from the outgrowth and formed a flap which extended down to the median fissure in the lip and the lower third of which formed the new lunula. The bulk of the outgrowth was formed of fat. By extending the horizontal incision above the median notch in the lip, and by stitching it vertically an attempt was made to obliterate the fissure. The nostrils were freed from their attachments to the bone and were sutured with catgut beneath the long median flap. Horse-hair and silkworm were employed for the superficial sutures. The operation was too ambitious, and healing did not progress as satisfactorily as was wished. The stitches in the lip gave way, leaving a raw surface, and the notch in the lip reappeared. In about six months a second operation was performed to improve the lip and to get a better angle between lip and nose. The incisions were complicated, but on this occasion healing took place by primary intention and the result has been fairly satisfactory (Figs. 5 and 6).

Fig. 5.

Fig. 6.

The interest in the case, however, lies not in the operation but in the deformity itself.

REFERENCES.

¹ Kredel, Die angeborenen Nasenspaltung und ihre Operation, *Deut. Zeits. f. Chir.*, 1898, Bd. xlvii, S. 237 (literature here appended). ² Trendelenburg, Verletzungen und chirurgische Krankheiten des Gesichts, *Deut. Chir.*, Lieferung xxxiii, 1. Hälfte, 1886. ³ Browne, Case of Congenital Deficiency of the Nose, with Single Harelip, *Dublin Medical Press*, 1860, second series, vol. xlv, p. 452. ⁴ Rose, On Harelip and Cleft Palate, London, 1891, p. 12. ⁵ Pitt, Medical Society's Proceedings, vol. xii, p. 304. ⁶ Witzel, Ueber die angeborene mediane Spaltung der oberen Gesichtshälfte, *Arch. f. klin. Chir.*, 1882, Bd. xxvii, S. 893. ⁷ Nasse, Zwei Fälle von angeborener medianer Spaltung der Nase, *Arch. f. klin. Chir.*, 1895, Bd. xlix, S. 767. ⁸ Lexer, Angeborene mediane Spaltung der Nase, *Arch. f. klin. Chir.*, 1900, Bd. lxi, S. 360 (*Langenbeck's Archiv*, Bd. lxii, Heft 3). ⁹ Bland Sutton, On some Cases of Congenital Fissures of the Mouth, *Transactions of the Odontological Society*, 1887, new series, vol. xx, p. 97.

TRANSPLANTATION OF THE INSERTION OF THE BICEPS TENDON FOR PERSISTENT CONTRACTION OF THE KNEE-JOINT IN A CASE OF RHEUMATOID ARTHRITIS.

By C. MANSELL MOULLIN, M.D.Oxon., F.R.C.S.,
Senior Surgeon and Lecturer on Surgery at the London Hospital;
Examiner in Surgery at the University of Cambridge.

E. B., a woman, 30 years of age, was admitted into the London Hospital, under the care of my colleague Dr. Sansom, on February 12th, 1901, for subacute rheumatoid arthritis. She was married, had had four children, and one miscarriage. There was no history of syphilis or gonorrhoea. She herself had never had rheumatic fever, but there was a well-marked history of articular rheumatism, rheumatic fever, and heart disease in the family. Her own illness began ten years before in the left metatarso-phalangeal joint. Then it spread to the ankles; later on it attacked the fingers, and then the knees. On an average, there had been one attack each year, and the only real respite she had had was for nine months, four years ago, after a prolonged stay at Buxton. For the last three months she had been confined to bed, nearly every joint in her body being affected.

On admission it was noted that she was very much wasted,

and that hands, feet, elbows, and knees alike were swollen, painful, and contracted. There was no evidence of organic heart disease, arterio-sclerosis, or granular kidney.

Hot air baths relieved the pain, but did not otherwise benefit her. Massage effected a slight improvement. Weight extension was placed upon the legs, as the knees were contracted almost to a right angle; but after two months' trial the angle of flexion was scarcely lessened, and the hamstring-tendons at the back were as tense and rigid as they could be.

The case was transferred to my care on April 18th, and I determined to try the effect of transplanting the insertion of the tendon of the biceps from the flexor to the extensor side of the joint, in the hope that, by weakening one and strengthening the other, I might restore the balance of power, and get and keep the knees straight. It was recognized that the operation could do the complaint no good; but it was hoped that, at least, it would be able to allow the patient to stand upright, and walk, even if the knees were stiff.

Fig. 1.—Showing the patient after operation.

An incision was made on the outer side of each limb; the tendon detached from the fibula; the quadriceps exposed, and the tendon of the biceps passed through a slit made in it, so that it lay upon the anterior aspect. A few sutures were passed through the two tendons to secure them, the ordinary dressings applied, and then the knees secured in their contracted position until the wounds were healed. The same weight extension that had been used without the least effect before was applied again, and the knees began to straighten out at once. It was some time before the patient was able to stand owing to her general condition, but at the beginning of July she was sent down to Buxton, and now, eighteen months after the operation, there is no recurrence of the contraction. She is able to stand without support and walk about sufficiently to come to hospital and perform her ordinary household duties.

The operation is so simple and devoid of danger and has succeeded so well in the present case that it seems to me it might be performed with advantage in other cases of contraction of the knee-joint, whether arising from rheumatoid

arthritis or other causes, which persistently and obstinately relapse. I am not aware that it has been performed in any similar instance, but recently I have tried it in the case of a child suffering from chronic disease of the knee, in which the joint always has begun to bend again as soon as the splint was left off, but it is too early as yet to enable me to say that the success is permanent. A photograph of the patient taken eighteen months after the operation is appended. (See Fig. 1, p. 1582.)

CASE OF SARCOMA OF THE FEMUR, WITH DESCRIPTION OF A RECENT METHOD OF AMPUTATION AT THE HIP-JOINT.

By CORNELIUS A. GRIFFITHS, F.R.C.S.,
Assistant Surgeon, Cardiff Infirmary.

ON February 24th, 1903, there was admitted under my care at the Cardiff Infirmary a young girl, aged 16, suffering from an immense swelling of the right thigh.

History.—The patient, who had lived at home with her parents, stated that the trouble in the thigh dated back about six months, and the first thing noticed was pain resulting from no apparent cause (such as injury) on both sides of the right knee-joint. This was supposed to be due to rheumatism at first, and was treated as such. Soon, however, a swelling appeared in the lower end of the thigh, immediately above the knee-joint. The enlargement continued to increase steadily and rapidly. Sarcoma of the thigh was diagnosed, and the patient was sent to Cardiff.

State on Examination.—When admitted the patient was in a wretchedly emaciated condition. The right thigh in its lower two-thirds was occupied by an enormous swelling (Fig. 1). The skin was tense and shining, with many large veins apparent; there was no tenderness. The surface was uniformly smooth, and here and there were some rather soft patches where fluctuation could be obtained. There was no "egg-shell" crackling, and the limb, in spite of its great weight, could be held up from the bed by muscular action and moved freely, the continuity of the femur being still intact. The knee-joint was free, and contained no fluid in excess. A few slightly-enlarged glands could be felt along Poupart's ligament. Circumference of the thigh at its greatest part was 27 in., the opposite thigh being 9 in., and that of the waist was 20 in.

Diagnosis.—The diagnosis was that of a periosteal sarcoma of the femur, and the only treatment—amputation at the hip-joint—at first flatly refused; then, after a fortnight's delay, consented to, the intervening time being utilized in feeding up the patient and preparing her for one of the most severe operations in surgical practice.

Operation.—On March 6th the patient was anaesthetised, and a subcutaneous injection of strychnine (mv liq. strych.) administered before the operation was commenced. The vertical limb of a racquet-shaped incision was commenced about 2 in. above the great trochanter, and into this incision at its upper end was inserted the smooth blade of a pair of tourniquet forceps. This was pushed inwards parallel with Poupart's ligament for its whole length immediately in front of the hip-joint, and beneath the femoral vessels. The forceps were then closed. Thus clamping all the vessels in what would become the anterior flap, another pair of forceps was used, the deep blade this time passing behind the neck of the femur, thus controlling the circulation in the posterior flap; the oval part of the incision was now marked out, and the skin retracted a little way all around. The muscles attached to the great trochanter, and in front of the hip-joint, were next divided. The joint was opened from the front, and the limb quickly and easily disarticulated, and removed by a few strokes of the knife, the only spouting vessel seen at this stage being a tiny artery in the capsule

of the hip-joint; all the vessels which could be seen were now picked up and tied, and then the value of the forceps-tourniquet was demonstrated in the search for the smaller vessels, which were found by loosening the forceps and immediately closing them when a bleeding point showed the position of a vessel, thus reducing the loss of blood to a minimum. The operation was completed by closing the wound entirely by means of a series of buried sutures for the deep parts and the usual superficial skin sutures. Rectal injections of brandy and saline solution were given when the patient was put to bed, and subcutaneous injections of strychnine and digitalin.

Fig. 2.—Section of entire growth.

Progress.—The operation was borne well, but shock became more apparent on return to consciousness a few hours later, and in the evening was so great that Dr. Brownlee (house-surgeon) gave an intravenous injection of four pints of saline solution. This was followed by natural sleep, after which the patient rapidly improved, and left the infirmary on May 20th, having put on flesh at the rate of 1 lb. a week after operation.

Pathological Examination.—Fig. 2 shows a section of the entire growth; it will be seen to grow from the periosteum, the intact femur running down the centre; spicules of bone can be seen radiating between femur and surface, and cavities which contained blood and a glairy fluid. The separation of the epiphysis—well shown—occurred after removal. Microscopically the growth was found to be a small round and spindle-celled sarcoma.

For the immediate success of a severe operation, such as amputation at the hip-joint, it is essential that loss of blood should be reduced to a

Fig. 1.—Tumour before operation.