We trust that the profession will keep their eyes upon the movements of the Government, and submit Lord Morpeth's promised bill to a close scrutiny. An admirable opportunity will be afforded by the new appointments for vindicating the right of the profession to a more liberal treatment than that which they have hitherto received in any branch of the public service. Such an opportunity must not be lost; but in the meantime we would earnestly entreat all those members of our profession, whom we may have been so fortunate as to convince of the general soundness of the sanitary cause, to use their utmost influence to support the Government in their battle with the refractory local authorities, from whom all the opposition to sanitary reform has hitherto proceeded, and may still be expected. A better cause—a cause more strongly fenced round with facts and arguments, medical, economical, and moral—has never yet been brought forward; and certainly none in which every member of the medical profession may engage with more propriety, or with more effect. As a question of science, it belongs peculiarly to them; but, as a great economical and moral movement, it is the most pressing business of the state, and the most promising boon yet offered to the public.

ART. II.

A Practical Treatise on the Causes, Symptoms, and Treatment of Spermatorrhœa. By M. LALLEMAND. Translated and Edited by HENRY J. M'DOUGAL.—London, 1847. 8vo, pp. 334.

THE translation of a work that has been so long before the profession as M. Lallemand's treatise '*Des Pertes Séminales Involontaires*,' might seem to call for a mere bibliographical notice at our hands; but we have adopted the present course towards it, in the conviction that the subject upon which it treats has insufficiently engaged the attention of practitioners in this country. For, notwithstanding the reputation as an accurate observer achieved by its author in another field of inquiry, the manifest care he has bestowed upon the present investigation, the novelty and importance of some of the views he has put forth, and their partial confirmation by several able surgeons, we doubt whether the class of diseases he has brought under notice, is much more accurately recognised, or more successfully treated by the great body of the profession, than heretofore. Whether this has arisen from the exaggerated character of some of his statements, his piecemeal mode of publication, the incomplete manner in which his views have been laid before the English reader, or the somewhat repulsive character of the subject he has chosen for illustration, we cannot take upon ourselves to decide; but the publication of Mr. M'Dougal's condensed translation, in which the substance of three thick octavo volumes, written at different periods, is compressed into one of moderate size, some of the defects of the original obviated, and its unquestionable merits brought more into relief, must lead to a reconsideration of the matter; whence it is to be hoped will result a more satisfactory mode of dealing with these cases than prevails at present. That M. Lallemand should have been the first to institute an accurate appreciation of their true character, says much for his practical acumen and freedom from the dominion of preconceived ideas; and should tend to

inspire confidence in his conclusions, inasmuch as these have been arrived at in spite of circumstances well calculated to mislead. For it was in consequence of the publication of his work on the 'Encephalon and its Dependencies,' that patients were brought to him, apparently labouring under chronic disease of the brain and its membranes, as indicated by the presence of the symptoms of mental alienation, hallucination, hypochondriasis &c. &c. His favorite studies would naturally have led him to view these cases in the same light as the practitioners who consulted him respecting them; but accident having at first directed his attention to their true nature, further investigation obliged him to yield to evidence, when he found "the symptoms increase in the same proportion as the seminal discharges, and diminish, cease, or reappear with them."

Although we do not believe that disordered conditions of the male genital organs prevail in this country to the same degree as upon the Continent, and especially the southern portions of it where sexual abuses are carried to a frightful extent, yet we have been long painfully convinced that medical men are little aware of the actual amount of the evil existing among ourselves. Not only has this arisen from their having failed to recognise the actual cause of the symptoms indicative of a disordered state of the nervous system in the class of cases alluded to by M. Lallemand; but from their neglecting in the ordinary course of practice to make any inquiry whatever into the condition of a function which excites so marked an influence over the well-being of the economy; while, when this has been pressed upon their notice, by patients or their friends, they have seldom seemed alive to its importance, or they have hazarded unreflecting and inapplicable advice. Indeed, when we find so judicious a practitioner as Dr. Golding Bird, stating, in a passage quoted and properly animadverted upon by Mr. M'Dougal, that "it certainly is not very consistent with our national character to dilate so freely upon a subject which, in the great majority of cases, can be treated of only as the effect of a most degrading vice," we at once see (supposing, as we are inclined to suspect is the case, that such fastidiousness is somewhat general,) what a confusion of ideas prevails upon the subject, and can understand why patients suffering from the class of ailments, of which spermatorrhœa constitutes one of the eventual consequences when treatment has been neglected, often prefer submitting their affections to the quack and the impostor, rather than call in the regular practitioner. The one holds out every encouragement by means of deceptive promises and strong assurances, which are not without their beneficial effect upon persons in whose condition despondency is so marked a feature; while the other examines into the case carelessly, and gets rid of it as speedily as possible, as one of a nasty description, unworthy of occupying his attention.

Our primary duty, if not our sole one, is the relief of the ailments of the human organism, no matter what the origin of these may be. If we are to eliminate all the affections which originate in moral perversion, our sphere of action will be found to be somewhat inconveniently limited. But without establishing a censorship of this kind, the occasions are not rare, in which, having duly ministered to our patient's necessities, we may have so gained his confidence as to be in a most favorable position for offering to him advice, admonition, or remonstrance, calculated to induce the abandonment, or prevent the recurrence, of habits and practices alike adverse

to religion, morals, and health. We are here indeed called upon to appeal to every motive and invoke every aid, and are encouraged to do so by every motive of humanity and some hopes of success; but to determine that a case shall not receive all the aid that science has placed at our disposal, on the ground that it is self-inflicted, is to wofully mistake our mission. An apology would be due to our readers for formally stating so elementary an ethical principle, did we not know that some such repugnance as that adverted to is not infrequently entertained.

A more legitimate reason, which has induced practitioners to avoid these cases as far as possible, is the fear they have entertained of being confounded with the herd of disreputable persons who especially affect them. They are aware that some men, who have even received a professional education, lay themselves out with all the schemes, artifices, and iniquitous procedures of the undisguised charlatan, for the purpose of entrapping a portion of the lucrative spoils extorted from the fears of the timid and the credulity of the ignorant. That any ground of suspicion of entering into such fellowship should be strongly eschewed by every upright mind, is indeed to be expected; but, in order to avoid any such imputation, the closure of their doors against this class of applicants for aid is neither the necessary or the most proper course. The only manner in which this description of quackery can be discountenanced effectually, is by the destruction of its speciality; and this cannot be accomplished unless medical practitioners in general render themselves competent, and hold themselves ready, to treat any ailment brought under their notice, no matter what its origin or in whom occurring. This, it is true, will not eradicate the evil; for it is too often the characteristic of the unfortunate victims of this class of diseases, to require bolder promises than legitimate medicine can furnish, and to submit to less restriction than it demands; but at all events it will alleviate the mischief, and prevent the better informed of those patients resorting to impure quacks, because they cannot find legitimate practitioners able and willing to do justice to their cases. The benefit which would accrue from such a course may be judged of, when we consider that a very large proportion of the persons who consult these quacks are very young men, alarmed at the consequences of a first indiscretion, or very often only suffering under imaginary evils dependent upon the perturbation of the economy by the full establishment of puberty. Their fears, augmented by the perusal of the alarming statements so widely circulated in the obscene pamphlets of these charlatans, would speedily be allayed, could they have recourse to the aid of conscientious practitioners, who would pay what they consider due attention to their cases, instead of treating lightly and flippantly those disorders which are to the sufferers the occasion of the keenest anguish.

M. Lallemand judiciously commences his treatise with a chapter upon the *Pathological Anatomy* of the genito-urinary organs; a correct appreciation of this being as important as it is rare. Practitioners seeing patients exhibiting every sign of prostration of vital powers, and oftentimes manifesting little severe local pain, have been misled by the notion that in these cases a primary constitutional debility is the condition to be coped with, and have prescribed tonics, stimulants, &c., to the neglect and aggravation of the local chronic inflammatory action upon which the general symptoms in the great majority of cases depend, or at least without the relief of

which they cannot be removed. When it is recollected that the bulk of these cases, as we shall presently see, originate in sexual excesses of some description, we are prepared to find the various portions of the over-stimulated apparatus falling into an inflammatory condition, which will be followed by the ordinary consequences observed in analogous textures. The appearances after death have been seldom recorded, for these cases are of rare occurrence in hospital practice, and great obstacles usually present themselves to the making an efficient examination in private; and indeed the directions furnished by M. Lallemand for making such an examination, involving the division of the rami of the pubes and ischia, so as to retain the soft parts in situ, can obviously be followed nowhere but in the dissecting-room. We believe, however, that much important information may be obtained by a little dexterity and patience at an ordinary autopsy; and it is certainly to be regretted that practitioners so seldom examine, even thus imperfectly, the condition of these organs. Under these circumstances, M. Lallemand's detailed accounts of the post-mortem examination of several patients, who died worn out with seminal discharges, become invested with additional importance. From these it is evident that there is no portion of the entire track of the mucous membrane of the genito-urinary organs, that may not participate in the inflammatory action originally excited by excess of action, gonorrhœal inflammation, and the like, in the vicinity of the extremities of the ejaculatory ducts. The amount of mischief thus induced will of course depend upon the individual susceptibility, duration of the disease, and other circumstances, all to be taken into account in estimating the curability of a given case. Thus we may have every change induced in the prostate gland, from mere engorgement, to its complete conversion into a soft tubercular mass, held together only by its fibrous envelope. One or both testicles may become inflamed, according as the seminal canals of one or both sides are affected; and M. Lallemand instances cases, in which inflammatory action was propagated from the vesiculæ seminales to the contiguous peritoneum. The orifices of the ejaculatory ducts become enlarged and distorted from their circular form; and M. Lallemand suggests that possibly in some cases the ulceration or dilatation of the sphincters closing these may prove the only lesion producing the spermatorrhœa. In other cases, this affection may depend on the loss of elasticity and contractile power sustained by the canals themselves. The function of the vesiculæ seminales, as receptacles of semen, becomes materially interfered with when their parietes are indurated or thickened, or when their cavities are loaded with pus, which, owing to the difficulty it finds in effecting an exit, undergoes inspissation. The same condition of purulent matter within the vasa deferentia, or the tumefaction of their parietes, may produce a more or less complete obliteration at certain points of their course; while, if an abscess of the epididymis open externally, a spermatic fistula may result. Such obliteration may in some cases induce atrophy of the testis. The extension of inflammatory action, through the urethra to the kidneys, may induce also a diseased condition of those organs. M. Lallemand remarks at some length upon the analogical mode of action of the urinary and genital organs, and their mutual influence upon each other; and although this last point is generally admitted, we may extract a passage or two tending to illustrate it:

"Diurnal pollutions are too little understood, to have been generally noticed in these cases; they are always obscure, and the attention is fixed usually upon another object; but I have so often satisfied myself of their presence as a sequel to strictures, that I regard spermatorrhœa as the true cause of all the cases of hypochondriasis, ischuria, and debility, which are attributed to affections of the urinary organs. This position is, I think, proved by the weakness and rare occurrence of erection, the rapidity of ejaculation, and the increased fluidity of the semen observed in most of these patients.

"Cases of diurnal pollution, uncomplicated with catarrh of the bladder, are somewhat rare; and this often renders diagnosis difficult, not only on account of the symptoms of catarrh being present, but also on account of the mucus secreted by the bladder and prostate; on this account, when I see the urine cloudy, I always inquire respecting diurnal pollutions, so that I may not confound mucus with semen. It is very remarkable, also, that those who give themselves up to venereal excesses or masturbation, frequently experience a desire to micturate; this fact gives rise to the saying of the ancients, '*raro mingitur castus*.' I have ever been struck with the truth of this axiom; and the fact proves how easily the urinary organs share the excitement of the spermatic.

"Most patients remark also, that, when they are threatened with a relapse, it is preceded by a more frequent and very sudden desire to micturate, whether this increased sensibility of the bladder arise from cold, or from an excess either of drink or of coitus.

"Persons affected by diurnal pollutions, experience generally very injurious effects from the use of diuretics. Nearly all those who have taken squills, nitrate of potass, digitalis &c., have noticed, during their use, a remarkable increase of the seminal evacuations; and a few, after having been cured during a longer or shorter period, have experienced relapses which could not be attributed to any other cause, and which have also spontaneously passed off as soon as they have relinquished the use of these medicines. It is also worthy of notice that children subject to incontinence of urine, are particularly liable to nocturnal pollutions at the age of puberty; and, at a later period, to diurnal pollutions." (p. 31.)

The greater portion of M. Lallemand's work is taken up with the illustration, by means of detailed cases and remarks upon them, of the various *causes* of spermatorrhœa. These involve much repetition, but certainly form a most valuable clinical history of the disease. The following are those which are thus separately commented upon: *Blenorrhagia*; the metastasis of old cutaneous affections; irritation of the rectum by obstacles to defecation, hemorrhoids, and especially by ascarides; the abuse of the organs of generation by masturbation; excessive venery; the action of certain medicinal and dietetic substances, as astringents, drastics, tobacco, cantharides, large doses of camphor, diuretics, and the immoderate use of tea or coffee; the influence of the cerebellum; and congenital predisposition, as exhibited in a proneness to sebaceous accumulation under the prepuce, too great length or a phymotic state of this part, a natural debility of the generative organs, and hereditary transmission. In this varied list, excessive, but most especially unnatural, employment of the organs of generation occupies the foremost place; and indeed most of the other causes enumerated must be regarded as only cooperating or additional causes, which would not, save in some very susceptible subjects, have proved competent to the production of the affection, unless a morbid condition of the seminal receptacles and ducts had been previously induced. Although M. Lallemand frequently notices the conjoined operation of two or more causes in the cases he relates, we think he has in his *seriatim* enumeration too often not sufficiently distinguished the essential from the

occasional element ; magnifying the etiological, though perhaps not the practical importance of the latter. Even blenorragia itself, which, as far as relates to site, has everything in favour of its potency, is of insignificant effects, save in the circumstances adverted to ; while ascarides should perhaps be rather regarded as an exciting cause of masturbation, especially in children, than as a direct cause of spermatorrhœa.

In defining what he implies by venereal excess, M. Lallemand very truly remarks that the apparent *wants* of the genital system may be *factitious*.

“ A violent attachment may, in this respect, give rise to great illusions ; the direct irritation, brought on by *herpes preputialis*, or by the presence of ascarides in the rectum, may excite morbid excretions which have no connexion with the real wants of the system. Irritation of the cerebellum, the spinal cord, or the nerves supplying the genital organs, may produce the same effects ; so that the frequency and duration of the erections will not always show the amount of the true powers. In many persons, the desires are greater than the power of fulfilment ; the imagination of such is constantly occupied with erotic ideas, whilst their physical powers are very feeble. The impulse in these persons is purely derived from the brain ; and their immoderate desires cannot, therefore, furnish a measure of their real wants.” (p. 165.)

We are enabled, to some extent, to estimate by the feeling left after coitus, whether it has been employed in excess. In such a case, in place of the normal energy and activity which it should impart to every portion of the system, we find lassitude, satiety, sleepiness, and disinclination to mental or bodily exertion ; and a repetition of the erection under such circumstances, is to be regarded rather as resulting from morbid irritation than from unsatisfied natural desire.

Upon the ill effects of the *nitrate of potass* and other diuretics, so indiscriminately prescribed in affections of the genito-urinary organs, M. Lallemand remarks :

“ Saline mixtures, containing nitrate of potass, are prescribed every day for the relief of the inflammatory symptoms in the first stage of blenorragia. There cannot be a greater error. It is also regarded as a diuretic, because ordinarily it increases the flow of urine ; and this is why its sedative powers should be doubted. The quantity of urine can only be increased by stimulating the functions of the kidneys, or, in other words, by acting on them as an excitant. When administered in too large a dose, it produces hæmaturia, pain &c. But it is not on the kidneys alone that nitre produces this stimulating effect : it increases all inflammations of the bladder, whether acute or chronic ; it is even contraindicated in the most simple cases of vesical irritation I have seen ; it produces the same effects in diseases of the prostate ; it increases the stabbing and pricking pains, and the sense of weight which patients always feel in that region.

“ It appears, then, that nitre acts as a stimulant on the whole urinary apparatus, and it is at least probable that it produces the same effects upon the spermatic organs. I am led to this opinion, partly by analogy, but chiefly because more than forty of the patients whom I have treated for involuntary seminal discharges, had taken it in some form or other, and all, without exception, found themselves worse afterwards. Many of them also observed the same effects from preparations of squill, and in fact from all diuretics.” (p. 186.)

M. Lallemand, in our opinion, attributes far too great an importance to prolonged *continence* as a direct cause of spermatorrhœa. That a moderate exercise of the genital organs is the condition most favorable to

the maintenance of their healthy condition, and the general well-being of the economy, is a fact which requires no proof; but we conceive that M. Lallemand greatly exaggerates the ill-consequences which ensue upon the withholding such exercise. In the first place, the condition of spermatic plethora, or distension of the vesiculæ, is not such a necessary consequence as he states it to be; and may be said to be in great degree under the control of the individual. Even if the secretion of semen is of constant occurrence, the amount is much influenced by the mental state operating through the nervous system, and by the demand made upon the gland. Thus, if an individual has frequent recourse to coitus, or without this indulges in erotic thoughts, libidinous reading and conversation, or analogous practices, a large quantity of semen will be secreted; and in the latter case, not finding a natural ejection, it may lay the foundation of obstinate nocturnal pollution. This, indeed, may occur in any person without prior excitement of sensual ideas; but then it is usually both rare and moderate. And, indeed, the testicles and their secretion seem to possess a far greater power of accommodation to the exigences of the economy, than M. Lallemand is disposed to allow; and we imagine the instances of atrophy from mere disuse, unaccompanied by prior disease, to be of very rare occurrence. Certain it is, that many men, who have maintained a complete continence long after full manhood, have yet proved effective progenitors of children; while the number of cases of premature impotence, brought on by too early or excessive intercourse, would lead us to suspect that this is the more formidable error of the two. He underrates the influence of education and hygienic measures, as also of original susceptibility; and jumps to the conclusion, that if continence can be maintained, it is because there is inability or physical indisposition to break through it, and this, for the most part, engendered by daily pollutions which have escaped attention. That persons of originally strong passions, who have taken little pains to subdue them, may suffer all the inconveniences he supposes, we can allow: but that in all individuals there is continually a large secretion of semen, which by fair or foul means must be expelled, we do not admit. We prefer the explanation offered by M. Gosselin, in a paper upon "Obliteration of the spermatic passages," published in the 'Archives Générales' of the present year. Judging from the results of his late anatomical inspections, he is disposed to regard this as of far more frequent occurrence than is generally supposed. He found examples of such obliteration occurring in the vas deferens at either extremity of the epididymis, and in the tubuli themselves. Upon the two former cases he makes some interesting observations. 1. Although the semen was thus prevented reaching its vesiculæ, and was confined within the vas deferens and epididymis, no alteration in the seminiferous tubes of the testes took place, though sometimes a marked dilatation of the epididymis, producing a true spermatocele, was observed. 2. In all these cases no atrophy of the testis occurred; a fact capable of demonstration by comparison with that of the opposite side. 3. The testicle secreted normal semen, as shown by the presence of the spermatozoa, molecular granules, and epithelial cells in the fluid of the epididymis, while that of the vesiculæ contained only the cells—M. Lallemand, as we have seen, insists that semen once secreted must be expelled; but M. Gosselin agrees with those who believe that it may be reabsorbed. He says:

"All physiologists acknowledge that, of all the secreted fluids, semen most easily admits of absorption. In fact, in the best organized subjects, its excretion is neither continuous or regular. It is true that the vesiculæ are organs of reception; but their capacity is small, and their power of distension slight. Now, if these organs do not admit of a large accumulation of the fluid, and yet, on the other hand, nothing arrests or suspends its secretion, it is by means of a gradual and proportionate absorption that nature supplies this apparent deficiency in the anatomical arrangements.

"Need I allude to the fact that such absorption of semen is regarded by all physiologists as of utility for the regular maintenance of our organs and the exercise of almost all our functions? Observe what takes place when the testis is absent, disappears, or is imperfectly developed. The semen is then absorbed in insufficient quantity, and all the organism suffers from this, the constitution continues feeble, while the body does not take on, or loses a portion of, its masculine characters. Nature endeavours to provide for the regular conservation of the individual, by means of the absorption of the same products whose excretion serves for the preservation of the species. When an obliteration takes place, the latter and most capital of these uses is suspended, but the other persists. The absorption of the semen throughout the spermatic passages prevents a distension of parts which might end in local mischief, while the beneficial influence of the secreted semen is imparted to the entire economy."

We pass on now to the consideration of the *general symptoms* of this disease; and among these are none of a pathognomonic character, though several may lead us to suspect the existence of the affection. It is one of M. Lallemand's principal merits to have indicated to the profession the occasional, or, as he would say, the frequent, dependence of a perverted condition of the most important functions upon the presence of spermatorrhœa; under the influence of which, a simulation of aggravated disease, of the nervous and digestive systems in particular, capable of deceiving the ablest practitioners, takes place, and may give rise to treatment doubly mischievous, by leading to the resort of unnecessary and injurious measures, and omitting those alone adapted to the true pathological condition. Every practitioner has had, from time to time, cases come before him in which the furtive and timid glance, the absence of memory, incoherent statements, anomalous symptoms, and a general and inexplicable deterioration of physical and mental power, have led him to suspect (especially in youthful patients) and sometimes to discover, the true cause of these in some injurious practice or consequence of it; but it is to M. Lallemand, that we are indebted for the best instructions for obtaining, through an efficient local examination, the confirmation or contradiction of any suspicions we may entertain; the more welcome, as in this description of cases it is exceedingly difficult to get the truth out of patients, while, in many instances, they may not be aware that bad habits, long since discontinued, are still visiting them with their retributive effects. Then, again, although M. Lallemand seems to us, with the natural fondness of a discoverer, disposed to generalize too hastily in attributing hypochondriasis, certain forms of insane delusion, and other examples of severe disorder of the nervous system, to unperceived seminal emissions, yet that many of these depend upon such causes, no reasonable doubt can be entertained; and no practitioner is justified in continuing a prolonged treatment in such harassing cases, without satisfying himself on this point. We need not follow the author through his able analysis of the various symptoms; for, in truth,

it may be stated in general terms, that there is scarce a function in the economy which, in different cases, and in different degrees, does not become perverted, an irresistible debility being the common cause and accompaniment of such lesions.

We think, however, that M. Lallemand attaches too much importance to the mere amount of discharge as the enervating agent; and we believe that the intensely exclusive occupation of the brain by erotic ideas, and the violent perturbation to which it is subjected by repeated emissions unnaturally produced, have far more to do with the production of nervous exhaustion than the losses themselves. These, it is true, may—as do all the affections of the genito-urinary apparatus—react also on the brain, and induce aggravation of existing mischief; and great temporary relief may be obtained by the removal of such supplemental cause of irritation. We know the case of an individual who, by a constant indulgence in erotic ideas, brought himself to as enfeebled a condition as could well be, although no emission, nocturnal or diurnal, attended the erections thus induced. Then, again, masturbation in children and women is attended with little, and sometimes no discharge; and yet in the one we have emaciation and spasmodic affections; and, in the other, all the symptoms of confirmed hysteria and exhaustion, far more difficult of relief than analogous conditions of the male, inasmuch as the cause may be suspected, but can seldom be detected.

When, from the history of the case, the anomalous character of the general symptoms, or the obstinacy with which these persist, we are led to a suspicion of its nature, we should at once resort to an investigation of the *local symptoms* derivable from an examination into the condition of the generative organs. The patient has become impotent, and even an aversion to the sex becomes a characteristic feature of the disease. Nocturnal pollutions, at first attended with pleasurable sensations, increase in frequency, with gradually decreasing orgasm, until at last they pass into the condition of a passive flux. In estimating the importance of pollutions, we must be guided, not so much by the amount of discharge, as by the effects produced on the system; for they may, and eventually will, decrease in quantity, and finally disappear, the patient's condition notwithstanding deteriorating more and more, inasmuch as the nocturnal pollutions, unknown to her or his attendant, have become exchanged for diurnal ones. When taught how to search for such discharges, he finds them terminating his frequent micturitions, or passing from the urethra owing to the pressure occurring during stool.

The most certain and satisfactory method of determining the presence of spermatozoa in the urine, is microscopic examination. This test cannot, however, be well applied, unless a certain familiarity with the objects and with the various aspects which they present has been first acquired. M. Lallemand gives us the following instructions on this head:

“After coitus there always remains a sufficient quantity of seminal fluid in the urethra, to serve for precise and complete microscopical examination. This may be obtained by pressing the canal shortly after the act, and receiving the drop of fluid from the orifice of the glans on a slip of glass. In this drop of fluid thousands of animalcules may be seen, agitating themselves like so many tadpoles in a pool of stagnant water, only that the tails of the spermatozoa are relatively

longer and thinner, and that the head presents a brilliant point near its insertion. Generally the number of these animalcules prevents them from being easily examined, and it becomes necessary to spread them out by introducing a small quantity of water and pressing firmly down the thin glass that covers them; they are found most separated on the edges of the fluid. If the water added be of the temperature of the body, their motions become free and lively, and continue so until cooling and evaporation affect them. By avoiding these two causes of disturbance, the motions of the spermatozoa may be kept up during several hours.

"However long a time may have elapsed after coitus, there are always spermatozoa in the urethra, provided they have not been washed away by the passage of urine. Although the point of the glans may be dry, and pressure along the whole length of the canal may not produce the least dampness, still on passing urine living animalcules may be obtained from the first drop which escapes. This may be received on the glass, and is perhaps the easiest and most natural mode of obtaining spermatozoa for microscopic examination.

"It is evident that the same experiments may be applied in the case of nocturnal pollutions, as well as in other seminal discharges in whatever manner they may occur. But many errors may arise from commencing with cases of disease; for it is during perfect health that the spermatozoa are most active and their development most complete, and they live longer after coitus than after any other kind of seminal discharge." (p. 254.)

There are certain precautions, however, to be kept in view in the search for spermatozoa in the urine, in cases of suspected spermatorrhœa. The number of spermatozoa may be very small, especially in the urine passed after diurnal pollutions; and it is, therefore, necessary to search very carefully for them. These bodies, moreover, are often of unusual transparency in cases of disease; and a peculiar management of the light becomes necessary for their detection, a considerable part of it being cut off by a diaphragm, or the cone of rays being sent up from the mirror obliquely, instead of perpendicularly. Variation of the density of the fluid under examination, also, either by adding water, or by permitting evaporation, is frequently useful, by producing a difference between the refractive power of the liquid and that of the bodies of the spermatozoa, when these were so nearly identical as to render the latter invisible or nearly so. "I have frequently," says M. Lallemand, "in cases of spermatorrhœa, failed to perceive anything in the fluid under examination for half an hour, an hour, or more; then suddenly an animalcule has made its appearance; then a dozen; and then perhaps a hundred in the space of a few minutes. The following morning, when desiccation has become complete, there are no longer any traces of these animalcules, or, at all events, I have only been able to distinguish their tails, the other parts of them being fixed in the dried-up mucus. The absorption of a drop of water has restored the phenomena observed the night before." (p. 253.)

Directions are given, however, by M. Lallemand for the detection of the seminal fluid in the urine by the unassisted eye; and we shall quote the most essential parts of them, although we consider that the microscopic test should never be dispensed with, when the least doubt exists as to the nature of the case. We here quote from the original, as Mr. M'Dougal has considerably abridged the whole of this portion of M. Lallemand's work.

"I have desired some of these patients to observe what took place when they passed urine in a bath, and I have in this way obtained some very curious infor-

mation. The attention which these unfortunate persons concentrate upon the exclusive object of their thoughts, gives them great patience and perspicacity for everything which relates to it. Here is what I learned from them, having, in most instances, verified their statements myself.

"In simple and incipient cases, it is thus very easy to observe the semen mingling with the last drops of the urine, as it has as yet much opacity, and contains a number of flocculi and granules which disperse in the urine in every direction. In the most serious and obscure cases, its presence may, by a little care, still be detected by the sudden increase of density which the urine acquires. A kind of riband, like a very thick syrup, descends on quitting the urethra, and even casts a shadow upon the thigh when illuminated by a sufficiently bright light.....

"In recent cases we see fall to the bottom of the vessel a number of small granules of a variable size, semi-transparent, irregularly spherical, and pretty much resembling seeds of semolina. We cannot confound them with any urinary salt, because they are seen before the urine cools, and are distinguished by their soft texture, and their non-adherence to the walls of the vessel. On the other hand, neither the prostate, urethra, bladder, or kidneys furnish such granules, especially when the urine is transparent. They proceed from the vesiculæ seminales, as I shall afterwards show, in a direct manner, and may be regarded as certain signs of diurnal pollution.....

....."When the disease has made more progress, the urine no longer deposits sufficiently large granules to sink to the bottom of the vessel, but it contains a thick, whitish, homogeneous cloud, dotted with little brilliant points, which reach the lower layers, and which have with some truth been compared to the deposit formed by a somewhat concentrated decoction of rice or barley. Hitherto there have never been assigned to this seminal cloud sufficiently precise and constant characters, to allow of its being distinguished from the various deposits which the vesical mucus and the prostatic fluid may furnish; so that practitioners have remained in great uncertainty or complete incredulity respecting it.

....."I think the brilliant granules of which I have spoken, should leave no uncertainty concerning the nature of the cloud in which they are observed. Repeated microscopic researches leave me under no doubt that such clouds are due, for the most part, to the presence of semen in a very altered condition; and I shall show that the brilliant points come from the vesiculæ seminales." (Tom. ii, pp. 352-4-7.)

In the *treatment* of this affection, M. Lallemand observes, it is more important that our attention should be directed to the present condition of the spermatic organs, than to the original cause producing this; and there can be no question that, in many cases, until this great source of irritation be removed, all the efforts of the practitioner and resolutions of the patient will be in vain. To the chapter which directs the suitable treatment, when this diseased condition arises from irritation occurring in the vicinity, we need not advert; seeing that the remedies employed against ascarides, eruptions or fissures at the margin of the anus, diseased conditions of the prepuce, stricture of the urethra, constipation, &c., are those in ordinary use.

Although it is a common but pernicious error to suppose that spermatorrhœa generally arises from an original debility or atonic condition of the genital organs, yet such cases are occasionally met with, "occurring especially in such as have suffered during infancy from an incontinence of urine, in those whose genital organs are not perfectly developed, or whose temperaments are markedly lymphatic." In such subjects we find the pollutions increasing during mild and damp weather, and diminishing

under the influence of bracing winds. Tonics are obviously here indicated; and M. Lallemand has derived much advantage from the transmission of galvanic shocks through the penis and perineum; while he has seen nothing but mischief result from the use of cantharides and phosphorus. He thinks well of the ergot of rye, given in doses of from 4 to 20 grains night and morning. Cold bathing has been far too indiscriminately resorted to in spermatorrhœa. It is more especially useful in masturbation and venereal excess, but always proves injurious when, as is usual in the case of diurnal pollution, the great debility prevents the production of a sufficient reaction. Warm, aromatic baths are in such cases very useful; especially when incontinence of urine existed during childhood. Cold applied in a more local manner, as by lotions or the douche, and followed by active friction, is of good service. In well-marked cases, the ferruginous waters, due attention being paid to the condition of the digestive organs, are useful; and although all such medicinal substances, as are given for the especial purpose of exciting the genital organs in impotence from debility, are generally injurious in their operation, yet, when there is an abnormal sensibility of the genito-urinary apparatus, the balsamic remedies, as copaiba, turpentine, &c., given in small doses, sometimes prove of service in allaying it.

Occasionally, seminal discharges arise from the abnormal nervous susceptibility of the genital organs, the least touch or friction inducing peculiar sensations or emission. Great irritation may likewise prevail in the urethra, without local inflammation at the orifice, in the course of the cord, and about the neck of the bladder. These cases occur in irritable subjects, and are best met by narcotics and sedatives, given cautiously however at first. In such instances, five- or six-grain doses of camphor often diminish the irritative erections. The introduction every few days of a moderate-sized gum-elastic catheter, which is to be allowed to remain in the urethra for an hour or more, although at first productive of increased suffering, eventually gives much relief by blunting the morbid sensibility of the canal. To produce the full effect of this means, however, more time is required than many patients are willing to devote to it, and in such cases acupuncture of the perineum may be advantageously substituted; this being a means of treatment which M. Lallemand considers has fallen unjustly into disuse. Pollutions maintained by the influence of acquired habit are advantageously treated by it and catheterism.

As we have already seen, the great bulk of cases of spermatorrhœa are connected with a state of irritation of the spermatic organs, varying in degree from simple excitement to actual inflammation. In the treatment of such, M. Lallemand thinks that we have injudiciously departed from the advice of Hippocrates, by substituting cold for tepid baths. His remarks, too, upon the advantages of a milk diet and light regimen, are excellent;—the stomach, however, owing to its usually irritable condition, requires a variety of modifications of diet. Wine, forbidden by Hippocrates, is usually abandoned voluntarily (as is generally beer also) by these patients, owing to their experience of its ill-effects in the aggravation of all their sufferings. They are unanimous in their statements upon this point. All exercise of the organs by coitus when possible, or by the excitement of erotic ideas, must be abandoned, until after convalescence has become

firmly established. In the chronic inflammatory state of the orifices of the ducts and the adjacent portion of the urethra, which is the essential characteristic of the form of the disease we are now considering, and the relaxed condition of the parts consequent upon its prevalence, *cauterization* with the nitrate of silver is especially indicated; and to M. Lallemand are we indebted, if not for its first actual application to these cases, (Sir Everard Home having previously so employed it,) at any rate for the far more important service of having perseveringly investigated its claims, and established its right to be considered as the means *par excellence* best calculated to dissipate lingering morbid action, and restore lost tone. He reasonably complains of the conduct of those who have chosen to adopt this part of his practice, without accompanying it with the precautions he deems requisite; and especially enforces the allowing a sufficient interval to elapse after the first application, before again having recourse to it—three or four weeks at least. In the majority of cases a single cauterization will indeed suffice, and at most two; though in some few instances more may be required. We need not enter upon a description of the mode of performing the operation, or of the instrument employed by M. Lallemand (of which Mr. McDougal proposes a modification), these having been sufficiently made known in the writings of Mr. Curling, Mr. Philips, and others.

M. Brâchet related to the Academy of Medicine last year (Bulletin, tom. x, p. 650) some cases of aggravated spermatorrhœa, which he cured by means of a bandage applied to the perineum for several weeks. We do not know that this success has been confirmed by other practitioners; but in certain cases,—as where the patient refuses to submit to cauterization, or the canal is in too irritable a state to admit of its performance, or the practitioner not confident in his dexterity,—the plan would certainly seem worthy of a further trial.

Convalescence, in all but simple and recent cases, is of a slow growth, relapse being, by the force of habit, of such easy occurrence. Hygienic precautions require to be rigidly enforced long after their apparent necessity has ceased. When the health has become sufficiently reestablished and natural desire rekindled, it is highly desirable that the sexual organs should be moderately exercised, both for the prevention of the reacquisition of depraved habits, and for the imparting additional vigour and tone to them. But advice of this kind must not be lightly given, inasmuch as we are not justified in prematurely recommending a matrimonial union for the mere chance of benefiting the patient. Any such experimental proceeding of this kind would be a gross injustice to the wife, and might entail despair and disappointment upon the husband. Renovated powers, on the other hand, are apt to be used incautiously; and indeed what would be abstemiousness in the robust becomes an excess in those whose genital organs have been disordered; and this may easily lead to the reproduction of the spermatorrhœa.

Before concluding the present article, we wish to make a few observations upon the *prevention* of this disease. When once established, from all we have seen and read we are reluctantly obliged to come to the conclusion, that it is by no means so easily eradicated as M. Lallemand represents it to be; and we fear that some of the very rapid cures of long-standing cases

he relates were only temporary ones. It is very true that the relieving the morbid state of the urethra by means of cauterization, often exerts at first even a marvellous effect upon the condition of the patient; but in respect to persons whose nervous system has been shattered by years of perverted action, and who, with some returning strength, are so apt to fall under the dominion of old habits and associations, this is only a part and a small part of the cure; the rest much depending upon the possession of a resolution, in which these unfortunates are especially deficient. The less effective our curative treatment, however, the more important the preventive; and, this to be of service, should be commenced at a very early period of life, and form a part indeed of an improved educational management. This is a fertile topic for dissertation, but the few words we have to say shall be confined to the special subject before us: and we touch upon it at all only to suggest to practitioners the propriety of drawing to the matter the attention of those with whom they come into contact, as by their aid alone can it be brought into notice. There can be no doubt that children are more addicted to onanism than is usually supposed; and several of the anomalies that occasionally present themselves in their condition would be cleared up, could we obtain precise information concerning bad habits acquired by themselves or taught them by schoolfellows and servants. It is useful always to bear the possibility in mind; although, of course, to suggest investigation respecting it requires tact and caution. M. Lallemand repeatedly calls attention to the important fact that the genital instinct of children is developed long before the period of puberty; and justly reprehends the carelessness of parents in leaving young girls and boys too much together, and of females in acting before the latter as though sexual considerations were out of the question at this age. It were certainly pleasanter to rely upon the idea of childish innocence at this period of life; but any one who has watched the conduct of even very young children of opposite sexes when together, must feel persuaded that the caution is not given in vain. M. Lallemand also mentions cases of impressions thus early imbibed abiding with and influencing the individual for the rest of life; and we are in possession of the particulars of an instance, in which the fact of a boy some seven or eight years of age assisting at the toilet of a lady, produced so profound an impression, as to induce a most extraordinary train of thought and action for the next thirty years. They are too long for present insertion, but as a true psychical curiosity may be brought under notice at some other opportunity. We also agree with M. Lallemand, that immense mischief is done to the moral purity of lads entering upon puberty by assembling them together in large numbers in schools, where, escaping supervision, and left much to themselves, the most vicious habits are acquired and propagated. Nine out of ten cases of onanism thus originate.

We are strongly of opinion, likewise, that much of the mischief which afterwards occurs to young men arises from the imperfect character of their school education, which has been too superficial to call into employ the higher faculties of the mind, or to lay the seeds for that love of knowledge which might hereafter, in moments of leisure, ripen into attempts at its pursuit. Destitute of the high incentive which this supplies, they abandon themselves to mere sensual enjoyments, or engage in that de-

scription of light and discursive reading, destructive of all fixity and energy of thought, which is so much in vogue at the present day, and to which its highest praise of being an innocent pastime cannot be always accorded.

If consulted respecting a case of onanism or nocturnal pollution, the practitioner too often contents himself with the recommendation of sexual intercourse, without taking into consideration the various other means of obviating the inconvenience. These are chiefly to be found in whatever discourages indolence, whether of body or mind; and must be adjusted with discrimination. To the youth of high moral principle and cultivated mind, we should open out the inducements offered for the exertion of the powers of self-control, and for the engaging in some investigation which may occupy his thoughts, or some employment of his leisure which may prove useful to mankind and interesting to himself. To minds of lower caliber, and it is among such persons that masturbation is chiefly found to prevail, we recommend active bodily exercise, carried to the verge of fatigue; and we think that the discontinuance of many of our hardy games and sports is a matter for the sincerest regret. For all, early rising, hard beds, cold bathing or ablution, active exercise, the occasional use of aperients, spare diet, and the free enjoyment of respectable society, especially when females form part of this, are of great importance. In a great number of instances, these and analogous means will be attended with success; but there are, doubtless, other cases in which the establishment of the natural action of the genital organs would be the most effectual remedy; but we maintain that this is by no means so often the case as is generally supposed; and that it is far too indiscriminately recommended by medical men, is very certain. Thus, it is not uncommon to find it quietly advised for patients suffering under advanced spermatorrhœa, who are quite incompetent to act; in whom, even if they could accomplish it, it would only produce additional irritation of the already too excited organs. Moreover, in several cases it is not curative; for excesses, even in consequence of marriage, have not unfrequently brought on slight spermatorrhœa or analogous disorders.

In concluding our notice of this subject, we may again express our opinion that Mr. M'Dougal's translation of so useful a work will prove of great service to the profession in this country, by recalling attention to a too-neglected subject. We have carefully compared it with the original, and find the author's meaning very satisfactorily rendered; but, although the curtailments are, upon the whole, judicious, we think they have been made somewhat in the extreme, and have been accomplished sometimes by the amalgamation of portions of separate paragraphs, which constitute an act of injustice towards the author, if done without his approval. We do not either understand in what sense Mr. M'Dougal employs the word "edited," the signification of which seems to be taking a great extension at the present day. In the present instance, the word "abridged" precisely expresses what has been effected.