it a week, until it has decomposed, and then bring it to the surgeon in its murky condition, to prove that he has "spermatorrhœa."

Most of the symptoms which a patient usually mistakes for spermatorrhœa have been already disposed of in other portions of this work, and need not be again alluded to (gleet, phosphatic urine, vesical mucus, decomposing urine, etc.). It falls to the lot even of the specialist to see but very few cases of true spermatorrhœa.

Spermatorrhœa is an escape of seminal fluid containing spermatozoa, without ejaculation and without pleasurable orgasm—usually at stool, with the urine, or, to a slight extent, at all times. During prolonged erection under intense sexual excitement, a small amount of true seminal fluid is apt to escape into the prostatic sinus, and to be passed at the next urination. This may happen to any one occasionally, and does not amount to disease.

Causes.—Spermatorrhœa sometimes follows excessive masturbation, occasionally it appears as a sequence of acute general prostration—as after typhoid fever; it may come on in connection with imperfect digestion and general nervous distress from overwork or other cause, or follow chronic disease, of the inflammatory type, of the floor of the prostatic sinus and seminal vesicles.

Symptoms.—In true spermatorrhœa it is usual for spermatic fluid in small quantity to pass from the meatus during defecation, especially if the patient is constipated, and for a certain amount of the same fluid to be voided during urination, particularly in the morning; while, occasionally, jolting, riding, etc., cause a little oozing of a bluish fluid from the meatus, which, on examination, is found to contain spermatozoa. These symptoms alone constitute spermatorrhœa, or indeed the disease may be said to exist where the urine habitually contains spermatozoa, although no semen, as such, is involuntarily passed through the urethra. The subjective symptoms of spermatorrhœa are most varied—very often the patient does not know he has the disease. He complains of some feeling of weight in the prostatic region, of dyspepsia or some nervous derangement, has little care for his sexual functions, and is not disturbed on the subject of impotence; presents, indeed, a most strongly-marked contrast, as far as expressions of distress go, with the hypochondriacal patient imagining himself impotent from spermatorrhœa, and taxing the capacity of his language to express his woe. Patients with true spermatorrhœa are not by any means necessarily impotent, but their sexual appetite is always small. In many cases, however, the general symptoms are those of great lack of nervous tone, dyspepsia, headache, melancholy, neuralgia, loss of spirits, pains in the back, groins, testicles. Such patients tend to grow thin, to lose their ambition and their zest for all ordinary pursuits, to run down, become fanciful, indeed hypochondriacal, and often to fret seriously and unceasingly about their malady, of which they entertain only faint hopes of a cure, which they urgently demand. Finally, in the most severe cases, all the above symptoms are aggravated; the penis shrivels, the testicles become small, flabby, very sensitive, not infrequently neuralgic, the veins of the cord large and full; the loss of semen continues for a long time, finally becomes thinner, more like simple mucus, and at last ceases to contain spermatozoa, being made up of the fluids of the seminal vesicles, the prostate, and Cowper's glands. At last the patient becomes truly impotent, incapable of erection.

Treatment.—All the hygienic, general, and local measures advised for cases of pollution and sexual weakness, already given, become imperatively necessary in treating true spermatorrhœa, with the hope of success in mild cases, and without despair in severe ones. The use of the steel sound and of electricity helps to give tone to the parts. Roubaud thinks well of ergot — two to eight grains daily — in atonic cases. The use of a local astringent to the prostatic sinus is often of marked advantage. The best agent for effecting this is tannin, and the cupped sound the most convenient method of applying it. The cupped sound (Fig. 130) is an ordinary steel instrument, of rather long curve, with six little cups, each as large as a pea, three on either side of the convexity of the curve. In the cups is placed a solid paste of glycerine and tannin, and the instrument is ready for use. In making the application, a steel conical sound, as large as the urethra will conveniently admit, is first introduced, and immediately withdrawn; then the charged cupped sound is oiled and rapidly carried down the urethra, until the cups rest in the prostatic sinus. Here the sound is allowed to remain from one to five minutes, according to the effect desired to be produced. On withdrawal it will be noticed that more or less of the tanno-glyceral paste has melted off and remained behind. The patient experiences some heat in the prostate, possibly pain, if the application has been prolonged. The next following act of urination, which should be delayed as long as convenient, is usually attended by pain, possibly accompanied by a little blood, but the abnormal sensation soon disappears. The applications are to be repeated once or twice weekly, according to the effect, and after a short time a change in the symptoms for the better is usually manifested in mild cases. Should these simple means fail, recourse may be had to prostatic injections with the deep urethral syringe (Figs. 22, 23), a solution of nitrate of silver, not stronger than five to ten grains to the ounce, being used. Failing with this, hope

Fig. 130.

must be based upon the continuance of general and local tonic and hygienic measures. The use of the fused nitrate of silver with Lallemand's instrument is not justifiable, for fear of including the orifices of the ejaculatory ducts in an eschar, and obliterating them by cicatrization.

EROTOMANIA.

Erotomania is a species of insanity. It is a disease of the central nervous system, characterized by the existence of erotic desires without the power of accomplishing them, sometimes apparently without the wish to do so, as in a case, which is on record, of a patient so affected, who, when asked what he would do if put to bed with a woman, remarked that he "would go to sleep." The malady is not a disease of the genitals, and does not call for any more lengthy description here.

SATYRIASIS.

Satyriasis is constant desire with erection; erotic delirium. It is also a brain-disease. An illustrative case is quoted by Acton,[1] of an old man who was eminently satyriasic, so much so that he would masturbate in the presence of ladies. Dying, a tumor of the size of a split-pea was found in the pons Varolii.

PRIAPISM.

Priapism is more or less continuous erection without desire. With some forms of priapism intercourse with ejaculation may take place. The connection between injuries of the cerebellum and spinal cord and erection has long been observed. Roubaud[2] quotes Serres in stating that out of eleven cases of cerebellar hæmorrhage erection of the penis was noted six times. Death by hanging is often accompanied by partial erection. After injuries to the spine, and in some diseases of the cord, producing paraplegia, erections are often absent, returning as the paralysis improves. On the other hand, certain diseases and injuries of the cord are notably attended by priapism, disappearing as the paraplegia gets well. Lallemand[3] quotes a case from Fages, of an officer who was thrown from his horse, and became at once paraplegic, and simultaneously had priapism. The latter annoyed him excessively, as it produced retention, relievable only by local and general refrigerants, which reduced the erection. As his paraplegia gradually got well his priapism ceased.

Lallemand gives another very interesting case[4] of a soldier, who, climbing out of garrison to see his mistress, fell upon his sacrum and became partially paraplegic with priapism. He had no venereal desire, yet, because the priapism interfered with his making water, he attempted

[1] "On the Reproductive Organs," fifth edition.
[2] *Op. cit.*, p. 280.
[3] *Op. cit.*, vol. ii., p. 62.
[4] *Op. cit.*, vol. ii., p. 64.

frequently to free himself of it by masturbation, but without success—there was no ejaculation. On one occasion, with the mistress on attempting to see whom he had acquired his malady, he indulged in copulation almost continuously for several hours, until he had exhausted his partner—but all to no effect. He had no pleasure or ejaculation, yet when asleep he had lascivious dreams, with ejaculation and slight sensation. This was a mixed case, since some of its characteristics are those of aspermatism.

The effect of large doses of cantharides in producing erection without desire is well known.

Prolonged mental exertion, over-anxiety, and other causes capable of reducing the tone of the nervous system are sometimes attended by priapism, due perhaps (immediately) to some local injury, as illustrated in the following personal case:

Case XLI.—A married gentleman of thirty-seven had gonorrhœa at twenty-seven. No functional or other distress followed for several years. After a time he had nocturnal emissions, for which a physician used the steel sound—causing slight epididymitis. Two years before his application for relief, a steel sound, about No. 10, had been introduced. At the time he was overworked, and somewhat run down in health. The muscles of the membranous urethra opposed considerable spasmodic resistance to the passage of the sound. About one hour afterward he had a sudden severe pain at the neck of the bladder, "as if he had been shot," and shortly afterward his testicle began to swell. His priapism commenced at the same time. It never troubles him while awake, but after he has been asleep a few hours he has a distressing dream—such as trying in vain to catch a train—and wakes up with a powerful erection. This subsides shortly, but recurs at once on attempting again to sleep, and so continues waking him several times before morning. The erection is not accompanied by desire. He rarely has emissions. This state of things has been repeated nightly for two years, with the exception of one night. He has satisfactory intercourse with his wife once a week, but with no effect upon his nightly priapism. He has been under various treatments for two years, without benefit. His prostatic urethra had been cauterized, without bringing any relief. General health seemed fair.

Priapism in children is often due to stone in the bladder, tight prepuce, worms in the rectum, etc. Extreme cases are on record where priapism has terminated in gangrene of the penis.

Treatment.—Priapism usually gets well under hygienic and symptomatic treatment, beyond which no special measures can be suggested, except irritating the lower part of the spine, blistering the perinæum, an India-rubber seton at the nucha, possibly the use of electricity, and strychnine, ergot, bromide of potassium tentatively.

ASPERMATISM.

Aspermatism is a peculiar condition of very rare occurrence, amply illustrated in the following (personal) type cases, one of which has been already published. There are erection, some desire, no ejaculation—in other words, impotence:

Case XLII.—A married gentleman of thirty comes, complaining of inability to have children. He is spare, undersized, but healthy, and strong, straightforward, and truthful

in manner. He has lascivious dreams at two to six weeks' interval, attended by profuse seminal emissions. He can never, with his wife or in any other way, provoke or bring about a venereal orgasm or a discharge of semen. The effort is attended by no pleasure at the time. He indulges once a month as a duty to his wife, and in the hope of a more successful issue. In his dreams he has a full orgasm and emission—awake, never. He has never attempted to masturbate, or had any desire to do so. His prepuce being very long, circumcision was performed, but neither that nor any efforts in the way of treatment proved beneficial.

Case XLIII.—A farmer from the West, aged thirty-six, married at twenty-seven, comes with the following story: When first married, nine years ago, he had sexual intercourse three or four times weekly, latterly only once a month. During the first two years after marriage he frequently had intercourse three or four times a night, vainly trying to get an ejaculation. Before his marriage he never attempted copulation, and never in his life, he says, before, during, or after the sexual act, has he had the least pleasurable anticipation or excitement. He had intercourse only in the hope of producing an ejaculation, and having children, which he ardently desired. He is a plain-spoken, straightforward, honest, truthful farmer, living out-of-doors, eating well, performing all his functions excellently, but now a little depressed by the fact that years of treatment have done him no good. He never masturbated, as he had no desire to do so. In sleep he occasionally dreams of sexual intercourse, and wakes with a pleasurable sensation, to find that he has had an emission of semen, which he discovers on his linen. His testicles are large and perfect, he has full, vigorous erections, and can have continuous sexual intercourse for half an hour, only stopping because he is exhausted, his erection continuing as powerful as ever

A full-sized sound passed into his urethra produced the ordinary sensations in the fore part of the canal, but the prostatic urethra was absolutely insensitive.

These two cases tell the whole story of aspermatism. In both of them there was undoubtedly a little desire by anticipation, or at least from memory of dreams, or the patient would not have indulged "three or four times on the same night."

The theory advanced to account for this strange malady is that, by reason of spasm about the ejaculatory ducts, the semen is prevented from getting into the prostatic sinus. This, however, is untenable; for, were there desire and pleasure, prostatic mucus would be secreted in excess, and would be thrown out by ejaculation, while the semen proper would collect and distend the seminal vesicles and ducts below the ejaculatory orifices, and would escape and flow away from the meatus, after the relaxation of spasm, brought about by the fatigue following "half an hour's sexual intercourse." But this is not the case. The fault is evidently in the nerves. There is no pleasurable sensation, no call for secretion of prostatic mucus, or for a supply of spermatic fluid. There is anæsthesia of the prostatic sinus, and, although the power of having an orgasm and an ejaculation remains, as proved by dreams, yet there is some connecting link missing in the chain, which transforms friction of the glans into pleasure at the prostate, and finally into secretion in the testicle.

Treatment.—Roubaud advises antispasmodics, on the theory that muscular contraction is the essence of the disease. He speaks of success in one case of a young man, by blistering the perinæum, and powdering the surface for several days with morphine. Since the absence of sensation in the prostatic sinus is present in some cases, it is possible that the local use of electricity to that region might be of advantage, or even of astringents with the cupped sound.

CHAPTER XXVII.

DISEASES OF THE CORD.

Anatomy.—Spasm of Cremaster.—Varicocele, mild, severe.

The cord is made up of the vas deferens, the habenula or remains of the peritoneal process going from the tunica vaginalis to the abdomen, vessels and nerves, all held in an atmosphere of connective tissue, containing unstriped muscular fibre (internal cremaster of Henle). Outside of these there is a continuous layer of connective tissue, adherent to the tunica vaginalis below, and continuous with the fascia transversalis above, called tunica vaginalis communis. Outside of this the cremaster muscle lies in loops, some embracing the testicle in a fan shape, others extending only a short distance down the cord.

The arteries are the spermatic from the aorta, the deferential from the superior vesical, the cremasteric from the epigastric. The veins from the testicle and epididymis unite in the pampiniform plexus, and constitute the bulk of the cord. The larger veins have valves; they unite usually to form one large trunk, which empties, on the left side, into the renal vein, on the right side into the ascending cava. The spermatic plexus of nerves is derived from the renal, aortic, superior mesenteric, hypogastric, and lumbar (genital branch of genito-crural nerve supplying the cremaster).

The cremaster muscle varies in size and power, in different subjects; it is a voluntary muscle; most persons can exercise it simultaneously on both sides, drawing up and holding the testicles against the abdomen; occasionally the muscles can be exercised separately, one testicle being elevated while the other is lowered. The function of the muscle is to assist in sustaining the testicle by its tonic contraction, and to compress the organ during the sexual orgasm. The muscle is subject to painful spasmodic contraction in kidney-colic, in neuralgia of the testicle, and sometimes in connection with prostatic or urethral irritation. A large portion of the cremaster muscle was excised by the late Valentine Mott, for obstinate spasm.

Case XLIV.—Mr. ——, aged thirty-five, was married to a wife suffering from uterine disease. His sexual relations were irregular and unsatisfactory; he had slight stricture