ment which successfully cleared it. Generally preferred as is the solid instrument to the flexible, I cannot but feel the value of solidity in an instrument in a threefold degree, when deviation of the orifice of a stricture from the axis of the urethra has to be encountered.

In conclusion, taking advantage of all the means which therapeutics, which appropriate instruments, and the collateral appliances referred to afford us, it appears to me that little is wanting to success but patience and gentleness in manipulation. Adopting the methodical mode of search for the orifice of the stricture which has been recommended, it is advantageous to expend a considerable period of time on the attempt, while it becomes an easier and a more hopeful task to do so than when the obstruction is attacked only by simple pressure, or by chance gropings for the narrow orifice; a proceeding than which nothing can be more monotonous and wearisome. There is little doubt that long-continued and persevering efforts, provided they are made with the utmost care, and without inflicting any serious pain on the patient, will be generally rewarded by success in the most difficult cases.

I beg leave to request your further indulgence for a single remark on the utility of solid metallic sounds of a *slightly conical form*, in the subsequent treatment of stricture. This is a species of instrument long known; but its value has, from certain causes, been less appreciated, I think, than it deserves. In that great majority of cases of stricture for which simple dilatation is, by the consent of almost all surgeons, the safest and most efficient remedy, I think there is no instrument or set of instruments which effects it more quickly, easily, and safely, than the conical sounds referred to. After having reached by means of the catheter, whether by means of tying it in for a few hours or otherwise, the size of No. 3, 4, or 5, the conical instrument is, I think, the best appliance we possess. Acting as a cylindrical wedge, bounded by lines of almost imperceptible inclination, and with a surface perfectly smooth and polished, it slowly expands the stricture and accomplishes a larger amount of dilatation in a given time and with greater ease to the patient than any other instrument I know. Six such conical sounds furnish a very complete armamentarium, so that simplicity, to say nothing of economy, is an additional recommendation. The increase of calibre in each instrument should amount to about two or three sizes; thus, the smallest sound in the set may at its point be of the size of No. 2, and at about three inches from it reach that of No. 4. The next in order should be 3 at its point, enlarging to about 5. The next 4, increasing to 6; the next 5, increasing to 8 (see fig. 2); the fifth 7, increasing to 10; and the last 9, increasing to 12. By means of these six instruments, every gradation of the scale from 2 to 12 may be passed through, not by successive steps with intervals between, as in the use of ordinary instruments, but by *gliding insensibly from one number to another*. Where what is understood as "rapid dilatation" is necessary or legitimate, I believe there is no method by which we can so smoothly and easily

pass through several sizes of the catheter scale in a short period of time, as with these curved conical instruments.

Fig. 2.

* Fig. 2. The asterisk denotes the spot at which the calibre of the sound begins to diminish. In the instrument selected for illustration here, it is No. 8 in the shaft gradually lessening to No. 5 at the extremity.

Our French brethren have endeavoured to obviate the objection to the ordinary instruments of uniform calibre, by employing numerous additional or intervening numbers, and thus lessening the intervals which occur in our catheter scale. This method renders necessary some twenty or more bougies or catheters in place of our usual number of twelve. The principal defect in this system is that several instruments must be passed into the urethra at each sitting, if much progress is to be made; while another certainly exists in the considerable cost which so extended an armamentarium involves.

I have only now to thank you for the honour you have accorded me, in so patiently listening to the few remarks which I have ventured to offer, and which are presented in the conviction, that, slight as they are, they may not be without a certain practical utility in their application to the difficult and often troublesome cases in question.

Wimpole Street, Cavendish Square, 1857.

CASES OF ABSCESS OF THE UTERINE APPENDAGES OPENING INTO THE BLADDER.

By F. MELLAND, Esq., and JOHN WINDSOR, Esq., of Manchester.

[Read before the Medical Section of the Manchester Royal Institution.]

CASE I. ABSCESS OF THE UTERINE APPENDAGES OPENING INTO THE BLADDER, ATTENDED BY DESQUAMATIVE NEPHRITIS DURING FOUR MONTHS. By FREDERICK MELLAND, Esq., Surgeon to the Chorlton-upon-Medlock Dispensary, Manchester. Mrs. A. B. was confined on June 14th, 1855, after an easy and natural labour. Two days afterwards she had a rigor followed by fever, without any local pain or tenderness on pressure.

On the sixth and seventh days she had pain and uneasiness on the right side of the abdomen, quite removed by a free evacuation of the bowels. The fever gradually subsided, and on the twelfth day she was well enough to lie on the sofa. She remained, however, still delicate and weak, and about the sixteenth day œdema of the left leg and thigh, and to a much less extent of the right, came on, with puffy eye-lids and cheeks. There was no inflammation of the veins of the lower limbs; but on examining the urine I found it scanty, dark-coloured, containing albumen, with a sediment consisting of blood-corpuscles, casts of the urinary tubules, epithelial cells and crystals of uric acid. There were, in fact, the usual symptoms of acute desquamative nephritis. This, of course, was quite sufficient to account for the dropsical symptoms, but not for the left leg and thigh being more swelled than the right: this, which puzzled me at the time, became explained later.

After the use of gentle purgatives and diaphoretics for a few days, the tincture of sesquichloride of iron was given with digitalis, and afterwards with bitter infusions; the patient was kept in bed. All the symptoms improved very much, and the swelling disappeared in about twenty days.

Then occurred the first of several relapses, which very much retarded the progress of improvement. In this instance it was caused by the sudden and dangerous illness of the child; in the course of the same night there was a return in greater abundance than at the first of the blood-corpuscles in the urine, along with fever and loss of appetite. This and several subsequent relapses were treated much in the same manner as the first attack, with the addition of having large mustard poultices applied to the loins for an hour and a half at a time about every other night.

In the beginning of August, or about seven weeks after confinement, a tumour was first found on the left side of the hypogastric region, about the size of an orange, and appearing to rise up from the pelvis. It was very little tender, and gave very little pain. It gradually enlarged, but never became of very great size.

The absence of pain and tenderness, and the slow progress of the tumour, gave rise to some uncertainty as to its nature; its seat was apparently either the ovary or the broad ligament on the left side; and the fact of its having appeared after confinement, and having been preceded by illness, made it more probable that it was an inflammatory swelling going on to suppuration than an ovarian cyst.

The nephritis continued gradually to improve in spite of occasional relapses; and after a residence of six weeks at the sea side, by the middle of October no further symptoms remained: it had lasted about sixteen weeks. Towards the end of Octo-

ber, the tumour having gradually enlarged, seems to have contracted adhesions to the bladder; for, along with general febrile symptoms, there were much more pain in the tumour and tenderness on pressure; there was also considerable irritability of the bladder, the urine having to be passed very often.

In the beginning of November, about twenty weeks after the confinement and thirteen from the discovery of the tumour, pus was first found in the urine, the quantity being from one and a half to two ounces in the twenty-four hours, which has varied but little ever since; it seldom contains much mucus, and has always been free from any unpleasant smell.

I soon came to the conclusion that the pus came from the tumour having opened into the bladder; for the original affection of the kidneys had been cured for several weeks past, and there had been no signs, local or general, of pyelitis or abscess in any way connected with the kidneys. There was no irritability of the bladder to speak of; no phosphatic crystals nor ropy mucus to indicate its origin from the bladder.

The general health now improved; the appetite and strength returned, and were still further benefited by a long residence on the continent in the ensuing year. The menses reappeared early in January 1856, and have occasionally returned since, but with great irregularity. The health has again suffered this spring (1857), but not more than change of air will probably soon restore. The tumour appears still to be about the size of a small orange; it seems to be closely connected with the uterus.

After the opening of the abscess, she took for some time the ammonio-citrate of iron with calumba, and also cod-liver oil, with a view to the improvement of her general health. Other plans of treatment have been tried this year, but with no good effect. I am inclined to trust the most to that kind of change in the whole system which results from travelling and change of air, combined with the regimen and the medicinal effect of the waters at some of the spas on the continent, especially those containing iodine and bromine.

I would remark, in conclusion, that I attribute the much greater swelling of the left leg and thigh, which occurred about a fortnight after the confinement, to the pressure of the tumour upon the iliac vein, although the tumour was not discovered until a month later. As to the connexion between the inflammation of the kidneys and the abscess, I think that they both arose from a common cause, namely, the absorption of impure uterine discharges: in the abscess, more immediately, perhaps, through the medium of the veins and absorbents; in the kidneys, probably the irritation would take place on the separation from the blood of impure or poisonous matters, as is supposed to be the case in the nephritis which occurs after scarlatina. This explanation is strengthened by the history of the child's illness, which was fatal at the age of six weeks, after about a week's duration, and presented symptoms very much resembling those seen in pyæmia, which may have arisen from its having been nursed partially by the mother until the commencement of the more acute stage of its illness, only a week before its death.

CASE II. SUPPURATIVE OVARITIS, COMMUNICATING WITH THE URINARY BLADDER. By JOHN WINDSOR, Esq., F.R.C.S., etc. April 30th, 1855. Mrs. Whittle, aged 20, married some years, but without children, came under my care Jan. 18th of this year, labouring under symptoms of irritation of the urinary bladder. She had frequent and painful micturition; the pulse was unaffected, the tongue tolerably clean, the bowels regular, the appetite and sleep indifferent. She had some pain often about the lower part of the abdomen, but not much in the back; urine slightly alkaline, as shewn by reddened litmus paper having its blue colour restored.

With the sound, passed two or three times, I explored the bladder, but could not detect any calculus. I prescribed for her an infusion of buchu leaves, with hydrochloric acid and hydrochlorate of morphia. This she took for awhile, until she was tired of it, and then various modifications of treatment were tried, but with only temporary benefit. The urine, however, always remained unnatural, alkaline or ammoniacal, with muco-purulent, if not quite (whitish) purulent deposit, and latterly it has been more so than formerly. Fugitive pains have also occurred about the sides, with occasional cough, and sometimes sickness and vomiting. Latterly diarrhoea has set in, and for the last two or three weeks has been very troublesome. There has also probably been some absorption of pus (pyæmia or toxæmia), as there have appeared four or five painful tumours, about the size of a horse-bean, in the veins (cephalic and basilic) of the fore-arms and upper-arms, but

those are now subsiding and disappearing under the use of a liniment: $\mathcal{R}$ Linimenti saponis comp. $\mathfrak{z}$ iiss; liquoris ammoniacæ, tincturæ opii, aa $\mathfrak{z}$ ij. $\mathcal{M}$.

She has also lately been taking opiate pills each night, and an astringent opiate mixture during the day.

May 9th. She has since last report become gradually weaker; much emaciated, and died to-day, about six o'clock, P.M., with a good deal of preceding restlessness.

The diarrhoea had continued, and the evacuations had latterly been passed almost unconsciously, apparently from sheer debility. For a long time there had been complete anorexia, but of late not often vomiting. The œdema of the legs had been almost stationary during the last few weeks, and the painful swellings in the veins of the arms had gradually subsided and disappeared for some days before her death.

Inspection of the Abdomen about twenty-four hours after death. The abdominal parietes were thin and almost destitute of adeps. The omentum was somewhat adherent at the lower part of the abdomen; the smaller intestines also were adherent, near the same part, to what appeared to be the remains of the right ovary, but the adhesions were separable without opening into the intestine. The right ovary appeared strangely degenerated into a mass about the bulk of an orange, with a thickish but easily lacerable external tunic, containing internally a considerable quantity or number of somewhat glandular-looking dull greyish bodies, with suppurating substance intermixed, pus exuding at various points when opened out, and in one part adhering to and opening into the urinary bladder; hence the appearance, probably, for a considerable time of pus in the urine, and perhaps also a cause, from absorption of pus and its circulation in the vein, of the phlebitis in the arm, if not in other parts also. The mucous membrane of the urinary bladder, especially in its posterior superior part, was almost black in colour, probably from long-continued irritation or chronic inflammation, occasioned by the presence of pus. The left ovary seemed converted into a cyst, of about the size of a very large apple, containing a thin almost transparent serum.

The uterus itself appeared natural, as did also the kidneys, ureters, and liver, etc. On opening the lower part of the small intestines, the mucous lining presented an injected appearance, coated with some reddish-looking mucus, but no ulceration could be seen. The head and thorax were not opened. In this case it would seem that the *origo mali* was in the right ovary, which had become inflamed and suppurated in part, the pus finding its way into the bladder, and probably by absorption into the blood itself.

In conclusion, I may mention that Mrs. Whittle informed me she had been, previous to seeing me, for some time under the professional care of a gentleman at Wolverton, her husband being then in the service of the London and North-Western Railway Company.

Reviews and Notices.

ON MINERAL WATERS: THEIR PHYSICAL AND MEDICINAL PROPERTIES. With Descriptions of the different Mineral Waters of Great Britain and the Continent, and Directions for their Administration. By ROBERT MORTIMER GLOVER, M.D., F.R.S.E. pp. 375. London: Henry Rees & Co. 1857.

THIS volume comes barely in time to be useful to the profession and the public during the present holiday season. As, however, it promises to be a standard work, this is not of much importance. Dr. GLOVER has certainly made more of his subject than any of his predecessors; and, in the wide category of spas and mineral waters, he has not forgotten to mention our indigenous spas. The great world of London is not perhaps aware that, besides the well known Beulah Spa, there are three others upon the very skirts of the metropolis—at Hampstead, Sadler's Wells, and Kilburn; the two former, light chalybeate, and therefore highly efficacious, in the opinion of all those who believe in the value of extreme dilution; and the latter, of the same class as the Cheltenham and Leamington waters, sulphate of magnesia and sulphate of soda predominating. Dr. Glover observes that he has had carbonic acid forced into the