CASE 2. Suppurating congenital diverticulum of the bladder. — The patient was a girl, aged seven years, an inmate of an orphan home, who came under the charge of Mr. Wilkinson at the Sheffield Royal Hospital on Feb. 17th, 1904. During the two years that she had been at the orphanage she had suffered from incontinence of urine but was otherwise healthy until three weeks before admission, when she had a fall and collided with the chimney, which in turn fell on to her, and was afterwards described as "to be of great consequence" in the urine. On admission she seemed to be seriously ill. The temperature was 101° F., the pulse was 120, and the respirations were 28. The labia were in a sloughy condition and the skin of the vulva and around the urethra was heavily coated with muco-pus. The urine, of specific gravity 1010, was alkaline, offensive, and contained much blood and pus. There was a rounded, tender swelling in the hypogastrium, rather to the right of the middle line. A catheter was passed but less than an ounce of urine was withdrawn which did not cause any perceptible diminution of the swelling. An anaesthetic was given and a rectal examination was made. A definite round swelling was felt behind, and above, the bladder, pushing the uterus over to the left. When pressure was made on this swelling pus flowed from the urethra. A diagnosis of suppurating urethral cyst or suppurating ovarian tumour contained within a delicate septum with the bladder was made. A small incision was made in the vulval orifice which was surrounded by a well-marked ring of circular muscular fibres. The walls of the diverticulum were ragged and sloughing and it was filled with offensive yellowish pus. A rounded swelling was felt behind, and above, the bladder, pushing this swelling pus flowed from the urethra. A diagnosis of communicating with the bladder was made. It was decided to open and to drain the suppurating cavity by suprapubic incision but the child died before the operation could be performed.

Necropsy.—At the post-mortem examination the pelvic organs were removed en masse. The cyst was found to be a large diverticulum from the bladder with which it communicated by a smooth round orifice just external to the orifice of the right ureter, about five millimetres in diameter. The mucous membrane of the diverticulum was red, and had through the orifice which was surrounded by a well-marked ring of circular muscular fibres. The walls of the diverticulum were ragged and sloughing and it was filled with offensive pus. There was a sloughing condition of the mucous membrane extending from the diverticulum to the main cavity of the bladder. There was a small area of necrosis over the portion of the bladder which communicated with the diverticulum. The labia were in a sloughy condition and the skin of the vulva was heavily coated with mucopurulent exudate. The right ureter was dilated and the tube was filled with offensive pus. The general condition of the mucous membrane of the bladder was one of extreme irritation. The kidneys and suprarenals were normal. There was a patch of phosphatic deposit on the bladder wall. The condition of the condition which I have been able to find is in Gross's "Practical Treatise on Diseases of the Urinary Bladder" (third edition, 1879). It is mentioned also in Holmes's "System" and in Ashurst's "System" (vol. vi.).

Invasion of the bladder is a rare condition and receives very scanty mention in the surgical text-books in general use. The best description of the condition which I have been able to find is in Gross's "Practical Treatise on Diseases of the Urinary Bladder" (third edition, 1879). It is mentioned also in Holmes's "System" and in Ashurst's "System" (vol. vi.). Invasion of the bladder occurs in two forms— incomplete and complete. In the former, which is much the commoner, there is prolapse of the mucous membrane alone. It usually occurs after childbirth, and the prolapse is established by Bamberger, of prolapse of the mucous membrane of the bladder into the upper dilated urethra in a male. The complete variety (of which Case 1 is an instance) is much rarer and is generally only seen in males. There are several cases on record and gives references. I have been unable to find records of any further cases reported since Gross's publication. Five of these seven cases occurred in female children from 14 months to four years of age. Of the other two, the first was a fat female, aged 52 years, who was subject to chronic bronchitis, and the other was in a woman, aged 40 years, and appeared to be due to acute, subverting on chronic, cystitis with constant straining, set up by the presence of a patch of phosphatic deposit on the bladder wall. With regard to the etiology of the affection Gross says: "The probability is that a congenitally relaxed and weakened condition of the musculature fibres of the neck of the bladder and urethra is the essential cause, and that it is from this condition that the diverticulum takes place during fits of cysting, coughing, sneezing, or straining. In all cases the urethra was greatly dilated. It is of great moment that this diverticulum should be confused with other affections, as vascular polypi or other growths occurring in this situation. The most important signs are the presence of a pyriform, red, flared, vascular, soft, elastic, rectilinear sac filled with thick, dark, turbid, or serous fluid, situated between the clitoris and between the labia, which may become infected and increase in size on cysting or straining. There is usually more or less dysuria or incontinence both before and after the affection. The urethra may be exposed or rendered visible by gentle traction on the protrusion." He insists specially on the danger of ligaturing and excising the protrusion and recommends that the prolapse should be reduced.

ROYAL INFIRMARY, NEWCASTLE-ON-TYNE.

TWO CASES OF PREGNANCY COMPLICATED BY CANCER OF THE CERVIX; WITH A RECORD OF THEIR PROGRESS AFTER OPERATION.

(Under the care of Dr. Thomas Oliver and Mr. J. Rutherford Morison.)

For the notes of the cases we are indebted to Mr. G. Grey Turner, surgical registrar.

1. Pregnancy: irrepealable cancer of the cervix; Casarea-Porpo operation — On May 24th, 1900, a woman, aged 31 years, was admitted to the Royal Infirmary, Newcastle-on-Tyne, under the care of Dr. Oliver, complaining of uterine tumours. Her menses occurred regularly and there was no history of abortion. The patient had been married for 12 years and had had two children, a boy aged 8 years and a girl aged 5 years. There was a bad smell from the urethra and the patient had had two miscarriages 1 year and 3 months ago, the latter being two years and three months old. About Christmas, when the patient was two and a half months pregnant, the patient came under the care of Dr. Oliver. The uterus was polyoid in appearance and the patient was admitted to the Royal Infirmary under the care of Dr. Oliver, complaining of uterine tumours, the largest being about 8 centimetres in diameter. There was a bad smell from the urethra and the patient had had two miscarriages 1 year and 3 months ago, the latter being two years and three months old. About Christmas, when the patient was two and a half months


3. Medical Examiner and Record, 1800, p. 301.

pregnant, she had profuse haemorrhage from the vagina, succeeded by an offensive discharge. Two months before admission she began to have pain on micturition and on May 12th she had a severe haemorrhage from the vagina. On admission she was found to be a pale, thin, anxious woman, exhausted by pain and haemorrhage. Pregnancy was advanced to the middle of the eighth month and the child was alive. On the 28th of May labour came on; the pains were very vigorous but there were no signs of the parts dilating. Mr. Morison performed the operation, having previously decided to remove the uterus rather than the child because he considered that the uterus was opened, the vagina was fixed in the lower end of the incision, the upper part of which was closed. The child was delivered alive but death took place in three days. The operation was very well borne by the mother but for several days it looked as though she would succumb to incessant vomiting; this, however, ceased and in a few days she picked up a little. On the fifteenth day the stump separated and the patient left the hospital. Death took place from uraemia three days afterwards.

**CASE 2.**—Pregnancy; cancer of cervix; Cæsarean section and immediate hysterectomy. In the Lancet, June 1st, 1901, p. 1536, Dr. Oliver and Mr. Morison reported a case of Cæsarean section and complete removal of the uterus in the eighth month of pregnancy for cancer of the cervix. The patient had complained of recurrence of symptoms three years after the operation and it is proposed to give a very brief résumé of the case with some details of the after-progress. The patient was a woman, aged 39 years, the mother of nine children, the youngest of whom was two months old. She had had diarrhoea for months preceding the operation. She looked old and was anaemic from severe haemorrhage. For 18 months she had suffered from occasional slight uterine haemorrhage, which had been very severe five months before consulting Dr. Oliver and again three days before her operation. There was a large cauliflower growth limited to the cervix and the uterus was tenanted by a living fetus advanced to the eight month of gestation. Dr. Oliver advised operation and sent the patient into the infirmary under the care of Mr. Morison. On Jan. 31st, 1901, Cæsarean section was performed, followed immediately by removal of the whole uterus and appendages by the abdominal route (total hysterectomy). The disease appeared to be eradicated completely, for there was no evidence of its extension to the tissues around the cervix or to the glands. During convalescence a loop of intestine prolapsed through the abdominal wound and a small vesico-vaginal fistula formed. The latter ended in the bladder which was healed enough to leave hospital. The growth was a squamous-celled epithelioma. The child thrived well and continues well and was gaining flesh and strength. In December of the same year the patient was in excellent health and without any suspicion of recurrence. In June, 1902, she came to the hospital complaining of some slight haemorrhage from the vagina. Such an ominous symptom called for very careful examination but no growth was detected. The general health of the patient was excellent but unfortunately a ventral hernia was developing. On Feb. 18th, 1903, she again presented herself, looking in perfect health. She had no pain on micturition but complained of incontinence of urine. There was a frequent discharge but no haemorrhage. On the anterior vaginal wall there was a mass of growth with a hole into the bladder large enough to admit a forefinger. After mature consideration Mr. Morison proposed to excise the growth, a proceeding which would involve transplanting the ureters. The patient would not at that time consent to any further operation. Within a month the masses had grown so large as to make the surrounding parts that the performance of any useful operation was out of the question, though the woman was now anxious to avoid any risk in the hope of relief from her present condition. She refused operation; the growth had grown larger and two fingers could easily be thrust into the bladder. A little time after this it was possible to explore the whole pelvis by invaginating the ventral hernia. The margins of the growth could be felt fixed to the pelvic wall on the right side and an enlarged gland could be felt lying on the brim, while the remains of both utero-sacral ligaments were infiltrated. In October her condition was very much worse, for constant vomiting had been added to her other troubles. Death took place in January, 1904, just three years after operation. There was no necropsy but Mr. H. B. Ord of South Shields, who attended the case from the beginning, reported that she had a secondary mass of cancer in the stomach.

**Remarks by Mr. Grey Turner.**—I have reported these cases because in both I am able to give the after-history, for although there was no necropsy, there is no reason to believe that either of these records may be of some use to those particularly interested in this branch of surgery. In Case 1 Mr. Morison elected to remove the uterus rather than to perform conservative Cæsarean section because of the danger of sepsis spreading from the growth to the uterine wound and so to the peritoneum. Quite recently a specimen has been sent to the museum of the Durham University College of Medicine in which this untoward event occurred and it is easy to trace the path of infection even in the preserved specimen.

I am indebted to Dr. Oliver and Mr. Morison for permission to publish these cases.

**Reviews and Notices of Books.**

*The Accessory Sinuses of the Nose and their Relations to Neighbouring Parts.* By Dr. Gustav Killian, Professor of Laryngology and Rhinology in the University of Freiburg, L.B. Translated by D. R. Paterson, M.D., Edin., M.R.C.P. Lond., Assistant Physician in charge of the Throat Department, Cardiff Infirmary. Illustrated with 15 coloured plates and 18 photographs. Jena: Gustav Fischer, 1904. Price 2s.

Dr. Paterson informs us that he has experienced considerable difficulty owing to the want of literal translations for some of the German anatomical terms: for instance, "meatus supremus" is translated "highest meatus," in order to distinguish it from the superior meatus, with which it might be confused. The plates, which form so important a feature of this beautiful atlas, owe their inception to Professor Killian's discovering, in the course of his dissections, that in preparations preserved in 10 per cent. formalin it was possible to remove the bony wall of a sinus, leaving the mucosa intact within. The general scheme is that of a series of plates showing the relations of the accessory sinuses of the nose and the surrounding parts. Professor Killian finds that three frontal turbinates were originally present in man and three accessory turbinates in the infunibular part of the middle meatus. Two of the latter coalesce, forming the bulla ethmoidalis. The description of each plate or figure is complete in itself and the parts are described as seen in that particular specimen. A sheet of transparent paper is superimposed on the plate itself and a careful tracing of the figure is made on this sheet. The names of the parts are printed so that no lines interfere with the contour of the parts.

The following is a description of some of the figures in the order in which they occur in the book:—The accessory sinuses of the nose in their relation to the face, viewed from the front; amongst other important points may be mentioned the admirable way in which the relationship of the nasal duct to the maxillary sinus is brought out. The same view is given from in front in their relation to the nose; the entrance to the nasal cavity has been freely cut away and the frontal cells, as well as the frontal sinus, are very clearly and skillfully depicted. The accessory sinuses in relation to the face, viewed from the side, are given in the next plate, the facial bones being fenestrated in order to expose the accessory sinuses satisfactorily.