remarks he makes upon them are intended to refer entirely to the bladder, as the following remarks show:

"Stammering urinary organs are not rare, and they may be known by observing sometimes in the same person the exact parrallelism between the difficulty of expelling urine and that of expelling the air in ordinary speech-stammering. The patient can often pass his urine without any trouble, especially at customary times and places, and when he does so the stream is full and strong. But at other times he suffers all the distress that he might have with a very bad urethral stricture. He cannot pass a drop of urine; or after a few drops there comes a painful check, and the more he strains the less he passes, and then complete retention may ensue, and overfilling of the bladder. In their characters the cases may closely resemble one of the ordinary instances of so-called congestive stricture, in which rapid swelling of some part of the mucous membrane narrows or closes the part of the canal which is least capable of distention. But the circumstances with which the difficulty arises are in the two patients very different. The stammering with the bladder occurs with just the same condition as the stammering speech. There are few stammerers in speech so bad but that they can talk or read fluently when they are alone or with those with whom they are most familiar, or when they are entirely thoughtless as to their manner of speaking. Their worst times are when with strangers or with persons or in places that are associated in their minds with stammering. It is just so with the bladder and urethra. One patient told me that although he could usually pass urine well, yet there was one person with whom nothing could induce him to walk, because once when he was with her he wanted to pass urine, retired and failed. His experience of the effects of association of thoughts made him sure that if he were again in the same circumstances the same distress would come on him more intensely. Another, a clergyman, always passed a catheter before going into his pulpit. He had often had nervous trouble with his bladder; and once or more having felt a horrid need of passing urine while he was preaching, he found himself at the end of his sermon unable to pass any. - He said he felt sure that if he were to go to his pulpit without the assurance of an empty bladder, which his catheter (a No. 12; passed easily) gave him, he should be possessed with a desire to pass urine and then should have retention. As a speech-stammerer might be unable to utter a word, so would he be unable to pass a drop of urine again. Another patient has described himself as driven to all kinds of devices to bring about an association of ideas or of actions with which to best succeed in emptying his bladder. He must walk up and down his room and stand or sit in some customary singular position, and then be very careful not to direct his mind either too much or too little to what he has to do, and then to let the urine run as inconsiderately as he can."

Sir James is, I think, mistaken in locating this trouble

in the bladder. It is undoubtedly due to a spasm of the organic muscular fibres of the urethra and of the compressor urethræ muscle. It is exactly similar to the condition sometimes excited in nervous individuals by attempts to pass a bougie. The canal closes tightly against the point of the instrument, but a steady gentle pressure continued for a few minutes usually overcomes the obstruction. The remarkable fact, one which all physicians and surgeons have observed, is that the condition should be excited by mental influences and certain associations of ideas. I have known men who could not urinate when asked to do so, unless the water above the urinal were allowed to run at the same time, so that the idea of a flowing stream should be excited in their minds. The fact is common enough, and it is one well known to people generally. I recollect when a college boy being witness to a wager between two men that one of them could not urinate in the other's hat. A ring of curious spectators was formed around the individual desirous of exhibiting his powers of urination; he had a full bladder, he said; he prepared himself, held the hat of his adversary in his hand, but not a drop would come and the more the lookers-on laughed and cheered, and the more he strained the less real ability he seemed to exhibit. At last the referee announced that the time, a half an hour, was up, and he lost his bet without having passed a single drop. Five minutes afterward, in the solitude of a woody lane, he evacuated over a pint.

Such conditions remind us forcibly of those states of

impotence considered in the preceding chapter in which certain associations of ideas are necessary to the physiological performance of the sexual act.

Relative to the non-ejaculation of the semen, to which the foregoing remarks apply, the state has been confounded with another, aspermatism, to which attention will presently be directed, but which is quite a different condition.

The emission of the semen may fail to occur in consequence of paralysis of the compressor urethra muscles, by which condition, though it is deposited in the urethra, it is not ejaculated from the meatus, but after some time slowly oozes out. Acton regards this state as due a lack of consentaneous action on the part of the several factors which go to make up the orgasm; but it is very evident, I think, that the explanation I have given is the correct one. That the semen enters the urethra at the time of the orgasm I have ascertained in several cases, of which the following is an example:

A gentleman who had long been engaged in literary pursuits, and whose habits were sedentary, became the subject of spinal irritation. He consulted me a few days before his marriage, and I found tenderness over the spinous processes of the lower dorsal and lumber vertebræ, with great muscular weakness of the lower extremities. He had occasionally suffered from nocturnal emissions, had never had sexual intercourse, and denied masturbation very energetically. As he was about being married he preferred to delay any active

treatment until after that event had taken place. I therefore did nothing for him beyond prescribing a chalybeate tonic. A month afterward he returned for treatment, and then he informed me that though he had had erections, and that though so far as he knew the sexual orgasm was complete, yet that there had never been a seminal emission during the act of intercourse. But immediately after withdrawal the semen began to flow, and it continued to pass out slowly for several hours. He had ascertained that by pressing the fingers along the course of the urethra on the under surface of the penis, he could cause the flow to take place more rapidly.

Upon introducing a sound I found that the urethra was in a healthy condition as regarded size and sensibility, and I could find no cause for the trouble beyond a possible paralysis of the ejaculatory muscles. I treated him with galvanism and faradism internally applied, together with counter-irritation to the spine, and the internal administration of iron, quinine and strychnia, and after about two months he began to improve, but it was a year before the ejaculation took place with any force.

I have had quite a number of cases similar to the foregoing, but not of so severe a character, in men of advanced years, in whom, though there were emissions of semen, yet they were not complete, a portion, often more than two thirds remaining in the urethra and gradually oozing out during an hour or so. These cases are generally improved by electricity, though occasionally they resist all treatment.

Acton\* gives the following case as occurring in his practice: "The patient was an American. Erection was perfect, but emission did not follow. When erection ceased there was occasionally a slight oozing from the urethra. Strange to say, this patient had emissions at night once or twice a week. The testicles were small. A short time since he had been operated upon for varicocele without any good effect. He had also been cauterized. Slight stricture existed, as was ascertained by the bulbous instrument, but a conical bougie passed easily. In this instance there was apparently nothing but a want of consentaneous actions between emission, and erection, both being perfect at different times."

A very slight examination of this case, as detailed, suffices to show that Mr. Acton's † explanation of it is not correct. If the emission had been perfect the patient would have had the semen discharged as in the normal manner instead of its oozing out gradually in the way stated. The condition was nevertheless one in which, as in the case I have given, the discharge took place without there being sufficient strength in the muscles to force it to the orifice of the urethra.

MM. Grimaud de Caux and Martin Saint-Ange ‡ have a clear idea of such instances, as is seen in the following quotation which I make from their work:

<sup>\*&</sup>quot; The Functions and Disorders of the Reproductive Organs," etc. Fourth American edition, Philadelphia, 1875, page 223.

<sup>†</sup> Op. cit. page 340.

<sup>‡</sup> Op. cit. p. 340.

I am very sure that this practice is followed to no inconsiderable extent at the present day and in this country, but there is another which is sometimes practised which is probably still worse in its ultimate consequences, and that is the wearing during sexual intercourse of an india-rubber ring around the penis so as to compress the urethra and thus prevent the emission of semen. I have known of three instances in which such a contrivance was worn, and in each the consequence was that the individual was rendered sterile by the invariable passage of the semen into the bladder, even after the ring was no longer worn. In one of these cases the patient, a married man, had worn the ring at every connection he had had with his first wife, who did not desire children. After having been married over ten years she died, and in two or three years afterwards the man married again. This time both he and his wife desired children, but impregnation was impossible, for no emission of semen took place from the meatus, the whole of it apparently passing back into the bladder. That there was semen was shown by microscopical examination.

Both the other cases occurred in young men who had adopted this means of carrying on with safety certain illicit relations which they had formed, but in both the resultant condition, as was also the case with the instance first mentioned, became permanent. The exact

"As we have seen," they say, "there exist in relation with the penis certain muscles, of which some, as the two ischio-cavernosa, are concerned with the phenomena of the erection, and serve to direct the organ in the act of copulation, and others, as the bulbo-cavernosa and the constrictor, compress the canal of the urethra, and by this means accelarate the flow of the seminal fluid in the phenomena of ejaculation. It often happens that these muscles are paralyzed or that their irritability is extinguished. From each of these conditions it results either that the erections are incomplete and sexual in tercourse is thereby rendered impossible, or more frequently that the erection having taken place the seminal fluid not being submitted to the action is note jaculated in a duly physiological manner."

It is bad enough to have this state as a disease, but it is still worse to induce it artificially, as I have known to be the case in several instances.

The authors just cited state that it is no uncommon circumstance for women whose object it is to prevent impregnation, to press during the act of sexual intercourse upon the urethra of the male just in front of the veru montanum in such a manner as to prevent the passage of the semen through the canal, and cause it to be directed backward into the bladder. Eventually, as they do not fail to point out, the urethra acquires the habitude thus imposed upon it, and the semen always and under all circumstances passes into the bladder, the

A similar condition might be produced by enlargement of the prostate, but none such have ever occurred in my experience.

The emission of semen may, strange as it may appear, be entirely prevented by extreme erection. One such instance only has come under my observation, and one other only of similar character has been published. The latter, as quoted by Roubaud \* from Cockburn, is as follows:

A noble Venetian married a young lady with whom his sexual relations were entirely satisfactory except in one respect, and this the most essential of all, for there was not the emission of a single drop of semen. During the sleep that occurred after his failures he had lascivious dreams with seminal emissions, but during intercourse there was no such accompaniment. All kinds of remedies were used without effect, till finally the ambassadors of the republic of Venice at the several European courts were requested to consult the most famous physicians in regard to the case. Among others the matter was laid before Cockburn, who attributed the difficulty to a too vigorous erection, by which the walls

of the urethra were brought together. During the lascivious dreams which took place, the erection, not being so strong, emission was effected.

In the case which was under my observation, the patient, a gentleman of about forty years of age, single, and not excessive in sexual matters previous to the occurrence in question, formed relations with a very attractive young woman, who drew largely on his virile power. After the first connection, he never had another, without the erection being remarkably vigorous, and lasting sometimes an hour after the act had come to an end. During these connections not a drop of semen escaped from the urethra, nor, so far as I could determine, was there at such times any passage of the seminal fluid into the bladder. It appeared to be an instance of what Roubaud has called aspermatism, a condition in which there is no semen, or at least none that enters the urethra.

The patient did not suffer from priapism, for there was an excess of desire and an apparent excess of power; nor was he troubled with erections at other times than when with his mistress. Things had gone on in this way for several weeks when, fearing that disease of some kind might be the consequence, he placed himself under my care. I did nothing for him but give him large doses of the bromide of sodium, thirty grains three times a day for a week, and the trouble gradually disappeared within that period.

Priapism may lead to a like result as in the case cited

<sup>\*</sup>Op. cit. p. 188.

by Lallemand\* of a soldier who, falling on the sacrum from a height, had permanent erections without desire, which no acts of masturbation or of intercourse sufficed to dissipate, and the orgasms of which were unaccompanied by the ejaculation of a drop of semen.

Relative to the condition which he has happily called "aspermatism," and of which the foregoing are examples, due to excessive erection, Roubaud cites the following, which occurred within his own experience:

"A young man twenty years of age, of sound health and of a sanguine temperament, consulted me under the following circumstances: 'I have,' said the patient, 'no difficulty in obtaining erections: my sexual desires are sufficiently strong, but I have never experienced the pleasures of love. The intromission of the penis into the vagina of a woman is effected without difficulty and without pain, but this being accomplished, I cannot, no matter how strong efforts I may make, experience the voluptuous sensations of which my friends speak. After a longer or shorter period of ineffectual exertion, during which I call to my mind all the resources of my imagination and of my amorous energy, I become fatigued, and my penis, participating in the general state in which I am, becomes flaccid without its being possible to obtain an ejaculation.'

"In the examination which I made of this young man I ascertained that ejaculations have never taken place while he was awake, either by masturbation or by copulation, but that sometimes during sleep either under the influence of lascivious dreams, or without them, there had been an emission. About this, however, there was the curious circumstance that, if from any cause whatever the patient awoke during the ejaculation, an immediate arrest of the process took place, so that he had never obtained an idea of sexual pleasure."

Roubaud very properly, I think, attributes these and similar instances to the spasmodic state of the ejaculatory ducts by which their orifices are closed and the semen prevented passing into the urethra. There is therefore no accumulation of this fluid in the urethra, or passage of it backward into the bladder. For its treatment, depending, as he concedes that the condition does, on excessive venereal ardor, he recommends antispasmodics. Nothing better than some one of the bromides in full doses could be desired, together with the use of galvanism internally, applied in the manner already mentioned.

In other cases the seminal ducts may be obliterated through inflammation, the latter sometimes doubtless produced by cauterization after Lallemand's method, of which MM. Grimaud de Caux and Martin Saint-Ange\* say that "European cauterization makes more eunuchs than does oriental polygamy."

Anomalies of the Prepuce. Phimosis may be so intense in character as to prevent the emission of semen,

<sup>\*&</sup>quot; Des pertes seminales involontaires." Montpelier, 1836-42, t. ii. p. 64.

<sup>\*</sup> Op. cit. p. 339.

besides interfering very essentially with the development of the full degree of pleasure attendant on the act of intercourse. In such a case the enlargement of the penis during erection, meeting with the resistance of the narrow prepuce, causes a closure of the urethra, and the seminal fluid is not emitted till a state of flaccidity ensues. Three such cases only have occurred within the range of my experience, but I suppose it is a state not very uncommon. In one of the instances under my charge the patient, a prominent gentleman of a neighboring state, had acquired the affection gradually during the two or three years before I saw him, though he had never had gonorrhea, balanitis, or any kind of preputial inflammation. In the condition of flaccidity there was no obstruction to the free passage of the urine, but when erection existed this was not the case, and during the sexual orgasm, though there was no pain, the ordinary feeling of pleasure was much lessened, and there was no emission of semen till the erection passed off. I operated on him by circumcision with entire success.

In the other case the patient was a young gentleman who was about to marry, and who had had a contracted prepuce from childhood. He had never masturbated nor had nocturnal emissions so far as he knew, but before coming to see me he had visited a woman in order to ascertain whether or not he was capable of performing the sexual act, having some doubt upon the subject in consequence of what one of his medical

friends had told him. A few days subsequently he came to me with the information that something would have to be done to him as in his present condition there was no emission during intercourse.

Upon examination I found that it was impossible to retract the prepuce, and that the glans was very considerably smaller than it ought to have been. I advised an operation, to which he at once consented, and I heard of no further trouble.

The condition in question, though treated of at length by writers on the subject, in all its other relations, does not appear to have attracted attention as a cause of impotence. Its effect in lessening or entirely abolishing the normal feeling of pleasure experienced in sexual intercourse will be more appropriately considered in the following chapter.

The glans may be the seat of anæsthesia of such a character as to interfere very materially with the production of the orgasm, and the consequent emission of semen. This condition has been mentioned as a cause of deficient erection; but there is another kind, different perhaps only in degree, in which the erection is sufficiently strong, in which the act of intercourse is begun, but in which, notwithstanding all efforts that may be made, there is no orgasm. This state is due to anæsthesia, probably both to tactile and heat impressions. Such at least has been the condition in the cases that have come under my observation.

As the result of many determinations, I have ascer-