Further Development.

Next day, however, she complained of pain on passing water, and also of frequency of micturition—this occurring about every twenty minutes. In consequence, I put her on a mixture containing potass. bicarb., urotropine, tinct. belladonna, syr. limonis and chloroform, which did not improve her condition, except that the pains diminished somewhat.

On November 15th she got up at 2 a.m. to pass her water, and found that she was unable to do so, though she had a pressing desire. She continued to strain for twenty minutes, then had intense pain, and finally passed a fair quantity of water, together with a good deal of blood, and a mass which was seemingly rolled up, and in circumference about the size of a thumb.

On examining this mass I found it to be gritty, and, on closer investigation, came to the conclusion that it was the mucous membrane of the bladder in which were embedded numberless calculi of small size. I sent the specimen to be examined microscopically, and received the following report:

The specimen was a sloughy-looking thick membrane, with irregular corrugated surface, roughly triangular in shape, measuring $3\frac{1}{2}$ in. across and 3 in. in the other direction.

The whole was permeated by concretions of varying size, and composed chiefly of phosphates and urates.

The reaction to litmus was strongly alkaline.

The specimen had to be decalcified in order to obtain a section.

Microscopically it is seen to be composed of very necrotic tissue—so necrotic, in fact, that no cell elements can be recognized.

The membrane appears, however, to be composed of two layers, one of which was probably muscular.

Scattered throughout are small spaces which look at first like tubular glands from which the epithelium has been shed, but on closer inspection it seems more probable that they are merely spaces occupied by crystals of salts which have been dissolved out in the process of decalcification.

There is no histological indication as to the origin of this cast, but in view of the nature of the mineral deposits, the configuration of the specimen (bladder), and the history of the case, there can be little doubt that it comes from the bladder.

The report on the urine was as follows:

Reaction, acid; specific gravity, 1015; albumen, a fair amount; blood, a small amount; sugar, absent.

Microscopy of centrifugalized deposit:

This contains a small amount of pus and blood, with some young vesical cells and granulation cells.

No renal elements have been found.

Bacteria are not very numerous, and are mixed, but consist mainly of Gram-staining bacilli of two kinds, and unusual in the bladder.

There are also some staphylococci of large size.

The *B. coli communis* is not present.

I venture to publish this case owing to two unusual features about it: first, that a dilatation of the cervix sufficient to allow of the index finger being introduced into the uterus was not followed by a miscarriage; and secondly, the circumstance of a passage of a cast of the bladder studded with calculi.

I have been unable to find any literature bearing upon the latter fact, and should be glad if any readers could supply a reason for its occurrence.

I have had the specimen mounted, and shall be very pleased to show it to any one who desires to see it.

I may add that the patient made a good recovery, with the exception that for a little time she experienced inability to hold her water.

UNDER the will of the late Mr. James Law Perrin, a tobacco manufacturer of Bristol, the Royal Ear Hospital, Soho, and the General Hospital, the Royal Infirmary, the Hospital for Women, the Eye Hospital, and the Dispensary in Bristol, as also the Swansea Hospital, each receives a bequest of £500.

THE receipts for 1911 of the Metropolitan Hospital Saturday Fund exceeded by £2,371 the amount collected in any previous year, reaching a total of £37,065. This sum does not include the amounts received by the Distribution and Surgical Appliance Committees in respect of payments made towards the cost of the benefits supplied. These amounted to £8,456, so that the total for the year was £45,521, as against £42,229 in 1910. The number of benefits granted rose correspondingly, reaching 63,361, as compared with 59,737 in the preceding twelve months.

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THE CORRECTION OF ERRORS OF REFRACTION FOR MICROSCOPE WORK.

BY

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THE eyestrain which not infrequently results from prolonged use of the microscope, especially when working with high powers and artificial light, is often so great as to cause considerable discomfort and headache, and may even lead to the abandonment of microscope work, except for brief examinations. In many cases this trouble is caused by errors of refraction, more particularly by some degree of astigmatism. If this astigmatism is considerable, the microscopist is practically certain, in these days, to be aware of it, and to possess glasses which correct his particular error, but if it is small it may never be detected until advancing years lead him to consult an oculist as to his first pair of presbyopic glasses. In either case, when he attempts to work at his microscope with spectacles or pince-nez *in situ*, he is certain to find them so uncomfortable and inconvenient that, sooner or later, he discards them, and trusts once more to his unaided vision and his powers of accommodation, with the frequent result that continuous work becomes increasingly difficult and the effects of eyestrain more conspicuous.

The small device here illustrated has been designed with a view to correcting the error of refraction without employing spectacles. It is so obvious and simple that it is

very probable that something similar may have been described and used long ere this, but, since the writer has been unable to discover that this is the case, it appears worth while, for the sake of others similarly situated, to describe the ocular cap which he has had made for his own use. The increased definition which has resulted from the use of this cap is unmistakable, and there has also been a

marked lessening of the feeling of strain which used to result from long hours of high-power work.

No lengthy description is needed, the principle being merely that the lens necessary to correct the error of refraction of the eye commonly used is fitted accurately into the centre of an aluminium carrier, so constructed as to form a cap which may be placed over the microscope ocular. In the case of a lens with cylindrical correction for astigmatic error the vertical meridian is permanently marked on the carrier by means of an arrow, as shown in the illustration. As most workers employ oculars of the same maker, the external diameter of which is approximately the same, the cap may be made to fit them all by arranging to have the internal diameter adjusted to fit the largest ocular used.

The photograph has been taken from the cap made to the writer's design by Messrs. Cary and Co., 7, Pall Mall.

Memoranda: MEDICAL, SURGICAL, OBSTETRICAL.

TORTICOLLIS IN ACUTE RHEUMATISM.

R. T., aged 12, was admitted under my care on December 14th, 1911, with acute rheumatism. He had been ill five weeks, and the joint trouble, which began in the left ankle, had spread to the knees, shoulders and elbows. A month before admission his neck became twisted and remained so; when we saw him his head was bent towards the right shoulder, the chin being pointed to the left. He cried with pain when attempts were made to straighten it. In addition there was endocarditis with a double aortic murmur, but the boy had never been ill before in his life. I ordered him to lie flat on the bed without any pillows; his neck was