urethral catheter. The kidney was incised along the convex border and thoroughly explored for stone. None was present, but the calyces were found slightly sacculated. The constricted orifice of the ureter was longitudinally divided upon the catheter, which was passed from a small opening in the infundibulum through the stricture to the bladder, and the ends of the incision were drawn together, by the Heineke-Mikulicz method, by means of two fine silk sutures, passed after the manner of Lembert (see Figs. 4 and 5). The wound

Fig. 5.—Manner of suturing after division of the stricture. The side view shows a great exaggeration of the pucker produced by tightening the sutures. (Diagrammatic).

of the renal parenchyma was sutured with silk. Nephropexy was then performed by Vuillet's plan. The wound healed entirely by first intention, and there has been no return since of the symptoms which led to the operation.

REFERENCES.

- ¹ *Anatomie des Formes Extérieures du Corps Humain*, Paris et Bruxelles, 1829. See a long footnote on pp. 150, 151, 152, 153, and 154.
- ² *Experimenta circa divers. var. animal. viv. ess. visc. et supplem.* (Act. Nov. Erudit., Lipsiae), t. sect. 6, p. 275.
- ³ *Observ. Chir.*, part 1, obs. 22.
- ⁴ *Article Nephrotomia*, *Lex. Med. Renovat. et Prax. Med.*, t. ii, cap. 13, pp. 252, 253.
- ⁵ *Dissertation on Extirpation of the Kidney* (Thèse de Paris, No. 85, 803). Roy. Coll. Surgeons' Library.
- ⁶ *Dans F. Collot: Traité de l'Opération de Taille*.
- ⁷ *Researches, Historical and Critical, on Nephrotomy or Cutting into the Kidney*, 1757. (*Mém. de l'Acad. Roy. de Chirurgie*, t. iii, part 2, sect. 2.)
- ⁸ *Archiv. J. Gynäkologie*, 1871.
- ⁹ *Medical Times and Gazette*, January 8th, 1870.
- ¹⁰ *Verh. des Internat. med. Cong.*, Berlin, 1890.
- ¹¹ *BRITISH MEDICAL JOURNAL*, 1892, i, p. 899.
- ¹² *Union Médicale*, February 14th, 16th, 21st, 1856.
- ¹³ In the edition of his works on the *Principles and Practice of Gynecology*, published in 1879.
- ¹⁴ *Ref. Med.*, September 5th, 1887.

(To be continued.)

NOTES OF A CASE OF PERFORATING GASTRIC ULCER: OPERATION AND RECOVERY.

By RAYMOND SHAW, M.S., M.B.(DUNELM),
Great Yarmouth.

Miss H., aged 20, an assistant in a shop, had been suffering from gastric ulcer since September, 1896, and had at intervals been under medical treatment. On June 24th, 1897, she was in the shop as usual, but was in great pain all day. Nevertheless her food on that day included rhubarb, strawberries, tomatoes, bread and butter, with tea. About 9 P.M., some four hours after tea, she suddenly felt acute pain in the stomach, rapidly spreading over the whole abdomen, but managed to walk home, a distance of two or three hundred yards, preferring that method to the jolting of a cab.

I saw her at 11 P.M., when it was evident that perforation had occurred. The pulse was 120, temperature 100°, liver dulness was still present, and there was no distension. The belly was too tender to elicit the presence of fluid. Consent

was only obtained for operation in the morning, so she was put under morphine, and dry heat applied. Next day her condition was much more grave, but at 9 A.M., with the help of Dr. Ryley and Mr. Blake, I operated.

An incision, above the umbilicus, in the middle line was made, 4 inches in extent, and immediately the peritoneum was opened, signs of the lesion were evident. Gas and fluid escaped, and large flakes of lymph were found, especially between the stomach and liver. The stomach was somewhat contracted, but not empty, and when drawn into the wound the ulcer was easily detected on the anterior wall, near the pyloric end. The edges were thin, ragged, and undermined, without evident induration; there was no large aperture, and evidently some slight attempt at repair had taken place, although the gentlest handling caused more of the contents of the stomach to escape. The ulcer was closed by a double row of Lembert's sutures, and, to afford further security, a portion of omentum was also fixed over the weak spot. The lymph was removed by careful sponging, an incision made below the umbilicus, and the abdomen washed out with hot boiled water. It was necessary to repeat the flushing several times, as on passing a glass drainage tube into Douglas's pouch, vent was afforded to nearly a pint of purulent fluid. The abdomen was then closed, several gauze strips being left in the upper wound, taking care that one passed up under the liver, and others proceeding directly to the line of sutures. Just as the dressing was completed, vomiting occurred, so the stomach was immediately thoroughly washed out. The operation lasted an hour and a-half, and was well borne, her condition being rather better than at the beginning.

The after-progress was uneventful. For two days she was very ill, but then commenced to improve. After the first day sips of hot water were given, and at the end of forty-eight hours, small quantities of champagne and milk alternately were administered. Vomiting occurred once on the third day. During this time drainage, especially from the tube in Douglas's pouch, was very free. The gauze strips were removed on the third day, but the lower wound was drained for a week. At the end of a fortnight both wounds were soundly healed. The temperature at no time rose above 102° F., and was normal in ten days. Menstruation, which for some months had been in abeyance, occurred on the third day after operation, and has since been regular. The patient was allowed up in the third week, and solid food gradually given. She has now, February 24th, been at work for some months, and, excepting when indiscreet in diet, there is practically no pain.

The points of interest in this case seem to me to be:

1. The ragged, undermined character of the ulcer, without induration or any large perforation.
2. The time after perforation (twelve hours) that the operation was successfully undertaken.
3. The necessity for thorough flushing and drainage, especially through Douglas's pouch.
4. The fact that such a severe operation could be satisfactorily and successfully performed in a small room of an ordinary lodging house, at very short notice, and without skilled nursing being obtained either at the time of, or subsequent to, the operation.

THE VISION OF RAILWAY OFFICIALS.

By S. JOHNSON TAYLOR, M.B., M.R.C.S.,
Honorary Ophthalmic Surgeon to the Eastern Counties Asylum.

A BRIEF account of the following case will show how unsatisfactory in some instances is the visual test for railway servants, in spite of the exertions of Mr. Bickerton and others.

J. L., aged 25, engine driver, consulted me on December 3rd, 1897, complaining of defective eyesight. Since leaving school he has, with the exception of a period of six months, been in the railway service. Beginning as "cleaner" in the engineering sheds, he was gradually promoted and passed as fireman (stoker) in 1890, whilst in July, 1895, he became an occasional driver, and a regular one some twelve months back, driving a passenger train this last summer, and a goods train since.

His vision for the post of driver was not tested until February, 1896, when it was tried by a chief clerk, who, he

informs me, tests the vision of all those engaged in the locomotive department by making them count dots at a certain distance and match and name coloured wools; but though he failed at this sight test, and could not correctly count the dots, he was allowed to go on driving.

In June, 1896, he passed as a regular driver, being examined about his engine, but his sight was not tested then. His vision I found was $\frac{1}{2}$ (one letter) with the right eye, and one letter of $\frac{1}{2}$ with the left; in other words, this man, engaged in a dangerous occupation demanding perfect visual acuity, had just a fraction more than one-third of normal sight in the right eye, whilst with the other, he had decidedly less than even that.

His colour vision was normal. The ophthalmoscope at once revealed the cause of his defective vision, his refraction being mixed astigmatism in each eye; whilst, in addition, a nebula was discovered in the left cornea. He was told, of course, he must give up railway engine driving, and any occupation on the line requiring good sight.

Fortunately he is a young man, and unmarried, but much disappointment to himself, and risk to the lives of others and to the property of the company, might have been prevented if his sight had been tested by a competent person when he first went into the company's service. I should not call a chief clerk a competent person from this point of view, and the fact that, in this case, the man was allowed in a happy-go-lucky-sort of way to go on driving his engine when his sight had been found very defective seems to me to call either for no comment or a good deal.

Nearly four years ago the guard of a ballast train came to me suffering from failure of vision. Without glasses his vision was R. $\frac{5}{60}$ but with — 1 D sph. it was improved to $\frac{5}{18}$ (3 letters)

L. — improved to $\frac{5}{18}$ (3 letters) by — 6 D cyl.; in other words,

he had myopia with considerable astigmatism in his right eye, and a high degree of myopic astigmatism in his left, and never, of course, should have been allowed to follow any responsible occupation on a railway.

This man had tobacco amblyopia besides his error of refraction, and was, I am glad to say, promptly pensioned off by the company when I told him he must give up his occupation; he was 50 years of age. Had he been 15 or 20 years younger, and not able to claim a pension, the case would have been a good deal harder from his point of view.

Straws show which way the wind is blowing, so these isolated facts may, possibly, do some good by once more drawing attention to two points well known to all ophthalmic surgeons: (1) The necessity for testing the vision and examining efficiently the refraction of all those joining the army of railway employees; and (2) of renewing the test from time to time, so as to detect the onset of disease, tobacco and other amblyopias, etc., where central colour blindness is a prominent symptom.

VILLOUS TUMOUR OF RECTUM.*

By N. E. MACKAY, M.D., M.R.C.S.

Miss E. L., aged 45, consulted me in November, 1884, for what she took to be piles, from which she said she had been suffering for a number of years. She was a pale, thin woman, and had a careworn and anxious countenance. For four or five years she had suffered from a profuse discharge from the bowels of glairy mucus, which resembled the white of an un-boiled egg. Lately the discharge ran away from her, and she had no control over its escape. For the last five or six months, when at the closet, a large tumour often came down, which bled freely till returned, when the bleeding ceased. Lately the tumour protruded occasionally in walking. She was a very modest country maid, and it was hard to get her to talk about herself, or to get any accurate data of her ailment at first. Although she had been suffering for four or five years, she had never consulted a doctor before. Her friends could not persuade her to do so. She had little or no pain about

the rectum. What she complained of most was the discomfort arising from the protrusion of the growth and the constant discharge. She had some backache, and strained a good deal at the closet, which caused copious bleeding. The free bleeding and copious discharge of mucus seriously impaired her health, and she was losing strength rapidly.

Examination disclosed an atrophied and greatly relaxed sphincter. Indeed, so wasted was it that it could hardly be detected. A large, soft, and spongy growth was found in the posterior wall of the rectum, about an inch up, occupying half its circumference. The mass had a cauliflower appearance; its surface was studded with hypertrophied villi resembling the growth by the same name found in the bladder. These villi bled very freely on the slightest irritation. The tumour was about the size of a man's fist, and it was soft and spongy throughout its entire substance. It grew from the mucous and submucous tissue. It had no pedicle. By its weight it dragged down the rectal wall which was sagged. Its attachment, which was circular, was from 2 to 2½ inches in diameter. When the growth was well outside, a number of large vessels—the size of a goose quill—were seen traversing its base.

Assisted by Dr. Johnson, sen., Charlottetown, P. E. I., I removed the tumour with silk ligatures. The growth was brought well outside, and a double-threaded needle passed through its base close to the rectal wall. Great care was exercised not to wound the muscular coat, which was sagged by the weight of the growth. On tying the segments the hæmorrhage was tremendous at the point of separation. Perchloride of iron solution or the thermo-cautery had little or no power over it. I had considerable difficulty in arresting the bleeding, and not till I had tied the whole growth off in a series of small sections did I succeed. For a while I felt very anxious about the termination of the case. The tumour was left protruding from the anus. It gave her very little inconvenience. The decomposing mass was kept sweet by frequent irrigations with carbolic acid solution (1 to 50), and was dressed with lint soaked in carbolised oil (1 to 30). The dressing was changed often. In these days very little iodoform was used in surgical dressing. The strangulated mass sloughed away gradually without any bleeding, and it left a large granulating sore, which healed in course of time without any complications. There was no recurrence of the growth. The patient lived in the enjoyment of fairly good health until two years ago, when she had an attack of pneumonia, of which she died. On October 13th 1897, I wrote to Dr. Matheson (who attended her in her last illness) for particulars of her death. I received the following answer:

Harrington, P. E. Island,
December 6th, 1897.

Dear Dr.—I may state that your operation was a complete success. I examined her carefully and fully several times, and was unable to make out anything abnormal. She died of pneumonia according to my notes.

Yours sincerely,
C. S. MATHESON.

Messrs. Allingham, in the latest edition of their work on *Diseases of the Rectum*, say that only 30 cases of this disease had been reported up to 1896.

MEMORANDA:

MEDICAL, SURGICAL, OBSTETRICAL, THERAPEUTICAL, PATHOLOGICAL, Etc.

IMMUNISATION BY DIPHTHERIA ANTITOXIN.

THE following facts may be of interest in addition to those published by Dr. W. C. Aylward and Dr. Constance Long: In an institution containing 150 children, ranging from 7 to 16 years of age, an outbreak of diphtheria occurred lately. It was certainly mild in its character, but none the less fraught with grave possibilities, as a similar outbreak commenced only a little over a year ago. Some dozen cases were under treatment, most of them having been injected with 1,500 units of antitoxin at the earliest opportunity. I then decided to attempt to immunise 22 of the youngest, from 7 to 10 years old. These were injected with 200 units each, and though a few had some headache and general *malaise* for a day or two, none of them had diphtheria. One child had a definite rash, but very limited, and exactly like the rashes which occurred in two

* Read at a meeting of the Halifax, Nova Scotia, Branch.