

dealing more freely with cases which involve interference with the peritoneum. The brilliant results obtained by Mr. Banks of Liverpool, and Mr. Spanton of Hanley, in dealing with inguinal herniæ, led me to undertake the operation just described, and Mr. Spencer of York has performed a similar operation with like success.

Of course the number of cases in which one would operate would be limited to those in which mechanical support had failed to give relief.

Leeds.

## COMPLETE SUPPRESSION OF SALIVA AFTER MUMPS.

BY A. ST. C. BUXTON.

COMPLETE suppression of saliva in both parotids and both submaxillaries is of extremely rare occurrence. A case has, however, quite recently come under my care, the features of which were as follows.

A lady of over middle age, while in the country, contracted mumps. As soon as the acute inflammation of the salivary glands had subsided, and all pain and swelling had disappeared, she returned to town, and I was called in to see her. She spoke with great difficulty, and was forced to sip water at very short intervals in order to be able to speak at all. She told me that ever since the pain in the parotids and submaxillaries had vanished her mouth had remained persistently quite dry.

On examination I found her tongue, gums, cheeks, palate, and pharynx—in fact as much as it was possible to see of the mouth and throat—in a fearfully dried up state. The tongue was thickly coated with a tough brown fur, which was horn-like. So hard was it that on striking it gently with a metal probe a distinct sound as of tapping the cover of a book with a cedar pencil was produced. The rest of the interior of the mouth was also extremely hard, and she experienced great stiffness in opening and closing the jaws. No swelling or tenderness on pressure existed about the salivary glands, and the orifices of Stenson's and Wharton's ducts were plainly seen. It is needless to say that she retained no sense of taste. She complained of the heat felt in the mouth, but the temperature was quite normal. Her sleep was greatly disturbed at night, and she awoke at short intervals with the most intense longing for cold water; but drinking afforded no relief. It is worthy of notice that for some three or four years she has been affected with paralysis agitans, both limbs of the right side being very shaky. She enjoys otherwise excellent general health, and, notwithstanding the trembling in the right leg, is able to walk well, and takes plenty of exercise out of doors. There was a great deal of difficulty in feeding her, for she absolutely refused milk and beef-tea, and the effort necessary to swallow jelly and other semi-solid food was very great. I prescribed gargles of potassic chlorate, and ordered glycerine to be applied locally to the interior of the mouth and surface of the tongue. I ordered also an infusion of fifty grains of jaborandi to be taken daily for four days. Although the glycerine afforded some slight relief to the mouth by its mechanical effect as a lubricator, there was positively no effect produced on the salivary glands. Copious perspiration (from the jaborandi) took place, and left her feeling very weak. I therefore abandoned that drug, and substituted mercuric iodide dissolved in excess of potassic iodide. I gave large doses for ten days with no result beyond the production of a feeling of malaise. It was evident that something must be done soon to excite the flow of saliva, for the patient had been in this condition for nearly three weeks, and was in the lowest depths of despair and misery. The next step which I took therefore was the application of a continuous current of electricity generated by a 30-cell battery (pint cells) of the Leclanché type. I introduced a very fine silver probe into Stenson's duct on one side, and pushed it gently on until I met with obstinate resistance to further entrance. The probe had then entered the duct about an inch. My assistant held the positive electrode firmly to the nape of the neck, while I cautiously applied the negative pole to the free end of the probe. I instantly noticed a contraction of the fibres of the buccinator, but as no pain resulted I fixed the wire to the probe and allowed the passage of the current to continue for ten minutes. While the probe was in the duct a thick white liquid oozed

from the orifice. It looked something like pus. On removal of the probe a single drop of clear saliva followed it. Thinking that it was just within the bounds of possibility that a small abscess had existed somewhere about the duct and had been overlooked, and the probe had simply opened it and so cleared the obstruction to the flow of saliva into the mouth, I determined to thoroughly explore the other Stenson's duct and both Wharton's ducts before applying the current again. I passed the probe into all three remaining ducts as far as possible, removed it, compressed and squeezed the parts, but no pus followed. I repeated this again, but without finding a trace of pus. I then applied the current as before, with precisely the same result as in the first instance. I had the satisfaction of seeing four drops of saliva, one at the orifice of each duct. I visited my patient an hour afterwards, and a gentle flow of saliva was discernible from each duct. For three days the quantity steadily increased, without any further use of the current, and at the end of that time almost the normal amount was being poured out. The mucous membrane lining the mouth and the tongue was rapidly resuming its natural appearance. I have not seen my patient since, but I received a letter two days later stating that she had greatly improved; that the tongue was feeling quite comfortable, and that she was able to taste. A somewhat similar case is mentioned in the *London Medical Record*, 1877. The suppression of saliva resulted on that occasion from tonsillitis, and the flow was restored by stimulation by continuous current "frequently reversed." I did not reverse my current, preferring to submit the glands to the continued action of the negative pole. I find no mention of the condition in any medical work in which I have searched, including Quain's Dictionary of Medicine.

The Grove, W.

## ON A CASE OF LABIO-GLOSSO-PHARYNGEAL PARALYSIS OCCURRING AT THE AGE OF TWENTY-THREE YEARS.

BY A. CHAMPNEYS CLARKE, L.K.Q.C.P.I., &c.

ON Nov. 13th, 1882, I was sent for to see Mrs. B—, aged twenty-three years, wife of a coal miner. I was informed that she had always enjoyed good health, had borne one healthy child, and was now six months advanced in pregnancy. The previous evening, while shoveling coals into the coal-house, standing at the time in the snow, she had been seized with what was described as a sort of stroke. I found her suffering from paralysis of the left side of the face and left arm; articulation was imperfect owing to paralysis of the left half of the tongue, which when protruded was drawn towards the right side of the mouth. She gradually recovered from the facial paralysis, and in a great measure the use of her left arm, only complaining of its being weak. On February 11th I was again sent for to see Mrs. B—, as she was said to have had another stroke. On arrival I found she had just been delivered of a healthy child, after a short and easy labour. She was completely unable to articulate or swallow, the tongue lay immovable on the floor of the mouth behind the teeth, hollowed in the centre; she could not close her lips completely, and the saliva dribbled from the sides of the mouth. The patient, an intelligent woman, complained (by signs) of great pain in the neck and throat, the muscles of which were contracted. She was at first fed through a tube, but disliking this means she was spoon fed, the spoon being introduced well back. She made a rapid convalescence from her confinement, and at the end of a week could swallow with considerable difficulty, placing the food (gruel and beef-tea) well back in her mouth and throwing the head back. The stiffness passed off, and she can now (March 21st) take fluid and semi-solid food fairly well. She is able to go about her household duties, but the tongue still remains paralysed, though by a great effort she can raise it as far as the edges of the teeth. She can close the lips at will, but when not called upon to do so the mouth hangs open and the saliva dribbles from the edges. She cannot articulate a single word, nor any letter in which the tongue has to be used.

The points of interest in this case are, I believe, the hitherto unknown occurrence of glosso-pharyngeal paralysis at so early

an age; its being preceded by an attack of paralysis of the left arm and left side of the face, evidently brought on by exposure to cold during great exertion; the recovery from this attack, and after a period of three months the occurrence of an altogether different disease, bulbar paralysis, at a time when she was called upon for great exertion—that is, when labour commenced; and the gradual improvement from this disease. The case is still under my care, and will be watched with a view to future report. The treatment has been small doses of strychnia with iron, and faradisation.

Durham.

## A Mirror

OF

### HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nu. la autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

#### MIDDLESEX HOSPITAL.

#### FOUR CASES OF CONGENITAL DEFECTS OF THE FEMALE SEXUAL ORGANS.

(Under the care of Mr. HULKE.)

IN two of the following cases the existence of atresia of the vagina was unknown to the patients until they reached adult life; and in the first it was not discovered until after marriage. When so complete as to prevent the external escape of the menstrual fluid, whether in the less infrequent form of an imperforate hymen, or in the more rare form of imperforation, partial or complete, of the vagina, atresia commonly attracts notice soon after the age of puberty by the supposed absence of menstruation, and the distress occasioned by the distension of the Fallopian tubes and uterus, and also of the pervious part, if any exist, of the vagina connected with the latter, by the retained and accumulating menstrual fluid. In the first patient, in whom the occurrence of menstruation and the natural appearance of the external parts of generation had caused the internal defect to remain unsuspected, the defect was essentially the persistence of the opening of the lower confluent ends of the Mullerian ducts into the uro-genital sinus, proper at a certain stage of embryonic life. The operation, urgently demanded by her marriage, was justified by the ascertained presence of a well-developed uterus, and the result was satisfactory, for she returned to her husband, impregnation followed, and she was recently delivered after an easy labour of a viable child. In the second case the atresia of the vagina was complete throughout, and it was associated with an extremely imperfectly developed uterus which appeared to be of the cornuate form, as if the Mullerian tubes had remained distinct nearly if not quite to their lower ends, and then had failed to be brought into continuity with the vulval involution of the external surface of the body during that ingrowth of tissue between the rectum and the uro-genital sinus which finally separates these two passages. Under these circumstances no operation for the atresia was practicable. The patient was a spinster, and it was explained to her that marriage would be improper. The presence in the excised ovary of ruptured follicles, not distinguishable from those occurring in the ovaries of normally menstruating women, is of interest in association with the evidence of the absence of menstruation—absence, not retention, since the combined exploration through the urinary bladder and rectum must have detected such swelling as retention would have occasioned. The absence of swelling or painfulness of the herniated ovaries, incidental to ovulation, such as might have led to their discovery in the groins after puberty, is not unusual, and the excision of such herniated ovaries will only exceptionally be necessary. In the present case, in face of the inability to wear a truss on the right side, the patient did not hesitate between a life of distress and disability and the relief held out by an operation. As has always been observed in congenital ruptures of the ovary, the sac contained also the Fallopian tube. In the peripheral continuity of the serous covering of the ovary lying in the

labium with the peritoneal sac enclosing it, may be recognised an imitation of the relations of the testis and process of peritoneum acquired by this organ in its passage from the belly to the scrotum. In the third case the increased swelling, with the painfulness of the solid body in the inguinal cyst concurrently with menstruation, left no reasonable doubt of its being an ovary, but the condition here differed from that in the last case by the obliteration of the original continuity of the sac and the peritoneal cavity, which made the resemblance of the sac to the tunica vaginalis in the male sex more complete. In the fourth case it was the upper part of the vagina which was imperforate, the uterus certainly, and, presumably, the ovaries were undeveloped, and no surgical measures were indicated.

CASE 1. *Congenital Atresia of the Vagina; Menstruation through the Urethra; Relief by Operation.* (From notes by the dresser, Mr. B. C. Scott.)—On Nov. 15th, 1881, a brunette, aged twenty, was brought by her mother to the out-patient obstetric department of the hospital for advice respecting an unnatural condition, which made sexual intercourse impracticable. She had been married nine weeks, and neither she nor her mother had previously suspected anything wrong. She had, it was asserted, menstruated regularly as other women. When the labia were separated no vaginal orifice was visible, the surface below the urethral aperture being plane. As a digital examination through the rectum revealed the presence of a well-developed uterus, she was sent into the surgical wards for an operation. The very positive statement that she had regularly menstruated made it probable that this occurred through the urethra, and upon the recurrence of menstruation a few days later, this was verified; the menstrual fluid was seen oozing from the urethral orifice from which, when she strained, it escaped in small gushes. Her urine was, however, quite untinged, which made it evident that the outlet through which the menstrual fluid escaped entered the urethra, and not the urinary bladder. This opening was so minute, perhaps so valvularly disposed, that neither by a careful examination with probes, nor by inspection of the urethra when dilated with a speculum, was it possible to discover it. On Dec. 1st, a staff having been placed in the urethra, and a bougie in the rectum, so that the position of these two tubes could be always ascertained, an incision was made below the urethra, between it and the posterior commissure of the labia majora. When the cut had been deepened to the depth of the second joint of the forefinger the escape of a few drops of mucus showed that the upper end of the vagina had been opened. It was seized, drawn over, the opening enlarged, and its edges were attached with sutures to two flaps of mucous membrane taken from the posterior part of the vulva. A glass tube was placed in the passage thus made. The uterus appeared quite normal, and the upper part of the vagina was capacious. Immediate union was frustrated by an attack of erysipelas, which wandered over her whole body and did not finally disappear until the end of the month. On January 25th she was made an out-patient, and enjoined not to neglect to pass daily a full-sized bougie, which she had been taught to use. She was twice readmitted during the course of the next three months, as, owing to her omission to do this, the line of junction of the upper and lower part of the vagina had contracted, making marital intercourse painful. The contraction was easily overcome by sponge tents. Impregnation followed in the summer, and in February she was delivered of a healthy child, after an easy labour induced at the eighth month, induction of labour at this time being thought preferable to allowing her to go to the full term by Dr. H. Davis, under whose care the patient then was. The only circumstance worthy of notice was the detection of a narrow mesial band in the top of the vagina, just below the uterus, which had till then eluded detection.

CASE 2. *Congenital Hernia of both Ovaries, probably Bicornuate Uterus; Atresia of Vagina.* (From notes by the dresser, Mr. G. F. McMillan.)—A well-grown maid servant, aged twenty, whilst lifting a bedstead felt, as she thought, something give way in her left groin, where she then first noticed an unnatural lump. A few days later the same occurred in her right groin, attended with such sharp pain as to oblige her to lie down. After this, incapable of working in consequence of the painfulness of the swellings, she went into a village hospital, whence, six weeks later, as they appeared to the surgeon in charge to be of an unusual nature, she was sent to the Middlesex Hospital on Jan. 24th, 1882. Her left labium majus contained a firm