a doctor in the evening, who ordered medicines and fomentations. On the morning of Oct. 1st the penis began to swell, and the doctor recommended him to be brought to the Children's Hospital. I saw him first on Oct. 2nd. The bladder was distended to the umbilicus; there was much elastic swelling of the penis; the scrotum was large and oedematous; and general oedema extended along both inguinal regions, across the pubes, and backwards in the perineum to the base of the triangular ligament. Free incisions were made into the swollen parts, from which clear but slightly blood-stained fluid escaped. The patient was placed in bed and the parts irrigated with weak carbolic lotion (1 in 100). At first a catheter was placed in the bladder, but as it appeared uncomfortable it was withdrawn after three hours.—Oct. 3rd: Urine drawn off at 7.30. Circumcision performed at 10, relieving the glans from the pressure of the still oedematous prepuce. The bleeding was arrested by forcipressure. Child much more comfortable; only complains of thirst. Some tenderness over the lower part of the abdomen, none elsewhere.

The notes of this case, which were taken daily, show that catheterism was required to empty the bladder for about seven days, after which the urine was voided spontaneously; that it spurted through one of the incisions near the root of the penis on the right side; that an abscess formed in this situation, and a considerable time was required before urine and pus ceased to be discharged from it; that the boy recovered without any permanent injury to the urethra or penis, and that no stone was found. What was the cause of retention and the seat of obstruction to the flow of urine in this case? As a catheter could readily be passed into the bladder, it seems hardly likely that a calculus in the urethra produced the stoppage. The history suggests that a calculus

² British Medical Journal.

³ THE LANCET, vol. i., 1881.

⁴ Ibid., vol. ii., 1882.

¹ The substance of this paper was read at a meeting of the Midland Medical Society last session.