thigh-bone was found to be absorbed, and the acetabulum most extensively disorganized—so much so, indeed, that, on the removal of all the affected part, the wound, as in Mr. Holt's first case, communicated with the cavity of the pelvis. This, although a grave matter, did not produce any serious symptoms; the healing went on, but slowly, and the boy left the hospital ten weeks after the operation.

The notes of the case were kindly furnished by Mr. G. Forrescue, late house-surgeon to the hospital.

W. B—, aged thirteen, a native of Preston; a pale, delicate, strumous-looking youth; admitted October 4th, 1861. About seven years ago it was observed by his parents that the patient walked lame, and after a time he himself found that his right leg became easily tired. Four years ago a swelling appeared on the upper part of the right thigh in front, which burst, and has continued to discharge pus ever since. Soon the leg became shorter. He has undergone a variety of medical treatment, with little or no benefit.

On admission, the right thigh was found to be much wasted, and the pelvis "tilted" on the diseased side. The thigh was in advance of the opposite one, and when standing the limb was everted, the foot turned outwards, and the heel rested a little above the left inner malleolus. From the anterior superior spinous process of the ilium to the outer condyle on the right side the distance was less by rather more than an inch than on the other. There was considerable swelling about the hip-joint, and a series of sinuses existed along the crest of the os innominatum. There was no pain in the knee, nor has there ever been any; scarcely any tenderness on pressure over the trochanter. Very little independent movement of the hip-joint remained. Passive motion caused very slight pain, and indeed an almost complete absence of suffering has been throughout a prominent feature of this case. On examination, dead bone was readily detected through one of the larger sinuses.

Oct. 19th.—The patient having been put under the influence of chloroform, Mr. Fergusson made a crucial incision over the trochanter major, and examined the condition of the parts. The head of the femur was found to be absorbed, and the acetabulum extensively diseased. In the latter locality the gouge was freely used, and a very deep wound resulted, which apparently communicated with the interior of the pelvis. The cavity was filled up from the bottom with dry lint, and a strip of lint passed through the incision above was brought out as a seton through the other opening below the trochanter.

21st.—The boy is without pain, and appears to suffer very little from the operation.

Nov. 4th.—Continues to improve; eats and sleeps very fairly. There is a free discharge from the wound, which looks rather sluggish. The wounds are syringed out daily with a weak solution of Condyl's fluid (liq. potass. permanganat.), two drachms to a pint of water, and dressed with a stimulating lotion under a poultice.

11th.—The wound looks more healthy, and is filling up a little. Its edges are drawn together by strapping.

Dec. 27th.—The boy was discharged somewhat improved in condition. The openings, however, refused to heal, and were still discharging.

MIDDLESEX HOSPITAL.

CARIES OF THE PELVIS AND FEMUR; EXCISION OF THE HEAD OF THE FEMUR; RECOVERY; CLINICAL REMARKS.

(Under the care of Mr. NUNN.)

THE patient, a female child, aged twelve years, had been some weeks in the hospital. When admitted, there was a fistulous opening at the right femoral fossa, and a threatening of abscess at the middle third of the thigh. Most of the ordinary symptoms of advanced hip-joint disease were, if not absent, at least obscure. Mr. Nunn ordered the long straight splint to be applied, with apparent benefit for some time; but about ten days since the abscess at the middle third of the thigh became much inflamed, the region over the trochanter major assumed a tense aspect, and the painfulness of the hip prevented the continuance of the application of the long splint. Very soon an opening formed in the middle of the thigh, and permitted the evacuation of much matter of a very fetid nature. Through this opening pus of the same character continued to escape in large quantities. As there was evidently disease either of the pelvis or head of the femur, Mr. Nunn deter-

mined to make exploratory incisions; and, in the event of the result of these incisions justifying it, to excise the head of the thigh-bone.

On November 20th, 1861, the patient being placed under the influence of chloroform, Mr. Nunn cut down almost immediately over the upper fifth of the femur, and, detecting through an aperture in the capsular ligament caries in the head of the bone, extended the incision upward, and, by opening the capsule of the joint, easily everted the head, which was removed, with the neck, by the chain-saw; and subsequently, on the advice of Mr. Shaw, the trochanter major was also removed. After the patient was again in her bed the straight splint was reapplied.

Mr. Nunn stated to the class that although he could not hope for a cure, since there evidently existed very considerable disease of the pelvis, yet he felt sure that the operation would afford relief by removing one great cause of the patient's extreme suffering,—namely, the *tension* on the inflamed parts from the anatomical disposition of the structures surrounding the hip-joint.

Nov. 26th.—The progress of this case has been hitherto quite satisfactory. The patient has slept well, and enjoys her food, and has quite a cheerful look. There are some very largely-dilated veins over the hypogastric and inguinal regions, which have an ominous appearance. The relief afforded has been, nevertheless, quite remarkable.

May 17th, 1862.—The immediate result of the removal of the carious head of the femur was, as above stated, a complete relief from pain and distressing constitutional disturbance. Very copious purulent discharges continuing, every nutritious article of food and a very liberal supply of wine were supplied. About six weeks since the patient was placed under the influence of chloroform, and the sinuses remaining were explored. As no carious patches and no sequestra about the pelvis could be detected, the patient was discharged from the hospital.

Accounts from the child's home represent her as eating and sleeping well, and free from suffering. Taking into consideration the extensive disease of the ischium and pubis, the progress of the case may be considered satisfactory. Should the sinuses heal, and the patient continue to gain strength, it is probable that the tendons of the adductor longus will require division in order to improve the position of the limb. This would have been done already had not a sinus coursed exactly over it, and the integument been very much attenuated at the point most advantageous for division of the tendon under ordinary circumstances.

WEST LONDON HOSPITAL.

EXCISION OF THE ELBOW-JOINT FOR SCROFULOUS DISEASE OF TWENTY YEARS' STANDING; RECOVERY.

(Under the care of Mr. ERNEST HART.)

THE results of excision are not in any joint more satisfactory than in that of the elbow. Of 149 recorded cases there were 33 deaths, or a little over 22 per cent. Of 470 amputations of the humerus 157 proved fatal, or in the ratio of about 33 per cent. Thus it will be observed that the results are decidedly in favour of excision of the elbow-joint. The following case adds an additional unit to the favourable statistics which are accumulating in relation to this operation. We are indebted to Mr. Atkins, house-surgeon, for the notes indicating the progress of the case.

A. H—, aged thirty-three, was admitted into the hospital, having been the subject of scrofulous caries of the elbow-joint for nearly twenty years. During this long period he had had repeated attacks of inflammation in the joint. Pieces of bone had at various times been removed. On admission, the arm was ankylosed in the bent position. There were one or two apertures connected with small sinuses, and the patient complained of much nocturnal pain. The arm was useless to him in his occupation. Mr. Hart proceeded to excise the diseased joint and ends of the bones on March 12th, employing the single posterior incision. On laying open the joint, the dislocated and ankylosed process of the ulna projected most prominently; Mr. Hart therefore removed this first, then sliced away the articular ends of the humerus, and cut through the head of the radius. It was necessary to remove a greater extent of bone than usual, because, owing to the number of years that dislocation and consequent shortening had continued, corresponding retraction of the soft parts existed; so that it was

necessary to make allowance for the overlapping of the bones, and to remove enough to leave a small space between the sawn ends, which would ultimately admit of flexion of the arm after time had been allowed for fibrous tissue to be developed between them. The precaution was observed, however, of not opening the medullary canals; for experience has shown that when serious accidents have followed excisions, they have often been traceable to that circumstance. Silver sutures were used in approximating the wound, and it was bound up with strips of wet lint. Heath's splint was applied at the time, but the pads were not buckled tightly. The advantage of applying the splint at once seems to be that the arm can be thus shifted when necessary without movement at the joint and pain to the patient. On the other hand, if the pads are strapped tightly for the first day or two after the operation, troublesome swelling is apt to ensue at the joint and in the forearm. To prevent the œdema and painful engorgement of the hand which sometimes occur, the limb was fixed on a slightly-inclined plane. The case has progressed extremely well, and the patient has a very useful arm, with good movement at the elbow.

LONDON HOSPITAL.

NOTE ON THE CASE OF RECENT VESICO-VAGINAL FISTULA AND STRICTURE OF THE URETHRA.

(Under the care of Mr. MAUNDER.)

THIS case was recorded last week, but we are desirous of mentioning that the patient was examined on the 15th inst., and the cure of the fistula was found to be permanent, the bladder having completely recovered its power of retention of urine. This has very much relieved the tendency to the urethral stricture, which is an interesting fact in the history of the progress of this case.

Medical Societies.

ROYAL MEDICAL & CHIRURGICAL SOCIETY.

TUESDAY, MAY 13TH.

DR. BABINGTON, PRESIDENT, IN THE CHAIR.

ON JAUNDICE: ITS PATHOLOGY AND TREATMENT.

BY GEORGE HARLEY, M.D.,
PROFESSOR IN UNIVERSITY COLLEGE, LONDON.

It is universally admitted that the facility of the diagnosis of jaundice is only equalled by the obscurity of its pathology and the uncertainty of its treatment. In this communication, therefore, the author set about unravelling the nature of the various morbid conditions which give rise to it; and pointed out how, notwithstanding the seeming discord, they could all appropriately come under the two common heads of "jaundice from suppression of the biliary function," and "jaundice from the reabsorption of the secreted but retained bile." Moreover, Dr. Harley showed that the pathology of jaundice resulting from suppression is totally different from that arising from obstruction; and, consequently, that a line of treatment which would be appropriate and beneficial in the one form, would be detrimental, if not actually hazardous, in the other. Fortunately, however, the author pointed out a new method of distinguishing the two forms of the disease when all the ordinary means of symptomatic and physical diagnosis prove unavailing. The method consists in analyzing the urine, which, he finds, contains different morbid products according to the particular form of the disease. Thus, for example, in jaundice from suppression the urine contains only those biliary ingredients which exist preformed in the blood. In jaundice from obstruction, on the other hand, the urine contains, in addition to these, the materials generated in the liver itself, and which have been reabsorbed into the circulation from the distended gall-bladder and ducts. A simple mode of distinguishing the two conditions is, to add to about two drachms of urine half a drachm of strong sulphuric acid, and a fragment of loaf-sugar the size of a pea. If at the time of contact of the two liquids a scarlet or purple colour is produced, it proves that the acids of the bile are present, and the case may consequently be put down as one of jaundice from obstruction. On the other hand, if no bile-acid reaction, but merely a browning of the sugar, be observed, the case is in all probability one of suppression. Dr.

Harley pointed out, however, that care must be taken not to confound the two cases; as jaundice from obstruction, especially the severe form, often merges into jaundice from suppression.

The author also confirmed Frerichs' statement regarding the presence of tyrosine and leucine in the urine of acute atrophy of the liver; and further stated that he had also found these substances in the urine of chronic atrophy, so that their presence might aid in the diagnosis of the latter as well as of the former condition of the hepatic organ. Several cases were cited illustrating the value of the different methods of diagnosis; and the author concluded by pointing out the class of cases in which mercury and other remedies were likely to be beneficial, and where they were likely to do injury. He specially recommended the employment of benzoic acid in jaundice from suppression, and inspissated bile in that arising from obstruction, in which latter class the patient frequently dies from slow starvation, in consequence of the absence of bile in the digestive process causing imperfect assimilation of the food to take place. Dr. Harley also called special attention to the fact that bile, as now employed, more frequently does harm than good; for, when given along with the food, instead of aiding the digestive process, it actually retards it by interfering with the action of the gastric juice. If, on the other hand, bile be administered, as the author proposes, at the end of stomachal digestion, it acts (as in the healthy organism) on the chyme, and renders it fit for absorption. In order still further to insure this desirable object, Dr. Harley has had bile specially prepared and put up into capsules, which are not readily acted on by the gastric juice, but which, on being dissolved in the duodenum, allow the bile to come in contact with the food at the proper moment, and thereby enable the physician to imitate nature, and supply an important element to the system.

The communication was well illustrated with preparations and drawings.

Dr. EDWARD SMITH, after dwelling upon the great interest of the paper, referred to two subjects explained in it which had struck him—the importance of determining the amount of urea evolved, and the alleged mode of action of acids and alkalis. In the case referred to there had been a large ingestion of nitrogenized food, and yet the amount of urea had diminished from about 450 grains per day, which at fifty years of age would be about the standard quantity, to between 300 and 400 grains—a fact which proved clearly that a large portion of the nitrogenized food had not entered the blood, but had passed off by the bowel. He thought the determination of the amount of urea in cases of defective assimilation was of the utmost value; but since there were normally great variations in the daily elimination of urea, it was essential that experiments should be extended over several days successively; and it would be more satisfactory to determine at the same time the quantity of nitrogen eliminated by the bowel. He considered that the explanation of the mode of action of acids and alkalis was most ingenious, but he doubted as to its validity. It might be, as suggested by the author, that an alkali being given excited the formation of gastric acids, which then passed into the bowel and interfered with the alkalinity of the biliary and pancreatic juices, and thus prejudiced the digestion of fats; but, if so, the smaller the quantity of alkali administered, the less amount of acid secretions would be induced. Without admitting or denying the explanation, he must affirm that alkalis were very serviceable in numerous cases of jaundice.

Dr. CHAMBERS said the author had referred to jaundice caused by pneumonia and the zymotic fevers, but had not explained how it occurred. He wished to ask the author if in these cases he had examined the blood, and if so, in what state and form the colouring matter was found. In pneumonia there is colouring matter in the fæces and urine, and also in the skin, and the serum of the patient's blood is dark. In these cases there is no obstruction of the bile-ducts. It was said by some that jaundice occurred in those cases of pneumonia in which the right lung was affected; but he (Dr. Chambers) had found it in cases of pneumonia on the left side. Again, in zymotic fevers there was no local action. Cases of this kind had an important bearing on the explanation of jaundice.

Dr. MARCET said the examination of the fæces would often clear up difficulties in the diagnosis of the cause of jaundice. If the bile is retained, there is in the fæces an abnormal quantity of fat, and hence the fæces are white, and by alcohol much fat may be extracted. There was not, however, enough to be recognised by the eye. The fatty matter does not exist a neutral fat, but as fatty acids. This passage of fatty matter showed that it was not the pancreas alone which had to do with the digestion of fats. In reference to the method of administering bile by the stomach in cases of jaundice, he (Dr.