men in question again attracted my attention, it having been meanwhile bisected antero-posteriorly so as to show the canal. Mr. Silcock kindly had photographs of the specimen taken for me so as to exhibit the condition of the canal more completely. The accompanying drawings are the result.

Fig. 1 exhibits the bisected ante-flexed uterus as it hangs suspended, the cavity of the uterine body being very evident, so, also, the cavity of the lower part of the cervix. But the upper part of the cervical canal for a length of three-quarters of an inch is hardly visible, and it looks as if obliterated at this situation. In Fig. 2 is shown the same specimen, but cords have been attached to the two sides of the apparently closed part of the cervical canal, and it is now seen that the cervical canal is only potentially, but not actually, closed. In point of fact the canal is really excessively compressed in the antero-posterior direction, the anterior closely in contact with the posterior wall (as shown in Fig. 1), and until opened out by the stretched cords, was virtually much blocked. It must further be noted that the section of the canal, which no doubt was intended to be made exactly in the middle line, was really made a little to the left of the middle line. The view of the interior of the canal of the cervix in Fig. 2, therefore, shows considerably more than half of the width of the canal. The shape of the canal at the virtually occluded part is not circular, but very much flattened from before backwards; in this case the shape of the canal, indeed, resembles very much the shape of a small, thin, india-rubber tube, compressed at a particular spot between the thumb and finger, and the result is that there is very great narrowing in one direction, but a widening in the opposite direction. Comparing, again, the uterine tube with one of india-rubber under compression, it is evident that the increased width of the tube is of no service so far as patency is concerned, so long as the compression in the opposite diameter continues to be exercised. It will be further obvious that, so long as the cervix continued flexed, as in Fig. 1, there would be an impairment of patency, which would be relieved or diminished by taking off the compression in the antero-posterior direction. This might be done in the way shown after death; during life the straightening of the canal by a sound, or a dilator or a tent, would be effectual in procuring a free passage out of the uterus. It is also evident from inspection of the drawings that a forcible expulsive force, that is, uterine contraction, acting on fluid contained in the uterine cavity, would or might be sufficient to open out the canal at the compression-narrowing spot, and thus to secure an outlet for the retained fluid. It is also evident that any increase in the degree of flexion present would tend to still further close the canal.

Nothing is known of the history of the above specimen, but it evidently belonged to a rather young woman. The slight indentations in the body of the uterus are accidental, and due to pressure of a piece of glass placed so as to expose the interior of the body of the uterus.

The specimen undoubtedly favours the opinion previously expressed on the subject, that the patency of the uterine canal is liable to be greatly affected by presence of marked flexion of the uterus.

ELECTRIC ILLUMINATION OF THE MALE URETHRA BY MEANS OF THE NEW INCANDESCENT-LAMP URETHROSCOPE.¹

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SINCE April, 1887,² a simple, practical, and most efficient urethroscope has been placed in the hands of the profession, by means of which the entire urethra can be brilliantly illuminated; so that those diseases of that canal grouped for convenience under the term "gleet," which sometimes prove so rebellious, and are often obscure in their causes, can now be as scientifically studied as they can be effectively treated.

I have used the instrument in over fifty cases of gleet and stricture, and believe it to be the best and the most gene-

rally useful of any endoscope yet invented, for it can be adapted to every orifice of the body, even to the cesophagus. The instrument has been invented by Leiter, of Vienna, but it is only fair to explain that it combines, in reality, those various additions to Bozzini's "light conductor" of 1805, which mark the successive epochs in the development of urethral endoscopy. Thus its general construction is somewhat similar to the now twenty-five years old endoscope of Desormeaux-Cruise,³ but instead of the hot and cumbersome paraffin lamp of that period, or the still hotter and more complicated Nitze-Leiter urethroscope of 1879,⁴ Schall, of London, has substituted the incandescent lamp.⁵ Leiter has simplified the entire instrument, and has furthermore cleverly adapted a concave non-perforated reflector, which is the bone and marrow of the innovation. Although much good and sound work has been done by Oberländer by means of the Nitze-Leiter urethroscope, yet that instrument has never found favour or been in general use, because of its costliness, unwieldiness, and complication.

Leiter's Electric Endoscope for Urethral Examination.

Construction.—The incandescent-lamp urethroscope is made up of three pieces, D, B, C, and T. These pieces may be described as follows: 1. The handle D is made of caoutchouc, and carries on its upper end a small incandescent lamp, which is connected with the two binding screws which project from its lower end. A light steel spring forms the key. The handle fits into the bottom of the lantern B, C. 2. The lantern B, C is a roofless gutter-shaped box, carrying at one end a fixed, obliquely-placed, concave mirror A for reflecting light along the urethral cannula T, and at the other the nozzle C for fitting on the urethral tubes. Two additional and important items of the lantern consist in small perforations around the lamp for ventilating off the heat, and a small movable lens B for myopic or hypermetropic observers. 3. A series of urethral cannulae T of various sizes and lengths. (Those supplied at present by Leiter are not long enough.)

A glance at the figure will show that the light from the lamp is cast directly along the tube, and that the observer's eye, which is placed at B, is shielded from the blinding light emitted by the lamp. It is worked by a small plunge battery of four cells.

Directions for Use.—Select a long cannula, and of a size suited to the meatal calibre. Use glycerine as the lubricant. Pass the cannula up to the hilt after injecting a few drops of a 4 per cent. solution of cocaine. Every part of the urethra can now be examined as the cannula is withdrawn. If the cannulae are marked in inches, a note of the exact position of the diseased mucous membrane can be made for future reference. Frequently a drop of mucus, gleet, or the lubricant will obscure the surface of the mucous membrane; a pledget of cotton-wool on a stylet removes it, hence it is wise to use as little glycerine as possible. Should the wool slip off the end of the stylet it will be passed on urination, or may be removed by a hook-ended stylet applied through the cannula.

Capabilities.—The illuminating power is very considerable.

¹ Desormeaux. *De l'Endoscope*, Paris, 1865. F. R. Cruise, *The Endoscope*, *Dub. Quart. Jour.*, May, 1865.

² Die Nitze-Leiterschen Urethroscope, *Berl. Klinisch. Woch.*, 1879, No. 48.

³ Leiter, *Neue Beleuchtungs-Apparate*, Wien, 1888.

¹ Abstract of a demonstration of the instrument upon normal urethrae as well as upon patients suffering from various urethral diseases—gleet of seven years, stricture, etc.—at the Medical Society, January 23rd, 1888.

² Dr. Brenner upon Leiter's Urethroscope, *Verband der Deutschen Gesellschaft für Chirurgie*, xvi Congr., 1887, p. 82.

Every section of the urethra can be thoroughly examined, and every detail of its surface can be as easily studied as if the canal were exposed to bright sunlight. Any change can, with practice, be detected immediately. But more than this; every diseased patch can be treated topically without withdrawing the cannula, for the reflector is so deeply placed in the lantern that bougies, or stylets armed with wool or medicaments, can be passed over its summit (Fig. 1 A, after twisting away the lens B), and down the cannula in the very axis of the light. Thus, as in the Desormeaux-Cruise instrument, the observer can govern the method and extent of his treatment, and watch the effect at the same time. The urethroscope has never been a popular instrument, and I believe it is due to this fact that so many of the long-standing, neglected gleet lapses into stricture. It is certain, however, that with a simple and practical urethroscope such as this is, and a greater visual knowledge of urethral disease, we shall have fewer false diagnoses of stricture; and, doubtless, fewer instances of normal urethra "worried into stricture" by unnecessary and harmful instrumentation.

ABSTRACTS OF THE MILROY LECTURES ON SOME GENERAL CONDITIONS WITH REGARD TO EPIDEMICS.

*Delivered at the Royal College of Physicians of London,
February and March, 1888.*

By ROBERT LAWSON, L.R.C.S.ED.,
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LECTURE I.—EPIDEMIC INFLUENCES.

AFTER thanking the President and Fellows for the honour done to him by selecting him to give the first series of lectures under the bequest of the late Dr. Milroy, the lecturer quoted two paragraphs from the testator's "suggestions for consideration by the Council of the Royal College of Physicians in relation to his bequest." In one the opinion was expressed that no question of medical doctrine stood "more in need of strict inductive examination than that of determining with accuracy the part which contagion—the communicability of disease from the sick to the healthy—plays in the development and spread of various maladies. ...The correct solution of this problem thus becomes one of supreme importance in State medicine. This can only be effected by the patient investigation of numerous verified and authenticated facts in various localities and regions, and under different circumstances and conditions, apart from all previous speculation and any mere traditional or customary beliefs." In the other a strong desire was expressed "that more diligent and continued attention may be paid than has yet been attempted in this country to the study of the accurate geography of diseases, together with the exact chronology of the appearance and persistence of those diseases which are of only occasional and temporary occurrence; also the exact date of each epidemic prevalence or extra severity of the ordinary endemic maladies in different countries and localities, together with a brief notice of any exceptional feature or peculiarity characteristic of each aggravated manifestation of the malady in question, so that some record of its varying natural history may be preserved for the benefit of future times."

Passing then to the subject selected, the lecturer said that the terms "epidemic constitution," "epidemic influence," "pandemic influence," were merely conventional expressions embracing those factors which led to the diffusion and intensification of disease from time to time which were not referable to the individuals who suffered or the localities in which they resided. A study of the statistics provided by the Medical Department of the army showed that, though causes of insalubrity were more or less permanently present at various stations, severe epidemics of fever appeared at intervals only, leaving the respective stations comparatively healthy during the intermediate years, thus indicating the operation of factors during the epidemic years which were in abeyance during the intervening periods. From this it was concluded that the epidemic factor embraced large portions of the earth's surface at the same time, and that records of disease over an equally extended surface, and for many years in suc-

cession, were required to indicate the course these factors pursued.

A study of a large collection of notices of the occurrences of epidemics of fever and several other diseases led to the conclusion that in the case of fevers these outbreaks, besides embracing a considerable space in longitude, gave rise to epidemics in the respective localities they invaded, for the most part in a year with an even, or odd number. This conclusion was illustrated by quotations chiefly from the reports of the Army Medical Department. In Jamaica, for instance, the number of deaths from fever in the odd years (1817, 1819, etc.) was far greater than in the even years (1818, 1820, etc.), while the reverse held good in Ceylon.

An examination of the large body of evidence collected led to the further conclusion that epidemics of fever, which became developed at various points, from time to time, passed uniformly to the northward until they finally disappeared. The length of the course of individual epidemics varied much, but the disease generally appeared in each locality in the odd or even year which characterised it. From the combination of several details the period occupied in passing from the Cape of Good Hope to this country was found to be about six years.

A large mass of statistics was quoted in favour of the lecturer's views, and the general conclusion drawn was "that there is a factor concerned in the production of fever which determines its appearance at points more and more to the northward in successive years; that this factor revives periodically every second year, or at some multiple of two years, passing like a series of waves over a more or less extensive portion of the earth's surface. These waves can be traced from Buenos Ayres and Cape of Good Hope in 35° south, to northern Europe and Iceland, and in longitude from Ceylon and China to the west coast of America. To distinguish these I have named them pandemic waves. Of their intimate nature nothing is known at present, but as their position from year to year seems defined, approximately at least, by lines of equal magnetic dip, it is inferred they may be dependent in some way on that force."

THERAPEUTIC MEMORANDA.

SYRUP OF TAR IN WINTER COUGH.

TAR is undoubtedly one of the best remedies for chronic bronchitis and winter cough, but the difficulty is to know how to give it. In an article which appeared in the *JOURNAL* in 1875 I recommended that it should be given either in capsules or in pills made with lycopodium. Both these methods have their disadvantages, and I now use the *syrupus picis liquidæ* of the *United States Pharmacopæia* prepared as follows: "Tar, six parts; cold water, twelve parts; boiling distilled water, fifty parts; sugar in coarse powder, sixty parts, to make one hundred parts. Upon the tar contained in a suitable vessel pour the cold water, and stir the mixture frequently during twenty-four hours; then pour off the water and throw it away. Pour the boiling distilled water upon the residue, stir the mixture briskly for fifteen minutes, and set it aside for thirty-six hours, stirring occasionally. Decant the solution and filter. Lastly, in forty parts of the filtered solution dissolve the sugar by agitation without heat."

It is stated in most of the dispensatories that the syrup contains six grains in the drachm, but Mr. Tanner, of the Westminster Hospital, tells me that in reality it is not much stronger than the old-fashioned tar water. This, however, is a matter of little importance, for by the addition of a few drops of ammonia or other alkali it can be prepared of almost any desired strength. I usually give it in doses of from two to four drachms every three hours, or even oftener. It is by no means disagreeable to take, but should the taste be objected to it can be flavoured with syrup of Virginian prune made according to the following formula: "Wild cherry in No. 20 powder, twelve parts; sugar in coarse powder, sixty parts; water, a sufficient quantity to make one hundred parts. Moisten the wild cherry thoroughly with water, and macerate for twenty-four hours in a close vessel; then pack it firmly in a cylindrical glass percolator, and gradually pour water upon it until thirty-five parts of percolate are obtained. Dissolve the sugar in the liquid by agitation, without heat, add the glycerine and strain." The tar is an excellent stimulating expectorant, whilst the wild cherry is not without influence in allaying cough. The efficacy of the combination may be greatly increased by the addition of a little apomorphine. I use the 2 per cent. solution of the *British*