If it be true that flat-foot is "seldom due to anything else than rickets," it follows that (subject to exceptions seldom occurring) the vast number of young persons who acquire this deformity have become, or previously were, the subject of rachitic disease. These range from trained nurses to machine-tenders; and it is most desirable that we should know how to demonstrate that the disease is certainly present. "Beading of the ribs" will surely not be always found. Professor Ogston has, it seems, some means of telling, in the case of children, that the rachitic tendency is "certainly absent." Will he tell us how to determine how it is *certainly present*?

I will cite four cases of flat-foot in which I saw no suspicion of rickets, and which are not total, nor even "nearly total failures," and which show that gymnastic exercises are not only available for the "wealthy and leisured classes." Miss H., a mother's help in a farm house, had, two years ago, double flat-foot badly. It was just such a case as I should expect to see osteotomised. The family attendant, she told me, could promise no relief unless she could go to bed for three months. She never left her work for a day. She got well, and only left her situation to get married. The only treatment she had was tiptoe and other exercises and dry friction. Proper ordinary boots and stockings were necessary; I attach almost as much importance to the latter as to the former. These and four consultations with me were all the expenses she incurred.

My first case, now of seventeen years' date, has been published; it was that of a farrier's apprentice, an extremely bad case, who became a farrier in the 2nd Life Guards, and who playfully reproaches me with having led him into frivolity, for he had become celebrated in the regiment as a dancer, and was too fond of it.² My last case is that of a young farmer, Mr. C., who, determined to keep going, had worked during summer and autumn on the hay and corn ricks, standing without boots. This gave some relief to pain, still manifest to those around. His feet, when I saw them, on October 13th, were quite flat. Put on the same course as Miss H., he had immediate relief, so he told me on walking briskly into my room a fortnight after; and subsequent report—I have not seen him—is still most favourable. I have no doubt of his perfect recovery. But Professor Ogston speaks of "the many writers who have deceived themselves regarding their cures for flat-foot." He tells of cases where the deformity remains "as glaring as ever to the eye." Is it necessary to point out that the actual deformity may be removed, but a visible deformity remain? Master S. E., aged 14, illustrates this. He is a school boy, and was partially debarred from games by bad double flat-foot. When I first saw them, three months ago, one of his troubles was irritation on the skin above the middle joint of the great toe. He could not press it flat on the ground; it would flex, and so the angle formed was irritated by the boot. The abductor, adductor, and flexor brevis pollicis had all been crushed and paralysed, and so the long flexor pollicis acted as it does when pulled in an amputated foot. Now they are restored, and the great toe lies flat, but their fleshy masses fill up the hollow of the sole. The deformity is as "glaring as ever to the eye." But the boy is functionally cured for all that; he has arch enough to protect his sole muscles, which is the object of its existence. He will continue to improve, but, even if he remained as he is—he can do anything that school boys do—I say it is better far to do so than to have undergone Professor Ogston's operation, even if it gave "such beautiful arches" as to suggest photography. "Three months in the plaster before ankylosis is complete and the patient can walk" might well be the "worst feature in the cure;" but it is not. Cutting off cartilage and producing ankylosis, call it by what name you will, is a severe mutilation. For flat-foot I say—and, *pace* Professor Ogston, my experience justifies me in saying it—such mutilation is not necessary and is not justifiable. The charitable public may supply the hospital accommodation, and surgical skill may ensure the healing of wounds, but even these are mitigated blessings if they tend to divert attention from physiological processes. It is by restoration of function that flat-foot should be, and may be, cured in a manner satisfactory and permanent, safe and inexpensive.

Unlike flat-foot, curvature of the spine is not yet available for the correcting chisel. No one yet treats it as an engineer does a leaning chimney stack, by cutting out a bit on the convex side. And so we have an eminent surgeon expressing his belief that "never yet was a case of scoliosis cured." This is indeed remarkable, for "the tendency of the diseases on which it depends is almost invariably to a cure." Still it seems too much to admit

that a bone once deformed can be re-formed without operation. I should have thought that a surgeon who recognises that the form of bones depends on muscular action would at least admit the possibility of this agent rectifying a spine, whether affected by rickets or not. Whether of spine or of plantar arch, I cannot believe that the muscular action which forms is impotent to modify. It is to a firm belief in the principle which Professor Ogston now propounds, as distinguished from the practice he describes, that I personally owe more than fourteen years of activity and comfort after six of painful lameness.³ Increased experience has more and more convinced me that, from a surgical point of view, this principle is of the highest importance, not only in the surgical treatment of rickets, but in deformities generally.

Since this paper was sent, a quotation, by Sir S. Wells, from John Hunter has appeared in the JOURNAL (December 8th) thus: "for what I call a cure is an alteration of the disposition and the effect of that disposition, and not the destruction of the cancerous parts." For "cancerous" read "deformed," and this I claim for flat-foot cured by restoring function. It cannot be claimed for that which involves the "destruction" of an important joint.

ON A NEW TREATMENT FOR THE CURE OF PERINEAL URINARY FISTULA.

By W. THOMSON, M.A., F.R.C.S.I.

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EVERY hospital surgeon has now and then to deal with cases of urinary fistula which exercise all his ingenuity and his patience, and which in the end he has to abandon in despair. They occur in a class of patients who are not very mindful of the inconvenience of the initial stages, and the history we usually get is that the condition has existed for many years, often aggravated by a life of privation or debauchery. If treatment has been begun and carried to a certain point, say the full dilatation of a stricture, the patient is sent out, he fails to continue the use of a bougie, the stricture recontracts, and the old mischief is perpetuated.

Last year I operated upon a case in private, where the fistulae had existed for six years. I laid open the burrowing tracks, scraped or snipped away the walls, laid open the urethra in the perineum, drained for some days, used the catheter steadily for many weeks to draw off all urine, and failed to cure. Soon afterwards a case came under my care in hospital. The patient had been operated on elsewhere for stricture, and an opening had been made in the perineum. This did not heal, and two attempts which were made to close it had a like result. When I saw the man he had a stricture which admitted a No. 7 catheter, and in the perineum an opening about an inch and a quarter in length. The urine was loaded with pus, he was obliged to pass water very frequently day and night, and he suffered at times intense pain. No tube casts could be detected. I determined to make an effort to close the wound in the perineum, and I accordingly freely divided the strictured portion of the urethra, scraped and pared the walls of the wound, and then brought them together with deep sutures. A catheter was tied in, and for some time afterwards the bladder was emptied by this means. At first all went well, and I hoped that the wound had healed, but in a fortnight it broke down again, and the gap was almost as extensive as before. It is unnecessary to mention the treatment which immediately succeeded this period. For a time the bladder was less sensitive, but later cystitis occurred in an intense form. As nothing I tried served to remedy this complication, I determined to give the bladder rest by suprapubic drainage. I believed at this time that the patient had a suppurating kidney, but he had borne previous operations so well, and he was in such a wretched state, that I did not hesitate to undertake this proceeding. Accordingly I performed suprapubic cystotomy. The bladder was so small that it did not rise well. The thickened wall was also disconcerting, and I passed a sound into the bladder and cut down upon its point. The edges of the incised bladder were then stitched to the integument, and a soft rubber catheter was introduced, with a tube passing to a vessel on the floor. My intention in fixing the bladder to the skin was to establish, at least for a considerable

² *Lancet*, February 9th, 1884, and September 25th, 1886.

³ *JOURNAL*, June 30th, 1888.

time, a suprapubic fistula. I believed that by thus diverting the urine I should not only succeed in abating the cystitis, but that the burrowed condition of the perineum would improve, and that probably the large opening there which had resulted from the original operation would tend to close. If it did not altogether close I determined again to vivify the edges, and to apply deep sutures. The immediate effect of the operation was very satisfactory. The cystitis and pain disappeared. The pus still continued to flow in great quantities, but the general constitutional disturbance which preceded the operation entirely subsided. The patient had quiet nights, and he put up flesh. I watched the perineal wound with great interest, and it was gratifying to observe that it gradually contracted, and finally became as small as a pinhole. During four weeks a catheter was almost permanently retained through the suprapubic opening; but the patient, who was of a very irascible disposition, removed it on some occasions without leave, and allowed the urine to escape as it might. The catheter was passed two or three times a day, but as this irritated him very much, he finally begged that it might not be used any more. At this time the perineal fistula was about the size of a pinhole, and when the patient desired to pass water, he was able to keep the part dry by simply applying his finger to the opening. The suprapubic fistula slowly contracted, and finally closed altogether.

The condition of the patient at the end of three months was that his perineal fistula had been reduced to the size of a pinhole; that the suprapubic fistula was slowly closing; that his pain had become tolerable; that the urgency to micturate was diminished, so that he could retain urine for three hours.

This was so far satisfactory; but he now began to complain of abdominal pains, with irritability of stomach, and an examination showed that some enlargement of the liver existed. This gradually increased, and finally the patient died of exhaustion. The liver was enormously enlarged and lardaceous, and the left kidney was riddled with abscesses. The opening in the bladder had completely closed, and the perineal fistula, and the tracks leading to it, were almost obliterated.

Suprapubic cystotomy, for the purpose of "retrograde catheterisation," was performed by Sédillot; and Sir H. Thompson has practised suprapubic puncture in cases of irritability dependent upon enlarged prostate. I am not, however, aware that the operation which I have here briefly sketched has been deliberately done for the cure of obstinate perineal fistula. The effect in such an unpromising case as the one I refer to was certainly such as to justify a fair trial in other cases. The patient was very unmanageable, and he insisted upon having the india-rubber catheter withdrawn before perfect closure had taken place in the perineum. Yet the union, so far as it went, was firm; it showed no tendency to break down; the bladder-irritability was greatly reduced, the pain was almost removed, and the bladder could retain urine for several hours.

In a case of long-standing fistula, with considerable riddling of the perineal strictures, I would recommend, in the first place, thorough slitting and scraping or clipping out of all the fistulous tracts; the retention of a catheter through the perineum for several days, so as to prevent the passage of urine along the old paths; and then the opening of the bladder above the pubes by a small incision, so as to divert the urine in that direction. The suprapubic opening should be maintained until there is firm closure of all perineal fistulae. There need be no fear of the superior opening into the bladder remaining permanent, once we are in a position to permit urination by the urethra. The tendency of such tracts is to become obliterated when they are kept at rest and are relieved from the passage of urine through them. If, however, the closing should be delayed, the edges could be pared and the lips be brought together with a pin or two and a twisted suture. I hope that the procedure suggested in the foregoing paper will receive a fair trial, because I believe that in this way we may cure cases which we now regard as hopeless, and rescue many persons from a condition of misery.

ITALIAN HOSPITAL.—At the recent annual meeting of this charity it was stated that the present premises were no longer adequate, and steps were being taken to build an additional ward at a cost of £500.

BRIGHTON THROAT DISPENSARY.—Two wards for the reception of in-patients will be opened in March next at the Brighton, Hove, and Sussex Throat and Ear Dispensary.

REMARKS ON COLOTOMY.

By W. C. ARNISON, M.D.,

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THE readers of the JOURNAL will remember a paper by Mr. H. W. Allingham, in October, 1887, advocating inguinal or anterior colotomy, as being, in most instances, preferable to lumbar colotomy, and proposing an important modification of the old operation, namely, bringing the whole calibre of the bowel through the wound, and fixing it by means of sutures passed into the meso-colon, in such a manner that the deep part of the bowel, with the meso-colon, formed a projecting spur which effectually prevented faeces passing down the rectum, and secured their discharge entirely through the artificial anus.

At the time this paper appeared I had a patient under my care in the infirmary with malignant disease of the rectum, on whom I intended performing the operation of lumbar colotomy; but, after reading the paper, it appeared to me just the case for the new operation. There were no urgent symptoms, the finger could be passed through the constricted part, and I was waiting a convenient time to perform the first part of the operation, that of fixing the gut to the abdominal wall, when suddenly symptoms of acute obstruction set in, and rendered immediate operation necessary. In the concluding paragraph of his paper Mr. Allingham says: "In those cases in which the patient has been left too long, namely, when the abdomen is tremendously distended, necessitating immediate opening of the intestine, I certainly consider the lumbar operation the safer." My case was clearly one in which immediate opening of the intestine was necessary; and, bearing in mind Mr. Allingham's dictum, I had resolved upon lumbar colotomy, but in consultation with my colleagues—Messrs. Page and Dodd—considerable doubt was felt as to the obstruction being really caused by the disease in the rectum, for the finger could still be passed through the constriction; it was, therefore, deemed advisable to open the belly in the linea alba, so as to examine the whole length of the bowel, and let the result be the guide to further proceedings in the operation. This was done; the bowel was found distended down to the sigmoid flexure, showing that the obstruction was due to the cancer in the rectum. The colon was then caught about the junction of transverse and descending colon; and, having a good meso-colon, it was readily drawn out at the opening, and fixed in the manner described by Mr. Allingham; skin and parietal peritoneum were sutured together, and then visceral and parietal peritoneum carefully sutured together, both at the meso-colon and at the covering of the bowel at the upper and lower part of the wound. The patient was then turned on his side, and the gut freely opened under an antiseptic stream, which quickly washed away the faeces as they poured out of the bowel; pressure was applied and irrigation employed to empty the bowel more thoroughly. The wound was then well packed with tenax, and the patient removed to bed.

Recovery took place without interruption or drawback; the patient was restored to comfort and freedom from pain; he gained flesh and strength, and in a few weeks left the hospital able to attend to himself as regards cleanliness, with full power of expulsion, and considerable control over the faeces. He returned as an out-patient from time to time, but, in about six months after the operation, died from extension of the cancer in the rectum.

Of the seven cases of anterior colotomy (I do not use the term inguinal) which have now been performed in this hospital, this, the first case, seems to be the only one calling for any detailed statement, for it was not an inguinal colotomy, it was done under urgency, and the bowel was immediately opened.

Of the seven cases, two were under myself, two under Dr. Hume, two under Mr. Page, and one under Mr. Dodd. All were for cancer in the rectum; all excepting the first were done in two stages, first fixing the bowel in the wound, and after a few days opening it, and all were successful, the patient recovering from the operation, and the object of it being fully attained. In my first case I followed Mr. Allingham's plan of first suturing skin and parietal peritoneum together. At the time it seemed to me to make the operation more difficult and complicated, and I did not do it in my second operation. My colleagues have not done it at all. After drawing the bowel well out of the wound, we pass the needle through the peritoneum covering the meso-colon, then through the abdominal wall, taking care to include the parietal peritoneum, and tie in such a way as to fix the parietal and visceral peritoneal surfaces in contact. This is done on both sides