the difficulty will end. It will be necessary to warn the patient against overexertion of any kind for some time to come, and also to insist that the vaginal douche be employed for some considerable time after she passes from under your care. If rupture of the perinæum exist, it is most desirable that this be repaired, so that due support to the uterus may be given by the vaginal walls. This will not only add to the comfort of your patient, but remove a grave risk of a recurrence of the uterine mischief. Lastly, I come to speak of the treatment when elongation of the cervix exists. Doubtless, local treatment generally is successful in giving relief, but it may be looked upon as almost a certainty, if impregnation do not immediately ensue, that the endometritis will recur. I, therefore, of late years, have always insisted on removing the redundant tissue, an operation which has hitherto invariably been followed by the most satisfactory results.

ON THE DIFFERENTIAL DIAGNOSIS BETWEEN DISTENSION OF THE FALLOPIAN TUBES AND FIBROMYOMATA OF THE UTERUS.

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IN the JOURNAL for March 27th, I pointed out the differential diagnosis between my case of "Pelvic Tumour" (*vide* JOURNAL, March 6th) and distension of the Fallopian tube. In that paper, I confined myself rigidly to the clinical account of the case, and showed that, in all probability, the case was one of fibromyoma.

The diagnosis of distension of the Fallopian tube, in the present state of our knowledge, is very difficult; indeed, those who have had the largest experience in operating for this disease, admit that they are never sure that the tube is diseased or distended until they have got it outside, through the abdominal wound. But this difficulty of diagnosis is due to the similarity between distension of the Fallopian tube and many other conditions, more especially pelvic cellulitis, pelvic peritonitis, and ovarian disease. It is, as a rule, not difficult to distinguish between fibromyoma of the uterus and distended Fallopian tube. The broad distinctions between these two conditions are as follows.

1. Fibromyomata are usually accompanied by menorrhagia, and distensions of the tube are not.

2. Fibromyomata, especially when intermural, cause uterine enlargement; whilst, in distension of the Fallopian tube, the uterus is not enlarged, or only slightly, unless complicated by some other condition.

3. Fibromyomata are usually painless, except that there is often dysmenorrhœa (as in my case, published March 6th), and, if large, a bearing-down pain, or sense of weight; whilst, in distension of the tube, the pain is constant throughout the intermenstrual period, aching in character, and aggravated by the menstrual period.

4. Nutrition is not much affected in fibromyomata, whilst it is in distension of the tube, especially when the distension is caused by pus; hence, wasting or loss of flesh is a valuable distinction.

5. The temperature is normal in fibromyomata, raised more or less according to nature and amount, in distensions of the tube.

6. Fibromyomata, when intermural, move much more rigidly with the uterus than distensions of the Fallopian tube.

7. Fibromyomata are much less painful, on pressure, than distensions of the tube.

8. Fibromyomata are usually much firmer in consistence than distensions of the tube.

9. Intermenstrual discharges, usually yellow, are much commoner in distension of the Fallopian tube than in fibromyomata.

10. The position and direction of the uterine cavity is much more affected by fibromyomata than by distension of the tube.

11. Fibromyomata are usually more or less spherical, distensions of the Fallopian tube cylindrical.

12. Aspiration yields serum or pus in hydrosalpinx or pyosalpinx; and blood in fibromyomata and hematosalpinx.

13. Distensions of the Fallopian tube are accompanied by pelvic inflammation much more frequently than fibromyomata.

These are, in my experience, the broad distinctions between these two diseases. Exceptional cases occur where the diagnosis is not so easy; but distension of the Fallopian tube is much more likely to be mistaken for some disease of the ovary or broad ligament, rather than for fibromyoma of the uterus. My experience does not agree altogether with the statements of Mr. John W. Taylor in the JOURNAL for April 17th, but I agree with him that the discussion may be profitable.

A CASE OF LAPARO-NEPHROTOMY.

By H. LANGLEY BROWNE, F.R.C.S.E.

E. C., aged 46, was admitted into West Bromwich Hospital in December last. She had an abdominal tumour, occupying the right half of the abdomen, and extending across the median line towards the left iliac region. It was dull on percussion, except in two places, where there was adherent intestine. Obscure fluctuation was observed. There was a history of renal colic extending over twenty years. Many calculi had been passed *per urethram*, but none during the last five years, although there had been very frequent attacks of pain. For five months only had the enlargement of the abdomen been noticed, and the pain been constant and severe. There was no pus in the urine. On January 21st, ether was given, and an incision, about four inches long, was made in the median line, below the umbilicus, exposing: 1, adherent intestine; 2, stretched out mesentery; 3, a tumour with a dark blue thick wall, evidently containing fluid. The intestine and mesentery were detached and drawn up, and a small puncture made into the cyst, through which

a small ovariectomy trocar was pushed, and about three pints of pus escaped. The finger, introduced into the incision, came into contact with a small calculus lying loose; and, when this was removed, a large mass was felt deep down on the right side, firmly imbedded in soft friable tissue, which bled very freely. Partly by cutting, and partly by tearing, this mass was removed in two portions, and, by a thorough exploration of the tumour, five other smaller calculous masses were detected and removed. (See diagram.) The tumour was so adherent

that it was impossible to enucleate it, so the cyst wall was stitched to the abdominal wall after a careful peritoneal toilette, and a large glass drainage tube was left in. For eleven days, there was not a single bad symptom. At 2 P.M., on the eleventh day, the woman seemed very well; at 3.30, she was talking to and laughing with some visitors. A few minutes afterwards she died from heart-clot. The calculus weighed seven ounces, and were phosphatic and uric.

PHYSIOLOGICAL MEMORANDA.

THE VOICE A STRINGED INSTRUMENT.

I HAVE not attempted to establish any principle or dogma, but simply to state my reasons for concluding "what form of musical instrument the human voice most resembles." I have not alluded to the matter as "The Voice as a Stringed Instrument" (Mr. Browne), nor "The Voice is a Stringed Instrument" (Mr. Casson). I am greatly indebted to Mr. Lennox Browne for kindly drawing my attention to the theory of Ferrein as stated in 1741. I would point out to Mr. Browne that the art of laryngoscopy was not discovered for about a century after the date he mentions, and that, as the theory I advocate is based on laryngoscopic observation, the reference is inapplicable.

I refer to Mr. Browne's "answers" in order.

ANATOMICAL.—1. *Answer*: "The vocal cords are not of the nature of strings at all in the general acceptance of the word." *Rejoinder*: I am not aware that I made any such statement. I, however, repeat the fact that, "the vocal cords are strings or bands of yellow elastic tissue, capable of the most exact extension and relaxation." Nor did I say that they "were slender cords or ropes attached, as in the case of a violin, at each end, and free all round." That the vocal cords do vibrate when the voice is produced, is an incontrovertible fact known to every student. Mr. Browne allows, himself, that they are free at their inner and approximating edges.

2. "Are covered with extremely fine and closely adherent mucous membrane," etc. *Answer* to this reason is best afforded by asking what would become of the vibrations of the string of a violin or violoncello if it were brought into contact, along the whole of its length, with some substance, as is the free inner edge of the vocal ligament with the thyro-arytenoides muscle." *Rejoinder*: This "answer" does not controvert my statement. The vocal cords are covered with extremely thin and closely adherent mucous membrane. One edge of a piece of elastic membrane can be easily made to vibrate, though the other edge be attached along its whole length; and, as stated above, the inner edge of the vocal cord does vibrate, in spite of the thyro-arytenoides. There is a wide difference between the edge of the membrane being "brought into contact along the whole of its length with some substance, and something being attached to the membrane, which moves with it even as the thyro-arytenoides does with the vocal cord." Musical strings are covered with wire to alter the character of the tone, etc., and in no way interfere with the necessary vibrations.

PATHOLOGICAL.—1. Mr. Browne quotes only the first part of this paragraph, that is, "When the cords cannot approximate, from the interposition of mucus, tumours, etc., huskiness, or loss of voice, ensues; it is analogous to pressing the fiddlestring without applying the bow." He omits the following, which explains. "The aperture between the cords is too large to allow the air to be applied with sufficient force to produce the necessary vibrations, though the cords may be in an exact state of tension." He makes no reference to the converse of this, as seen in laryngitis, when the aperture may remain normal, but the cords, owing to the thickening and inflamed condition of the muscles, are incapable of perfect tension; that is, the bow is used, but the fingers remain unapplied.

2. *Answer*: "While absolutely denying the accuracy of this statement as applied to the musical voice, I would ask where, if true, is the analogy? To render it relevant to the string-theory, we should be told what sort of note—not to say tune, and quite irrespective of 'volume or power,'—can be produced by one cord only without co-operating with the other, as compared to that to be obtained by one string only of a violin?" This answer is involved. I will try to make myself clear. *Rejoinder*: With every respect for Mr. Browne's experience, I must repeat my statement. I regret that the results of my observations differ from his. The notes to which I alluded were notes produced in musical sequence. This point has reference to the fact that the strings tuned together, and sufficiently proximate to be simultaneously thrown into vibrations, produce more sound than one string acting alone (at the last exhibition, fiddles were exhibited with two strings to each peg, for the purpose of producing increased volume

of sound). In this latter case, the vocal aperture is larger even than when mucus, tumours, etc., prevent the cords from approximating, but sound is produced because the healthy cord reaches to, and often beyond, the median line, and thus rests exposed to the full current of air.

VOCAL.—*Answer*: "This statement is correct as far as it goes, but it by no means follows that the human voice is a stringed instrument. It would be as logical to assert that because bats can fly that therefore they are birds." *Rejoinder*: I am glad that Mr. Browne consents to the correctness of my statement about "portamento" notes. I beg to reiterate that I never stated that "the human voice is a stringed instrument;" my contention is, that it is a stringed instrument "that it most resembles." Though I should not venture to assert that bats are birds, I assert that they both have wings for the purpose of flying.

GEORGE STOKER,

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CLINICAL MEMORANDA.

ENLARGED PROSTATE AND RETENTION OF URINE: RELIEF FROM INJECTION OF CUCAINE.

G. B., aged 60, tall and stout, had retention of urine, on December 20th, 1885, from a greatly enlarged state of the prostate gland. I used catheter No. 8, and continued to do so for about fourteen days—twice, and sometimes thrice, daily. On one occasion, I was unable to attend myself; an assistant tried, but failed. After this attempt, the tenderness seemed to increase along the urethra, with constant acute pain in the prostate gland, although morphine was often given without relief. I decided to inject a grain of cucaïne, dissolved in a drachm of water and rectified spirit, into the urethra, with a small syringe, forcing the solution down to the prostate by a little pressure. The relief was instantaneous. During that night, he had complete relief from pain, and the change, he said, "was heavenly." It was used on two successive nights with like results.

W. W., aged 65, of Glossop, had been troubled with stricture for twenty-five years. When passing urine one day, it stopped suddenly. Some one attempted to pass a catheter, but he was injured thereby half-way down the urethra. An abscess formed, and was opened in fourteen days. After this, micturition was difficult, and the stream until now had continued small. Four years ago, I passed a No. 4 catheter for him, with some difficulty; he had then a large prostate. At 6 P.M. on January 6th, 1886, he sent for me to pass a catheter. I found a very bad state of things; not a drop of urine had passed for two days, and I could not use the catheter. There was extravasation of urine, which extended along Poupart's ligament and the upper part of the thigh, with great enlargement of the scrotum. I punctured the parts freely, and injected a grain of cucaïne hydrochlorate in a drachm of water and rectified spirit, to relieve pain along the meatus, forcing this past the stricture down to the prostate gland. I then went home for a large curved trocar and cannula, to tap the bladder posteriorly, and took my son to assist. On returning, in less than an hour, I was surprised to find that the patient's pain was gone; and, in ten minutes after the injection was used, he passed over half a pint of urine. There now seemed no need to tap the bladder. On calling to see him in the morning, he had passed five pints of urine; and now continues to pass it in a free stream, better than before.

In both the above cases, as in others, I found good results from the use of the following medicine: $\mathcal{R}$ Quinæ sulph. gra. viii; tinct. ferri perchlor. ʒiiss; ammoniæ hydrochlor. ʒi; aquæ menthæ ʒi; aquam ad ʒviiss. One ounce to be taken every four hours.

The man is now at work. There was sloughing of the scrotum and upper part of the thigh, but this has done remarkably well. If any medical men will try the cucaïne, I am sure they will be delighted with the success.

JAMES RHODES, Glossop.

THE RECOGNITION OF ALBUMEN.

The following notes may be of interest.

C. S., a young man, aged about 20 or 21, having been exposed to wet and cold, complained to me that he did not pass enough urine. He also stated that he had been, and thought himself still, somewhat swollen. His appetite was good, but he had had some sickness. Finding his statements highly suspicious, I examined him more closely, and found what he said as to swelling quite correct, for the skin on his shins showed distinct oedema, though by no means in a great degree. He urinated in very small quantities at a time, and was enabled to see for myself before I left his house, where I was detained