the upper end of the humerus. "I have now excised the upper end of the tibia for myeloid sarcoma in two cases. In the case first operated on the patient has a most useful limb, and in the other is beginning to walk without support. In the first case I determined to try to save the limb, but the patient consented to amputation if I thought, during the operation, that it would be the best method of dealing with the disease. In the second the patient absolutely refused amputation under any circumstances. It seemed to me that the shortening could easily be made up for by a high-soled boot, but what I feared was after removal of so large an area of bone, when I approximated the tibia to the femur, the tissues in the popliteal space, instead of retracting to a sufficient extent, might kink, and thus, by obstruction of the popliteal vessels, cause gangrene in the leg. That the operation can be performed without danger of kinking of the vessels is now evident, and that we may get perfect osseous union and a very useful limb is shown by my first case."

5. Hæmarthrosis due to hæmophilia.

A. Chaning Pearce, M.B., B.S., Lond. (*Brit. Med. Journ.*, April 30, 1898, p. 1135). Case I.—H. F., aged seven years, injured the left knee on August 29th, 1895; a week later the joint was tense and fluctuating, but not very tender. He was anæmic; his cheeks were covered with dilated capillaries. Pulse rapid and small; hæmic bruits were heard. Temperature 102°. An attempt at aspirating the joint was made under the impression that the condition was one of subacute synovitis, but was given up when nothing but treacly-looking blood oozed out. The high temperature persisted for ten days; the swelling of the knee gradually diminished. Six weeks later the joint was nearly normal, and movement was only slightly limited. His mother said that he has been liable to attacks of "rheumatism" ever since he was two years old; it had been observed that the network of capillaries on his cheeks became engorged before an attack. When he cuts himself, he is said to go on bleeding for a week.

He again came up on October 16th with troublesome oozing from the gum following removal of two fragments of his temporary incisors. His left elbow was said to have been knocked; the joint was distended and the skin discoloured; there was slight tenderness. A week later the other elbow was found in the same condition; this was not ascribed to any injury.

A month after this he was again admitted for an enormous hæmorrhage in the popliteal region extending down to the ankle. There was a history of injury. The boy was feverish and weak, but rapidly improved under treatment. When last seen, in January, 1896, he was fairly well, but had a hæmarthrosis of the right elbow associated with a bruise over the inner condyle.

Case II.—P. M., aged two years, had been admitted for what was thought to be a "pulpy swelling" of the right knee when ten months old. The notes recorded that the swelling extended half way up the thigh. About this time it was noticed that the slightest pressure, such as that of the fingers in lifting or that of the rail of his chair, caused bruising of the skin. There was no family history of hæmophilia.

In May, 1895, he was admitted with a wound of the mucous membrane between the upper lip and gum, which had bled continuously for twenty-four hours. The knee was well. In spite of plugging with gauze, local application, and internal administration of styptics, the bleeding continued for a week. The wound was then charred over with Paquelin's cautery till all oozing stopped; it healed without further trouble.

Four months later he was brought up with a slight effusion in the left knee, and a month later a large hæmatoma appeared on the right knee. In January, 1896, he had a hæmatoma extending from the umbilicus to flank. He was in a serious condition, but he made a rapid recovery.

The third case was a boy, 2–3 years, who "bruised readily." His maternal uncle had frequent epistaxis. In August, 1895, the boy came under treatment for bleeding into his ankle-joint.

It is well from time to time to be reminded of the existence of such a disease as hæmophilia, for the surgeon sees so few cases of it that when one comes before him he is apt to be off his guard, and, by adopting active treatment under a misapprehension, to invite disaster. So far as my experience goes, there is nothing in the aspect of a boy to show that he is a bleeder. It has been suggested that all such subjects should be tattooed upon the front of the chest with a conspicuous "B" to show that they are bleeders. But I should think that in later years the boy would be as anxious to hide that initial as was a young man whom I once had as an out-patient on whose chest a big "D" was branded!

The first of the cases here reported is just the sort of one to get a practitioner into difficulties—a boy is admitted with acute effusion into a knee. What more likely than that it should be a sero-synovial, blood-stained effusion, the result of an injury, and what treatment more suitable than that of tapping the joint and fixing the limb in plaster-of-Paris splints for a while? But what a calamity if the hæmorrhage continued, and if an oozing through the puncture caused the joint to become septic!

As a rule, however, the disturbance of the joint is but temporary; the blood is quietly absorbed, and in due time the articular function is completely restored. But though I do not happen to have seen a joint ruined by hæmorrhage, such a contingency does now and then happen; so that a hæmophilic child with a distended knee is a double source of anxiety.

The surgeon is to be congratulated on the success which attended the cauterisation of the buccal wound. I confess that my own experience would have discouraged me from adopting such energetic treatment. However, nothing succeeds like success.

6. Fracture of the neck of the femur in childhood. Two interesting articles upon this important subject were published during 1898, one by **Hamilton Russell, F.R.C.S.**, Surgeon to the Children's Hospital, Melbourne (*Lancet*, July 16, 1898, p. 125), and the other by Rozal Whitman, M.D., New York (*Trans. of the Amer. Orthop. Assoc.*, vol. x., p. 216).

Fracture of the neck of the femur in childhood is usually, I think, separation of the upper epiphysis, which comprises the head of the bone. There is a clear history of injury in most cases; the child cries when the limb is roughly handled or moved; he cannot walk, or if he walks it is with a great limp, and he complains of pain in the region of the joint. If he is stripped and placed in the upright position he keeps the thigh slightly flexed, supporting the weight of the limb upon the toes of the extended foot. If he is placed flat on his back the limb is found slightly everted, shortened, perhaps by half an inch, and, as already noted, the child does not like the limb being moved at the joint.

Nothing is easier than to mistake such a case for one of hip-joint disease. Hip disease is one of the commonest lesions of childhood, whilst fracture of the femoral neck is a rare one. Synovitis at the joint there must be after so severe an injury as fracture of the neck of the femur, but it is not the synovitis that is going to lead on—if the case is properly treated—to destructive disease. If, however, the child were tuberculous, it is quite likely that separation of the epiphysis would be the precursor of complete destruction of the joint.

In all probability, many children with separation of the upper epiphysis of the femur are treated as cases of hip-joint disease, without any attempt being made to restore the parts to their proper position; so the head of the bone remains in the acetabulum, whilst the short neck and the shaft of the femur are carried upwards and backwards, as far as the lower part of the capsular ligament will permit.

As regards diagnosis, the best thing is for the surgeon to keep it always in his mind that a child who has severely, or even apparently not severely, injured his hip-joint may have the upper femoral epiphysis detached. And if he finds that the limb is everted, and that careful measurement from the anterior superior iliac spine to the tip of the internal malleolus shows a shortening of about half an inch, it will be well for him to have his suspicion confirmed by the X rays.

Mr. Russell says:—"In the absence of especial care in the use of the tape-measure such a fracture may very readily find its way into the category of cases of hip disease, and I have no doubt that this has been the usual fate of such injuries in young children. This mistake in diagnosis having once been made, the further course of the case is easy to imagine; the child is put into a Thomas's splint, which no doubt will afford considerable relief, and after a few months of this treatment the limb will be found to have largely regained its utility, and the surgeon will cherish the belief that the disease has become cured under his treatment. It is true that there will be some shortening and adduction of the limb, but on the whole there is ample ground for satisfaction at having got rid of the disease in so short a time and without abscess-formation. We could regard an error of diagnosis with tolerance, if the worst evil resulting from it could be shown to be merely an erroneous belief that we had treated a case of hip disease with great skill and success, but unfortunately this is by no means the case." For permanent shortening is sure to occur.

But even if the lesion is duly recognised, and promptly treated, there is, it appears to me, a great risk of the occurrence of permanent shortening, because of the disturbance at the growing end of the bone, and because of the further sinking of the head of the bone when the erect posture is eventually resumed.

Dr. Whitman describes ten cases in which the lesion was diagnosed, and in the one numbered "four" in the series he gives in a nutshell the physical signs of the fracture:—A boy, aged eight years, fell about fifteen feet; this was followed by pain and disability. The trochanter was elevated above Nélaton's line, there were marked thickening about the joint and muscular spasm on motion. The leg was fully extended and rotated outward. On the child's admission to the hospital he was anæsthetised, and a diagnosis of fracture of the neck of the femur at its junction with the shaft was made. There was distinct bony crepitus at this point, and the trochanter rotated on its own axis. Here is the report of the sixth case; it was that of a girl of six

years :—Five months previously she had fallen down a flight of stairs, and being unable to walk was placed in bed. No immediate diagnosis was made ; later, after consultation, the child was said to have hip disease, for which she had been treated by rest in bed with traction for several months. The examination showed limp, an elevated and prominent trochanter, three-fourths of an inch of shortening, and slight eversion of the left leg. Motion was unrestricted. A final examination was made two and a half years after the accident (January 28, 1897.) There was no decided change in the physical signs. There was, however, an increase of one-fourth of an inch shortening, and there were slight eversion of the foot, and slight restriction of abduction. No discomfort or disability was complained of.

Dr. Whitman remarks that in all his cases the patients were perfectly well until they received a severe injury which necessitated immediate confinement to bed for several days or weeks. And he suggests that it would appear that mistakes are due to neglect of proper examination, or to inaccuracy in the interpretation of obvious signs, rather than to any particular difficulty that diagnosis offers, either in the primary or the secondary stage of the injury.

I am half afraid that Dr. Whitman will think that I have taken a great liberty with his interesting and important paper, in that I have used his clinical material to illustrate my remarks upon separation of the upper epiphysis of the femur, rather than actual fracture of the neck of the bone. Dr. Whitman regards the cases of fracture, but if I make so bold as to consider an uncertain portion of them as separation of the epiphysis no great harm is done, and I think that I may be pardoned. My desire is to call attention to the fact that fracture of the neck of the femur does occur in children from time to time, and that we must be prepared to meet and deal with it. As regards the way in which it should be dealt with, I will merely say that the practitioner who can diagnose its existence will not need to be told how to treat it.

7. Infantile sterno-mastoid tumours and the simple wryneck of children.

Jordan Lloyd, M.S., F.R.C.S., Senior Surgeon to the Children's Hospital, Birmingham (*Birmingham Med. Review*, May, 1898).

"The common wryneck of children is interesting in its relation to the well-known swellings met with in the sterno-mastoid muscles of infants during the first few weeks or months of their life, and wrongly described as 'congenital.' In my student days these little tumours were always regarded as gummata, and their

presence was accepted as positive evidence of a syphilitic heritage. They were seen to disappear when the child wore a circlet of flannel spread with unguentum hydrargyri around its upper arm, and the tumour was smeared with an ointment of iodide of potassium, or some other wonder-working composition. This evidence was accepted as conclusive : the ointment had been rubbed in, the tumour had gone, what further proof was needed ? The *post hoc* fallacy is responsible for many errors. The theory of syphilis offered no explanation why these so-called 'congenital muscular gummata' were seen only in the sterno-mastoids."

In common with most surgeons, Mr. Lloyd has noticed that many children suffering from these sterno-mastoid tumours, and also many children with wryneck, came into the world breech first, and one has only to follow the movements attending the delivery of a fœtus in this position to see how the sterno-mastoid muscles happen to be injured.

The swelling is not present at birth, but appears most often about two or three weeks later. It is smooth and hard, usually in the inner head of the muscle just above the level of the clavicle, and it varies in size from a horse-bean to an adult thumb. It is elongated in the direction of the muscle. The skin over it is normal and unattached, and the swelling can be moved with the muscle in a lateral direction only. It is painless, but is occasionally tender. The head is kept slightly drawn to the affected side, the face being turned away from it ; and when an attempt is made to turn the face in the opposite direction resistance is felt and the child cries as if in pain.

The tumour consists of reparative material in the course of organisation, and is thrown out in excess, just as is seen in other parts where injured muscles, tendons, or bones are not kept at rest during their process of repair.

"The treatment of the condition is simple and satisfactory, because it is common-sense and mechanical. All our efforts must be directed to keeping the face turned towards the affected side both waking and sleeping, so as to prevent the damaged muscle repairing itself in its shortened condition. Patience and a 'proper understanding' on the part of the nurse or mother are absolutely essential, and the less we confuse them with drugs and mystery, the more likely are we to secure a good result. Treatment must be continued for several months, even after all signs of the swelling have disappeared. The child should be carefully examined from time to time—say every six or twelve months—during the first few years of its life, to see that its neck is symmetrically developing. In this way wryneck would be discovered at its

earliest inception, and if properly treated then all its troublesome secondary consequences would be averted."

The sixth of a series of cases reported is especially interesting. With reference to it Mr. Lloyd says: "Until a month ago I had thought that the sterno-mastoid tumours of infants were always unilateral, but I then saw a little breech-born patient a few weeks old with a nodule in each muscle."

If this case had been allowed to drift on untreated each muscle would have become shortened, the chin being firmly fixed towards the episternal notch. There would have been no turning of the face to one side or the other, the neck would have been merely bent forwards in the middle line. Thus, single sterno-mastoid tumour produces single wryneck, but double sterno-mastoid tumour does not produce double wryneck—such a condition being manifestly impossible.

A few years ago, as Mr. Lloyd says, the nature of these tumours was shrouded in mystery, but even at the present day, though they are of by no means uncommon occurrence, they are often mistaken for enlarged glands or gummata.

DISEASES OF THE GENITO-URINARY SYSTEM.

By Reginald Harrison, F.R.C.S.,

Surgeon to St. Peter's Hospital.

1. Renal surgery.

The progress of surgery relative to the kidney and its duct formed the subject of the Hunterian Lectures (1898) at the Royal College of Surgeons, by **Henry Morris.** The published volume (Cassell & Co.) also contains a fourth lecture devoted to injuries of the ureter. The work embraces not only a digest of the author's large experience of the subject, but a liberal reference to the practice of others. The surgery of the ureter is importantly added to, and much that is new and progressive is advanced and summarised. The various methods of effecting uretero-ureteral anastomosis are described and illustrated, and their respective advantages discussed. As the permanent occlusion of a ureter, following its rupture or accidental division, means irreparable damage to the corresponding kidney, the importance of this method of obtaining repair, as in the analogous case of the male urethra, is obvious, if the kidney is to be saved. Nephrectomy as a primary operation for surgical injuries of the ureter is quite unjustifiable. It would occupy too much space to describe the different modes of establishing ureteral anastomosis. The classes of cases in which it is applicable are stated as follows: "To restore the continuity of the duct (1) after accidental section, and (2) after resection of a short length of it during abdominal operations. (3) After resection of a portion of the ureter for strictures, ulceration, sloughing around a calculus, or any other condition which, if not removed, would terminate in stenosis. (4) After rupture and other injuries from external violence—as soon as the case is diagnosed when intraperitoneal, and before suppuration or sloughing occurs when retroperitoneal." Various forms of ureteral grafting are also described. Amongst the most satisfactory are: "(1) Invaginating the fistulous aperture itself into the bladder after first incising the vesico-vaginal septum. (2) Grafting the ureter to the bladder