

round the foot, the other is fixed immediately above the knee-joint, the rings in each case being to the outside; passing between them are one or two india-rubber muscles which are hooked into the rings. If the child is fat, and the thigh piece seems inclined to slip, this may be remedied by attaching to its upper and outer side a narrow strap of leather, which is fastened above to the stays. By means of this apparatus the child is able to use all his muscles, and the weakened peronei are assisted in their action by the india-rubber muscles which are applied sufficiently tight to evert the foot. When the child is able to walk, the foot piece rings are sewed on the outer side of a lacing boot, and the artificial muscles continue to assist the child in progression.

DIABETES INSIPIDUS, WITH GREAT ENLARGEMENT OF THE BLADDER: IMPROVEMENT UNDER TREATMENT.

By JAMES FINLAYSON, M.D.,

Physician and Lecturer on Clinical Medicine in the Western Infirmary,
Glasgow.

A LAD, 16 years of age, was admitted into the Western Infirmary on 16th June, 1879, affected with diabetes insipidus. The illness seems to have come on somewhat suddenly when he was 8 years of age. At that time he had had measles, of which one of the family died then; the attack seems to have been very slight, but at its termination he was seized with a violent fit of vomiting, and about six or eight days thereafter his mother noticed that he began to wet the bed at night, and that he was drinking a large quantity of water. The wetting of the bed continued up till about a year before admission; since then he had been better in this respect and also stronger generally. He had been of late working in a foundry as a moulder, but he looked very pale and thin. There was nothing very notable in the family history; the father had died of "inflammation of the lungs," and one of the brothers had been threatened with "decline," but had recovered; his mother and several brothers and sisters were living, and others had died of infectious diseases.

On examination, a tumour was found in the lower part of the abdomen, extending an inch above the umbilicus; it trans-

mitted a distinct wave on striking it, and it was dull to percussion, but the dulness did not extend into the flanks; it became greatly reduced in size on getting him to pass water, and it was clearly a distended bladder. It must be stated, however, that it was in no way painful even on free handling; the patient had no difficulty in at once passing water when asked to do so, and as already noted, the incontinence of urine, although formerly troublesome, had now passed away.

But although there was no obvious paralysis of the bladder, revealing itself either by retention or incontinence, it could not be said that the organ was simply enlarged and otherwise natural. No doubt its capacity for practical purposes was greatly increased, and this was evidently a considerable convenience to the lad, as he had not to go so often to pass water either during the night or day as he would otherwise have required to do.

This will be best illustrated by giving the quantities passed on a given day; several such measurements were made, and this is a fair sample. The quantities of water consumed amounted at this time to between 400 and 500 oz. in the twenty-four hours; this of course was exclusive of all fluids in his food.

URINE PASSED.

29th June,	2.30 A.M.,	48 oz.	29th June,	7.0 P.M.,	50 oz.
„	5.0 A.M.,	42 „	„	8.30 P.M.,	48 „
„	9.0 A.M.,	48 „	„	10.30 P.M.,	38 „
„	11.0 A.M.,	50 „			—
„	2.10 P.M.,	55 „			414 oz.
„	6.0 P.M.,	35 „			

But although these figures indicate a decided increase in the capacity of the bladder, it seemed on further tests that the urine was by no means fully expelled during an act of micturition; and this remark applied not merely to a casual passing of water, but even to those occasions when he was asked to take plenty of time and to pass as much as he could. This was shown by finding that the dulness on percussion still persisted very markedly above the pubes, although of course greatly diminished in its extent; and further, by ascertaining that the patient could, within a few minutes of his first act of micturition, pass a very considerable quantity more; and that after a further interval a third quantity could be obtained. It seemed as if the enlarged bladder, with its hypertrophied muscular coat, required periods of rest to contract thoroughly on its contents; and the analogous phenomena in the uterus during labour, and also of a distended rectum expelling large

faecal masses, at once suggested themselves. This was tested and demonstrated frequently. On 1st October it is noted:—

URINE PASSED.

The bladder being full and distended he passed at one act,	40 oz.
The dull percussion diminished; after verifying this, he tried again, say after five minutes or less, and passed at once,	12 oz.
After other three minutes, he passed without difficulty,	6 oz.
	—
	58 oz.

Another trial, made on the day of his dismissal, is noted as follows:—

URINE PASSED.

First micturition; giving him plenty of time, and even insisting on his trying further, when disposed to stop towards the end of the act,	50 oz.
Dulness on percussion found about two inches above pubes; patient requested to try again, after an interval of say two or three minutes,	8 oz.
After a further interval of two or three minutes,	5 oz.
After a further interval of three minutes,	2 oz.
	—
	65 oz.

The explanation of this curious condition is to be sought in the occurrence of the disease in childhood; the great secretion of urine seems to have led to a distention of the bladder and an overflow or unconscious discharge of the urine during the night when the child could not be expected to attend to the calls. But this only occurring during the night does not seem to have led to a serious paralysis of the bladder, and with the growth of the boy the organ became developed somewhat in proportion to the demands made upon its capacity.

The treatment adopted in this case was by means of large doses of valerian, as recommended by various authorities. There is some difficulty in obtaining a really efficient preparation suitable for administration in large doses. After a few trials of moderate quantities of the tincture, the aqueous extract was begun on 4th July, in half drachm doses thrice a day; this was increased on 8th July to 40 grain doses; on 11th July to one drachm; on 16th July to a drachm and a half; and on 29th July two drachms thrice a day were given. The extract was liquified with water, and the patient did not make

the slightest objection to take it; in fact he seemed if anything to like it.

The lad was placed on ordinary diet, and no restriction was put on the quantity of water consumed. His mother said that if the amount of water were curtailed at any time he suffered from headache and sickness.

In addition to the above treatment, the use of the continuous galvanic current was tried, passed from the spine to the region of the kidneys for five minutes. This was begun on 1st July, and continued at first daily, and subsequently every second day.

On 31st July cod liver oil was begun, and some purgative pills had to be used occasionally.

A few trials of the subcutaneous injection of pilocarpine were made in the beginning of October; salivation was produced, but no very notable diminution of the urine occurred, and as it gave rise to disturbance of the stomach and loss of appetite, it was not continued.

The result of the treatment, as a whole, was distinctly favourable. No doubt, part of the improvement might be due to better food, as the people seemed very poor, and to rest from work, for which the patient was obviously unfit; but the impression conveyed to those who watched the case was that the remedies were entitled to the most credit; and, in particular, it appeared that the improvement was greatest after the large doses of valerian were fairly reached. The thirst became less, and the frequency of passing urine diminished, so that he had only to get up twice during the night as a rule; he likewise began to put on flesh, to gain strength, and to improve in appearance.

Three months before admission he had weighed	6 st.	6 lbs.
On 17th June, the day after admission,	. 6	„ 1½ „
On 31st October, the day of dismissal,	. 7	„

The amount of urine passed likewise underwent a gradual, but notable diminution.

During the month of July the daily amount ranged from about 480 to 300 oz.
During the month of August,	„ 340 to 210 „
During the month of September,	„ 300 to 255 „
During the month of October,	„ 257 to 250 „

The specific gravity of the urine varied from 1002 to 1004. It never contained albumen or sugar; the secretion was neutral or slightly acid.

He was sent to the Lenzie Convalescent Home for a week

or two, and has been able to work ever since, at first as a moulder, latterly as a rivetter, except during a short period he was laid up with a burn on the foot. When seen on 15th October, 1880, the lad said he weighed 7 stones 3 lbs. He still feels very thirsty, but the degree of thirst is variable; he passes much water, but of course cannot give the quantity. The condition of the bladder remains exactly the same as already described, with regard to its size and the process of emptying it; and the character of the urine is unchanged; but to judge from his appearance he seems to be about as well as when he left the hospital a year ago.

SHORT NOTES ON A RARE OBSTETRIC CASE, WITH SPECIMEN OF ACEPHALOUS FŒTUS.

BY W. SINCLAIR THOMSON, M.D., F.R.C.S.E.,
Consulting Surgeon, Peterboro' Infirmary, &c.

(*Read before the Hunts Medico-Chirurgical Society, October, 1880.*)

MR. PRESIDENT AND GENTLEMEN,—The following is a brief report of a case which occurred in my practice during the past year, which appears to me worthy of being recorded as illustrative of singular defective development, which both complicated diagnosis and delivery. The following are the particulars, copied by me from the Register, as entered by my assistant at that time.

“E. J., married, æt. 43, ninth confinement. Patient states that she has always been delicate, even before marriage; and, indeed, her features portray this. On the 7th November, 1879, I was sent for to attend her at 11.30 A.M. She states that she had a good time with her first child, which, however, was born dead at full time, as also was the case with the eighth child. Her next three children were delivered alive by the aid of instruments, and were considered large, and with normally proportioned heads. The fifth and sixth children were delivered naturally at full time, and alive, the last before medical aid arrived. Her seventh child was delivered by turning, why, she cannot say.

“When I arrived I found the patient suffering from severe false pains, the os soft and yielding, though there was no dililation. The abdomen appeared large, and there was much