LESSON XL.

GLEET.

Pus from a gonorrhœa contagious in the outset—Pus from simple urethritis gradually elevated to the point of contagiousness—This through various well-recognized causes—Importance of this positive in practice, also in a medico-legal point of view—Definition of gleet—Usually considered a chronic gonorrhœa—Evidences that it is often produced by purely mechanical conditions—Mr. Dick's views dissented from—Urethral stricture the most common cause of gleet—Urethral sinuses a possible cause—Dick, Le Roy d'Eliolles and Sir Henry Thompson in proof of stricture as a cause of gleet—Bumstead and Taylor, also Van Buren and Keyes, supporting this view—Necessity of examining for stricture in all cases of gleet—Ordinary sounds valueless for determining the presence of stricture—Value of the urethrometer as a means of diagnosis—Description of the urethrometer.

An inflammation, set up by contact with pus, from an acknowledged gonorrhœa, *at once* partakes of the vicious, contagious character of the inflammatory products from which it was derived. A simple urethritis *may* continue simple, and recovery take place within a short period, or it *may* be aggravated by various influences, such as vinous or sexual excess, contact with uterine or vaginal secretions, prolonged physical exercise, or from simple mechanical irritation, in a strumous or gouty diathesis, until it shall have *acquired* the property of contagiousness. Arrived at that point, urethritis of non-venereal origin does not differ in any way from that which has been originally acquired by contagion. The *contagium*, or contagious element present in gonorrhœal inflammation, would seem to be due to an acquired viciousness, from the fact that this *contagium* may be developed, or induced, in simple urethritis, by the various causes above enumerated, independently of contact with the gonorrhœal secretion. This position, *most important in practice, as well as in a medico-legal point of view*, is capable of substantiation by eminent authority, and besides, I have personal knowledge of its truth, from a number of carefully observed and recorded cases. The active stage of an inflammation of the urethral mucous membrane is called an *urethritis*, when resulting from causes independent of venereal contact, and when referable to a contagious origin, it is termed a *gonorrhœa*. Its duration in the great majority of cases may be set down as four or five weeks. In the cases where complete recovery does not take place within this time, there is usually a subsidence of the more acute symptoms, and the case is then characterized by a painless or nearly painless discharge, more or less profuse, and more or less purulent, which persists, in spite of the most earnest and judicious treatment by internal and local remedies, for weeks, perhaps months —often years. At times reduced to a mere secretion, which sticks the lips of the meatus together, when, upon a slight indiscretion in diet, a little sexual or vinous indulgence, within a few hours it may return as a free and possibly painful discharge. This chronic form of urethritis, which has, from time immemorial, afflicted humanity, and which has probably been the source of more trouble, to patients and surgeons, than any other known difficulty, is familiarly known as GLEET.

It is usually considered either as a sort of chronic gonorrhœa, and treated on the same general principles (by internal remedies and local injections), or is looked upon as the result of a debilitation of the urethral mucous membrane, but having no specific or contagious property associated with it, and is treated by specific and local means, with the addition of some constitutional remedies addressed to the condition or diathesis upon which the continuance of the difficulty is supposed to depend. Now, if it can be established that gleet is the result of a *mechanical* condition, that it may be produced, without the previous occurrence of a gonorrhœa, by a simple obstruction to the free discharge of urine through the urethra, and that this obstruction may occur as a result of *any* inflammation or injury which shall implicate the sub-mucous urethral tissues, it will then be clear that no treatment, which is not based upon the detection and removal of the me-

chanical difficulty, can be more than palliative. And if it can be shown, that the detection of *contraction* is possible *in all cases of gleet*, and that its removal *is certain* to result in the cure of the gleet, the proof of the non-specific character of gleet may be considered established.

Mr. Henry Dick, of London, whose brochure on the "Pathology and Treatment of Gleet"† is in my opinion the most valuable contribution to the literature of this subject in any language, says, "Gleet is always the consequence of a clap. I have never seen it idiopathically appear without clap, except in cases of disease of the prostate gland or the bladder, I would not say that idiopathic gleet never exists, but I have never seen it." This statement conveys the impression which was formerly accepted by the profession in regard to the cause of gleet, and has been a source of frequent error both in diagnosis and treatment.

Acute urethritis, from whatever cause, and it acknowledges many, may be stated as a self-limited disease. A disease which, under various methods of treatment by internal remedies, such as copaiba, cubebs, sandal-oil, etc., by alkalies and diuretics of various kinds, by local injections, such as sulphate of copper, sulphate of zinc, acetate of copper, acetate of zinc, acetate of lead, nitrate of silver, any and all of the mineral salts or vegetable astringents, preparations of carbolic acid, liquid glass (silicate of soda), fuller's earth, or any one of the thousand injections which have been used and lauded for their curative influence on acute urethritis—or by no treatment at all—has a tendency to get well within a limited time, and that time may be stated to be about four weeks. Dr. Bumstead‡ formulates the experience of the profession, past and present, in the statement that the average duration of the disease is "*three or four weeks.*" "*Greater success on the average*," says Dr. Bumstead, "*is probably not attainable by any means with which we are at present ac-*

† Published by Baillière Bros., in 1858.
‡ Bumstead on Venereal Diseases, Phil., 1870, p. 92.

quainted." I have met quite a number of well authenticated cases, where there was a history of a severe gonorrhœa with inflammatory complications, which recovered within this time, under the use of *baths alone;* others, where homœopathic treatment was resorted to; and others again, where *no treatment at all* was had, and where recovery came within the four weeks. Now, while I am sure that a variety of remedies, local and general, may, when judiciously employed, enable the patient to pass through the disease with much more comfort, and less danger of subsequent trouble, than without treatment, yet I am quite prepared to state as my opinion, based upon a large personal experience in the treatment of this disease, by the most approved methods, *that it is a self-limited disease in its acute form*, and, when it lasts longer than four weeks, or when apparent recovery takes place, and the discharge breaks out afresh without new exposure, that *there is a complication present*, either the result of the current inflammatory trouble, or of some inflammation antecedent to the attack, which causes the continuance of the trouble, and which must be appreciated and removed before any *permanent* cure can be had. This complication is URETHRAL STRICTURE—Stricture in the sense of an abnormal contraction of the urethral calibre, at some point at or between the meatus urinarius and the bulbo-membranous junction; and I will furthermore state it as my conviction, that the continuance of the inflammatory trouble (and whenever there is an urethral discharge, there is incontestably, more or less inflammatory trouble) is due to the irritation kept up by the arrest, more or less complete, of the stream of urine at the point of Stricture, and by the imperfect emptying of the urethra after urination. *Chronic gonorrhœa—Gleet*—also variously designated as prostatic, gouty, scrofulous, is dependent, as a rule, on abnormal contractions of the urethral canal. The only exception that I recognize (aside from the presence of polypoid, or warty growths in the urethra) is the engagement of urethral sinuses (as the lacuna magna, or some one of those occasionally met near the meatus, possibly deeper down), and these

I have never found engaged, unless more or less coarctation at an anterior point was also present. *Chronic urethral discharge means Stricture.* I am quite aware that well-defined Stricture may be present, without a palpable discharge, but there is always to be found evidence of a certain degree of irritation present in all such cases, although there may be no appreciable discharge. When, however, there is *discharge*, there will, in every case, be found, if the examination is efficiently made, a *well-defined* and *unmistakable* point of *Stricture*.

The dependence of continued inflammation in gonorrhœa, and of the continuance of chronic urethral discharge, upon the presence of Stricture, is no new discovery. All the recent approved authorities recognize it. Dick was the first, so far as I know, to insist upon a thorough examination of the urethra for obstruction in every case of gleet, and his instructions for the examination of the urethra with the bulbous bougie of Le Roy d'Eliolles are minute and complete. Sir Henry Thompson says in his work on Stricture of the Urethra, page 90: "I have known instances in which this symptom (gleet) has been so prominent that the patient has been treated for a gonorrhœa, during a period of many weeks, without suspicion arising that a Stricture existed, which was its sole cause; the subsequent recognition of the contraction and its cure having been attended with the complete cessation of the discharge."

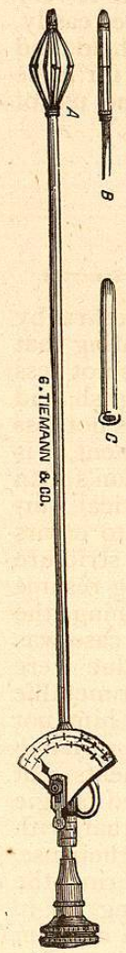
Dr. Bumstead (Bumstead on Venereal Diseases, 1870, p. 93,) says: "It is not impossible that there is stricture of the urethra, *which is the most frequent cause of the continuance of a gleety discharge following an attack of gonorrhœa.*

Van Buren and Keyes, p. 71, say: "*The most common of all causes for continued gleet is stricture, already present or forming,*" and yet, in spite of the unmistakably pointed and positive statement of these, and other valued authorities, the usual treatment of chronic gonorrhœa and of gleet at the present day is by *nostrums*, sandal oil, copaiba, urethral injections in multiplicity, and the use of medicated bougies and sounds. And why? It is

not that urethral stricture is doubted as a possible factor in the case; it is not that this is unrecognized as the most *probable* cause of the difficulty; but because the examination of the diseased urethra is conducted with *imperfect instruments*, and that, as a consequence, no exhaustive examination of the canal is made. *The least contraction at any point in the urethral canal has been demonstrated as capable of causing the indefinite continuance of an urethral discharge and even of establishing it, de novo, without venereal contact.** If this is the fact, then some means for the detection of the *least* contraction of the urethral canal must be used in order to ascertain the presence or absence of stricture. To this end, the first step must be to ascertain the *normal* urethral calibre in the presenting case. It has been proved that every urethra is an *individuality*, and that no *average standard* is of use in examining a given urethra. The establishment of the normal calibre is the first step towards ascertaining whether or no there be any coarctations in its course. This can only be accomplished by *actual measurement* by means of an *urethra-meter*. The proposition is a purely mechanical one. Given a tube, urethral or otherwise, in which it is desirable to ascertain whether or not there exists a contraction of its *calibre* at any point, the first question to settle is *the size of the tube;* this effected, the determination of any *variations* becomes easy; without it, impossible. The bulbous bougee was relied upon by Le Roy d'Etoilles, Dick, and others, many years since, and it has been growing in favor very slowly but surely, so that now it is an indispensable instrument in urethral examination for stricture. Explorations with an ordinary sound, catheter, or straight bougie, are practically valueless in determining the size, locality, and number of strictures in a given case. The presence of a contracted meatus (a very common complication, as a result of infantile balanitis or gonorrhœal inflammation) makes the detection of any deeper stricture, if of greater calibre, quite impossible. The sudden

* Page 20.

release of a bulbous sound or bougie, of a size which, by firm but gentle pressure, may be made to pass through the meatus, indicates, as it slips into the fossa navicularis, that contraction is present at that point; and the relief of the contraction becomes a necessity before the deeper canal can be efficiently explored, or the normal calibre of the urethra be estimated. It is here that the value of the urethra-meter in the diagnosis of strictures becomes evident. This should be introduced through the contracted meatus (when this is not below 12° F.), and down to the bulbo-membranous junction. At this point the bulbous portion of the instrument is to be expanded, by means of the screw at the handle, until a feeling of fulness is experienced, when, if there is no stricture at the point of trial, the pointer on the dial plate will indicate, with sufficient certainty, the normal calibre of the urethra under examination. Now, drawing the instrument slowly out, if stricture is present, the bulb will be arrested at that exact point. The screw is then turned, diminishing the size of the bulb, until it slips through the coarctation, when a glance at the dial will show the calibre of the stricture. This subtracted from the figures indicating the normal calibre, will give the *precise value* of the contraction. The remainder of the canal, examined in the same way, brings the bulb finally to the meatus, where, in the same manner, the greater or less degree of deviation from the normal size will be shown. Sir Henry Thompson* as late as 1882, still claims that all that is necessary for diagnosis of stricture is a slightly curved, blunt, flexible bougie. Thus he says: "Take a flexible gum elastic bougie, slightly curved toward the point, with a blunt end (since a tapering point will not mark distinctly



URETHRA-METER.

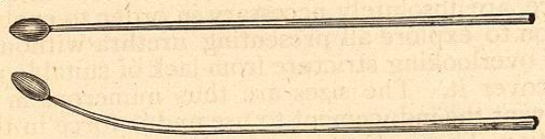
* "Diseases of the Urinary Organs." London, 6th ed. P. 8.

the site of stricture) not larger as a rule than 10 or 11 of our scale (20 or 21 of the French) and pass it very gently and slowly into the bladder. If it goes easily, above all if it is withdrawn without being held, and slides out with perfect facility, take my word for it, he has no stricture and *quoad* obstruction, wants no use of instruments whatever."

SIR HENRY THOMPSON'S BLUNT-ENDED BOUGIE USED FOR DIAGNOSIS OF STRICTURE.

A careful examination of over a thousand urethras by means of the urethra-metre, warrants me in stating that the average calibre of the meatus urinarius is not less than 24 of the French scale or 12 of the English, and that the average calibre of the male urethra is not less than 32. With such facts as a basis of statement, it is not too much to claim that Sir Henry Thompson's plan of examination is wholly inefficient for practical purposes, and would, if accepted, inevitably lead to errors in diagnosis and treatment. In my work on stricture of the male urethra (p. 70, *et seq.*), the foregoing résumé of Sir Henry Thompson's mode of ascertaining the presence or absence of stricture in a grave case was quoted, and the reasons for disputing its value were given at some length. I omitted to state that metallic bulbous bougies had been previously in use by him, not from any desire to deprive him of the credit of familiarity with the use of those valuable instruments, but because he stated distinctly that the blunt-ended bougie was sufficient for all practical purposes, and that with later experience he had practically given up their use. In a private conversation with Sir Henry, during the meeting of the late International Medical Congress in London in 1881, he claimed that this omission did him great injustice. I therefore take this earliest favorable opportunity publicly to state, as I then agreed to do, that he *has* commended the use of the metallic bulbous bougies, and was once in the habit of defining the local-

ity of strictures with it. But, as he says, in his last edition, 1882,* with his increased experience he no longer finds it of service (p. 39). It will be seen that the injustice of my omission was not very great. Sir



Sir Henry Thompson's Metallic Bulbous Bougie.

Henry speaks in its praise, however, on p. 39 of his fifth edition, 1879 (and also in the sixth, 1882, p. 20), thus: "*No other material slides so easily and smoothly through the urethra*, so that to employ one which passes roughly or distends unnecessarily, is to pay too high a price for the small amount of information it may convey." I agree most heartily and unreservedly with the view of Sir Henry that an instrument "which passes roughly or distends unnecessarily" is to be condemned. The metallic bulbous sound, however, if properly constructed as in the appended cut and judiciously used, is *absolutely free from both these objections*. Such a sized instrument only should be used as will pass without unnecessary distension of the urethral tissues. The size must be adapted to the size of the urethral orifice in any given case, just enough larger to test whether or not a contraction exists at this point. It may then be passed gently along until arrested at some deeper contraction, and then smaller and smaller sizes should be introduced until one is reached that, while easily yet snugly slipping through, is held on its return by the contraction. Deeper contractions must be treated in precisely the same way. The forcible use of such instruments is never necessary and never should be so used. Their size must always depend upon the size of the urethral orifice, which, as has been determined beyond the possibility of question, varies in different cases from

* "Clinical Lectures on the Genito-Urinary Organs," sixth edition, p. 20.

eight or nine millimetres in circumference (when abnormal contractions are present) up to thirty-eight or forty millimetres circumference. Consequently sizes from eight to forty, increasing by one millimetre in circumference, are absolutely necessary in order to enable the surgeon to explore all presenting urethra without danger of overlooking stricture from lack of suitable means to discover it. The sizes are thus numerous in order to prevent the inducement to use undue force in the examination. The continuance of a gleet is not unfrequently due to contractions of small amount, even two or three millimetres circumference. On this account it has become necessary to be prepared to define contractions which in the absence of persistent gleet would not call for interference. It is only after exhausting all other measures, and the gleet still persisting, that attention to strictures of so small moment, comparatively, calls for consideration. In such cases it is hardly necessary to say that any other than bulbous instruments used for purposes of diagnosis (the only purpose to which they should ever be put) would be wholly inefficient.

The urethrometer may, it is true, be made available for the diagnosis of well-marked contractions in many cases. With this we have the great advantage of introducing it closed to the bulbo-membranous junction, and examining the canal from behind forwards, thus avoiding the possible discomfort in sensitive urethræ of introduction of bulbs at full size. But on account of its oval shape it is inefficient for accurate diagnosis in cases of slight contraction. Here the acorn-shaped bulb always defines with certainty. It will be observed that another advantage pertains to the use of the urethrometer, viz., that of enabling the surgeon to examine the urethra in the presence of a contracted urethral orifice.