to show herself. The uterus had never come down since leaving the hospital, and the cervix was at least two inches up the vagina. Here again this result depended upon shortening one ligament only.

The fourth patient has had both ligaments shortened, an interval of three weeks intervening between the operations, the ligaments being stitched to the pillars of the ring as well as to the skin. She was undoubtedly the healthiest of those operated upon, and the wounds healed as, I take it, they ought to do, *i.e.*, in about three weeks. The result thus far promises well, for the uterus is well up the vagina; but, seeing that the ligaments were shortened on May 18th and June 11th only, it is too early to judge of the probable permanent result.

Such is a brief report of my experience of this simple operation, in the Cumberland Infirmary, and I trust that no surgeon will be deterred from practising it by reading the account of my two failures to find the ligament sought for. The operation is almost bloodless and painless; and I am not at all sure that a slow healing of the wounds, provided the ligament remains in the new position, is not advantageous—inasmuch as the patient is confined to bed and to rest, thereby affording sufficient time for the parts to consolidate before again being put on the stretch.

In one of my cases, ether was used, and some bronchitis followed. I certainly never expected that the result would have been a success, for coughing was about the last thing wished for.

The plan I have followed is to wind the ligament, when pulled out, round a piece of stick, and leave it like a pedicle projecting through the wound, to fall off naturally; so that a sort of stump can be seen in the cicatrising part, that is, if healing be primary. I unwound the ligament from the sticks in two instances. I found the band measured two and three inches respectively. In all cases, full antiseptic precautions were taken, and the subsequent dressing was Listerian until suppuration appeared. I do not think, however, that anything more than strict cleanliness and careful adjustment of the wound is necessary, together with sponge-pressure and a gauze bandage; whilst the sooner the ligament is found, the less handling will the tissues be subjected to, and the less disturbed will they be in consequence. Careful stitching of the ligament, both deeply and superficially, is no doubt most important for the lasting success of the operation; and Dr. Alexander's recommendations, as to the "method of retaining the ligaments in their new position," should be strictly adhered to. (*Liverpool Med. Chir. Journal*, p. 116, January 1883.)

In the last case operated upon, a sponge was placed in the vagina, and changed daily; it was retained without causing any discomfort, and was probably useful in steadying the uterus whilst healing went on; and I can imagine that, in cases where chloroform caused sickness, or ether setup bronchial irritation, such a practice might prove beneficial.

I note that Dr. Adams, in his paper already alluded to, mentions that the peritoneum does not follow the ligament "under the necessary traction;" but, in one of my operations, this membrane certainly did follow the ligament, but was easily stripped back with a finger; there would, however, be a risk of peritonitis were a funnel-like process of this membrane dragged along and transfixed with the needle. The surgeon will soon learn to pull with knowledge; for any violence would probably lead to rupture of the ligament, as well as injury to the peritoneum.

The spine of the pubic bone is undoubtedly the point to be aimed at, for near it will the ligament be found; and I fully endorse all that has been laid down by Dr. Alexander, as to grasping the fat which projects from the external ring with forceps, and pulling upon it until the ligament appears.

Finally, I am disposed to believe that this operation will receive all the recognition from surgeons that it deserves; and that, ere long, we shall hear of its performance, not only in this country, but elsewhere.

POSTSCRIPT.—On July 27th, I shortened the round ligament on the left side of the patient on whom I first tried this operation and failed to find the ligament. On this occasion it was found without difficulty, and drawn out about two inches.

WATER FROM THE CHALK FOR LONDON.—Though it is generally believed there is some connection between stone in the bladder and chalky water, the connection has never been satisfactorily explained. The Leatherhead and District Waterworks Company have sunk an artesian well, which yields, it is said, three million gallons "of pure and brilliant chalk-water of the finest quality" daily. This water is to be collected in a reservoir on the chalk hills, about 300 feet above the level of the Thames at London Bridge. It is suggested that this supply may eventually be of use for London. Should this suggestion be carried out, it will be an interesting pathological experiment on a gigantic scale.

CASE OF ORBITAL ABSCESS COMMUNICATING WITH THE BRAIN.

Read in the Section of Ophthalmology.

By A. EMRYS-JONES, M.D.,

Surgeon to the Manchester Royal Eye Hospital.

A. D., a boy aged 2 years, first came under my care at the Eye Hospital on December 23rd, 1882, when his father gave the following history. Three months previously, he was playing with a tin-whistle, and he knocked it against the corner of the right eye; there was a good deal of bleeding at the time, and, although he had been under medical treatment since, he was not getting any better.

On examination, I found the right upper eyelid everted, with its mucous surface raw, and exhibiting numerous cicatrices, and discharging a considerable amount of muco-purulent matter. From the swollen and distorted condition of the eyelid, the cornea was almost hidden from view, but it was intact, and no other morbid appearances were noted at the time. Under a roller-bandage and pads, and occasional application of nitrate of silver solution (ten grains to the ounce of water), the discharge lessened, and he was allowed to leave the hospital on January 6th, 1883, with the eyelid much less swollen, and so less everted.

On February 3rd, 1883, he was readmitted. His aunt informed me he had frequently vomited his food since he was last seen; the right eyelid was still everted, and the eye was noticed to protrude in a downward direction. Having put him under chloroform, I cautiously proceeded to make an exploratory puncture with a grooved needle, which I pushed about an inch and a quarter upwards, in the direction of the tumour; the result was negative; but, while doing this, I noticed, for the first time, a distinct pulsation, and consequently desisted from further attempt.

On March 2nd, 1883, he was again anaesthetised, and carefully examined; my colleague Dr. Little kindly assisted in the examination, and all we could discover was a pulsating elastic tumour, possibly of an aneurysmal nature, pressing the eye downwards.

On May 21st, 1883, I received a telegram notifying the death of the child, from my friend Dr. Gray, of Dalton-on-Furness, who had attended the boy, and to whom I am indebted for the history of the patient's final illness, as well as for assistance in making the *post mortem* examination. A fortnight before his death, the boy had been quite comatose, moving his right arm up and down continually for the last few days, and quite paralysed on his left side. The last two days, the eye was pushed forwards and downwards to a much greater extent, and there was violent pulsation. Dr. Gray noticed some hypopyon, which, however, again disappeared, and this was accounted for by the presence of a corneal perforation. The temperature had never risen above 99°, and the eye receded immediately after death. It may be mentioned here that no ophthalmoscopic changes could be detected at any time.

On *post mortem* examination of the orbit and cranial cavity, I found the following appearances. Just above and behind the eyeball, and attached to it by numerous bands of organised fibrine, there was a pouch-like sac, with a very dense laminated wall, which freely communicated with the cranial cavity through a circular foramen in the orbital plate of the frontal bone, of about an inch in diameter; the margins of this opening of the sac were firmly adherent all round to the sharp edges of the said foramen. The sac was filled with pus, and, on examination of the cranial cavity, we found that the abscess had extended backwards into the brain, which contained fully a pint of pus in a cyst-like cavity in its anterior lobe.

REMARKS.—The case appeared interesting from the difficulty of the diagnosis. While the history of the injury pointed to an abscess, the failure of the exploratory puncture, the presence of pulsation, although unaccompanied by a distinct *bruit*, and the absence of fluctuation, led us to consider the tumour to be an aneurysmal one. I have no doubt now that the tin-whistle entered the orbit, and wounded the periosteum, and that this was followed by periostitis, ending in suppuration. The process must have been slow, to judge from the highly organised and laminated structure of the cyst-wall; and the absorption of the circular piece of the orbital plate must have occurred at an early period. This once accomplished, it is easy to understand the further growth of the abscess and the origin of the pulsation.

CARDIFF MEDICAL SOCIETY.—At the annual meeting of the Cardiff Medical Society, the following office-bearers were appointed:—*President*: C. T. Vachell, M.D.; *Vice-President*: C. E. Hardyman; *Committee*: D. Edgar Jones, A. P. Fiddian, M.B., Herbert Vacher, M.D., Albert Plaen, M.B.; *Hon. Secretary and Treasurer*, T. Garrett Horder.