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George A. Otis jr.

A PRACTICAL TREATISE
ON
VENEREAL DISEASES;

OR,

CRITICAL AND EXPERIMENTAL RESEARCHES

ON INOCULATION,

APPLIED TO THE STUDY OF THESE AFFECTIONS.

WITH A

Therapeutical Summary and Special Formulary

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SPECIAL PATHOLOGY, ETC. ETC.

TRANSLATED FROM THE FRENCH,

BY A. SIDNEY DOANE, A.M., M.D.

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TO THE

FIRST AMERICAN EDITION

MONS. RICORD'S reputation has long been known to those physicians and students who have had an opportunity of listening to his eloquent instructions in Paris, or to whom his French Treatise on Syphilis has become familiar. He is distinguished for his sound, and philosophical, and novel views, upon a disease which carries terror with it wherever it appears; the existence of which has brought a catalogue of ills upon frail humanity, and whose consequences are often felt by the innocent as well as the guilty. The first part of this book partakes of the philosophical spirit of its author, while in the pages devoted to the treatment of syphilis, M. Ricord has spread out the results of thousands of cases treated in the Hôpital des Capucins, and which will be found to be immensely important to every practical man. With a view to present a valuable work to the medical profession in America, the American publisher procured a translation of M. Ricord's Treatise, by Mr. Drummond, which was printed in London, in 1841. But on comparing this translation with the original, it was found that much had been omitted; for instance, some forty or fifty cases, of

a highly practical character, and much too on the score of treatment. Hence it has been necessary to revise the entire work; and it will be found that the present translation is, in fact, a new one.

We hope that the exertions of the American publisher may be duly appreciated by the profession, and that the book may meet a sale commensurate with its deserts.

AUTHOR'S PREFACE.

THE various motives which induce men to write, do not allow us to place an equal degree of confidence in all of them. The truth of this assertion is incontestable as regards the history of sciences in general, but more particularly in that which is about to occupy our attention in the following pages. - If we survey the works which we already possess on the artificial inoculation of venereal diseases, we shall soon find that either the interest of some theory, the speculations of quacks, or, not unfrequently, vexatious criticism and misrepresentation, have dictated what we find in authors who have written on this important subject. If we read and then compare what we find with the results of honest experience, in different works on this subject, we shall too frequently be convinced of the error of some, the ignorance of others, and the want of good faith in most of them.

As regards myself, I have pursued my researches without preconceived notions, and with the sole object of discovering the truth amongst so many contradictions. My numerous experiments will enable me to furnish a material proof of every point I advance.

Since the time of Hunter, the experiments of inoculating syphilitic diseases have been made:—

I. To prove the existence of the specific cause of syphilitic diseases; the venereal virus.

II. To distinguish between diseases which resemble each other.

III. To fix the differences which exist between the symptoms of primary infection, and those of general infection.

IV. In a therapeutical view, either to prove the efficacy of prophylactic agents, or to modify, by a new infection, a former obstinate syphilitic affection of old standing, or by combining syphilis with a disease which, being incurable, may by this admixture yield to a specific treatment.

V. And lastly, in a hygienic and medico-legal point of view.

These are the divisions I have adopted, and I shall presently proceed to review them generally and critically, which will form the first part of this work ; in the second, I shall produce the practical observations from my clinical wards, followed by remarks on the methods of treatment ; to which is added a Special Formulary, which have used in the Hôpital des Vénériens.

A PRACTICAL TREATISE
ON INOCULATION,
APPLIED TO THE STUDY OF VENEREAL DISEASES.

PART THE FIRST.

CRITICAL RESEARCHES AND GENERAL REMARKS.

CHAPTER I.

THE EXISTENCE OF THE SYPHILITIC VIRUS PROVED BY INOCULATION.

“ If there be a class of disease where an evident connexion exists between cause and effect, it is undoubtedly the syphilitic class,”* and this constant and regular connexion is proved particularly by inoculation.

Alexander Benedictus, a Veronese physician, was the first to admit, as a contagious principle, *a venereal taint produced in the sexual organs of women by the alteration of humors which they exhale* ; this was admitted by Fernel, and received the name of *lues venerea*, poison, venereal virus, &c., and since that time most writers on syphilis have acknowledged the existence of a specific cause, of a peculiar deleterious principle.

This cause, however, which is so easily recognised at its source, and the effects of which can be followed so regularly, was overlooked by the ancients until the terrible epidemic of the fifteenth century ; and, in our own times, we find a few who are sincere in their incredulity, and many more interested disbelievers.

I do not intend in this place to review all the reasons and arguments that have been brought forward to prove or disprove the existence of the venereal virus ; but as inoculation has by turns been appealed to by each party, my aim will be to show its definite value. To omit nothing concerning this important question, let us

* Petit Radet, préface à la traduction de Nisbet.

first see what has been said by authors opposed to the doctrine of a virus.

Bru's experiments have been cited by the opponents of a virus, but he was so much influenced by a strange theory, that it may be justly questioned if he saw what he relates in its proper light, and we may confidently assert, that he did not know how to appreciate the circumstances under which he made his experiments. He remarks:—*

“Is the virus inoculated with its venereal action, or only with a disposition? Is the pus of chancres, gonorrhœa, and bubos, contagious, and can it serve to inoculate syphilis?”

“To proceed with order and perspicuity in this important examination, it must be proved, first, that what is understood by venereal virus, is not inoculated, and that it is only the *mode* which is inoculated, and that the virus or pus is only the consequence of the neutralization of the *mode*. Secondly, that the *mode* inoculated is only by virtue of a kind of electrification, after it has manifested its action by the immediate contact of the diseased part with the healthy part; which leads us to examine the mechanism of the venereal act. Thirdly, that the venereal mode may exist in a state of fixedness, and that in this state it does not inoculate, but must first pass into a state of expansion. Fourthly, that the communicating *mode* of syphilis is nothing else than the modified electric fluid, or some other analogous matter in an expanded form.

“The venereal virus, according to the received acceptation, is a something deleterious, which is combined with the pus. ‘It is commonly,’ says Hunter, ‘in the form of pus, or combined with it, or with some secretion of that kind.’

“We are far from admitting this definition of the venereal virus; we think, on the contrary, that what is understood by virus, does not contain the deleterious matter which we shall call *venereal mode*,† and we think we shall be able to prove this fact. I have inserted with the point of a lancet on the glans and interior of the prepuce, pus from chancres of every kind and in all stages, and the disease never appeared.

* Méthode nouvelle de traiter les maladies vénériennes par les gateaux toniques mercuriels, par Bru, tome i. chap. 3, p. 45. Paris, 1789

† By *mode*, is to be understood what it has been intended to express by leaven, &c.

“I have also made the same experiment with the matter of a gonorrhœa with as little success. I have also employed that of bubos at the moment of their being opened, and always without effect.* Finally, I have conveyed pus, procured from these three forms of disease, a considerable depth into the canal of the urethra, and nothing has appeared. I have formed ulcers by means of blisters upon the glans penis, and prepuce, and when they were in a state of ulceration applied lint, impregnated with pus, produced by every variety of venereal affection. I have also repeated my experiments upon various parts of the body. I have placed it in the vagina of several bitches, and under the prepuce of several dogs, and all this without any result. I was thus led to conclude, that the pus produced by the several venereal affections, was not the virus; that it was not even combined with it, and that this pus was necessarily only the consequence of its neutralization.

“This proof is incontrovertible; and it only remains to establish it clearly, which will be done in the following section. But before I proceed to the facts which belong to it, a question presents itself which must first be answered, that the chain of evidence may be unbroken; we must determine what is the venereal *mode*, of which the suppurations it excites are but a result; for under this supposition, which is clearly demonstrated, this *mode* cannot inoculate with the venereal action. Upon this hypothesis, the venereal mode ought not only to show itself at the instant of inoculation, or at least very soon after, as it is of a corrosive character, but always in the same place as it has been inoculated; this, however, only happens in the case of chancres. Moreover this supposition is not correct, because only a small point of the parts which have been in contact ulcerate, which proves that it is less the effect of an immediate than of a subsequent action. In the inoculation of the small-pox, this effect of the immediate action is very evident, for the spot inflames soon after the pus has been introduced. The effects of the virus are far more evident in this place than elsewhere; for the small-pox is often cured while the wounds from the inoculation are yet in a state of suppuration, and are always a source of infection, because the pus taken from these wounds a month after the desiccation of all other pustules, is still capable of communicating the

* In this case it cannot be expected that inoculation should produce any result.

disease. In the inoculation of the venereal *mode* the chancre is the only part which can be suspected as the point of contact with the virus, for surely this is impossible in gonorrhœa, which has generally its seat in the beginning of the canal, or in bubo when it exists alone.

“Another proof that the venereal mode is not inoculated with the venereal action, results from a very familiar circumstance, with which most persons are acquainted. A man has had connexion with an infected woman, but does not yet feel any effects of the infection. In this state he has connexion with a healthy woman, to whom he does not communicate any disease; yet the action is established in him, the disease declares itself in a few days, and sometimes on the same day. From this it would appear that the venereal disease can only be communicated after the *mode* has acquired its action; for when the symptoms have once shown themselves, it has the property of being communicated, but the product of these symptoms is not contagious. Pus of all kinds has been inoculated, and by all possible methods, infection does not take place. This pus, then, is not a condition of the contagious property of the *mode*, it can only be the result, and a sign of its action; we must therefore seek this principle elsewhere. Thus, as the venereal mode cannot be inoculated before it has manifested its action, by immediate contact in the act of coition, (which does not take place till some time has elapsed,) we ought to conclude, first, that the venereal *mode* is not inoculated with venereal action, but only with the disposition. Secondly, that this action is the result of its combination with a substance over which it has some power. Thirdly, that this substance, such as it is supposed to be, must be of a nature to set the phlogiston in action, since its first product is inflammation. Fourthly, that, to preserve its contagious principle, it ought neither to be exposed to the air nor disseminated in the purulent excretions. Fifthly, and lastly, that only inoculating itself with a venereal disposition by actual contact, where there is friction and heat, and after having manifested its action, one cannot suppose but that the venereal *mode* is electric fluid, or some other modification of elementary fire altered and changed under a form of expansion.”

After Bru, I think I ought to quote what Caron* says of the venereal virus, and its manner of infecting.

“ If it can be said correctly that the impregnation of females is in fact a contagion, a kind of nervous virulence, we may with equal right affirm that the origin and contagion of the venereal virus are a species of conception, and not the result of a simple intersusception, or absorption of a virulent fluid. The communication of the contagious principle during the purulent secretion which it has caused, has led into error, and caused the venereal pus to be confounded with the virus, although it was only the consequence of it. Deceived, moreover, by the manner in which variolous matter inoculates, and by its supposed analogy to the venereal matter; deceived further by the progress of syphilis in the economy, it was easy to regard the venereal pus as the virus, and as contracted by absorption, and travelling through the system by means of the general circulation. This manner of regarding the process appears so natural, and is so sanctioned by time and custom, that we are startled by a contrary opinion. We may say yet more; there is so great a prepossession in its favor, that one is astonished, without being convinced, on finding, by numerous simple and easy experiments, that the inoculation of the venereal matter remains without effect.

“ If it be remembered that even in mechanical lesions there is no purely physical or chemical process in the animal economy; if we reflect that it is impossible to conceive of any morbid action without a previous derangement in the vital powers, we shall soon be convinced that the venereal virus is not a substance, and that it cannot be inoculated as such; but that it ought to be regarded as an animal process, depending upon a disturbance or modification of the peculiar functions of the system. In fact, it is the natural susceptibility of the vital principle, the sympathy of the capillary and nervous systems which develop it, and hence its primary cause is as little known as that of the other vital actions. All that we can comprehend of contagion is, that the virulent principles must have properties in common with the bodies which contract them. Now, without being able to explain the nature of the venereal virus, or rather the principle of its conception in the system, we shall as-

* Nouvelle doctrine les maladies vénériennes.

sume, as an incontestable truth, that it takes place only by a specific irritation, a peculiar sensation of the vital principle, as friction and heat, or a certain disposition in the parts in which it is situated, are necessary, and as the venereal secretion has in itself nothing contagious or irritating, it is not capable of developing the virus.

“In vain does the author of an excellent recent work, in declaring the result of the inoculations of the venereal pus, exclaim against the conclusions which are naturally deduced from them; they must either be refuted or more justly drawn; for singular and paradoxical as they may seem, they ought to be admitted, if approved by reason and confirmed by experience.

“But it is asserted, that it is only during the voluptuous excitement of the venereal act that the virus can be materially inoculated with the pus. Now is it possible that the absorption of a purulent liquid should take place at a time when the exhalation and fluxion inherent to the venereal orgasm are diametrically opposed to this function? Moreover, how can the venereal pus, which has no virulent property, irritate the sound surfaces which it touches, even when they are excited by coition, unless this matter be rendered more energetic or more contagious by the irritation of the parts which secrete it? For, in supposing that the active or virulent principle resides in the pus before copulation, it is proved that this passive admixture deprives it of its contagious properties, and that if the venereal infection can be conceived during coition, it is by a new act of the organism which reproduces it. In fact, the syphilitic matter being destitute of life or sensibility, how should it acquire new properties? Further, granting it some irritating quality during coition, or even supposing that it could contribute to the contagion of the venereal principle, this could only be in a secondary and instantaneous manner, and when favored by a far more powerful cause.

“Thus it is not a virus which is transmitted by inoculation in the venereal contagion, but an occult vice, which is developed in us: it is nature or life which establishes the syphilitic constitution, and not the pus, which is only the sequence of it. In short, the material principles of contagious diseases, like that of life itself, are inseparable, abstract essences; they can neither be conceived nor studied as substances, and the idea of their existence has only

reality, in as far as they are united to that of effects, of which they are regarded as the causes.

* * * * *

“The venereal infection has at first only a local action, which extends itself in succession to certain parts; but it is always subordinate to the powers of nature, or subjugated by the essential organs of life, because the heart, stomach, brain, lungs, &c., never feel the effects of it. If the generating organs of the venereal virus, if the skin and the exterior lymphatic ganglions, and more especially the organs of sense, receive it first, it is because a peculiar sympathy exists between all these organs, and because the functions of the dermoid system are more or less the same in all exterior sensations; and lastly, because the whole capillary system of the cutis, as we have seen above, partakes of the venereal irritations. Now the venereal *mode* being once received into the system, it must, if its action be developed, establish itself on the skin, nose, mouth, eyes, ears, or pharynx, &c., since independent of the natural disposition of these organs to contract it, the contact of the garments, air, light, and all exterior irritations must favor its development.

* * * * *

“A powerful and repeated irritation may disorder the natural sensibility of the skin, and produce some disease in the irritated parts, but it never causes the voluptuous sensation procured by the parts of generation, and those which are analogous to them. Thus the delightful sensations in coition, suckling, chafing the lips and eyelids, which agitate and excite the sensitive principle, with so many charms and so much energy, are also the only means of contagion. However great the voluptuousness of kisses, and the suckling of the nipples, it may yet be thought that these organs, which so easily contract the venereal disposition, when its action is well developed, could yet never give rise to it of themselves, or conceive it primarily. Thus observation proves that the syphilitic affection is more or less wavering, degenerate, and dangerous, according as the act which gave rise to it is removed from coition, its true origin.”

“After these statements, it appears easy to reconcile the apparently contradictory facts which the syphilitic infection of newborn infants, nurses, and nurslings, presents. We see that it has been

justly asserted, from very exact observations, that the venereal virus was not materially contained in the semen, milk, or saliva; but on the other hand it is wrong to conclude from this that the *aura vitalis* of the first two fluids, and particularly of the sperma, acted upon by that which constitutes the syphilitic principle, might not affect the fœtus or nursling: although the venereal disposition, weakened or repressed in its action by the vital powers of the father or nurse, did not present any indication of its existence. Certainly we must not conclude, from the experimental inoculations which have been instituted, that the matter of recent gonorrhœas and primitive chancres, inoculated under peculiar circumstances, and with certain vital conditions, is always innocent; but we may be sure it will not impregnate with the syphilitic mode which it does not contain. In fact, if by merely irritating the skin, we can produce a consecutive affection, will not the purulent matter of a phlegmon or a primitive chancre produce a peculiar morbid action? But what will be its nature?—a purely local affection proportional to the nature and energy of the inoculated fluid, and of the irritation.”

From these extracts it is evident that Bru has only brought forward his experiments, to support a theory which was opposed to the positive results of inoculation. And, as my researches will soon prove, either Bru did not know how to make experiments, or he was not candid. I should rather believe the former of these suppositions, considering the small number of experiments he made, and the long intervals between them. As to Caron, his arguments are so vague and unfounded, that they do not deserve a serious refutation; and the manner in which he expresses himself as to the results of inoculation, proves that he has not only never practised it, but that he is not even capable of judging of it.

Let us now hear what M. Jourdan says against inoculation, which is a strong argument for the school to which this able writer belongs.

“It is pretended,” says he, “that the venereal virus belongs exclusively to the human race. This assertion rests principally upon some experiments from which Hunter and Turnbull have concluded that dogs, rabbits, and asses, cannot receive the syphilitic infection by inoculation. But if the syphilitic virus cannot be communicated

by inoculation to animals, neither can it always even to men. Farther, true venereal affections are very frequently observed amongst brutes. Dogs and bitches often present very unequivocal traces of inflammation of the mucous membrane of the genital and urinary organs, followed by gonorrhœa, chancres, phymosis, paraphymosis, swelling of the scrotum, &c."

After citing negative experiments, M. Jourdan adds,* "that Mr. Evans declares he has several times tried the inoculation of a gonorrhœa upon himself, without success, and the inutility of these attempts, which have also failed in the hands of other experimenters, is very remarkable, as it shows that the efficacy of the venereal pus is in this respect very inferior to that of hydrochlorate of ammonia.

"Yet," says M. Jourdan, "positive as these assertions are, other experiments prove that the insertion of the pus of chancres or gonorrhœa, can produce ulcerations followed by swelling of the adjacent lymphatic glands. But there is much contradiction on this subject amongst authors. According to Hunter, this result is rare: he states, that he has often applied venereal pus to ulcers, and only once succeeded in producing venereal inflammation. On the other hand, it is very common and almost constant, according to M. Cullerier, jun., who, having made several experiments and repeated them several times on the same patient, has always seen ulcers, similar to those which furnished the pus, develop themselves upon the spot where the insertion of the syphilitic pus was made with the lancet upon the penis, whether by puncture or erosion of the surface. The same writer states, that three pupils of the *Hopital des Vénériens* have had, in consequence of similar experiments, an ulcer of long duration, and which was attended with swelling of the axillary glands; in them, the symptoms yielded to antiphlogistic treatment. Another, who made the same experiment some time after, experienced no local irritation."

But it is of little importance whether the symptoms, in consequence of these kinds of inoculation, be rare or common. They are not sufficient to prove the existence of a peculiar virus, because we frequently see similar and even more severe results from a

* *Traité complet des maladies vénériennes*, 2 vols. 8 vo. Paris, 1826.

simple puncture. Upon this point, Mr. Shaw's recent observations have thrown much light. The possibility, or at least the facility, of *inoculating* syphilis, is by no means admitted by all those even who believe in the existence of the virus. M. Lagneau doubts whether the disease can be inoculated by introducing a bougie covered with the gonorrhœal matter into the urethra, and thinks that when a discharge follows, it is owing to the mechanical irritation of the canal, by the bougie. This is also the opinion of M. Cullerier, sen., who expresses himself thus upon inoculation in general "We think we may assert, that the fluid which serves as a vehicle for the virus must possess a certain degree of warmth, a kind of life, which preserves to the virus the power of attaching itself to the new body, to which it has been transmitted."*

It would have been more correct to have said that the parts exposed to the contagion must be in a certain condition, in order to receive it.

Upon an attentive perusal of the preceding pages, it is evident that the arguments of M. Jourdan cannot stand the test of reason and experience. Indeed, experiment proves, as Hunter and Turnbull have stated, that the animals they have mentioned cannot contract syphilis as met with in the human subject, by means of inoculation; this, however, by no means prevents their having inflammations of the mucous membranes, and ulcerations of the genital organs; all inflammations and ulcerations of these organs, however, are not necessarily syphilitic in brutes any more than in men, even though they follow on what this depended, coition; of this we have ample proofs. As regards Bru's want of success in the inoculation of syphilis in man, we know the cause, and the experiments I have made, leave no more doubt on the point, than on those of Evans, which, although well performed, necessarily produced the consequences which followed, without detracting from the value of inoculation of the pus of chancres, as we shall see hereafter. As to the refutation of the positive results obtained by M. Cullerier, jun., the doubts of M. Lagneau, and the opinion of the late Michael Cullerier, and also the remarks which follow, (and to which M. Jourdan should have added the note to the treatise on the different kinds of gon-

* Dictionnaire des Sc. méd. tome i. Paris, 1821.

orrhœa by Hecker,*) their value will be better estimated, after having seen the result of our researches.

But to pursue the course we have adopted, and that we may know all that has been said on each side, let us see if M. Richond des Brust† has been more fortunate in his refutation of the facts relative to inoculation.

“We must conclude,” says he, “that the contagion of the venereal diseases does not prove that they depend upon a specific virus.”

“Let us now examine whether the development of ulcers and swelling of the lymphatic glands, after the inoculation of the venereal pus, can prove the existence of this essence.”

“The results of these inoculations are far from being so confirmatory of the syphilitic theory, as its defenders think. In many cases the insertion of the venereal pus under the skin causes no effect: and in those cases where some inflammatory symptoms are developed locally or in the remote ganglions, this phenomenon can easily be explained, without admitting a chimerical essence.”

“Hunter (in our opinion, the most rational writer on syphilis, and in whose works truth is often seen to shine out of a number of errors, which were common to his age) made divers experiments as to inoculation of the syphilitic virus, with the following results—

“I. He took pus from the ulcers of a syphilitic patient at St. George’s Hospital. He made three small incisions (deep enough to bring blood,) in the soft and sound skin of the back, into which he introduced purulent matter. He then made a fourth incision with a clean lancet. All the wounds healed and none re-appeared. He repeated this experiment several times, and always with the same result.

* One might doubt the experiments of Harrison, cited by Swédiaur, or those by Bell, upon reading those lately made in the Hôpital des Vénériens, at Paris, by Bertin, Cullerier, and Gilbert, who have repeatedly endeavored to inoculate the virus of gonorrhœa and chancre, and who have all assured me they were never able to produce a single symptom; whence follows the conclusion, that these diseases are only to be communicated by coition. *Traité des différentes espèces de gonorrhées*, par A. F. Hecker, trad. de l’Allemand, par A. J. L. Jourdan, avec des notes de P. P. Alyon, p. 255. *Paris*, 1812.

The same men afterwards obtained contrary results, which proves that the first experiments were badly performed.

† *De la non-existence du virus vénérien*, tome i. p. 76. *Paris*, 1826.

“II. A man who had venereal pustules in different parts of his body was inoculated, and in sound parts of the skin, with pus from a chancre of another person, as also with that which flowed from his own ulcers. The wounds impregnated with the pus of the chancre became well marked chancres, whilst the others healed. Hunter states, that having often repeated the above experiment, he always found the same results.”

“These facts, I think, might lead to the conclusion, that the general infection of the humors, which it is pretended exists when any of the signs of what is termed confirmed syphilis show themselves, is chimerical; since the pus taken from venereal pustules, and constitutional ulcers, was not charged with virus, and did not produce the effect which ought to have been observed, if it had been virulent; and since, if it had existed, a new infection could not have been made with the pus of a stranger, the whole economy being in a manner saturated.”

“III. From the last fact, in my opinion, it might be concluded, that the contagious property does not depend on the specific essence of the pus, but most often upon the greater or less acuteness of the inflammation which forms it. Thus gonorrhœas, which are contagious in their acute form, cease to be so when they become chronic; and in the same manner the nasal secretion, which, during the first days of a violent coryza, excoriates the lips, loses this property towards the end, and leucorrhœas in an acute stage often produce urethritis in men, who expose themselves to the excreted mucus, whilst in their chronic state they are generally innocuous.”

“If it were not so, it would be difficult to understand the result obtained by Hunter; for it is clear, that the pus from the venereal pustules ought to be more virulent than that which flows from a chancre, as these are the result of a general infection, whilst the chancre is only the germ of it, as yet barren.”

“Perhaps it may be objected, that the virus taken from an individual cannot have any action on himself, the parts being, as I say myself, supersaturated; whilst a new virus being deposited in a system, which is not accustomed to it, may cause morbid action. But, in the first place, it is not true that the pus furnished by a person, other than the one inoculated, contains for him a new and unaccustomed virus, for the virus is ever the same, and according to

the theory which I am attacking, it should be considered identical in different individuals, otherwise its effects should be very different, and it is said they are the same. In the second place, the statement that the system becomes habituated to the virus is a dream, which is refuted by daily observation. Indeed, what practitioner has not had occasion to observe in patients suffering under severe attacks of syphilis, new symptoms occasioned by inoculation of their own pus.

“ I observed this fact very often in a man named Perrez, whom I treated with mercury for ulcers and buboes. An ulcer on the glans increased much in extent during a profuse salivation. The thigh was touched by the pus which flowed from it on a spot where there was a bubo open at its extremity. This caused an ulcer, which increased to the size of a five-franc piece, with hard, uneven edges, a grayish surface, and rounded form. In another soldier, I saw precisely similar ulcers, produced upon the thigh by the matter of a gonorrhœa. In my wards at Strasburg, I daily saw gonorrhœas produce ulcers, buboes, vegetations, &c., although they might be considered as the results of a *general infection*.”

“ Moreover, if the opinion that the virus differs in different individuals be still maintained, I might oppose the opinion of Hunter, who contends that two actions cannot take place in the same constitution, nor on the same part at the same time, and that this is the reason why some persons resist certain miasmatic, or contagious affections.

“ But to return to the experiments. A person was inoculated with matter from a decidedly venereal ulcer, upon one of the tonsils, as well as from a gonorrhœa. This latter produced a chancre; the other was without effect. It is very remarkable, that pus coming from a consecutive ulcer, and consequently *highly venereal*, produced nothing, whilst the mucus from a urethritis, a disease whose syphilitic nature is generally denied by writers, produced a chancre.

“ Either Hunter was deceived in thinking the ulcer of the tonsil very venereal, and then the diagnosis was difficult, or it was so, and then the pus which flowed from it was not virulent. One ought to place little reliance upon the examples which authors relate of

inoculation of syphilis, by means of pens impregnated with saliva, glasses, bandages, &c.”

“Ought it to be concluded that a gonorrhœa is venereal, because it has produced a chancre? This would not be reasonable, as it is fully proved that similar phenomena are produced by gonorrhœa, occasioned by causes other than coition.

“Bru, who from the result of his numerous experiments has been led, like Hunter, to consider the general infection of the system as an irrational and untenable hypothesis, furnishes the following case:—

“Two sailors, in order to avoid the laborious work they were obliged to perform, and to escape a voyage which was about to be made, put some cantharides upon the glans, which caused symptoms seemingly venereal. When the affection which resulted had partially disappeared, and only a slight ulceration remained, they endeavored to inoculate themselves with the complaint of their comrades. They took pus from several of them, applied it to their ulcers, and waited in vain for the expected result; they were cured notwithstanding their repeated attempts.”

“In many other cases the surgeon attempted to inoculate with the pus of ulcers on the penis, or of suppurating buboes, but could never obtain venereal effects. He also made some trials on dogs. On many of them he produced excoriations with cantharides, and then applied venereal pus to them and obtained no result. It is easy to understand the reason; it was not because the syphilitic virus is peculiar to man, as has been said, but because the cantharides had caused a sufficiently lively action to prevent the action of a new irritant.”*

M. Dubled, interne at the *Hôpital des Vénéériens*, related, March 11, 1824, in the surgical section of the *Académie Royale de Médecine*, an experiment that he had made upon himself, February 27.†

* The want of a successful result in this case only proves, that certain conditions of tissue are necessary in order that the venereal virus may act, and experience has shown me, that vesicated surfaces are particularly difficult to inoculate. Indeed, I daily use blisters on virulent buboes, even after they are opened, and when they afford the specific pus; and whilst this can be inoculated with the lancet on every other part of the skin, the vesicated surface, over which it flows, is not infected; I have had but two or three exceptions to this general rule.

† *Expérience de M. Dubled. Extrait des annales de la médecine physiologique, No. d'Avril, 1824.*

“Having gone,” says he, “to the venereal hospital, I requested MM. Hutin and Cazoviel, internes at this hospital, to inoculate me with syphilitic virus. We went into the first ward, and M. Hutin, having collected on the point of a lancet some pus from a chancre of the glans, and some purulent matter from the canal of the urethra, inoculated with it the middle of the dorsal surface of my fore-arm. Upon withdrawing the lancet, he applied his thumb to the puncture and kept it there some minutes; we then applied a compress to it, dipped in fresh water, and fastened it with a bandage. The pain, which was pretty acute at the moment of the puncture, soon began to diminish, and on the second day the wound was perfectly cicatrized.

“I have frequently pricked the thighs and abdomen of patients under my treatment with lancets charged with pus, from the most severe chancres, and without any result, except in one case, where there was a slight inflammation.”

“M. Bertin has never been able to produce syphilis by inoculation, although he has tried on several individuals.”

“Probably, (as M. Dupau observes, in reply to the observation of M. Dubled,) if the inoculations were made upon the prepuce or glans of an individual, during erection, the infection would be more easy; for in this case, the engorgement of the capillary vessels, which enter into the composition of the corpora cavernosa, causes an increase of heat and sensibility, which renders the absorption more easy, and the excitability of the part more intense. But the symptoms which might result from an inoculation, made under these circumstances, would nevertheless not be venereal.”

“I think, with M. Dubled, that venereal pus may cause an ulcerative inflammation; but even in this case, it would only constitute a *purely local phenomenon*, which, like other inflammations, might affect, either by sympathy, or continuity of tissue, the adjacent or remote organs.

“In opposition to these experiments, the result obtained by three young men from inoculation upon themselves, will doubtless be cited, and which have been extensively published in the journals. All three are said to have made a puncture on their arms with a lancet charged with syphilitic pus. In one the axillary glands became engorged, and this engorgement, being treated simply by

antiphlogistic means, suppurated and produced a considerable destruction in the axilla. In the second, the puncture became inflamed, ulcerated, a chancre with all the *venereal characters* presented itself, and extended its ravages. But see to what an extent the desire of the marvellous may be carried! It is pretended that this young man, after having consulted a professor of the Ecole de Médecine, who told him that the ulcer was venereal, and that he must take mercury, returned to the hospital and opened the crural artery.*

With due respect for the services rendered by M. Richond to science, can we admit one of his arguments against the positive facts of inoculation, and the proofs of which, he himself furnishes? I think not; for if I rightly understand him, his objections amount to the following propositions.

1. The results of inoculation are negative or uncertain.
2. The secondary symptoms of syphilis, *more virulent than the primary*, ought alone to inoculate themselves, and the contrary takes place.
3. If constitutional syphilis and general infections exist, individuals saturated with the venereal principle ought not to be susceptible of a new infection, and yet Hunter by experiments found it otherwise.
4. The contagious property of the venereal secretions does not depend upon the essence of the pus, but upon the degree of inflammation in the part which furnishes it.
5. The pus of gonorrhœa, which many authors regard as a simple affection, ought not to inoculate, and yet Hunter has found the contrary.

But how can M. Richond support such propositions? May it not be answered, 1. That the uncertainty of the results of inoculation depends upon the want of precision in the experiments. 2. That for the secondary symptoms to arise from a special cause it is not necessary that they should inoculate like the primary, or be more virulent than the latter. 3. That the possibility of inoculating new primary symptoms, as he has observed, does not preclude the previous and present existence of a general affection, as one infection does not prevent a second. 4. That *chancres* can never be produced by the pus of a gonorrhœa, leucorrhœa, or of a simple coryza, although it may cause an irritation, or even exco-

* This is a fact, he was one of my friends. Note of the Author.

riations. 5. That when the pus of a gonorrhœa produces a chancre by inoculation, there is something besides a gonorrhœa. 6. Lastly, that his experiments have deceived him, and that those of Bertin were badly performed, and that M. Dubled has since told me, that he has entirely changed his opinion.

As M. Devergie,* to whom physiology is much indebted, has not adduced any arguments except those refuted above, he will not detain us. He asks, whether experiments are in favor of inoculation; and says, it has been often attempted, but has never produced any decided result. In many cases, according to him, it has been followed by no effect, either when made with the pus of primary sores, or of secondary affections. Sometimes local symptoms have appeared in the neighboring or remote glands. The following is, according to M. Devergie, the result of the experiments of several practitioners.

M. Percy tells him, he often failed, especially with the pus of buboes, whilst he *thought* he had succeeded with the matter from chancres and blenorrhœa. "I myself made some experiments," he adds, "but they led to nothing satisfactory."

"Occupied during the campaign of Germany (1807-8) with the treatment of syphilis, I repeated these experiments successively with matter from urethral discharges, ulcers of the glans, buboes, chronic ulcers, and generally failed: in two individuals pus from the chancres of the penis caused ulcerations of a mild character, which for their cure required only attention to cleanliness."

M. Desruelles expresses himself as follows, in the work he has just published on this subject, and in the spirit of the new doctrine.†

"As authors," says he, "are not able to determine, *à priori*, the particular and distinguishing characters of ulcers, they have recourse to means which are uncertain and cannot guide them in the diagnosis; thus they affirm, that a lesion of the genital organs or other parts is syphilitic when it is attended by another lesion; when it is caused by coition, or when there is any circumstance which would lead them to suspect the origin of these complaints; if these

* Clinique de la maladie syphilitique par M. N. Devergie. Paris, 1826.

† Traité pratique des maladies vénériennes par H. M. J. Desruelles, p. 167. Paris, 1836.

investigations do not satisfy them, they inoculate the pus from the ulcers. Cullerier and Ratier state that :—

“ A more defective means of diagnosis cannot be proposed, than the inoculation of the pus collected from the surface of ulcers, which some of late have not hesitated to extol. What is the result of this practice ? The patient has an ulcer or two more, and the chances of general infection are augmented in proportion, so that they give a man constitutional syphilis, who would perhaps otherwise not have had it. It is true, that the partisans of this experimental operation think that there is no more difficulty in curing a double than a simple syphilis, by means of mercury. Farther, the ulcer which results from inoculation presents no new characteristic marks to those who were unable to recognise them on the ulcer which was first developed ; and if by any chance, through the inadvertence or negligence of the operator, the inoculation should not succeed, the complaint would then be declared to be unconnected with syphilis, and the patient, having received a clean bill of health, would quietly go his way and communicate disease to persons with whom he might have connexion. To such an extremity may a false opinion, whose consequences have not been foreseen, lead.”

“ During the eleven years that we studied experimentally venereal diseases, at the Val de Grâce, we could never resolve to inoculate any from syphilitic lesions.”

“ Our position, we thought, did not permit us to subject the soldiers intrusted to our charge to the hazard of disease, and on this point our opinions are those of Cullerier and Ratier. On the other hand, M. Ricord, surgeon to the *Hôpital de Vénériens*, has no doubt good reasons for not partaking of our fears and scruples.

“ We do not presume to blame M. Ricord ; we shall profit by the experiments which he makes, with so much perseverance, to decide this important question ; and if he obtain the results he expects, we shall be grateful to him for the zeal he displays in obtaining them. These are the principal results at which he is already arrived ; we give them as we have them from M. Ricord himself.

“ A chancre can always inoculate during its period of ulceration. The suppurated bubo, of absorption, can always inoculate.

“ The inoculated pustule can be reproduced by its pus, *ad infini-*

tum. The pus of an urethritis, where there is no ulceration, can never inoculate."

"From the above it seems that only the ulcerative form, and in the acute stage, is capable of inoculating. Before judging of the value of M. Ricord's experiments, we shall wait till he has completed all those he proposes to make, and has published an account of them.

"From what has just been stated, we may draw the following conclusions:—There is, properly speaking, only one kind of primary venereal disease, viz., the irritation of a sensitive surface, which has been touched by the contagious cause. The other diseases, such as ulcers, buboes, swelled testicle, and excrescences, &c. are only affections, whose development is secondary to the *erythematous* form, which is primary, and which always appears before all other forms. The consecutive affections also depend upon the *erythematous* form. Whatever the kind of venereal disease may be, it is impossible to assign to it a character so defined and positive, that no uncertainty shall remain in the mind of the observer as to its cause. Inoculation has not yet thrown sufficient light upon the diagnosis, to remove all the difficulties with which it is surrounded."

Here we see M. Desruelles does not deny the results of inoculation; but it is very remarkable, holding the opinion he does, that he should express his doubts upon the uncertain chances to which it would subject the patients confided to his care. As to the opinion of the evils of experiments which M. Desruelles also holds, I cannot let it pass unrefuted.

It is possible that men, like M. Desruelles, notwithstanding their opinions on venereal diseases, object to making experiments, and even if they blame others for doing so, their opinions should be respected. But it is difficult to understand why those who have made them, and who do not fear to do so from a diseased to a healthy person, should have expressed themselves as we have seen, especially when the same persons, since the article quoted appeared, have again made inoculations.

Let me here be permitted, while I acknowledge the merit of the

works of my learned colleague M. Cullerier, to cite the article *Diagnosis*, from a thesis by one of my pupils.*

Diagnosis.—"In our first part we have stated the insufficiency of the ordinary means of diagnosis. The position of the disease can prove nothing, as the organs of generation are subject to ulcerations or mechanical lesions, which cannot possibly be traced to chancre; and chancre is found with its unquestionable characters in every part of the cutaneous or mucous tissue. The form affords nothing more definite; we have seen that it may vary according to the part affected, or some complication disconnected with the disease. Some authors have recommended the progress of the disease as the best means of diagnosis. This appears to us very insufficient; for it is frequently impossible to see the entire course of the malady, and out of a hundred cases, taken promiscuously, it will scarce be found regular in two of them, influenced as it will be by idiosyncrasies and accidents, which may obscure it. The degree of pain and inflammation sometimes varies extremely, and sometimes unaccountably. The treatment cannot be appealed to; for, as we have said, ulcers and sores which have become atonic, or which present such appearance in consequence of bad treatment, demand, in all its details, that treatment which some have regarded as proving the existence of syphilis. Lastly, we cite the authors of the article *Syphilis*, in the *Dictionary* in 15 vols., who, after opposing every means of diagnosis for chancre, even in part that which they consider the best, remark: 'We are much mistaken, if the diagnosis of chancre, according to our views, is not more certain and useful. It is doubtless sad to see science not only little advanced, but still encumbered with errors; but is it not better to stop and return, than to follow an apparently beaten and easy path which leads to nothing positive, or to open a new one at a venture without knowing whither it will lead?'

"M. Blandin, in his excellent article upon ulcers in general, in the *Dictionary* in 15 vols., remarks: 'The common characters of syphilitic ulcers are not so well defined as some persons think. Ulcers which depend on a different cause, are often very analogous to them. However, generally speaking, syphilitic ulcers are round,

* *Considération sur le chancre*, par M. le docteur Doussaint de Grand, 14 Mars, 1837. Paris, thèse, No. 68.

with violet, hardened, raised, and abrupt edges; their surface is hollowed and grayish; the suppuration is bloody, and in small quantity. The collateral circumstances, the position of the ulcers in the places where they generally show themselves, aid us greatly in the diagnosis; but we must confess, that in certain cases where the patients have an interest in concealing the truth, a distressing obscurity may exist as to the nature of the disease.*

“These quotations show the true value of the proposed means of diagnosis; we shall now add the propositions laid down by M. Ricord. ‘The unequivocal, incontestable pathognomonic signs of chancres, are the production of certain symptoms of general infection, which never occur without this antecedent, and especially the constant and regular results of inoculation, during the period of progress.’”

“Having long attended the clinic of M. Ricord, and seen all his experiments repeated, we embraced his opinion; for it seemed to us rational to consider, as chancre, the primary symptom existing alone in a patient, and which, in case it was followed by secondary symptoms, presented what all enlightened practitioners recognise as belonging to syphilis; and which also, at a certain period of its existence, presented the regular character of inoculation. What are the arguments that are opposed to this latter criterion, which we think of the utmost importance, as M. Ricord’s first mode will only do in certain cases? MM. Ratier and Cullerier seemed to have summed them up in the article Syphilis, of the Dictionnaire en 15 vols.”*

But we will let Messrs. Cullerier and Ratier refute, by the article Inoculation in the same work, this accusation, which we must say would attach infamy to all who deserved it.

In reply to the first part, in which it is said that inoculation is the most defective mode of diagnosis, let us quote a few lines from the above article, by the same authors. “The pus of the primary ulcers taken at any period whatever of their existence, (but particularly when they are not of long standing, and when the product of the morbid secretion has not been changed by contact with the air or any substance which acts chemically upon it,) and inserted under the epidermis or epithelium with a lancet, or only applied to

* See p. 23, the article of M. Desruelles already quoted.

a cutaneous or mucous surface, deprived of the protecting membrane, causes, at the point of insertion, an inflammation of peculiar form, and which appears to us characteristic.”

The reproach, as to the faultiness of the diagnosis by inoculation, cannot be maintained against the answer they themselves give, when they say, that a chancre must in all its stages produce, by inoculation, an *inflammation of a characteristic form and nature*. (Cullerier and Ratier.)

“The patient has one or two ulcers more; the chances of general infection increase in proportion, so that they have given constitutional syphilis to a man who would perhaps never have had it.”

The accusation is serious; but Messrs. Cullerier and Ratier reply, a few pages further (article Syphilis):—

“We have no hesitation in saying, that the affections consequent on chancre are owing to the negligence of the patient, as well as to the ignorance of the surgeon, who, not understanding the treatment, and imbued with the opinions of the schools, neglected the local affection before him, to treat remote prospective evils, and which he might easily prevent. When patients have applied to us soon after the infection, we have always been able, if they were docile, to put an end to the disease in its primary seat, and guaranty them from ulterior symptoms.”

As to the *double* syphilis that has been mentioned, we confess we were at a loss to understand it; it is a species described by no author, not even in the classifications of Messrs. Cullerier and Ratier. In all cases, as these gentlemen assert that the primitive affections *are in the power of the practitioner*, one might prevent it at pleasure. Finally, all difficulties would be removed, if, as they think, inoculation produced in animals the same results as in man, for then no blame could be attached to such experiments; but, unfortunately, experience has proved their assertion to be entirely false.

“Besides, the ulcer which results from inoculation will not present more characteristic marks for those who were unable to recognise them on the ulcer which developed itself at first.”

The answer is to be found in the article Inoculation, where we read, as we have quoted, that the pus of a chancre being inoculated, causes, upon the point of insertion, an inflammation of peculiar

nature and form, which appears characteristic. Then, a page further, after having said that the different kinds of venereal pus, except the chancre or primitive ulcer, yield nothing by inoculation which can be characteristic, Messrs. Cullerier and Ratier add : " When we say that the pus produced by divers morbid surfaces may be inoculated with impunity, we do not pretend to deny that it has often produced a sore ; but we assert, that it acts then like acrid and irritating substances, *while we understand by inoculation the production, after an inoculation, of a morbid affection, constant in its form, and regular in its progress and duration, and in its turn furnishing a pus susceptible of being inoculated.*"

Inoculation then will distinguish chancre from every syphilitic ulcer, either secondary or other.

As to the latter objection, founded on the cases where the inoculation has not succeeded through the inadvertence of the operator, to say nothing of the simplicity of the practice, which will hardly admit of such conjectures, the passages in which Messrs. Cullerier and Ratier bear testimony to the tendency of the pus of chancres to inoculate, although the circumstances be but slightly favorable, have appeared to us so very numerous, that we did not think it necessary to report them.

Lastly, relative to the patient who, receiving a clean bill of health, will go his way and communicate a grievous disease to those with whom he has connexion, what surgeon would dare to permit or advise coition to a patient with ulcers on the genital organs, even if he were certain that the disease was not syphilitic ? Would he not be exposed in the most favorable condition for infection, or at least, by the irritation produced, would he not transgress all the rules which the authors of the Dictionary have laid down, with so much care, for the cure of the most simple ulcers ?

After these quotations from Messrs. Cullerier and Ratier, which seem to furnish the most triumphant argument against the principles they have promulgated, let us sum up all these arguments, adding some remarks drawn from what we have seen.

How can Messrs. Cullerier and Ratier treat inoculation as the most faulty means of diagnosis, when they lay down as a certain and invariable rule, that the pus furnished by all kinds of ulceration reputed syphilitic, even that secreted by the papula mucosa,

(*papule muqueuse*,) the most characteristic symptom of syphilis, does not, by being introduced under the epidermis or epithelium, produce an inflammation of characteristic form and nature, whilst chancre or primary ulcer alone possesses this property? According to the passage above quoted, Messrs. Cullerier and Ratier declare that inoculation is necessarily the true means of diagnosis, and that we may distinguish, by the trial of its pus, between an ulcer resulting from the inoculation of the chancre, and any lesion which may in certain cases be produced by other pus, tried in the same manner; now is not that which they consider as a means of diagnosis, and to which they appeal in case of chancre, inoculated with a lancet from the pus of a primary and therefore inoculable ulcer, consequently also probatory for the latter?

Hence, according to the opponents of inoculation, must we not admit that when the pus of an ulcer produces certain symptoms constant in their form and development, and which present certain characteristic conditions, the ulcer, whose pus has been inoculated, was a chancre, and consequently that the necessary character, without which an ulcer cannot be called chancre, is to furnish a pus capable of being inoculated under the given conditions?

As to the uncertainty of the results obtained by inoculation, and the consequences to be drawn from them, I reply, that no conclusions can be drawn from experiments badly performed or observed; and that if these authors were prompted by the interest of science in their experiments, the same interest and the welfare of humanity induced me to verify their labors, add new facts, and rectify gross errors.

To most persons, who will examine with unprejudiced minds, it must be clear from the study of the phenomena of general contagion, and, as I have before said, from the constant and regular connexions between cause and effect, that the syphilitic diseases are ascribable to a specific agent or deleterious principle, which is only to be considered an entity in the same degree as the peculiar principle of hydrophobia, the venom of the viper, the specific cause of the small pox, &c. &c. &c. It will then be evident that those who will search for this cause, ascertain its effects, and endeavor to neutralize its principle, or its consequences, will, I think, deserve some encouragement, and they will be able to retort upon their antago-

nists the accusations of indolence, ignorance, and quackery, which appear to me more applicable to those who foster a doctrine which has been summed up as follows:* “Physiological medicine ought to confine itself in syphilitic affections to the study of the forms and degrees of irritation in the different parts of the body, and note the modifications it can oppose to them.”†

Well convinced that the subject was not exhausted, and encouraged by the most celebrated names and the highest authorities, I commenced the researches, the results of which will now be stated.

It has been asserted, that the venereal virus is a chimerical and intangible essence; that the effects imputed to this imaginary cause depend only on the nature of the part affected, the peculiar vitality of the diseased parts, the different degrees of inflammation, and the sympathetic reactions which may result from it.

I had, therefore, to endeavor to materialize this cause, to coerce this pretended imaginary essence, to assign to it definite and specific characters, which should not allow it to be mistaken, except by ignorance and obstinacy; and to prove that the position, vitality, and functions of the diseased organ have only a secondary influence upon it, and that it was not the fortuitous consequence of a greater or less degree of inflammation.

And first, when we propose to study a body, and to distinguish it from those with which it may be confounded, must it necessarily differ from them in every point? Are all the characters of each order, genus, and species different in physics, chemistry, or natural history? Is not one often sufficient to establish the difference? In our medicinal substances, for instance, is it always easy to point out the essential condition which gives to a certain substance a property not possessed by another, to which it is nevertheless very analogous? And does this property, although invisible, immaterial, and not separated from the substance which possesses it, constitute an entity? Undoubtedly not. Now, the incontestable existence of the venereal virus is proved by a peculiar property of a distinct morbid secretion, and therefore the pus furnished by certain syphilitic affections has the constant and regular property of reproducing a pus similar to itself, in consequence of an alteration

* Desruelles, *Traité pratique des maladies vénériennes*. Paris, 1836.

† Broussais.

identical with that which first secreted it. We may, by this essential character, distinguish between different physiological and morbid animal secretions, with the same precision as we do chemical substances. In fact, if we inoculate the venom of the viper, the saliva of a mad dog, the pus of variola, vaccine, or syphilis, we shall have specific effects, which will leave no doubt of the difference and specialness of the causes which produced them.

Syphilitic pus, studied in all its relations, may present globules more or less resembling those of other kinds of pus. It may, according to the localities, be combined with other fluids of morbid or normal secretions, particularly with mucus in the form of mucopus. According to the localities or its combinations, it may remain alkaline or become acid, it may contain accidental animalculæ or be devoid of them; but its most distinguishing and specific character is, that it can inoculate itself and produce characteristic results.

Before passing to the study of these results, we think it proper to give here a complete analysis of a work recently published.

M. Donnè, to whose researches we are disposed to do full justice, in attempting to find a means of distinguishing between the different syphilitic secretions, has studied the mucus found in the genital organs of the male and female, both in the healthy and diseased state, and also the mucus mixed in different proportions with pus formed either by simple changes or those from specific causes, and finally the pus thrown out by syphilitic ulcers; in each one of these products he has found organic formations, chemical properties, and a creative power of animalcules, results which always present constant differences, and offer by these differences a sure mode of diagnosis. Let us now examine the facts advanced by M. Donnè.

SECT. 1. *Examination of the pus of urethral blenorrhœa, or of the pus formed by inflammation of the urethra in males and females.*

In blenorrhœa the pus from the urethra of the male does not differ from that of the female; its globules do not differ from those of pus in general; it is alkaline, and M. Donnè has never yet been able to detect animalculæ in this morbid secretion. These characters are doubtless interesting, but we must question their utility in settling the question which M. Donnè pretends to resolve; for, if we consider the defects of an imperfect analysis, since he

alludes simply to pus which may be found in the urethra, and says nothing of accidental secretions or of locality, and finally that the pus may vary in its appearance and constituent parts, according to the degree of sickness and its principal seat, I ask, what information have we gained as to the cause of disease? Is blenorrhœa syphilitic, or produced by a chemical or physical cause? Does it depend on a special or sympathetic reaction? On these points, Donnè's microscope has thrown no light. We were much surprised also to find that the first section of M. Donnè, comprising a page and a half, does not state that he treats simply of one case where pus was mixed with the excessive mucous secretion of the urethra; for in fact it would be difficult to find there any thing but a superficial examination of the smallest part of the question, as will be admitted by any one acquainted with the different degrees of the urethral affections from excessive secretions to deep disease, which may exist in this canal; and particularly as we have stated the variable influence of a general or local specific cause, and finally the accidental and morbid secretions which more or less resemble blenorrhœa. So far as novelty is concerned, if M. Donnè had paid more attention to the labors of the ancients, he would have found that blenorrhœa had long been regarded as acid, saline, and alkaline.

SECT. 2. *Examination of the pus of chancres and buboes.*—So far as relates to chancre, chemistry has only shown that the state of the pus is alkaline; but the microscope has demonstrated to M. Donnè that the form of the globules is changed, (some seeming dissolved in the fluid in which the remnants of them floated,) and cause the constant existence in the pus of chancres of a great many animalculæ, having the form of the *vibrio lineola* described by Muller. M. Donnè says that he had not at first attached much importance to these vibrios, which are so common, and which multiply so rapidly in putrefying animal matters, and in many infusions

M. Donnè states that he had looked for the vibrio in pus other than that of chancres of the glans and vulva, but in vain; hence, to give importance to his discovery, he asks: "Are these animalculæ characteristic of the syphilitic virus, or do they contribute to transmit venereal affections?" But being struck by the reflection that it would be too absolute to say that chancres of the glans and

vulva were the only ones which were privileged to be syphilitic, he intercedes in favor of the vibrios, and states that if they are not the agents of the syphilitic affections, they require, however, for their existence, the syphilitic element. Here, likewise, M. Donnè was struck with the idea that his proposition would fail if the venereal element did not furnish the vibrio, in a manner independent of the locality, and he decides to claim at least for the animalcule the interest which its natural history might inspire—referring doubtless to the labors of Muller.

M. Donnè has never found animalcules in the pus of syphilitic ulcers, unless situated in the glans and vulva; he however found a great many in the pus coming from an ulcer of the leg in a female affected with syphilis; this ulcer had a livid base, and all the characters of hospital gangrene, and the matter discharged from it was extremely fetid. This fact seems important, for if the syphilitic pus is necessary for the vibrio, how could this animalcule be developed except in a primitive chancre? And if the syphilitic principle be intense enough to produce the animalcule in a wound of the leg, how can ulcers depending on the same principles, and situated in different parts of the body, be deprived of the privilege of this animal creation, which cannot be ascribed to the fetidity of the pus, and to hospital gangrene, without depriving of its value this new rule of diagnosis?

We would remark in passing that in this passage, as in many others of this memoir, there is a want of precision which may lead to error, at least on the part of commentators, for in syphilography, the term *syphilitic* cannot be confounded with that of *venereal*, and yet they are used by Donnè in the same sense.

The vibrio has never been found in the inguinal buboes of those affected with chancres, at any period of their suppuration: this pus is composed of globules similar to those of common pus.

In fact, if the labor of M. Donnè in regard to the pus of bubo be not purely the result of theoretical induction, we do not understand how he could obtain this result from the microscope. Omitting, with M. Donnè, to speak of the direct action of the chancre on buboes, we would ask, how it happens that bubo, which, according to the most experienced syphilographers, and to the results of inoculation, is only a chancrous ulcer frequently presenting all the

Hunterian characters, we would ask, I say, how it happens that the pus of chancre, without reference to its position, generally differs from common pus by the rougher form of its globules, and by the kind of interstitial dust which M. Donnè has described so carefully, while, on the contrary, he asserts that the bubo is never chancrous ?

Vibrios are found then only in the chancres of the glans and vulva ; but they appear frequently in cases of balanitis. M. Donnè admits how dangerous this fact is to the doctrine, and in stating the question contradicts M. Cullerier.

In fact, M. Cullerier declares that in his opinion balanitis is not syphilitic : and also, that the diagnosis of this disease is easy. M. Donnè asserts the contrary, in opposition to the experience of many authors.

M. Donnè asserts that vibrios are found constantly in the chancres of the glans and penis, at least, unless removed by cauterization or injections ; this seems to us difficult to comprehend, if they depend on the syphilitic principle. Could one cauterization or one injection destroy the virus, and thus deprive it of its creative or accidental faculty, since in these cases it may still retain its power of inoculation ?

M. Donnè asks, if the existence of the virus does not depend on the place where the suppuration exists, rather than on the nature of the pus. After examining the sebaceous matter secreted by the follicles at the base of the glans, and the pus arising from an artificial balanitis, he found no vibrios ; they depend then on the syphilitic element, but then, as we have already remarked, (as M. Donnè states that the chancres of the glans and vulva alone are virulent,) why cannot the syphilitic element produce animalculæ in other parts ?

We have hitherto admitted, following M. Donnè step by step, that the vibrio arose solely from chancres of the glans and vulva ; but as inoculation has been established, M. Donnè, who finds fault with this practice so far as it contradicts his discoveries, does not hesitate to avail himself of it in supporting his theory, and he introduces the vibrio with the chancre by inoculation. Here is a new embarrassment ; are those syphilitic chancres which can be transmitted by inoculation and without vibrios, or can those only which

present vibrios be transmitted by inoculation? On this point M. Donnè is silent: if the latter supposition be true, why is it that the microscope fails to detect animalculæ in the primitive chancres, situated in other parts than on the glans and vulva? Such ulcers are not rare, and if M. Donnè is so conscientious as to blame inoculation, in examining them, he might avoid reproach, since they are the results of natural inoculation, if we may be allowed the expression.

M. Donnè, however, gives us a table of inoculations: (see the article in which he states that he has inoculated the pus of a chancre with vibrios, in combination with vinegar and water, and the vibrios have died by the action of the diluted acid; sometimes the inoculation has succeeded, and sometimes it has failed.)

What does M. Donnè conclude? 1. That the vibrios are found in the pus of certain chancres. 2. That they may follow the inoculation of this pus. 3. That neutralizing the action of the virus will not destroy the vibrios. 4. That we have no proof that the neutralization of the virus must be necessarily attributed to the action of the acid on the vibrios. 5. That the acid alone may destroy the contagious properties of the pus. 6. That there are not enough experiments to go further. 7. Finally, that there are probably chemical agents and substances capable of producing more active effects than vinegar, and with which useful experiments might be made.

We have here cited the conclusions of M. Donnè without remark, allowing every one to form his own opinion of a rule of differential diagnosis. We will draw only one conclusion from the whole of the 2d section, viz.: that the animalcule described by Muller as the *vibrio lineola*, exists in the pus formed in certain inflammations and by ulcerations of the glans and prepuce in the male, and the vulva in the female, under certain special conditions.

Our researches upon venereal and syphilitic secretions, so far as the vibrio is concerned, have shown that these animalcules are developed in the pus, which is often confined and in contact in the glans and vulva, with peculiar secretions which are readily changed. Thus we think that the animalcule arises from decomposition, without regard to the venereal element, and M. Donnè almost admits this, when he says that the vibrios disappear from an ulcer when

it has been washed or cauterized: what is this but removing the altered pus from the surface of a wound, from which the syphilitic element is not so easily expelled? Finally, as regards the action of chemical agents on the virus, I ascertained several years ago that this ceases to be transmissible when it has been mixed with acids or alkalis, pure, or even somewhat diluted.

SECT. 3. *Examination of the vaginal mucus in the normal state, and of the different kinds of vaginal discharges.*—As regards the mucus of the vagina, M. Donnè lays down certain properties. 1st, It is acid in the normal state, and this acidity may be increased by the inflammation of the secretory organ, provided however that pus is not formed, the mixture with which, from its alkaline properties, might neutralize the acid; it is white, dense, creamy, but not stringy; when examined by the microscope, it presents special mucous globules, which, however, might be only the remains of the normal and daily disorganization of the epithelium mentioned by M. Raspail.

M. Donnè thinks, from his chemical researches on the nature of the acid of the vaginal mucus, that it contains hydrochloric acids, but his experiments have not always presented the same results; and, consequently, the mucus of the vagina probably contains acetic acid, but it is difficult to detect this acid when the fluid is in small quantity. This last remark on the deficiency of material will doubtless surprise those who are familiar with Paris.

The microscope, by showing the globules of pus in the mucus of the vagina, will indicate the degrees of the pathological affection; and in case of chancre of the vulva or vagina, we shall find vibrios in it. We think it unnecessary to recur to our remarks, for M. Donnè having stated that vibrios cannot be expected where injections or cauterization has been employed, our opinion of the simple alteration of the pus as causing the vibrios is unchanged.

Vaginal tricomonas.—According to M. Donnè, if the glans has its vibrio, the vagina has its tricomonas, a new species, which is never found in the vaginal mucus in its normal state, but purulent matter is necessary for its development. This would all be very well if M. Donnè confined himself to the question of natural history, but, unfortunately, led away by a fertile imagination, as in the preceding section, he begs the question and establishes dogmas.

thus, a discharge of non-purulent vaginal mucus, however abundant it may be, has no suspicious origin. Females will thank M. Donnè for this remark, but practitioners will ask what is meant by suspicious? for coition may act mechanically, irritate the vagina, and produce different discharges, from excessive secretion to the formation of pus; and the blenorrhœal material may act simply as an irritating fluid; and farther, the pus of chancre, as a specific or chemical agent, may, in certain cases, produce different effects, from a simple excitement to blenorrhœa only, or it may inoculate and then be complicated with different symptoms of blenorrhœa; and finally, the mucous membrane of the vagina is often affected with profuse secretion, which is sometimes even puriform, in consequence of sympathetic action in certain cases of cutaneous syphilitic eruption. From these remarks, admitted by all practitioners, we ask the meaning of the term *suspected* in M. Donnè's remark, on which he rests and says: "It is now easy, except so far as relates to purulent discharges, to know when they depend on a specific cause, or when they arise from common inflammation of the mucous membrane of the vagina."

To settle this question, the following facts are cited in regard to 24 females affected with real vaginitic blenorrhœa, nearly half of whom likewise presented other syphilitic symptoms, as chancres, buboes, mucous pustules, and vegetations: in 19, a considerable number of the trichomenas were found in the purulent discharge: in 5 others, in which this animalcule was not found, it might have been destroyed by injections. This is M. Donnè's remark:—How did he know that the blenorrhœa was syphilitic? By the admission of the patients themselves; but how did they acquire this knowledge? But let us proceed. According to M. Donnè, the case was characterized by redness of the vagina, with alterations of the neck in different degrees, as tumefaction, redness, erosion, and even granular ulcerations. In fact, we would ask which of these signs characterizes syphilis, or even a venereal affection? Do they not all belong to simple catarrh? Is not fluor albus sometimes attended with ulcerations, or more serious alterations of tissue? On the other hand, when vegetations and granular ulcerations are arranged by M. Donnè among the positive symptoms of syphilis, (since he sustains himself by saying, *even to granular ulcerations*),

does it not prove the danger of treading on uncertain ground? Who in fact would dare to say that a vegetating surface is necessarily under the influence of the syphilitic virus, or rather that granulation is not a process for the restoration of wounds, a state which excludes the presence of the destructive virus, under the action of which the granulations frequently could not be produced?

We shall not follow M. Donnè in his attempt to establish the probability of the syphilitic origin of the tricomenas, but shall cite his conclusions, viz. : 1. That purulent vaginitis frequently comes from blenorrhœa, and then the tricomenas is ordinarily found in it. 2. That when it does not arise from venereal affections, I think that these animalcules are not developed, but I do not assert this, in consequence of want of sufficient observations on this point.

This is the rule of M. Donnè : we would now ask if he has thrown much light on the diagnosis, and then, as he states that in those females who have used alkaline injections, the tricomenas has disappeared, although the disease was not modified, might not we be led to admit, as in the case of the vibrio, that these infections depend on the decomposition of the secretions.

Hitherto M. Donnè had claimed some pathological importance for the vibrio and tricomenas ; but here, stating what is doubtful as a fact, the vibrio is no longer found in chancres of certain localities, but in the chancre, unqualifiedly, and to give weight to his theory, M. Donnè invokes our authority. Since we have admitted that the virulent pus exists only in this kind of ulceration in the primitive state, M. Donnè sustains his opinion by the results of inoculation which he considers as proof ; but being consistent with his mode of reasoning, as our labors on the inoculation of the pus of buboes do not appear to agree with his theory, our researches and inoculation are doubted, and M. Cullerier is cited to support the opinion that the pus of buboes does not inoculate. M. Donnè is unfortunate in his quotations, for M. Cullerier has publicly stated that he never made these experiments, that these facts would never have been published except after a book of his uncle, and that for his part, he professed the contrary opinion, in which he was confirmed by our experiments afterwards repeated by himself. Farther, M. Donnè has attended our clinique, and he must have closed his eyes,

if he has not seen facts which are repeated almost daily, either by inoculation or accidentally, facts which I should be happy to show to any one who may feel interested.

SECT. IV. *Of the mucus of the uterus.* The chemical examination of uterine mucus only proves its alkaline quality, and that viscosity or tenacity which causes it to resemble the white of an egg I pointed out this latter character long since, and this will present an easy mode of diagnosis.

Uterine mucus never contains animalcules; hence M. Donnè depends principally on the distinctive character of alkali in the uterus and acidity in the vagina, as certain mucus of diagnosis, or less neutralized.

This last remark leads to the inquiry, how a man with an alkaline blenorrhœa can communicate disease, by introducing a few drops of this into a mass of acid secretion increased by the action of coition. Ought not its principle to be neutralized? Again, can chancres form in the vagina, when the vibrio dies in even a very weak acid?

We shall terminate this analysis by citing a passage of the abstract, in which M. Donnè says: "*The pus of chancres of the glans and vulva is alkaline; its globules are less smooth than those of other pus, and it is the only one in which the vibrio is found; it is the only one too which can produce by inoculation the characteristic pustule and chancre.*" Hence the rule of differential diagnosis, a necessary consequence of the labor of M. Donnè, cannot be laid down more clearly.

Thus no ulcer except one situated on the glans and vulva can be propagated by inoculation; and as the pustule of inoculation is characterized by furnishing a pus which is inoculable, this pustule can only appear on the glans or vulva: consequently there are no chancres except in these limits.

In medical researches particularly, we must distrust the illusions produced by a too brilliant imagination; I have read at the Academy of Medicine, a memoir on the inoculation of syphilis, and proposed to inoculate myself with the different kinds of pus taken from ulcerations termed venereal, except the symptomatic bubo and chancre. Would M. Donnè do the same with ulcers not belonging to the class indicated above, we should prefer to think that we had

misunderstood M. Donnè's remark cited above, or rather that M. Donnè has not expressed himself clearly.

At the end of the memoir we find a new mode of treating blenorrhœa; we thought at first that it was a mode for destroying the vibrio, but found it was simply suppositories of copaiva, cubebs, and butter of cocoa. We have not tried this remedy, and therefore shall say nothing about it.*

* After this analysis of M. Donnè's work, we will quote Deidier's opinion on the nature of the virus (*Dissert. med. sur les malades vén.* p. 13, Paris, 1770). He says, "I believe the venereal virus to be small living worms which produce eggs by copulation, and which, like other insects, can readily multiply: this supposition of venereal worms explains venereal diseases much more easily than any other hypothesis, and we know too that all species of worms and ova are extirpated by mercury, the only remedy by which the venereal virus can be radically destroyed, supposing that it is employed by reducing it into small particles which can penetrate the tissue of these worms and ova, and may by its gravity divide their vessels, as it divides parts of gold with which it mingles readily.

Every animal comes from an ovum, and consequently worms are formed in the same way, but the verminous ova require a certain degree of heat for their perfection; thus, while a healthy female has connexion with a healthy man, the venereal ova do not find in the uterus the degree of heat suitable for them, while in a female who receives different kinds of seminal fluid, these ova find a requisite degree of warmth from the corruption of this seminal fluid.

These venereal worms engender others, and thus we may suppose that the syphilitic virus is propagated. How can it be supposed that syphilis has been brought from the West Indies to Europe, and has then passed by intercourse with one diseased woman into the French army, and thence into France, unless by means of these venereal worms, which constantly lay a great number of ova, which find in the corrupted semen the degrees of putrefaction necessary to hatch them?

We have already stated that the venereal virus can only arise from an impure connexion, where unnatural coitions contribute to form venereal worms and ova.

Those who pretend that syphilis arises from the lepra of the ancients are obliged to admit our opinion as to venereal worms, the lepra of the ancients having been produced by small living worms, as is demonstrated by Calmet, in his Dissertation on lepra, at the beginning of his literal commentary on Leviticus; now the syphilitic disease could not be changed into lepra, which is a verminous disease, if it had not been caused by worms.

By the supposition of venereal worms it is easy to explain why the venereal virus has become tractable, and made less progress in Europe than it did at Naples, this verminous disposition being in some degree changed; it has become less energetic, either by the change of climate, or by the production of new kinds of worms, or by the aid of remedies.

Have not the worms of the ancient lepra, which were at first furnished with large teeth to gnaw flesh and stones, in the course of time changed their form, and assumed a more simple and delicate tissue, swimming like fishes in the torrent of the fluids? If we attend to the different changes of insects, we can easily understand the formation of worms of lepra, and those which now form the venereal virus.

The silk-worm, for instance, and the moth, seem very different from the butterfly which comes from them. They are however the same animals which, enveloped in their chrysalis, assume the forms of butterfly, by the development of their wings; perhaps also the worms of lepra, which were gnawing insects, became aquatic from the development of their swimming membrane. Astruc very properly remarks that this system, singular as it may seem, is not entirely new. Abercomb, Hartsœcker, Calmet, have all adopted it. It is surprising that so learned a physician should be ignorant that similar theories have been advanced in England.

Convinced, nevertheless, as I have before said, that syphilis is one of the most serious diseases which can afflict mankind, I was obliged to exercise the greatest prudence and reserve in my researches, yet without being deterred by pusillanimous fears. I still feel convinced, that it is not allowable for a surgeon, under any pretext whatever, to communicate to a healthy individual a disease, the consequences of which cannot be foreseen; and if in consideration of the interest of science, which undoubtedly influenced them, we might find some excuse for those who have thus experimented, their example cannot now be followed without culpability.

Although the experiments upon animals were negative in their results, even in the hands of the most experienced men, I felt it necessary to repeat them. Public experiments have been made in my *clinic*, at the *Hôpital des Vénéériens*, upon dogs, rabbits, guinea-pigs, cats, and pigeons,* and in all cases with negative results.

All the experiments, repeated in every possible mode of infection and inoculation, and with every necessary precaution, were each time made with pus, which had produced positive results in man; so that after these experiments, joined to those we already possessed, we may conclude that the inoculable principle of syphilis is peculiar to man, and cannot be transmitted to brutes. This, however, as we have seen, does not prevent them from being subject, under the influence of irritating causes, to inflammations of the sexual organs, which, as in all other tissues, may be followed by suppurations, ulcerations, &c., without these lesions having any relation to the syphilis of man.

Let it, however, be remembered, that even if one should be able to transmit true syphilis to an animal, that would not detract from the specific nature of the syphilitic principle, any more than the possibility of transmitting the vaccine of the cow to man, disproves the peculiar nature of this virus.

Hitherto, then, syphilis can only be communicated by inoculation to man; but, as we said above, not being allowed to pursue the researches from a diseased to a healthy individual, my observations were necessarily confined to the patient, and were founded upon the following propositions.

* An Italian physician, whose name I forget, has asserted that pigeons die quickly if inoculated with venereal virus. Those who have assisted at my experiments can testify that this is not the case, and that these birds were never better.

I. A venereal affection already cured, or still existing at any period of its duration, does not prevent others being contracted, and the number of successive infections cannot be limited.

II. An individual actually infected, and under the influence only of primary symptoms in one region, never sees symptoms similar to the first developed in other parts of his system, except by a new contagion from contact with the pus of the first, or communicated by another individual.

III. Secondary symptoms, or general infection, never prevent the patient from contracting other primary affections.

IV. The frequency of constitutional syphilis bears no direct ratio to the number of primary symptoms developed at one time.

Do not the observations of former times combine with daily experience to corroborate the experiments of Hunter, which prove that one infection does not prevent a second; not only in the development of symptoms different in form and principle, but also of those which are owing to a cause of the same nature? Do we not often see patients who have a blenorrhœa contract a chancre by other sexual intercourse; or who have at first a chancre, and are attacked with gonorrhœa, after a new coition? I should think no candid person would attempt to deny so well known a fact. But the manner in which the symptoms following the first are produced, might be contested. Those who think there cannot be a primary infection without general symptoms, look upon all those which follow as in consequence of a first symptom, without the necessity of a new contagion. Thus they attribute distinct diseases, contracted at different times, to the same cause. But it must be evident to all accurate observers, who will take the trouble to distinguish primary from secondary symptoms, that the primary can only be produced by the direct application of the contagious pus to the part, or by the conveyance of this pus by the *vasa lymphaticæ efferentes* to the ganglions in which they terminate, without ever passing beyond them.

The experiments I have made on this subject are very numerous, and to verify them at any time, it will suffice to know the intention with which they were made.

It is thus that in all individuals affected with primary reputed venereal symptoms of all kinds, artificial wounds, or operations

performed at a distance from the venereal lesions, have never assumed the syphilitical appearance, nor any of the characters of venereal affections, when proper precautions have been taken to prevent their being soiled by the contagious pus. Many examples have been cited, of wounds having assumed the character of primary ulcers, envenomed by the general infection, and this is said to be very common in leech-bites. Yet in all these cases the real explanation has been overlooked, and the true cause might have been found. Thus, where a number of leeches have been applied on and around the penis, some of the wounds often assume the appearance of chancre, while others heal at once. If we search for the cause of this difference in wounds of similar nature and in the same region, we shall find that those wounds are attacked with which the penis could come in contact, while those which are out of reach remain uninjured. The following case is interesting; a woman in one of my wards, at the *Hôpital des Vénériens*, had a number of chancres on the vulva; these chancres were primary, and at the period of development they suppurated freely, when she was seized with a rheumatic pain in the right malleolus externus, to which some leeches were applied. Some days after, the patient, who had at first been much relieved by the leeches, complained that the bites were very painful; she was examined, and they were found to be inflamed, resembling pustules of ecthyma, which were soon followed by ulcers, having all the characters admitted to belong to a true chancre. The part where the leeches had been applied, and the distance of the situation of the primary ulcers of the vulva, induced most of the gentlemen who attended my clinic, to regard this accident as a consequence of a general infection, or a bad disposition in the subject. I ordered some more leeches to be applied to the other leg, and also some fresh ones to the same leg, taking care to protect these new wounds by isolating them from all contagious contact; and then while two punctures, made with a lancet, one with the pus taken from the chancres of the vulva, and the other from the ulcerated leech-bites, produced ulcers like those which furnished the pus, the wounds which had been protected, healed without any accident.

Sometimes leeches, applied to buboes, cause ulcerations of a malignant nature, and we cannot trace their origin to the applica-

tion of contagious pus. In these cases, either the leech-bites are simply irritated or inflamed, and have been followed, as it often happens, by a kind of furuncle which suppurates, and then the pus which they furnish does not inoculate; or having become true inoculable chancres, the infection was communicated from within outwards—i. e., that being situated on a virulent suppurated bubo, the pus of the ganglionic chancre has inoculated the leech-bites in passing them, to make its escape. The same is true with every analogous wound, whether accidental or artificial.

Fabricius Hildanus relates, that a man affected with the itch, was, in 1609, infected with syphilis, of which he died, from having slept in sheets in which several syphilitic persons had sweated. But he has omitted to state in what condition these latter were, and whether they had any ulcers. It is more than probable that some such affections existed, and that the pus which flowed from them, having adhered to the sheets, afterwards came in contact with some points of the skin which were deprived of the epidermis.

I have stated, as has been proved by experiment, that the cessation or continuance of a primary symptom, in whatever period of its existence it may be, does not prevent the patient from being susceptible of contracting others, and that we could never, in consequence of a primary affection, become hardened to the causes which might produce a second. But the most important point, and which alone would authorize us to pursue our researches, sanctioned as it is by Messrs. Fricke of Hamburgh, Lallemand of Montpellier, Ruef of Strasburg, and Blandin, surgeon of the Hôtel Dieu, of Paris, &c., is, that the number of secondary symptoms stand in no relation to that of the primary symptoms developed at the same time. The proposition that there are not more symptoms of general infection after two, three, four, or five chancres, contracted at the same time, than after a single one, is based on facts collected six years since, and cannot now be doubted.

These facts being once established, I reviewed all the reputed venereal affections, whether primary or secondary. All the normal or morbid secretions, of persons reputedly syphilitic, have been examined by means of inoculation, and only one form has given uniform and constant results, and this form is the primary ulcer or chancre. This chancre is to constitutional syphilis, what the bite

of the mad dog is to hydrophobia, and does not produce a specific pus, except at a certain period of its existence. It is evident that the results of inoculation have been contested, or appear uncertain, from not attending to this simple fact.

The primary syphilitic ulcer cannot always be the same in all its stages, and it cannot cicatrize, without first becoming a simple ulcer by the destruction of the cause which served to maintain it. Similar characters and results cannot be required from these different phases ; it is in the period of development or *statu quo* of the ulceration, while there is no effort of cicatrization, that the chancre secretes *the venereal virus*.

The specific nature of the secretion of chancre, as we have before said, does not depend upon the organ affected, nor the vitality, functions, or sympathetic reactions of this organ, nor upon the degree of inflammation which may attend the ulceration.

The locality has so little influence upon the peculiar nature of chancre, that it cannot be regarded, without error, as peculiar to the sexual organs. In fact, it may appear in any part of the skin ; no part of the skin, if in the necessary condition and accessible, is secure from it. If it be developed on other regions than the sexual organs, it yet maintains, without exception, all its characteristic marks.

Thus a chancre on the end of a finger, on the thigh, foot, or the tip of the tongue, will (if it has not been modified) produce pus capable of producing a similar chancre by inoculation, *without the participation of the sexual organs ; whilst no other affection of these organs, whatever its form or extent, or the degree of inflammation which may accompany it, can reproduce a chancre*.

One circumstance, however, is undoubtedly true, and may have induced the error, viz., that the sexual organs are most frequently affected ; like certain bones, which, from their texture and situation, are more frequently fractured than others. The delicate tissues of these organs, the facility of erosion of the epidermis or epithelium, the number and openings of their follicles, the intimate and prolonged relations they establish between a healthy and a diseased individual, are the conditions which permit the cause also to act with so much more effect. But, as experience proves, it is not the organ that gives to the disease its peculiar and specific nature ; for

no artificial lesion, whatever the agent employed may be, can produce it; and whilst a finger, deprived of epidermis, contracts a chancre by contact with the pus, the sexual organs, being entire in every point, may be soiled with it unharmed.

This fact, then, is established by experiment, that chancre, whatever its seat, is the consequence of a specific pus, which it alone secretes, and which, justly termed true leaven, (*véritable levain, ferment spécial,*) reproduces an identical disease *wherever it is suitably deposited.*

But this peculiar leaven, which has a special action only when it produces an ulceration, is generated only *during a certain period of a chancre, which then becomes, if we may be allowed the expression, an accidental virulent organ.* In fact, the chancre, as we have seen, has two very distinct stages. The first, to which the name peculiarly belongs, is that of increasing or stationary ulceration; this is the one which furnishes the specific pus; the second, which is the state of reparation, can only occur by passing to the state of a simple ulcer; this is capable of cicatrizing, and no longer furnishes the specific virulent secretion.

The importance of the distinction of these two periods of chancres will easily be seen, for without it, all is confusion; and the same ulceration which produced a chancre by inoculation, not yielding contagious pus a few days later, one would conclude the experiments to be uncertain, where, in fact, they are of the greatest value.

If a little of the matter secreted by a chancre, during the period which we have pointed out, be taken upon the point of a lancet, and inserted under the epidermis, we shall find the following result.

During the first twenty-four hours the punctured point becomes red, as in vaccination; from the second to the third day, there is a slight swelling, and it has the appearance of a small papula surrounded by a red areola; from the third to the fourth day, the epidermis, elevated by a more or less turbid fluid, often assumes a vesicular form, with a black point on the summit, caused by the drying of the blood of the small puncture; from the fourth to the fifth day, the morbid secretion increases, becomes purulent, the pustular form is more defined, and its summit becoming more depressed, gives it an umbilicated appearance, which makes it resemble the

pustule of the small-pox. At this period the areola, which had increased in extent and intensity, begins to vanish or diminish, particularly if the disease has not increased much; but from the fifth day, the subjacent tissues, which have often hitherto remained unaffected, or were but slightly œdematous, become infiltrated and hardened by the effusion of plastic lymph, which gives to the touch a sensation of resistance and elasticity, like certain cartilages; lastly, from the sixth day, the pus becomes more thick, the pustule cracks, and crusts soon begin to form. If these are not detached, they increase at their base, and, rising in layers, assume the form of an imperfect cone, with a depressed summit. If these crusts be detached, we find beneath an ulcer, which, being seated on the hard base we have mentioned, presents a ground whose depth is equal to the entire thickness of the skin, and whose grayish surface is formed of a lardaceous and sometimes pultaceous substance, or sometimes a pseudo-membrane, which cannot easily be detached. The edges of the ulcer at this period seem cleanly cut, as if by a perfectly circular punch, but yet are undermined to a greater or less extent, and when viewed with a lens, present slight indentations, and a surface similar to that of the ground; their margin, which, *engorged* and indurated like the base, presents a kind of a red brown, or more or less violet circle, which projects more than the neighboring parts, raises the edges and reverses them a little, which in the first period gives a funnel-like appearance to these ulcerations.

These signs are so regular and constant as to form a general rule, the rare exceptions to which are easily explained; they lead to the following propositions:—

1. A chancre is not to be determined *à priori*, in all cases, either by its virulence, or because it was contracted in a suspicious coition, or from its seat, the induration of its base, its color, the consistency of the ground, the cut, undermined, or callous edges, or the tint of its margin, but by the pus which it secretes, and the vitiation of the system to which it may give rise, as all the above mentioned conditions may vary; the secretion, and its general consecutive effects, remaining alone the same.
2. The pus of a chancre alone produces a chancre.
3. The best method of producing a chancre is by inoculation with the lancet.
4. To produce a chancre, neither

the orgasm of the venereal act, nor previous excitation of the part about to be inoculated, is necessary. 5. Inoculation never fails if the pus be taken in the proper state and well applied. 6. The pus taken from a pustule, produced by inoculation, reproduces a chancre in the same manner, and so on from one to another, without any limit, but that of failure in the experiment. 7. If several punctures be carefully made with pus from the same ulcer, each is certain to produce a pustule, and then a chancre; and the number is equal to the number of inoculations. 8. The pustule and the chancre which succeed it are developed upon the precise point of inoculation, and never elsewhere. 9. Whatever may be the varieties and complications of the chancre from inoculation at a later period, its progress in the commencement is always as we have described; the pustulous period is wanting only when the infected parts have no epidermis, and it is only preceded by phlegmonous inflammation and abscess, when the virulent matter has been introduced into the subcutaneous cellular tissue or the lymphatics. 10. There is no incubation in the sense in which this word is generally used; for the evolution of the chancre commences at the moment of contact with the infecting pus, and continues till the formation of the ulcer. 11. Chancre is at first a local disease. 12. The symptoms of general infection, which can only occur when preceded by chancre, are not seen in all cases, and never appear when they do occur, except it has lasted a certain period. 13. To arrive at this important result, we must distinguish the real from the apparent commencement of the chancre, and not reckon from the day on which the patient first perceived it, but from the time of infection. 14. In making observations for this purpose, it will be found that ulcers, completely destroyed by caustic or otherwise, in the first three, four, or five days subsequent to the application of the cause, do not expose the patient to secondary inflammation. 15. The induration of chancres does not begin till about the fifth day. The chancres which are followed by secondary symptoms are generally indurated, and this induration would seem to indicate that the venereal principle has penetrated the system, and as long as it does not take place, we may conclude that the disease is superficial.

It appeared to me very important to ascertain whether the specific matter produced by chancre, preserved its contagious proper-

ties for a certain time, like vaccine. Numerous observations, and amongst others those of Hunter,* one would think left no doubt upon this subject; but this, however, is not the case, as we see by what the late Cullerier says upon it, in the great *Dictionnaire des Sciences Médicales*.

MEANS OF PROPAGATING SYPHILIS.

When it was first known that the disease was contagious, it was thought that it could be communicated by breathing the same air, coming in contact with the syphilitic, or even their clothes; that the meetings of Christians for worship, &c., were frequent means of contagion. For this reason no one concealed being affected with this disease; thus we hear of it being observed in virtuous princes and holy abbots.

The most common means of propagating syphilis, is undoubtedly that by the sexual organs in the intercourse between the sexes; because the virus generally has its seat in these organs, and because they are always moist, and the epidermis which covers them is delicate and thin, the organs remain in contact, and friction renders absorption more easy. The organs of the mouth are often the propagators of the contagion by a lascivious kiss, by the application of the lips or tongue to some part of the mucous membrane, by suction of the breasts, and especially in suckling. If the mouth of an infant can infect a nurse, the breast of a nurse can infect a child.

These *alternative* infections are only too frequent. Hence arises a question—Is there any mode of determining whether the disease has passed from the nurse to the child, or from the child to the nurse?

If the disease exist in both individuals at the same time, and has arrived at the stage of consecutive disease, one can only form a probable opinion from the state of health of the father and mother, the child, and husband of the nurse, and from the time at which

* Petit Radcliff says: This same deleterious matter, taken from the syphilitic pus furnished by chancres, being dried and preserved in a case, in the same manner as that of variola, and inoculated on the arm with a lancet long afterwards, produces venereal ulcers, preceded by all the symptoms of syphilitic inoculation. A soldier undermined by an old and obstinate syphilis was thus cured.

the disease showed itself in one or other of them, which is sometimes very difficult to ascertain. But one may be certain that the child has communicated the disease to the nurse, if it has ulcers in the nasal fossæ, tubercular pustules, a scaly or ulcerated state in any part of the body, with marks of a disease already of long standing. On the other hand, we may be certain that the nurse has infected the child, if she has ulcers in the fauces, pustules on the body, or exostoses, and the child simply ulcerations of the mouth, nose, or anus.

A glass, spoon, or pipe, used by several individuals, may also be the intermediate means of contagion; but it is requisite that the contact with one should be immediate after the other; that the pipe left by the infected individual should have been directly afterwards taken by the healthy one; that the glass be not placed on the table, but passed from one to the other, or the spoon from one mouth to the other without being wiped. We have seen several well-established cases of these different methods of communication.

The eyes may also be directly infected by a moist kiss upon the eyelids, or by a material projected from a certain distance. The pus which spirts from a suppurated bubo when it is opened, if it touches the conjunctiva, may produce syphilis and disorganize the eye.

The touching the hands or cheek of a healthy person by an infected individual, does not communicate syphilis; the skin is too compact, the epidermis is too thick for the virus to penetrate; but this would not be the case if there were any little ulcers, or a simple excoriation. Young surgeons, dressers in the public hospitals, examining pregnant women by touching, or acting as accoucheurs, have caught the disease with which the women were affected, by having slight excoriations from the little prolongations of the epidermis at the base of the finger nails.

We think we may assert that the fluid which serves as a vehicle for the virus, ought to possess a certain degree of warmth, or kind of life, which preserves for the virus the power of attaching itself to the new body to which it has been transmitted. We confess our incredulity as to contagion by means of a seat of a privy or a chamber-pot, which no one had used for several hours; or a sponge not used since the previous day; or by clothes which had

been laid off a whole night by the wearer. Nevertheless we will not absolutely deny the possibility of this contagion, if by this admission we explain things which otherwise are inexplicable. I have taken pus from some chancres and inoculated pustules, which had been eight days in tubes similar to those used to preserve vaccine, and have found that it produced the same result as recent pus. In the same manner I found that muco-pus of a blenorrhœa, a phlegmon, simple ulcers, and non-virulent buboes, kept in the like manner, produced negative results. It deserves to be noted, although not a constant sign, that the pus which can be inoculated was always more fluid than that which was not virulent.

It must be admitted that women who have had connexion with diseased individuals, have afterwards communicated the disease to other men, without becoming infected themselves. I have often met with such cases, and were they not so common, they might lead to the supposition of the spontaneous generation of syphilis between healthy individuals.

I lately saw a young man who had connexion with a woman affected with chancres, and also the same day with his mistress, who became infected with the disease: the young man remained unaffected, but he had not washed himself after the first connexion, and his prepuce was very long.

CHAPTER II.

INOCULATION SEEMS TO DISTINGUISH FROM EACH OTHER THE REPUTED PRIMARY SYMPTOMS OF SYPHILIS.

WHOEVER has taken pains to study syphilitic diseases, has no doubt found that no affection is so ill defined, and no diagnosis so uncertain. What is syphilis? What are the symptoms? What are symptoms which are quite unconnected with it? These questions have not yet been settled, and are subjects of eternal dispute; until they are solved, no progress can be made with any certainty.

Must we include, under the head of syphilis, the symptoms enumerated by Astruc and adopted by Capuron? But then it would be impossible to admit a unity of principle, cause, and results, and from confusing everything together, do we not remain in error? What conclusions can we draw from the observations of older authors and from recent statistics of venereal diseases, as to the cause, effect, and treatment, when we see thrown together, under the name of syphilitical diseases, blenorrhœas, *balanitis*, (external gonorrhœa of the glans penis,) orchitis, phimosis, paraphimosis, and many others, which have no connexion with syphilis? The only conclusion we can arrive at is, that the diagnosis of syphilis is not only difficult, as Fabre and Peyrile have said, but impossible.

Let us see if inoculation cannot lead to something more positive than any thing has hitherto done. In the first place, we will adopt the very natural distinctions made by Fernel between primary and secondary symptoms, or those with which the disease breaks out, and the consequences which it may afterwards produce. Let us first examine the symptoms which are called primary. They are:—

1. Blenorrhœa in its different situations.
2. Chancre or primary ulcer.
3. Bubo, considered as a primary symptom.
4. Mucous tubercle, or flat, humid, mucous pustule, said to be primary, &c.

These affections have been admitted as primary symptoms, because it is thought that they all have been observed as the first

symptoms which have shown themselves after an impure connexion, and a consequent conviction that they indifferently produced the various symptoms of general syphilis. Identity of cause, identity of effect, is a doctrine professed by most practitioners of both the virulent and physiological school.

From the connexion between cause and effect, Hunter, and then Abernethy, and those who followed them, admitted true and pseudo syphilis. Others, like Carmichael, thought each separate form had a peculiar virus, and the so-called physiological school thought everything depended upon the degree of irritation.

Here again we find doctrines founded on bad observations or false explanations.

§ 1. I asserted and proved, in the foregoing chapter, that chancre alone produces chancre; and yet most authors have admitted the existence of blenorrhœas which were virulent and identical with chancre, of which they might be either cause or effect, and like it give rise to the whole train of symptoms of constitutional syphilis.

All authors have justly attached much importance to the question, whether blenorrhœa is identical with chancre, and whether it constitutes a primary affection, by which syphilis may begin, and it is well known that the most distinguished authorities have differed in opinion.

This difference of opinion induced the Medical Society of Besançon to offer this as a prize question; and Hernandez, who justly concludes as to the non-identity of blenorrhœa and chancre, has so justly summed up all which inoculation can furnish on this point as a basis of differential diagnosis, that I must be allowed to transcribe part of his work.*

“Inoculation of the virus of gonorrhœa does not produce chancres. Andréé tells us, that a surgeon inoculated himself with gonorrhœal matter and had a chancre. This isolated fact is of little importance. It depends upon the assertion of an unknown surgeon. It is not stated whether this ulcer required mercurial treatment; and it would appear from this omission that its syphilitic nature was presumed merely from its appearance. We shall

* Essai analytique sur la non-identité des virus gonorrhœique et syphilitique; par J. F. Hernandez. Toulon, 1812, art. 4, p. 57.

presently show how little external signs are to be depended upon in such cases. Even admitting the fact, a single case like this will not overturn, nor even raise a doubt upon a mass of observations.

“ J. Hunter has furnished a case of inoculation much more fully detailed, but at the same time far less conclusive. He inoculated gonorrhœal matter upon the glans and prepuce. Chancres appeared at the points of insertion. Thus far it appears that the gonorrhœal virus produced chancres; but these chancres healed of themselves, which is by no means the nature of chancres and syphilitic ulcers.

“ In this case, it is true, recent chancres appeared and vanished of their own accord: symptoms apparently syphilitic supervened: a bubo, and, after its resolution, ulcers of the throat, which healing, were succeeded by pustules; but the ulcers, the undoubted product of the inoculation, which ought to be characteristic, were not venereal. The bubo might depend upon the irritation of the ulcer on the glans, which we shall prove from Swediaur. The ulcers of the throat and the pustules might also depend upon other causes. Moreover, this train of symptoms occupied three years in its development; how can we be sure but that a new infection during this interval occurred, and that the local affection, which produced these symptoms, was not observed? Might not this patient have previously been affected with syphilis? The disease may have lain dormant in the system; an unclean connexion may have communicated syphilis to him without any apparent disease. This Hunter does not tell us, nor did he even ascertain it. How can we then rely upon such a case? Can we then depend much upon the syphilitic nature of all the affections brought forward as syphilitic by great surgeons? It is plain that this point is important, in order to estimate the value of the inoculation of which we are speaking, and whose syphilitic results only relate to the nature of the consequences it offers.

“ One tooth being replaced by another, Kuhn observed an ulcer in the mouth, and some time after, a cutaneous eruption following, he considered it a syphilitic affection. The celebrated Lettsom, to whom he communicated the fact, was of the same opinion. The tooth was extracted, and all the symptoms disappeared. We see

from this circumstance how readily the venereal nature of an affection was admitted at the time these authors wrote, and therefore how slightly conclusive is the observation of Hunter, and how little it decides the question.

“ Bell relates, that two young men tried some experiments with inoculation upon themselves. The glans and prepuce were scarified with a lancet and then rubbed with gonorrhœal matter; they became covered with small ulcers, which had no resemblance to chancres, and healed without mercury.

“ These positive facts contradict the former. They are far more decisive, because some circumstance may have been combined with the inoculations of Andrée and Hunter, which may have changed the nature of the ulcers, and transformed them into something other than would have been the natural product of the inoculation. In those of Bell, the matter is more clear and less involved in doubt. If the inoculated virus be syphilitic, the ulcer must be venereal, as soon as it is formed. We know nothing which can alter the nature of the ulcer produced by the syphilitic infection, or prevent it assuming its essence and character. It is therefore evident, that if inoculation produce ulcers which are not syphilitic, neither could the infecting matter be so; and we necessarily conclude, from the experiment of which Bell speaks, that the gonorrhœal virus producing ulcers, which are not syphilitic, has a different and peculiar nature.

“ Thus far the observations in favor of the production of chancre by inoculation of the gonorrhœal matter, are few and undecisive. As there are so many circumstances which may attend the ulcers produced by inoculation of gonorrhœa, and even render them truly venereal, two single observations, in which the ulcer obtained might be truly venereal, can hardly be depended on to solve a doubtful question? But the venereal nature of the ulcers produced by the inoculation in Andrée’s case is not proved, and that of Hunter had no syphilitic result.

“ By the side of these dubious or even favorable observations, we can place direct and decisive cases, which prove that the ulcers produced by inoculation of gonorrhœal virus are not syphilitic. We are therefore obliged to conclude, that the gonorrhœal virus has a peculiar nature, strikingly different from the syphilitic virus.

“ After all these experiments, I shall relate some which I was enabled to make under very favorable circumstances. The work of Bell, being found on board a prize, was sent to me in 1794. I took advantage of being in attendance at an hospital for galley slaves to make some researches. I prevailed upon some convicts, who dreaded the labor at the Arsenal, to submit to some experiments, in which there could be no danger.

“ Many of the convicts had gonorrhœas ; I selected three to furnish the necessary virus, and kept them several months, during which time I made my experiments. Three healthy men in the prime of life were repeatedly inoculated on the glans and prepuce. Several threads dipped in gonorrhœal matter were laid upon incisions made with a lancet. Slight ulcerations always followed without having the appearance of chancres, and they healed with the most simple dressings.

“ In two others, who had great tendency to scurvy, although it had never broken out, some obstinate ulcers appeared, which resisted all local applications, and only yielded to excitants combined with acids. One of them had pains all over his body ; the pus of the ulcer was bloody, and the flesh of a fungous nature.

“ Four young men were formerly afflicted with scrofula, and still had a scrofulous habit : in three of them, the ulcers were very obstinate ; in two they possessed nearly all the syphilitic characters, and an herpetic eruption made its appearance a short time after. In these two, there was some abdominal obstruction, which could only be removed by the internal use of calomel. Nevertheless, there was a certainty of the affection not being syphilitic. One had been imprisoned three years, the other two, and neither had been allowed to quit the Arsenal.

“ A young man, whose parents were afflicted with the gout, and who seemed predisposed to it, was inoculated in the spring. An ulcer was produced ; the damp weather made it worse ; it was accompanied by wandering pains, and all the derangement caused by weakness of the digestive organs. It resisted all remedies, but the warm weather setting in, it healed quickly.

“ A man about fifty years of age was subject to hemorrhoids, which gradually disappeared. Just at this time he was inoculated.

The ulcer assumed a syphilitic appearance, and did not heal till the hemorrhoidal flux returned.

“ Out of six individuals of a sickly, irritable constitution, four had obstinate ulcers, and two had even pains and cutaneous eruptions. These obstinate ulcers, whether accompanied by pains and the eruption or not, only yielded after a long course of internal tonics; the other two recovered easily with only simple dressings.

“ These experiments were made upon seventeen persons; they are the most numerous, and perhaps the most careful, that have been made, and furnish important results. Five of these cases were cured quickly, and without internal remedies, and the ulcers had no syphilitic appearance. In the others, there were obstinate ulcers, some of which presented a syphilitic appearance, accompanied with general symptoms, which seemed to confirm it. Surely such proofs did not exist in the cases I quoted, and yet they were regarded as decisive. Yet all depended upon known internal disorders; all the ulcers yielded to remedies calculated to destroy these disorders, but which are inert where syphilis is concerned. I might have been deceived had I not chosen my patients in advance, and carefully examined the state of their health. The scrofulous subjects with abdominal obstructions might have led to error. Here we had the symptoms of ulcer, cutaneous eruption, and the efficacious effect of mercury alone! What reasons for admitting the existence of the syphilitic virus, had the disease not been previously recognised, but made its appearance at the same time, or shortly after, and had not other patients, with similar affections, and without ulcers or venereal symptoms, experienced the good effects of this treatment!

“ My experiments prove that the ulcers, which are produced by inoculating the gonorrhœal virus, are not syphilitic, and at the same time point out the source of errors which may render these experiments, which appear so simple and decisive, of little value. They show how circumstances may change the nature of ulcers or disguise them, and to such a degree that it may easily impose upon inattentive observers who do not foresee these cases of complication.”

I will here relate some experiments which were made in Philadelphia. “ Dr. Barton,” says Dr. Tognò, “ to whom we are indebted

for them, inoculated me on the arm with matter from a very virulent gonorrhœa, and no inflammation even ensued.

“My fellow-student, Mr. Rowan, was also inoculated with the same matter upon the right arm, and there was no inflammation. The same was the case with Mr. Thompson and a servant.

“Three weeks afterward, the operation being repeated with some fresh gonorrhœal matter upon Mr. Togno’s fore-arm, and a fortnight later, in the same place, upon Mr. Rowan, neither chancre nor inflammation was produced.

“Two pieces of lint, well soaked in fresh gonorrhœal matter, of the virulence of which no doubt remained, were applied behind the glans under the prepuce, and remained there two days and a half; neither chancre nor inflammation ensued. The same experiment was performed upon the glans and prepuce of a healthy man, and with no effect.”

These experiments of Dr. Togno are exact. Inoculation, far from producing a chancre, did not even cause any inflammation. Yet the introduction of this matter into the cellular tissue, in the midst of this net-work of absorbents, which are here so plentiful, placed it in the most favorable position for its action.

But perhaps it may be objected, that this is not the ordinary manner of the transmission of syphilis, and on this account its transmission and its effects fail.

We know that an excoriation or incision particularly favors the action of the venereal virus, of which we shall give numerous proofs in this work. But we have upon this subject, and by the same means, some very decisive experiments by Dr. Togno.

He inoculated his fellow-student, Mr. Wotton, on the right arm with syphilitic matter, taken from a chancre an hour previous. The part gradually inflamed, and a complete chancre was formed in the space of four days.

He inoculated a person with pure syphilitic matter, mixed with an equal quantity of a solution of gum arabic, the proportions of which were two drachms of gum to eight ounces of water; the chancre was developed as usual.

Having tied up a dog, apparently in good health, during four and twenty hours, he obtained a small quantity of the gastric juice, a part of which he mixed with some pure syphilitic matter;

he introduced it into the left arm of a young negro ; the chancre was formed in three days. The same experiment was performed upon another individual, with a similar result. The gastric juice was mixed as soon as possible after having been taken from the stomach.

He inoculated a man on the right arm with equal parts of syphilitic matter and a solution of sulphate of copper, in the proportion of a scruple to the ounce of water ; the chancre appeared.

At the same time he inoculated the same person on the left arm with syphilitic matter, and an equal quantity of a solution of sulphate of iron, in the proportion of a scruple to the ounce of water ; and here again the chancre was formed.

In these experiments we find the syphilitic virus, mixed with equal quantities of a fluid, (and therefore diluted,) invariably produces chancres. In the latter, even when added to medicaments or energetic substances, it was always followed by syphilis.

Dr. Harrison, also, made some inoculations with chancres ; the pus of which was followed by an ulcer and syphilitic symptoms.

Upon considering carefully all the experiments relative to inoculation, we find some amongst those we have quoted which might undoubtedly be questioned, or whose consequences have been badly deduced, without, however, detracting from the regularity and precision of inoculation.

The researches I have made publicly during more than six years, must be entirely satisfactory to all unprejudiced minds, and will explain all that may appear somewhat contradictory in different authors.

In the first place, I studied blenorrhœa as regards its causes, and I found that it could be produced under the influence of all those which generally preside over catarrhal inflammations ; so that, once developed, it was impossible, from its own symptoms, to determine to which cause it was really owing. It may, however, generally be said, that if we can trace a discharge to the source, it has been found that it was produced by another discharge, and that thus the catarrhal muco-pus seemed to be the most powerful irritant in producing the inflammation of the mucous membranes. Yet the virulent pus, secreted by a chancre, frequently produces a blenorrhœal discharge ; but then it is easily seen that the mode in which this

cause acts, differs according to certain circumstances, and has not always been properly explained, as we shall see hereafter.

Nevertheless, the most distinguished authors have asserted and been convinced, that one woman having connexion with several men, could give chancres to some of them, and to others gonorrhœas and buboes;* whence they have concluded that the nature of these different affections is identical, the principle being always the same in all, and the difference being only in the form, determined by the locality and the degree in which the cause acts.

If such reasoning has been admitted for some time without refutation, it cannot be now. Since I have applied the *speculum uteri* to the study of venereal diseases, the hitherto inexplicable enigmas are reduced to the commonest and most simple facts. With the aid of this instrument, I have found that a woman may be affected at the same time with blenorrhœa, and deep chancres in the vagina or uterus, and the blenorrhœa alone show itself externally; so that, apparently affected with gonorrhœa, she could easily give chancres and gonorrhœa together, or only one of them, according to the predisposition of the persons who exposed themselves to the infection. But we can affirm, and from numerous observations, that whenever we have examined women who have communicated disease, we never found that a chancre had been produced by a discharge without ulceration in the sexual organs of the person who had communicated it. Inoculation has confirmed what had been established by observing ordinary contagion, better made with the aid of the *speculum*.

In women, blenorrhœa in the whole extent of the organs of generation, in its different stages of acuteness and duration, and inoculated in the same manner as employed for chancre, produced no result, whenever the mucous membrane, affected with blenorrhœa, was not actually the seat of a chancre.

It is now well known, and is proved by pathological anatomy, as also by the speculum, that blenorrhœa is often accompanied or followed by erosions, or more or less extensive destruction of the mucous membranes; but the ulcerated form of blenorrhœa, if I may thus express myself, does not render it more capable of being in-

* This opinion has been maintained by Fabre, Pressavain, and Cullerier, and more latterly by Capuron, Lagneau, Gibert, &c.

oculated than that which is not ; the blenorrhœal ulcers being essentially distinct from chancre. The observation which my learned colleague, M. Gibert,* has related, as opposed to my doctrine, in fact proves its validity. He says :—

“I do not think that the inoculation proposed by M. Ricord, as a means of diagnosis, can really be used with advantage ; for this inoculation has never succeeded in producing characteristic syphilitic symptoms, either in my hands, or in cases where there was seemingly no doubt as to the contagious nature of the disease. Lately a young girl, with an acute urethral and vaginal discharge, with a granulated ulceration of the neck of the uterus, was inoculated with the matter of the discharge in my wards, without success. There were nevertheless all the conditions which, according to M. Ricord, could favor the inoculation.” No, here were not all the circumstances likely to favor the inoculation ; on the contrary, the granulated ulceration could not inoculate, and this is what occurred ; for ulceration in this condition can never inoculate.

But if it were proved that a chancre could never be produced by muco-pus taken from the sexual organs of a woman, when the speculum had shown that no ulcerations of this kind existed anywhere, we might conclude, as I have done, from the strictest analogy and the soundest logic, that whenever the urethral blenorrhœa of a man communicated a chancre to a woman, there must have been something else than a blenorrhœa, and that the urethra was the seat of a chancre in some portion of its extent.

Yet this doctrine has been doubted by some uncandid opponents, who would not admit the chancres in the urethra, from a curious reason, viz. : because they had never seen them, as if each individual could have seen everything ; but what is still more strange is, that the existence of every kind of ulceration has been doubted, and the power of ulcerating, under the influence of causes which produce ulcers in all other mucous membranes, is denied to this canal, because Morgagni never found any ulcerations in blenorrhœa. Morgagni, who observed chancres in the meatus urinarius and cicatrices in the urethra, which must have resulted from some previous destruction ; and because Hunter found no ulcerations in the urethra of two men who were hanged, when affected with gonorrhœa ;

* Gibert, *Manuel des maladies vénériennes*. Paris, 1836.

and lastly, because M. Cullerier and M. Philip Boyer each made a dissection and found an unulcerated mucous membrane. It is but just to remark, that M. Cullerier has assured me, he never thought of concluding from the dissection he made, that the urethra was not susceptible of this kind of disease. It remained to be shown, however, by a series of observations, and the aid of pathological anatomy, that this canal, which was so often seen ulcerated at the meatus urinarius,* and in the anterior portion, might be so in any part of its extent, and apparently afford only symptoms of blenorrhœa.†

In those cases related by some authors, and which appear to me incontestable, where the pus of chancre introduced into the urethra produced a blenorrhœa, one of two things must occur; either the matter of the chancre acted only as a simple irritant, causing a discharge, or operating in a specific manner, it caused an urethral

* Astruc, Frank, Bell, Wiseman, Howard, Capuron, Spangenberg, Swédiaur, *Traité sur les maladies vénériennes*, p. 137, Thomas Bartolin, Lisfranc, Fourcroy, Teytau, &c.

† Astruc says: "I have seen several cases where a chancre existed at the commencement of the urethra." Frank remarks—"Et sub aspectu medorrhœe luem viro incauto conferre queunt, latet interdum ulcusculum quin symptomata id doceant in uretro." Bell mentions three cases of it occurring, one in his own practice, one in Wiseman's, the other in Howard's; Capuron relates two cases of it. Spangenberg mentions the following case: "A young man had a virulent gonorrhœa which was treated by injections; a gleet remained—there was a fixed and painful point in urinating, and on pressing the urethra, near the glands of Morgagni, a drop of bloody pus appeared at the orifice of the urethra. Tonics and stimulating ointments were used, and the running disappeared, but the pain continued. Some time after, the patient perceived that the urine escaped through several openings in the canal, which presented numerous small but true chancres which had a fistulous opening. It was then admitted that the pain depended on a chancre, which was previously unobserved. Swédiaur (*Traité sur les maladies vénériennes*, p. 137) believed in the identity of blenorrhœa and chancre in respect to the essence or virus producing them, in consequence of false conclusions drawn from facts: but he admits the existence of ulcerations, and says:—

"The reason why infection occurs so seldom from blenorrhœa is, that the virus produces a superficial inflammation, and seldom causes ulcers which give rise to absorption in the mass of the blood; the mucous membrane is defended by the secretion of mucus, which is increased by the infection. The virus is then extremely diluted, the parietes of the urethra are protected, and consequently the formation of an ulcer is impeded. If it be diminished, it is certain that in nine out of ten cases the urethra would be ulcerated or excoriated, and the disease would appear as certainly as syphilitic ulcers can produce it."

T. Bartolin has cited many cases of it. M. Lisfranc has reported cases, in his inaugural thesis, which cannot be contested; but the most interesting are those reported by Teytau. (*Traité sur la gonorrhœe*, p. 83–107.) By these extracts, it will be seen how important it was for me to establish the fact, that blenorrhœa could be attended with ulcerations, although the differences between certain simple ulcerations and chancre have not been as well designated as they can be now, by inoculation.

chancre, which, from its situation, could only occasion symptoms of blenorrhœa, constituting what I have termed masked chancre : (larvé :) for if it be true, that with chancre pus a discharge has been produced, yet no other affection can be produced by the mucopurulent secretion of gonorrhœa, from a mucous surface not affected with chancre.

Bell (vol. i. p. 492) relates the following cases :—

“ Two young students of medicine, to settle the point in question, determined to make the following experiments, at a time when neither of them had been affected with gonorrhœa or syphilis. In these experiments, as in the preceding, the matter was taken from patients who had never taken any mercury. Each of them placed between the prepuce and glans, a bit of lint impregnated with the gonorrhœal matter, and allowed it to remain in the same place during twenty-four hours. They expected to see chancres spring up, but in one, a great degree of inflammation followed, with all the appearance of what is called bastard gonorrhœa. A considerable quantity of fetid matter flowed from the inflamed parts, and for some days it was feared recourse must be had to an operation to cure a phimosis. However, by means of bread cataplasms, with solution of acetate of lead, laxatives, and a severe regimen, the inflammation subsided, the discharge ceased, no chancres appeared, and he was soon quite well again.

“ The other was not so fortunate ; the external inflammation was but slight ; but the matter having gained access to the urethra, he was attacked the second day with a considerable degree of gonorrhœa, which lasted long enough to cause him much agony, and he did not get quite rid of it for a year.

“ He was thus convinced of the imprudence of making similar experiments, and determined not to prosecute them, although they were ardently continued by his friend, who, shortly after the inflammation from the first experiment had subsided, introduced some gonorrhœal matter on the point of a lancet, and also into the substance of the glans ; but although he repeated this operation three times, no chancres were produced. There only followed each time a slight degree of inflammation, which disappeared without any application to it. His last experiment was attended with more serious consequences. He introduced the suppuration of a

chancere on the end of a probe, to the depth of three or four lines into the urethra : no symptom of gonorrhœa appeared ; but in the space of five or six days, he perceived a painful inflammatory chancere on the spot where he had applied the matter. To th's affection succeeded a bubo, which suppurated, notwithstanding the immediate application of mercury, and the wound which resulted from it became very considerable, and healed slowly ; ulcers of the throat followed, and he could only be cured by a considerable quantity of mercury, and was unable to leave his room for nearly a month.

“ I was, by these experiments, enabled to produce the most decisive proofs that could be desired, of the difference between the matter of gonorrhœa and syphilis, and to show neither chanceres nor other general symptoms can be produced by the matter of gonorrhœa, whilst that of syphilis, even to the secreting surface of the urethra, produces chanceres, which afterwards introduce the infection into the system.”

We may add to the facts mentioned by Bell, that Valentin, quoted by Freteau, tried several times without success to inoculate himself with blenorrhœa, without producing either chanceres or even a discharge.

It has been thought that the only difference between chancere and gonorrhœa, was ascribable to the greater or less concentrated degree of the virus ; forgetting this fundamental law of syphilitic diseases, that the intensity of the symptoms never depends on the acuteness of the disease in the person who infects, but of that in the person who is infected. Supposing variations in the strength of the virus, and the existence of a superficial* and a more deeply seated syphilis, it will easily be seen that the virus of chancere in losing its strength could only produce gonorrhœa, which would be contrary to the opinion of Swédiaur, who considers ulceration as the consequence of a less degree of irritation ; but in this case, now can the virus, weakened in these, in its turn reproduce a chancere ? According to an opinion more absurd, it has been thought that the mucous membranes, affected with blenorrhœa, did not ulcerate, because the virus was enveloped in mucus. (Hufeland.) It is very possible that virus, thus incarcerated, might have no action upon

* Some authors, and amongst others M. Lagneau, give this synonyme to gonorrhœa

a healthy mucous membrane, but that it should produce ulcerations precisely in this part, and not affect those which had secreted it, or at least the neighboring or contiguous parts, is far too irrational. M. Lagneau's theory, according to which a blenorrhœa only produces constitutional syphilis, when a part of the mucous membrane remains sound, to absorb the virus which is secreted by the infected part, is also inadmissible, particularly as experience teaches that the syphilitic virus cannot flow over the skin or a healthy mucous membrane, without infecting it directly. As regards Swédiaur's opinion, that blenorrhœa ulcerates the tissues to produce general infection, it may be reduced to this proposition: that chancre alone can produce secondary symptoms.

It has been thought also that the cause of chancre and gonorrhœa being the same, the difference in the form depended upon the tissues affected, and that thus the syphilitic virus applied to a non-secreting surface produced a chancre, and the pus of chancre upon mucous membranes only, produced blenorrhœa.* We know that

* The pus furnished by a well-established chancre, is sometimes sufficiently abundant to spread to the neighboring parts; when it is situated at the glans or interior of the prepuce, it inflames and sometimes excoriates these parts, causes even new ulcerations, which soon produce fresh symptoms, and particularly phimosis. In the plates of Mertens we find the history of a similar case marked by a number of chancres which surrounded the base of the glans. The prepuce was of a deep bluish red, and the pubic vein and its branches were gorged with a thick and bluish blood. Matter from a suppurating chancre, if inoculated immediately, may give rise to symptoms as formidable, and sometimes more so than those arising from most impure coition. Duncan cites an experiment made to ascertain the power of pus from a chancre on the canal of the urethra. "I took," says this author, "on the end of a sound some matter from a chancre on the glans, before any remedy had been applied to it, and introduced it completely into the urethra, expecting to produce blenorrhœa. During the first eight days, I felt no inconvenience, but, about this time, suddenly perceived pain in urinating. Separating the lips of the orifice of the urethra as far as possible, I found a chancre, extending through nearly the whole of the canal, and a few days after, a bubo appeared in each groin. There was no discharge from the urethra during the whole disease, but another chancre soon appeared on the other side of the urethra, which, with the other, was touched with red precipitate. At the same time I used mercurial frictions on each groin, and was somewhat salivated; the buboes were arrested, and finally disappeared entirely. The chancres yielded, and I was cured."

"The thicker the skin, the more difficult is it for the chancre to form; but if the cuticle has been abraded, the ulcer is soon produced."

"A peculiarity of the chancre is to burrow in the part where it is situated. The chancre presents a focus, where is constantly elaborated a material which can communicate infection to a healthy individual and, a fortiori, this matter causes it in the individual, where it is constantly in contact with the orifices of the absorbent vessels, whose power is rendered by it more active."—*Cours des mal. syph.*, by M. Petit Radet: vol. i. p. 317.

blenorrhœal matter never produces chancre on the skin, and that applied to mucous surfaces, when it acts, it only produces a discharge.

The blenorrhœal secretion, applied to the mucous membrane of the eye, has never produced chancres of the conjunctiva or eyelids, *nor has the muco-purulent secretion of blenorrhœal ophthalmia (ophthalmie blennorrhagique) ever produced chancres by inoculation or otherwise*, although the eyelids are susceptible of being infected by chancre. We may add, that the muco-pus of a'balanitis, &c., whether arising from an impure coition, or produced artificially by an irritant, has never furnished a result by inoculation, and that these affections therefore cannot be followed by symptoms of constitutional syphilis, whenever they have existed without chancres.*

Without, in this place, entering into the discussion and history of all the symptoms which have been attributed to blenorrhœa, there are two which are pretty frequent and regular, as consecutive symptoms; these are buboes, (yet far less frequent than after chancre,) and swelled testicle (epididymite.) I have ascertained by inoculation, that the pus from buboes which are consequent on gonorrhœa, does not inoculate, even should they terminate in suppuration, which is rarely the case; they otherwise partake only of the nature of an engorgement or simple abscess, whose characters frequently correspond to strumous, and not syphilitic affections.

As to swelled testicle, which still more rarely suppurates, the pus never produced anything by inoculation.

The observations made upon blenorrhœa, during my researches upon inoculation, lead to the following propositions:—

1. The matter of a blenorrhœa, applied to a healthy mucous membrane, causes blenorrhœal inflammation the more easily, the nearer it approaches the purulent form, and therefore, contrary to the opinion of Wathely, in proportion as its nature is less mucous.

* "As we have already remarked, simple balanitis cannot be a severe affection, and it is simple in most cases: no one asserts that it can give rise to constitutional or secondary syphilitic symptoms, nor have any facts ever been adduced to prove it. We think it cannot be venereal, and regard it as an affection which is not virulent, and can produce no bad consequences. Hence we think that any anti-venereal treatment is entirely unnecessary. But we speak here only of simple balanitis, in which real *ulcerations* are never seen, and which are unaccompanied by excoriations, that is, a chafing of the epithelium, without rupture of the mucous membrane of the glans or prepuce."—*Cullerier and Radel.*

2. Under no circumstances can it produce chancre; but as an irritating matter, like that of coryza for instance, it may excoriate the skin, with which it sometimes remains long in contact, but it never produces a specific ulcer. Convinced of these truths, which were so often verified, one of my pupils, M. Léon Ratier, often inoculated himself with the muco-pus of blenorrhœa upon the skin of the fore-arm, without any results.

3. The consecutive, undoubted, and regular symptoms of blenorrhœa, do not furnish an inoculable pus.

4. The symptoms of constitutional syphilis are not the consequence of blenorrhœa. In all the cases in which authors mention that it was an antecedent, the frequency of which precisely corresponds with that of masked chancres, (chancres larvés,) the diagnosis was not correct; the diseased surfaces not having been examined.

5. Lastly, the only correct means of diagnosis, in the present state of science, is inoculation. Every blenorrhœa which is tested by inoculation in its various periods, without producing any result, is only a simple affection, and cannot communicate syphilis, whether primary in another subject, or constitutional in the one first affected.

Having proved that blenorrhœa and chancre are two entirely distinct diseases, as regards their cause, form, and consequences, we shall examine the other reputed primary syphilitic symptoms.

§ 2. Chancre, the inevitable consequence of the application of the syphilitic virus, either to the skin or mucous membranes in the proper state for inoculation, often presents such varieties in its material aspect, that it seems to constitute different diseases.

Some have considered these differences in chancre, which are not well known, or not duly appreciated, as an argument against the identity of the venereal virus and its unity of action, and others, as proving the existence of a plurality of the virus; but if well studied in its cause, which always remains the same, in the manner of its development and its consequences, in regular and uncomplicated cases, the apparent differences are easily explained, and all contradictions are reconciled; for, whatever may be the actual form of the chancre from which the pus is taken, provided it be taken during the period which I have before pointed out, a regular characteristic pustule is obtained, when the virulent pus is inserted un

der the epidermis or epithelium, an immediate (d'emblée) ulcer when it is applied to denuded tissues, or an abscess when it is introduced into the cellular tissue, a lymphatic vessel, or ganglion.

Always keeping in mind the difference produced by the seat, and the particular tissues affected, we yet find an identity of appearance and regular and characteristic features in the ulcer at its commencement; and that, too, whether it be the consequence of the rupture of the pustule, the opening of a virulent abscess of the cellular tissue or lymphatic ducts, or whether it have arisen immediately. The deviations or peculiar forms only develop themselves after, and under the influence of circumstances foreign to the specific cause, such as:—the constitution of the patient, his former or co-existent diseases, his health, and the general and local treatment which he has employed. From this cause, we see patients affected with phagedenic chancres, who have contracted their disease with persons who had apparently only mild ulcers; and the vulgar opinion entertained by many practitioners, that a virulent affection must have been contracted with a very diseased person, is entirely false.

Inoculation has placed the regularity of the commencement of chancre in its different forms beyond all doubt, and explained its deviations.

It is, as we have seen, inoculation which has enabled me to distinguish these two very distinct periods of chancre, viz., the period of ulceration, which may be still increasing or arrived at a stationary state, in which there is a balance between the nutrition and source of ulceration; and the period of reparation, either by passing to the state of a simple ulcer, or to the transformation *in situ*, or to the *secondary symptoms on the spot*.

The period of the specific ulceration is unlimited in its duration, preserving the characters of the primary ulcers; thus I have inoculated with pus furnished by ulcers which had already existed eighteen months. The different periods of chancre may always be determined by inoculation.

But if inoculation presents curious and important results, the history of buboes is still more interesting.

§ 3. The bubo, so frequently a symptom of venereal diseases, and which was so well described by Guillaume de Plaisance,*

* Guillaume de Plaisance wrote in 1343.

although Astruc considered it as a recent symptom of syphilis, was not always well known to the ancient writers on syphilis, which explains the singular assertion of Astruc, nor even to the authors of our own times, as may be seen by the writings of modern authors, and the objections which have been made to my researches.*

Inoculation, applied to the study of this symptom, has established experimentally the following species :—

1. A bubo may be simply inflammatory.

(a) By propagation of the inflammation by continuity, without regard to the particular nature of the primary affection which produced it, whether this was a blenorrhœa, a chancre, or other lesion.

(b) By syphilitic reflection.

2. Virulent, that is, owing to the direct absorption of the specific pus of syphilis, and in this case it is strictly the consequence of chancre; the pus of chancre alone can produce it.

3. Superficial or deep-seated, or it may present these two forms at the same time.

4. Seated in the cellular tissue, the lymphatic vessels, or ganglions, separately or differently combined.

5. Chronic or acute.

6. Preceded by other symptoms termed primary, or show itself immediately (d'emblée).

7. When other symptoms have appeared before it, it may succeed them immediately, and then be only a successive symptom, or it may only manifest itself at the period of general symptoms of syphilis, and constitute the secondary bubo.

When one is satisfied of the truth of the divisions just established,

* "The pus formed in the buboes which accompany primary or secondary ulcers, or blenorrhœa, may be introduced under the epidermis, or epithelium, with impunity." MM. Cullerier et Ratier, article inoculation, *Dict. en 15 vols.*

"Inoculation has been proposed as a means of diagnosis between sympathetic and syphilitic buboes; most experimenters, among others M. Cullerier, obtained nothing by the inoculation of the pus of buboes, which it was most natural to regard as syphilitic. M. Ricord, on the other hand, says he has obtained the characteristic pustule whenever the bubo was united with a chancre, or a vaginal discharge, which arose from ulcerations of the neck of the uterus. The few experiments I have made, or seen performed by my friend and colleague, Dr. Manec, afforded, like those of M. Cullerier, a negative result. As most buboes in women terminate by resolution, the cases in which inoculation would be practicable, are very limited." M. Gibert, *manuel des maladies vénériennes. Paris, 1836.*

M. Ruef, of Strasburg, has also said that all buboes were not capable of being inoculated, but did not mention the cause of this difference, although he assisted at my experiments, which he probably did not recollect.

and which are generally admitted, we are astonished to hear learned and wise men say, that my experiments of inoculation, as regards buboes, have no value, as they have found them sometimes succeed and sometimes fail; and, consequently, as a bubo does not always inoculate, inoculation is an uncertain means, either of proving, as we have said elsewhere, the existence of the virus, or of diagnosis; not perceiving that this pretended uncertainty of inoculation, was what established its absolute value.

Whenever an inflammation of the cellular tissue, or lymphatics of the inguino-crural or other regions, has been caused by any thing but chancre, if suppuration has supervened, it has never produced anything by inoculation, at whatever may have been the period or the conditions in which the pus was taken. Thus it is, for example, that when a bubo had been preceded by a gonorrhœa, it never, when it came to a state of suppuration, as we before said, furnished an inoculable pus; only when a bubo is preceded by a chancre, can it furnish a specific pus capable of inoculation. But because a chancre has preceded a bubo, it does not follow that it will afford a specific pus; in order to this, the bubo must not be the result of a simple inflammation from sympathy or succession, but there must have been absorption. Now, absorption, when it takes place from a chancre of the sexual organs, only occurs in the *superficial ganglions*, and most frequently in one at a time, although several ganglions, either superficial or deep-seated, may be inflamed or swollen at the same time,* so that one ganglion presents all the characters of a virulent bubo, while the neighboring ganglions, in which the inflammation may come to suppuration, as well as in the surrounding cellular tissue, only present a simple and non-virulent character.

It required some time to recognise these conditions, and to explain to myself why all buboes did not inoculate, as asserted by those who have repeated my experiments, without being well ac-

* If the name of bubo be applied to every glandular *engorgement* which may occur in the neighborhood of parts actually affected by a reputed venereal affection, the division of buboes into superficial and deep-seated, is correct; but if only those be considered syphilitic buboes which are the result of the direct absorption of pus, there only exist superficial buboes, and the opinion of my colleague and friend, M. Philippe Boyer, is correct. (*De la syphilis*, Paris, 1836.) As in the study and treatment of buboes, there are other things to be attended to besides the syphilitic virus, this distinction of deep-seated and superficial buboes, upon which M. Desruelles particularly insists, ought to be adhered to and studied with care.

quainted with them ; and how it happened that a bubo, whose pus did not inoculate one day, often did the next ; or that in a bubo with separate centres, and which might be called multilocular, one of these centres furnished an inoculable pus, and the others not.

I then began to make more exact experiments, and I first inoculated from all the buboes when they were first opened, with the first pus which escaped, but with no results which explained M. Cullerier's assertion, who had perhaps only made his experiments under these circumstances, or in cases of simple buboes. I then took pus from these same buboes, two, three, four, five days and more after the opening ; sometimes the inoculation succeeded, but in other cases it failed. In the first case, the centre, as well as the edges of the opening, soon assumed the character of chancre, while in the second, the abscesses progressed like simple phlegmonous or lymphatic abscesses, and healed.

An important question however remained, viz., whether in these cases where the pus from a bubo did not inoculate when this bubo was first opened, it would acquire its inoculating quality by contact with the air, or by becoming subsequently mixed with the pus of a pre-existing chancre, or in any other manner. The solution still appeared very difficult, when a patient presented himself to my notice, with a bubo consequent on a chancre, which had suppurated copiously. I opened the abscess ; but after evacuating the pus of the cellular tissue, I found in the midst of the centre a very large lymphatic ganglion, with evident fluctuation in its centre. I opened it, and inoculated with the pus it contained, and also with pus taken from the surrounding parts, viz., the cellular tissue ; while the pus taken from the ganglion produced the characteristic pustule, that from the cellular tissue remained inert. I was then convinced that the difference did not depend upon chance, or upon circumstances occurring after the opening of the buboes, but upon the virulent pus not having been sought where it was situated. After this observation, I made a series of experiments, which left no further doubt as to the results of inoculation.

I now selected some buboes in which the suppuration was far advanced, and which had been preceded by chancres. I inoculated with the first pus which escaped at the moment of opening ; and then, having freed them as completely as possible, I made a large

opening, and took pus from the base of the suppurated ganglions to inoculate. The results were like the first: the superficial pus produced nothing; the deep-seated pus, a pustule.

However, it is easily seen, that where suppuration has existed a long time, the virulent ganglionic pus may have come to the surface, or be mixed in sufficient quantity with the surrounding phlegmonous pus for this to inoculate at the moment of the opening, which in one observation seemed to be the case. From the difficulty of separating the layers of simple from those of virulent pus, it is easily understood that results apparently contradictory might appear; but the number and regularity of the experiments I have made, more than suffice to remove every doubt.

The same results have been obtained with pus taken from the course of the lymphatic vessels. The lymphatic vessels are sometimes inflamed and engorged in their whole extent, between a chancre and the ganglions, in which they terminate. The disease of the lymphatic vessel may take place without the ganglions being necessarily affected. A chancre may even exist on one side and occasion a bubo on the other; in which case, the absorbent vessels may remain healthy or become engorged, marking their course from one side to another, crossing the median line. Whenever the inflammation of the vessels terminates in suppuration, and is the consequence of absorption of chancrous pus, it has in its turn furnished an inoculable pus.

We have already seen that the phlegmonous bubo, or the simple suppuration of the cellular tissue, produced nothing by inoculation, if the source did not afterwards become infected by contact with virulent pus, proceeding from some part, and generally from the opening of an affected ganglion or lymphatic vessel. There may be, however, abscesses of the cellular tissue, primarily virulent; they are generally situated very near the chancre, and are produced by the infiltration of the pus underneath the skin and subcutaneous cellular tissue. An indurated *corde* is in this case often felt between the chancre and the abscess, which cord might be taken for a lymphatic vessel, but is in fact only indurated cellular tissue. These abscesses inoculate at the very moment of their being opened, and with all the pus they contain, without distinction.

When the deep seated ganglionic engorgements, called deep

seated buboes, suppurate, which is far more rarely the case than in superficial ganglions, the pus from them never inoculates, unless they be subsequently soiled with matter from a neighboring chancre, or an infected superficial ganglion; but in this case, the deep ganglions are never infected by way of absorption. It may be positively asserted, that the absorption of the virulent pus, preserving its capability of being inoculated, does not pass the first ganglion by direct means of absorption from the chancre, to which the bubo succeeds.

A question of the greatest interest, which has not always been answered in the same way, is the existence of primitive bubo, as a primary symptom (d'emblée.)

Do primary syphilitic buboes, in the strictest sense of the word, really exist; that is, without any other antecedent than an impure coition, and without concomitant symptoms, to which they might be attributed? Men of equal celebrity have replied in the negative and in the affirmative to this question.*

If the patients be closely and minutely questioned, it will soon be found that the reputed primary buboes are very rare; for most frequently the cause of those supposed to be such is so evident that we are surprised that the patients themselves did not perceive it;

* The buboes termed primary, appear without the previous appearance of any syphilitic symptoms: the inguinal glands are those most commonly affected. Some writers doubt the existence of this kind of tumors, but facts have proved its existence, which is now admitted by the physicians of our age. In fact, it is generally admitted that syphilis may affect the system and produce its most serious symptoms, although the part whence the absorption has taken place may present no primitive symptoms, as blenorrhœa or chancre: how much more probable is it, then, that this virus may affect the lymphatic glands found in its course, and thus, by its irritating properties, cause engorgement to a greater or less extent: this opinion is sustained by many distinguished authors.

Fallopious cites the case of a young man, who perceived an inguinal bubo, twenty-four hours after an impure coition, unattended by any other symptom. Astruc remarks: "*Ex impuro concubitu aborti mediati vel immediati.*" Swédiaur and Bertrandi cite cases in support of the same opinion. The Hôpital des Vénériens often presents similar cases. In 1811, I attended a young officer, who had never been affected with syphilis. One month after connexion with a suspicious female, he had two inguinal buboes, which were not preceded by chancres, gonorrhœa, or the least irritation of the genital organs. A stranger applied to me three years since with two buboes in the same position, which appeared three weeks after coition. In a young man who applied to me about the same time, the venereal tumor appeared in the left groin ten days after exposure. Mordret, physician of the hospital at Mans, has mentioned two cases, and in a third case, three months elapsed between the exposure and the development of the bubo. (*Mem. sur l'existence du virus syphilitique. Paris, 1827.*) Lagneau does not say that these buboes have been followed by secondary symptoms. (*Traité des mal. syph. 1828. vol. 1, p. 204.*)

thus patients, who have been informed of their disease by the development of a more or less painful tumor in the groin, will only allude to this tumor, which they perceived the day previous, or even that day. If you interrogate them, they refer to an exposure a fortnight or month previous; if they be then examined, a chancre will be found, often pretty extensive, upon the penis, prepuce, or some neighboring part. However, it is true that after an unclean connexion, the engorgement of the ganglions, situated near the sexual organs, become, though rarely, primarily diseased. Yet there are some circumstances where no suspicious antecedent or concomitant can be found, and we are then obliged to admit the existence of the primary non-consecutive bubo.

On examining these engorgements attentively, guarding against being led into error by those which may resemble them, we find that they generally appear in the deeper ganglions, and not unfrequently even in those of the fossa iliaca, or at least the subaponeurotic ganglions of the thigh; that their progress is often chronic; that they are a long time indolent, and have little tendency to suppuration; and when they suppurate, the pus from them does not inoculate: hitherto I have never found a bubo with all the rational signs of a primitive bubo, which furnished an inoculable pus. If to this important observation be added, that after very careful researches, I have never found that a strictly primitive bubo has been followed by symptoms of general syphilis, the importance of inoculation in this case will be apparent. Moreover, as regards absorption in general, in order that the primitive virulent bubo may occur, the lymphatic vessels must have orifices, opening on the mucous or cutaneous surfaces; for, according to the hypothesis that all absorption must be preceded by a kind of imbibition, the tissues which are impregnated with the pus of a chancre would be first infected, as this pus necessarily produces ulcerative inflammation wherever it penetrates, except in the lymphatics, when their internal membrane is entire; for if this be not the case, we see them attacked, as in the case of lymphitis, to which we have already alluded.

In the present state of science and our experience of inoculation, applied to the study and diagnosis of bubo, we may conclude:—

1. That the virulent bubo, or that from the absorption of the pus

of chancre, is analogous to chancre, as regards its nature, and only differs in its seat. 2. That the virulent bubo is the only one which inoculates. 3. That the signs which have been mentioned by all authors to distinguish virulent buboes from the engorgements with which they might be confounded, only serve in most cases to establish a rational or probable diagnosis; and that inoculation alone can be considered as an unexceptionable and pathognomonic sign. 4. That if, in a great many cases of supposed primitive bubo, an exact diagnosis were not absolutely necessary to regulate the treatment, and determine the prognosis of the future chances of the patient, when suppuration does exist, it ought to be tested at every period of its duration; experience having shown that buboes, which do not inoculate, (*when the experiment is properly made,*) are never followed by secondary symptoms, and that they are therefore not syphilitic; whilst other causes, which often escape our notice, and without being connected with syphilis, may give rise to engorgements of the lymphatic system of one region of the body, as well as of another; and that it would be absurd to conclude that a bubo is necessarily syphilitic, because it appeared soon after a coition.

§ 4. One reputed primary symptom remains to be examined: the mucous pustule, (*pustule muqueuse, pustule plate, humide, tubercule muqueux, papule muqueuse.*)

Whatever may have been the antecedents of the mucous pustule, or at whatever period it is examined, it never produced anything by inoculation. The morbid secretion which it produces has been inoculated with a lancet, applied to vesicated or rubbed upon denuded surfaces, retained on points of the skin from which the hairs had been plucked out, but without any result; and yet the contagion of the mucous pustule seems to be proved, and in some individuals it seems to be the first symptom of syphilis. But, contagious by an intangible vital process, which cannot be explained, the mucous tubercle cannot be transmitted by inoculation.

This curious symptom, so obscure in its commencement, and so insidious in its progress, forms the connecting link between the regular and characteristic point of commencement of syphilis, chancre, and the symptoms of general infection. Similar in appearance to chancre, thought like it to be contagious, and perhaps

the beginning of syphilis, it differs from it in the results of inoculation. It resembles the secondary symptoms, inasmuch as like them it succeeds to chancre, it may be inherited, but cannot be transmitted by inoculation.

The mucous tubercle, however, which some authors have wished to divide into two species, the primary and the secondary, and which is evidently the same in its nature and source in all cases, differing only in its antecedents, which are often very difficult to determine, is also one of those symptoms which, although very characteristic of syphilis, have not been well examined.

If examined with regard to its causes, seat, form, progress, concomitant symptoms, and consequences, it is sufficiently interesting to detain us a moment.

It may be confidently asserted, that the regular and constant antecedent and specific cause of the mucous tubercle, is chancre. In an individual, actually affected with mucous tubercles, we find either that they have been preceded in himself by chancre, or that he has contracted them from an individual who has had chancres; in short, we find, on a rigorous examination, that there has been, either in one individual or other of those who have apparently transmitted the mucous tubercle, a chancre as the starting point. But an incontestable fact in the history of the causes which regulate the development of mucous tubercles is, that all individuals are not susceptible of them; if they can be situated in the mucous membranes, yet all parts of the skin are not equally susceptible, and must naturally or by a morbid process be related to the nature of the former, in order to become affected by it. Thus persons of a lymphatic habit, women, and children, are most subject to it; the mucous membranes of the genitals, anus, and mouth, are most frequently attacked; and the skin is seldom affected by it, except around the sexual organs, anus, or umbilicus, in the meatus auditorius externus, behind the ears, &c.

In its material form, or in the lesion of the tissue which constitutes it, the mucous tubercle, especially when isolated, is very often difficult to distinguish from chancre during the period of unhealthy granulation; in most cases the remains of the ragged edges of chancres distinguish them from the less defined base and circumference of the mucous tubercle; but in chancres which have re-

mained superficial, and which quickly pass to the state of granulation, or into one of the varieties of *ulcus elevatum*, the distinction is often impracticable.

It is very evident, that the mucous tubercle is far more common as a secondary than as a primitive symptom. If, on the other hand, we consider that in the latter case it is far more frequent in women and children, where the chancres to which they owe their origin may have remained unperceived or concealed; that the time when the patient complains of it, and we are called to observe them, is more or less remote from the time of infection, and at the time when true secondary symptoms may already have developed themselves, it will be easy to admit that a chancre may have preceded it; the more so, if a patient only presents one or two mucous tubercles upon the parts generally subjected to contagion, with no other antecedents than connexion with an infected individual. The accurate observer will thus conclude these are only chancres in an unhealthy state of granulation or transformation *in situ*. Farther, we often find, in the midst of a knot of mucous tubercles, an untransformed chancre, which affords an inoculable pus. In other cases, the tubercles are very numerous, and appear often upon different parts of the body at once, or accompanied with other symptoms, which leave no doubt as to their characteristic and specific form, and their nature as symptomatic of constitutional syphilis.

We must not, in this place, forget, that of all the secondary symptoms the mucous tubercle can appear the soonest; and, as before said, not only at a distance from the point of infection, but also on the same spot as the primary ulcer, and by an insensible change, *in situ*, from inoculable chancre to tubercle not possessing this property.

We must now examine whether the mucous tubercle can succeed to a blenorrhœa. The following are the results I obtained:—

A blenorrhœa, properly so called, i. e., a muco-purulent discharge uncomplicated with chancre, and therefore not inoculable, was never followed by mucous tubercles, any more than by other symptoms of constitutional syphilis. In cases where blenorrhœal discharges have seemed alone to precede the development of mucous tubercles, either there existed at the same time a concealed chancre, (chancre larvé,) or it was only one of those discharges which are concomi-

tant or consecutive to mucous tubercles, and which superficial observers might then regard as the primary cause of them. I confess it was long before I discovered this fact, that, where the mucous tubercles develop themselves, they not only generally furnish a peculiar morbid secretion, but also cause a catarrhal flux of the mucous tissues on or near which they are seated. From the foregoing, I have drawn the following conclusions:—

1. That the mucous tubercle never inoculates.
2. That it ought to be referred to the secondary symptoms, and is a proof of constitutional syphilis.
3. That its secretion, acting like irritating matter, may inflame the tissues with which it comes in contact.
4. That when syphilis has been transmitted to an individual from mucous pustules or tubercles, there must have been other specifically contagious symptoms at the time of the infection.
5. That, like the other secondary symptoms, the true mucous pustule can only be transmitted by inheritance.

CHAPTER III.

INOCULATION DISTINGUISHES PRIMARY FROM SECONDARY SYMPTOMS.*

THE celebrated Hunter had already established, by accurate and learned experiments, one fact, since confirmed by many other experiments, that the symptoms of constitutional syphilis cannot be inoculated.

* My clinical observations have led me to the following classification of the symptoms of syphilis.

1. *Primary symptom, (accident primitif,)* chancre from the direct action of the virus which it produces, and by means of which it propagates itself by contagion from a diseased to a healthy individual, either by inoculation in the same manner, or in the individual himself from one point to another, without being transmitted by inheritance with its principal character—the possibility of inoculating; but capable of producing the primary infection of the infant at the moment of its birth or afterwards.

2. *Successive symptoms, (accidents successifs,)* or those which arise from contiguity of tissue, or by simple extension of the first local symptom, as new chancres; simple inflammatory, or virulent abscesses, or simple or virulent adenitis, &c.

3. *Secondary symptoms, or symptoms of general infection, in which the virus has undergone a modification and produced the syphilitic temperament;* symptoms appearing on the skin, the mucous membranes, the eyes, testicles, &c., and seldom happening before the first two weeks of the duration of the primary affection, chancre; but generally after the fourth, sixth, eighth, or even much later; not capable of inoculating, if we can recognise them, and are not deceived by the patients. These secondary phenomena can be transmitted by way of inheritance, and that in a most incontestable manner, from mother to child, which then presents after its birth general symptoms corresponding to those of the mother, without previous primary affection, and without their being attributable to the previous or subsequent action of the sympathies upon them, by the sexual organs of the father or mother, two or three months after birth.

4. *Tertiary symptoms, (accidents tertiaires,)* occurring at indefinite periods, but generally long after the cessation of the primary affection; not appearing in most subjects until after secondary symptoms have occurred, whether they still exist or have disappeared, which ought not to be neglected in the diagnosis; symptoms, which not only no longer inoculate, but which can no longer be transmitted by inheritance, with the specific characters of syphilis, like the secondary, and which are perhaps a frequent cause, by generation, of the production of scrofula, which often is but degenerated syphilis. Under the head of tertiary affections, we must place nodes, deep seated tubercles, tubercles of the cellular tissue, periostoses, exostoses, caries, necrosis, syphilitic tubercles of the brain, which I have described and shown to the Académie de Médecine; internal affections which have been hitherto ill defined, (Sanchez,) &c.

5. Lastly, *foreign discases, unconnected with syphilis, which however may have favored their development, such as cancer, phthisis, scrofula in the individual primarily affected, which must be distinguished from the transmitted scrofula, which we mentioned above, scurvy, various acute or chronic inflammations, which possess no specific quality, and which, from the apparent antecedent, might be attributed to syphilis, and would thus become the source of serious errors and obstacles in the treatment.*

Notwithstanding the authority of such a master, and adhering to the principle I had adopted of raising rational and philosophical doubts upon every point, I have examined one by one all the symptoms of syphilis reputed secondary, and the results have been in conformity with the facts established by Hunter.

But from this great and acknowledged difference between the primary affection, chancre, and its secondary symptoms, can we conclude, as M. Richond and his supporters have done, that the principle of syphilis cannot be identic and peculiar; since when it produced its most decided and characteristic effects, it then ceased to possess its most energetic qualities, the possibility of inoculating?

My researches in inoculation having made me better acquainted with the primary symptom of syphilis, its true commencement, I arrived at the conclusion, which has been established by most good observers, that all the reputed secondary symptoms are far from being specific; that the infection by the venereal virus may produce in the system disturbances, lesions, and the development of morbid symptoms, resembling those which another non-specific cause might also have caused; but that independent of these symptoms, perhaps the most common, and which afford a fallacious support to the doctrine of the non-specific nature of syphilis, or the non-existence of the virus, there are some, regular and characteristic, occurring as the necessary and invariable consequence of the primary infection, and which are the result of chancre, under one of the forms we have above assigned to it, or the product of inheritance, which only military surgeons can deny, for want of a proper field for observation.

When we have followed the pus of the chancre into the system, we have seen that as long as it was only imbibed by the cellular tissue, at whatever depth it might arrive, it preserved its characteristic property, the possibility of inoculating. The same was the case with the *vasæ lymphaticæ afferentes*, which run from a chancre to the first ganglion, in which they terminate, and that beyond this point, where the mixture with the circulation and other organic materials by this kind of ganglionic digestion, which takes place in the lymphatic system, begins, the virulent pus experienced a change, which without depriving it of its specific nature, with regard to the symptoms it produces in the system, destroyed its power

of inoculating. That it was only by this modification that the *syphilitic temperament* could establish itself, so as to give rise at a future period to the diathesis, by the development of secondary symptoms; that, without passing through the lymphatic system, this result was the consequence of venous absorption: it not being requisite to develop the symptoms of constitutional syphilis that the virus should pass through the lymphatics, or that the production of buboes should precede it in all cases.

But if absorption of the venereal virus does undoubtedly take place in two ways, first, by the lymphatics and without any alteration in these primitive qualities till it arrives at the first ganglion; secondly, by the veins which can infect the system and so easily produce cutaneous affections, as is seen in all cases where deleterious substances are injected into these vessels; it is very remarkable, that we have never found inoculable pus in the veins, however near or remote from the chancre;* once united with the blood, the virulent pus no longer inoculates.

We must be careful not to be imposed upon by what frequently occurs in men affected with chancres on the glans, or prepuce; I mean, those engorgements like a cord stretched along the dorsum penis, and which is commonly called dorsal phlebitis of the penis. I have frequently observed this symptom, and proved that it was owing to an inflammation of the lymphatics and not of the veins; for if we observe that this kind of cord, which is frequently knotty, runs from the chancre to the ganglionic regions, and never extends beyond them, and that it does not present the uncertain course as regards its limit, extending itself towards the centres of the circulation, which the venous inflammations so unfortunately do, we are led to acknowledge that the lymphatics alone can present these

* M. Jourdan says, in his treatise on venereal diseases, (*Traité des mal. vén.* vol. 1, p. 409,) "The blood of an individual affected with syphilis is not more infected than it is in variola, according to Darwin; or in hydrophobia, according to MM. Trolhier et Berthold.

"The blood of a syphilitic patient, says Hunter, is not contagious. It may be inoculated without fear of the disease; for if it were capable of irritating a simple wound and producing in it a venereal inflammation, every individual in whom this matter circulates, or who is attacked with syphilis, must necessarily have a venereal ulcer wherever he might wound himself, or even scratch himself with a pin; the part thus ulcerated would become a chancre." Bell thinks that this happens sometimes, but he particularly insists that it is in the very advanced period of the disease. I think Bell did not well observe the circumstances in which this happened.

conditions ; but if, as I have done, the diseased parts be dissected, pathological anatomy leaves no doubt on the subject. When they suppurate, which is not very rare, and the abscesses open or are opened, we find pus not mixed with the blood, either in clots or otherwise, as is the case in phlebitis.

If, however, all good observers are agreed, as to the impossibility of inoculating with the lancet the pus or morbid matter produced by the secondary symptoms, as well as the different normal or abnormal secretions of individuals reputedly affected with constitutional syphilis, some men may have been misled by symptoms which, on account of their seat and the time at which they were developed, might, upon a superficial examination, be attributed to a general infection ; thus I have found primary ulcers of the lips, tongue, and even of the pharynx, which had been contracted directly and by illicit means, and which necessarily furnished an inoculable pus ; symptoms, whose true cause, or the manner in which they were produced, the patients sought to conceal : this is perhaps still more the case with primitive diseases of the anus. In individuals affected with the itch or prurigo, during the existence of a chancre, and who in scratching themselves inoculate themselves on different points of the skin, and cause, in the midst of the other eruption, the production of the primary pustule of chancre, one might believe in the existence of secondary syphilitic ecthyma or rupia, which would present in this circumstance, if ill appreciated, the apparently contradictory fact of the possibility of the inoculation of general symptoms.

From the facts relative to inoculation of the secondary symptoms, we must conclude,

I. That it does not follow that because a symptom does not inoculate, it is not syphilitic, since the virus, modified by venous absorption and susceptible of poisoning the system, loses this quality, and retains that of propagation by inheritance alone.

II. That whenever a symptom, whatever may be its seat and apparent form, still inoculates, it is necessarily produced by direct contagion, and is not the result of a general infection, arising from the absorption in another point, and does not actually indicate the *venereal temperament*, or, in received terms, constitutional syphilis.

CHAPTER IV.

INOCULATION SERVICEABLE IN THE THERAPIA.

SECTION I.

DISHONESTY and the speculations of quacks, which continually make the most sacred science subservient to their purposes, have availed themselves of the inoculation of syphilis, like every other road to success and celebrity ; but if there be men who are depraved and reckless, there are some too whose actions are guided by the interest of science alone, and whom no imputation can affect.

Thus inoculation has been employed in the study of the prevention of syphilis, which cannot be too much encouraged, and which we think will one day cause the discovery of a substance, which will neutralize the specific principle of syphilis ; but in this case, it is apparent, inoculation neither has been, nor can be employed, like that of vaccine, to prevent disease, and it has been only used to prove the efficacy of any preservative.

With this intention, Luna Calderon* made his experiments, which, although satisfactory, were so badly received at a time when the search for a preservative against diseases sent by Heaven to punish libertinism, was perhaps still regarded as a sacrilege. The facts which he has furnished, which are favorable to inoculation, and the demonstration of the results of prophylaxy, ought to be mentioned in this place. A commission, appointed by the Société du cercle médical, and composed of Capuron, de Mangeon, Gardien, and d'Olivera, assembled in the venereal hospital of the capital for this purpose.

* *Démonstration pratique de la prophylaxie syphilitique, par le docteur Luna Calderon, publiée à Paris, en 1815.*

“First Experiment, with previous resolution to permit the infection. November the 7th, 1812. The assistant surgeon selected, in the public receiving rooms, a well characterized venereal chancre, and dipped a lancet in it. I scratched myself with this instrument on the external part of the right side of the prepuce, but did not make it bleed. Five days after, I went to the hospital, accompanied by the members of the commission, and made them observe a slight ulcer upon the scratched part, and a discharge of pus between the prepuce and glans; (gonorrhée externe;) the glands in the left groin were a little swollen. The surgeon-in-chief declared he wished to determine if the infection was truly venereal, and that we must wait some days before curing me. I consented to it, and waited till the ninth day; I then presented myself again: the ulcer had become a well-defined chancre. There were also three other little chancres around it. All present declared the venereal infection perfectly characterized. I then undertook to cure myself, and in thirty days nothing more remained. The object having been fully attained, the experiment was certified by the commissioners, and entered in the register of the hospital.

“Second Experiment, with the previous determination of protecting myself. December 18th. The prepuce was again scratched with a lancet, dipped in a venereal chancre, chosen with the same precision and the same circumstances as in the first experiment. Immediately after, I applied the preservative to it. At the end of five days, I went to the hospital to have the result certified; neither an ulcer nor lesion of any kind was to be seen upon the prepuce. The object of preserving myself was attained. The experiment was certified, &c.

“Third Experiment, with previous determination to protect myself. December 30th, I made a similar trial, and presented myself, January 9th, 1813; the prepuce was well and showed no mark of infection.

“Fourth Experiment, with previous determination to protect myself. On the 9th of January, after having had the former result certified, I scratched another place on the prepuce, under similar circumstances, and applied my preservative to it. Eight days after, I again presented myself without having perceived the least sign of ulceration on the prepuce.

“Fifth Experiment, with a bloody incision. Having gone before the commissioners, on the 17th of January, I prepared to make an incision instead of a scratch; but at the instant of making this incision, I foresaw that the wound might afford too slight a suppuration for the experiment to appear decisive; I then determined to vary this trial in the following manner, so as to obtain a decided result.

“Sixth Experiment, with a double incision: the one simple, without contagion, the other contagious. My purpose in this experiment was to show the contagious incision, cicatrized in the same time as the non-contagious incision, by preventing the development of the infection in the inoculated point, by means of my preservative. The 10th of February following, I made two incisions: one contagious, on the left side of the prepuce, with

a lancet dipped in the virus; the other non-contagious, on the right side, with a clean lancet. I also scraped the part between the two incisions till it bled, with a lancet dipped in the virus; I applied my preservative to the two inoculated points.

"I attended at the hospital on the 17th of the same month; the two points that had been inoculated, and that which had not, were all three equally cicatrized.

"This double and threefold experiment has proved, that by means of the preservative the contagion did not develop itself in the inoculated points; for the contagious incision, and the part which was scraped till it bled, would not have cicatrized in the same time as the simple incision, if the infection had developed itself; thus the object was attained.

"*Seventh Experiment, of a double contagious inoculation, in two different points, with the design of protecting the one by means of the preservative application, and permitting the development of the disease in the other, by not applying the preservative.* February 17th, I scraped the left side of my prepuce till it bled, with a lancet dipped in the virus, and I made in the same manner, a contagious incision on the right side; I applied the preservative to the scraped part and not to the incision. On the third day, the scraped spot showed no lesion, and the incision presented a characteristic venereal ulcer. The end was attained and the result recorded.

"*Eighth Experiment, with the determination of preserving myself.* March the 24th, I took a lancet that had been dipped in the virus, and scraped the left side of the prepuce, in the same manner as before. Five days later, I presented myself without the least mark of disease on the scraped point. The end was attained, and the experiment recorded.

"*Ninth Experiment, two points scraped, with previous determination to protect the one and not the other.* On the 12th of May I scraped each side of my prepuce, in the same manner as before. I then applied my preservative to the right and not to the left side; but stated beforehand, that if the preservative spread by chance from one side to the other, the two points would be equally preserved, and consequently the infection on the left side could not be obtained. Seven days after, I presented myself at the hospital, without the least mark of disease. My conjecture being realized, the experiment was certified, &c.

"*Tenth Experiment, contagious incision, with determination to preserve myself.* May the 19th, I made an incision on the left side of my prepuce, in the same manner as before. On the 26th, I presented myself, without the least sign of disease. The experiment succeeded, and was recorded.

"*Eleventh Experiment, double incision, both contagious, on each side of the prepuce, with a previous determination of protecting one side and permitting the infection on the other.* June the 3d, I made three slight and contagious incisions, very near each other, on the right side of the pre-

puce, and three, also contagious, on the left. I applied the preservative on the right and not on the left side; and to avoid the inconvenience which had prevented our aim being attained in the ninth experiment, I placed some lint between the sides, to prevent the preservative spreading from one side to the other. On the third day, the wounds, where I had applied the preservative, were cicatrized; but the wounds on the left presented a well-marked chancre; a bubo also appeared in the left groin. I was cured of all in less than twenty days.

“The object of this experiment was accomplished, as well as that of all the others.

“During the intervals between each sitting, I presented myself at the houses of each of the commissioners.

“More than a year has elapsed since these experiments terminated; I have still the cicatrices on the left arm, remaining from other experiments made many years since. No one ever knew me in better health than I now enjoy.

LUNA.”

To the researches and experiments of Luna Calderon, to whom the just reproach is made of having kept his preservative secret, and which in all probability is some kind of caustic soap, may be added the experiments made with different agents, such as the product of normal and morbid secretions, chemical and medicinal substances.

The pus of chancres mixed with urine, vaginal mucus, muco-pus of gonorrhœa, of balanitis, and of vaginitis, saliva, fecal matter, perspiration, semen.

In all these mixtures, the virulent pus of chancre experienced no modification, which could change its nature or decompose it; but it must be observed, that to secure its action, the pus must not be too much diluted, for if mixed in too small a quantity, it cannot communicate its contagious property to all the liquid which serves as a vehicle for it.

Whenever I have inoculated the virulent pus of a chancre, mixed with a caustic alkali, or a weak acid, the results of the inoculation have been negative, the chemical substances decomposing it, not because they have peculiar specific virtues, as some have thought, but on account of their property of destroying matter or organic products without distinction; thus sulphuric, nitric, hydrochloric, and acetic acid, and the pure chlorides, mixed with virulent pus, have constantly prevented it from acting by inoculation and whilst the pure pus inoculated in the same subject

produced a pustule, the pus altered by one of the above-named substances always remained without effect, when placed side by side with the former and in the same condition, except the neutralizing agent; the same was the case with the caustic alkalis, potass, soda, volatile alkali, wine, and alcohol; a concentrated decoction of oak bark produced the same results.

But if these substances, from the consequences they produced after inoculation, have been considered as prophylactics, it must be remembered that the results only followed when the mixture was made before or at the time of the inoculation; for as soon as the virulent virus has been implanted in the tissues, if we may be allowed the expression, and these are infected, even on the first day, unless the parts are destroyed by cauterization to a greater depth than those which have been contaminated, the neutralization does not take place, and the chancre is developed. From very exact experiments with inoculation, we find that the efficacy of any of the above-mentioned prophylactics cannot be depended upon except to destroy the virulent pus, soon after it has been placed on an entire surface, or momentarily to destroy a virulent secretion in an individual who might otherwise communicate disease.

Some persons have thought to prove the specific action of mercurials, by advancing, that, mixed with virulent pus, they destroy its contagious property;* now they only act in two ways, either as caustics or *coagulants*, as corrosive sublimate does, either in powder or in solution, and this is here only a chemical action; or as when mixed with fatty substances, which then only oppose themselves mechanically to the application of the virus, and even this does not always take place.

A fact, perhaps not without interest, will now be noticed. M. Malapert, in his *Théorie du traitement du bubon par le vésicatoire*

* Petit Radel, in his *Traité des maladies syphilitiques*, says, p. 17: "The nature of the syphilitic deleterious principle, so well known by its effects on our system, is far from being well understood. Always united with a mucous or purulent matter, which serves it as matter, all experiments which may be made upon it are ineffectual. Experiments, however, have nevertheless served to establish this; viz., that the deleterious principle, if triturated with an oxyde of mercury, or any mercurial salt, loses its infecting property, although this is preserved, after a long contact with the most powerful caustics." This assertion is absolutely false.

et la solution de sublimé corrosif, says, "that the mercurial preparation used as a caustic had also another beneficial action, in neutralizing the virus on the spot, and thus transforming a virulent into a simple or benignant bubo." Experience shows, however, that buboes which were treated in this manner, and according to the indications the author has himself given, and many of which had suppurated, have furnished an inoculable virulent pus, like that of the chancre which preceded them, and similar to the pus of virulent buboes, which were not treated in this manner. Mixed with fatty substances, the virulent pus undergoes no change and remains inoculable.

Inoculation cannot be very useful in ascertaining the curative or anti-syphilitic effects of therapeutical agents. We might certainly, if we wished, determine, during a general or local treatment, the moment when a primary ulcer ceases to furnish a contagious pus, and tends towards healing; but the transition from the ulcerative period, to that of reparation or cicatrization, could not, in all cases, prove the neutralization of the virus by the effect of the medication actually employed, as this result may, in some cases, be spontaneous.

§ 2. Inoculation has, however, been seriously employed as a therapeutical agent, with the view of modifying an obstinate or reputed incurable affection of old standing.

I will here quote the observations of Percy, who seems to have been the first who attempted syphilitic inoculation as a therapeutical agent, but who is not, as Deguerre thinks, the first that tried the inoculation with another view.*

The following is what has been quoted from Percy by Petit Radel, Deguerre, and others:

"A drummer of the regiment de Rouergue had in vain tried all remedies at Landau and Besançon for a syphilitic complaint, whose symptoms were a bubo in the right groin, a deep chancre at the base of the glans, near the frenum, pains in his limbs, and a sort of universal icterus. The desire of being cured rendered this man very docile and strict, during two courses of medicine, one of which was unsuccessful, while the other cicatrized the chancre, without affecting the jaundice or bubo, for which the patient used mercu-

* Deguerre, *Essais sur l'inoculation du virus syphilitique*. Paris, 1804.

rial pills and emollient plasters, till his patience exhausted. He contracted a second syphilitic affection, which a fortnight after exposure declared itself by a multitude of warts on the penis, a chancre on the prepuce, and the renewal of the old one; this bubo swelled, and the pains were increased in all his limbs; the jaundice alone appeared not to feel the effects of it. In this state he returned to the hospital of St. Louis, at Besançon, where he received twenty frictions, which dispersed his former and latter symptoms at the same time, and restored him his health, which he has ever since maintained.

“ In 1777, an employé aux fermes du roi underwent a treatment for a chancre of the velum palatinum, two others on the penis, and a number of excrescences at the anus. After a preliminary treatment, he received eighteen frictions of two drachms each; he was salivated at the fifth; but the salivation having suspended the frictions but for a short time, the above number was completed in about six weeks. He discontinued the treatment, deriving from them no benefit, except the cicatrization of the two chancres of the penis; that of the throat still existed, and the excrescences, which had been cut and cauterized, soon reappeared; besides this, he had a kind of aphonia, attended with a constant buzzing in the ears. One of his relations placed him under the hands of an old surgeon-major of artillery, who subjected him to a new treatment, which was as ineffectual as the first. This surgeon cut away the excrescences, which soon returned again; the throat remained the same; the buzzing in the ears and loss of voice persisted. This patient was not cured, even after six months treatment. Then ennui and the solicitations of his friends having again brought him amongst debauched women, he evidently got a new infection, which, in less than eight days, reopened the old chancres, produced a third, as well as a bubo in the right groin, and ulcerated the fauces very extensively. The cure of this recent disease was confided to M. Percy, sen.; the patient, after being properly prepared, received sixteen frictions; there was no appearance of salivation; the bubo dispersed itself; the excrescences fell off of themselves; the patient regained his health, which has hitherto remained good.

“ M. Percy, returning home to spend the winter of 1778, found at his house a soldier of the artillery of Grenoble, who, having formerly been his servant, had come there with the consent of M. Percy, sen., to be cured of a disease which he said he had taken in Strasburg. This disease consisted in a dreadful syphilitic affection; the symptoms of which were a chancre, which had destroyed the left tonsil; another chancre occupied two thirds of the corona glandis, a cutaneous affection of the perinæum, scrotum, and upper part of the left thigh, a lead-colored tint and violet pimples upon the forehead. He had already twice undergone a course of medicine and taken an immense number of drugs for this complaint. After some preliminary preparation, and having in vain tried the *tisane de Felz*, M. Percy inoculated the venereal virus upon this patient, in the presence of many medical men; after diluting the chancrous pus with a little saliva upon a glass plate, he loaded with it the point of a lancet, which he carried horizontally on the part of the right arm at the insertion of the deltoid muscle; he there made, between the epidermis and corpus reticulare, a puncture without blood being drawn; then, having recharged the same instrument, he made a second, and then a third: he made an equal number on the left arm in the same part and in like manner; he applied no bandage to these punctures; the patient was put upon vegetable diet and ordered copious draughts of a sudorific tisane. Five days passed, and nothing appeared; on the sixth, about noon, the patient felt a sharp pain in the left arm; at two o'clock, he felt the same in the right arm; the puncture became gaping; in the evening, a red zone surrounded each arm; the patient had then some slight horripilations; during the night, he had headache, and an alternation of heat and cold. The next day, the seventh day from the inoculation, the punctures were inflamed and painful, the arms swollen in almost their whole extent; some axillary glands swelled; the throat was burning, the patient feverish all the day, and in the evening about nine o'clock he complained that his cutaneous affection caused him much pain. The eighth day from the inoculation, the throat was in the same state as the preceding day; the puncture formed but one suppurating wound; the cutaneous affection and the chancres had increased but little. The ninth and tenth, things seemed to be in the same state; the

eleventh, the left groin swelled, several glands presented signs resembling a bubo; but there was not one. The fourteenth, the wound on the right arm was perfectly cicatrized, that on the left had become enlarged; the throat was better; the pains caused by the cutaneous affection and chancre had subsided. On the eighteenth, nearly all the symptoms had disappeared; the patient was brought back to his former state, except that the chancres of the tonsil and the corona glandis were more extended; and a deep ulcer remained on his left arm. At this period, M. Percy, being obliged to rejoin his regiment, left the care of the treatment to his father, who began the preparations a month and a half after the inoculation; he gave him sixteen frictions. This treatment was perfectly successful."

Admitting that M. Percy had reason to be satisfied with his experiments, and that patients, under treatment for some recent affection, sometimes recover from obstinate symptoms of longer standing, these results are not sufficiently regular and certain to authorize a similar practice. Nothing can be more proper than to take advantage of a new disease, which the patient has himself contracted, to free him from another which he had before; but to advise him to submit to a new infection, whose results cannot be exactly foreseen, at least in the present state of science, cannot be regarded as a rational method.

Inoculation of a new blenorrhœa has been advised, and is still perpetrated by many practitioners, either to cure a chronic discharge, or to combat by revulsion, symptoms which blenorrhœa may produce, such as epididymitis, ophthalmia, arthritis, &c.

Some in this case advise another impure coition; others, as Hirschfeld, Berton, Swédiaur, Tarbes, Toulouse, Perrolle, and Larrey, make a kind of inoculation with the muco-pus of blenorrhœa, carried on a probe into the urethra, or applied to the mucous membrane it is wished to infect, by means of a bit of lint, which is impregnated with it. The matter of blenorrhœa can never be inoculated with a lancet, like chancre, either, as we have said, so as to produce an ulcer, or even cause a discharge; so that if it be certain that the muco-pus of blenorrhœa is contagious, and may be considered as the most effectual agent of a disease similar to that which produces it, most frequently the result obtained is owing to

the mechanical action alone of the instruments employed, as Bromfield and the late Cullerier insisted.

However, were I not convinced that the cases in which it is useful to recall an old discharge, or develop a new one, are as rare as some persons think them frequent, and that they have either aggravated the disease they wished to combat, or given it a new complication, I would not apply the muco-pus of a blenorrhœa of one individual to another, before having ascertained upon the one from whom it is to be taken, that it produces nothing when inoculated with the lancet; otherwise, without this precaution, a patient, with *blenorrhœal symptoms*, might, being affected with concealed chancres, (chancres larvés,) communicate to an individual, who till then had only a simple catarrhal affection, all the formidable consequences of syphilis.

§ 3. Inoculation has not only been tried to cure venereal and syphilitic diseases, either as a prophylactic, or in the curative treatment of primary or secondary symptoms, but has been by some applied to the treatment of other diseases, which, although often incurable when uncomplicated, seemed, when combined with syphilis, to yield to a treatment reputed to be specific for the latter.

Indeed, what practitioner, in a mass of cases of obscure ætiology and insidious progress, and which have resisted the ordinary therapeutical agents, has not diligently sought in these cases to find some syphilitic element, and thus obtain a pretext for a specific medication, which is so frequently crowned with success? But if these cases are so frequent and of daily occurrence, are there not some circumstances in which diseases, quite independent of syphilis, and which had yielded to no treatment, have yet, after a syphilitic infection, undergone a modification, by which they became accessible to the anti-syphilitics, and have been cured and disappeared with the venereal symptoms which had supervened? I have frequently shown at my clinic, severe cutaneous affections of an old standing, and till then incurable, which have had, under these circumstances, these happy results.

After similar observations, Dr. Martini, of Vienna, had commenced some very interesting researches on this head, when a serious illness interrupted his labors.

If the medical use of the venereal virus might, like so many other

poisons from which benefit is derived, be allowed in therapeutics, it could only be with extreme caution, and after accurate observations; for it must not be forgotten, that the consequences of a syphilitic affection cannot be foreseen, and that generally syphilis is serious, in proportion to the antecedent or concomitant disease with which the patient, who contracts it, may have been affected.

§ 4. But can the artificial inoculation of venereal diseases be of service in determining the choice of the method of treatment?

If it were proved that every syphilitic affection, inoculable chancre, or truly primary syphilis, could be cured only by mercury, and that it was hurtful in contrary cases, as Hunter and his followers have thought; or if every inoculable chancre were followed by secondary syphilis, and mercury or any other medicine possessed prophylactic properties against general infection, inoculation would be of great service. But, as daily observation shows, the primary symptoms often heal of themselves, with proper attention to cleanliness, or with different kinds of local applications, without all being supposed to possess specific virtues.

It is however proved, that all primary symptoms, (chancres,) capable of being inoculated, do not produce general infection; and that in cases where secondary symptoms would appear, the mercurial treatment, for instance, employed during the existence of primary symptoms, is so far from preventing them in all cases, and invariably, that some superficial observers of the physiological school assert, that the pretended secondary symptoms of syphilis resulted entirely from the use of mercurials; although these, if continued or employed after their use has been suspended, are the best remedy for the symptoms, which were ascribed to their use; that in these cases where their development was not prevented, it was because these remedies were not properly employed; and that most of the characteristic secondary symptoms of syphilis appeared under favorable circumstances, far more frequently in patients whose primary symptoms have not been treated with mercury.

To sum up, for those physicians who are convinced that syphilis cannot be radically cured, unless the primary symptoms have been treated with mercury; and those who, on the other hand, without entering into all the exaggerations of the antagonists of mercury, yet are convinced that this medicament ought not to be uselessly

employed, inoculation is incontestably the only unexceptionable touchstone, whenever it may not be too late to employ it. If one day the definite value of mercury should be better understood, or if an absolute specific for syphilis should be discovered, its value must be proved, or its employment indicated, by inoculation.

If, at the present time, inoculation does not settle the indications of treatment, with those persons who are wavering in their treatment, it is of great value as regards the prognosis of the future chances of the patient, for *every individual who has had inoculable symptoms remains positively susceptible of general infection, and liable afterwards to symptoms of constitutional syphilis.*

CHAPTER V.

INOCULATION MAY BE APPLIED TO SANATORY REGULATIONS AND FORENSIC MEDICINE.

WHEN Celsus treats of the diseases of the sexual organs, before entering upon the subject, he apologizes for the indecency of his subject, as if a medical man could be reproached for soothing suffering humanity! As well might it have been said to Mascagni, that there were indecent things in anatomy. When treating of inoculation, in a sanatory point of view, I ought not to fear that I should, in my turn, be accused of immorality.

Whoever sees men as they are, in the office of the practitioner, and without that disguise of morality which society requires, must admit that there are circumstances in which sexual intercourse becomes indispensable, under pain of the most serious moral and social consequences in case of denial. Undoubtedly, whenever a patient consults us, having suspicious symptoms, contracted in circumstances in which syphilitic symptoms are generally contracted, he must abstain, and far from (as the authors of the Dictionary, in 15 volumes, have published) giving clean bills of health to our patients, upon ill-founded convictions, we should take care not to affirm that such and such symptom, which has been found contagious, is quite innocent, as they have done for bubo; but we deliver this clean bill of health, in *serious and urgent circumstances*, to every individual with an ulceration the pus of which cannot be inoculated, and who is not actually under the influence of an abundant secretion, which can, as a cause of irritation, produce an inflammation of the healthy tissues, with which it may come in contact.

Now, if we pass to the cases in legal medicine, which refer to the venereal diseases, we shall be startled at the difficulty of the questions which too often present themselves, and the careless manner in which they have been decided by professional men.

In questions of rape, for instance, the consequences of syphilitic

infection are often brought forward as a proof. Almost every practitioner in the present state of science, on seeing a man affected with gonorrhœa, accused of having violated a woman actually infected with chancre, would have regarded this pretended coincidence as a proof of great value? But when it is incontestably shown, that chancre alone can produce chancre, if the blenorrhœal muco-pus of the individual, who is supposed to be guilty, produces nothing upon inoculation, after having been properly tried, will it not be evident, in a case of recent infection, that he cannot be convicted? And again, would it not be proved, by the same way, viz., by experiment, that individuals accused of having communicated syphilis, which must aggravate the position of all persons thus accused, have only caused by mechanical violence, or by the action of some morbid or normal secretion, simple inflammations? Should we not then, by the certainty of the diagnosis, frequently be able to remove grievous imputations, or discover the truly guilty, under circumstances in which, without this means, the conscientious physician would have remained in doubt, which, although prudent, is not expected in a man of science?

Such results, whose whole force cannot yet be seen, would alone suffice to justify my numerous researches, had they not already served greatly to elucidate questions which had hitherto remained insoluble, and to overthrow a host of prejudices, sanctioned by time and powerful authorities.

PART THE SECOND.

CLINICAL AND EXPERIMENTAL RESEARCHES.

CHAPTER I.

PRACTICAL OBSERVATIONS.

SECTION I.

INOCULATION OF THE PUS OF CHANCRE, SIMPLE AND COMPLICATED IN ITS VARIOUS FORMS AND PERIODS.

CASE I. *Regular chancre, with symptomatic bubo, and suppurated lymphatic, inoculation producing the characteristic pustule in every case.* Maison —, aged 31, entered August 2, 1836. The date of the appearance of the chancre on the edge of the prepuce could not be accurately determined; but twenty days previous, a bubo had appeared on the right side, and at the same time the course of a lymphatic vessel on the dorsum penis, running towards the tumor of the groin, was marked by redness and a hardened point about the middle of the dorsal surface of the organ. Ten days since, having uncovered the glans, the patient not being able to replace the prepuce, a paraphimosis was the result.

We found the chancre of the frenum still in the period of increase, as well as that on the edge of the prepuce, which had extended itself, inoculating the division of the skin, caused by pressure of the band of the paraphimosis: the reversed mucous membrane of the prepuce formed a hard sac, upon which were some ulcerated points. The little lymphatic tumor had suppurated and opened spontaneously the previous day; the bubo had suppurated at the summit. Aug. 3d. The pus taken from the band of the paraphimosis, was inoculated with a single puncture on the right thigh. The ulceration having destroyed the band of the paraphimosis, some lint merely was applied, dipped in aromatic wine;* the same dressing was used for the chancre of the frenum, and cauterization with argent. nitr. The 6th. The inoculation of the 3d had produced the characteristic pustule. The 8th. The pustule was cauterized; and the pus of the ulcer resulting from the spontaneous opening of the lymphitis on the dorsum penis was

* See Formulary.

inoculated; the bubo was opened and furnished much pus. The 9th. The pus of the bubo was inoculated on the left thigh. The 12th. The inoculations made on the 8th and 9th had succeeded and produced a fine pustule; the first pustule from the inoculation, which was cauterized and dressed with aromatic wine, was almost well. The bubo was indurated at its base, it was dressed with ung. mercur. and cataplasms.

Aug. 29th. The chancre of the frenum was healed, that of the prepuce was cicatrizing; the surface of the bubo presented some fleshy granulations; the engorgement of the base had decreased. On the left thigh, the pustules resisted the cauterization: they were dressed with the aromatic wine. Sept. 10th. The chancre on the prepuce was almost healed. The same dressing of aromatic wine was used, with an addition of tannin. 20th. The chancre of the frenum was cicatrized; the inoculations on the thigh were in a fair way to heal.

30th. The thigh was healed, and the bubo covered with fleshy granulations; it was slightly cauterized to make it cicatrize. Oct. 3d. All being well, the patient was dismissed.

CASE II. *Primary chancre and blenorrhœa; inoculation successful in the first case, unsuccessful in the second.* Jean Bart —, aged 17, received May 23, 1836. Five weeks previous, the patient having torn the frenum during coition, the wound became chancrous; two days later, a blenorrhœa appeared; it seemed, however, that here were two infections, for the patient had connexion with a woman eight days previous to the appearance of the blenorrhœa. He had been treated for these two affections by an apothecary.

May 29th. The pus of the blenorrhœa was inoculated on the left thigh, and the pus of the chancre on the right; injections of nitrate of silver and four drachms of cubebæ per diem were ordered for the blenorrhœa; the chancre was dressed with aromatic wine, and cauterized with nitrate of silver. June 1st. The puncture made with the pus of the chancre had produced the characteristic pustule; the pus of the blenorrhœa had produced nothing; ordered emulsion of copaiva. 10th. The gonorrhœa was cured, the chancre of the penis had disappeared, and the pustule from the inoculation was destroyed by the caustic. 17th. The patient was dismissed cured.

CASE III. *Chancre and blenorrhœa; the inoculation of the chancre successful, that of blenorrhœa unsuccessful.* Cour— Claude, aged 26, entered June 19, 1835. In this patient the blenorrhœa appeared three days after a suspicious connexion; two days later, chancres were seen at the base of the glans. The blenorrhœa was very painful, and the discharge very copious at the commencement. Now, the matter flowing from the urethra was still bloody; but the patient did not suffer in urinating; the chancres were still at the period of ulceration; the chancrous pus was inoculated on the right thigh, and that of the gonorrhœa on the left.

June 2d. The puncture on the right thigh had produced the characteristic pustule, that on the left was cicatrized. These results were shown in the clinic held in the amphitheatre of the Ecole de Médecine, and then cauterized with nitrate of silver; the blenorrhœa was treated with injections of acetate of lead and copaiva; the chancres by cauterization and aromatic wine. The patient was dismissed cured, July 13th.

CASE IV. *Chancre, inoculation of a wound of the finger, axillary bubo, engorgement of the plica brachii; inoculation successful.* Gou—, aged 34, entered August 12, 1836. This patient had contracted chancres on the glans about four weeks ago. About a fortnight since, the forefinger of the right hand was torn in three or four places by accidentally being under a cask of wine. During the first days, the wound presented a good appearance; but the patient, who used the wounded hand to apply the dressings to the chancres of the penis, soon found his finger ulcerate, the wound became dark and grayish, and lymphatic engorgements develop themselves in the axilla and plica brachii.

We found the chancres of the penis almost healed; the lymphatic engorgements hard and of considerable volume, but not painful when touched; the pus from the surface of the wound of the finger was inoculated; the chancres were dressed with aromatic wine, and cauterized with nitrate of silver.

August 21st. The puncture with the pus of the finger had produced the characteristic pustule; the bubo did not seem to progress towards supuration; they were dressed with ung. hydrarg. and cataplasms. Sept. 6th. All was healed except the ulceration on the thigh, which had been allowed to take its course, but it was in a fair way towards reparation. Sept. 10th. The patient was dismissed cured.

CASE V. *Encysted chancre, commencing with an abscess of the scrotum; inoculation successful.* Boucl—, aged 60, received April 25, 1835. A few days after an impure connexion, the patient perceived two chancres on the skin of the penis. Now the surface of the chancres presents some points of healing, each of them being about the size of a shilling; near the middle of the scrotum, about an inch from the penis, there were two hard kernels in the substance of the skin, with induration of the surrounding parts; the larger appeared suppurated in its centre; it was opened, and the thin, bloody pus inoculated on the right thigh; the ulcers were dressed with cerate of calomel and opium. The 27th. The puncture made with the pus of the encysted chancre of the scrotum had produced the characteristic pustule; it was allowed to develop itself. The second chancre was opened; the ulcers were cauterized, and dressed with the cerate of calomel and opium.

June 2d. The chancre on the thigh was dressed with aromatic wine; those on the penis were healed, and those on the scrotum were granulat-

ing; and the patient was dismissed cured on the 20th. These chancres, which commence by an abscess, whose parietes become indurated, so as to form an actual cone before they are opened, in all respects deserve the expressive name of encysted chancres.

CASE VI. *Chancres and acute blenorrhœa, contracted in a single coition inoculation successful with the pus of the chancre, and unsuccessful with that of the blenorrhœa.* Cor— Edward, aged 21, entered June 20, 1835. His disease commenced six weeks previous. The day after the connexion, chancres appeared on the frenum and prepuce; two days later, an acute blenorrhœa showed itself, and occasioned much pain. The chancres had been treated with precipitate and dressings of ung. mer.; further, he had been cauterized with arg. nitr., and had taken 60 mercurial pills, from another hospital. The chancres were still on the period of increase, the blenorrhœa afforded a greenish and bloody matter; the chancre was inoculated with two punctures on the right thigh, and the blenorrhœal pus on the left; the chancres were cauterized with arg. nitr., and dressed with vin. arom. and an injection of acet. plumb. was ordered. June 24th. The two punctures made with the pus of the chancre had produced the characteristic pustule; the upper was cauterized, and the other allowed to develop itself; the punctures made with the pus of the blenorrhœa had produced nothing; the same treatment was continued; the blenorrhœal pus was again inoculated. 28th. The inoculation of the blenorrhœal pus, made on the 24th, had produced nothing; the chancres were in the stage of reparation; the gonorrhœa discharged a little whitish matter; the inoculated pustule, which had been allowed to remain, had produced a chancre on the thigh; it was cauterized and dressed with vin. arom. July 14th. The blenorrhœa had disappeared under the treatment with injections and copaiva with magnesia in the form of bolus; the chancres were cicatrized; and on the 18th, the patient was dismissed cured.

CASE VII. *Superficial and follicular chancres, producing the characteristic pustule by inoculation.* Bour—, aged 20, entered August 25, 1836. The commencement of the disease dated from about twenty-four days since: after a difficult sexual connexion, erosions formed upon the glans, whose base was surrounded by a crown of small round ulcers, occupying the depth of the follicles; the edge of the prepuce presented superficial ulcerations, which are called superficial chancres. He has hitherto had no treatment.

In consequence of the irritation, there was a phimosis, which allowed the diseased organ to be partly uncovered; there was no discharge from the urethra; there were small ulcers in the period of progress upon all the surface which could be perceived; the suppuration was copious. Inoculation was practised with the pus from a superficial ulcer, which had scarce destroyed the thickness of the mucous membrane of the glans

On the left thigh, the pus from a follicular chancre, whose orifice was scarcely as large as a pin's head, was inoculated. There was no lymphitis; but there was an engorged ganglion on the left side, which was moveable and indolent.

This patient had never received any medical advice; he was treated after M. Serres' plan, with iodide of silver, a twelfth of a grain daily; an emulsion of gum arabic as diet drink. The chancres were washed and dressed with a decoction of mallows.

Sept. 1st. The inoculations having produced the characteristic pustule on both thighs, they were cauterized with nitrate of silver. 7th. The pustule on the left thigh had disappeared, after being cauterized; that on the right was still red; it was dressed with aromatic wine, and the fleshy granulations were cauterized; six doses of a twelfth of a grain of iodide of silver were given, but without any therapeutical action. Till the 1st of October, the dose of the iodide was gradually increased, but the patient felt no effect; the disease was neither better nor worse than if left entirely to itself. The dose was now four grains of the iodide of silver per diem.

It was determined to suspend a medicine which produced no result, the ulcerated surface was cauterized, and then lint dipped in aromatic wine was applied. The 4th. The superficial ulcers of the glans were almost dry, the base of the ulcerated follicles was raised and projected like granulations at their commencement; they were cauterized and dressed with the wine. The 6th. All was nearly well, only one or two points remaining uncatrized on the margin of the prepuce; and the patient was dismissed cured on the 10th.

CASE VIII. *Regular chancre; inoculation successful.* Jos—Emilie, aged 24, entered May 27th, 1834. The disease apparently commenced about eight days previous. On the internal surface of the external labia and the entrance of the vulva, some little pimples appeared four days after a suspicious connexion, and soon, as by regular inoculation, chancres formed; there was neither pain in urinating nor vaginal discharge. The ulcerations were in the period of increase.

On the 28th, pus taken from the surface of a chancre of the external labia, was inoculated on the right thigh, and that taken from the vulva on the left. It was observed that the induration on the external labia gradually extended, and caused acute pains; emollient dressings were ordered.

On the 29th, the inoculated points were red and vesicular, and on the following day the vesicle was well formed on both thighs. June 1st. The inoculated pustule was full of pus, flat and broad. The 6th. The inoculated points were cauterized with nitrate of silver. The ulcerations of the vulva remained in the stage of increase and were very painful; they were touched with a brush dipped in creosote. Half an hour after the application, the patient had acute darting pains; but by the following day they had nearly subsided. The 18th. The ulcerations were touched each day

with creosote; they appeared arrived at the period of reparation; but their base was indurated all around, as well as the tissue of the labia. The 22d. Pills of hydrarg. iodid. were ordered as a resolute. There only remained brownish spots instead of the chancre from inoculation. At the anus there was some degree of irritation, and a rhagas; it was dressed with lint dipped in liq. sodæ chlorid., and sprinkled with calomel. July 10th. All the ulcerations had disappeared, the still existing induration was much diminished, and on the 22d, the patient was dismissed quite cured.

CASE IX. *Chancre of the cervix uteri, vaginal blenorrhœa; inoculation successful.*

Haul— Catherine, aged 23, entered April 8, 1834. This patient had been cured of one infection seven months since, and having again exposed herself, contracted chancre and a blenorrhœa, of a person affected with only a chancre. She had received no treatment. It ought to be remarked, that this patient had long been affected with a chronic discharge, which gave a blenorrhœa to each of her new lovers; then, if after being cured they continued their relations with her, by a sort of acclimation, they resisted the contagion.

On entering the hospital, she had a chancre on the left labium, and another on the corresponding nympha. When examined with the speculum vaginæ, we found puriform vaginal secretion, uterine catarrh, ulceration of the anterior lip of the cervix, with a grayish base, irregular and raised edges.

Till the 10th, emollient injections were made, and the chancre was dressed with opium cerate. The 18th. The acute stage had disappeared, the matter of the discharge was whitish and less abundant; the appearance of the ulceration of the cervix was the same; some pus taken from its surface was inoculated on the right thigh, and then some muco-pus was collected at the base of the cervix, in the peri-uterine *cul-de-sac*, and by means of a puncture inoculated on the left thigh. The different ulcerated points were cauterized with nitrate of silver. The 19th. The inoculated points were red and elevated. The 20th. The vesicle was well formed, ooth on the right and left thigh, and the pustule on the 22d was well filled with pus.

May 1st. The inoculations having been allowed to take their course, had produced well characterized chancres, with abrupt edges and a grayish base. They were cauterized and dressed with ung. calom. c. opii. The chancre on the nympha had disappeared, under the influence of the cauterization; that of the labium was healing. Injection and tamponing with decoct. alb. *eau blanche** were ordered. The ulceration of the cervix, having been cauterized six times, was much diminished; the portion

* See Note to Formulary, at the end of the work.

which remained, presented a granulated surface, which was inclined to cicatrize. The 10th. The chancre of the anterior labium had healed. The spots inoculated presented granulations; the base of the ulcers had become indurated. The 20th. The induration around the different chancres had increased. The wound of the cervix was healed; the blenorrhœa had disappeared. Pills of hydrarg. iodid. were ordered, and sudorific sirup and tisane, to overcome the induration. The 30th. There had been rapid amelioration. The inoculated points were healed, and the induration had almost disappeared.

June 7th. All was well; on the thigh only some brown spots remained. The patient, who had been affected with symptoms of pulmonary catarrh, is now very well.

CASE X. *Chancre and symptomatic bubo inoculated successfully.*

Bou—, aged 21, entered March 7, 1833. The complaint was of five months standing; at that time a chancre had appeared upon the skin of the prepuce; a few days afterward a bubo was seen on the right side; the progress of the ulcer, which had at first been regular, assumed the phagedænic character; a large portion of the prepuce was destroyed, and a third of the thickness of the glans itself eaten away; the bubo quickly suppurated, and opened spontaneously. A course of bichloride of mercury was administered, in the form of pills; the patient was salivated, and the gargles were employed. On the above-named day, the patient presented himself with a widely ulcerated bubo, the surface of which was two inches and a half in diameter.

The glans was almost detached, and the corpora cavernosa presented a loss of substance down to the urethra; there was also much general irritation. The characteristic signs of the period of increase were everywhere visible. Dressings with a concentrated decoction of opium were applied, and general anti-phlogistics prescribed. By the 18th, the inflammatory state seemed to have yielded to the treatment; dressings of calomel cerate were then applied. On the 21st, the chancre of the groin was better; its ground was becoming clean; some healthy granulations appeared on the penis.

April 1st. The chancre of the glans was cauterized with nitrate of silver, and the dressings with calomel cerate were continued. 10th. The circumference of the ulcer of the groin was diminished; yet in the centre, the characters of the ulcerative period were perceived. 21st. Some pus from the centre of the wound in the groin was inoculated on the left thigh. 24th. The inoculation had succeeded, and the pustule was formed. Some spots of the commencement of an irruption being perceived upon the skin, the pills of hydrarg. iodid. were prescribed, with sudorific sirup and tisane.

May 7th. The bubo was cicatrizing; but the chancre on the penis remained in the stage of ulceration. It was cauterized with arg. nitr. 20th. The chancre of the groin was cicatrized, without leaving any marked induration. The inoculated chancre on the left thigh was at the period of

reparation. A lenticular syphilide appeared, but developed itself but little; and on the 30th, presented only a few brown spots.

June 20th. The syphilitic eruption had quite disappeared.

Notwithstanding the different dressings employed, such as the mel. iodat., cerat. plumb., wine, cerat. belladon., decoct. opii concentr., solution of sublimate, cauterization with arg. nitr. and hydrarg. nitr., applied alternately, according to the more or less inflammatory state of the parts, the ulcer of the penis remained at the period of increase; all the superior portion of the prepuce had been destroyed, and the glans eaten away four lines beyond the meatus urinarius; the canal appeared as if dissected circularly.

July 10th. The progress of the ulceration appeared much slower; it was cauterized and dressed with calomel and opium cerate. 20th. More defined: the anterior half of the chancre began to cicatrize. 30th. At the inferior part toward the frenum, the remaining portion of the prepuce was covered with granulations; but on the superior, the chancre continued to destroy the corpora cavernosa. Aug. 20th. The cicatrization had retrograded. The 30th. Pus was taken from the surface of the corpora cavernosa, and inoculated an inch below the cicatrix of the first inoculation. Sept. 4th. The pustule from inoculation was formed. The ulcer was dressed with the calomel and opium cerate, and cauterized. 20th. The characters of the period of reparation showed themselves in several points of the surface of the chancre. The chancre of the thigh, resulting from the inoculation on the 30th of August, was dressed with cerat. opiat.

Oct. 1st. The chancre was reduced two thirds; pus was taken from its centre, and inoculated by two punctures on the right thigh. The 6th. The inoculation had produced nothing. 20th. The ulceration had seized upon an indurated band, near the frenum. It resembled an interstitial gangrene. Nov. 1st. The ulcer, which had for some days seemed stationary, appeared better. 27th. All is nearly well; on the corpora cavernosa, there was a cicatrix more than an inch in extent. The wound of the left thigh, from the last inoculation but one, was nearly cicatrized. At length, Dec. 21st, the patient was dismissed.

It is worthy of remark, that during all the time of the treatment, the general health remained pretty good; only twice, toward the latter part of the time, at an interval of two months and a half, there was a slight diarrhœa, which soon yielded to a mixture of rice water, and gum arabic sweetened with sirup. symp. The patient was of a sanguine and irritable temperament; during all the time of his being in the hospital, he appeared very melancholy; being continually hungry, he often procured food for himself besides his regular rations.

CASE XI. *Phagedænic chancre, partly gangrenous; inoculation successful from the ulcer in a progressive stage, but unsuccessful from the pus of the gangrenous part.*

Pers—, aged 40, entered April 13, 1834. The disease commenced two months and a half previous; in consequence of an erosion of the prepuce during coition, a chancre appeared: its course was at first regular, but, after repeated excesses, and an attempt at cauterization with a lighted cigar, the ulcer assumed an acute inflammatory and phagedænic form.

Now nearly the whole surface of the prepuce was affected, but two portions appeared distinctly separated; all the parts touching the sack at the base of the glans presented a gangrenous ring; the remainder presented the characters of a phagedænic chancre, properly so called; all was in the progressive stage.

The 14th. Some pus, taken from the ring at the base of the prepuce, was inoculated on the right thigh; an application of a concentrated decoction of opium was ordered. The 18th. The inoculated puncture had produced nothing; the gangrene seemed checked. Some pus was taken from the surface of the prepuce, toward the margin, beyond the limits of the gangrene, and inoculated on the left thigh. Dressings of calomel cerate were ordered, and the ulceration, from the destruction by the gangrene of a part of the glans, and that produced on the frenum by the phagedænic chancre, was cauterized with arg. nitr. The 21st. The inoculated puncture had produced the characteristic pustule. The 26th. The progress of the inoculation, hitherto regular, appeared to assume the phagedænic form; it was deep-seated, and rapidly destroyed the tissues. Dressings of calomel and opium ointment were used, and cauterization with arg. nitr. The 30th. There was an improvement, the liquid chloride of soda was used as a wash, and calomel was sprinkled upon the part. May 9th. The penis was nearly well; the inoculated chancre was in a fair way of reparation.

CASE XII. *Chancre and blenorrhœa; inoculation successful in the first case, and unsuccessful in the second.*

Cha—, aged 20, entered August 9, 1836: This patient, affected with blenorrhœa, which at the commencement was very painful, and with chancres at the lower part of the base of the glans, entered five weeks after the commencement of the disease. He had already undergone several treatments, but only with antiphlogistics. At the time of his entry, there was a very considerable blenorrhœal discharge, and a balanitis; the chancres of the corona glandis presented several points in a state of reparation.

The pus of the blenorrhœa was inoculated on the right thigh, and the pus taken from a point on the base of the glans, still presenting the characters of the period of ulceration, on the left thigh.

August 14th. The inoculation of the pus of the chancre, on the left thigh, had produced the characteristic pustule; the puncture made with the pus of the blenorrhœa had produced nothing. Emulsion of copaiva, and injections of nitrate of silver, were prescribed, and the chancres

ordered to be dressed with vin. arom. The patient was dismissed cured, Sept. 7th.

CASE XIII. *Chancre and blenorrhœa ; the pus of the inoculated chancre successful ; the pus of the blenorrhœa unsuccessful.*

Depl—, aged 22, entered April 29, 1836. After a balanitis, for which the patient received no treatment, some vegetations developed themselves on the glans; they were cut, and three days afterwards, after a coition, chancres appeared on the spots where the vegetations had been. At the same time a blenorrhœa, which occasioned acute pain, developed itself.

May 1st. The pus of the ulceration of the glans was inoculated on the right thigh, and the pus of the blenorrhœa on the left.

The 4th. The puncture on the right thigh was red and slightly vesicular; that on the left was entirely cicatrized. Dressings with aromatic wine were used, and the chancres were cauterized. For the blenorrhœa, which no longer caused the patient any pain, an injection of nitrate of silver and an emulsion of copaiva were ordered.

The inoculated pustule was cauterized with nitrate of silver on the 6th, and the patient was dismissed cured on the 16th of May.

CASE XIV. *Chancre of the prepuce, with concealed chancre, (larvê,) and abscess of the canal ; inoculation successful in all cases.*

Bel—, aged 19, entered July 18, 1836. This patient, who had been affected for four years with a blenorrhœa, which he several times renewed, and brought back to the acute stage, by impure connexion, had contracted several chancres on the prepuce, three weeks since. The blenorrhœa, which only furnished a serous pus, had increased and occasioned acute pains. At the time of his entering, the canal presented several indurated points in its extent, principally toward the fossa navicularis. The chancres of the prepuce were in the stage of increase.

July 20th. The pus of the blenorrhœa was inoculated on the right thigh. 22d. The puncture was red, but its progress was slow. 23d. The pus of the blenorrhœa was inoculated on the right thigh, below the former puncture, and the pus of the chancre of the prepuce on the left thigh. The ulcer on the prepuce was dressed with vin. arom., and cauterized with argent. nitr.

25th. The puncture made on the 20th with the pus of the blenorrhœa, had produced the characteristic pustule; it was cauterized with argent. nitr., and injections of vin. arom. were ordered: the two latter inoculations were red. On the under side of the penis, near a point which corresponded to an induration of the canal, some fluctuation was perceived.

The 27th. The punctures made with the pus of the chancres of the prepuce, and the second time with the pus of the blenorrhœa, had produced the characteristic pustules, which were then cauterized with the nitrate of silver. The tumor on the side of the canal was about the size

of a nut; the skin had become thin; being opened, a pus flowed from it similar to that of the blenorrhœa. The cavity presented all the characters of surfaces affected with chancres; moreover, from some drops of urine which flowed through it when the patient passed his water, it was clear that it communicated with the canal. To be certain that it was not a chancre of the urethra, which had progressed outward from within, the pus which flowed from it, upon opening the abscess, was inoculated on the left thigh. The punctures of the first inoculation had disappeared after the cauterization with nitrate of silver; the chancre on the penis was almost healed; but the canal was indurated to the posterior part of the penis. The injections of vin. arom. were continued, and the interior of the canal was cauterized by means of Lallemand's caustic holder. The pills of hydrarg. iodid. were prescribed.

Aug. 3d. The pustules resulting from the inoculation of the pus of the abscess of the canal were cauterized; the induration was much diminished. Aug. 9th. The pustule was healed; the abscess of the penis nearly closed; and no more urine passed. Aug. 20th. There was scarcely any more induration in the canal, and the discharge had nearly ceased; four drachms of cubebæ were prescribed, and Sept. 12th the patient was dismissed cured.

CASE XV. *Concealed chancre, (larvè,) with symptomatic bubo; inoculation successful in each case.*

Dum—, aged 26, entered Nov. 11, 1835. Could not fix accurately the time of the commencement of his complaint. He stated that he had six weeks previous felt a slight pain at the meatus urinarius, when he passed his water; but paid little attention to it till a fortnight previous to his entry, when a bubo appeared on the right side. Its course was very acute; but the patient had not undergone any treatment. Upon his entry into the hospital, some induration was perceived at the meatus urinarius, and towards the fossa navicularis. Upon separating the edges of the aperture, no ulceration was perceived; upon pressure, a little pus came; the canal of the urethra appeared sound beyond the above mentioned point. The patient never, at any time, perceived a blenorrhœal discharge. The only pains he felt were at the meatus urinarius, and in the fossa navicularis. The bubo was extensively suppurated; it was opened, and a large quantity of reddish pus was discharged.

Nov. 23d. The pus from the meatus urinarius was inoculated on the right thigh, and the pus of the bubo on the left. The lips of the incision made on the bubo were ulcerated. The bubo was cauterized with nitrate of silver; some threads of lint, covered with calomel and opium cerate, were introduced into the canal; cataplasms were applied to the groin. 28th. The inoculated punctures have taken and produced the pustules; they were allowed to take their course. Near the frenum, a small hardened tumor was perceived. The same dressings were continued.

Dec. 1st. The chancres of the thighs, from the inoculation of the pus from the urethra and from the bubo, were cauterized with nitrate of silver, and dressed with calomel and opium cerate. 12th. A small abscess, the consequence of the suppuration of the tumor, perceived on the 28th ult., was opened, and the pus inoculated, by a puncture, on the right thigh. 17th. The inoculated puncture, made with the pus of the chancreous abscess, opened on the 12th, had produced the characteristic pustule.

20th. The pustule, from inoculation, which broke the day previous, was inoculated. Little induration remained at the meatus urinarius. The bubo was better; it was cauterized with nitrate of silver. 27th. Altogether better. The chancres on the thighs were nearly healed, under the influence of the cauterizations and dressings with the calomel and opium cerate. 30th. The patient being cured was dismissed.

CASE XVI. *Chancre and gonorrhœa, with an ulcer of the canal; inoculation producing the characteristic pustule.*

Fouc—, aged 19, entered July 19, 1836. The disease apparently commenced eight days before he entered the hospital; the chancre was situated at the root and superior part of the glans, and from this point an inflamed lymphatic ran to the right, towards an engorgement which began on the same side, and which appeared to affect the superficial ganglions of the groin; the tumor, though small, was painful, and the skin very red. The blenorrhœa, which had only appeared eight days previous, afforded but little pus; the patient refers the pain, which he felt during the emission of his urine, to the end of the penis.

20th. Twenty-five leeches were placed upon the bubo, and the camphor and opium pills were prescribed. Upon separating the lips of the meatus urinarius, the mucous membrane was found ulcerated. 25th. The blenorrhœal pus was inoculated, by a puncture, on the right thigh. The development of the bubo appeared arrested; emollient cataplasms were ordered. The chancre was cauterized, and dressed with the vin. aromat. The nitrate of silver was introduced into the urethra, to cauterize the ulcerations of the meatus. 27th. The pustule of the inoculation was pointed and seemed to succeed. 28th. The pustule, from the inoculation, being formed, was destroyed with the nitrate of silver. Towards the posterior part of the penis, a leech-bite having become inoculated, it was cauterized. The bubo had not developed itself; the chancre was half healed, and granulations appeared on several points. Aug. 6th. The chancre on the glans was healed; scarce any thing flowed from the urethra; cauterization with nitrate of silver was prescribed. 10th. Nothing remained in the urethra; the bubo had disappeared, under the influence of compression, and applications of the decoct. alb. The patient was dismissed cured on the 16th.

CASE XVII. *Blenorrhœa, urethral chancre, and inoculation with positive results.*

Pri—, aged 20, entered Oct. 28, 1836. This patient was affected with blenorrhœa for six weeks, which, after being acute for some days, soon became chronic; since that time, having again had sexual intercourse, he perceived a chancre about a fortnight previous to his entry, which was visible upon separating the lips of the meatus urinarius. Upon examining him, we found the matter of the discharge whitish, and streaked with brown; there was no induration in the urethra, except at the meatus, where it was easy to detect the characters of the chancre with an indurated base. Upon separating the lips of the orifice, a small ulcer was perceived, presenting the characters of the period of increase.

29th. The pus collected at the meatus, mixed with the secretion of the chancre and gonorrhœal matter, was inoculated on the right thigh, by a single puncture. The chancre was cauterized with the nitrate of silver, introduced to the depth of an inch into the canal, and then a piece of lint dipped in vin. arom. was inserted. 31st. The inoculation had succeeded and produced the characteristic pustule, which was large, and distended with pus; it was opened and cauterized with nitrate of silver. The whole surface of the urethra was cauterized with Lallemand's caustic holder; for the chancre the same dressings were continued. Nov. 6th. The chancre was almost cured; the induration of its base was diminished; there was but little discharge from the blenorrhœa; the parts were again cauterized. 11th. All was well, except that the induration seemed to continue at the seat of the ulcer at the meatus.

CASE XVIII. *Chancre, concealed chancre, and symptomatic bubo; inoculation producing the characteristic pustule.*

And—, aged 29, entered April 26, 1836. The patient could not exactly tell when his disease commenced; for a long time, at short intervals, he had contracted chancres; the last chancre, which was seated on the frenum, had its origin about six weeks previous to his entrance. Twenty-six days since, after some very fatiguing work, an acute bubo appeared in the left groin. The patient did not abstain from sexual relations till within the last fortnight; about that time, he felt a tickling sensation at the meatus urinarius, then a smarting upon making water; he at length perceived that on pressing against the inferior side of the canal, he caused several drops of pus to be discharged.

On examination, the chancre on the frenum was found partly at the period of reparation; the bubo had suppurated; its seat was in the superficial ganglions; the tumor was conical and fluctuating to its base. On opening the lips of the meatus urinarius, the mucous membrane appeared red, but not eroded; he had little pain in passing his water; a hardened point was felt a few lines behind the fossa navicularis.

27th. The bubo was opened, and a good deal of thin and bloody pus

was discharged. The pus from the urethra was inoculated on the left thigh, and that taken from a point of the surface of the chancre, which still appeared stationary, on the right thigh.

29th. The inoculated punctures had produced the characteristic pustule on both thighs; the pustule on the right thigh, from the inoculation of the pus of the chancre, was cauterized with nitrate of silver; that on the left, from the pus from the meatus, was allowed to take its course.

The chancre and bubo, whose ulcerated opening showed its chancrous nature, were dressed after cauterization, with aromatic wine; the induration of the canal had increased, as well as that at the base of the chancre; the sirup. acid. hydrocyan. with sirup. gentian, in an infusion of hops, were ordered, on account of the lymphatic temperament of the patient.

June 3d. Upon separating the lips of the meatus urinarius, the mucous membrane was found ulcerated; the nitrate of silver was introduced into the urethra, and then injections of aromatic wine were prescribed. The pustule from inoculation on the left thigh had produced a chancre, which was cauterized and dressed with aromatic wine. 10th. The chancre of the frenum was almost healed, and the bubo tended towards reparation. 15th. The induration on different points soon became softened; the surface of the bubo became covered with granulations. The cauterization and the dressings with aromatic wine were continued. The patient was dismissed quite cured on the 25th.

CASE XIX. *Chancre, concealed chancre, and inoculation producing the characteristic pustule.*

Bal——, aged 20, entered January 3, 1837. This patient contracted a chancre of the frenum, in consequence of a rupture of it during coition, a month previous to his entry; eight days later, a blenorrhœa appeared; it first caused a few drops of a bloody discharge, which increased for some days, every time that the patient committed an error in his diet. We found the chancre of the frenum in the stage of reparation; the discharge was small in quantity and bloody, and there was some pain on passing the water. 4th. The pus of the urethra was inoculated on the left thigh by a puncture; the chancre of the frenum was cauterized and dressed with vin arom. 6th. The inoculation had succeeded and the pustule was formed an inch and a half in the interior of the canal an indurated point was perceived. The interior of the canal was cauterized, and injections of the wine with tannin ordered. 12th. The chancre of the frenum was healing; its course had been regular since the cauterization of the urethra; the induration was much diminished; the discharge was the same in quantity but less bloody. The pustule on the thigh, produced by the inoculation of the pus from the urethra, had progressed, notwithstanding a cauterization on the 10th; but on the 13th, the character of the ulcer was no longer chancrous; there remained a deep wound from the cauterization, which was dressed with vin. arom. 24th. The chancre of the frenum had healed

without leaving any induration, with the application of the nitrate of silver and dressings with the wine; the urethral discharge had nearly disappeared. 30th. Nothing remained, not a single drop of the discharge, and on the 6th of February the patient was dismissed cured.

CASE XX. *Blenorrhœa, concealed chancre; inoculation successful during the period of ulceration, and unsuccessful during that of reparation.*

Br—, aged 19, entered March 9, 1833. Three days after a suspicious connexion, this patient perceived a discharge of some drops of pus from the urethra; the secretion gradually increased; he had acute pain on urinating, irritation of the glans and phimosis, which however permitted two thirds of the organ to be exposed, when a slight redness was perceived on it, but no excoriations. March 11th. The pus of the gonorrhœa was inoculated upon the right thigh by three punctures. The pil. opii. c. camph. were ordered, and emollient lotions. 15th. The inoculations had produced the pustule; but it was not much developed. The blenorrhœal pus was again inoculated on the left thigh. 17th. The pustules, both right and left, had assumed the pathognomonic character. On the right thigh, the first inoculation had produced chancres with abrupt edges, which had pierced the whole thickness of the skin. Upon pressing the canal, near the fossa navicularis, an induration was perceived, indicating the seat of a chancre; the treatment was continued. 22d. The appearance of two buboes was perceived, and leeches were applied to each tumor. Two days previous, the patient chafed himself near the frenum, the pus from the urethra had inoculated the wound, and caused a severe irritation; the prepuce became œdematous, and a phimosis ensued. The chancres on the thighs were dressed with cerat. opii. 27th. Pills of hydrarg. iodid. were ordered, to combat the induration, and injections of acet. plumb. for the blenorrhœa.

April 6th. The chancre inoculated on the chafed part had nearly destroyed the frenum. The discharge was much diminished, and the matter had lost its greenish color. 10th. The patient complained of soreness of the gums; the mouth was irritated, but there was no salivation; the gums were touched with acid. hydrochlor. as a prophylactic. The muco-pus of the urethra was inserted by three punctures on the left thigh, below the second inoculation, which was cicatrizing. 18th. The puncture had produced nothing; there was less induration in the fossa navicularis, and the urethral chancre was found to be arrived at the period of reparation.

May 1st. The chancres on the thighs were nearly healed, and little discharge remained. 3d. There was no more induration; the chancre of the frenum was healed; the pills were omitted, and the patient left the hospital on the 14th.

CASE XXI. *Chancre and symptomatic bubo; inoculation successful.*

Leg— Leonard, aged 18, entered October 12, 1835. For fifteen days

some chancres were seen on the glans; four days after they appeared, a bubo developed itself on the right side; its course was acute, and it was opened October 14th. 16th. The pus of the bubo was inoculated on the left thigh, and that of the chancres on the right. 21st. The two punctures had succeeded and the pustules were formed; some of the pus taken from the pustules on the left thigh was inoculated on the right; the first inoculation had been destroyed with caustic; the chancre of the penis and the bubo were dressed with aromatic wine. 24th. The puncture made with the pus of the pustule on the left thigh had produced its characteristic result; it was allowed to take its course.

29th. The chancres of the penis were healed, and the bubo in a fair way of reparation; the chancres of the right thigh, or the last inoculation, were dressed with aromatic wine, and cauterized with arg. nitr.; the two former inoculations had disappeared, under the influence of the cauterization. It was remarked, that the inoculation made on the right thigh, by means of the pustule from the first inoculation of the pus taken from the bubo, had made rapid progress. The patient was dismissed cured. M. Cullerier has seen these inoculations, and observed their development, and also publicly acknowledged that the pus of a bubo is capable of being inoculated.

CASE XXII. *Primary chancre of the anus, inoculated successfully.*

Tomb—Barbe, aged 23, entered April 2, 1833. A month previous, this patient had had intercourse, *a prapostera venere*, with her husband, who was affected with chancres; the raphe was torn, and the chancrous pus directly inoculated: on the lateral portions, two other abrasions became ulcerated by the same action. A fortnight previous, she had consulted a surgeon, who ordered six leeches to be applied; the leech-bites being soiled by the pus from the anus, became inoculated.

April 4th. The different chancres were dressed with cerate of opium and calomel. 26th. The chancres, from the inoculation of the leech-bites, had healed, as well as the lateral chancres of the anus; but the ulcer of the raphe, in the depth of the fissure, presented all the characters of the period of increase; its pus was inoculated on the left thigh. 28th. The inoculation had succeeded; the pustule was destroyed by cauterization with arg. nitr. The anus was dressed with a bit of lint, the lower end having been dipped in sod. chloride; the edges of the fissure of the raphe were separated, and some threads of lint, covered with calomel ointment, were introduced. May 6th. The cauterization had destroyed the inoculated pustule. The chancre of the anus was nearly healed, and it was only superficially cauterized. The patient being cured, was dismissed on the 10th.

CASE XXIII. *Chancre, rhagades, mucous pustules; inoculation successful in the two former cases, and unsuccessful in the latter.*

Pier—Clotilde, aged 16, entered April 2, 1833. This patient had

been affected with chancre of the vulva and a blenorrhœa for nearly six months; for the last six weeks, some abrasions around the anus having become inoculated, they formed deep rhagades; about the same time some mucous papulæ developed themselves around the anus.

April 8th. Pus taken from an ulceration of the *fourchette*, was inoculated on the right thigh, and the pus of the mucous papulæ on the left thigh. Cauterization and dressings with calomel and opium cerate were prescribed. 12th. The inoculation made with the pus from the chancre of the *fourchette*, had produced the characteristic pustule; that of the pus of the ulcerated mucous papulæ, had produced nothing; the pus of a deep rhagas of the anus, all points of which appeared in the ulcerative period, was inoculated. 16th. The inoculation of the 12th had succeeded, and produced the pustule; the anus was dressed with the chloride of soda and calomel; the chancres were cauterized with nitrate of silver. 19th. Better defined; almost all the ulcers had assumed the characters of the period of reparation. 21st. Better; almost cicatrized; the mucous pustules had disappeared. The same dressing was continued; and the patient was dismissed cured on the 28th.

CASE XXIV. *Chancre; inoculation by the nails; successful inoculation with pus preserved in a tube.*

Tang—, aged 32, entered Sept. 20, 1836. Seven weeks previous, this patient had contracted chancres on the margin of the prepuce, which were neglected; the ulcers soon became confluent, the aperture of the prepuce contracted, and thus almost formed a phimosis, causing a slight balanitis.

During the previous ten days, the patient had had a little spot, resembling an ulcerated mucous tubercle, upon the left commissure of the lips. It was thought that the disease of the lip was caused by the irritation produced by using a pipe, to which the patient was excessively addicted.

On his entry, the chancres were still in the period of increase, their base was not indurated. The cyanuret of silver was given in doses of three tenths of a grain per diem. The dressings were made with simple cerate. 26th. The dose of the cyanuret of silver was increased one tenth. 28th. The dose was increased two tenths of a grain; the state of the chancre was unchanged; the patient felt no effect from the medicine. 30th. The dose of the cyanuret was increased to eight tenths of a grain.

Oct. 5th. A pustule, perfectly similar to those which result from inoculation, was perceived at the lower part of the upper and inner third of the left thigh. The patient said, that it came from a scratch with the nail. The state of the chancre of the prepuce remained the same; on the other hand, the patient felt no effects of the cyanuret of silver; the dose was increased to three grains. Some pus was taken from the pustule of the left thigh, and inoculated, by a puncture, on the right thigh. 8th. The inoculated puncture had produced a well filled pustule, from which a glass tube, open at both ends, was filled. The nature of the inoculation by the nails

of the patient being known, it was cauterized with nitrate of silver. 10th. The pus preserved in the tube was inoculated, by a puncture, below the first inoculation on the left thigh. 11th. The inoculation of the preserved pus had produced the characteristic pustule. The patient was taking four grains of cyanuret of silver; the chancres were better, and produced fleshy granulations. 12th. The pustule, from inoculation of the pus in the tube, was very large. Six grains of the cyanuret were given, without any perceptible effect. 14th. The pustule, from the pus preserved in the tube, was cauterized. The first inoculation made with the nails had progressed, although it had been cauterized; it was dressed with cerate. The second pustule, inoculated on the right thigh, had progressed and produced a chancre, which was dressed with cerate. 27th. The first and third inoculations were healing; the first especially was nearly cicatrized. At the base of the inoculation on the right thigh, which had not been cauterized, an indurated knot was perceived. Thus, although the cauterization with nitrate of silver had not arrested the progress of the inoculations subjected to its action, they had been so modified in their nature, that being brought back to the state of simple wounds, they tended towards cicatrization, whilst the inoculation, which had not been cauterized, had gone on increasing. In order to promote the cicatrization, dressings of vin. arom. were used. Nov. 4th. The patient was dismissed cured.

CASE XXV. *Chancre, blenorrhœa; inoculation successful with the pus of the chancre, and unsuccessful with that of the blenorrhœa; inoculation of the chancrous pus with hydrochloric acid, unsuccessful.*

Vill—, aged 28, entered September 19, 1836. This patient, who had a natural phimosis, could not precisely state the period at which he had contracted chancres; only that six weeks since, he had perceived a balanitis with swelling of the prepuce. The gonorrhœa, which appeared nine days after a suspicious connexion, had lasted three weeks; it still remained acute; the patient had received no treatment. Upon examining him, we found an abundant greenish yellow discharge from the blenorrhœa; upon uncovering the glans, two ulcerated spots were perceived at its base, and some excoriated points on the prepuce; the ulcers presented an appearance of unhealthy granulation.

21st. The blenorrhœal pus was inoculated on the left thigh; there was no induration in the canal. Some pus was taken from the surface of the chancre, and divided into two portions; the first was inoculated on the right thigh, and the second mixed with acid. hydrochlor. was also inoculated on the right thigh, below the puncture made with the unmixed pus. The chancre and balanitis were cauterized, and then dressed with aromatic wine; injections of nitrate of silver were ordered. 24th. The puncture made with the blenorrhœal pus had produced nothing. At first, on the second day, it became a little red, but the next day it had disappeared. The inoculated puncture, made with the pus of the chancre, had produced

re characteristic pustule; but that made with the chancrous pus, mixed with hydrochloric acid, had produced nothing, and was healed the following day. The same treatment with cauterization and injections of nitrate of silver. 26th. The pustule from inoculation, whose base was somewhat indurated, was cauterized; to the above-mentioned treatment, six drachms of cubebs per diem were added for the blenorrhœa.

Oct. 7th. The chancres were healed; the balanitis had disappeared three days previous; the discharge from the blenorrhœa was slight and without pain. 10th. The pustule from inoculation, which had not been destroyed by the cauterization, was dressed with vin. arom. and cauterized. 18th. The chancre on the thigh was almost healed; there was no more discharge from the blenorrhœa, and no induration remained where the chancres had been on the penis. On the 21st of October, he was dismissed cured.

CASE XXVI. *Chancre and symptomatic bubo, inoculated with positive result; chancrous pus, dried by the heat of boiling water, then being diluted with water, was inoculated, without success.*

Dern—, aged 29, entered Sept. 20, 1836, had contracted chancres six weeks previous; they were situated on the upper and inner part of the prepuce. About a fortnight since, a bubo appeared on the left side. The chancres are now partly at the period of reparation. The bubo was seated in the superficial ganglions; it was very large, and the fluctuation at its summit doubtful. The chancres were cauterized with nitrate of silver, and dressed with vin. arom. A blister was placed on the bubo, which was ordered to be dressed the following day with a solution of sublimate, twenty grains to the ounce of water.

26th. The fluctuation was evident; the bubo was opened, and discharged a bloody and thin pus; it was immediately inoculated on the right thigh. The chancres were quite modified, and tending towards cicatrization. A cataplasm was placed upon the opened bubo, and the same dressings were continued for the chancre. 28th. The inoculation of the pus of the bubo was without result; yet the wound of the opening had become rounded, and its edges assumed a chancrous appearance. A new inoculation was made on the right thigh, with the pus of the bubo. 30th. The pustule from inoculation was developed; it was cauterized with argent. nitr. Some chancrous pus was collected and dried in a capsule exposed to the heat of boiling water, some drops of water were then mixed with it, and an inoculation made on the thigh.

Oct. 3d. The inoculation of the dried pus had produced nothing. The chancres of the prepuce were healed; the bubo was much diminished; dressings of ungu. mercur. had been used the last two days, in order to promote the resolution of the base. 10th. Dressings of aromatic wine were applied to the bubo, and its surface was cauterized with argent. nitr. No engorgement was felt at the base; and fleshy granulations were produced. On the 25th, the patient was dismissed cured.

CASE XXVII. *Chancre at the period of reparation; inoculation unsuccessful.*

Bign—Alexandre, aged 24, entered June 13, 1835. Early in May, this patient had chancres around the glans near the corona, on the frenum and prepuce; those on the glans had healed with applications of calomel and opium cerate, and cauterization with nitrate of silver. There only remained a chancre with a rose-colored ground on the prepuce, and another with a granulated ground, in the region of the frenum; they were dressed with opium cerate. 18th. The ulcerations, which appeared to remain unchanged, were cauterized with nitrate of silver, and dressed with calomel and opium cerate. 24th. There was little alteration; the pus from the ulcer, with a rose-colored ground, was inoculated on the right thigh, and that collected on the one with a granulated ground, upon the left; dressings with vin. arom. were ordered. 29th. The chancres were healing; the inoculated puncture had produced nothing; the chancres were cauterized and dressed with vin. arom. The patient was dismissed cured, July 3d.

CASE XXVIII. *Phagedænic diphtheritic chancre, inoculated by the nails in the subclavicular region; inoculation with the pus of this latter ulcer, which had arrived at the stage of reparation, unsuccessful; sympathetic bubo.*

Tug—, aged 23, entered May 10, 1836. Three weeks previous, a chancre appeared on the frenum, which at first made little progress; but after an excess in drinking and several nights spent without rest, the ulcer became inflamed, and passing to the phagedænic state, destroyed the frenum and a portion of the substance of the glans; at the same time as the chancre became phagedænic, a bubo developed itself in the right groin; its progress was very indolent. We found the chancre presenting all the apparent characters of phagedænic chancre; the wound it had caused was deep, and its ground covered with a grayish, pulpy, pseudo-membrane, resembling the pus of hospital gangrene; upon the large and indurated bubo, blisters were placed, which were dressed with the opiated solution of sublimate. The chancre was cauterized and dressed with vin. arom. May 31st. The chancre was better; but some pseudo-membranes still existed on some points of its surface; the bubo had diminished but little; the same dressing was continued; the sirup. hydrocyan. was prescribed.

June 6th. The chancre appeared modified; several points of its surface were at the period of reparation; the bubo had diminished to half; compression was applied by means of a spica bandage; the patient complained of a scratch near the clavicle, which he had made with his nails at the beginning of his complaint, and which since that time had not cicatrized; the wound was about the size of a sixpence, and resembled a chancre at the period of reparation; the pus it furnished was inoculated on the right thigh; it was then cauterized and dressed with aromatic wine. 10th. The

inoculation of the pus from the ulceration of the clavicle had produced nothing. The bubo was almost levelled, and but little indurated; the chancre was cicatrizing. June 30th. The chancre was healed; very little induration remained in its place; the bubo had nearly disappeared. The patient left the hospital cured, July 18th.

CASE XXIX. *Blenorrhœa, chancre in a state of reparation; inoculation unsuccessful.*

Marti—, aged 28, entered June 27, 1836, had been affected with a blenorrhœa of an intermittent nature for more than a year, for which he had received no regular treatment. A month since, a chancre appeared on the frenum; we found the urethral discharge whitish; he had no pain in urinating. The chancre was everywhere at the period of reparation, and there was no induration at its base. From the commencement of the disease, no symptom had been noticed which could be referred to a secondary syphilitic affection, and the general health had always been excellent.

29th. The pus of the gonorrhœa was inoculated by two punctures on the right thigh, and that of the chancres in the same manner on the left. Injections of acetate of lead and copaiva in the form of bolus were ordered for the gonorrhœa. The chancre was cauterized and dressed with vin. arom. July 3d. The inoculation had produced nothing, either on the right or left side; there was no pustule; the blenorrhœal discharge was much diminished, and the chancre was almost dried. The same treatment was continued. 6th. The discharge had ceased; the chancre was perfectly cicatrized, and had left no induration. The patient was therefore dismissed cured.

CASE XXX. *Phagedænic indurated chancre in the stage of reparation; inoculation unsuccessful.*

Bouli—, aged 20, entered August 19, 1836, had contracted a chancre on the prepuce, by an erosion of the margin, about two months previous. The ulcer, at first of little extent, inflamed in consequence of some errors of diet, and extended to nearly the whole of the margin; a remarkable induration was formed at the base of the ulcer, and its surface assumed the appearance of a phagedænic chancre, from excessive induration, destroying the tissues by a kind of interstitial gangrene.

Five or six days after passing from the regular to this latter form, the body and limbs became the seat of a lenticular syphilitic eruption, and some patches of mucous tubercles developed themselves on the anus. In the right inguinal region, the tension of the ganglions produced some hardness; he had received no treatment whatever. We found his general health good; the digestive functions regular; the temperament was inclined to be lymphatic. The whole surface of the chancre appeared in the stage of reparation; the syphilitic eruption was still in the acute stage;

the papulæ were raised. 20th. Some pus was taken from the chancre, and was inoculated on the right thigh. Pills of the iodide of silver were ordered, according to the formulary of M. Serres de Montpellier, beginning with a twelfth of a grain as a dose daily; the patient drank gum-water, and the chancre was dressed with cerate. 27th. There was no change in the general health, the inoculated point had produced nothing. The dose of the iodide of silver was gradually increased to three twelfths of a grain. Sept. 1st. There was no perceptible effect from the medicine; five twelfths were given. 7th. No improvement, and the disease followed the usual course, as if it had remained without treatment. The digestive functions were good; the chancre tended towards cicatrization; only the induration at its base remained *in statu quo*. The dose of the iodide was increased. 9th. Seven twelfths were given; on the 12th, a grain; the 20th, fifteen twelfths; the 26th, seventeen twelfths; and at length, Oct. 2d, still without any modification, the dose had been increased to fifty-four twelfths. Six grains of the iodide were ordered to be taken in the morning, fasting.

7th. Eight grains were given in the same manner; on the 10th, the patient took twelve grains of the iodide of silver, without experiencing the least action. The syphilitic eruption progressed; the mucous papulæ at the anus had extended themselves; the induration at the base of the chancre, which was not quite cicatrized, remained. It was then thought proper to abandon M. Serres' treatment, which had so long been followed with such exactitude and without any success. The pills of iodide of mercury were prescribed, the tisane of hops, the anti-scorbutic sirup, and fumigations with cinnabar, every second day. The mucous papulæ of the anus were dressed with calomel and chloride of soda. 14th. An improvement was already perceived; the papulæ were less raised; the secretion which took place upon the surface of the mucous papulæ had nearly ceased. Two pills were ordered to hasten the cure; the functions continued quite regular. 19th. But few squamæ remained. On the legs, scarce anything remained but a few brown spots; on the thigh there was nothing more to be seen. The papulæ at the anus were dry; the induration of the prepuce was diminished by half; the ganglionic hardness in the groin had disappeared; the dose of iodide of mercury was increased to three pills. 27th. Only a few brown spots remained upon the body and limbs, which became effaced by degrees; the papulæ at the anus had disappeared, as well as the induration on the seat of the chancre on the prepuce. Nov. 1st. The patient was dismissed cured.

CASE XXXI. *Chancre at the period of reparation; inoculation unsuccessful.*

Quan—, aged 24, entered July 1, 1835, had been affected five weeks with a blenorrhœa, which was very painful at the commencement, and which appeared three days after a coition. On the skin of the prepuce,

towards the base of the glans, were two ulcerations. He had received no treatment; but a phimosis having supervened, in consequence of the increase of the chancre on the prepuce, the patient entered the hospital. At this time there was no pain on urinating, but he suffered much at the end of the penis, which was greatly swollen. The skin of the prepuce was of a violet red color; on the under side, two indurated points were perceived, corresponding to the seat of the chancres of the mucous membrane, as pointed out by the patient; leeches were applied to the penis; some pus was taken from the aperture of the prepuce and inoculated on the right thigh. July 4th. The inoculated puncture had produced nothing; the patient took bolus of copaiva; the glans and prepuce were cauterized with nitrate of silver; the phimosis was no longer in the inflammatory stage. 11th. A fresh inoculation was made; pills of hydrarg. iodid. were ordered, on account of the induration which remained at the base of the prepuce; the chancres were cauterized and dressed with vin. arom. 12th. The inoculated punctures had produced nothing; the chancres were almost healed; the blenorrhœa had disappeared, under the influence of the copaiva and the injections of acetate of lead. Aug. 13th. All was healed, and circumcision was performed. The patient left cured Sept. 15th.

CASE XXXII. *Chancres at the period of reparation, blenorrhœa in the acute stage; inoculation unsuccessful in both cases.*

Lev— Pierre, aged 26, entered June 3, 1835, had been affected three weeks with chancres on the frenum and corona glandis, for which he had had no treatment. The ulcers, which were in the stage of reparation, appeared much irritated and caused great pain; the patient attributed this state to a coition two days previous to entering the hospital: fomentations, with a concentrated decoction of opium, were ordered. 5th. An acute blenorrhœa had developed itself; the patient suffered much; the blenorrhœal pus was inoculated on both thighs; and twenty leeches were applied to the perinæum. 8th. The inoculation of the blenorrhœal pus had produced nothing; some pus was taken from the surface of the chancre in the stage of reparation, and inoculated on each thigh; the ulcers were dressed with calomel and opium cerate. 10th. The punctures made on the 8th with the chancrous pus had produced nothing; the blenorrhœal pus was again inoculated on the left thigh, and the pus of the chancre on the right; injections of acetate of lead were ordered; the chancre, which still remained, was cauterized; those on the corona glandis were healed. 12th. The chancre was fully cicatrized; the blenorrhœal pus was again inoculated on the right thigh; the inoculations of the 10th having produced nothing. 13th. The puncture from the last inoculation was red and inflamed; there was little discharge; the patient experienced no pain on urinating; the injections were continued, with copaiva in form of bolus. 18th. The false pustule, caused by the inoculation on the 12th, had dried

up and disappeared; the blenorrhœa was nearly cured. 24th. The patient left quite well.

CASE XXXIII. *Chancre of the prepuce at the period of reparation, blenorrhœa, sympathetic bubo; inoculation unsuccessful in each case.*

Fourn—, aged 20, entered Nov. 21, 1835, had contracted a blenorrhœa and chancre of the prepuce, about three months previous; he had received no treatment. A fortnight since, a bubo had developed itself in the right groin; its course had been acute; the blenorrhœa had caused some pain on urinating. Upon separating the lips of the meatus urinarius, some points of the mucous membrane were found eroded, similar to those which are seen in balanitis; the chancre of the prepuce presented all the characters of the period of reparation; its surface was covered with fleshy granulations; the bubo had suppurated; there was no engorgement at its base, and none in the chancre; it was opened, and much creamy whitish pus was discharged. 23d. The pus of the blenorrhœa was inoculated on the left thigh, that of the bubo on the right, and that of the chancre in the period of reparation by punctures made on the right thigh below that from the bubo. For the blenorrhœa, injections of sulph. zinc. were ordered; the chancre was cauterized and dressed with calomel and opium cerate, and cataplasms were placed on the bubo. 28th. The inoculations were unsuccessful; the pus of the blenorrhœa was again inoculated on the left thigh; the same treatment was continued.

Dec. 6th. The inoculation made Nov. 28th had produced nothing; the discharge from the blenorrhœa was less; the chancre was almost cured; the bubo, the aperture of which was not at all ulcerated, was healing; some resolute frictions had been made with ung. mer. 18th. The chancre was healed; there was no discharge of pus from the bubo; some granulations at its aperture were cauterized with nitrate of silver; the blenorrhœa only furnished a white mucous fluid. The injections and copaiva were continued. Being completely cured, he left the hospital on the 30th.

CASE XXXIV. *Chancres at the period of reparation, inoculation without result.*

Franc—, aged 20, entered August 1, 1836. In this patient chancres appeared at the base of the glans, seven weeks previous, which inoculated themselves by contiguity of tissue on all its circumference, and on the corresponding part of the prepuce; some points had passed to the period of reparation, and vegetations had developed themselves. On the scrotum an ulceration formed, which gradually increased; no particular treatment had been used. There remained, at the time of his entrance, upon the corona glandis only some vegetations, with ulcerated points in their interstices; in the meatus urinarius a chancre was perceived, with all the characters of the period of reparation. On the anterior and upper

parts of the scrotum, an inch below the penis, an ulcer was seated with irregular reverted and jagged edges, and vermilion ground; the whole thickness of the skin was perforated; the general form of the ulcer was irregular funnel-shaped; all parts seemed at the period of reparation.

3d. The pus collected from the surface of the ulcer of the scrotum was inoculated by two punctures on the right thigh. Dressings of aromatic wine were applied to the interstitial ulcerations of the vegetations, as well as to the chancre of the meatus urinarius, which was also cauterized with nitrate of silver. 7th. The inoculated punctures had produced nothing; the interstitial ulcers were healed, and the chancre of the meatus was almost dry; it was cauterized and dressed with vin. arom. 10th. The vegetations were cut; the chancre of the meatus was cicatrized; the ulcer of the scrotum was covered with the granulations of the period of reparation; the skin seemed corrugated all round; the circumference had diminished, and the base was more raised. On the 15th, all being healed, and no induration remaining, the patient left the hospital.

CASE XXXV. *Chancres, balanitis, symptomatic bubo, inoculated with success.*

Alex—, aged 22, entered Nov. 14, 1835. The disease had commenced five weeks previous, with chancres on the glans and inner part of the prepuce. A balanitis soon developed itself in consequence of an incomplete phimosis. He had, till then, received no treatment. Three weeks previous, a bubo formed on the left side, which is now suppurating; there was also a considerable blenorrhœal discharge.

17th. The day after the opening of the bubo, its pus was inoculated on the left thigh, and the pus of the balanitis, mixed with the pus of the chancres of the glans, was inoculated on the right. For the balanitis, a cauterization was made all around with nitrate of silver, and it was dressed with vin. arom.; cataplasms were applied to the bubo. 19th. The inoculated punctures had produced the pustule on the right and left thigh; that on the left had developed itself more rapidly than that on the right. 21st. Inoculated pustules were well cauterized, in order to destroy them; the centre of the bubo was cauterized in the same manner; its edges being too much undermined to cicatrize, had been removed; dressings of vin. arom. were applied. Dec. 1st. The chancres on the glans and prepuce were healed; the pustules from inoculation had disappeared, under the influence of the cauterization with nitrate of silver; the centre of the bubo was in the stage of reparation; the dressings with aromatic wine and the cauterizations were continued. The patient was dismissed cured on the 15th.

CASE XXXVI. *Balanitis, with superficial chancres; inoculation with positive result.*

Bonj—, aged 40, entered Aug. 23, 1836. This patient, who had a

natural phimosis, perceived a swelling of the prepuce twelve days after a suspicious connexion; for three or four days he felt some itching at the end of the penis; but at the period mentioned, after a long walk, he suddenly experienced, at the same time with the swelling, very sharp pains, and a copious discharge flowed over the margin of the prepuce. We found a slight œdema of the parts, but no induration. On separating the edges of the contracted aperture of the prepuce, some ulcerations were found on the glans, which had eaten through the thickness of the mucous membrane—the matter of the discharge was greenish and bloody; the urethra did not furnish pus upon pressure; the patient had not suffered in any other way, and the pains he felt on urinating, were stated by him to affect the glans and prepuce only at the moment when the urine passed over these excoriated parts. 24th. The pus which appeared at the aperture of the prepuce, was inoculated by a single puncture. The diseased surfaces were cauterized with nitrate of silver, carried rapidly round between the glans and prepuce; injections of aromatic wine were made, and a few threads of lint were introduced to prevent the two mucous surfaces from coming in contact. 26th. The inoculated point had produced the pustule; the same treatment was continued; there was already a decided improvement. 27th. The inoculated pustule was cauterized with arg. nitr. The aperture of the prepuce permitting the introduction of a bit of dry linen, a fresh cauterization was made, and the parts again separated.

Sept. 10th. The balanitis had completely disappeared; the ulcerations of the glans and prepuce were cicatrized; no induration remained on the seat of the disease; circumcision was performed. 20th. The wound from the operation was almost entirely united: some fleshy granulations were cauterized, and the patient dismissed cured.

CASE XXXVII. *Superficial chancres, balanitis, phimosis; inoculation successful.*

Bor—, aged 19, entered May 3, 1836. A few days after a suspicious connexion, this patient, who had a natural phimosis, perceived a slight swelling and felt a smarting on the glans during the emission of his urine; at length, an abundant discharge took place upon the opening of the prepuce. We found the mucous membrane red, and presenting here and there ulcerated patches, resembling superficial chancres; no pus was produced by pressure on the canal of the urethra; no induration could be felt through the swelling of the prepuce. He had for some time been treated at another hospital. The pills of hydrarg. iodid. were prescribed.

May 4th. The pus collected at the orifice of the prepuce was inoculated, by a puncture, on the right thigh; the balanitis was cauterized all around by introducing the nitrate of silver between the glans and the prepuce. Injections were made with vin. arom. to wash the surfaces, and a few threads of lint introduced upon a probe, to prevent the contact of the inflamed mucous membranes. 7th. The inoculated puncture had produced

the characteristic pustule of the chancre; it was destroyed with nitrate of silver. For the balanitis, the cauterization and injections were continued. Nearly all the glans could be uncovered. 10th. The cauterized inoculated pustule had disappeared; only one or two ulcers remained upon the glans, and they presented the characters of the period of reparation; they were cauterized and dressed with aromatic wine. 18th. All was healed. It was remarked that the phimosis was partly caused by the length of the frenum, which extended nearly to the meatus urinarius, and thereby prevented the prepuce from being drawn back; it was therefore cut, and the small wound dressed with opiated cerate. No induration remained on the site of the superficial chancre. The patient was dismissed, May 24th.

CASE XXXVIII. *Transformed chancres, blenorrhœa: inoculation successful.*

Cha— Louise, aged 19, entered April 1, 1834, had been affected with the above symptoms for five weeks; the person from whom she had contracted them had a chancre only. On the internal surface and margin of the external labia, some pimples appeared, which, following the regular course of the inoculated pustules, became filled with pus, opened, and presented as many chancres as there had been pustules; a vaginal blenorrhœa showed itself at the same time; during ten days it was very acute and painful, and then became chronic. Although she had used no treatment, the ulcers appeared at the period of reparation, their ground was raised, and their surface covered with a grayish albuminous secretion, not easily detached, and secreting a serous pus. The matter of the blenorrhœa was whitish; there was no pain on passing her urine.

2d. A bath was ordered, and emollient lotions. 5th. The pus taken from an ulcer on one of the external labia was inoculated on the left thigh; cerate dressings were used. 7th. The inoculation had produced nothing; the pus of one of the transformed chancres, which furnished the most purulent matter, was inoculated on the left thigh below the former puncture. Injections of decoct. alb. were used. 8th. The inoculated punctures were red; but slightly elevated. 9th. The redness of the inoculated points had disappeared and without any effect. The chancres were dressed with calomel and opium cerate. 18th. An examination was made with the speculum; the cervix was healthy; its antero-posterior diameter was eleven lines, and the transverse diameter the same; the vaginal secretion was, like that from the uterus, transparent; the ulcers of the external labia were nearly all healed. Injections were made, and tamponings with decoct. alb. 28th. All was well, and the patient was dismissed.

In concluding the observations upon chancres, we think we ought to quote the remarks published in the thesis of M. de Lavergne.*

* De la non-identité de la blenorrhagie et du chancre, p. 24, 1837.

“Has not M. Ricord proved, by the two pathological anatomical specimens which he presented to the academy, that urethral chancres exist?—chancres which have been indicated by inoculation, and which I have found before and after death, and upon which I have been able to make the following observations:—

Obs. I. “Boisseau, aged 20, entered the Hôpital du Midi, April 2, 1836. He had been affected at four different times with gonorrhœa, at periods which he could not fix precisely; they had all been quite cured. The last, which had caused him much pain, was followed, after having lasted two months without treatment, by an orchitis, for which the patient was received into the hospital; the orchitis had existed eight days when he was admitted. After several applications of leeches, the swelling of the testicle had decreased a little. M. Ricord pointed out a complication with a hydrocele in an acute stage, which he punctured successfully. The pains, which had much decreased in consequence of this puncture, returned on the third day, at the same time with a new effusion of fluid into the tunica vaginalis. A fresh puncture had the same result; M. Ricord made a third puncture and used a vinous injection. Although in the acute stage, all went on as if it had been in the simple stage.

“May 30th. The patient was cured of his orchitis and hydrocele; but the blenorrhœal discharge, which upon being inoculated at first produced the characteristic pustule, had remained, notwithstanding the employment of balsams and revulsives. In this state, the patient left the hospital to resume his employment; he soon returned with an orchitis complicated with hydrocele, as in the affection of the first testicle. The hydrocele was then punctured with a bistoury; but the blenorrhœal discharge had progressively increased; the bowels became confined; manna in whey was prescribed; at length a progressive marasmus, which nothing could arrest, terminated his life.

“Autopsy. The genito-urinary organs having been removed, and the urethra, as well as the bladder, being laid open from the superior part, ulcerations were perceived, which had destroyed the prostate gland, and the corresponding part of the urethra in its entire thickness. In the fore-part, a flap of the mucous membrane of the urethra, detached from the subjacent parts, and only adhering by the anterior portion, was slightly hypertrophied; posterior to this, there was another flap which was hypertrophied and indurated; several rounded ulcerations, with the characteristic form of syphilitic ulcers, perforating the whole thickness of its mucous membrane, appeared on the surface of the bladder. The seminal vesicle of the left side presented an extensive abscess and some ulcerations; that of the right side was uninjured; but the ejaculatory canal and vas deferens of the left side established a continuity of disease from the urethra to the suppurated epididymis, which presented in its interior an abscess which had already penetrated a part of the testicle; in the same organ, the palliative puncture, which had been made, had produced pseudo-membranes,

forming a band of union between the two surfaces of the tunica vaginalis. In the right testicle, which had been subjected to the vinous injection, the adhesion was complete during life, as well as after death, and no indication, unless it be inoculation, could have led us to the knowledge of the lesion we have just described. *It ought to be observed, that the patient had never had a catheter passed, or used injections.*

OBS. II. "Jean Bourdon, aged 17, entered the Hôpital du Midi towards the end of September, 1836. He had contracted a chancre of the glans six months previous, for which he at first had no treatment; he soon perceived a slight discharge from the meatus urinarius, which increased, although slowly. After some very fatiguing work, he was attacked with a very inflammatory phimosis, for which a surgeon wished to make the inferior section, but the parts were drawn to one side, and the edges of the wound became inoculated. Notwithstanding all the treatment employed, the disease could not be cured; in this state he entered the hospital.

"He was much emaciated, although the functions were regular; the glans and the flaps of the ulcerated prepuce were so blended as to offer the appearance of a triple-headed penis. The chancre possessed all the characters of the period of increase; and notwithstanding the various local applications and attention to diet calculated to favor the internal treatment, very little amelioration could be obtained. The blenorrhœal discharge was frequently bloody, and accompanied with pain; upon inoculation it produced the characteristic pustule, which was then destroyed. Thus, after many months of suffering, without any instrument *ever* having been introduced into the depth of the urethra, incontinence of urine supervened, which led M. Ricord to refer it to ulcerations in the neck of the bladder and canal of the urethra; the incontinence of urine continued till the death of the patient, which took place December 20, 1836, and which was accelerated by a diarrhœa which resisted all treatment. Although, upon a post-mortem examination, the intestinal canal presented no other alteration than the other abdominal organs, which were in their normal state, except the bladder, in the chest there were some chronic adhesions; on the right side there were some small cysts of matter, most probably from tubercles.

"The genito-urinary organs being separated, and the bladder and the canal of the urethra laid open, its sides were several lines in thickness; they were hard and callous; its capacity was diminished one half; the fundus presented many fleshy granulations. Besides the chancre at the meatus urinarius, there was an ulceration of the spongy part of the urethra an inch deep and eight lines long, perforating the entire thickness of the mucous membrane; but behind the region of the bulb in the pars membranosa and prostatica, the neck and cavity of the bladder, traces of a large phagedænic chancre were perceived. And especially on the lateral parts of the prostate, two large excavations in its substance were found, separated from each other by a hypertrophied and indurated tongue. At the inferior

part, the reversed prepuce showed traces of the operation, and the inoculated edges. On the corona glandis, a large chancre was seen; on the lateral parts were two wounds from the operation, which had become chancrous; and lastly, there was a chancre of the meatus urinarius and corpus spongiosum.

OBS. III. "— Florence, aged 19, entered the Hôpital du Midi January 17, 1836. She had previously twice had a blenorrhœa, which yielded to injections of decoct. alb. Upon her entry, she had a vaginitis of a fortnight's standing; she felt acute pains on passing her water at the eighth day of her vaginitis, and this determined her to enter the hospital. Inoculation with the pus from the vagina, in which the speculum showed nothing, was unsuccessful; that from the urethra produced the characteristic pustule of the chancre. M. Ricord then declared the existence of an urethral chancre, whose existence was soon demonstrated by its appearance at the meatus urinarius. In a month's treatment it was cured completely."

SECTION II.

INOCULATION OF THE MUCO-PUS OF BLENORRHŒA, SIMPLE AND COMPLICATED, AND IN ITS VARIOUS SEATS.

CASE I. *Acute urethral blenorrhœa, inoculation unsuccessful.*

Caf—, aged 40, entered June 27, 1835. The disease appeared three days after coition, and had existed five, accompanied with very acute symptoms; the matter of the discharge was greenish, streaked with blood. Twenty leeches were applied to the perinæum; a purgative enema was ordered, as the bowels had not been relieved for four days, and two camphor pills per diem. The 29th. There was a little less pain; no induration was perceived in the course of the canal; the blenorrhœal pus was inoculated with two punctures on the left thigh.

July 3d. There was some little irritation in the inoculated punctures; the skin was red and raised, but there was no pustule. 4th. The red spot produced by the inoculations faded without developing the pustule; the blenorrhœa no longer caused pain during the emission of the urine. Cubebæ and injections of sulphate of zinc were prescribed. 6th. The blenorrhœal pus was inoculated on the right thigh, with two punctures; the matter of the discharge was whitish. 10th. The same elevated spot was observed, as was produced by the inoculation on the 26th, and it disappeared in the same manner, without producing a pustule. 11th. A fresh

inoculation was made by two punctures on the left thigh; the discharge was less in quantity, and contained less pus. The cubebæ and injections were continued.

The 14th. The inoculations made on the 11th had produced nothing, not even the inflamed spot; the discharge from the blennorrhœa was mucous. The patient left cured on the 22d; the discharge having ceased since the 17th.

CASE II. *Urethral blennorrhœa; inoculation unsuccessful.*

Mar—, aged 22, entered April 13, 1836. The disease had lasted a month; at first it was very acute; it soon became chronic from using baths without any other treatment. On his entry, we found the matter of the blennorrhœa whitish; no induration was perceptible in the course of the urethra; there was neither pain in the emission of urine nor during erection; the inoculation was made by two punctures on the right thigh. The cubebæ and iron were given.

18th. The inoculations had produced nothing. The treatment was continued. 21st. The purulent matter of the discharge had much diminished. May 1st. Little more than a mucous secretion remained. 10th. No more discharge remained; only in the morning, a single drop of transparent fluid was perceived at the meatus urinarius. 16th. The patient was dismissed cured.

CASE III. *Urethral blennorrhœa; inoculation unsuccessful.*

Bous—, aged 28, entered April 15, 1836. The affection, which was of eight days standing, appeared four days after a connexion. Upon separating the lips of the meatus urinarius, much pain in urinating, with tension of the canal, but no indurated point in its course. The mucous membrane appeared red, and the discharge was thin and bloody; the blennorrhœal pus was inoculated by two punctures on the right thigh. Five-and-twenty leeches were applied to the perinæum, and pil. opii c. camph. were ordered, with cubebæ and iron.

18th. The inoculations had produced nothing; the discharge appeared modified; the same treatment was continued. The blennorrhœal pus was inoculated by two punctures on the left thigh. 28th. The inoculation had produced no result; the discharge was losing gradually, although slowly, its reddish tint; the dose of cubebæ was increased, and injections of sulphate of zinc were used instead of those of acetate of lead. 30th. The discharge was whitish and without pain. The same treatment being continued, only a slightly increased mucous secretion remained on the 6th of May, and on the 16th the patient was dismissed cured.

CASE IV. *Acute urethral blennorrhœa; inoculation without result.*

R—, aged 18, entered May 13, 1836. The disease was of fifteen days standing; it appeared eight days after an impure connexion; the pain in

the emission of the urine was very acute; the matter of the discharge was greenish, with many streaks of blood; the urethral canal was not indurated, but very tense.

May 14th. The blenorrhœal pus was inoculated on the right thigh, by two punctures. Twenty-five leeches were applied to the perinæum; the bowels not having been moved for four days, the patient was ordered a bottle of Seidlitz water. 17th. The inoculated punctures had produced nothing; the pain on passing his urine was less; but the discharge was still very copious. Injections of nitrate of silver were ordered. 21st. The matter of the discharge was no longer streaked with blood; its color was whitish; and there was a tendency towards the mucous state. Cubebs, four drachms per diem, were ordered, and the injections of arg. nitr. continued. 23d. Only a super-secretion of mucus remained; the same treatment was pursued, and on the 7th of June the patient left cured.

CASE V. *Urethral blenorrhœa; inoculation unsuccessful.*

Mau—, aged 28, entered April 23, 1836. The disease, which had existed for eleven days, appeared eight days after a connexion. At first there was no pain, and the discharge almost immediately became whitish, with the characters of a blenorrhœa. An induration was perceived on the prepuce, marking the seat of a chancre, cured a month previous. 27th. The blenorrhœal pus was inoculated on the right thigh. Injections of nitrate of silver, and copaiva in emulsion, were ordered. 30th. The inoculation had produced nothing; the discharge was diminished.

May 1st. The canal was cauterized with the caustic holder. 2d. The discharge was increased; it was purulent and streaked with blood. 4th. The blenorrhœa had almost disappeared, and only a little mucous discharge remained. The patient was dismissed cured on the 11th.

CASE VI. *Acute urethral blenorrhœa; inoculation unsuccessful.*

V—, aged 28, entered May 30th, 1835. The disease, which appeared eight days after exposure, had lasted ten days, and presented all the symptoms of the greatest acuteness. He had taken, by the advice of a gardener, a tisane of strawberry roots. Thirty leeches were applied to the perinæum. June 8th. The blenorrhœal pus was inoculated on the left thigh, with two punctures. 10th. Injections of sulphate of zinc were ordered, as the blenorrhœa was far less painful, yet some streaks of blood were still remarked in the discharge. 11th. The inoculated punctures had produced nothing; the matter of the discharge was whitish yellow; but its quantity was somewhat less. 21st. The inoculation of the 15th being unsuccessful, it was repeated. Cubebs were ordered, the dose two drachms. 30th. The last punctures were unsuccessful; the discharge was much less. July 6th. There remained only an increased secretion of mucus. 14th. The patient left cured.

CASE VII. *Urethral blennorrhœa ; inoculation without result.*

Lez—, aged 26, entered May 31, 1836. A month previous, a blennorrhœa had appeared, eight days after exposure. At first it was very painful, but the acute stage lasted only eight days, although the patient underwent no treatment. Upon his entry, the discharge was copious, of a yellowish white color; there was neither pain nor induration in the canal of the urethra. The blennorrhœal pus was inoculated on the left thigh, by two punctures. Injections of argent. nitr. were ordered, with an emulsion of copaiva. June 3d. The inoculation had not succeeded; the same treatment was continued. 6th. The discharge had much decreased; the mucous matter prevailed. 10th. The injections of nitrate of silver were suspended. On the 12th, scarce any discharge remained; and the 20th, the patient left cured.

CASE VIII. *Acute urethral blennorrhœa ; inoculation unsuccessful.*

M—, aged 18, entered April 26, 1836. The affection commenced five days previous; the patient was suffering much; the discharge, which was very copious, was of a yellowish green color and streaked with blood; the canal of the urethra was painful when touched, and very tense; but no induration was perceived in any part of its extent. 27th. The gonorrhœal pus was inoculated by two punctures on the right thigh, thirty leeches were placed upon the perinæum; a camphorated enema was ordered for the evening, and bleeding, if the fever should require it; diet strict. 29th. The fever still continued, and the patient was therefore bled, as had been directed on the 27th. 31st. There was less pain; the inflammatory stage seemed to be calmed; the inoculated punctures had produced nothing. Injections of nitrate of silver were prescribed.

May 6th. The discharge had diminished, its yellow color had disappeared; the secretion was white, and rather mucous than purulent. Four table spoonfuls of the emulsion of copaiva per diem were ordered. 11th. A little mucous discharge in the morning remained; the dose of the emulsion was increased to six spoonfuls; the injections were discontinued; and on the 24th, the patient left cured.

CASE IX. *Acute urethral blennorrhœa ; inoculation unsuccessful.*

Far—, aged 24, entered Dec. 27, 1836. The affection had existed a fortnight, and appeared three days after exposure. At first the patient had suffered much; there was a chordee. There was tension, but no induration of the canal; the acute stage still existed; the matter of the discharge was of a yellowish green color; the mucous membrane of the urethra appeared red and tumefied. The blennorrhœal pus was inoculated on the left thigh with two punctures. Thirty leeches were applied to the perinæum.

30th. The acute stage had nearly disappeared; four spoonfuls daily of the emulsion of copaiva were ordered.

Jan. 10th. The discharge was diminished; the matter was whitish and mucous. 13th. The discharge was still copious; injections of the iodide of iron were ordered; by the 16th, all had disappeared, and the patient left cured the following day.

CASE X. *Acute urethral blenorrhœa; inoculation unsuccessful.*

Che—, aged 22, entered Sept. 13, 1836. The disease had commenced four days previously, eight days after coition. The matter of the discharge was greenish and purulent; the patient suffered much in urinating; the blenorrhœal pus was inoculated on the right thigh with two punctures.

16th. The inoculated punctures had produced nothing. The canal was cauterized with the aid of Lallemand's caustic holder, and two pil. opii c. camph. were ordered. 17th. There had been much discharge from the blenorrhœa since the previous day; there were some streaks of blood, but no pain. 18th. The discharge had much decreased; it was white, and almost wholly mucous. The emulsion of copaiva was given in doses of four table spoonfuls daily. 19th. The discharge was almost cured; the urethra was cauterized. 20th. The same phenomena appeared as after the former cauterization. 28th. Only a drop of muco-pus in the morning remained. 29th. The discharge had ceased, and the patient left Oct. 4th.

CASE XI. *Acute urethral blenorrhœa; inoculation unsuccessful.*

Ois—, aged 20, entered Oct. 4, 1836. The disease commenced six days previous, and had appeared four days after a suspicious intercourse. The pains in urinating were very acute; the acute stage still continued: the mucous membrane of the urethra, which was red and tumefied at the meatus, did not appear ulcerated. The matter of the discharge was very copious, and of a yellowish green color; it was inoculated by two punctures made on the right thigh; twenty leeches were applied to the perinæum, and pil. opii c. camph. prescribed.

8th. The inoculated punctures had produced nothing; the emulsion of copaiva and injections of nitrate of silver were ordered. 10th. The pain on passing the water had ceased; the discharge was whitish. 12th. Patient better; an enema of sulphate of magnesia was prescribed for the constipation. 18th. The gonorrhœa was almost cured; an emulsion of copaiva was ordered, and in a few days the patient left cured.

CASE XII. *Acute urethral gonorrhœa; inoculation unsuccessful.*

Vas—, aged 19, entered July 5, 1836. The disease appeared four days before, after a suspicious intercourse; at first the patient had felt acute pains in urinating, and the discharge became very copious. On entering, the blenorrhœa was still in the acute stage; the patient suffered much; the muco-pus was bloody and greenish, and the mucous membrane

of the urethra appeared superficially excoriated; the canal was tense, but not indurated; pressure caused some pain.

July 6th. The blennorrhœal pus was inoculated by two punctures on the left thigh; the pil. opii. camph. were ordered, with thirty leeches to be applied to the perinæum, and an enema with two ounces of mel. mercur. 10th. The inoculated punctures had produced nothing; the blennorrhœa was less painful, and the discharge less decidedly marked with streaks of blood. The pills were continued, and injections of nitrate of silver ordered for the following day. 15th. The gonorrhœal pus was again inoculated, in the same manner as before, on the left thigh. The matter of the discharge appeared modified in a remarkable manner; its color was whitish, slightly tinged with yellow. The pain having entirely disappeared, the pil. camph. were discontinued; the injections were continued, and copaiva in bolus form with magnesia was added. 17th. The discharge had decreased; the inoculated punctures had produced nothing. 21st. Only a little mucous secretion remained; and by the 27th, the patient was cured and left the hospital.

CASE XIII. *Acute urethral blennorrhœa; inoculation without result.*

Bic—, aged 17, entered April 12, 1836. The blennorrhœa, with which this patient was affected, appeared two days after exposure; the course of the disease had been very acute and painful; by rest and the use of baths, the acute stage had disappeared; copaiva had been given, and the discharge had stopped; but in consequence of the fatigue of a journey, undertaken just as the disease had ceased, the discharge reappeared very copiously, of a whitish color, and occasioning very little pain. The above named day was the third from the return of the blennorrhœa; the mucous membrane, on separating the lips of the meatus, appeared excoriated; the passing of the urine occasioned at this point severe smarting; the patient had chafed himself in using the syringe; the gonorrhœal pus was inoculated by two punctures on the right thigh. Injections of sulphate of alum were ordered.

22d. No result from the inoculated punctures; the discharge had much diminished; the redness of the meatus had disappeared. The potion de Chopart was prescribed. 27th. The discharge had nearly disappeared the potion was continued. The patient left cured on the 29th.

CASE XIV. *Urethral blennorrhœa; inoculation unsuccessful.*

Lau—, aged 26, entered Dec. 16, 1836. This disease was of three weeks' standing; in the beginning of it, there had been much pain and a chordee. No induration was perceptible in the canal of the urethra, nor pain upon pressure; but there was a slight itching during the emission of the urine; the matter of the discharge was whitish. An indolent tumor was perceived in the left groin.

17th. The gonorrhœal pus was inoculated on the left thigh; injections

of nitrate of silver, a fourth of a grain to the ounce of water, were ordered. 19th. The inoculated puncture had produced nothing; the discharge was less; cubebæ were ordered, four drachms daily; the injections were continued; a fresh inoculation of the muco-pus was made on the right thigh. 20th. The inoculated puncture was unsuccessful; the blenorrhœa only furnished a very mucous matter mixed with streaks of pus. The left thigh was inoculated. 24th. The last inoculated puncture had produced nothing; there was no more discharge from the blenorrhœa; the ganglionic enlargement had not progressed. The patient left cured on the 29th.

CASE XV. *Urethral blenorrhœa; inoculation without result.*

Blan—, aged 17, entered June 20, 1835, had been three weeks affected with blenorrhœa; eight days previous, without any appreciable cause, a bubo appeared in the left groin, and the discharge had nearly disappeared; when the canal was pressed, a few drops of clear and whitish muco-pus appeared. Nothing had been done for the patient; leeches were placed upon the bubo, which presented no point of suppuration, and the progress of which had been sub-acute.

24th. The blenorrhœal pus was inoculated on the right thigh; injections of sulphate of zinc were ordered, and mercurial frictions made upon the bubo, which was very hard. 28th. The inoculated punctures had produced nothing; there remained but little discharge from the blenorrhœa; the bubo was somewhat resolved. July 10th. The bubo, to which compression had been applied, had quite disappeared, and there had been no discharge for six days: the patient was discharged cured.

CASE XVI. *Acute urethral blenorrhœa; inoculation without result.*

Andr—, aged 26, entered Aug. 16, 1836. This patient could not exactly fix the time at which the blenorrhœa had commenced; only he remarked that eight days after the last sexual connexion he had suffered much, and that the discharge had greatly increased. At the time of entrance the blenorrhœa was in the acute stage; and the discharge was bloody and thick. Twenty leeches were applied to the perinæum, and an enema with mel. mercur. was administered. The blenorrhœal matter was inoculated by two punctures on the right thigh. 19th. The inoculated punctures had healed; camphorated pills were ordered; but little pain remained; a cauterization was made with Lallemand's caustic holder. 21st. Little discharge remained; injections of nitrate of silver were ordered; and the patient left cured on the 30th.

CASE XVII. *Acute urethral blenorrhœa; inoculation without result.*

Dan—, aged 25, entered Nov. 11, 1836, had been affected with blenorrhœa eight days after exposure; at first it was very painful; the canal of the urethra tense, and very painful on being touched, presented all the symptoms of a chordee; the acute stage was in its greatest in-

tensity; the matter of the discharge was greenish and bloody; however, upon separating the lips of the swollen meatus urinarius, no ulceration was perceived; neither was there any induration in the whole course of the urethra, but a general tension; there was a large indolent engorgement in the left groin; but the patient said it existed before the blennorrhœa.

12th. The blennorrhœal pus was inoculated on the right thigh; twenty leeches were applied to the perinæum; two pil. opii camph. were ordered, with fomentations of decoct. malvæ. 15th. The patient suffered less; the discharge was less bloody, and the erections less frequent; the engorgement in the groin remained stationary; the inoculations had healed. The blennorrhœal pus was again inoculated on the left thigh; the bowels being confined, an enema of magn. sulph. was ordered; the pil. opii camph. were continued. Injections of nitrate of silver, a grain to four ounces of water, were ordered.

18th. The inoculated punctures of the 15th had produced nothing; the blennorrhœa discharge was less copious and without pain; the matter of the discharge was whitish. The injections were continued, and four drachms of cubebs were ordered. Dec. 14th. The patient left cured.

CASE XVIII. *Urethral blennorrhœa; inoculation unsuccessful.*

Ceint—, aged 24, entered July 18, 1836. This patient had been affected with a blennorrhœa eight days; it appeared six days after exposure; the discharge began without pain, and on the above named day the disease appeared like blennorrhœa. On separating the lips of the meatus urinarius, which was a little red and swollen, the mucous membrane was found to be slightly eroded; the discharge was slightly streaked with blood; there was no induration in the canal; only at the depth of two inches there was a point painful to the touch. 19th. The urethral secretion was inoculated on the left thigh; copaiva was prescribed, and injections of arg. nitr. 20th. The inoculated punctures had healed; the discharge was much diminished; a cauterization with nitrate of silver was ordered. 21st. The injections and copaiva were resumed; and the patient left on the 24th cured.

CASE XIX. *Acute urethral blennorrhœa; inoculation unsuccessful.*

Guil—, aged 24, entered May 13, 1836. The affection had existed eight days, and had been very painful in the beginning; now, the discharge was very copious and bloody. 14th. The blennorrhœal pus tinged with blood was inoculated on the right thigh; twenty leeches were applied to the perinæum. 17th. The inoculated puncture had healed; the acuteness of the blennorrhœa was much diminished; the patient had no more pain on passing his water. Injections of nitrate of silver were ordered. 19th. Cubebs were ordered, two drachms three times a day. 20th. There had been a little diarrhœa; cubebs were ordered with sirup. diacod., and the injec-

tions of nitrate of silver were continued. The cure being complete, June 3d, the patient left.

CASE XX. *Acute urethral blenorrhœa ; inoculated unsuccessfully.*

Kel—, aged 22, entered May 31, 1836. The affection had lasted twelve days; it appeared three days after exposure, and from the commencement it had occasioned very violent pains, both on urinating and during the erections. The matter of the discharge was greenish and bloody; on separating the lips of the meatus urinarius, some superficial erosions were perceived in the canal; leeches were applied to the perinæum; camphor pills were ordered, and the blenorrhœal pus was inoculated on the left thigh.

June 4th. The inoculated punctures had produced nothing; injections of nitrate of silver were prescribed.

8th. The gonorrhœa was much decreased; the bolus of copaiva was prescribed. The patient left cured on the 22d.

CASE XXI. *Acute urethral blenorrhœa ; inoculation unsuccessful.*

Leg—, aged 18, entered May 31, 1836. Three days after a suspicious intercourse, this patient felt very acute pain in urinating, and a very severe blenorrhœa showed itself. Eight days later, he came to the hospital; the discharge was puriform and greenish; he suffered much, both during the emission of his urine and in the erections.

June 1st. The blenorrhœal pus was inoculated on the right thigh; five-and-twenty leeches were applied to the perinæum, and two pil. opii camph. were ordered. 4th. The inoculation had produced nothing; the pain was somewhat less; injections of nitrate of silver, a quarter of a grain to the ounce of water, were ordered, and the pills to be continued. 10th. The discharge was whitish and free from pain; a cauterization was made with nitrate of silver, by means of the caustic holder. 12th. Scarce any discharge remained, and the patient left on the 20th.

CASE XXII. *Urethral blenorrhœa with erosion ; inoculation unsuccessful.*

R—, aged 22, entered Oct. 7, 1836. The affection had existed seventeen days; at first, the pain was very acute. The patient had had all the symptoms of the most intense blenorrhœa with chordee. The pain was still very acute; the matter of the discharge was purulent and bloody; the lips of the meatus were eroded, as well as the urethra, as far as could be seen; the canal appeared to the touch as if stretched on a probe; but there was no particular point indurated. Twenty-five leeches were applied to the perinæum, and two pil. opii camph. were prescribed.

8th. The pus taken from the meatus urinarius was inoculated; injections of argent. nitr. were ordered. 9th. The discharge appeared a little modified; the pain was much diminished. 10th. The inoculation had pro-

duced nothing; the injections were continued, and four drachms of cubebs were ordered. 18th. The blennorrhœa, which was much better, and the discharge, which was whitish, and flowed without pain, had returned to the acute stage, in consequence of the imprudence of the patient, who had drunk two glasses of wine. The injections were suspended and the pills continued. 19th. The acute symptoms had yielded; the whole surface of the urethra was cauterized with argent. nitr. with Lallemand's porte-caustique. 21st. The discharge was modified and much diminished; the pills were continued. 24th. The discharge had nearly ceased, and a fresh cauterization was made, and, Nov. 11th, the patient left quite cured.

CASE XXIII. *Urethral blennorrhœa; inoculation without success.*

Fin——, aged 19, entered April 19, 1836. Eight days after a suspicious intercourse, this patient became affected with a blennorrhœa, which at first was very painful. The acute stage still existed; the erections were very frequent and painful. Twenty-five leeches were applied to the perinæum; the bowels being confined, a bottle of Seidlitz water was ordered.

27th. The pains had disappeared; the erections had yielded to the pil. camph.; the discharge was not very abundant; but it contained much greenish pus, some of which was inoculated on the right thigh; injections of nitrate of silver were ordered.

29th. The inoculated puncture had produced no result; the discharge had become whiter.

May 10th. There was no more discharge from the blennorrhœa, and the patient left on the 24th.

CASE XXIV. *Acute urethral blennorrhœa; inoculation unsuccessful.*

Pay——, aged 21, entered July 5, 1836. Six days after a suspicious intercourse, this patient was attacked with a blennorrhœa which had caused him much pain. When he entered the hospital, eight days after the discharge appeared, the matter was greenish, and the emission of his urine was painful. Twenty leeches were applied to the perinæum, and an enema of the magn. sulph. was ordered.

July 8th. The pus of the blennorrhœa was inoculated on the right thigh. 11th. The puncture had produced nothing; the discharge was less copious, and the pain of urinating was less; injections of arg. nitr. were prescribed, in the dose of a quarter of a grain to the ounce of water. 14th. The matter of the discharge was whitish and almost serous; the injections were continued, and two drachms of cubebs twice a day ordered. This treatment was continued till the 27th, when the patient left quite cured.

CASE XXV. *Acute urethral blennorrhœa; inoculation unsuccessful.*

Dub——, aged 18, entered Oct. 24, 1835. Five days after a suspicious intercourse, this patient was attacked with blennorrhœa, the discharge from which had gradually increased, and at the time of his entry had become

very copious. The patient felt acute pain on urinating, and had taken no medicine; the discharge was greenish and bloody; no induration was to be perceived in the canal of the urethra.

Oct. 26th. The blenorrhœal pus was inoculated by two punctures on the left thigh. The bowels not having been relieved for three days, an enema with two ounces of sulphate of magnesia was prescribed, with pil. camph. and fomentations with decoct. malvæ. 27th. The inoculated points were slightly reddened. The treatment was continued. 28th. The two punctures were cicatrized; the inoculation had produced no result.

Nov. 1st. The inflammation was decreased. 2d. A fresh inoculation was made by two punctures on the right thigh; the discharge was still a little bloody. 6th. The inoculation of the 2d having produced no result, it was repeated on the left thigh. 8th. The punctures were cicatrized. Emulsion of copaiva was prescribed, with injections of nitrate of silver. On the 25th, the patient left cured.

CASE XXVI. *Urethral blenorrhœa become acute; inoculation unsuccessful.*

Lien—, aged 22, entered June 28, 1835. For six weeks this patient had been affected with a blenorrhœa, which he appeared to have renewed several times. He had never taken medicine; a few days rest, and a warm bath or two, had removed the acute and brought back the chronic stage. On entering, the discharge was very copious, in consequence of some excesses; he had pain in urinating, and the bowels were constipated. The blenorrhœal pus was inoculated on the left thigh; a bottle of Seidlitz water, cauterization with arg. nitr. and pil. camph. were prescribed.

July 18th. The discharge had much decreased; the inoculated puncture had produced nothing; four drachms of cubebs were ordered. The patient was dismissed in a few days; eight days afterwards he came to the hospital, and the discharge had not returned.

CASE XXVII. *Balanitis, acute urethral blenorrhœa; inoculation unsuccessful.*

Gui—, aged 27, entered Nov. 1, 1836, had contracted an acute blenorrhœa six weeks previous, for which he was not treated. Three weeks later, after fatigue, a balanitis, favored by a natural phimosis, developed itself. Now the blenorrhœa was in the acute stage, in consequence of an inflammation which had lasted eight days; the purulent secretion was much increased; the pains were very intense during the emission of his urine; there was no induration in the canal of the urethra; the discharge was a little tinged with blood. The balanitis appeared super-excited; some very red spots were perceived on the glans, marking the points which were deprived of the epithelium.

4th. The pus from the blenorrhœa was inoculated on the left thigh by two punctures; injections of aq. goulard. were ordered for the blenorrhœa.

12th. The inoculated punctures had produced nothing. A fresh inoculation of the blennorrhœal pus was made on the right thigh; the balanitis was cauterized with argent. nitr. by carrying the caustic around between the glans and the prepuce; some fine lint was then introduced to prevent the contact of the mucous surfaces. The urethral surface was cauterized with nitrate of silver, by means of the caustic holder. 18th. The balanitis had disappeared, and but little discharge remained. The punctures inoculated on the 12th had produced nothing; the urethral cauterization was continued; four drachms of cubebs per diem were prescribed. 24th. The urethral discharge no longer presented the characters of a mucous supersecretion; on the 30th, the patient left quite cured.

CASE XXVIII. *Utero-vaginal blennorrhœa, ulceration of the cervix uteri; inoculation unsuccessful.*

Sal— Caroline, aged 28, entered June 16, 1835. For seven years this patient had been affected with a discharge which had several times relapsed into the acute stage; she had often communicated blennorrhœa, but never chancres; moreover, she stated she had never perceived any such ulcers on herself. She had never had any symptoms which could be attributed to a secondary syphilitic affection. Now, the blennorrhœal discharge was very abundant and of a greenish color; on examining the sexual organs with the speculum, a purulent secretion was seen to proceed from the orifice of the cervix, whose posterior lip presented an ulceration in the form of a blister, and the left commissure an ulcerated fissure; the vagina was red, and the mucous membrane granulated by the inflammatory tumefaction of the follicles. Some pus was taken from the ulceration of the commissure and inoculated on the right thigh by two punctures; then the pus collected from the surface of the vagina was inoculated on the left thigh in like manner.

19th. The inoculations had produced nothing; the discharge was whitish, and indicated a tendency to return to the chronic stage. 24th. On examining with the speculum, the vagina was pale; the granulations had disappeared; the ulcer of the commissure was granulated on all its surface; the ulcerated points were cauterized, and the caustic was carried rapidly over the mucous membrane from the cervix uteri to the vulva. Injections and tamponing with decoct. alb. were ordered. 27th. Little discharge remained; the superficial ulcer of the posterior lip of the cervix had disappeared, and the epithelium had become smooth. 29th. All was cured: the patient left the hospital.

CASE XXIX. *Utero-vaginal blennorrhœa, ulceration of the cervix, inoculated without result.*

Plais— Anne, aged 39, entered July 21, 1835. The disease commenced two years previous, at which time a chancre at the anterior part of the vulva and a blennorrhœa appeared; the chancre was dressed with ung. mer

and cerat. saturn., and cured after two months treatment; three months later, a lenticular syphilide showed itself, but disappeared after a month's treatment with pills of iodid. mercur., sudorific sirup, and tisane. On entering, she had a blenorrhœa, which, without completely stopping, had frequently become again acute. In examining with the speculum, a copious utero-vaginal discharge was found; the cervix presented several points which were deeply eroded, and whose surface was grayish and covered with an albuminous adhering secretion. Injections and tamponing with decoct. alb. were ordered.

Aug. 5th. The discharge had decreased, but the ulcerations of the cervix were nearly in the same state. Some pus was taken from their surface and inoculated on the right thigh; a general cauterization was then made with argent. nitr. The injections and tamponing were continued. 12th. The inoculation made on the 5th had produced nothing; a fresh cauterization was made with arg. nitr.

20th. The discharge had nearly disappeared; most of the ulcerations of the cervix were cicatrized; those which remained on the posterior lip were rose-colored and granulated; a cauterization was made with argent. nitr. 25th. But little discharge remained; the injections and tamponing were continued. 31st. The mucous membrane of the vagina was pale and healthy; all the surface of the cervix presented a smooth and well-organized epithelium. The patient left the hospital cured.

CASE XXX. *Urethral blenorrhœa, epididymitis; inoculation without result.*

Eno—, aged 21, entered June 6, 1835. The blenorrhœa had in this case lasted a month; it appeared eight days after a suspicious connexion: during the first part of the time, the complaint proceeded with great acuteness and occasioned violent pain, which soon disappeared, the patient having submitted to a strict diet and perfect rest; a fortnight after the appearance of a blenorrhœa, he had recourse to the treatment with Armenian bolus and sarsaparilla; at first the discharge decreased a little, but an obstinate constipation soon followed; the urine became red; at length, to use the expression of the patient, he was seized with a great heat, followed by an epididymitis, which induced him to come to the hospital. We then found but little discharge, which was slightly tinged with green; there was no induration in the canal, nor pain in passing his urine, nor on pressure; on the right side there was an acute epididymitis; the affection was only sympathetic; the spermatic cord and testicle were healthy, but the epididymis was four times its usual size; thirty leeches were placed upon the course of the cord and an opiated cataplasm applied to the scrotum. A bottle of Seidlitz water was prescribed to evacuate the rectum.

8th. The acute symptoms of the epididymitis had somewhat abated; however, twenty-five leeches were applied to the course of the cord; frictions of half a drachm of ung. mer. were made upon the scrotum. The

discharge seemed a little increased. The muco-pus from the urethra was inoculated by two punctures on the right thigh; cataplasms were applied to the scrotum. 12th. The inoculated punctures had produced nothing. The epididymitis had much decreased; the frictions were continued, and injections of zinc. sulph. were ordered for the gonorrhœa. 21st. Only an indurated knot remained on the epididymis; the treatment was continued. Little discharge remained; four drachms of cubebs were ordered. 27th. Compresses imbibed with decoct. alb. were applied to the scrotum. The injections were suspended and the cubebs continued. July 11th, he left cured.

CASE XXXI. *Urethral blenorrhœa, epididymitis; inoculation without result.*

MOR—Edouard, aged 18, entered Oct. 10, 1835. This patient, who was affected with a blenorrhœa, the commencement of which could not be accurately determined on account of the numerous relapses which had occurred, entered the hospital to be cured of a sympathetic epididymitis, which had followed an excess at table. At the time of his entry, the blenorrhœal discharge was nearly suppressed from the irritation of the epididymitis, and only in the morning a few drops of a whitish matter were perceived at the extremity of the penis; leeches were applied along the course of the cord, and cataplasms to the scrotum.

17th. The inflammation of the epididymis was much diminished, but the blenorrhœa had reappeared in a large quantity; injections of acetate of lead were ordered, and mercurial frictions made on the testicle. 28th. The blenorrhœal pus was inoculated on the left thigh. 30th. The puncture had produced nothing; the injections were continued, and copaiva in bolus was ordered. By Nov. the 20th, the patient was cured and left the hospital.

CASE XXXII. *Urethral blenorrhœa, sympathetic epididymitis; the pus of the blenorrhœa inoculated unsuccessfully.*

Resk—Nicolas, aged 21, entered May 24th, 1835. This patient had been affected with a blenorrhœa for two months; it had appeared two days after a connexion, and at the commencement was very painful; the patient had been under no treatment; an epididymitis had appeared four days before his entry. We found the discharge whitish and small in quantity; it had nearly disappeared on the second day after the development of the epididymitis; the cord was healthy, thirty leeches were applied on its course; frictions with ungu. mercur. and applications of cataplasms were made to the testicle.

June 8th. The epididymitis was far less intense; the blenorrhœal discharge had again become copious; some of the pus was inoculated on the right thigh, and injections of acet. plumb. with bol. copaiiv. were prescribed.

12th. The inoculation of the blenorrhœal pus was unsuccessful, and the patient left cured on the 27th.

CASE XXXIII. *Urethral blenorrhœa and sympathetic epididymitis; the blenorrhœal pus inoculated unsuccessfully.*

Pap— Julien, aged 18, entered May 30, 1835. The blenorrhœa had lasted six weeks; it first appeared eight days after a suspicious connexion; about a week previous to his entry, an epididymitis appeared on the left side, in consequence of over exertion; the patient suffered much at the commencement; he had colic, nausea, and headache. Upon his entry we found the testicle little developed, the epididymis large, but with little tension; the cord was healthy. Twenty leeches were ordered to be applied along the course of the cord, and cataplasms; for the blenorrhœa, injections of sulphate of zinc; but previous to any treatment, the whitish pus proceeding from the urethra was inoculated on the right thigh.

June 8th. The puncture had produced nothing; a fresh inoculation was made on the left thigh. Half a drachm of ungu. mercur. was rubbed in on the testicle. 9th. There was a great improvement; the copaiva bolus was prescribed. 10th. The inoculated punctures had produced nothing; and the patient being cured, left on the 20th.

CASE XXXIV. *Utero-vaginal blenorrhœa, bleeding ulceration of the cervix; inoculation unsuccessful.*

Bu— Sophie, aged 19, entered July 28, 1835. A fortnight previous, this patient perceived a copious discharge and smarting of the vulva. Now, examination with the speculum showed the existence of a purulent uterine catarrh; the vagina presented here and there some red and seemingly excoriated spots; on the anterior and internal surface of the posterior lip of the cervix, a bleeding ulceration was discovered. The pus collected on its surface was inoculated on the right thigh. 30th. The inoculation had not taken; the ulceration of the cervix was cauterized with arg. nitr. and injections and tamponing with decoct. alb. were ordered.

Aug. 6th. The discharge was much diminished. A fresh cauterization and the same treatment as before were ordered. On the 26th, the patient left cured.

CASE XXXV. *Urethral blenorrhœa, indurated bubo; inoculation unsuccessful.*

Jac—, aged 18, entered May 10, 1836. This patient had been affected with blenorrhœa for two months, generally of an indolent character. A fortnight previous to her entry, a bubo appeared on the right side; its progress had been slow; there was no pain upon pressure; its volume was small, and appeared for some days to have remained stationary. We found a copious discharge of whitish, mostly muco-pus.

May 12th. The blenorrhœal pus was inoculated with two punctures on

the right thigh; compression and compresses dipped in decoct. alb. were applied to the bubo; for the blennorrhœa, the cubebæ and iron in doses of four drachms per diem were given. 16th. The inoculated punctures had produced nothing. The bubo seemed to vanish; the blennorrhœal discharge had decreased. 18th. The bubo and discharge had nearly disappeared. On the 24th, the patient left quite cured.

CASE XXXVI. *Urethral blennorrhœa, sympathetic bubo; inoculation unsuccessful.*

Br—, aged 32, entered July 11, 1835. This patient had for three months been afflicted with a blennorrhœa, which was very painful in the commencement, and for which he had received no treatment. Six weeks previous, a bubo had developed itself in the left groin; its progress had been sub-acute, but it was suppurating. The blennorrhœa had caused a copious whitish discharge; there was neither pain nor induration in the course of the canal of the urethra. The edges of the bubo appeared much undermined at the base; there appeared to be an indurated engorgement, embracing some of the deep-seated ganglions.

12th. The bubo was opened, and cataplasms applied to it.

18th. The pus of the bubo was inoculated by two punctures made on the left thigh, and the same upon the right. To promote their solution, frictions of ungu. mercur. were ordered to be made upon the bubo. The gonorrhœa was treated with injections of zinc sulph. 19th. None of the inoculated punctures had taken; the blennorrhœa remained little decreased. 21st. There was much pus from the bubo; but its base was a little diminished; the treatment was continued. For the blennorrhœa, two drachms of the copaiva bolus per diem were added to the injections. 30th. There remained but little induration around the bubo, which had nearly disappeared, as well as the blennorrhœal discharge. The treatment was continued.

Aug. 4th. The bubo had disappeared; the applications of ungu. mercur. were discontinued and replaced with decoct. alb. On the 10th, the patient was dismissed.

CASE XXXVII. *Urethral blennorrhœa, lymphitis and sympathetic bubo; inoculation without result.*

Nob—, aged 20, entered Jan. 3, 1836. This patient had a blennorrhœa of three weeks duration; at no period had it occasioned any pain. Ten days previous to his entry, a lymphatic on the dorsum penis was irritated, and its course was marked by a red line, running towards the groin; at the same time a bubo developed itself. Till the above day, no treatment had been used; the blennorrhœal discharge was copious, and the matter of a greenish white color. The red line from the lymphatic had nearly disappeared, but the vessel appeared indurated to the touch. The ganglionic engorgement was very indolent and made no progress.

4th. The blenorrhœal pus was inoculated on the right thigh.

5th. The inoculation was ineffectual, and it was repeated. 18th. The inoculation made on the 5th had produced nothing. Cataplasms were applied to the bubo, as the patient had felt some pain. 23d. Injections of iodide of iron were ordered; half a drachm to eight ounces of water.

Feb. 10th. The discharge was somewhat less; the dose of the iodide of iron was increased to a drachm to the same quantity of water. 13th. The discharge still remained; the matter was still muco-purulent. The iodide was increased to two drachms. 17th. Only a mucous discharge remained; the patient felt no pain in the canal. The iodide was increased to three drachms to the eight ounces of water.

March 3d. The patient was dismissed cured.

CASE XXXVIII. *Urethral blenorrhœa, sympathetic bubo; inoculation of the blenorrhœa unsuccessful.*

Mel—, aged 20, entered Aug. 30, 1836. The blenorrhœal affection had lasted eighteen months; the patient had undergone no treatment; three weeks previous to his entry, eight days after a connexion and excesses at table, an indolent bubo appeared on the right side. Blisters were ordered to be applied to the bubo, and dressings of sublimate, twenty grains to the ounce of water.

Sept. 10th. The pus of the blenorrhœa was inoculated on the left thigh. 16th. The puncture made on the 10th had produced nothing; the bubo had much decreased under the influence of the blisters and dressings of sublimate. Injections of iodide of iron were ordered for the blenorrhœa. 22d. The discharge had ceased; the bubo had nearly disappeared, and on the 27th the patient was dismissed cured.

CASE XXXIX. *Urethral blenorrhœa, sympathetic bubo; inoculation unsuccessful.*

Des—, aged 32, entered Nov. 1, 1836. This patient had been affected with a blenorrhœa two months previous, which had soon yielded to antiphlogistic treatment. Six weeks before his entry, after some very fatiguing work, a bubo appeared in the left groin; its progress was sub-acute, and it opened spontaneously some time previous to his entry into the hospital, at which time the blenorrhœa was completely cured; there was some fluctuation at the base of the bubo, and the skin which covered it was undermined at several points, and of a livid red color; there were two or three openings having an appearance of fistulous passages.

2d. The pus collected at a point, which seemed in the ulcerated stage, was inoculated on the right thigh; the canals were divided, and some flaps of skin taken away. 4th. The inoculated puncture had produced nothing; the bubo was cauterized and dressed with aromatic wine. 8th. Cataplasms and ung. mercur. were applied to the bubo. By the 18th the patient was cured and left the hospital.

CASE XL. *Urethral blenorrhœa, sympathetic bubo; inoculation unsuccessful.*

Chauv—, aged 28, entered April 19, 1836. The blenorrhœa had lasted nearly two months, and the bubo a fortnight. We found a copious whitish discharge; the patient felt no pain on passing his water; the pus from the urethra was inoculated. 21st. The inoculated puncture did not take; injections of arg. nitr. were ordered, one grain to four ounces of water, and copaiva in emulsion.

May 4th. The bubo was opened, and cataplasms applied to it; the treatment for the blenorrhœa was continued. 7th. The puncture made with the pus from the urethra had produced nothing; the blenorrhœa had disappeared. The patient left cured on the 17th.

CASE XLI. *Urethral blenorrhœa, followed by a ganglionic engorgement; unsuccessful inoculation of the blenorrhœal pus.*

Col—, aged 22, entered May 31, 1836. Eight days after a connexion, this patient was affected with an acute blenorrhœa, for which he was not treated. On entering, we found the disease had existed two months and a half; there was no pain from the discharge, which was very copious and puriform. There was a slight ganglionic engorgement on the left side, which had not increased in the last month.

June 3d. The blenorrhœal pus was inoculated on the right thigh; injections of arg. nitr. and two drachms of cubebs night and morning were ordered. 10th. The blenorrhœa had nearly disappeared; the inoculation was unsuccessful; the injections and cubebs were continued. July 1st, the patient left cured.

CASE XLII. *Urethral blenorrhœa, indolent buboes; inoculation of the blenorrhœal pus without result.*

Ferr—, aged 22, entered Sept. 19, 1836. The blenorrhœa had been contracted a month previous; it developed itself eight days after a connexion. At first very painful, it soon became chronic; two sub-inflammatory buboes developed themselves on the right and left, and were now very large. The patient had never had chancres; no traces of any cicatrized ulcerations were to be seen upon the penis; the blenorrhœal discharge was very copious. Prescription: injections of acetate of lead, blisters to be applied to the buboes, and dressings of solution of sublimate, twenty grains to the ounce of water.

Sept. 21st. The blenorrhœal pus was inoculated on the right thigh, before commencing the treatment. 24th. The punctures were cicatrized. 29th. The buboes were much decreased; a fourth blister was applied; four drachms of cubebs per diem were given, and by the 12th of Oct. all was well.

CASE XLIII. *Urethral blenorrhœa ; inoculation unsuccessful.*

Del— Leon, aged 17, entered May 3, 1836. This patient was for the first time affected with a blenorrhœa, two months and a half before his entry, and he had been treated for it by another surgeon. For five weeks, his treatment had consisted in copaiva in various forms; the complaint was declared cured, and the patient left the hospital. But three days afterwards, without sexual intercourse or having committed any excess, the blenorrhœa reappeared, but without pain. Prescription: injections of arg. nit. one grain to four ounces of water. The blenorrhœal pus was inoculated on the right thigh.

6th. The punctures had produced nothing. Prescription: injections of nitrate of silver; cubebs in two drachm doses night and morning. The patient was dismissed cured May 9th. A week later, he presented himself again at the hospital, when the blenorrhœa had not returned.

CASE XLIV. *Blenorrhœa ; chancre from a new infection ; urethro-genital blenorrhœa ; granulated ulceration of the cervix ; inoculation upon the patient herself, and upon a healthy individual without effect.*

Soy— Pole, aged 23, entered June 16, 1835. This patient contracted a blenorrhœa in the beginning of February. After twenty days in the acute stage, the affection became chronic without any treatment; from that time the patient, who thought she had only an increased secretion of fluor albus, having again had sexual intercourse, brought back several times a state bordering on the acute stage; at length, having several times communicated a blenorrhœa, she determined to come to the hospital to be treated for some chancres which she had contracted about a week previous. We found confluent chancres at the entrance of the vulva, and a very copious discharge. By examining with the speculum it was found, that the acute blenorrhœa was urethro-genital; the finger being introduced into the vagina, upon pressing the convexity of the urethra, pus was seen to proceed from the interior of the canal, whose surface, as seen through the meatus urinarius, appeared swollen, but not eroded; the mucous membrane of the vagina was red and granulated; the cervix, over which the pus of the uterine blenorrhœa passed, presented at the os tunica, the anterior and posterior labia, deep ulcerations, having the appearance of chancres; their base was covered with a pultaceous grayish membrane; at the commissure of the labia on the left, there was a superficial granulated ulceration, penetrating into the cavity of the cervix.

17th. A bath and emollient injections were ordered. 20th. The chancres of the vulva were dressed with calomel and opium cerate. 23d. The speculum was applied, and the cavities of the uterus and cervix were cauterized; the nitrate of silver was applied to the ulcerations, then carried gently over the surface of the cervix and vagina; the patient felt no pain upon the application of the caustic; the vagina was tamponed with dry lint. 24th. The discharge had become much less since the cauterization.

25th. The matter of the discharge was less charged with pus; the ulcerations of the cervix had nearly freed themselves of the pulpy crust which covered their surfaces. Injections of decoct. alb. had been ordered on the preceding day. 30th. The chancres of the vulva appeared to tend towards the period of reparation; the erosions of the cervix presented a rose-colored base, covered with granulations; the suppuration was very active on their surface; the edges were no longer raised; pus taken from the posterior labium was inoculated by two punctures on the right thigh; a general cauterization was then made with the nitrate of silver, and tamponing with dry lint was performed.

July 7th. The discharge had much decreased; the surface of the vagina appeared healthy, and no longer red or granulated; the mucus which passed over the cervix was transparent; the ulcerations of the posterior lip were almost level with the surrounding parts; their surface was in full progress towards reparation, they still furnished much pus; the anterior lip was cauterized; only an ulceration covered with granulations remained; that of the commissure had disappeared under the action of the cauterization carried into the interior of the cervix. No more pus came from the urethra, only a super-secretion of mucus. Some pus was taken from the ulceration of the posterior lip of the cervix, and inoculated in two places on the inner part of the left arm of a healthy individual; then some of the pus was inoculated on the left thigh of the patient. The inoculation made June 30th had produced nothing. By the aid of the speculum, a general cauterization was made, particularly upon the ulcerated points.

July 10th. The inoculations made upon the healthy individual had produced nothing, nor had that made upon the thigh of the patient. The discharge had nearly ceased; injections of decoct. alb. were ordered. 17th. An examination was made with the speculum; the ulcerations of the cervix had disappeared; the chancres of the vulva had been cured six days. The patient was discharged cured.

CASE XLV. *Chancre, bubo, vaginal blennorrhœa with superficial erosion of the cervix; inoculation unsuccessful.*

Gentil—Marguerite, aged 19, entered May 19, 1835. The affection had lasted four months; chancres appeared at the orifice of the vulva, and also a copious blennorrhœal discharge; a fortnight later, buboes appeared on each side; their progress was acute; they were opened, and then assumed the appearance of symptomatic buboes. We found the chancres and buboes in the period of reparation; the matter of the discharge was greenish and charged with pus. The speculum being applied, the cervix was seen to be eroded at several points, as in some cases of balanitis; the vagina was red, and covered with a thin purulent secretion; the mucus, proceeding from the uterus, appeared transparent. The granulated surface of the chancres was cauterized, as well as the buboes, which were

also in the period of reparation; dressings of calomel and opium cerate were ordered.

21st. The pus collected from the surface of the vagina was inoculated by two punctures made on the left thigh. 26th. The inoculated punctures had produced nothing; the same dressings were continued, with injections of decoct. alb. 30th. The chancres of the vulva were healed, as well as the bubo on the right. As the discharge still remained copious, injections of alum sulph. were ordered.

June 7th. The surface of the cervix and vagina was cauterized with arg. nitr. 10th. The discharge had nearly disappeared, and on the 14th, the patient was examined with the speculum; the cervix and the vagina were perfectly healthy. The patient was therefore dismissed.

CASE XLVI. *Chancre, blenorrhœa, abscess of the epididymis; inoculation unsuccessful.*

Dac— Victor, aged 20, entered June 30th, 1835. This patient, who had been affected for two months with a blenorrhœa, which appeared six days after exposure, and a chancre of the frenum, contracted in consequence of a rupture of this part, had hitherto made some irregular attempts at treatment, but had received no benefit. Four days before his entry into the hospital, an epididymitis supervened. We found that the urethral discharge was without pain; the matter was whitish; on the frenum was a chancre in the period of ulceration; the cord was engorged in its whole extent, and the epididymis was very large. For the blenorrhœa, injections of sulphate of zinc and copaiva in bolus form were ordered; cataplasms were applied to the scrotum, and frictions made with ung. mercur. The chancre was dressed with calomel and opium cerate. The bowels not having been relieved for three days, an enema of magnes. sulph. was administered, and to combat the inflammation of the epididymis, twenty leeches were applied to the spermatic cord.

27th. The blenorrhœal discharge had decreased; the chancre of the frenum had been cauterized with arg. nitr.; the inflammation of the epididymis was less, and a raised hardened point was perceived upon it. July 1st. The blenorrhœa had nearly ceased; the chancre still remained, and one half of the surface was still in the period of progress; the raised point on the epididymis appeared inclined to suppurate.

13th. The patient had only a few drops of blenorrhœal pus in the morning; the chancre was cicatrizing; the abscess on the epididymis was open, and its pus was inoculated on the right thigh.

17th. The puncture made with the pus from the epididymis had produced nothing; the blenorrhœa was cured; the chancre almost cicatrized; the abscess furnished little pus; compresses with decoct. alh. were placed on the scrotum, and, Aug. 8th, the patient left cured.

CASE XLVII. *Phimosis, balanitis with erosion; inoculation unsuccessful.*

Reed—, aged 21, entered May 9, 1836. Unable to define the commencement of the complaint, this patient stated that for about a fortnight, he had felt a smarting on the glans. He had a congenital phimosis, which allowed of the glans being partly uncovered. Since that time the prepuce had become œdematous, and the pains had greatly increased; he felt no pain on urinating, which he could in any way attribute to the canal of the urethra; he only suffered from the contact of the urine with the excoriated margin of the prepuce. As far as could be ascertained, the pus which flowed from this aperture did not proceed from the urethra. The pus taken from the eroded parts of that portion of the glans which could be uncovered, was inoculated on the right thigh; twenty-five leeches on the penis, and emollient and opiated applications were ordered.

May 11th. The puncture was red, but not vesicular; the œdema of the prepuce had much decreased; the existence of a balanitis was ascertained, with erosions of the glans in patches and stretching to its base; the internal part of the prepuce was also eroded in large spots; the whole surface was cauterized with arg. nitr., and a bit of dry linen placed between the glans and prepuce. The pain, which at first was very sharp, entirely ceased in half an hour. 12th. The prepuce was no longer œdematous; the diseased surfaces were almost dried up and free from pain; the inoculated puncture was rather vesicular and pointed. 16th. All was healed, and the patient left.

CASE XLVIII. *Balanitis with erosion; sympathetic bubo; unsuccessful inoculation of the pus of the balanitis and that of the bubo.*

Laut— Antoine, aged 22, entered Nov. 21, 1836. This patient also having a natural phimosis, was unable to state the time when the balanitis had commenced; he only said that for a month, the pains had been very violent, and the prepuce had become œdematous. A fortnight previous, a bubo had appeared on the left side; its progress had been subacute and little painful. At the time of his entry, he could not uncover the glans which was eroded in several places; some of the erosions were deeper, and seated on the left side of the frenum.

23d. The pus of the balanitis was inoculated on the right thigh; all the diseased surface was cauterized with arg. nitr., and a piece of dry linen placed between the glans and the prepuce. 26th. Only a few of the eroded points near the frenum remained; the inoculated puncture, which at first appeared to follow a regular course in its development, dried up without any result; the bubo had been treated with cataplasms.

Dec. 12th. The bubo was opened; the glans was healed. On the 14th, the pus of the bubo was inoculated on the left thigh. 17th. The inoculation had not succeeded; the cavity of the bubo was cauterized, and the patient left cured on the 30th.

CASE XLIX. *Balanitis with erosion, blenorrhœa, bubo; inoculation unsuccessful.*

Lem —, aged 34, entered Nov. 14, 1835. This patient had perceived, twenty days previous, an erosion at the base of the glans; soon after a blenorrhœa followed, and then a bubo appeared in the right groin. We found part of the surface of the eroded glans healing; the blenorrhœa, whose progress had been very acute, afforded a copious and bloody discharge; the bubo had suppurated.

18th. The bubo was opened, and the pus inoculated on the left thigh; the pus of the vesicular ulceration, seated on the glans, was inoculated upon the upper part of the left thigh, and that from the gonorrhœa on the lower part of the same thigh; the erosions of the glans were cauterized, and some lint dipped in decoct. alb. applied to it; cataplasms were placed on the bubo; for the blenorrhœa, the interior of the canal was cauterized with Lallemand's caustic holder. 21st. The inoculation had produced nothing, and the patient left cured.

CASE L. *Balanitis with erosion, unsuccessful inoculation.*

Lesp —, aged 26 years, entered June 20, 1835. Fifteen days after a suspicious connexion, this patient was affected with balanitis. Some excoriations appeared near the base of the glans; 10 days after the disease began, a bubo appeared, the progress of which was subacute, and which had now suppurated. He had received no treatment.

June 21st. The pus of the bubo was inoculated on both thighs, the balanitis was treated by cauterization with the nitrate of silver, and by interposing a piece of dry linen between the glans and prepuce. 26th. The inoculations were unsuccessful. 27th. Both thighs were again inoculated; the bubo is cicatrizing; the lips of the opening remain apart and are ulcerated. 25th. The points of inoculation are red and pointed.

July 1st. No result from the inoculation, which is again performed on the right thigh with pus from the ulceration. 3d. The punctures are healed; the centre of the bubo is cauterized and dressed with wine. 4th. Inoculation again performed, but unsuccessfully; the wound has a fungous appearance, is cauterized with the nitrate of silver, and dressed with aromatic wine. 20th. The bubo has healed under the influence of the cauterization and wine. Some compresses dipped in the *aqua alb.* were applied, and the patient was discharged cured July 24th.

CASE LI. *Balanitis with erosion, unsuccessful inoculation.*

Ban —, aged 25 years, entered May 24th, 1836. He had been affected with an imperfect phimosis, and the glans was abraded during a suspicious coition 18 days before. The whole prepuce had become œdematous, the glans had swelled, and a very painful balano-posthitis existed. On the glans and prepuce were seen slight ulcers, which seemed to come from the destruction of the mucous membrane; the suppuration was profuse and

sanious; the edge of the prepuce was cleft; there was no discharge of pus from the urethra.

24th. The pus from the orifice of the prepuce was introduced by two incisions in the right thigh; the mucous membrane of the glans and prepuce was cauterized with the nitrate of silver; injections of aromatic wine were prescribed. 27th. The disease had almost disappeared; only a slight ulceration remained of the frenum; it was cauterized, and a dry linen was placed between the glans and the prepuce. 28th. The incisions for the inoculation made the 25th have healed. The ulceration of the frenum is healing; the gentle cauterization and the aromatic wine are continued, and the patient is discharged cured, May 31st.

CASE LII. *Chancre at the period of reparation, balanitis; inoculation unsuccessful.*

Lerg —, aged 26, entered May 24, 1836. This patient had a natural phimosis; but could not exactly fix the time at which the chancres at the base of the glans and of the upper and inner part of the prepuce appeared. He saw them about a month previously, after having with much difficulty uncovered the glans, since which time the prepuce became œdematous, and a balanitis succeeded. Ten days before his entry, some spots of a lenticular syphilide showed themselves on the body and extremities; at the seat of the chancre some induration was perceived; there was no blennorrhœa nor induration in the canal of the urethra, nor engorgement in the groin.

May 27th. The pus of the balanitis was inoculated on the left thigh, to ascertain if the chancres of the glans and prepuce were still in the period of ulceration. The usual treatment was ordered for the balanitis.

June 3d. The inoculation had healed; the lenticular syphilide had made little progress. The pil. hydrarg. iodid. and the sudorific sirup and tisane were ordered. 25th. The eruption began to fade. By July 12th, the patient was cured and dismissed.

CASE LIII. *Balanitis with superficial erosion; inoculation unsuccessful.*

P—, aged 26 years, entered May 4th, 1836. This patient, who had a natural phimosis, observed some vegetations near the frenum after blennorrhœa of eight months duration; they were removed, and a moderate balanitis followed. Eight days since, the balanitis passed, without any known cause, to the acute stage; there was profuse suppuration; the prepuce is swelled, red, and painful; on the inner part there are slight erosions of the mucous membrane.

The pus from the edge of the prepuce was introduced into two places in the right thigh. The sores were cauterized with the nitrate of silver. The aq. alb. was injected between the glans and the prepuce, and dry lint was introduced. 27th. The inoculations were unsuccessful. June 3d. The patient left cured.

CASE LIV. *Balanitis, with erosion and ulceration of the edge of the prepuce ; inoculation unsuccessful.*

Jaquen —, aged 30 years, entered July 4th, 1835. Two months since this patient was affected with blenorrhœa, which appeared eight days after suspicious intercourse; at first it was very painful, but by baths and anti-phlogistic diet the disease became chronic; sometimes it was aggravated; flaxseed and mallows tisanes were the only remedies employed. For twelve days there was balanitis with œdema of the prepuce, the edge of which seemed ulcerated in several parts, and particularly at the lower portion, where there were deep fissures.

The prepuce is now much infiltrated, and forms an intense phimosis, and greenish pus comes from the balanitis; 30 leeches were applied to the penis, which was washed with a strong solution of opium. The pus from the prepuce was inoculated in two places on the right thigh. 8th. The incisions of the inoculation had healed; the prepuce is less infiltrated. The glans is not indurated; its surface, and also that of the mucous membrane of the prepuce, is cauterized with the nitrate of silver, and Goulard's extract is then applied. 9th. The glans is exposed, and no chancre can be seen; there is no pus from the urethra; the prepuce is cauterized, and the patient is discharged on the 11th, cured.

SECTION III.

INOCULATION OF THE PUS TAKEN FROM BUBOES.

CASE I. *Chancre and symptomatic bubo ; inoculation successful.*

Mich—, aged 18, entered Oct. 3, 1835. The patient could not tell the precise date at which the infection had occurred, but thought it was two months since. Twenty days previous to his entry, a bubo appeared on the right side; a chancre was situated on the right side also, near the frenum, nearly all its surface presenting marks of the period of reparation; there was no induration at its base. The progress of the bubo was slow; a little fluctuation was felt near its summit; the tumor was superficial; the fluctuating point seemed to be seated in one ganglion alone; the surrounding cellular tissue and the inguinal glands were engorged. The chancre was cauterized and dressed with vin. arom. A blister was applied to the bubo and dressed with ung. mercur. This dressing was continued till the 21st.

22d. The bubo was opened, and afforded a pretty large quantity of reddish pus. The cavity was deep and round; the pus was inoculated by a

puncture made on the right thigh. The chancre of the frenum had healed. 24th. The inoculation made on the 22d had succeeded, and the pustule was large and well developed; it was opened, and the pus from it inoculated on the left thigh. 27th. The inoculation on the 24th had succeeded; the pustule was formed; it was ruptured, and beneath it a chancreous ulcer was seen piercing the entire thickness of the skin. Both inoculations were dressed with vin. arom. and cauterized with arg. nitr. The suppuration appeared to extend in the indurated mass which enveloped the suppurated ganglion; the swelling had decreased, but the skin was left undermined.

Dec. 1st. The inoculated points were healing; the skin which covered the bubo was destroyed by a rapid ulceration, and the cavity laid open. Aromatic wine was applied.

May 10th. The period of reparation had commenced. The dressings were continued, and the patient left cured on the 30th.

CASE II. *Chancre, symptomatic bubo; inoculation at first unsuccessful, then producing the characteristic pustule of chancre.*

March—, aged 27, entered June 18, 1835. The chancre situated near the frenum appeared five weeks previous; he was first treated with sarsaparilla. Twelve days before his entry, a bubo appeared on the left side. We found the chancre healing; the bubo had suppurated; it was opened, and the pus inoculated immediately by two punctures made on the left thigh. The pus of the chancre was inoculated on the right thigh by a single puncture. 19th. The inoculated punctures had produced nothing; the lips of the incision made in the bubo had become ulcerated. A fresh inoculation of the pus of the bubo was made on the left thigh. The chancre was cauterized and dressed with vin. arom. 24th. The punctures made on the 19th had succeeded, and the pustules were very fine; the chancre was healed; the bubo was cauterized and dressed with vin. arom. 26th. The lower pustule was cauterized with arg. nitr.; the bubo was a little better.

July 3d. The pustule cauterized June 26th was nearly destroyed; the chancre from the superior pustule, which had been allowed to take its course, was well cauterized, and then dressed with vin. arom. There was still some induration at the base of the bubo; it was dressed with calomel cerate. 12th. The chancre on the thigh was modified by the cauterization; its base was rose-colored, and there was no induration at its base; it was dressed with the aromatic wine. 20th. The bubo was better; the base was becoming cleaner, and the induration decreasing; the treatment was continued till Aug. 4, when the induration had disappeared; the chancre of the thigh was healed, and the bubo was rapidly cicatrizing; some fleshy granulations were cauterized. On the 8th, the patient left quite cured.

CASE III. *Chancre, symptomatic bubo ; inoculation successful.*

Rich—, aged 36, entered Oct. 24, 1835. This patient had at the root of the glans some but slightly developed chancres, most of which were in the period of reparation. He could not determine exactly when the disease had commenced, but he said the suppurated bubo on the left side first appeared a fortnight previous to his entry; its progress had been acute and painful; the skin was red and adherent; there was no induration at the base of the tumor, which had its seat in the superficial ganglions. On the dorsum penis a lymphatic was seen, forming a hardened line running from a considerable chancre on the left side of the glans towards the bubo on the same side.

Oct. 27th. The bubo, which contained much pus, was opened. The chancres of the glans were cauterized and dressed with calomel and opium cerate. 30th. The edges of the opened bubo appeared ulcerated. Pus was taken from the bottom of the cavity and inoculated on the right thigh. On the glans, only the chancre on the left side remained; the others had disappeared under the treatment with the ointment and cauterization with arg. nitr.

Nov. 1st. The two inoculated punctures, made on Oct. 27th, had furnished the characteristic pustules. The inferior pustules were cauterized with argent. nitr. The chancre of the penis was healing. The cavity of the bubo, whose ground was becoming gradually raised, was cauterized. 8th. The second inoculated pustule, which was already covered with a thick crust, concealing the chancrous ulceration, was cauterized. Aromatic wine was applied to the bubo, which was also cauterized with arg. nitr. 12th. No trace of the inoculation, cauterized Nov. the 1st, remained; that which had been allowed to take its course till the 8th, had resisted the cautery; it was dressed with vin. arom. The bubo was better; its ground was raised and covered with fleshy granulations. The same treatment was continued, and the patient dismissed cured on the 27th.

CASE IV. *Chancre, gonorrhœa, symptomatic bubo ; inoculation with positive result.*

Fay—, aged 22, entered Sept. 30, 1836. This patient had contracted a blenorrhœa two months previous to his entry. A fortnight later, he perceived a chancre on the inferior and left side of the frenum. Lastly, a fortnight after the appearance of the chancre, a bubo appeared in the left groin; its progress had been subacute. We found the blenorrhœa but slight; yet the discharge was greenish, and there was pain on urinating. The chancre, in one part of its surface, presented the characters of the period of reparation; there was no induration at the base. The bubo, which had attained a considerable volume, appeared to be seated in the superficial ganglions, and on its summit there was evident fluctuation, although there appeared to be but little pus. The bubo was opened, and

the pus inoculated on the left thigh; the blenorrhœal pus was inoculated on the right thigh. The chancre of the frenum was cauterized and dressed with vin. arom. For the blenorrhœa, injections of arg. nitr. were ordered, and cubebs.

Oct. 3d. The inoculated punctures made on the 30th of Sept. had produced nothing, not even redness; yet the edges of the incision of the bubo were ulcerated, and presented a chancrous appearance. The pus of the bubo was again inoculated on the left thigh. The same treatment was continued. 7th. The inoculated puncture made on the 3d, with the pus of the bubo, had produced the characteristic pustule, which was then destroyed by cauterization with arg. nitr. The blenorrhœal discharge had much decreased; the chancre was healing; the bubo was better; the engorgement at the base had disappeared; the purulent secretion was less; the cavity was cauterized. 12th. The chancre was nearly healed; the blenorrhœa yielded a whitish matter, and he urinated without pain. The ground of the wound being raised, the bubo presented the appearance of an even wound; it was cauterized and dressed with vin. arom. 20th. The blenorrhœa had disappeared, and the chancre had been healed three days. The bubo was granulating; the treatment was continued. 27th. The bubo was nearly healed; it was superficially cauterized, to dry up the wound.

Nov. 1st. The patient was dismissed cured; no induration remained at the base of the bubo.

CASE V. *Chancre, symptomatic bubo; inoculation successful.*

Bast—, aged 18, entered Oct. 24, 1835. Six weeks previous to his entry, eight days after a connexion, a chancre was formed on the skin of the penis; its appearance had been noted from the third day; it began by a pustule, which was only broken on the eighth day, as we have said above. Nearly at the same time, a bubo was seen on the right side, and was treated with leeches and blisters; it disappeared, and left only a little slightly indurated engorgement. The chancres were healed by cauterization; but twelve days later, the bubo became inflamed, and suppurated on the fourteenth day. On entering, no induration remained on the situation of the cutaneous chancre. The bubo was extensively suppurated; it was opened on the 25th; much reddish pus flowed from it; the cavity was large; there was some engorgement at the base, to which cataplasms were applied.

28th. The pus of the bubo was inoculated by a single puncture, made on the right thigh; the edges of the incision made in the bubo appeared ulcerated. 30th. The inoculated puncture had succeeded, and furnished the characteristic pustule.

Nov. 1st. The inoculated pustule was destroyed with arg. nitr. The cavity of the bubo was cauterized and dressed with calomel and opium cerate. 10th. Powdered cantharides were put into the cavity of the bubo,

to obtain the reunion of the undermined skin. 15th. There was a decided improvement; the fleshy granulations were developed. A superficial cauterization was made. 18th. The cicatrization of the bubo progressed. Dressings of aq. Goulard. were used, and by the 30th the patient was cured and dismissed.

CASE VI. *Chancre, symptomatic bubo; successful inoculation.*

Bali—, aged 23, entered July 11, 1835. The patient could not determine exactly the commencement of his disease. On entering, the chancres of the corona glandis were partly at the period of reparation; on the left side was a bubo of eight days standing, in the acute stage.

22d. Twenty leeches were applied to the bubo; the chancres were cauterized and dressed with aromatic wine. 28th. The chancres were nearly cured, but the bubo has suppurated.

Aug. 9th. The bubo was opened, and its pus was introduced into the left thigh. The chancres of the glans are cured. 15th. The inoculation seems to have succeeded, but advances slowly. The edges of the incision on the bubo have an ulcerated form. They are cauterized with the nitrate of silver. 18th. The inoculation has progressed, and is now characteristic; it is destroyed by cauterization. The bubo is healing, but the skin over the abscess has ulcerated. 29th. Granulations appear in the abscess. The pus from a point of the surface, which still seems in an ulcerated state, is introduced into the right thigh.

Sept. 2d. The inoculation is unsuccessful; the whole surface is healing. The cicatrix is assisted by cauterization. 6th. The cicatrix is nearly complete. Compresses with Goulard's extract are applied, and the patient is discharged cured on the 7th.

CASE VII. *Chancres, symptomatic buboes; inoculation unsuccessful the day of the opening, but furnishing the pustule by inoculation made the following day.*

Car—, aged 27, entered Sept. 7, 1836. Nearly a month had elapsed since this patient had contracted a chancre, but he only noticed its presence on the skin of the prepuce, eight days after connexion; eight days later, buboes appeared on the right and left, and were acute in their progress. We found the chancre at the period of reparation; the suppurated buboes did not appear engorged at their base, and seemed quite superficial; on the dorsum penis a hardened line was felt, resulting from an inflamed lymphatic, which, according to the statement of the patient, was red and swollen at the time of the commencement of the buboes, and extended to the left groin. Only a little induration or lymphatic tension remained; the bubo on the left side had opened spontaneously, three days previous to the entry of the patient. The apertures had rounded edges, and appeared ulcerated.

10th. The bubo on the right side was opened, and its pus inoculated or

the right thigh; the pus of the left bubo on the left thigh. The chancre on the flap of the prepuce was cauterized and dressed with vin. arom.; cataplasms were applied to the buboes, the edges of which were much undermined. 12th. The inoculation made on the left side, with the pus of the bubo, which had opened spontaneously, had produced the characteristic pustule. On the right thigh, the inoculation made with the pus of the bubo on the right side the day it was opened, had produced nothing. A fresh inoculation was made on the right thigh, with the pus of the bubo on the right side. 13th. The pustule from the first inoculation was cauterized; the second, made on the 12th, had succeeded. The same dressing was continued for the chancre. 16th. Pulverized cantharides were placed in the cavity of the buboes, to promote the formation of granulations, and thus obtain the adhesion of the undermined edges; by Nov. 4th, the patient was quite cured and left the hospital.

CASE VIII. *Chancre, symptomatic bubo; inoculation successful.*

Bip—, aged 30, entered Sept. 16, 1836. This patient could not define the time when he contracted the chancres of the frenum; he had received no treatment; twenty days previous to his entry, a bubo had developed itself on the right side; its course had been very acute; it had suppurated, and opened spontaneously. 17th. The pus of the bubo was inoculated on the right thigh; the chancres of the frenum were cauterized, and dressed with vin. arom. The bubo was treated in the same manner. 21st. The inoculated pustule was cauterized; the chancre of the frenum had healed, and on the 23d of Nov. the patient left cured.

CASE IX. *Chancres, symptomatic bubo; inoculation successful.*

Boul—, aged 26, entered July 2d, 1835. Three weeks after a suspicious connexion, this patient perceived two little chancres near the frenum; and nearly at the same time, buboes were developed on the right and left sides. It appeared, according to the statement of the patient, that he examined his penis only when he felt the pain in the groin, when he found small ulcers, which at the time of his entry were healing. Without having undergone any treatment, we found upon his coming to the hospital, a fortnight after the appearance of the buboes, that they were suppurated, and the skin was much undermined, especially on the right side.

4th. The bubo on the right side was opened; the chancres were cauterized, and dressed with vin. arom. 8th. The bubo on the left side was opened; an inch and a half above Poupart's ligament, on the abdomen, a tumor, painful to the touch, was found.

14th. The bubo which had formed on the abdomen was opened; and a slightly brownish thin pus flowed from it, similar to that of the two other buboes, whose apertures had become rounded and ulcerated; they were dressed with cataplasms.

18th. The pus of the abdominal bubo was inoculated on the left thigh; and the pus of the bubo of the right side, on the right thigh.

22d. The inoculated punctures had produced the characteristic pustule; the pustule on the right thigh, resulting from the inoculation of the pus of the bubo of the right side, was destroyed by cauterization with argent. nitr.; the pustule on the left side was allowed to take its course; the buboes were dressed with calomel and opium cerate. 26th. The pustule on the left thigh was destroyed by the nitrate of silver; there was some induration at the base of the buboes, and also at the seat of the chancres; the cavities of the buboes had the appearance of extensive chancres in the ulcerative period; on the left, the edges were much undermined; the pus did not escape freely; the liq. Van Swieten, and the sudorific sirup and tisane were given.

Aug. 3d. The indurated points were somewhat diminished; some part of the chancrous surfaces was healing. 8th. The buboes were dressed with wine and tannin. There was a decided improvement. 18th. The induration had nearly disappeared; the abdominal bubo was cicatrized; the bubo on the left side presented some fistulous canals; that on the right was cicatrizing. 20th. The Vienna paste was applied to the left bubo, in order to destroy the portions of undermined skin, which prevented the free discharge of the pus; dressings of wine and tannin were applied. 29th. The bubo on the right side was healed, and the left was in the period of reparation; its rose-colored ground was covered with fleshy granulations, which were cauterized.

The patient left the hospital cured Oct. 19th.

CASE X. Chancres, symptomatic buboes; inoculation producing the characteristic pustule.

Ducel—, aged 20, entered Feb. 16, 1835. The patient had contracted chancres on the glans and prepuce a month previous; the ulcerations had been dressed with opiated mercurial ointment, and afterwards with cerat. plumb. A fortnight before his entry, buboes appeared on the right and left sides, with no other apparent cause than the ceasing of the ulceration and healing of the chancres; their course had been acute; the bubo on the right side presented a little more engorgement than that on the left. The chancres were healed, and the two buboes suppurated; the cavity appeared large, and the surrounding skin much undermined; upon both being opened, a thin brown pus flowed from them. Cataplasms were then applied.

18th. The pus from the buboes was inoculated, that on the right side, by two punctures made on the right thigh; that on the left, by a single puncture on the left thigh: the margin of the incisions appeared ulcerated, and the secretion of pus copious. The inoculation was made in the presence of M. Desruelles. 20th. The punctures had produced the characteristic pustules on both thighs. 22d. The result of the inoculations was

shown to M. Desruelles. One of the pustules on the right thigh and that on the left, were allowed to take their course. The lower pustule on the right thigh, and the cavity of the buboes, were cauterized with argent. nitr.; dressings of vin. arom. were ordered.

March 4th. The inoculated pustules, which had been allowed to take their course, had produced chancres; they were cauterized with arg. nitr. The pustule which had been first cauterized had disappeared. The buboes were better. 11th. The chancre on the left thigh progressed, notwithstanding the cauterization, but it appeared modified. It was dressed with vin. arom. and cauterized. 19th. The chancre on the left thigh had healed without leaving any induration; the buboes were almost cicatrized, especially the left. The dressings were continued, and the patient left cured on the 30th.

CASE XI. *Blenorrhœa, superficial chancre, symptomatic bubo; inoculation producing a positive result.*

Moig—, aged 24, entered Oct. 10, 1835. The patient had for three months been affected with a blenorrhœa, and superficial ulcerations on the prepuce and base of the glans. He had received no treatment. About a fortnight previous to his entry, a bubo appeared on the left side; its progress had been acute, and it had suppurated. The little discharge that remained was white and mucous; the patient suffered no pain on urinating; on the prepuce and glans were some ulcerated spots covered with healthy granulations; the bubo was opened. Injections of plumb. acet. and two drachms of cubebs, three times a day, were ordered; the ulcers were dressed with vin. arom.; they were cauterized with arg. nitr., and cataplasms were applied to the bubo.

17th. The margin of the incision made in the bubo was ulcerated; the reddish pus taken from the depth of the cavity was inoculated on the left thigh; the injections and the cubebs were continued for the blenorrhœa; the ulcers of the glans were nearly healed; a cauterization and dressings of vin. arom. were ordered. 20th. The inoculation made with the pus of the bubo had furnished the characteristic pustule; the blenorrhœal discharge still continued; the muco-pus was inoculated on the left thigh; only a single uncicatrized point remained on the prepuce; cauterization and dressings of vin. arom. were ordered, and the same treatment for the cavity of the bubo, which had a grayish color. 22d. The inoculation made with the blenorrhœal pus had produced nothing; the pustule from the inoculation of the bubo was well cauterized.

28th. The blenorrhœa had ceased; the chancres had disappeared; the inoculated pustule had been destroyed by the cautery; the bubo was healing; it was cauterized, and dressed with vin. arom.; there was no engorgement at its base.

CASE XII. *Chancre of the urethra, symptomatic bubo ; inoculation producing the characteristic pustule.*

Vac—, aged 41, entered Sept. 13, 1836. Three weeks had elapsed since this patient, without having any blenorrhœa or wound on the penis, observed a bubo develop itself in the right groin. The progress of the affection had been sub-acutely inflammatory, and suppuration ensued, notwithstanding an application of leeches. Now the bubo had suppurated and undermined the surrounding skin; no trace of ulceration was to be perceived on the penis; there was no blenorrhœa; at the depth of two lines in the urethra, by separating the lips of the meatus urinarius, a spot of the size of a lentil was perceived, whose granulated surface indicated the seat of an ulcer in the stage of reparation.

16th. The bubo was opened, and the pus taken from the depth of the cavity was inoculated on the right thigh. Cataplasms were applied. 19th. The inoculated puncture was red and vesicular; the cavity of the bubo was cauterized, and dressings of vin. arom. applied. 21st. The inoculation had succeeded; the pustule was then destroyed with arg. nitr. Oct. 15th. All was well,—the patient was dismissed.

CASE XIII. *Chancre and blenorrhœa, symptomatic bubo ; successful inoculation of the bubo.*

Fir—, aged 20, entered April 22, 1836. This patient had long been affected with a blenorrhœa, which had been renewed by frequent exposure, and had been affected with chancres of the glans, near the frenum, about a month before. Ten days since a bubo appeared on each side, which progressed very rapidly, and had now suppurated; there was much inflammation and severe pain.

Now the chancres have disappeared; the cicatrix presents some cartilaginous hardness; there is no blenorrhœa; the two buboes were opened; the pus is thin and sanious; cataplasms are prescribed. April 25th. Inoculation was performed with pus from the right bubo in the left groin, which produced a vesicle on the 28th. 29th. This vesicle was destroyed by the nitrate of silver; the base of the buboes was cauterized, the cataplasms were continued, and the patient was cured May 13th.

CASE XIV. *Concealed chancre, symptomatic bubo, inoculated with positive result.*

Marc— Jean, aged 17, entered May 23, 1835. Five or six days after exposure, and a fortnight before his entry, this patient perceived a slight discharge; he felt no pain except at the extremity of the penis, where there was an indurated spot. Having been obliged to do some fatiguing work, the pains increased, and a bubo appeared on the left side; its course was acute. On his entry into the hospital, there was no discharge, but the induration still remained. The bubo was opened, and its pus inoculated by two punctures, made on the right thigh. 23d. The punctures had

cicatrized; a fresh inoculation was made on the right thigh; the margin of the incision in the bubo had assumed a chancreous appearance.

June 8th. The inoculation had taken; the pustule was opened, and the pus inoculated on the left thigh, and the chancre from the inoculation was cauterized. 19th. The inoculation of the pus from the pustule on the right thigh, had produced a pustule on the left thigh; it was well cauterized. The first inoculation, which had not been entirely destroyed by the cautery, had been dressed with vin. arom.; it was nearly healed; but the bubo, which was extensively open, did not unite its undermined edges with the subjacent parts, and had all the appearance of malignant chancre; its surface was gray and pulpy, and the cavity appeared inclined to increase. It was well cauterized, and then dressed with vin. arom. June 26th. There was a decided improvement, and by July 24th, all was well.

CASE XV. *Chancre, symptomatic bubo, the pus from which was inoculated after having been preserved and dried in the air; the result was unsuccessful. Some of the same pus preserved fluid in an open tube, produced the characteristic pustule.*

Caill—, aged 24, entered Sept. 13, 1836. Five or six days after sexual intercourse, this patient was affected with chancres on the glans, and margin of the prepuce. Eight days later, a bubo appeared on the right side; it was subacute in its progress, but yet there was much pain. On entering the hospital, the tumor was large, but there was no fluctuation. Seventeen days had elapsed since the affection appeared; the chancres had healed. A blister for the bubo, and dressings of sublimate, twenty grains to the ounce of water, were ordered. 15th. A little fluctuation was perceived at the summit of the tumor. The same treatment was ordered, as on the 13th. 30th. The bubo had opened; the pus was inoculated on the right thigh.

Oct. 1st. The puncture had produced the characteristic pustule; it was destroyed by the cautery. 3d. Some of the pus was put in a capsule, and allowed to dry, exposed to the atmosphere. 4th. This pus, having been moistened with a small quantity of water, was inoculated on the left thigh; two days later, it had produced no effect. 10th. Some pus was taken from the bubo, and preserved in an open tube; two days later, having remained fluid, it was inoculated on the left thigh. 16th. The puncture made on the 12th was red, raised and pustular; it was allowed to take its course, that the result might be undoubted. 20th. The pustule had burst, and the chancre was perfectly characterized; it was cauterized, and dressed with vin. arom. Cataplasms and ung. mercur. were ordered to be applied to the bubo.

Nov. 21st. The chancre from the matter in the tube was quite healed; the bubo was dressed with aromatic wine, and on the 9th of Jan., 1837, the patient left cured.

CASE XVI. *Blenorrhœa, chancre; symptomatic bubo inoculated successfully.*

Man—, 28 years old, entered Nov. 7, 1835. For three months this patient had been affected with blenorrhœa, which was very acute at first, and painful, but which soon passed to the chronic state, although no medical treatment was employed. Twenty-three days since, after a new exposure, chancres appeared on the left, near the frenum, and fifteen days afterwards a bubo on the left groin.

The blenorrhœa, the discharge from which had gradually increased, at the period when the chancres were contracted, was now chronic; there was no pain in urinating, and no induration in the course of the urethra; the discharge was whitish, and muco-purulent. The bubo, the progress of which was subacute, had not suppurated; it is hard, and situated in the superficial ganglions; its base is moderately engorged, and it begins to adhere to the skin. Injections of the acetate of lead and boluses of copaiva solidified with magnesia were ordered. The chancre was cauterized and dressed with the pommade of calomel and opium. A blister was applied to the bubo, and dressed with a solution of corrosive sublimate, 20 grains to the ounce of water.

Nov. 15th. The bubo discharged, and its pus was inoculated on the left thigh. The blenorrhœa continued slightly, the injections and copaiva were still used. The chancre is in the state of reparation; it was cauterized with the nitrate of silver, and dressed with fine lint soaked in vin. aromat. The bubo was opened freely, and its centre was cauterized with the nitrate of silver, and covered with a cataplasm. 17th. The inoculation was successful, and it was cauterized; the copaiva was continued for the blenorrhœa, which was now slight, the injections were omitted, the chancre was cured. The bubo was cauterized, and dressed with vin. aromat. 20th. Its base was rosy, and it seemed disposed to heal, and the patient was discharged cured, Dec. 9th.

CASE XVII. *Chancre, blenorrhœa; symptomatic bubo inoculated successfully.*

Montr—, aged 19 years, entered July 12, 1836. The blenorrhœa had continued six months; a month since, from a new exposure, chancres were contracted, which appeared around the corona glandis. Fourteen days before the patient entered, a bubo appeared on the right side, of an acute character; it was superficial and slight; no medical treatment was employed. Now the blenorrhœa was slight; the bubo has suppurated at its base, which does not appear indurated. It was opened when the patient entered; the pus was reddish and not stringy; there was some sloughing, and poultices were applied. The blenorrhœa is treated with injections of the nitrate of silver. 15th. The pus of the bubo is inoculated in the right thigh. The edges of the bubo are ulcerated. 18th. The inoculation has produced the characteristic pustule, which is cauterized with the nitrate

of silver. The bubo is filled with powdered cantharides, to obtain granulations.

Aug. 6th. The inoculated pustule is entirely destroyed by the cauterization of July 18th. The blenorrhœa runs less; cubebs are given in doses of four drachms, and the injections are continued. 30th. The bubo is cauterized with the nitrate of silver, and some parts of it seem disposed to heal.

Sept. 2d. The blenorrhœa is cured; the cubebs are continued; the injections stopped. The centre of the bubo, which is now healing, is again cauterized, and on the 9th the patient is discharged cured.

CASE XVIII. *Chancre, bubo on the right and left sides; that on the right, sympathetic, and unsuccessful after inoculation; that on the left, symptomatic, and yielding the characteristic pustule on inoculation.*

No—, aged 18, entered Jan. 17, 1837. This patient could not precisely determine when he contracted a chancre on the inner and upper part of the prepuce, but thought it was about six weeks before entering. Twenty days since, two buboes appeared, one on the right side, which appeared to be situated in the deeper ganglions, and had only suppurated at the summit; the other on the left, suppurated in its whole extent, and only affecting the superficial ganglions. Now the chancre had cicatrized; both buboes were opened, and the pus from the right bubo was inoculated on the right thigh, and that of the left on the left thigh. After the evacuation of the pus, the left bubo nearly disappeared; on the right, the tumor still remained large; to promote its resolution, the ung. mercur. was prescribed for the next day. Cataplasms were applied to the left side. 20th. None of the inoculations had taken; but in the right bubo, to which the ung. mercur. had not been applied, the edges of the incision were not ulcerated; whilst that made in the left bubo had become round and appeared chancreous. Inoculation was again performed; the right bubo was dressed with ung. mercur.; the left was cauterized and dressed with vin. arom. 23d. The inoculation with the pus of the right bubo had produced nothing; that of the left had afforded the characteristic pustule. 24th. The pustule from the inoculation was destroyed, by an application of *Pâte de Vienne*. The tumor on the right side was much smaller. 27th. The wound resulting from the application of the caustic paste was cauterized; the left bubo was dressed with wine, and seemed disposed to heal. 31st. The cauterization had cicatrized.

Feb. 6th. The left bubo was cicatrizing; the right tumor had nearly disappeared. 14th. The surface of the nearly healed bubo was slightly cauterized. 24th. The patient left; there still remained a little induration on the seat of the chancre on the prepuce

CASE XIX. *Chancre, symptomatic bubo; inoculation on the day it was opened without effect, but producing the characteristic pustule by inoculation, the following day; a blister not inoculated by the chancrous pus.*

Gued—, aged 28, entered May 6, 1836. The chancre of the frenum had existed a month; its form was regular; no treatment had been used. The bubo appeared in the right groin, eight days previous to his entry; its progress had been acute; it had suppurated, and seemed seated in the superficial ganglions; there was also some fluctuation in the surrounding cellular tissue. We opened the bubo, and inoculated, in two punctures on the left thigh, the pus which flowed from it in large quantities. There were some granulations on the chancre, which was cauterized with arg. nitr. and dressed with vin. arom. 10th. The inoculation had produced nothing; the lips of the incision had assumed a chancrous appearance; the negative result was attributed to a large quantity of phlegmonous pus, being mixed with the pus of the ganglionic chancre the day it was opened. A fresh inoculation was made on the right thigh. A blister was applied to the bubo, in order to promote the reunion of the undermined edges with the subjacent parts. 12th. The inoculation made on the 10th had produced the characteristic pustule; it was destroyed by means of the arg. nitr. 20th. The chancre on the frenum was cured; the cauterized pustule had disappeared. The blister applied to the bubo had not become inoculated, although it had been covered with chancrous pus; the cavity was inclined to fill up.

28th. A decided improvement, especially since the preceding day; powdered cantharides had been introduced into the cavity. A cauterization and dressings of vin. arom. were ordered. 30th. The bubo was nearly closed, and yielded no more pus. Compresses imbibed with decoct. alb. were applied.

June 3d. All was well; the chancre had left no induration.

CASE XX. *Chancre, suppurated lymphitis, symptomatic bubo; inoculation producing the characteristic pustule.*

Lar—, aged 22, entered July 26, 1836. This patient had perceived, nine days previous, a chancre on the frenum; the ulcer was small, and appeared to have existed about twenty days, from its being in the stage of reparation at the time of his entry. On the dorsum penis there was a suppurated tumor, seemingly produced by a lymphatic engorgement; the vessel was felt tense and slightly indurated from the insertion of the prepuce to the tumor, and beyond it towards the right groin, in which was an incipient bubo: this bubo was seated in the superficial ganglions, and detached from the surrounding parts, but painful to the touch; there was no blenorrhœa. The patient, of a bilioso-sanguine temperament, enjoyed otherwise good health; the digestive functions were in perfect order. Twenty-five leeches were applied to the bubo; the chancre was cauterized with arg. nitr. and dressed with vin. arom. 29th. The tumor on the

dorsum penis was opened, and yielded a thin yellowish pus, which was inoculated by a single puncture made on the right thigh. Notwithstanding the application of leeches, the bubo progressed rapidly; it had already become adherent. A blister was applied to it, which was ordered to be dressed with a solution of sublimate, twenty grains to the ounce of water.

Aug. 1st. The inoculation from the lymphatic abscess had produced the characteristic pustule; the cavity presented all the appearances of a chancre; the edges were reversed and indurated, and the ground covered with a grayish pulpy matter: it was cauterized with arg. nitr., and dressed with vin. arom. A fluctuating point was felt in the bubo; the pustule on the right thigh was cauterized. 6th. The bubo was opened, and its pus inoculated on the left thigh; the chancre on the frenum was nearly healed: that on the penis had a rose-colored base. 8th. The punctures made on the 6th had produced nothing, although the margin of the incision made in the bubo was ulcerated; the right thigh was again inoculated, 12th. The last inoculation had produced the pustule; it was cauterized. The first pustule, which had been cauterized on the 1st, had withstood the action of the cautery; it was dressed with vin. arom. The base of the bubo was indurated; the suppuration was slight; there appeared but little tendency towards reparation; the applications of vin. arom. were suspended, and dressings of ung. mercur. with cataplasms were substituted. 18th. The chancre on the penis was a little granulated, its surface was healthy and rose-colored; the ulcer on the frenum had disappeared, without leaving any induration. There was better pus from the surface of the bubo, and the induration at its base had decreased. 21st. The cauterization and dressings of vin. arom. were resumed for the bubo, but little induration remained; the pustules on the thighs from inoculation had increased, and undermined the skin. 25th. In order to obtain the reunion of the skin with the subjacent parts, from which it had been detached by the action of the chancrous pus, a blister was applied to each ulcer on the thighs, and the cavity was filled with powdered cantharides: the lymphatic chancre on the penis was healing, and but a fourth part of its surface remained to be cicatrized.

Sept. 10th. The bubo was nearly healed, and the application of cantharides to the ulcers on the thigh had produced the desired effect; the skin remained but little undermined. 20th. The bubo was well; no induration remained; the ulcers of the thighs were slightly cauterized, and by the 27th all was well, and the patient was dismissed.

CASE XXI. *Chancre and symptomatic bubo; pus inoculated pure, and then mixed with sod. chlorin.; positive result in the first case, and negative in the second.*

Vill— Pierre, aged 28, entered April 28th, 1835. This patient having, twelve days previous to his entry, exposed himself to an infection, perceived the following day an excoriation which soon became a chancre;

eight days after the infection, a bubo appeared on the right side; its progress was rapid, and it occasioned much pain. Upon his entry, the supuration was evident, but not extensive, and only at the summit of the tumor; the chancres in the ulcerative stage were at the base of the glans on the frenum, where the affection had commenced; they were dressed with aromatic wine, after having been cauterized; cataplasms were applied to the bubo. 30th. The bubo was opened, and yielded much thin and bloody pus; the chancres were dressed with calomel and opium cerate.

May 5th. The pus of the bubo was inoculated on the left thigh by a single puncture, and on the right thigh, the same pus mixed with equal parts of sod. chlor. was used at two punctures. 9th. The puncture on the left thigh had produced the pustule; the two made on the right thigh had produced nothing; the chancres on the penis were healed.

18th. The bubo and the chancre on the thigh, which had been allowed to develop itself, were dressed with vin. arom. 30th. The chancre on the thigh was healed, but some induration still remained at the base of the bubo; there was also a little induration around the cicatrix of the chancre; applications of liq. Van Swieten. were ordered.

June 14th. The indurations were less; the bubo had been treated with cataplasms and ungu. mercur. 20th. The induration on the penis had disappeared; there was a slight salivation, the use of the liquor was therefore suspended; the gums were touched with acid. hydrochlor. and a gargarism with quinine ordered. 30th. The induration of the bubo had disappeared, and, on the 11th of July, the patient left quite cured.

CASE XXII. *Chancre; symptomatic bubo inoculated unsuccessfully the first day, then successfully on the third day; the pus mixed with hydrochloric acid producing nothing.*

Burb—, aged 20 years, entered Sept. 20th, 1836. One month since this patient contracted a chancre on the right side of the frenum; ten days afterwards, a bubo appeared in the right groin; its progress was subacute. Now the chancre is small but regular, and seems to be healing in every part. The bubo is seated in a superficial ganglion; it is small, and is attached at its base and to the skin; there is no induration, the tumor has receded entirely; it was opened, and much greenish stringy pus was discharged; it was then inoculated in the right thigh. The chancre was cauterized and dressed with vin. arom. 24th. The inoculation produced nothing; the edges of the opening of the bubo, however, present a chancrous aspect. The left thigh is again inoculated, and then this same pus is taken, mixed with some drops of hydrochloric acid, and introduced into the right thigh. 27th. The incision in the left thigh has produced the characteristic pustule, but not so with the pus which was mixed with the acid. 20th. The bubo was dressed with the vin. arom.; the skin was covered; it was nearly destroyed by the ulceration; the base of the ganglionic chancre was cauterized, and the pustule was destroyed by the

nitrate of silver. The chancre of the frenum is nearly healed. Nov. 1st. The bubo presented granulations, and there was no induration at the base; the chancre of the frenum had disappeared; the pustule, which was cauterized Oct. 28th, was modified in its nature and seemed to make no progress. 10th. The inoculated pustule is cured; the bubo is nearly closed; it is cauterized with the nitrate of silver, and dressed with the vin. aromat. 19th. The patient is cured.

CASE XXIII. *Chancre; symptomatic bubo; pus preserved in a tube inoculated unsuccessfully.*

Joig—, 21 years old, entered Oct. 14th, 1836, with chancres of the frenum contracted six weeks previously; fifteen days after a subacute bubo appeared on the right side; now the chancres are still in the acute stage; the bubo, which appears superficial, has suppurated; there is no engorgement at its base. Nine days since the bubo opened spontaneously; the skin covering the abscess is ulcerated, and indicates the nature of the pus, with which a tube is filled. The chancres and bubo are cauterized and dressed with vin. aromat. 22d. Inoculation is performed with the pus from the tube; the dressings and cauterization are continued. 24th. The inoculation has succeeded; was fully developed on the 28th, and is cauterized with the nitrate of silver on the 31st.

Nov. 4th. The inoculation has progressed, the chancre and bubo seem inclined to heal, but there is a slight induration at the base. 5th. The chancre of the frenum is almost cicatrized, the bubo is better, and is granulating; the pustule in the thigh is changed, but not destroyed; its different points present but little pus. The bubo and chancre are dressed with mercurial ointment, and pills of the proto-iodide of mercury and the sudorific sirup and tisanes are prescribed. The induration had diminished on the 22d; the chancre of the thigh is cicatrized; the granulations which cover the bubo are cauterized superficially, so as to dry the surface of the ulcer. The patient was discharged cured, Nov. 30; there is no trace of induration where the ulcers were situated. The health of the patient is better.

CASE XXIV. *Chancre, symptomatic bubo; inoculation of the first pus flowing from the bubo, when opened, without result; production of the pustule from the pus, taken from the depth of the cavity.*

Bes—, aged 23, entered Dec. 23, 1836. The chancre, seated on the left side of the frenum, had existed a month; the bubo, in the right groin, but a fortnight; the bubo had been acute in its course; the patient had suffered much pain; the superficial ganglions appeared to be the seat of the tumor; the base was but little indurated; the chancre, which had received no treatment, was healing. 24th. The bubo was opened, and the first pus which escaped was inoculated on the right thigh; then that taken from the depth of the cavity was inoculated on the left thigh; the chancre was cauterized, and dressed with vin. arom. 27th. On the right thigh,

the puncture, made with the first pus which escaped, had produced nothing, whilst the pus from the depth of the bubo had produced the characteristic pustule on the left thigh.

28th. The pustule from the inoculation was cauterized, in order to destroy it; the bubo had assumed a chancrous appearance, and the skin which covered it was ulcerated; it was cauterized, and dressed with vin. arom.

Jan. 10th. The chancre had healed; the bubo appeared modified. 18th. The bubo suppurated very little; the base was indurated; the use of the vin. arom. was suspended, and ung. mercur. substituted. 20th. The suppuration was re-established; the base of the bubo had lost its induration, and was reduced to the level of the surrounding parts. 28th. The dressings of vin. arom. were resumed. 30th. The surface of the ulcer was cicatrizing; the upper part was already covered with a smooth and rose-colored membrane.

Feb. 6th. All was quite well; no induration remained on the seat of the chancre.

CASE XXV. *Chancre, symptomatic bubo; inoculation of the superficial pus, and that taken from the depth of the bubo on the day of opening, with positive result.*

J—, aged 24, entered Jan. 24, 1837. The affection had existed two months; the chancres were seated on the left of the frenum, and on the internal surface of the prepuce on the right side. A bubo on the left side had existed a month; its progress had been subacute. We found the bubo, in which evident fluctuation was perceived, even at its base, had much undermined the surrounding skin. The chancres were partly healing.

Jan. 25th. The bubo was opened, and a bloody bad smelling pus escaped; the first pus which flowed out was inoculated by a single puncture made on the left thigh, and that taken from the surface of the base of the cavity, also by a single puncture on the right thigh; cataplasms were applied to the opened bubo; the chancre, having been cauterized with the nitrate of silver, was dressed with vin. arom. 26th. The inoculated punctures on both thighs were red and swollen. 27th. The inoculation on both sides had succeeded; the pustule was small but well formed. The same treatment was continued for the chancre and bubo. 30th. The pustules were filled with pus—presented all the characteristic signs of the chancrous pustule. 31st. The pustules were divided, and the skin below was found penetrated in its whole substance by the chancre, whose edges were abrupt; they were cauterized with arg. nitr.

Feb. 1st. The nitrate of silver appeared not to have sufficiently destroyed the chancres from inoculation; the Vienna paste was therefore applied to them; the bubo was cauterized with nitrate of silver, and dressed with vin. arom. The chancres on the penis were nearly healed; they were slightly touched with the caustic, to dry up the surface. 6th. The Vienna

paste had destroyed the chancres from the inoculation, and their surface appeared disposed to cicatrize regularly; dressings of vin. arom. were applied; the chancres on the prepuce and glans were completely cicatrized, and left no induration. 10th. The points cauterized with the Vienna paste were nearly cicatrized; the bubo was better, but as the granulations were tardy in their development, powdered cantharides were introduced into the cavity. 14th. The inoculated points were entirely cicatrized; the bubo had assumed all the characters of the period of cicatrization, and the extent of its surface was diminished one fourth. 18th. Cantharides were again applied. 21st. The progress of the cicatrization was rapid; a superficial cauterization and dressings of vin. arom. were ordered. 25th. The bubo was nearly cicatrized, without leaving any induration at the base.

March 2d. Compresses with decoct. alb. were applied, and the patient was cured on the 7th.

CASE XXVI. *Chancre, symptomatic bubo; inoculation of deep-seated and superficial pus on the day of the opening, unsuccessful; successful two days afterwards.*

Jarf—, 21 years old, entered Dec. 2, 1836. One month previous this patient contracted chancres of the glans and prepuce; at first he used the opium dressing; two days afterwards a bubo appeared in the left groin; it has now suppurated freely, and there is but a slight degree of engorgement at the base. The bubo was opened on the 6th. The first pus was inoculated in two places in the right thigh, and the pus was taken from the surface of the base of the abscess; a small chancre near the frenum, which was healing, was touched with the nitrate of silver; the place where the first chancres were situated presented no mark of induration. Cataplasms were applied to the bubo. None of the inoculations had succeeded on the 9th. The edges of the opening had ulcerated, and the wound was rounded; the left thigh was inoculated in one place. The bubo was cauterized and dressed with aromatic wine. On the 10th, the inoculation made on the 9th is red and elevated; the same dressing was applied to the bubo. 14th. The pustule of the inoculation is formed; it is cauterized with the nitrate of silver; the bubo is dressed with cataplasms and mercurial ointment. 20th. The dressings with vin. aromatic. and the cauterizations with the nitrate of silver are resumed; the base of the bubo has granulated, and tends to heal; and the patient left Jan. 5th.

CASE XXVII. *Chancres, symptomatic bubo; inoculation of the superficial and deep-seated pus, the day of its being opened; negative result in the former case, and positive in the latter.*

Quini—, aged 22, entered Dec. 2, 1836. Ten days after the appearance of chancres on the glans, a bubo was seen on the left side; its progress had been acute, notwithstanding two applications of leeches. The

cavity was extensive, and the skin become very thin. 7th. The bubo was opened, and the superficial pus was inoculated on the left thigh, and then that pressed from the bottom of the wound on the right thigh. 10th. The puncture made on the left thigh with the first pus which escaped had produced nothing; but on the right, the inoculation of the pus taken from the ulcerated surface, which formed the ground of the cavity, had produced the characteristic pustule. 12th. The pustule from inoculation was cauterized; the chancres of the glans which had been cauterized with arg. nitr. and dressed with vin. arom. were healing; they were dressed with opiated cerate. 17th. The chancres on the penis were healed; the bubo was treated with cataplasms and ungu. mercur. 26th. The bubo was ordered to be dressed with vin. arom. after being cauterized with arg. nitr. Jan. 9th, 1837. The patient left cured.

CASE XXVIII. *Chancre, symptomatic bubo; inoculation of the pus of the bubo the day it was opened, producing the characteristic pustule.*

Bern—, aged 22, entered Nov. 22, 1836. In this case, the chancres had existed nearly two months; they appeared six days after exposure. On entering, the bubo had been developed a fortnight, and up to that time he had undergone no treatment. We found the bubo suppurated, and on the right side, and near the base of the glans, a chancre, some points of whose surface were healing. 23d. The bubo was opened; the discharge was bloody pus, which having been wiped off, some pus was taken from the base of the cavity, and inoculated on the left thigh; at the same time, some of the chancrous pus was inoculated on the right thigh. Cataplasms were applied to the bubo, and the chancres were cauterized and dressed with vin. arom. 26th. The puncture made with the pus of the bubo, taken from the base of the cavity, had produced the pustule, as also that made with the pus of the chancre. 27th. The patient had scratched the pustule; the chancre on the glans had healed; the bubo, whose opening was ulcerated, was cauterized and dressed with vin. arom. 29th. The pustules from the inoculation were better; they were cauterized and dressed with vin. arom.

Dec. 16th. The patient left quite cured.

CASE XXIX. *Chancre, bubo, and lymphitis; inoculation of the pus the day of the opening without result, but on the following day, an inoculation being made, the result was positive; and the pustule was subsequently inoculated with like result.*

Mass—, aged 22, entered Dec. 2, 1836. Six weeks before his entry, this patient had contracted chancres on the glans; the form of the ulcers was round and regular; the edges and base slightly indurated. During the first days, there had been much irritation, but the inflammatory symptoms soon yielded to diet and emollient lotions; no other treatment had been used. About a week previous to his coming to the hospital, a little

tumor formed near the root of the penis on the right side, on a lymphatic, whose course was marked by a red line and indurated cord; nearly at the same time, a bubo appeared in the right groin. We found the lymphatic tumor had supplicated; but no fluctuation was perceptible in the bubo, whose progress however was very acute; it was seated in the superficial ganglions. Some points of the chancres were healing. 6th. The lymphatic abscess was opened, and the first pus which escaped was inoculated on the right thigh; the pus from the depth of the cavity was not inoculated, as it was mixed with much blood. The chancres were cauterized, and *vin. arom.* applied. The bubo was treated with cataplasms. 7th. The inoculated puncture was not even red; some pus was taken from the base of the lymphatic abscess, and inoculated by a single puncture made on the left thigh. The appearance of the open cavity, in the course of the lymphatic, was quite chancrous; it was therefore cauterized, and dressed with *vin. arom.* 10th. The inoculation made on the 6th, on the right thigh, had produced nothing; that of the 7th had yielded a well developed pustule; it was broken, and its pus was inoculated by a single puncture on the right thigh. 13th. The inoculation made with the pus of the pustule was successful; this pustule was then destroyed. The bubo had supplicated; it was opened, and the first pus which escaped was inoculated on the right, and the pus taken from the depth of the cavity on the left thigh, above the first puncture; the chancres on the glans were nearly healed, but their base was indurated.

16th. The inoculation of the superficial pus of the bubo on the right thigh had produced nothing; that made with the pus from the base of the cavity on the left thigh had produced the pustule; the edges of the incision made in the bubo had assumed a chancrous appearance. To counteract the tendency to induration, the pills of the *hydr. iodid.* were ordered, with the sudorific sirup and tisane. 20th. The chancres on the penis were healed; the supplicated lymphatic was in an unhealthy state of granulation; there was little tendency toward cicatrization, on account of the induration at the base of the ulcer. The bubo and the inoculations on the left thigh were still in the period of increase; they were cauterized and dressed with *vin. arom.* 30th. The ulcers, under the influence of the iodide, had assumed a better appearance; their ground was rose-colored, the pus too was healthy, and the induration had decreased. The inoculations made on the left thigh had undermined the skin; to promote the production of granulations, and aid the cicatrization, they were covered with a blister. The bubo was better; it was no longer covered with a grayish membrane; its ground was rose-colored and granulating; the ulceration of the lymphatic had diminished its extent, and its indurated base was become softened.

Jan. 10th. The induration which remained on the seat of the primary chancres of the glans had disappeared; the wound on the posterior part of the penis was closed, and very little induration remained around the

cicatrix; nearly all the surface of the inguinal bubo was in a state of healthy reparation. The chancres on the thigh were cicatrized; the base was no longer indurated. 27th. All was well, and the patient left the hospital. During all the time of the treatment the patient enjoyed excellent health; the functions remained perfectly regular.

CASE XXX. *Chancre in the period of reparation; sympathetic bubo; inoculation without result.*

M—, aged 22, entered June 6, 1835. The patient had contracted chancres five weeks previously; ten days afterward a bubo appeared in the left groin; its progress had been sub-acute. Now there were ulcerations with the characters of the period of reparation on the frenum, margin of the prepuce, and the posterior part of the penis; the bubo had suppurated; its base was broad, but yet softened. 8th. The bubo was opened, and yielded a creamy pus, some of which was inoculated on the left thigh. At the same time the pus from the chancres of the frenum, which had still some points in the ulcerative stage, was inoculated on the right thigh, by a single puncture. Cataplasms were applied to the bubo; the chancres were cauterized, to check the development of some granulations, and were dressed with *cerat. opii*. 12th. The puncture had produced no effect. 13th. The pus of the bubo was inoculated on the left thigh. The chancres were nearly healed; they were superficially cauterized, to obtain a cicatrization; the base of the bubo was softened; the edges of the wound appeared ulcerated; but this seemed to depend on a want of vitality, in consequence of the thinness of the skin. 15th. The inoculated punctures had produced nothing; a fresh inoculation was made with the pus, taken from a point on the edges of the incision, which appeared still in the progressive state of ulceration. 20th. The inoculation had produced nothing; the incision made in the bubo, the cavity of which no longer secreted pus, was cauterized. 25th. The patient left cured.

CASE XXXI. *Chancre, sympathetic bubo; inoculation unsuccessful.*

Bach—, aged 19 years, entered Oct. 11th, 1836. Ten days after a chancre appeared on the prepuce; a bubo formed on the right side; now it has softened and suppurated; the tumor is not very large.

12th. It is opened, and the pus from its base is inoculated on the right thigh in two places; the pus is taken in a glass tube. After being opened the bubo is completely emptied and covered with cataplasms. 16th. The inoculation of the 12th is unsuccessful; the bubo suppurates less. 24th. The left thigh is inoculated with pus taken on the 12th. 27th. The inoculation is unsuccessful; the discharge from the bubo has ceased; the granulations at the opening are cauterized. On the 21st the patient leaves cured.

CASE XXXII. *Phagedænic chancre, sympathetic bubo; inoculation without result.*

Finarg—, aged 25, entered Oct. 7, 1836. This affection had lasted five weeks; at first, a pimple appeared on the anterior and upper parts of the penis; its progress resembled that of a pustule from inoculation; on the upper and back part of the glans, a chancre was formed in consequence of an erosion. The two ulcers remained nearly in the same state, for about a week; but after severe exertion and frequent errors of diet, a phagedænic gangrenous state was induced by an excess of inflammation; the surface of the wounds became rapidly extended; then recourse was had to emollients and opiated cerate. The progress of the disease was soon arrested; but there was a great loss of substance, especially on the glans; the ulcer was regularly progressing towards cicatrization; when, after some exertion, it became irritated, and on the following day the patient felt a pain in the groin, in which a bubo, whose course was very acute, showed itself; it was treated, from the commencement, with mercurial frictions, and the chancres had been dressed with ung. mercur. On entering the hospital, ten days after the development of the bubo, the whole mass had suppurated; there was some engorgement at the base, which appeared to adhere to a considerable depth to the subjacent parts; the chancres presented all the characters of the period of reparation. 8th. The bubo was opened, and a greenish bloody pus came from it; some of which was inoculated by two punctures made on the right thigh. Some of this pus was also collected in a tube; the gums were already a little affected by the mercury; they were touched with acid. hydrochlor., and a gargle of alum. sulph. was ordered to be used. Cataplasms were applied to the bubo, and the chancres were slightly cauterized, and then dressed with vin. arom. 10th. The inoculation on the 8th had produced nothing; the pus of the bubo was again introduced on the left thigh, and that preserved in the tube on the right; the same dressings were continued. 12th. None of the inoculations made on the 10th had produced anything; the chancres were rapidly progressing towards cicatrization; the bubo was nearly closed; a little deep-seated engorgement remained at its base. A fresh inoculation was made of the pus preserved in the tube since the 8th. 17th. Only a small portion of the chancre of the glans remained; that on the skin of the penis was healed; the bubo was closed; compresses dipped in decoct. alb. were applied, and compression was ordered to be made. 22d. All was cicatrized, no induration remained, and on the 25th he left the hospital.

CASE XXXIII. *Blenorrhœa; sympathetic bubo; inoculation without result.*

Ber—, aged 22, entered Sept. 21st, 1836. This patient could not say when the blenorrhœa had commenced, as he had several times, by frequent exposure, brought it back to the acute stage; a bubo had appeared in the

right groin, about three weeks previous to his coming to the hospital, and its course had been subacute. We found the blenorrhœa in the acute stage, yielding a greenish pus; the bubo was of a considerable size, and but little suppurated; cataplasms were ordered to be applied to it. 22d. The blenorrhœal pus was inoculated by two punctures, made on the left thigh. 29th. The inoculated punctures had produced nothing. The bubo was opened; its pus was white and creamy; but little engorgement remained at its base; some leeches applied to the perinæum on the 22d had much diminished the inflammatory state. The blenorrhœal pus was again inoculated on the left thigh; some of the pus was preserved in a tube. 30th. The inoculations made on the 26th had produced nothing; for the gonorrhœa cubebæ were ordered, and injections of arg. nitr. The cavity of the bubo was much decreased; the edges of the incision made in it were not ulcerated.

Oct. 4th. The pus preserved in a tube on Sept. 26th was inoculated; the gonorrhœa had ceased; the bubo was closed. 7th. The inoculation of the pus preserved in the tube had produced no result. No induration remained around the closed bubo; the patient left quite cured.

CASE XXXIV. *Chancre, sympathetic bubo; inoculation unsuccessful.*

Th—, aged 21, entered Aug. 19, 1836. Fifteen days since a chancre appeared at the upper part of the prepuce; the next day a bubo was seen in the right groin; its progress was acute and painful; suppuration soon progressed in the whole of the tumor, which seemed formed by superficial ganglions; the skin covering it was very thin. The bubo was opened on the 20th, and there was a profuse discharge of pus from the cellular tissue around the ganglion; after emptying the tumor, there remained a number of hard and engorged ganglions. The pus from the base of the tumor was inoculated on the right thigh; the chancre was cauterized, and dressed with vin. aromat. 24th. The inoculation was unsuccessful. A blister was applied to the bubo to hasten its progress, and to resolve the engorged ganglions. 30th. The chancre is doing well, but the bubo is stationary.

Sept. 6th. Dressings of mercurial ointment and cataplasms are applied. 14th. There is some improvement; the chancre is healed without induration. The surface of the bubo is cicatrized, but the ganglionic tumor is slightly diminished. 30th. Compression is applied.

Oct. 10th. Resolution proceeds rapidly. 18th. There remains no more hardness, and the patient left cured.

CASE XXXV. *Chancre, sympathetic bubo; inoculated unsuccessfully.*

Be—, aged 27, entered Nov. 25, 1836. Six weeks ago this patient was affected with chancres, and has had no regular treatment. The chancres have now been healing for fifteen days, and their surface is covered with fleshy granulations. Twelve days ago, a bubo appeared on the right groin; its progress was acute, and the suppuration is now perceptible.

27th. It is opened; the pus is greenish and creamy; it is inoculated in two places in the right thigh. The chancre is cauterized and dressed with vin. aromat.; and cataplasms are placed on the bubo. 30th. The inoculation was unsuccessful; the chancre is cicatrized. The bubo is slightly indurated at its base, and suppurates freely. 10th. The chancre is healed, and to obtain the healing of the bubo, it is filled with cantharides. 20th. Half of the bubo is cicatrized; the engorgement of the base has nearly disappeared. 23d. The patient is discharged cured.

CASE XXXVI. *Chancre, balanitis, phimosis; sympathetic bubo inoculated without result.*

Joig—, aged 21, entered July 31, 1835. Six weeks previous, this patient had contracted chancres, which he observed three days after exposure; a fortnight later, after severe exertion, a balanitis and phimosis supervened, to which, after four days, was added a bubo on the right side, whose progress had been very slow. Now there was a little fluctuation in the bubo, and pressure occasioned pain; the phimosis, although not much inflamed, did not permit the glans to be uncovered, on which several indurated points were felt through the skin.

Aug. 7th. The bubo was opened, and there was a discharge of a little pus mixed with blood; the right thigh was inoculated by two punctures; the balanitis was cauterized, and cataplasms applied to the bubo. 12th. The inoculated punctures had healed; dressings of ung. mercur. were applied to the engorgement of the ganglion in the right groin, to resolve it. 20th. The resolution progressed slowly; the edges of the incision were not ulcerated. The glans could be uncovered, and showed a chancre near the frenum, in the period of reparation, which was ordered to be dressed with vin. arom. 30th. A decided improvement; the bubo had nearly disappeared; the chancre was healed. Compression, with applications of decoct. alb. were prescribed, and, Sept. 11th, the patient was dismissed cured.

CASE XXXVII. *Blenorrhœa, sympathetic bubo; inoculation unsuccessful.*

Pho—, aged 22 years, entered Dec. 20, 1836. A month after the commencement of a blenorrhœa, which had continued for two months, a bubo appeared on the left side; it progressed slowly, and did not suppurate for three months. Now, the whole of it is soft; it was opened, and the superficial pus was inoculated at two places in the left thigh; the pus from the base of the tumor is inoculated in the right thigh, and cataplasms are applied. 23d. The inoculation being unsuccessful, it is repeated, and powdered cantharides are introduced into the abscess, to cause granulations. 25th. The abscess is nearly filled with granulations, and the powdered cantharides is again applied, and the 9th of Jan. the patient is discharged cured.

CASE XXXVIII. *Chancre, sympathetic bubo; inoculated unsuccessfully.*

Fouch—, aged 28 years, entered April 8, 1836. In this patient the chancrous infection had existed for six weeks, and the bubo on the right side, fifteen days. Now, the chancres are healing. He has had no treatment. The bubo was suppurated; its base is broad and indurated; it is opened, and its whitish and creamy pus is introduced into the right thigh by two openings. The chancres are cauterized, and dressed with aromatic wine. 12th. The inoculation had produced no effect; the edges of the bubo were not ulcerated; to facilitate the resolution of the base, a blister was applied to the tumor, and dressings of mercurial ointment were ordered. 20th. The chancres were nearly healed. A small indolent tumor was seen in the axilla, which seemed to advance, although slowly. 29th. A blister was applied to the tumor on the left side. The bubo on the right was smaller, in consequence of the dressings with mercurial ointment.

May 3d. Fluctuation is evident in the left bubo, and a mesh of lint soaked in a solution of corrosive sublimate is applied to the left bubo. 9th. The suppuration on the left side is evident; it is opened, and a thin reddish pus is discharged, which is inoculated on the left thigh. 10th. The inoculation failed; the right bubo is well; the left has nearly disappeared, after evacuating the pus. 12th. The chancres have left no induration; cataplasms are applied to the left bubo, and the patient is discharged well on the 13th.

CASE XXXIX. *Chancre; symptomatic bubo inoculated unsuccessfully.*

Chaimb—, aged 23, entered May 17, 1836. This patient had chancres near the frenum, and a bubo on the right side, which had existed a fortnight; it had been acute in its course; the suppuration is complete, and no engorgement remains at its base. 19th. The bubo was opened, and afforded a thick ropy pus, which was inoculated on the right thigh; the chancre was cauterized. 21st. The inoculation failed; the edges of the incision had remained closed, and not ulcerated; the chancres were dressed with vin. arom., and cataplasms were applied to the bubo. 28th. The chancres were nearly well, and the cavity of the bubo three fourths united. The patient left cured, June 19th.

CASE XL. *Blenorrhœa, superficial, sympathetic bubo; inoculation unsuccessful.*

Ch—, aged 30 years, entered Dec. 19th, 1836. This patient had been attacked several times with blenorrhœa, at short intervals; the last had continued nearly a month; fifteen days since, a superficial bubo appeared in the right groin; it progressed acutely, had suppurated, and the skin was very thin. 20th. The bubo was opened, and there was a discharge of creamy and greenish pus, which was inoculated in the left thigh in two places; the superficial pus is also inoculated in the right thigh, and the urethra is cauterized with Lallemand's pâte caustique. 23d. The inocu-

lation failed; the blennorrhœa was better; the cauterization was again practised, and a blister was applied to the bubo. 27th. The cavity of the bubo was emptied, and it was filled with powdered cantharides; the blennorrhœa was cured. Jan. 1st. A few drops of serous pus came from the bubo. 3d. It is cicatrized, and the patient is cured.

CASE XLI. *Chancre, sympathetic bubo; inoculation unsuccessful.*

Ham —, aged 23 years, entered Aug. 12th, 1836. A month previous, this patient had a chancre which had destroyed nearly all the frenum; eight days after the chancre appeared, a bubo was seen on the right side; two days after, another formed on the left; the progress of these tumors was subacute, and both suppurated at the same time; now fluctuation is felt on both sides, and on the 13th the buboes were lanced, and a large quantity of thick and stringy pus was discharged; the ganglions seemed dissected by the suppuration of the surrounding cellular tissue; cataplasms were applied. The two thighs were inoculated in two places with the pus from the buboes. The chancres, part of which seemed to be healing, were cauterized and dressed with vin. aromat. 17th. The inoculation had failed. To resolve the ganglions, dressings of mercurial ointment and cataplasms were applied, and to the chancre, cauterization and vin. aromat. 21st. Resolution of the ganglions progressed rapidly under the dressings of mercurial ointment. The chancre is nearly cicatrized; the part seems a little indurated, and for this, pills of the proto-iodide of mercury are ordered. 27th. The dressings of the mercurial ointment are suspended; the buboes are flat and free from pain; the flaps of skin are trimmed off to expedite cicatrization, and the patient is discharged cured, Sept. 7th.

CASE XLII. *Chancre, sympathetic bubo; inoculation affording a pseudo-pustule.*

Mor—, aged 22, entered Dec. 6th, 1836. This patient could not state when the chancres on the glans had appeared. About eighteen days previous a bubo appeared in the right groin. We found the chancres healed; the bubo was in full suppuration; the skin had become very thin. It was opened, and the first pus which flowed from it was inoculated on the right thigh; then pus taken from the base of the cavity was inoculated on the left thigh, and cataplasms applied to the tumor. 9th. The inoculated punctures were red and pointed. 10th. A little pus was seen at the summit of the punctures. 16th. The pustules were formed on both thighs; around them there was some redness and fluctuation; the epidermis was ruptured; the purulent cavity was only superficial, and had not perforated the skin, as is the case with chancrous pus. Some of the pus was inoculated on the right thigh. 21st. The first two pustules from inoculation, which were opened on the 16th, had healed without any dressing; the inoculation of their pus had produced no effect. The induration at the base of the bubo still remained; the skin which covered it had been removed,

as not adapted to cicatrization Ung. mercur. was applied to promote the resolution of the engorged ganglions, which were perceived at the base of the wound, and afterwards cataplasms. 30th. The bubo was better, but the induration disappeared but slowly.

Jan. 10th. The cicatrization had begun, granulation had appeared; the use of the ung. mercur. was suspended, and cauterization with arg. nitr. ordered. 15th. But little induration remained; some granulations were cauterized, and then compresses with decoct. alb. applied. 27th. The patient left cured.

CASE XLIII. *Chancres, sympathetic bubo; inoculation unsuccessful.*

Par—, aged 28 years, entered Sept. 9th, 1836. The disease had existed for a month; chancres first appeared on the frenum and lower part of the prepuce, and from neglect and want of treatment gradually extended to the glans and mucous membrane of the prepuce, where they became confluent. Hard and painful buboes exist on both groins. The cyanuret of silver is prescribed according to one of the formulas of M. Serres of Montpellier, and commencing by the slight dose of a tenth of a grain in the form of pill, and united to the powder of orris deprived of its watery portion. 12th. Two pills were given; the patient feeling no effect from one. 16th. Three pills were given the buboes progressed regularly, but as yet there is no suppuration. The chancres have granulated. 18th. Four pills were given, but as yet there is no symptom of the action of the cyanuret of silver. 21st. Five pills were ordered; fluctuation is felt in the buboes; the base of the tumors is hard and broad. 26th. Six pills were given, and on the 30th the buboes were opened, and the pus of each bubo was introduced by two punctures into the thigh of the same side.

Oct. 4th. The inoculations failed and are repeated; two grains of the cyanuret of silver are given. 7th. The inoculations have failed; there is no perceptible effect from the cyanuret of silver, and the granulations in the place of the chancres have become vegetations. 10th. Five grains of the cyanuret of silver are given. 12th. The buboes are a little better, but follow the course of a disease left to itself without treatment. 24th. No improvement; the vegetations are excised; the cyanuret is suspended; cataplasms are applied to the buboes, which are still suppurating and hard at their base, and the patient is well, Nov. 7th.

CASE XLIV. *Chancre, sympathetic bubo; inoculation unsuccessful.*

Bel—, aged 22, entered Aug. 30th, 1836. The chancres are situated at the corona glandis, and are developed near the frenum, where are seen four follicles. Eight days after the chancres appeared, a bubo was seen on the left side; its progress was acute. Now the bubo has formed an abscess; there is no engorgement at the base. The chancres are healing and granulating over the whole surface. The bubo is opened, and the deep-seated pus is inoculated in the left thigh. The chancres are caute-

rized and dressed with vin. aromat. Cataplasms are applied to the bubo, which, after being opened, almost disappeared.

Sept. 3d. The inoculation failed; the chancres are healing, and their surface is dried by cauterization. The bubo is almost cured, and discharges but a little serous pus; the abscess is nearly healed, and compresses of decoct. alb. are applied. The patient is discharged cured on the 9th. There is no induration in the place of the chancres; and on the bubo is only the cicatrix of the incision.

CASE XLV. *Blenorrhœa, indolent bubo; inoculation unsuccessful.*

Bl——, aged 24 years, entered March 7th, 1836. The disease is of two months standing; at first the blenorrhœa was very acute, but became chronic by the use of baths and an antiphlogistic regimen. A month since, after some fatigue, an indolent bubo appeared on the right side. Now the discharge is white and muco-purulent, and there is no pain in urinating; the bubo is large, with a broad base, embracing some deep-seated ganglions. 8th. The pus of the blenorrhœa is introduced into the right thigh. Blisters are applied to the bubo, which are dressed with a solution of corrosive sublimate, twenty grains to the ounce of water, and injections made by dissolving two grs. of the iodide of iron in an ounce of water are prescribed for the blenorrhœa. 12th. The inoculation failed; the injections are continued with double the quantity of the iron. A mesh of lint soaked in a solution of corrosive sublimate and then cataplasms were applied to the bubo. 16th. The discharge has almost ceased; the bubo seems to advance slowly to resolution. A blister and the solution are again applied, and the patient leaves, April 20th.

CASE XLVI. *Chancres, blenorrhœa, sympathetic bubo.*

Laur——, aged 20 years, entered Nov. 7th, 1835. Three months since the patient contracted chancres, for which he had no treatment; a month afterwards he was affected with blenorrhœa, and a bubo appeared on the right side; the chancres were nearly cicatrized. Now the blenorrhœa runs abundantly; the matter of the discharge is yellowish white; there is no pain in urinating, no hardness in the urethra; the bubo has suppurated; its base is hard and very extensive.

10th. The bubo is opened, and a thick whitish pus is discharged; at the base of the abscess there is a mass of ganglions dissected by the suppuration; the skin, which is too thin for a cicatrix, is removed, and the engorged ganglions are exposed, to cause immediate action of the mercurial ointment. The right thigh is inoculated in two places with pus from the bubo, and that of the blenorrhœa is introduced into the left thigh; four grains of cubebs are prescribed. 13th. The inoculation failed. The right thigh is again inoculated with pus from the bubo, and the left, with that from the blenorrhœa. The nitrate of silver is introduced into the urethra, and cubebs are continued. 20th. The inoculations failed; the blenorrhœa is di-

minated by the cauterization with the nitrate of silver; the bubo suppurates freely, but the ganglions are smaller. 28th. The left thigh is inoculated from the bubo; the urethra is cauterized with the nitrate of silver; the ganglions in the groin are much smaller. Dec. 1st. The blenorrhœa has ceased; the bubo has stopped discharging; the dressings with mercurial ointment are suspended, and the granulations at the base of the abscess are cauterized. 4th. The bubo is almost cicatrized, and compresses with decoct. alb. are applied. 20th. The patient is discharged cured.

CASE XLVII. *Superficial ulcer; sympathetic bubo inoculated without result.*

Caub—, aged 22, entered Jan. 30, 1837. A month since this patient perceived, after exposure, a wound on the inner and upper part of the prepuce; at first, there was much irritation, and toward the eighth day a bubo appeared on the right side; a few days rest, and dressings with cerate, caused the ulceration to disappear; the bubo remained stationary and indolent. The patient then left Montpellier for Paris; during the journey he had sexual intercourse, by which the cicatrix of the wound on the prepuce was ruptured, and the bubo suddenly increased. Now the wound on the prepuce was nearly healed; but the bubo had suppurated extensively. 22d. The bubo was opened, and the first pus which escaped was inoculated by two punctures in the right thigh, and the pus from the base of the cavity on the left. Cataplasms were applied to the bubo. 23d. The inoculation failed; the cavity was excited by the cautery, and the cataplasms continued. 29th. Powdered cantharides were introduced into the cavity.

Feb. 1st. There was little suppuration; compresses with decoct. alb. and a methodic compression were applied. 14th. The patient left cured.

CASE XLVIII. *Chancre and blenorrhœa; sympathetic bubo, inoculation unsuccessful.*

Col—, aged 19 years, entered Dec. 13th, 1836. The patient could not determine when his disease commenced; for several months he had chancres, which disappeared in ten or twelve days by means of a dressing of saturnine cerate; but the last affection was a blenorrhœa, which had continued nearly a month; it is nearly well. Eighteen days since a bubo appeared on the right side, after excessive drinking; its progress was subacute; now the whole tumor has suppurated; near the base is a kind of deep engorgement; it is opened, and a great deal of bloody pus is discharged. The first pus which was discharged, is inoculated on the right thigh, and that from the base of the tumor in the left, by two incisions. Cataplasms are applied to the bubo. 17th. The inoculation failed; the edges of the wound are not ulcerated, and the abscess tends to heal. 24th. The interior of the bubo is cauterized, to hasten cicatrization; it is dressed with compresses dipped in decoct. alb., and compression is applied.

The patient leaves cured, Jan. 13th, 1837.

CASE XLIX. *Chancre; deep-seated multilocular sympathetic bubo inoculated without result.*

Gip—, aged 26, entered Oct. 11, 1836. The affection had existed eight months; the chancres first appeared eight days after exposure; no treatment had been used; the buboes had been developed two months; their course had been indolent; having attained a great volume, they became softened at the summit. The left bubo had been opened, by means of caustic potass; but some cavities adjacent to the principal cavity had also to be opened. We found the suppuration of the right bubo had ceased, and it was nearly closed; its base was indurated, and extended deeply. The left multilocular bubo had two principal cavities; a superior corresponding with the central line, and an inferior in the plica cruris; the right bubo was treated with blisters, and cataplasms covered with ung. mercur.; internally, the iodide of iron, twelve grains per diem, and a decoction of hops, with antiscorbutic sirup, were given.

12th. The pus of the left bubo was inoculated by two punctures made on the right thigh; the first puncture was made with the pus from the central cavity; the second with that from the inferior. 18th. The punctures had produced nothing; the right bubo was somewhat diminished. Two fistulous passages in the left bubo were destroyed, and several granulating points were cauterized. 24th. The right bubo was nearly healed; the left suppurated little; but at the base there could be perceived some deep-seated induration. Compresses with decoct. alb. were applied, and compression ordered to be made.

The patient left cured Nov. 8th.

CASE L. *Abrasion of the glans; sympathetic bubo; inoculated unsuccessfully.*

Men—, aged 19 years, entered Oct. 3, 1835. About fifteen days since, during exposure, this patient had an abrasion on the left side of the base of the glans. Partial balanitis ensued, in consequence of a natural phimosis and a slight degree of inflammation in the abrasion; eight days afterwards a bubo appeared near the upper part of the left thigh, below Poupart's ligament; engorgement is felt in the iliac fossa. Now the bubo, which is acute in its progress, has suppurated freely; the base is indurated.

10th. The pus of the bubo was inoculated on the left thigh; the wound and balanitis had disappeared. 17th. The inoculation had failed; it was repeated on the left thigh. 21st. The puncture, which at first appeared red and raised, had disappeared; a fresh inoculation was made on the left thigh.

23d. The last inoculation had produced nothing; the edges of the incision in the bubo were not ulcerated, and it was healing; the major part of the cavity was reunited; dressings of decoct. alb. were ordered. Nov. 9th. The patient left cured.

CASE LI. *Chancre, sympathetic bubo ; inoculation unsuccessful.*

Car—, aged 20 years, entered Nov. 25, 1836. This patient had chancres near the frenum, on the left; they had existed for a month, and are now cicatrized. Eleven days since, a bubo appeared on the left side; its progress was sub-acute; it was dressed with blisters and a solution of corrosive sublimate, twenty grains to the ounce of water; the suppuration, however, progressed, and it was opened Dec. 7th. Cataplasms were applied. 9th. The pus of the bubo is inoculated; there is no induration at the base. 12th. The inoculation failed; the edges of the opening of the bubo are not ulcerated; a part of the abscess is cicatrized, but little pus exudes, and the induration at the base has completely disappeared. The patient left cured on the 16th.

CASE LII. *Chancre ; sympathetic bubo, producing a pseudo-pustule on inoculation.*

Hou—, aged 32, entered Jan. 30, 1836. The patient said he had frequently had small chancres, which disappeared in ten or twelve days, with dressings of cerate. The last chancres had appeared three weeks since; ten days ago a bubo showed itself on the right side; its progress had been very acute. We found the chancres healed, and the bubo suppurated; it was opened on Jan. 31st, and a greenish thick pus flowed from it.

Feb. 1st. The pus of the bubo was inoculated on the right thigh; the lips of the wound were red and irritated, but not ulcerated; cataplasms were applied. 6th. The inoculated punctures, which from the second day had been red and pointed, and indurated at the base, disappeared after having yielded a little sero-purulent fluid; a fresh inoculation was made on the right thigh. 10th. The result from the second inoculation was the same as the first; the bubo was cauterized and dressed with wine; the secretion of pus was very small. The patient left cured on the 22d.

CASE LIII. *Chancre, sympathetic bubo ; inoculated unsuccessfully.*

Bil—, aged 18 years, entered Aug. 10th, 1835. For a year this patient had been affected with chancres, which were never treated regularly. A month since new chancres appeared on the prepuce and back of the penis. Eight days afterwards a bubo appeared on the left side, in consequence of excess in drinking; it had suppurated, was opened, and the pus was greenish, thick, and mucous. It is inoculated with the point of a bistoury on the left thigh; the chancres of the prepuce and penis are dressed with opiated cerate and cauterized with the nitrate of silver. 14th. The inoculation failed. Cataplasms were applied, and the chancres are better. 20th. The chancres are nearly cicatrized, the bubo discharges but little and the patient leaves, Sept. 28th.

CASE LIV. *Chancres, balanitis, sympathetic bubo; inoculation unsuccessful.*

Guimb —, aged 22 years, entered Dec. 9, 1836. This patient had long been affected with balanitis, but could not state the precise time of the appearance of the chancres, which have left their marks on the glans and frenum. Now there is no erosion; the balanitis is nearly cured. About eleven days since a bubo appeared on the left side; its progress was sub-acute, and it is very soft; the cavity is large.

10th. The bubo is opened, and the pus from the surface is inoculated on the left thigh, and the pus from the base of the abscess on the right thigh. 14th. The inoculations failed. The contiguous edges of the opening had not ulcerated; the left thigh was again inoculated; cataplasms were applied. 18th. The inoculation of the 14th failed; the bubo is nearly cicatrized; its base is cauterized with nitrate of silver; it is dressed with vin. aromat. The patient leaves cured Jan. 14th.

CASE LV. *Chancre, sympathetic bubo; inoculated unsuccessfully.*

Cir—, aged 26, entered Nov. 15, 1836. This patient had been affected with chancres of the prepuce and frenum for six weeks. Three weeks since a bubo appeared on the left side; on this side is situated the chancre of the frenum. When the bubo appeared, the chancres were nearly healed. The patient ascribed the tumor to three days of hard work, being at the same time intemperate in drinking. The progress of the bubo is sub-acute; it was opened, and the thick pus discharged from it is introduced into the left thigh. 19th. The inoculation failed; the base of the bubo is slightly engorged; it is dressed with cataplasms and mercurial frictions. 28th. There is no engorgement; the bubo is cicatrized, and the patient is discharged cured.

CASE LVI. *Chancre, sympathetic bubo; inoculated unsuccessfully.*

Br—, aged 21 years, entered Sept. 30th, 1836. Three weeks since, chancres appeared at the corona glandis; eight days ago he attempted to destroy the ulcers by burning them with a cigar; the day after, a tumor appeared in the right groin, which rapidly approached suppuration; it was opened Oct. 1, and the pus was inoculated on the right thigh; cataplasms were applied to the tumor; there was no engorgement at its base. Oct. 7th. The inoculation failed; it was repeated on the right thigh; the pus was taken in a vaccine tube. 12th. The inoculation failed; the pus of the bubo was again introduced into the right thigh, and that in the tube into the left. The lips of the incision are not ulcerated; there is no discharge from the bubo. 18th. The inoculation of the 12th failed, and the patient left the 26th.

CASE LVII. *Chancre, sympathetic bubo; inoculation unsuccessful.*

Mic— Louis, aged 26 years, entered Sept. 20, 1836. Six weeks ago

this patient was cured of a bubo, which appeared after chancres of the penis; since that, there has been no exposure; at the side of the bubo, of which only the cicatrix remains, there is a small tumor, not painful, and which advances slowly. In consequence of fatigue, it has progressed and suppurated, a brownish pus being discharged from it; the skin has sloughed off, the abscess is large; it is introduced into the left thigh, and cataplasms are applied.

26th. The inoculation has failed; the bubo is not ulcerated; the tumor has collapsed entirely; the inoculation is repeated on the right thigh; the pus is tested, and found to be alkaline. 28th. The inoculation has failed; the bubo is nearly closed. 30th. The patient is discharged cured.

CASE LVIII. *Blenorrhœa, chancre; sympathetic bubo, inoculated unsuccessfully.*

Mong— Joseph, aged 19 years, entered May 21, 1835. This disease had existed for six weeks, blenorrhœa appearing eight days after exposure. Two days before, a chancre being developed in the skin of the prepuce was cured after three weeks, by the use of the cerate; a week later, and a month after the commencement of the disease, a bubo appeared on the right side, which suppurated, although leeches and emollients were used. The blenorrhœa has now disappeared; the bubo is large and soft at the summit; cataplasms are applied. June 2d. The bubo is opened. 3d. The pus from the base of the abscess is inoculated, which, on the 10th, had produced nothing; the bubo is cauterized, and compresses of decoct. alb. are applied. The patient is discharged cured, July 22d.

CASE LIX. *Blenorrhœa, chancres; multilocular sympathetic bubo, inoculation unsuccessful.*

Vil— Pierre, aged 25 years, entered July 20, 1835. Five months since, this patient was affected with blenorrhœa, for which he had no treatment; a month afterwards, he had chancres at the root of the glans; he then used injections of sulphate of zinc, with saturnine cerate; now he has a bubo of three weeks standing; the blenorrhœa and the chancre, marks of which were still found on the left side of the frenum and the base of the glans, have disappeared, the bubo is indolent, and some soft points are felt through the skin above the ganglionic engorgement; cataplasms are applied. July 24th. A circumscribed abscess is opened, which is seemingly situated in a ganglion; a thick pus is discharged, which is inoculated on the right thigh. 27th. The inoculation has failed. 31st. It is repeated unsuccessfully with pus from another ganglion, and the patient leaves Aug. 10th.

CASE LX. *Chancre of the prepuce, sympathetic buboes inoculated unsuccessfully.*

Pa—, aged 22 years, entered Jan 22, 1836. Six days after exposure,

this patient had a chancre at the upper and inner part of the prepuce; two days afterward, a bubo appeared on each side, and advanced rapidly, although leeches were applied before he entered the hospital. There is no blenorrhœa.

Feb. 5th. The buboes are opened, and the pus from each is introduced into the corresponding thigh. 6th. The inoculation failed, and it was necessary to place a piece of lint between the lips of the incision in the buboes, to prevent their union, and to facilitate the discharge of pus. Here the edges of the wound are not ulcerated, as in the chancrous buboes. 8th. The inoculation is again performed, but unsuccessfully; the chancre is dressed with vin. aromatic; it is cauterized with the nitrate of silver; cataplasms are applied to the buboes, and the patient leaves, 22d of February.

CASE LXI. *Bubo succeeding blenorrhœa; cutaneous abscess on the thigh; inoculation without result; pseudo-pustule.*

Mig—, aged 20, entered Oct. 5, 1836. This patient had been dismissed from the hospital, August, 1836, perfectly cured of a blenorrhœa, which had lasted eighteen months; a bubo, which had been developed three weeks, was treated with blisters and a solution of sublimate. When he left the hospital it had nearly disappeared; but in consequence of fatigue and some irregularities in his diet, it soon increased, and speedily suppurated. Ten days previous to his re-entry, a superficial abscess had formed in the upper part of the right thigh, a little below the lig. Poupart. The left bubo had suppurated and opened spontaneously some days; we opened the abscess on the right thigh.

Oct. 7th. The pus of the bubo was inoculated on the left thigh, and that of the abscess on the right. Cataplasms were applied to both the bubo and the abscess. 12th. The two punctures were red; that on the right thigh even furnished a little pus; that on the left was pointed, but only a little indurated. 14th. The puncture on the right thigh, made with the pus from the abscess, and which on the 12th was full of pus, had opened; that on the left, made with the pus from the bubo, and which had been only red and indurated, was beginning to suppurate; it still remained pointed. 17th. The puncture on the right, after breaking, had dried up, and was nearly cicatrized; that on the left was full of pus. The abscess on the thigh was closed, and the bubo yielded but little suppuration. 20th. The last pustule had disappeared without treatment like the first, not having assumed the appearance of a specific ulcer.

The bubo was closed, and no induration remained at its base; in a few days the patient left quite cured.

CASE LXII. *Chancres, sympathetic buboes; inoculation unsuccessful.*

Gam—, aged 36 years, entered June 28th, 1835. Six weeks ago this patient noticed an extensive chancre at the upper part of the base of the

glands; the exposure had been fifteen days previous. Three weeks after it appeared, deep-seated indolent buboes appeared on both sides. Now the chancre seemed healing; the buboes are enormous, very hard and broad, and the induration extends into the iliac fossa.

July 3d. The left thigh is inoculated in two places with pus from the chancre. Blisters are applied to the buboes, and followed by the dressing of corrosive sublimate. 6th. The inoculation has failed; the first day there was a little pain in the first puncture, attributed to turning the lancet several times in the wound, but the redness and prominence, which indicated that the inoculation would succeed, disappeared the third. Fluctuation is evident in the summit of the left bubo; it is opened, and a thick whitish pus comes from it. On the right is deep fluctuation. 9th. The right bubo is opened and discharges freely; through the opening is seen a mass of ganglions, dissected by the pus. The chancre is cured by cauterization with the nitrate of silver, and dressings with calomel and opium. 11th. Fluctuation is felt under the ganglions, at the base of the right bubo opened the 9th; it is opened and pus is discharged freely. The left thigh is inoculated with pus from the left bubo, and the right thigh from the abscess opened this day. 18th. Both inoculations failed, and they are repeated. The buboes are dressed with decoct. alb.; they are smaller; the lips of the wound are not ulcerated, and on the left most of the abscess has healed.

Aug. 1st. The inoculation is repeated, the previous one having failed. 3d. The inoculation failed; the left bubo has closed; there is but slight discharge from the right. 8th. The patient is cured.

CASE LXIII. *Scrofulous bubo; inoculated unsuccessfully.*

Lah—, aged 24, entered May 6, 1836. The patient, with a lymphatic temperament and tendency to scrofula, had already had ganglionary engorgements of the neck; on entering he had two enormous buboes, which we could not attribute to a venereal affection, as he had not been exposed to it for more than four months; he had had no other suspicious affection than a chancre, which had been cured a year previous, leaving no induration on its seat. The two tumors developed themselves slowly and suppurated.

May 7th. The buboes on both sides were opened; a thick brown pus escaped, which was immediately inoculated; emollient cataplasms were applied, and a draught of tisane of hops, with baryt. hydrochlor., and sweetened with sirup of gentian. It may be proper to remark, that this patient had been five-and-thirty days in another hospital, in which he had been treated with pills of hydrarg. deuto-iod. without the least amelioration. 9th. The punctures had produced nothing; inoculation was again performed, by two punctures on the right thigh. Blisters were applied to the buboes, to excite them; the mixture as above was continued. 15th. The inoculations made on the 9th had produced nothing; the affection appeared not to pro-

gress, but there was no improvement; the suppuration was copious. 30th. There was an improvement, especially on the left side; compression was ordered.

June 10th. The bubo on the left had nearly disappeared under the compression; the general health was decidedly improved. 20th. Compression was applied on the right side; the left bubo was cicatrized; very little induration remained in the deep-seated ganglions, which formed the base of the tumor. 30th. The resolution progressed rapidly; the use of bitters and anti-scrofulosæ was continued; the dose of baryt. hydrochlor. was gradually increased to twelve grains per diem, without the patient feeling any inconvenience. July 12th. The two tumors had disappeared, and only a little tension on each side remained from the change the tissues, in which the affection had been seated, had undergone.

CASE LXIV. *Chancres, periadenic abscess, inoculated without result.*

Fécas—, aged 26, entered Nov. 14, 1835. This patient could not state the exact time when he had contracted the chancres on the glans, on the right side of the frenum, and which we found in the period of reparation. A fortnight previous to his entry, he felt a pain in the left groin, and perceived an incipient bubo; the patient observed the strictest repose, applied cataplasms, and the tumor then appeared arrested in its development; but three days later, the cellular tissue, which was at first only indurated, appeared suppurated. 16th. An abscess in the groin was opened and yielded much creamy pus, which was inoculated by two punctures on the left thigh. After the evacuation of the pus, it could be perceived that the inguinal ganglions were but very little swollen, and that the suppuration was only periadenic; the chancres were cauterized and dressed with calomel cerate. 18th. The punctures had produced nothing; the tumor had nearly disappeared. 24th. The chancres were cured, and the cavity of the abscess nearly obliterated. The patient left cured on the 30th.

CASE LXV. *Primary bubo (d'emblée;) inoculation without result.*

Buis—, aged 18, entered Oct. 7, 1836. This patient had never had either chancre or blenorrhœa; three days after exposure he perceived a small indolent tumor in the inguinal region of the right side, which developed itself slowly. Now its volume was considerable; it was situated in the deep-seated ganglions, and through the abdominal integuments an engorgement was felt extending into the iliac fossa; the mass was everywhere adherent; at the summit an obscure fluctuation was felt; cataplasms were applied. 14th. The fluctuation was evident; the bubo was opened, and the pus from the depth of the cavity inoculated by two punctures made on the right thigh. Some pus was also preserved in a tube the patient observed the most absolute repose; mercurial frictions were made on the tumor; the skin having assumed an erysipelatous tint. 16th. The inoculation had produced nothing; the redness of the skin had dis-

appeared; the engorgement of the ganglion was rapidly disappearing; compression was applied. 17th. The pus of the bubo was inoculated on the right thigh, and that preserved in the tube on the left; the cavity yielded little suppuration. 19th. The inoculation made on the 17th had produced nothing; the wound made in the bubo was not ulcerated; the rapidity of resolution was, for indolent buboes, very remarkable. No engorgement remained in the iliac fossa. 21st. The compression was continued with compresses, dipped in decoct. alb. 27th. The patient left cured; the tumor had nearly disappeared; exercise and compression would remove the slight remaining engorgement. This patient was dismissed somewhat sooner than common, on account of his lymphatic habit, which was ill suited to the diet and residence in an hospital. In February he presented himself again at the hospital, when all had disappeared; scarcely a trace of the wound made in the bubo remaining.

CASE LXVI. *Primary bubo; inoculated without result.*

Pe—, aged 17, entered April 26, 1836. This patient had not been exposed for two months, when the day after a coition he felt a pain in the right groin, and a bubo began to be developed, though slowly. He was of a lymphatic sanguine habit; he had undergone no treatment; the tumor was large and seated in the deeper ganglions, and its base was large; some engorgement could be felt through the abdominal integuments; it had existed about three weeks; hial the mass had suppurred; it was opened, and thick creamy pus escaped; that taken from the depth of the cavity was inoculated by two punctures made on the right thigh; cataplasms were ordered to the bubo. 29th. The inoculations had failed; the engorgement was less; suppuration copious; a flap of skin, which appeared unfit for cicatrization, was removed; dressings of ung. mercur. were then applied to obtain the resolution of the ganglionic engorgement. 30th. The suppuration had increased. The left thigh was again inoculated.

May 10th. The inoculation failed; the applications of ung. mercur. were discontinued; the engorgement had decreased by half, but the surface of the wound was covered with a kind of pulpy membrane. A cauterization and dressings of cerat. plumb. were ordered. 11th. The appearance of the wound was very satisfactory; the fleshy granulations appeared rose-colored; a superficial cauterization and compression with compresses dipped in decoct. alb. were ordered. 20th. But little engorgement remained; the surface of the bubo, diminished by three-fourths, was nearly cicatrized. It was cauterized, and on the 25th he left cured.

CASE LXVII. *Primary bubo; inoculated without result.*

Lef—, aged 18 years, entered July 12th, 1836. Three weeks after exposure, a bubo appeared in the right side; its progress was subacute. On the penis are no marks of ulceration; the uretra presents no indurated

point; there is no pain in urinating; and the genital organs, although carefully examined, present no symptom of disease. The bubo, whose base is broad and soft, has suppurated, and the tumor seems to embrace the deep-seated ganglions. July 18th. The pus of the bubo is inoculated in the right thigh in two places. To resolve the bubo, mercurial ointment and cataplasms are applied. 22d. The inoculation failed; the dressings are continued, and with benefit. The right thigh is again inoculated. 24th. The dressings of mercurial ointment are suspended. The inoculation of the 22d failed. Blisters are applied to the bubo, and its cavity is filled with cantharides. Aug. 6th. Granulations appear; a part of the abscess is denuded; compresses soaked in decoct. alb. and methodical compression are applied, and the patient is cured on the 12th.

CASE LXVIII. *Primary bubo inoculated without result.*

Mart—Francois, aged 19, entered July 4, 1835. Two months since, this patient, after repeated excess at table, and a fortnight after exposure, observed two tumors in the groin; the tumor on the left side was more rapid in its progress, and was opened at the Hotel Dieu, where the affection was treated as venereal buboes, with ung. mercur. and cataplasms, for three weeks. We found the left bubo nearly healed, and the right in full suppuration. 6th. The bubo was opened, and the pus inoculated by two punctures on the right thigh. 8th. The punctures had produced nothing; the lips of the incision, which were closed and sound, indicated that the pus of the bubo, whose base was free from induration, had not the primary syphilitic character; cataplasms were applied. 10th. No more suppuration remained; the cavity was closed; compresses with decoct. alb. were applied. The patient was discharged on the 11th.

CASE LXIX. *Primary bubo; inoculated unsuccessfully.*

Conn—, aged 20 years, entered Oct. 28th, 1836. This patient had never been affected with chancre or blenorrhœa; it was two months since he was exposed, when, after violent exercise, a bubo appeared in the right groin; its progress was acute and very painful; he was treated at the hospital de l'Ecole de Médecine, where he remained two months; the bubo was opened; he took sirup of sarsaparilla, sirup of Cuisinier, and pills of the deuto-chloride of mercury. Now the bubo discharges freely; there is a large slough which requires the removal of folds of skin, which cannot serve for cicatrization, and form a valve under which the pus remains; the base of the wound is red and healing.

29th. The pus from the base of the bubo is inoculated on the left thigh, and it is dressed with opiated cerate. 31st. The inoculation has failed; it is dressed with vin. aromat. and cauterized with the nitrate of silver; the wound is granulating, and the patient is cured, Nov. 18th.

CASE LXX. *Primary bubo; inoculated without result.*

Hemont—, aged 24, entered Sept. 7, 1836. Three days after a night spent in debauchery, during which the patient had seven coitions, a bubo appeared on the left side; its progress was subacute. The sexual organs being examined with care, showed no trace of ulceration; the canal of the urethra was healthy; the bubo had suppurated; little engorgement remained at the base of the tumor. 12th. The bubo was opened, and the greenish thick pus inoculated by two punctures, made on the right thigh; the cavity was large; cataplasms were applied. 16th. The punctures had produced nothing, although the edges of the incision appeared ulcerated; but this was explained by the slight degree of vitality of the tissues become thin from the suppuration, and which at the time of the bubo being opened were bluish; some pus, taken from the base of the cavity, was inoculated by two punctures, made on the left thigh; some ol. cantharid. was introduced into the bubo, to excite the production of granulation. 20th. The last punctures had produced nothing; the bubo was better; the oil had produced an excitement, and the cavity was somewhat diminished in extent. 28th. The bubo was cauterized; its base was more raised; the oil was continued, and by Nov. 4th the patient was cured and dismissed.

CASE LXXI. *Primary bubo, inoculated unsuccessfully.*

Kl— Antoine. aged 23 years, entered June 25, 1835. This patient had never been affected with blenorrhœa; fifteen months since, a chancre appeared on the outer part of the prepuce. The ulceration progressed slowly, and yielded promptly to appropriate treatment, leaving a prominent cicatrix, which indicated by its appearance that the disease had not affected the entire thickness of the skin. Since that, the patient has had no symptoms which could be referred to this infection. Three weeks since, two buboes appeared, eight days after exposure, which progressed slowly, and with little redness. Ten days since, the left bubo opened spontaneously, and discharged a large quantity of pus, through a very narrow opening. Some flaps of thin skin were removed, and the pus was inoculated in the right thigh, July 4th.

8th. There is no effect from the inoculation; the right bubo is opened. By rest, cataplasms, and some applications of decoct. alb. the patient was cured, and discharged July 17th, without ganglionic hardness or engorgement. It is important to remember, that after the chancre had existed for fifteen months, there was no tension nor ganglionic engorgement.

CASE LXXII. *Primary bubo, inoculated without effect; some of the pus being preserved in a tube, did not inoculate after being kept four days.*

Th—, aged 22, entered Oct. 4, 1836. This patient assured us, that the only venereal affection he ever had was blenorrhœa, five years previous; it had lasted nearly two months, and run through the usual acute and chronic stages; then, being properly treated with injections and copaiva, it

disappeared, leaving no symptoms which could be referred to a syphilitic affection; the general health having remained in the best state possible. Seventeen days had elapsed since a superficial bubo appeared on the right side; the patient had not been exposed for seven weeks previous; the base of the tumor appeared indurated; it was opened; the cavity was extensive, and appeared to have invaded the deep interganglionic cellular tissue; an inoculation was made by two punctures on the right thigh.

8th. The punctures had produced nothing; the tumor had lessened, but the skin appeared loosened. The right thigh was again inoculated; some of the pus was preserved in a tube, open at both extremities. 11th. The pus preserved in the tube was inoculated; the cavity appeared to be reuniting; the incision had remained unulcerated. 19th. The puncture made with the pus in the tube had produced nothing. Thus, in every case, the inoculation had failed; the cavity had diminished; the patient, having a scrofulous habit, was ordered a decoction of hops, with anti-scorbutic sirup, and ferri proto-iod. twelve grains per diem. 30th. Nearly all the cavity was closed, and only a few drops of serous pus remained. Nov. 7th. The patient left cured.

CASE LXXIII. *Chancres, symptomatic bubo; inoculation with positive result; pustule carried to the fifth generation.*

Lob—, aged 18, entered Jan. 5, 1833. Three days after a suspicious connexion, this patient perceived a chancre on the inner part of the left side of the prepuce; the ulcer being neglected, increased, and in a few days, a bubo appeared on the left side; its progress was subacute, and notwithstanding an application of leeches, ung. mercur. and emplastrum de Vigo, a complete suppuration followed. 6th. The bubo had opened during the night; the chancres of the penis appeared in the period of progression; they were cauterized, and dressed with opiated cerate. 21st. The attenuated skin, which covered the cavity of the bubo, had been destroyed by the ulceration; the ulcer had thus become denuded, and presented a chancreous appearance; the pus of the bubo was inoculated by two punctures, made on the right thigh; the ulcerated cavity was cauterized, and dressed with opiated cerate; the chancres of the penis were cauterized with argent. nitr., and dressed with calomel cerate. 24th. The pustules from inoculation had formed; they were opened, and their pus inoculated by a puncture on the left thigh. 27th. The inoculations made on the 24th had produced the characteristic pustule; the first inoculation was dressed with calomel cerate.

Feb. 15th. The chancres on the penis had disappeared; the first inoculation was nearly healed, the second was in the period of progression; the bubo was going on well; its surface was granulating. Some pus was taken from the last inoculation, and inoculated on the right thigh. Some induration was perceived at the base of the chancres on the thigh, and on the body were some spots indicating the commencement of a lenticular

syphilitic eruption; pills of hydrarg. iodid. and sudorific sirup and tisane were ordered. 17th. The inoculation made on the 15th had succeeded, and furnished the third generation; the bubo had healed. 27th. Pus taken from the chancre of the third generation was inoculated on the left thigh.

March 1st. The fourth generation was produced; the pus from it was inoculated on the 17th, and in three days time, the fifth was evident; the chancres were in a state of healing, according to the time of their existence. 30th. The syphilitic eruption had not progressed; the treatment by the proto-iodide of mercury was continued.

April 1st. Only two ulcers remained on the thighs; their base was raised; a cauterization and dressings of calomel and sod. chlorin. were ordered.

May 17th. The patient was dismissed cured, no induration remaining. The general health had remained excellent during the whole of the treatment.

CASE LXXIV. *Chancre of the cervix uteri; symptomatic bubo; inoculation producing the characteristic pustule.*

Dur—— Marie, aged 24, entered April 1st, 1834. The patient had for a month been affected with a blenorrhœa, which had occasioned no pain; at first, there had been little discharge; a fortnight later, a bubo appeared on the right side; its progress was very acute. We found the bubo completely softened; it was situated in the superficial ganglions; the matter of the discharge from the vulva was whitish; on the external part of the sexual organs, no trace of ulceration could be perceived; the bubo was opened, and much thin and bloody pus escaped. 2d. The edges of the incision made in the bubo appeared to be ulcerated; cataplasms were applied, and emollient injections prescribed. 10th. The wound in the bubo had assumed a decidedly chancrous appearance; some pus was taken from the centre of the cavity, and inoculated on the right thigh; the ulcer was cauterized with arg. nitr., and dressed with calomel and opium cerate. 14th. The inoculation on the 10th instant had succeeded and produced a fine pustule. Injections of decoct. alb. were ordered; on the cervix were seen two ulcers with grayish bases, and irregular abrupt edges. 19th. The pus taken from the centre of the ulcer on the right thigh was inoculated on the left thigh. 25th. The inoculation made on the 19th had produced the characteristic pustule; the ulcers were dressed with calomel cerate. Some pus from the cervix, taken from an ulcer with a grayish base, was inoculated on the right thigh. 28th. The last inoculation had produced the pustule; the bubo was nearly healed; the ulcers of the cervix had become clean, after being cauterized with arg. nitr. on the 24th; that on the upper labium was granulated at its base, and appeared to be raised to the level of the neighboring parts.

May 6th. The first and second inoculations had healed, as well as the

bubo; but little discharge remained. 15th. All was well; only a few superficial granulations remained on the posterior labium of the cervix. 23d. The patient was dismissed perfectly cured.

SECTION IV.

INOCULATION OF THE PUS OF THE SECONDARY AND OF OTHER REPUTED VENEREAL SYMPTOMS.

CASE I. *Blenorrhœa, chancre in the period of reparation, mucous tubercles; inoculation with negative result.*

Che— Elizabeth, aged 20, entered June 23, 1835. Four months previous to her entry, she was affected with a very severe blenorrhœa, but unaccompanied with great pain; one month later, after new exposure, a chancre appeared in the vulva; no treatment had been used. We found the discharge had become chronic; the cervix uteri and mucous membrane of the vagina were but little reddened; but several patches of mucous tubercles were observed in the perinæum, and inner surface of the right thigh; amongst these latter, one was particularly remarked in the plica cruris, whose surface afforded a thick and copious pus; it appeared to be owing to a transformation *in situ* of a primary chancre. On the inner surface of the right nympha was an ulcer, with prominent irregular edges and grayish base, with all the characteristic signs of a chancre, passing into the period of reparation. The pus taken from the mucous pustule on the right thigh was inoculated about the middle of the same thigh, and the pus from the ulcer of the nympha on the left. Injections, and tamponing of the vagina with decoct. alb. were ordered. A lotion of sod. chlorin. and calomel in powder were applied to the mucous pustules, and pills of hydrarg. iodid. with sudorific sirup and tisane were administered internally.

July 1st. The punctures had remained without effect, and were perfectly cicatrized. 15th. The mucous tubercles were nearly dried up, and level with the skin. 21st. The ulcer on the nympha was cicatrized, and on the 14th of August, the patient left quite cured.

CASE II. *Blenorrhœa; ophthalmic blenorrhœa, inoculated without result.*

Mas—, aged 26, entered Aug. 16, 1834. This patient had been fifteen days affected with gonorrhœa; it had been very acute, and the discharge

* This case ought to have been inserted under the head of blenorrhœa.

copious. During four or five days, the left eye had been affected with blenorrhœal ophthalmia; at first, there was only a kind of mucous hypersecretion; twelve hours later, pus was produced, and acute pain was felt above the eyebrows; the urethral discharge continued. On entering, the eye was much inflamed; the palpebral mucous membrane presented here and there granulated engorgements of the follicles; the secretion was greenish and copious.

Aug. 17th. A seton was placed in the neck; thirty leeches were applied to the temples, and an enema of mel. mercur. and ol. ricini was prescribed. Lotion of decoct. malvæ and emollient compresses were applied to the eye. 18th. The affection progressed rapidly; there was a hardened œdema on the eyelids, photophobia, and a sharp and acrid secretion of tears; the secretion of purulent mucus was very copious; there was an incipient chemosis. A superficial cauterization was made with argent. nitr. on the inner surface of both eyelids. 21st. The cauterization was discontinued, on account of the increasing induration of the palpebræ. 22d. Thirty leeches were applied; fifteen on the temple, and fifteen in the mastoid region; an enema, with magn. sulph. was prescribed. 23d. The indurated œdema continued, but had made less progress; there was no febrile reaction; the urethral discharge was still very copious; the palpebral surface of the conjunctiva was ulcerated at several points; belladonna and calomel pills were ordered; the cornea was becoming opaque.

24th. The swollen and indurated eyelids scarcely allowed the cornea to be seen; it seemed flattened; a bloody serous fluid escaped; we thought the eye was lost. The patient having in the previous night laid on his right side, the pus from the left eye had flowed into and inoculated the right, which, till then, had remained unaffected. Suppuration had already commenced. The pus of the discharge from both eyes, and from the urethra, was inoculated on the right thigh; from the commencement, the mucous membrane of the right eye had been cauterized with argent. nitr.

26th. There was a decided improvement; a fresh cauterization and an enema were ordered. 27th. The inflammation was decreasing; a collyrium of zinc. sulph. was ordered; the inoculations had produced no effect. 28th. The cauterization with argent. nitr. was repeated. Small granulations were perceived on the conjunctiva; the left eye was sensible to the light. 30th. The patient could discern objects distinctly; the collyrium was continued; and injections of zinc. sulph. ordered for the blenorrhœa.

Sept. 1st. The right eye was well; only a little redness remained; the patient could see without pain; he could distinguish objects with the left eye. The blenorrhœa was treated with injections, and copaiva in bolus.

30th. The patient left quite cured.

CASE III. *Chancre, symptomatic bubo, mucous tubercles, ecthyma; inoculation successful with the bubo, and unsuccessful for the ecthyma.*

Leg.—Louis, aged 18, entered February 27, 1836. Two months pre-

vious, this patient had entered the Hôpital St. Louis, where he was treated for a chancre, followed by a bubo on the right side. A fortnight after quitting the hospital, after severe exertion, a new bubo appeared on the left side. We found on his arms and thighs pustules of ecthyma; at the posterior part of the penis, were some mucous tubercles; about the middle of the inner surface of the right thigh, an ulcerated point was covered with a thick crust. To ascertain whether this latter ulcer proceeded from a direct application of chancrous pus, or solely from the ecthyma, its pus was inoculated on the right thigh.

Feb. 28th. The inoculated point was surrounded by a circle formed with nitrate of silver, that it might not be confounded with the neighboring pustules.

March 3d. The puncture was cicatrized; the bubo was opened, and on the following day its pus was inoculated on the right thigh. 5th. It was red and pointed. 7th. The pustule was fully formed, and had all the appearances of an incipient chancre; it was cauterized with argent. nitr.; ordered pil. hydrarg. iodid.; cataplasms to the open bubo; to the mucous tubercles, calomel and sod. chlorin. 15th. There was a remarkable amelioration; the mucous tubercles had disappeared. 21st. The bubo had begun to cicatrize.

April 6th. The crust of the ecthyma was falling off at nearly every point. 20th. Only a few brown spots remained; the bubo was cicatrized; two ulcers remained, one in the plica cruris, the other on the scrotum; they were dressed with vin. arom.

May 19th. The ulcers were not quite cicatrized.

June 7th. A fistulous passage, which maintained the suppuration, was laid open.

Aug. 19th. The patient left quite cured.

CASE IV. *Transformed chancre and mucous tubercles, inoculated without result.*

Ler— Josephine, aged 19, entered July 14, 1836. Seven weeks previous, this patient contracted a chancre at the entrance of the vulva; at first the progress of the ulcer was regular; it extended itself but little; but about three weeks after its commencement its base became raised, and passing into an unhealthy state of reparation, it assumed the appearance of ulcerated mucous tubercles; nearly at the same time an eruption of mucous tubercles appeared at the vulva. We found the transformed chancre in the midst of a patch of mucous tubercles, with which it might easily be confounded; the vagina and cervix were healthy; the abundant secretion, covering the vulva, was produced by the ulcerated tubercles alone. Some pus was taken from the surface of the transformed chancre, and inoculated by two punctures made on the left thigh. The pus taken from the surface of the tubercles of the vulva, was inoculated in the same manner on the right thigh; the surface of the chancre was cauterized and

dressed with calomel cerate. To the tubercles, dressings of calomel and sod. chlorin. were applied. 19th. None of the inoculations had taken effect; the purulent secretion was less by half. 25th. There was no more suppuration; the mucous tubercles were dry, and began to disappear. 30th. The skin on which the mucous tubercles were situated was perfectly supple; the cicatrix was rose-colored and well formed on the part of the vulva, which was but slightly ulcerated.

Aug. 8th. All was well, and the patient left the hospital.

CASE V. *Chancre; ulcerated mucous tubercles; inoculated unsuccessfully.*

Bac— Victoire, aged 17 years, entered July 14, 1835. The disease had existed three months; at first there was a chancre in the vulva, and a discharge from the vagina; the chancre was treated with dressings of mercurial cerate and the liquor of Van Swieten. A month after the chancre was cured, mucous tubercles appeared at the anus; at some parts they are confluent and ulcerated; pus is taken from that part where the suppuration was very profuse, and inoculated in two places. The ulcerations are dressed with calomel and chloride of soda.

The vagina was examined with a speculum, and the neck of the uterus was found healthy; the mucus from the uterus is transparent. There is a little redness in the mucous membrane of the vagina, and the urethra is healthy; injections were ordered, and tamponment with solution of alum.

17th. The inoculations have failed; the pus from the ulcerated tubercles is again introduced into the left thigh. The calomel dressings are continued. 28th. The ulcerated points alone remain; the prominences of the diseased skin are collapsed; the vaginal discharge has nearly disappeared. 30th. The patient is cured; the tubercles have nearly disappeared.

Aug. 3d. The patient leaves the hospital.

CASE VI. *Ulcerated mucous tubercles; inoculation unsuccessful.*

Vim—, aged 37 years, entered Oct. 7, 1836. This patient could not determine the precise time when the chancre of the skin of the penis appeared. It was treated, however, by applications of mercurial ointment, and decoction of sarsaparilla and guaiacum. Notwithstanding this treatment, induration appeared, and twenty or twenty-five days after the disease commenced, a lenticular syphilitic eruption appeared on the body, and impetigo on the hairy scalp. These symptoms were treated with the liquor of Van Swieten. The treatment was considered complete, after taking sixteen grains of corrosive sublimate, and the patient was declared cured. Two months afterward he entered the hospital again.

Now the cured spots are seen on the skin, marking the syphilitic eruption; the cicatrix of the primitive chancre is hard, and on the anus large patches of ulcerated mucous tubercles, and also rhagades are seen. 8th. The pus from the ulcerated mucous tubercles is introduced into the left

thigh; the induration of the chancre and the impetigo on the head are treated by pills of the proto-iodide of mercury; and on the mucous tubercles the calomel dressings are applied. 12th. The inoculation has failed; the purulent secretion of the anus is less; the left thigh is again inoculated in two places with pus from the base of a fold of the anus. 18th. The inoculation has produced nothing; the mucous patches are dry, and no suppuration exists except in the rhagades. 24th. General improvement; there is no induration in the penis; the crusts of the impetigo have disappeared; the anus is nearly cured. The pills are omitted, to avoid producing stomatitis; the gums are red and tender; they are cauterized slightly with hydrochloric acid, and a gargle of quinine is prescribed. 30th. The stomatitis has not advanced; the pills are again prescribed to remove the slight induration in the folds of the anus; and, Nov. 18th, the patient is perfectly restored.

CASE VII. *Chancres in the period of reparation; mucous tubercles of the anus and labia; inoculation without result.*

Mic— Julie, aged 18 months, entered April 24th, 1833. We had no very exact details of the antecedents. The parents stated, that they had never had any syphilitic affection, and that the disease must have been communicated by their neighbors, in whose care the child had been left; and indeed, the woman who was intrusted with the care of the child, as well as her husband, were actually affected with chancres. We found the little girl strong and well formed; its limbs were more developed than is usual at this age; the sexual organs appeared to have been pulled asunder, by attempts at coition, and upon the whole, there appeared to be an abnormal super-excitation. There was already some hair on the mons veneris, and around the anus. At a considerable depth in the vulva, we perceived some ulcerations, having the appearance of transformed chancres, and ulcerated mucous tubercles; and lastly, at the commissure of the labia were mucous tubercles. 24th. The ulcerations of the vulva were inoculated by two punctures made on the left thigh; dressings of decoct. malvæ and poppy heads were applied. 26th. The pus from the ulceration on the labia was inoculated by two punctures on the right thigh; the inoculations made on the 24th had produced a pseudo-pustule, which was nearly dried up. The anus was dressed with calomel, and sod. chlorin. and pills of hydrarg. proto-iod. broken into a spoonful of sudorific sirup, were given internally. 28th. The last inoculations had produced nothing; the pus of a mucous tubercle at the anus was inoculated on the right thigh.

May 10th. The inoculation on the 28th of April had produced nothing, the ulcerations of the vulva were better, but much irritation was kept up by masturbation; the dressings were continued. 20th. The mucous tubercles at the anus had disappeared; only a single ulcerated point remained. The vulva was nearly well; the ulceration of the commissure

of the labia was touched with mel. iod.; they were nearly cicatrized. 30th. All was well; the general health of the child had always remained excellent. On the 10th of June she left the hospital.

CASE VIII. *Chancres; acute ecthymatous syphilitic eruption inoculated without result on the patient, and on a healthy individual.*

Huh—, aged 24, entered July 8th, 1835. The patient was unable accurately to state at what period he had contracted chancres on the anterior and upper part of the glans and mucous membrane of the prepuce; he stated he had perceived it at the same time as a blenorrhœa, which, three months previous to the time of his entry, had developed itself eight days after a sexual connexion. In the commencement the blenorrhœa was very acute; it was not treated by active means; the chancres, cauterized with argent. nitr. and dressed with cerate, were healed in a fortnight, leaving induration around the cicatrix. We found still some discharge from the blenorrhœa of a whitish yellow color. Three weeks previous to his coming to the hospital, a pustular syphilitic eruption showed itself on the body, and in a less degree on the thighs and legs; the most irritated and largest pustules were on the back. The patient observed, that at the time the eruption first appeared, the blenorrhœa became again acute. 10th. Injections of argent. nitr. were ordered for the blenorrhœa. 15th. The pus taken from one of the pustules on the back, was inoculated by two punctures made on the left thigh; the pil. hydrarg. iod. and sudorific sirup and tisane were ordered; the injections were continued. 17th. The punctures had produced nothing; the blenorrhœa was much diminished; cubebs, two drachms per diem, were given; a fresh inoculation was made on the right thigh with pus taken from a pustule on the back. Some of the same pus was inoculated by two punctures on the left arm of a healthy individual. 20th. None of the punctures had produced any effect. 28th. Nearly all the pustules of the syphilitic eruption were drying. The blenorrhœa had disappeared; the injections were discontinued, but the cubebs were continued.

Aug. 8th. The patient left cured; only the brown spots remained upon the body, indicating the seat of the syphilitic pustules.

CASE IX. *Syphilitic iritis, deformation of the pupil; syphilitic eruption; mucous tubercles, &c.; inoculation without result.*

Dura— Louise, aged 20, entered Dec. 3d, 1833. This patient, who had been for a year previous affected with chronic blenorrhœa, having several times exposed herself to contagion, by sexual intercourse, was unable to state at what time the last infection had taken place. In the month of July previous, she had felt an itching in the vulva, where several pimples had appeared. In October two tumors developed themselves; one on each side, near the ang. maxill. inf.; an application of leeches caused them to disappear; but nearly at the same time a syphilitic lenti-

cular eruption and psoriasis guttata showed themselves. The eyes became very sensible, and the vision was affected. At the Hôpital St. Louis she was treated by fumigations of hydrarg. sulph. rub., and a collyrium of aq. rosar. After this treatment had been pursued without obtaining any improvement, the patient was sent to this hospital. Upon her entry we found the syphilitic eruption still in the acute stage; there was an iritis; the pupil was oval, and drawn directly upwards;* about the anus and vulva were granulating mucous tubercles; an examination with the speculum showed a papular vaginitis; the vaginal secretion was puriform; on the inner and middle part of the right cheek an ulceration was observed, resembling an ulcerated tubercle.

Dec. 4th. Twenty leeches were applied to the right temple; a pediluvium, and compresses dipped in decoct. malvæ, to the right eye, were ordered; the left eye was in a very good state. 8th. A fresh application of leeches, a blister to the back of the neck, a collyrium of zinc. sulph., frictions of extract of belladonna around the orbit, pills of hydrarg. iod., sudorific sirup and tisane, and injections with conium. The ulcer on the cheek was cauterized with hydrochloric acid; the menses having been suppressed for three months, emmenagogues and an application of leeches in the fold of the thighs were ordered. 27th. The vagina was smooth, and no papulæ remained; the sight was still dull, but the patient could read; the deformities of the pupil appeared to vary during the day. The ulcer on the cheek had disappeared, after the third cauterization with hydrochloric acid.

Feb. 10th. Some traces of the syphilitic eruption and psoriasis still remained; the pupil was becoming round; it was moveable, and but little morbid sensibility of the eye remained; the vision was becoming gradually more clear; the frictions of belladonna were continued; the pupil presented the distorted form in the morning, but in the evening it was round. 22d. The pupil presented an ellipsis, *whose greater axis was directed downward and inward*; the margin of the superior half seemed fringed and condylomatous, whilst the inferior was even; there was no effusion in the chambers; the iris was slightly changed in its color, which was a little deeper. Fumigations with hydrarg. sulph. rub. were ordered, on account of the syphilitic eruption, which had nearly disappeared; as had also the tubercles of the anus.

27th. All was well in the vulva and vagina; the pupil was no longer deformed; but a few brown spots remained, marking the seat of the cutaneous eruption; some vegetations at the anus were cut off.

March 12th. The cure was complete; the morbid secretion from the ulcerated mucous tubercles had been inoculated without result.

* The deformation of the pupil downwards and outwards, is far from being constant, as has been pretended. R.

CASE X. *Pustular syphilitic eruption, ulcerated tubercle, ulceration of the cervix of the uterus, and purulent uterine catarrh; inoculation without result; excision of a tubercle, before the ramollissement.*

Coup—, aged 26, entered Oct. 10th, 1833. When twenty years old, this patient first contracted an infection, and was treated with mercury for a vaginal discharge, and chancres of the external labia. The treatment lasted nine months, during which time frequent mercurial frictions and the liq. Van Swieten. were employed; notwithstanding all this, a copious discharge still remained. Three months later, some mucous tubercles appeared at the vulva, and a lenticular syphilitic eruption on the body; the liq. Van Swieten. was again given, but nevertheless, the affection progressed; the eruption passed from the squamous form to that of ecthyma; on the limbs, some crusts of rupia appeared; at length, the affection seemed to yield to a long continued treatment with pills of sudorifics and corrosive sublimate; but some months later, the articulation of the knees became painful and swollen. Soon after, tubercles showed themselves in the calves, and becoming slowly softened, their cavities were laid open; those on the right leg, June 2d, 1833, and those on the left, Oct. 8th; there had been a considerable destruction of the tissues, particularly of the muscles. On examining with the speculum, a granulating ulcer was found upon the cervix uteri; and a purulent catarrhal discharge.

Till Nov. 1st, the ulcerations of the calves were dressed with a concentrated decoction of opium; injections of decoct. alb. were ordered for the purulent vaginal discharge; the ulceration of the cervix was cauterized with arg. nitr. Internally, pills of hydrarg. iod. with pulv. conii, and a decoction of hops, with anti-scorbutic sirup, on account of the lymphatic habit of the patient, were prescribed.

Nov. 2d. The pus of the ulcer on the left calf was inoculated on the right thigh. 6th. There was no pustule on the point inoculated; the ulcers were cauterized with argent. nitr. and dressed with cerat. opii. 28th. The cicatrization was nearly completed on both calves; but about one third down the anterior surface of the right leg, a tubercle was felt, which developed itself slowly, and whose extent was already as large as a nut; it appeared moveable; the integuments were divided, and the little tumor was removed entire.

Dec. 6th. The wound made Nov. 28th, to extract the tubercle of the leg, was perfectly cicatrized; but the wounds on the calves, which hitherto had seemed to be healing, had suddenly returned to nearly their former state; the cicatrix was entirely absorbed. It was found that the patient, thinking herself cured, had neglected the treatment. The vagina was ordered to be tamponed with dry lint; the ulcer on the cervix was healed. 10th. The ulcers on the calves were touched with creosote. 20th. There was much irritation; the use of the creosote was suspended, and dressings of decoct. opii substituted.

Jan. 6th, 1834. The application of creosote was resumed; the internal

treatment was continued. Near the malleolus externus of the right foot, the patient pointed out a tubercle, but it could not be removed, as its base was already adherent. 28th. The tubercle on the malleolus was suppurated; it was opened, and dressed with cerat. opii.

Feb. 1st. There was a general tendency to cicatrization, and an active granulation in the wounds of the legs; a cauterization was made with argent. nitr., and they were touched with creosote every third day. 10th. The base of the ulcerations was raised, and covered with granulations, which were difficult to repress. By the 18th of March, the patient being nearly cured, was able to leave the hospital.

CASE XI. *Chancre; ecthyma, inoculated unsuccessfully.*

Ma—Louis, aged 22 years, entered Aug. 8th, 1835. Eleven months since this patient had chancres of the glans, which were cured in 28 days by using the opiated cerate. Three weeks later, pustules appeared on the trunk and limbs. Crusts formed in the hair, and on the anus, mucous tubercles appeared. The patient entered the hospital St. Louis, where he was treated by fumigations of cinnabar, pills of corrosive sublimate, sudorific sirups, and tisanes. He left, the symptoms being apparently cured.

A month after, many pustules of ecthyma appeared on the limbs, and it was remarked that after the scabs fell off, there were livid copper-colored spots.

Aug. 12th. Pus from an ecthymatous ulceration of the shoulder was inserted near the deltoid region. 14th. The inoculation failed; pills of the proto-iodide of mercury, the sudorific sirup, and tisanes were given. 15th. The left shoulder was inoculated with pus from an ulcerated ecthymatous pustule. 18th. The puncture is red and pointed; the treatment with the pills is continued. 19th. The puncture has healed; the patient is better and leaves Nov. 2d, cured.

CASE XII. *Ulceration of the throat inoculated without result.*

Nic—, aged 20, entered May 3d, 1834. This young man asserted that he had never had any previous syphilitic affection, and falsely attributed his disease to an infection from drinking out of a glass with another person, who had ulcers on the lips and throat. It may be well to remark, that in our patient the affection commenced at the back of the throat; at first there was only difficulty in deglutition; the ulcers appeared slowly, and it was not till lately that an antiphlogistic treatment had been tried; the pains had in a great measure disappeared, but some deep ulcers still remained in the throat; the tonsils were nearly destroyed; but the general appearance was not clearly syphilitic. The habit of the patient was scrofulous, and he had some ganglionic engorgement in his neck.

May 6th. The throat appeared much irritated; leeches were applied to the neck; an emollient gargarism and pediluvium were ordered; some pus was taken from an ulcer on one of the tonsils, and inoculated by two punc-

tures, made on the left thigh. 7th. Leeches were again applied; the pain was much less. The inoculation on the 6th had produced nothing; the punctures were not even irritated. 9th. There was a sensible amelioration in the general health; nevertheless, at several points, the destruction of the tissues progressed rapidly; but little of the left tonsil remained; on the pharynx were some ulcers, whose base was covered with a grayish pseudo-membrane; their pus was inoculated by two punctures made on the right thigh. 12th. The inoculations on the 9th had produced nothing; a gargle with conium, and morella was ordered.

14th. The pain was still better, but the destruction progressed. Dressings of mel. iod. were used till the 30th, without decided improvement.

June 1st. A decoction of hops and anti-scorbutic sirup, iodine mixture, and gargle were prescribed. 10th. The disease had rapidly improved under the influence of the iodine; the progress of the ulceration had nearly instantly ceased. 20th. Rose-colored granulations were produced everywhere; the base of the ulcers was raised; on the 23d they were touched with nitrate of mercury; the cicatrization progressed rapidly; on the following day, but a single point remained ulcerated on the seat of the left tonsil. 27th. The surfaces were become smooth, and the patient left cured.

CASE XIII. *Secondary ulceration of the throat inoculated without result.*

Bel—— Marie, aged 45, entered Jan. 14, 1834. This patient had, a year previous to the time of her coming to this hospital, contracted ulcers on the external labia and a gonorrhœa; she was treated with liq. Van Swieten, sudorific sirup, and tisane during six weeks. Being declared cured she stopped all medication; but after being two months in a dubious state during which time she frequently felt a difficulty in swallowing, she was attacked with a very violent pain in the throat. Leeches were applied, and a mercurial treatment ordered, which was continued during five months. Not being cured, she came to the hospital, where she was treated with pil. hydrarg. iod. and a gargle of decoction of conium and morell., with sublimate for the ulcers which she then had in the throat; she stayed three weeks, and left when the symptoms had disappeared; she returned with ulcers, occupying half the substance of the right tonsil. arcus palat. ant. of the same side, and forming excavations with indurated and irregular edges in the posterior part of the throat. 16th. Some pus was taken from one of the points, affording the most suppuration, and inoculated by two punctures on the right thigh. The same gargle was ordered, as on the previous occasion. 18th. The punctures had produced no effect; the same treatment was continued till Feb. 1st. The ulcers were a little cleaner, but the margin was still raised and indurated; the pills of hydrarg. iod. were prescribed.

Feb. 1st. The ulcers were very painful, and still in the progressive stage; they were touched with a brush, dipped in creosote; ten minutes after the

application, the pains were less; it was repeated on the three following days. 5th. There was a little irritation; an emollient gargle was ordered. 8th. Creosote was again applied; by the 12th, the extent of the surface of the ulcers was less, and their raised edges had become reduced. 24th. The cicatrization was going on well; there was no pain in swallowing. Four days later, the cicatrization was completed, and on the 8th of March, she left cured.

April 26th. She returned to the hospital with an extensive ulceration, occupying the whole of the velum palatinum; its form was triangular, and the posterior angles extended towards the arcus, and its base towards the throat; the uvula was much ulcerated at its base, and nearly detached; all around the ulcer was much inflamed; its ground was grayish, and its edges abrupt; some of the pus was inoculated on the right thigh. Twelve leeches were applied to the ang. maxill. inf., and a gargle of decoct. malv. et capit. papav. ordered.

May 1st. The inoculations had produced nothing; some inflammation still remained; leeches were again applied. 11th. Pil. hydrarg. iod. with pulv. conii were prescribed; the ulceration was very painful. 17th. The destruction seemed arrested; the uvula was detached, and the arcus had lost much substance. 20th. The ulcers were touched with mel. iod. A fresh inoculation was made on the right thigh, with the pus taken from the right tonsil. 30th. The inoculation was without effect; there was a general improvement.

June 10th. Nearly all was healed; the margin was no longer raised, and the pain had disappeared. 25th. The cicatrization was complete.

July 2d. The patient left the hospital; we saw her a year later, when she had remained free from any return of the affection.

CASE XIV. *Consecutive ulceration of the throat, inoculated without result.*

Gab—, aged 34, entered May 30, 1835. This patient had no ulceration on the sexual organs; no pus came from the urethra upon pressure nor was there any trace of a recent cicatrization; only, near the frenum, a white, but not indurated spot was observed, which had been the seat of a chancre, contracted eight years before, and which had lasted about a month; the ulcer had been treated with ung. hydrarg. and red precipitate. Since this time, there had been no new infection; the patient had not often exposed himself to it. After the chancre was cured, no symptom had appeared which could be ascribed to syphilis; when about a year previous to his coming to the hospital, having been at work in a very damp situation, and living upon bad food, he felt a pain in the throat: at first, there was difficulty in swallowing; next smarting pains, irritation of the mucous membrane of the pharynx and mouth, pain in the epigastrium, acid eructations, and nausea. These symptoms soon became less intense; but there

remained in the throat, on the mucous membrane of the œsophagus and left tonsil, an ulcer with abrupt edges and grayish ground, covered with a pulpy membrane, thus apparently presenting the characteristic appearance of a secondary ulcer. Till this day, the patient had received no treatment; he had merely, from time to time, used a gargle of decoct. malvæ; the breath was very fetid; the ulceration was very extensive, and occupied nearly the whole of the posterior part of the pharynx; the left tonsil was half destroyed. The state of the digestive organs was sufficiently good to allow of mercurials being given.

June 8th. The pus of the ulceration of the throat was inoculated by a puncture on each thigh. 18th. The punctures had produced nothing; pills of hydrarg. iod. were ordered, with sudorific tisane and sirup, and a gargle of a concentrated decoction of conium, with sublimate. 25th. There was little improvement; the state of the digestive organs was still good; the treatment was continued; two pills were given; the ulceration was cauterized with nitrate of mercury. 30th. There was a little improvement; the use of the sudorific sirup and tisane was suspended, on account of too great an irritation; the pills were continued; but only one was given per diem.

July 6th. Decided improvement; the surface of the ulcer was freed from the grayish membrane which covered it. Anti-scorbutic sirup was prescribed. 20th. The tonsil was nearly well; the granulations were cauterized with arg. nitr. 30th. The ground of the ulcer was covered with healthy granulations; its extent was diminished by half; the digestive organs were in a good state; the patient left cured, Aug. 8th.

CASE XV. *Ulceration of the breast; inoculated without result.*

God—— Eulalie, aged 28, entered March 22d, 1834. This patient stated that she had never had any primary syphilitic affection; that her husband's health had been always good; that she had borne four children, and that her breasts had never been sore whilst suckling. Four months previous to our seeing her, she took a nurse-child; it was very thin, but had neither on the mouth, nor other part of the body, any wound or ulceration; three weeks later, pimples appeared on the forehead, and at the anus; their surface became purulent, and covered with crusts; it had on the body some patches covered with squamæ; on the nates and calves of the legs, deep ulcerations; the suckling was continued for six weeks, but as the disease increased every day, the child was taken back to its parents and died. Till that time the nurse had had no symptoms; but a week later, on both breasts, near the nipples, fissures formed, one on the left side, and four on the right. Nevertheless, she continued for a fortnight to suckle her own child, who had never ceased to enjoy an uninterrupted good state of health; the breasts were dressed with opiated cerate, and a decoction of hyoscyamus; then ulcerations having succeeded to fissures, and the pains having become very acute, the patient resolved to come to the hospital. On each

side on the breast and nipples were ulcers, with grayish base, abrupt irregular edges, and resembling, although simple, syphilitic ulcers. 26th. The pus from the right breast was inoculated on the right thigh, and that taken from the left, on the left thigh; dressings with cerat. opt. were ordered. 27th. The punctures were red; but on the following day, no pustule was produced; simple dressings were applied to the ulcerations.

April 6th. All was becoming clean; there was a decided improvement.

12th. The base of the wounds was nearly level with the surrounding parts. The patient was obliged to leave the hospital on business; and returning some time after, we found only one deep fissure remaining, whose pus was inoculated on the left thigh, but without result; a lotion of sod. chlorin. was applied, and in a week's time she left quite cured.

CASE XVI. Ulceration of the lip; sub-maxillary engorgement; inoculation without result.

Vil—, aged 18, entered Nov. 15, 1836. This patient assured us, that he had not for a long time had any sexual intercourse; he had no wound of any kind on the sexual organs; but on his lip, a little distance from the commissure, was an ulceration, which had existed about a month. The patient stated, that at first there had been only a little pimple, which having been scratched off, became ulcerated. It ought to be remarked, that the teeth were black, and the gums retracted from them, by the use of the pipe. No treatment had been used; the sub-maxillary engorgement had existed about ten days. We found the ulcer of the lip much irritated; the engorgement was subacute in its progress; the pus from the ulcer on the lip was inoculated by two punctures on the right thigh; cataplasms were applied to the swollen sub-maxillary glands. 18th. The punctures had produced nothing; the wound on the lip was cauterized with argent. nitr. and dressed with vin. arom. 21st. The engorgement had nearly disappeared; the ulcer on the lip was half dried up; it was again cauterized. Dec. 1st. The wound was quite healed; no induration remained, and the patient left the hospital on the 8th.

CASE XVII. Ulceration of the tongue and finger of a doubtful appearance; inoculation without result.

Bel—, aged 48, entered Dec. 8, 1835. This patient had never had any chancres; at the age of thirty, he was affected with blenorrhœa, which lasted three weeks, and then disappeared without any treatment; since then, he had felt no symptom which would lead us to consider the blenorrhœa as depending on concealed chancres; there had been no induration in the canal of the urethra. Four months previous, without any known contagious cause, he became feverish from too severe fatigue; a few pimples appeared about the base of the tongue; at first, there had been much pain. Now the upper surface, near the base of the tongue, was ulcerated; on some points were granulations, and in the intervals be-

tween them, deep excoriations; the diseased surface is larger on the right than on the left; there were on the ulcerations, grayish cavities, with abrupt edges; the wounds were much inflamed, and yielded much pus; no indurated knot was perceived in the tissue of the organ. On the last phalanx of the median finger of the left hand was an ulcerated spot, covered with a crust in layers.

11th. Some pus taken from a wound in the tongue, which appeared to be in the progressive or ulcerative period, was inoculated on the left thigh. In like manner, some of the pus from the ulceration on the finger was inoculated on the right thigh; the surface of the tongue was cauterized, and a gargle of conium and morella prescribed; the finger was dressed with calomel and opium cerate. 14th. The inoculations failed; the tongue was much less inflamed; the same treatment was continued. 16th. A fresh inoculation of the pus taken from the tongue was also without result. By the 30th the patient was cured, and left the hospital.

CASE XVIII. *Tumor and ulceration on the posterior part of the penis; inoculated without result.*

Fo—, aged 28, entered Feb. 21, 1837. This patient had never had chancres; about five years previous, he had had a blenorrhœa followed by a bubo, which being treated by active means, disappeared in a short time; from that time he had perceived nothing which he could attribute to a syphilitic infection. At the time of his entry, three months had elapsed since he had had any sexual intercourse. In consequence of great exertion and fatigue, a tumor appeared near the root of the penis; it had existed about a week when we saw him; pus had rapidly formed, and the tumor opened spontaneously, and presented a considerable ulceration. 23d. Some pus was taken from the depth of the ulcer and inoculated on the right thigh; dressings with vin. arom. were applied. Four days later the punctures had produced no effect. 30th. The whole surface of the ulcer appeared in the period of reparation; some granulations were slightly cauterized.

March 4th. All was cicatrized; no induration remained in the edges of the cicatrix nor in the abscess; the patient was dismissed cured.

CASE XIX. *Cancer uteri inoculated without result.*

Nev— Marie, aged 32, entered May 8, 1834. It was difficult to trace out the evident cause of the actual state of this patient from among the antecedents: her menses appeared at the age of fourteen, and she continued to enjoy a good state of health till the age of twenty, when she had her first child; two years later she had a second; from this time forward there was an irregularity in the menstruation, then, at long intervals, copious fluor albus. A year previous to her coming to the hospital, she contracted a blenorrhœa, which at its commencement caused no pain. Her husband had a chancre, but she had no ulceration, at least not on the external part

of the sexual organs. Six months later, the discharge, which seemed to have decreased, returned with great intensity, and a state of progressive marasmus soon ensued. The patient consulted a surgeon, who stated she had an engorgement and hypertrophy of the cervix uteri, and prescribed a bath every second day, and ordered her to be bled once a week, a mucilaginous tisane, pil. conii, and local baths with morel and mallows: this treatment had been continued with absolute rest for six months; but having obtained no amelioration, she determined upon coming to the hospital. On examining with the speculum, an ulceration was found at the orifice of the uterus of a lardaceous appearance, with a sero-purulent secretion without smell, and general induration without hypertrophy. Some of the pus was taken from the cervix, and inoculated by three punctures made on the left thigh. Injections of decoct. conii c. morell., pills of hydrarg. iodid. and fol. conii were prescribed. 13th. The inoculations had produced nothing; the ulceration progressed slowly, but the destruction and induration were still increasing. 24th. The carcinomatous nature of the affection was every day more evident. A tampon, covered with mel. iod., was placed on the cervix. 26th. The darting pains were very acute.

June 11th. A careful examination was made in order to ascertain whether the operation would be practicable. Opiated injections were prescribed, and the pil. opii given at bed-time; the use of the iodine was suspended.

July 6th. The affection still increased, though slowly; the patient was advised to go to the Salpêtrière.

CASE XX. *Chancre, blenorrhœa, indurated ulceration of the lower lip; inoculated unsuccessfully.*

Laure—Françoise, aged 21 years, entered March 25, 1834. Two months since, for the first time, this patient contracted follicular chancres of the inner face of the external labia, and an urethro genital blenorrhœa. A chancre was formed mechanically by the laceration of the fourchette. On the lower lip is seen an ulceration on a broad base, resembling an ulcerated mucous tubercle; it commenced by a pustule. There had been no medical treatment.

26th. A bath, emollient lotions, and edulcorated barley-water were ordered. 28th. The chancres were dressed with a pommade of calomel and opium; emollient injections were used.

April 8th. The pus from the ulceration of the labium was inoculated on the left side in two places. 12th. The inoculation failed; the follicular chancres were cured; the chancre of the fourchette was cauterized with the nitrate of silver. The patient menstruated. 22d. On examining with a speculum, the uterus was found to be healthy; the vagina was red; the uterine secretion is transparent; injections and tamponning with decoct. alb. are used. 28th. The chancres are cured; the discharge has much diminished; pills of the carbonate of iron are prescribed for a scrofulous

habit; the injections and tampons are continued, and the patient is discharged cured May 15th.

CASE XXI. *Chancres, phymosis; dubious pustule at the navel inoculated without result.*

Aug—, aged 20, entered Jan. 24, 1837. This patient for a month had been affected with chancres on the prepuce, followed by a balanitis and phymosis; the inflammatory state had been of short duration. We could easily uncover the glans, on which were some excoriations; some of the chancres were healing. About ten days previous a pustule appeared near the inferior part of the navel, and followed in its development the course of the pustules from inoculation; at first, red and pointed, it soon became raised and almost umbilicated; the epidermis broke and showed a small ulcer, which we found covered with a crust like that of ecthyma; the base was indurated. When the crust was removed the wound presented all the characters of a chancre; the edges were ragged; the base appeared in the ulcerative or progressive stage; some of the pus was inoculated on the right thigh. The chancre on the prepuce was cauterized and dressed with vin. arom.; the excoriations on the glans were also superficially cauterized.

28th. The inoculation had produced no effect; the same treatment was pursued. 31st. The excoriations on the glans were healed; the chancre on the prepuce was nearly dried up; it was slightly touched with the caustic; the wound on the abdomen had become much less and was granulating; its base was but little indurated. In a few days time the patient left cured.

CASE XXII. *Chancre, rupia, exostoses, osteocopic pains; inoculation of the pus of the rupia without result.*

Des— Autoine, aged 36, entered Aug. 22, 1835. The affection had continued five years; at first he had a chancre on the glans, which did not disappear till he had been treated for a month with mercury. Fifteen days after the cicatrization of the ulcer, some crusts of impetigo appeared on the scalp, and also a syphilitic eruption; on the arms were some pustules of ecthyma; these symptoms were treated with pills of mercury, frictions, and fumigations with hydrarg. sulph. rub. Nevertheless the disease progressed; exostoses were developed on the forehead, and the joints became violently painful. On the malleolus externus of the right foot, extensive ulcerations were formed; on the back and arms an eruption of rupia appeared; at length the symptoms had nearly disappeared, and the patient thought himself cured, when, soon after his leaving the hospital of St. Louis, the same symptoms returned, and also acute osteocopic pains; about the middle of the under part of the arm, tubercles of the cellular tissue formed, and produced extensive ulcerations. On entering, some pus was taken from one of the ulcerated pustules of rupia on the deltoid region, and inoculated on the right thigh by two punctures; pills of hydrarg.

iodid., decoction of hops, and anti-scorbutic sirup were prescribed; the ulcers were dressed with opiated cerate; slight blisters were applied to the forehead and other parts in which the pains were felt.

Aug. 6th. The inoculation of the pus of the rupia had produced nothing, the pains were somewhat less; blisters were ordered to be again applied on the following day. 10th. Some pus, taken from an ulcer on the arm, was inoculated by two punctures on the left thigh. 20th. The osteocopic pains had disappeared; the appearance of the ulcers was improved; the granulations were cauterized.

Sept. 10th. The exostoses on the forehead had disappeared, from the use of flying blisters and general treatment; the ulcerations were better; the arm is nearly cured; the wound in the malleolus presented several cicatrized points. 28th. The back and arm are cured; the osteocopic pains have subsided: the wound of the foot is nearly cicatrized. All was going on well, and by the 2d of October the patient was quite cured and left the hospital.

CASE XXIII. *Indurated chancre; rupia inoculated unsuccessfully.*

Clem—, aged 26 years, entered July 1, 1836. This patient had been affected with chancres several times. Now there was induration in the place where a chancre had been cicatrized for twenty days; the face and body are covered with an eruption of *psoriasis guttata*; on the knee and thigh are ulcerations caused by rupia; this young man has scrofulous temperament.

July 2d. Inoculation is made in the left thigh in two places, with pus taken from one of the ulcerations of the right knee. Pills are ordered of the proto-iodide of mercury with cicuta, a tisane of saпонaria, with sirup of gentian and iodide of iron, in doses of eighteen grains daily. 6th. The inoculation has failed. There is ulceration of the penis, which is dressed with aromatic wine. 14th. The eruption is paler; the ulcerations of the rupia are better. 17th. The granulations on the knee are cauterized; the penis is well. 20th. The base of the ulceration of the rupia is nearly cicatrized in every part, and on the 26th the patient is cured.

A TABLE OF THE INOCULATIONS

Made in the Male Wards,

1831—1837.

SYMPTOMS WHOSE PUS PRODUCED THE CHARACTERISTIC PUSTULE.

PRIMITIVE SYPHILIS.

Chancres in the ulcerative or progressive period—	
On the penis	347
At the anus	9
Concealed in the urethra (larvé)	21
On the lips	3
In the throat	1
On other parts	8
Primary pustules—	
On different parts consequent on coition, on the inner parts of the thigh, or from artificial inoculation	59
Virulent abscess, or encysted chancres—	
In various situations	18
Symptomatic lymphitis, or chancres in lymphatics—	
Inoculated upon the day of their being opened, or later	11
Symptomatic bubo, or ganglionic chancres—	
Inoculated the day they were opened	42
“ following day*	229

In the Female Wards,

1831—1836.

PRIMARY SYPHILIS.

Chancres in the ulcerative period—	
On the vulva	139
“ vagina	2
“ cervix uteri	12

* Of these latter, 214 had been inoculated without result on the day of the opening.

Concealed	6
At the anus	28
On the lips	4
In the throat	2
In different parts	6
Primary pustules—	
On various seats consequent on cœdion; on the internal surface of the thigh, or from artificial inoculation	27
Virulent abscess, or encysted chancre—	
In various situations	8
Symptomatic buboes, or ganglionic chancres—	
Inoculated upon the day of their being opened	21
“ “ the following day or later	46

In the Male and Female Ward,

1831—1837.

SYMPTOMS WHOSE PUS PRODUCED NOTHING.

SYMPTOMS OF TRANSITION.

Chancres in the period of reparation	62
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SECONDARY SYPHILIS.

Mucous tubercles, or pustules in various parts	221
Secondary ecthyma	10
“ rupia	9
Ulcers (consequent on mucous tubercles, ecthyma, rupia, or impetigo)—	
In the nasal fossæ	19
On the lips	14
“ palate	4
In the throat	81
At the anus	41

TERTIARY SYPHILIS.

Tubercles ulcerated in the whole thickness of the skin in various situations	21
Tubercles in the cellular tissue or gummy tumors ulcerated, on various seats	11
Periostoses having suppurated	15
Caries	10

VENEREAL AFFECTIONS, NOT DEPENDANT ON THE SYPHILITIC VIRUS.

Primitive buboes	39
Sympathetic “	248
Blenorrhœa in the acute stage—	
Of the glans and prepuce (balanitis)	82

In the urethra	291
“ vulva	31
In the vagina	82
“ uterus	27
At the anus	36
Ophthalmia	6
Blenorrhœa in the chronic stage having various seats	112
Ulcerated swelled testicle	3

NON-CHARACTERISTIC SYMPTOMS WHICH SHOW THEMSELVES AFTER VENEREAL
AFFECTIONS, WHETHER SIMPLE OR VIRULENT.

Vegetations, either ulcerated or not, having various forms and seats	28
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AFFECTIONS NOT DEPENDANT ON VENEREAL DISEASES. COMPARATIVE EXPERI-
MENTS WITH NEGATIVE RESULT.

Atonic ulcers of the legs	6
Simple ecthyma	5
Herpes	4
Scorbutic ulcers	2
Scrofulous	6
Caries	4
Simple ulcerated stomatitis	8
Ulcerated eczema intertrigo	2
Otitis	2
Cancer of the uterus	5
“ “ rectum	6
“ “ breast	2
“ “ penis	3
“ “ nose	4
Abscess on various parts	15

I may here add, in support of these tables, the result of some experiments, made with the same view in the hospital at Louvain, by Dr. Mairion.

“My experiments,” says Dr. M. “were made upon 257 patients in the military hospital at Louvain, in the year 1836; 29 of them could not be submitted to inoculation; of the 228 who were inoculated, 85 had primary ulcers, 24 suppurated buboes, 84 blenorrhœa, 7 excrescences, 23 constitutional symptoms.

Primary Ulcers.

“Of the 85 cases of primary ulcers, 53 produced upon inoculation chancres, whose syphilitic nature was proved by their pus being inoculated, and producing others resembling them, which being also inoculated, produced ulcers of the third generation, and so on, till the specific properties of the chancrous molecule were destroyed by chemical applications, or exhausted in the natural progress of the

chancre in its course towards reparation. As long as the chancre was in the progressive stage, the pus remained inoculable.

"Inoculation, carefully made under the above circumstances, has always succeeded; I never found a chancre, whose pus upon the first trial produced nothing, give a contrary result in ulterior experiments.

"When inoculation is successful, it causes the development of an ecthymatous pustule, whose progress and result I have ever found uniform and constant.

"In 32 cases of ulcerations, inoculated in various stages of their existence without effect, the puncture was followed by a slightly inflamed areola, having the little wound produced by the lancet in the centre; these symptoms generally disappeared in less than twenty-four hours. Sometimes I have observed the epidermis a little raised, which by an unaccustomed eye might be taken for the primary pustule of chancre; but this error would soon be rectified, as the raised epidermis soon returns to its natural state, leaving no trace of the inoculation.

"Numerous inoculations were made in the same year, with pus taken from wounds, ulcers, fistulous passages, and always with negative result.

Buboes.

"From our experiments with the pus from buboes, we arrived at the following conclusions:—

"1. That syphilitic ulcers are often complicated with buboes, which is less frequently the case with simple ulcers, and they but rarely accompany blenorrhœa.

"2. That the buboes, which accompany chancres, may be either sympathetic or idiopathic; that the former generally appear before the thirteenth day, and that the latter can appear at any period of the existence of a chancre; but chiefly after the thirteenth day, and during the stationary period.

"3. That the idiopathic buboes always suppurate, whatever treatment may be used.

"4. That the pus of buboes, which accompany chancres, and have suppurated, has generally produced the characteristic pustule of the chancre upon inoculation.

"5. That the buboes which have accompanied ulcers, the specific property of whose pus had been disproved by inoculation, have never, even when they have suppurated, produced any result upon inoculation.

Blenorrhœa.

"Of 85 cases of blenorrhœa, which came under my observation, 4 were found by inoculation to be of a syphilitic nature, (concealed chancres, chancres larvés,) and produced chancres, which again produced others; 80 submitted to the same test, produced no result, whatever number of punctures were made, or at whatever period the discharge might be. The result of the inoculation in the other case was omitted to be noted.

Symptoms of constitutional syphilis.

"Having inoculated 28 cases of constitutional syphilitic affections without effect, I felt convinced, by this small, but varied number of tests, that none of the constitutional symptoms are susceptible of inoculation."

PART THE THIRD.

THERAPEUTICAL SUMMARY.

CHAPTER I.

EXPOSITION OF THE METHODS OF TREATMENT WHICH HAVE PROVED MOST SUCCESSFUL AT THE HÔPITAL DES VENERIENS.

As this title shows, and as I announced in the commencement of the work, I do not intend to furnish a complete treatise on the therapeutical treatment of venereal diseases; but merely to point out the means which have appeared to me most efficacious, and which I generally employ.

I shall always point out as clearly and fully as possible, the indications which have directed me in the choice of the methods employed, without entering into the history of the symptoms, which will be understood from the sketch which I have traced out.

And first, by venereal diseases, are to be understood all those which are generally contracted in sexual or venereal intercourse, and which generally commence in the sexual organs, although they may originate in other circumstances, and other regions.

This great class comprises two very distinct orders; the first including chancre, and all its consequences from infection of the system, and whose cause is the venereal virus; for this order, the term syphilis ought to be retained; the second embracing the non-virulent affections, such as blenorrhœa, and its consequent diseases, which never depend on the constitutional infection, as well as a great number of other symptoms; simple ulcerations, phimosis, paraphimosis, gonorrhœa, orchitis, &c. To this order, the name of pseudo-syphilis might be applied.

After this division, based on a close observation of facts, I shall proceed to the consideration of this third part, commencing with a short exposition of the prophylactic treatment in general.

PROPHYLACTIC TREATMENT OF THE PRIMARY VENEREAL DISEASES.

If the art of preventing disease ought to rank highest, negligence or prejudice, causing prophylactic cares to be omitted, deserves the greatest reproach, especially where affections so terrible in their consequences are concerned.

But what contrasts in science, and those who practise it! For whilst on one side, the greatest encouragement is given, on the other, blame, or at least ridicule, are the sole rewards; thus, whilst every year a number of medals are conferred, by the Académie Royale de Médecine, on those who, by propagating vaccination, have opposed the ravages of small-pox; we see the same body startled, when any remedy to arrest a still more frightful scourge is submitted to its judgment. Undoubtedly, most of the preventives of syphilis hitherto have been culpable mercenary speculations of quacks; but does it therefore follow, that this was and will still be the case with all? No, undoubtedly not; and in the present age, the foolish prohibitions of false morality no longer compel us to regard venereal disease as a punishment reserved by Heaven for libertinism, and which man ought to respect. The Creator of all things, who has so lavishly bestowed the principle of preservation in opposition to all things which attack our existence, has certainly not desired that man's ingenuity, otherwise so prolific in its resources for preservation, should remain inactive in face of the greatest danger, threatening life at every moment, and even at its source. No, the truly wise, virtuous, and philanthropic moralist will say, with Horne, that he must be considered as the true benefactor and preserver of his race, who should discover the true secret of preserving us from the most terrible contagion which ever threatened mankind.

To the honor of the Société des Sciences Médicales de Bruxelles, it has not been afraid to offer, as a prize question, the following important inquiry:—

“What measures of medical police are best adapted to arrest the propagation of the venereal disease?”

I hope this example may not be lost, and that similar and more enlarged questions may be proposed; for the most efficacious means will always be beyond the jurisdiction of a medical police.

In the present state of science, what prophylactic means can be opposed to the primary affections? It is not my aim to examine all the various means proposed by credulity and ignorance, or the theories, more learned than useful, which emanate from men of just celebrity: my remarks will be strictly practical.

It must be apparent, that it is necessary, by all known and justifiable means, to isolate the patients, warn them of their danger, and of the harm they may produce; that it is the duty of the surgeon who undertakes so delicate a mission, to examine with the most scrupulous attention those who can become the source of infinite infections, such as the licensed prostitutes. The examination ought here to be neither slight nor illusive; the internal and more concealed, as well as the external parts of the genital organs should be examined, for the source of the poison, which it is wished to avoid, often lies in the depth of the vagina, on the cervix of the uterus, or even in its cavity; and in these cases, neither an external examination nor the *toucher* would suffice, and the speculum alone could warn them of the danger. I think that I have rendered some service to science by applying the speculum in the study of venereal diseases, and more especially as a measure of medical police; but in order that the visitations of the filles publiques, either with the aid of the speculum, or otherwise, may serve as a guarantee, they must at least be repeated every third day; experience having shown me, that the chancrous pus is contagious on the third day after inoculation, and sometimes even on the second. From the foregoing, it must be evident, that the examinations, as at present conducted, are very insufficient; one class, those who live by themselves, (*en caste*, as it is called,) being examined only once a month, while those who are grouped together in houses of prostitution, every eighth day.

Under the head of prophylaxy, must be included every means which, by destroying the focus of disease, diminishes its propagation: such are, amongst others, the hospitals and gratuitous consultations which are provided by the judicious administration of the Paris hospitals. It is, in fact, by facilitating the means of cure,

and pointing out those which can prevent the disease, that the greatest success is to be looked for. The fear of the disease restrains less; and most frequently, corporal or moral punishments have only produced bad results; for neither the confinement in the castle of Germain des Prés, nor the whip at the Bicêtre, had been attended with beneficial results in the good times when they were practised; far from this being the case, the number of victims to be exiled, and the rank of those who ought to have been whipped, were become such, that these punishments naturally fell into disuse.

The following anecdote may not be amiss: Many parents regard a visit to the syphilitic hospital as a part of the moral education of their sons, so that they can say, "Look, if you fear not God, fear disease!" One day we had a visit of this character, and the father, to give his son a good lesson, requested me to show the patients. I did so, and the young man remarked, "You have here many who are suffering extremely; but it is consoling to think they can be cured." Generally the fear of disease does not prevent exposure, but its effects afterward.

The prophylaxy is to be considered under two distinct heads; the first concerns the individual who may infect, and the second, the one who may become infected.

For the former, besides the before-mentioned visitations, and which ought to extend to men who may infect the prostitutes, cleanliness, the use of lotions and injections, ought to be recommended, with chlorides and soap, and the other means best calculated to clean and disinfect by chemically changing the morbid secretions. *If, in general, women were more cleanly and careful of themselves, the venereal disease would be far less common.* How many women have received the contagious matter, and transmitted it, without becoming infected themselves!

For the latter are to be advised, a free use of the chlorides, soap, and all the means which can cleanse and disinfect, by chemically changing the material of the morbid secretions; remembering that the more the suspicious tissues are washed and cleansed, the less liable are they to infection. Before the act of coition, a scrupulous examination of the organs, to ascertain that no lesions exist. Here the alkaline lotions, &c., are hurtful, as they are liable to wound the surface, and thus cause a peculiar liability to infec-

tion ; but astringent lotions, on the contrary, may have a beneficial effect. And amongst the most efficacious may be mentioned, a solution of alum, acetate of lead, wine alone or with tannin, provided they be well applied, and for a sufficient time. Fatty substances are much less to be depended upon. Every lesion of the skin, which may be discovered after a connexion, ought to be immediately cauterized to prevent further consequences. Every part should be carefully washed with alkaline and saponaceous lotions, and also with the chloride, sufficiently diluted not to act as irritants.

CHAPTER II.

TREATMENT OF VIRULENT AFFECTIONS.

PRIMARY SYPHILIS.

SECTION I.—CHANCRE.

THE prophylaxis of chancre being frequently badly understood, most improvident persons who expose themselves to its contagion are victims of it.

Before commencing the study of the curative treatment of chancre, we must mention, that the primary syphilitic ulcer may often heal without any treatment, and often notwithstanding bad treatment. Yet, as the spontaneous healing of chancres is most frequently uncertain and slow, and the patient remains during its duration exposed to general infection, and to the chances of serious local affections, the conscientious and scientific physician ought never to be neglected; and all his efforts ought to be directed towards destroying it in its outset, or at least shortening its duration.

But, unfortunately, although all agree, that in case of any other poison, as that of the viper, or of any rabid animal, for instance, it is necessary to destroy it at once; yet, in the case of chancre, which is in all respects so analogous to it, absurd theories, supported by great names, throw a doubt over the means which ought to be adopted for its treatment.

However, in order to judge properly of the treatment required by chancre, we must consider it under its various forms, in its regular or irregular state, and with or without complications.

Whatever form a chancre may assume in its commencement, it ought to be treated by the abortive method; for there is no authenticated instance of ulcers destroyed within the first five days after infection, having afterwards given rise to secondary symptoms, if these ulcers existed alone and without other actual complications.

If, however, it be acknowledged that chancres ought to be destroyed as quickly as possible; it is equally clear, that the same means will not be proper in every case, and the indication for those which have been proposed, as excision, direct and mediate cauterization, deserves a moment's consideration.

Hunter, who was of opinion that chancres ought promptly to be destroyed, says, without distinguishing the forms they may at first assume, that cauterization is preferable to *extirpation*, when they are situated on the glans, whose less acute sensibility excites less pain, and exposes less to hemorrhage; whilst excision is better calculated for those cases in which the skin is affected, and where the whole extent of the disease could hardly be reached by the caustic. Valuable as are the precepts of Hunter, and although they are sustained by Ribes, we may yet more exactly fix the indications for their employment, by regarding the difference which chancres present at their commencement.

1. *Pustule at the commencement*.—This form, the most rare in ordinary contagion, and which may be easily confounded, during the first days of its existence, with eczema, or herpes, yields, when attacked early, to a single cauterization, if thorough. The cauterization of the pustule, which can certainly *precede the syphilitic ulcer*, and which Ratier terms the ectrotic method, would have been less contested, if the author of this method had properly described the period of its appearance, of its mode of development, and the consequences of the pustular period of the chancre, and if its existence had not been denied by physicians from want of experience or observation. Therefore, whenever, after a suspicious connexion, a pustule is found upon the organs exposed to the contagion, *whatever its nature may be, and without an exact diagnosis being requisite*, it must be ruptured, and its base well cauterized; for no bad effects would be felt, even were a mistake made, and pustules of eczema or herpes cauterized. The caustic to be preferred in this case, is a pointed piece of nitrate of silver, with which all the parts exposed by the rupture of the pustule can be reached. Whenever the pustule is situated on moveable tissues which can easily be removed, the excision might be made, did not the patients generally manifest great repugnance to any operation of this kind, however slight. When, however, recourse is had to the excision, it is always better

to remove rather more than less than necessary, as the sound tissues will rapidly heal; I usually use the curved scissors for the operation.

2. *Ulceration, or original chancre.*—This form, which is the most common, on account of the general conditions of the infected parts, and the facility with which the newly formed pustule breaks, ought, as well as every suspicious ulcer, under similar circumstances, to be cauterized or excised. Every ulcer under these circumstances requires similar treatment.

3. *Virulent abscesses.*—A chancre can succeed an abscess preceded by a phlegmonous process, and be seated in a follicle, the cellular tissue, a lymphatic vessel, or ganglion. Whenever, in consequence of one of these conditions, in which chancres are contracted, the parts exposed to infection present an engorgement of one or more follicles, the excision must be practised without hesitation, and followed by an application of nitrate of silver.

When we have to deal with a follicular abscess, and the diseased parts are yet limited, the same course must be adopted; in the contrary case, an opening must be made, to allow the pus to escape, and the cavity must then be well cauterized. The same must be done with regard to the small circumscribed abscesses of the cellular tissue, which are developed by means of imbibition, near a chancre, or by one of the processes we have already described.

When the disease is seated in the lymphatic system, (vessels and ganglions,) the means we have just pointed out are not applicable, and we must have recourse to those which are employed to destroy buboes, as we shall see under that head.

But either from being consulted too late, or from the means which we have just pointed out not acting sufficiently deeply, it often happens, that there is difficulty in destroying at once all the infected part, and the chancre is developed. Then, at whatever period of its duration it may be, or under whatever form it may have commenced, it ought to be destroyed as promptly as its seat and extent will permit. This precept, which we cannot too often repeat, and against which unfortunate prejudices in vain contend, is, as may be easily ascertained, the result of daily observation. I have found in the patients affected with constitutional syphilis, who have come under my observation, that the chancres had never lasted

less than ten, twelve, or fifteen days, and in the majority, their existence had been prolonged to three, four, five, and six weeks, and longer.

If to the preceding we add, that certain conditions are requisite, in order that general infection should take place, and that these conditions may at first be wanting, and show themselves later in the course of the duration of the chancre; it must be evident, that so long as it is allowed to remain, the chances of constitutional infection would exist. And we may further add, that, contrary to received prejudices, if the liability to secondary symptoms does not depend on the rapidity of the healing of the primary affection, neither does the treatment applied to it exercise any influence upon it; and therefore, that treatment by which the local affection is most quickly cured, is the best anti-syphilitic.

In those cases, however, where the tissues in which the chancre is situated are engorged, or when it has acquired considerable extent, the nitrate of silver no longer acts with sufficient energy, and then, imitating the effect of gangrene, which it is known, when it attacks a chancre, brings it to the state of a simple lesion, I have obtained very successful results by employing caustic potass, and yet better by the *Pâte de Vienne*. This latter escharotic must, however, be employed with caution, in order not to remove more than the diseased parts, or, at most, a line or two of the healthy parts beyond. One objection to this method is, that in many cases, from the extent requiring to be cauterized, some of the adjacent parts, which ought to be carefully treated, would be too much exposed; otherwise, where it is applicable and properly applied, it will produce the most beneficial results. It ought also to be stated, that after caustics are used, the parts cauterized often become œdematous, and greatly swollen; therefore, they ought to be rejected, for cauterizing chancres on the internal surface of the prepuce or glans of an individual, with any symptoms of a phimosi.

A chancre that cannot be attacked by these means, or which, notwithstanding their employment, still retains its specific character, requires other treatment.

I. Although, in general, ulcers or wounds ought not to be dressed too frequently, for fear of disturbing the process of cicatrization, yet this is not the case with chancres in the period of progress, for

here the secretion becomes a permanent cause of disease, and ought not to be allowed to remain long. Hence the dressings should be renewed three or four times a day, according to the quantity of the secretion.

II. As it is enjoined (with some exceptions that we shall mention hereafter) that the diseased parts should be exposed, care must be taken not to allow the cutaneous chancres to become covered with a crust, as the pus will collect and undermine the neighboring parts.

III. So long as a chancre remains in the period of ulceration, the cauterization with nitrate of silver must be repeated, as often as upon the eschars coming away the characters of this period are found either on the base or edges; but as soon as the reparation commences, the use of the cautery, on the parts which are healing, must be suspended, and it must be used only on those which are ulcerated.

IV. All greasy substances are generally hurtful in the treatment of chancre; but mercurial ointment is still more so, except in a few cases. Nothing is more common, than to see chancres multiply, extend, or become inflamed, when, in the absence of induration, they are dressed with mercurial ointment.

V. As we have before said, the pus secreted by a chancre ought not to be left in contact with the surface; and it is also advisable to check the secretion. Dry lint, by forming a kind of sponge, fulfils one of these indications; but I have obtained the most rapid results from the use of the aromatic wine of the Pharmacopœia, (French,) used in the following manner:—The ulcer is to be well washed with this liquid, but yet without fatiguing it or making it bleed; it is then to be covered with a little fine lint moistened with it, but not so as to run out; for when it is too wet, the kind of maceration which results retards its good effects. Care must be taken, before removing the dressings, to moisten the lint with the same liquid, so as not to rend the parts to which they may adhere from drying.

Every one who has attended my clinique at the Hôpital des Vénériens, can satisfy themselves of the good effects of this treatment, which, if well applied, is never followed by successive chancres, as is so often the case with other dressings. The aromatic

wine diminishes the purulent secretion, and by modifying its surface, tends to promote the cicatrization of the virulent ulcer, and by acting as an energetic astringent on the neighboring parts, renders them incapable of being inoculated. In some cases, the secretion continues very copious, and I then find the vinous decoction of tan succeed perfectly. If there be pain, and if the application of the wine increases it, an addition of eight or ten grains of opium to the ounce will be found to answer well. We ought to remark, however, that in some subjects, who still continue to suffer, the pains disappear upon the dose of opium being augmented, whilst in others, it must be decreased.

In some cases, however, the use of the wine ought to be suspended for a time, or relinquished altogether; thus, in some patients, upon the suppuration ceasing, the ulcer remains stationary; dressings with an emollient decoction, or with opiated cerate, ought then to be substituted for some days; in other cases, the ulcer being accompanied with induration, it only increases it, and cicatrization cannot ensue; otherwise it is the usual dressing which I employ.

VI. When the period of reparation arrives, as long as it goes on regularly, the dressings with wine must be continued, and the cauterization resumed only when it becomes necessary to repress the exuberant granulations. Frequently only the epidermis is wanting to complete the cure; the surface of the ulcer becomes level with the neighboring parts, remains red, and yields scarce any secretion, but yet does not heal; then the superficial application of the nitrate of silver, so as just to whiten the surface without cauterizing deeply, suffices to terminate it.

VII. When the chancres are regular and free from complication the local treatment suffices, and leaves no induration on their seat. During the treatment the patient should be kept as still as possible, submitting to a treatment suited to the constitution. In fact, on this point there is no strict system; in robust subjects, antiphlogistics are called for, while a strict diet and the system of local and general antiphlogistics adapted to strong and powerful individuals, would prove most injurious to weak and lymphatic habits; but here, on the contrary, a moderate tonic regimen, and in general, whatever will correct the disorder of the habit, or remedy a state of concomitant disease, ought to be employed; for it must be re-

membered, the vicious course which chancres may assume, results from a bad constitution, or actually existing diseases.

When the regular chancre is cicatrized, and the tissues on which they were seated are returned to the normal state, the patient may, after some days of health, again be permitted sexual intercourse; but this is not the case if induration remain upon the parts where the cicatrices formed, and which, by breaking, give rise to relapses; in these cases, absolute continence must be insisted upon, until the cure be quite complete.

Let us now examine the treatment which each of the principal varieties of chancre requires.

I. *Concealed chancres, (chancres larvés.)* When the urethra is the seat of the chancre, and it is complicated with symptoms of acute blenorrhœa, recourse must first be had to antiphlogistic treatment: leeches to the perinæum and penis; emollient opiated fomentations; baths and copious draughts of mild fluids. I give, every evening, two opium and camphor pills, to prevent the erections, which distend the diseased surfaces and cause them to crack, thereby augmenting the ulceration. If small abscesses form on the points of the canal, occupied by the chancre, they must be opened early; as soon as the inflammation has subsided, injections must be made with aromatic wine at first, mixed with equal parts of a decoction of poppy heads, and afterwards used alone, if no irritation be produced. Often, when the blenorrhœal symptoms are not too intense, the cauterization with nitrate of silver, by means of Lallemand's caustic holder, may be used from the commencement; it acts in this case in the same manner as upon external chancres.

If the ulcer be perceptible, and seated at the entrance of the canal, the treatment indicated for other chancres is quite applicable to it; only where it can be borne, it is advisable to keep a small bit of moistened lint between the lips of the meatus urinarius, to prevent their touching. The blenorrhœa, which, under these circumstances, accompanies the chancre, disappears with it, when it alone is the cause, or yields, when it is only a concomitant affection, to remedies for blenorrhœa, which must be employed at the same time.

When the chancres are seated in the depth of the vagina, on the

cervix uteri, or in its cavity, the speculum ought to be applied each time they are dressed, that they may be cauterized, and the necessary topical applications made. Those situated in the lower part of the rectum, and at the anus, require to be kept particularly clean, and to be frequently dressed. The bowels ought to act freely, and it is advisable to give a small mucilaginous enema, to prevent any hard matter from scratching the diseased parts; but should the passing of the India rubber canula cause more pain than that of the feces, this must be omitted; the dressings must either be applied by a small piece of lint laid over the ulcers, or by injections, as the presence of a foreign substance in the sphincter might cause too much spasm and pain. Care must be taken not to mistake these ulcers for simple fissures, as we have seen done, and make an incision in them, which would unavoidably cause the disease to extend.

II. *Superficial chancres.* In most cases these chancres present no particular indication. When they are seated on the glans or prepuce, with symptoms of balanitis at the same time, they may, if free from induration, be confounded with the simple erosions which often accompany this catarrhal inflammation. In this case a superficial cauterization and a piece of fine dry linen placed between the glans and prepuce will cause their disappearance in a few days; but if they still remain, the whole treatment indicated above must be applied.

III. *Phagedænic chancres.* When a phagedænic chancre, whatever may be its variety, has destroyed the frenum, produced a fistulous passage, or detached portions of the soft integuments, they must be divided or excised; for they are not in a condition to allow of adhesion. Thus, for instance, when the frenum is perforated, it ought first to be divided by small curved scissors, one blade of which should be introduced through the opening, to cut first near the glans, and then the part adhering to the prepuce; the whole subjacent ulceration, thus exposed, should then be well cauterized, and also the bloody points resulting from the operation.

A. *Phagedænic pulpy chancres.* We must here carefully examine the circumstances which may have given rise to them. Frequently the dwelling of the patient is unhealthy, cold, and damp, in which case the disease becomes better as soon as he changes it.

From this cause, chancres contracted in warm countries, and then carried into a more northerly climate, often become aggravated in a frightful degree, and, on the other hand, in contrary circumstances, they often have a rapid and happy termination. This might explain certain effects produced by transferring a patient from one hospital to another, or from northern cities into those more pleasantly situated.

In this variety of chancre there is generally some visceral derangement under whose influence it seems to develop itself. Thus, as we have already said, most frequently it is kept up by a bad state of the digestive organs; in this case our principal efforts must be directed against this cause; if it be allowed to remain, or if it be increased by injudicious treatment, we cannot hope to cure the syphilitic ulcer which is dependant upon it.

In fulfilling the therapeutical indications which may be presented, by the different pathological states which attend this variety of chancre, we must be careful not to fall into a common error of attributing the disastrous and rapid course of this variety of chancre to the nature of the specific cause or greater intensity of the virus, and thus be led, like the partisans of the old school, promptly and energetically to have recourse to the use of the pretended specific, and administer mercury in doses proportionate to the strength of the specific cause they wish to neutralize. Let it be remembered, that the principle of the syphilitic diseases is always the same, as in variola, and the differences only depend upon the individual peculiarities, and treat this disease, like all others, rationally.

I can confidently assert, that, except in a very few cases, the so common employment of mercurial preparations, either as dressings, or internally, are most hurtful in phagedænic chancres, and the more so, as not being accompanied by induration, there is much inflammation and nervous irritability. It is by no means uncommon to see these ulcers, when approaching the period of reparation, relapse under the influence of mercury into their former state, and chancres which were at first limited and regular, become phagedænic, simply from the employment of mercury.

Whatever may have been the origin of the variety now under our consideration, whether it has succeeded to a chancre on the skin, the mucous membranes, or to a virulent bubo, the most ad-

vantageous treatment, and that which has been most frequently and promptly followed by success, has consisted in the employment of cauterizations, joined with dressings of aromatic wine: in these cases, the cauterizations ought to be deep and repeated, in some cases twice a day, to follow the disease in its progress: the same ought to be the case with the dressings; for the morbid secretion, being very copious, ought to be frequently removed. There are patients in whom the disease is not arrested, until after the almost continual employment of a kind of irrigation. Care must also be taken not to crack the edges of the ulcer in renewing the dressings; for every erosion becomes inoculated, and favors the imbibition of the virulent pus and the progress of the disease.

It has been advised, when the local inflammation is very acute, to apply leeches to these chancres. I am very cautious in this respect, the result by no means according with the expectations which some practitioners have of it; for, besides the difficulty of making them bite on ulcerated points, the ulcer will immediately increase in the depth of the wounds they make. Nor is it proper to apply leeches in the neighborhood of a syphilitic ulcer, as each bite which is touched by the pus becomes a new chancre. When the local inflammation requires an evacuation of blood, the leeches ought to be applied at some distance, and on parts which are not likely to have the pus flow over them: the wounds ought then to be guarded by compresses dipped in the decoct. alb. until they are perfectly cicatrized. In these cases, complicated with inflammation, the greatest advantage is to be derived from dressings of emollient and narcotic decoctions, bread and milk cataplasms, and warm fomentations with mucilaginous or gelatinous substances. The diet ought to be proportionate to the general state of the health and the local affection; at the same time absolute rest must be observed. If these chancres be accompanied with much pain and irritability, which may exist with or without much inflammation, opiates must be employed locally or internally. The parts should then be dressed with an infusion of opium.

Here, too, the cauterization with arg. nitr. forms a potent auxiliary. We must not be deterred from using it by false doctrines in regard to pain and inflammation. It is frequently the most efficacious sedative and certain antiphlogistic which can be applied, and

those who follow my course have often heard the patients themselves earnestly desire its re-application. The acute pain it excites at the moment of its being applied soon abates, and gives place to an improvement, which is sought in vain from other applications. To this rule there are but few exceptions, where these combined means must instantly be discontinued, and recourse be had to dressings with fatty substances, and more particularly with *cerat. opii*.

The phagedænic chancre may, however, progress or remain stationary. In these cases, where the cause cannot be discovered, sometimes cataplasms made with carrots, melted wax, or *ung. digestiv.* have been found to succeed. The most powerful caustics have been employed, as the butter of antimony, caustic potash, and also the actual cautery. I have found the Vienna paste, and far less violent applications, beneficial, as, for instance, blisters and powdered cantharides.

Whenever, notwithstanding the use of the nitrate of silver, emollients, antiphlogistics, narcotics, or dressings with wine, the chancre continues to progress, or remains stationary, I employ the following treatment:—If the ulcer be entirely uncovered, I apply a blister to it, or sprinkle it with cantharides; if, on the other hand, it be deep seated, or has succeeded a virulent bubo, whose cavity it occupies, if the undermined edges of the skin be sufficiently thick, I have in this case also had recourse to blisters, and at the same time introduce powdered cantharides into the suppurating cavity; this dressing is then allowed to remain twenty-four hours: on the following day, fine lint dipped in aromatic wine is applied and renewed, as in the case of simple chancres. Under this treatment, the ulcer soon becomes clean, and healthy granulations appear; thus, the cavity becomes filled, and the skin again adherent. Sometimes it may be necessary to repeat the application of the blister and cantharides; the former will only be used when its object was not attained, and as soon as the first has healed; but the powder will be renewed every three or four days, until granulations appear.

Should this treatment, which daily experience authorizes me to recommend, not succeed, and the disease continue to progress, I prefer the application of the Vienna paste as a cautery, followed by such dressings as may be required by the state of the local affection.

Frequently, in this kind of phagedænic chancre, the edges of the ulceration are so much undermined, and become so thin, that it would only be a loss of time to attempt to procure a re-union. The changed tissues should then be destroyed. To act efficaciously and promptly, it is important to establish distinctions. When an ulceration has succeeded an abscess, the skin may have become thin and undermined merely from the pus remaining under it, and without the wound having assumed a phagedænic character; or it may, on the other hand, have undergone this variation. In the first case, whatever may be the extent of the integuments to be removed, I prefer the curved scissors to give them the form best adapted for cicatrization. Here we must avoid, as much as possible, those deformities which, in certain regions, remain as indelible witnesses of an affection, which it is always desirable to conceal. But, when the ulceration tends to extend, nothing can be more hurtful than the use of a sharp cutting instrument, which, far from limiting the affection, aggravates and augments it, unless the new-made wound be immediately cauterized; therefore it would be far better in this case merely to have recourse to the use of caustic, and always first to the Vienna paste. For not only can we define exactly the parts we wish to remove, but we may at the same time completely destroy the virulent surface, or, at any rate, protect the new edges of the ulcer from a too rapid inoculation, by interposing an eschar and by a kind of vital reaction, the absence of which is frequently one of the principal causes of the progress of the ulcer.

From our remarks in another place, must we in all cases, renounce mercurials and anti-syphilitic remedies? It is true, that in most cases of these affections, mercury, sudorifics, &c., are more prejudicial than useful; there are, however, instances in which they have produced good results; but we are at present unable to indicate the precise circumstances in which mercury is useful, or even indispensable. If the disease progress, notwithstanding the means pointed out above, I have then recourse to this medicament, which was so long and often considered as specific; first, in local applications, and then as a general agent internally, or by the skin, according to circumstances, which I shall afterwards describe. I continue the local or general use separately or combined, according to the effects obtained, if there be improvement; but if the disease

increase, I suspend them. In those cases where, according to ancient errors, it is thought necessary to begin by mercurials, which I would not advise, we must not be so blind as to continue their use when we see their evil results. As regards the other so called anti-syphilitics, they may be employed where general tonics are required, or those which act particularly upon the digestive canal, skin, urinary organs, &c., and frequently emollients, local or general antiphlogistics are indicated, and powerful in the hands of those who know how to use them.

B. *Indurated phagedænic chancres.* Induration, one of the essential characters of the Hunterian chancre, is a condition which must never be lost sight of in determining the treatment; for though these chancres can be cured by a host of means, and often heal without any treatment at all, yet frequently the induration remains after cicatrization, and we know what may then happen. Most frequently the induration, having a tendency to increase, not only prevents the formation of the cicatrix, but may, by the interstitial compression it causes, produce gangrene, and give the ulcer a phagedænic form. As in this case there is generally little inflammation or pain, our efforts must generally be against the induration.

In the most simple cases of indolent indurated chancres, the dressings ought to be renewed two or three times a day with fine lint and a thin layer of calomel and opium, or mercurial cerate. Should the suppuration be too great, a lotion of vin. arom. may be applied each time, and before the dressings are renewed; if that be not sufficient, the dressing may consist of the wine alone. When there is much nervous irritability and inflammation, or if the gangrene progresses, a concentrated solution of opium should be preferred, till the affection be brought back to the simple state by means of emollients and antiphlogistics simultaneously employed. In indurated chancres of small extent, cauterization, which cannot go beyond the limits of the affection, is much less efficacious than in other circumstances; but yet the nitrate of silver finds its application here also; it modifies the surface, often arrests the progress of the gangrene, and during the reparatory stage, checks the granulations, which have sometimes a tendency to become spongy.

Whatever may have been the form at the commencement and the seat of the chancre, the induration may remain after the cica-

trization, and being generally a sign of future symptoms, requires peculiar attention. Delpech and others have advised the excision. Sometimes the result may have been happy, but too frequently it has been the cause of a fresh venereal ulcer upon the operated spot; therefore it could only be employed where its extent was small and defined, or when the induration had undergone a sort of cartilaginous transformation, independent of the specific cause, and which has rendered it a kind of foreign body adhering to the mucous membranes or skin, but often moveable in the subjacent cellular tissue.

As regards the mercurial ointments used to remove the induration after cicatrization, if they sometimes succeed upon the skin, there are circumstances in which, when applied to the mucous membranes, they generally produce irritation and return of the ulcerative period, especially if rancid mercurial ointment be used.

When the induration occupies a great extent, other local means may be used with advantage. Caustics which act deeply, the dissection of the indurated parts, and then the combined use of blisters, dressed with ung. hydrarg. and compression. Unfortunately, this powerful agent, which is much more efficacious than the others, is not always applicable, as we shall afterwards see; it is only in those indurations which accompany or follow buboes, that we can really draw advantage; for in those which are seated on the genital organs, and especially on the mucous membranes, we must renounce its beneficial influence.

If a well directed local treatment often produces a complete cure, most generally it requires a long time, and is then imperfect. The difficulty of radically curing an indurated chancre by ordinary means, and the good effects of mercurials in its treatment, have been the principal arguments, which have caused it to be considered the sole type of primary syphilis, and mercury as the only specific to be opposed to it.

Without entering here into a discussion which would carry me beyond my limits, it is certain that if mercury has not incontestably a specific action in this particular form of chancre, *it is at least one of the most powerful agents that can be opposed to it*, and hitherto we have discovered no medicament which cures more rapidly.

If, according to the physiological doctrine, the cure of chancre

be reckoned from the day of its cicatrization, without regarding what remains, it will sometimes appear more rapid with simple treatment, and the patients will be under treatment in the hospitals a shorter time ; but if we wait, before we pronounce a patient cured, till all induration has disappeared, there will be a great difference in favor of the mercurial treatment ; the induration in the first case remaining a very long time, and even *till the more frequent production of secondary symptoms*. Although I acknowledge the perhaps analogous properties of other medicaments, the mercurial treatment being one of the most powerful and certain, I have recourse to it whenever a certain degree of induration accompanies a chancre, and prevents it from cicatrizing, or remains after it is superficially healed, and more especially when, by its excess, it gives it a phagedænic form. As injurious as mercury is in other varieties, so beneficial is it in this case.

C. *Gangrenous phagedænic chancre from excess of inflammation*. Here the inflammation, which gives the peculiar form to this variety of chancre, is the principal point against which we must direct the treatment ; we must disregard for a moment the primary cause ; in fact, how many symptoms have we seen to follow from the mercurial treatment applied empirically and for the specific cause ; I repeat it, the inflammation is the principal disease to be treated by the most powerful means. The worst results ensue from want of attention to this fact, and an empirical treatment of the specific cause with mercury. If, however, notwithstanding a rational and judicious treatment, gangrene supervene, it must be treated as in ordinary cases unconnected with syphilis ; it is not till this symptom has disappeared, that other medication is indicated, and the chancre will have returned to the state of a simple ulcer, which the means already pointed out will rapidly cause to cicatrize

SECTION II.—BUBOES.

WHEREVER and at whatever depth a bubo may be seated at the time of its appearance, when only a slight tension of the tissues exists, rest, which may be regarded as the best prophylactic, and a

methodic compression as great as possible, without causing pain, suffice in most cases to prevent the development of the affection, especially when it has not been preceded by a chancre. I have very frequently observed, that in individuals who wear well-made bandages for hernia, the buboes are seldom developed on the side of this compressing apparatus.

When compression cannot be endured, or when nevertheless the tumor increases, we must have recourse to another abortive method, for I am satisfied that the termination of buboes by a prompt resolution, a kind of scattering, and by avoiding the supuration, is of the greatest consequence to the patient. If the incipient bubo be not actually the seat of a very decided phlegmonous action, and have been preceded by a chancre, I prefer the following treatment, which may be called mediate cauterization. I cover the tumor with a blister, always proportional in size to the part affected; when it has taken effect, I remove the epidermis, and place upon the denuded skin a bit of lint, dipped in a solution of corrosive sublimate, twenty grains to the ounce of distilled water; this is allowed to remain two or three hours, and it can be secured by strips of plaster, if it be feared that the patient may displace it. This caustic application, for which a solution of sulphate of copper, two or three drachms to the ounce, may be substituted, is not equally supported by all patients, some not being able to endure it more than an hour, on account of the pain it excites. To obtain the desired effect, an eschar must be produced, penetrating part of the dermis. This eschar, generally of a grayish or brown color, and but seldom black, is generally thicker than the part of the skin destroyed, which seems at first to become infiltrated, and then to receive an additional layer of plastic lymph. As soon as the eschar is formed, I cover the parts with an opiated cataplasm for the first day, and on the following I substitute compresses imbibed with cold decoct. alb., and continue them till the eschar falls off; the simple ulcer which then remains is dressed with perforated linen cloth covered with cerate, and over this the decoction is continued. I have not found it advantageous to maintain the supuration when it was desired to annihilate the affection of which we are speaking. I continue this treatment, repeating the application of blisters and the caustic solution as

long as the tumor remains, unless acute inflammatory symptoms appear.

As the treatment with blisters and caustic solution has the inconvenience of producing great pain, and in some individuals an indelible cicatrix, it must only be had recourse to when a chancre has preceded, and the development of a virulent bubo is feared. When the engorgement is consequent on a simple *blenorrhœa*, a non-specific excoriation, or is spontaneously developed, as in all these cases there is little tendency to suppuration, we must employ milder resolatives—compresses dipped in decoct. alb., solution of sal. ammoniac, emplastrum de vigo, iodide of lead with *cicuta*, simple or resolvent cataplasms, absolute rest, and, when pain exists, local depletions by means of leeches, and emollients with sedatives and narcotics, especially *laudanum*, freely applied. By these means many simple engorgements, situated near parts primarily affected with non-virulent symptoms, disappear soon after their commencement.

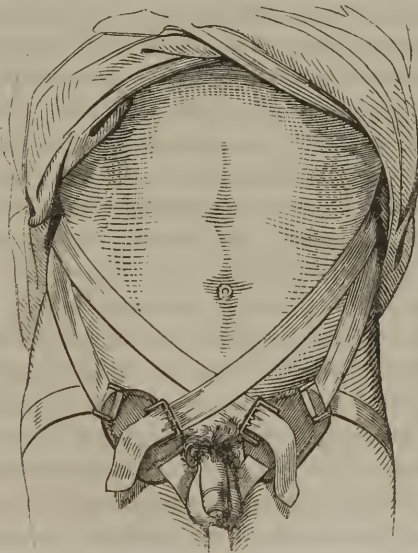
When the abortive method cannot be employed, the treatment must be determined by the acute or indolent state of the bubo, without regarding the variety.

If the local inflammatory symptoms cause a rather intense febrile action in a robust individual, general bleeding from the arm and local depletion must be used; otherwise leeches alone will suffice, but too many ought to be applied rather than too few—twenty, thirty, or forty. In applying leeches, we must not lose sight of the possibility of suppuration, and when there is ground to believe a ganglionic chancre or virulent bubo exists, they must be applied around the base of the tumor; if the danger of suppuration be imminent, they must be applied at a still greater distance. To the use of leeches, must be added general warm baths, (as the hip baths here are not of much use,) emollient cataplasms, rest in a horizontal position, taking care to give the limb on the affected side a slight flexion to diminish the tension of the aponeuroses, particularly when the buboes are deep seated. Low diet, cooling beverage, and saline purgatives will be found very beneficial. Sometimes the leech-bites become irritated, and also cause an *erysipelas*, which is not always without benefit in indolent buboes; but in acute buboes, especially where there is a phleg-

monous tendency or complication, this aggravates the disease. In this case, as soon as the skin becomes the seat of redness and pain, mercurial ointment, applied once or twice a day, so as to cover the erysipelatous surface, will often remove this symptom by acting upon the deep-seated inflammation. It will sometimes be found that cataplasms of linseed meal produce an eczematous eruption, which may be very extensive; in this case bread must be substituted.

When the inflammation has yielded to the applications of leeches, and the tumor has not suppurated, the treatment must be the same as in the case of indolent buboes.

Whether the bubo has been primarily indolent, or becomes so after having been acute, in order to avoid giving unnecessary pain, we must commence by the most gentle resolvents. Although rest ought to be considered as of the first importance, if the patient be obliged to walk, the tumor should, during the day, be covered with empl. de vigo, c. hydrarg., care having been taken to shave the skin; in the evening, the plaster must be removed, and half a drachm of ung. hydrarg. well rubbed in, and then covered with a cataplasm, if there be any pain; or the compression may be applied either by means of a spica bandage and graduated com-



presses, a strong hernia truss, or an instrument contrived for this purpose; this consists of a small oval pad, covered with leather, and attached by a strap, which proceeds from that part of the pad which is situated in the inner part of the inguino-crural fold, goes to the inside of the thigh, turns around it, passes on its outside, goes across the abdomen, and then descends obliquely to the pad, and is attached by a buckle on it.

If the gums become affected by the mercurial frictions, or any other bad symptoms ensue, the ung. pot. hydriod. may be substituted, alone or with iodine. If either the mercurial plaster or ointment has been used, the skin must be well cleaned before the iodide of potass ointment is applied, as otherwise a new and very caustic composition will be formed, which may cause considerable inflammation and excoriations. In cases of very indolent engorgements which require exciting, the combined use of mercurial and iodide of potass ointment is very beneficial, and they are more efficient than croton oil or emetic tartar, which have been proposed.

When the engorgement resists these means, or if a more energetic and expeditious treatment be desired, blisters and the caustic solution should be employed, which have been found by far the most rapid in their action, in a long and refractory disease.

In this case, as in the abortive method, the tumor must be covered with a blister, and, twenty-four hours later, lint dipped in a solution of corrosive sublimate applied. When the eschar is formed, it is to be treated with mercurial ointment, covered with cataplasms; when the eschar falls off, the suppuration must be maintained, by being touched every two or three days with a brush wet with the sublimate. Should it, however, cicatrize, fresh blisters are to be applied, and this treatment continued till the tumor has entirely disappeared, or till pus is formed.

Sometimes, however, it occurs, that after having been pretty rapid, the progress of the resolution is arrested, notwithstanding the continuance of the treatment. Then, if the suppurating points be not too painful, the mercurial ointment being still continued, the tumor must be covered with compresses, dipped in decoct. alb., and compression applied. In many cases, a cure which is otherwise impossible, is obtained by employing these means alternately.

Whatever may be done, some engorgements do not yield, par-

ticularly those seated in the deeper ganglions. In some happily rare cases, there is a schirrous or carcinomatous degeneration, into whose history and treatment we cannot now enter; but most frequently, in cases of virulent buboes, the obstinate engorgements and indurations depend on scrofula, or on a principle which produces induration in chancres.

Buboes of a scrofulous nature, or whose scrofulous complications have been excited into development by venereal affections, when treated with alkaline and sulphur baths alternately every other day, united with the preceding means, and the general treatment, which we shall soon point out, often come to a successful termination, which must only be waited for with patience. In this case, the crushing of the ganglions might, as a last resource, be attempted, as M. Malgaigne has proposed; but we must remember it is very painful, and may produce symptoms which should render its employment rare. I have sometimes succeeded by applying every second or third day frictions on the skin, with a little tincture of iodine, which may be diluted with water, when it irritates too much or excoriates.

In some cases, the excision or extirpation of the ganglions would seem to be the only method; but as the operation is not always easy or even practicable, I have found it better to destroy a third of the skin, which covers it, with the Pâte de Vienne (a layer half a line will suffice.) If the eschar is removed, the thus denuded ganglions are to be covered with ung. hydrarg. and cataplasms; the successful result is often very rapidly obtained. If we are obliged to attack the ganglions themselves with the paste, we must be very cautious in its application, and only remove very thin layers at a time, redoubling the precaution the nearer the more important parts are approached. With patience, we have often destroyed thick and compact layers of ganglions, which no other remedy would affect. This practice is much better than the use of setons and escharotics.

When the induration of the bubo depends on that of chancre, we must pursue the treatment recommended for indurated chancre.

Acute and indolent buboes may terminate in suppuration, which is more frequently the case when a chancre has been the cause of them. If much inflammation accompany the suppuration, leeches

and antiphlogistic treatment are required, with the restrictions already mentioned. If local depletion does not in all cases produce the resorption of the pus, at least it has the advantage of checking the phlegmonous process, and of preventing the further development of the abscess.

When the inflammatory symptoms are subdued, a question of great importance presents itself to our consideration. Ought we in all cases to attempt the resorption of the pus, to avoid opening the abscess, or is it better to give it an issue as soon as it is formed? I do not wish to question the good faith of those who say, that by employing certain methods of treatment, the spontaneous or artificial opening of the greater number of buboes might be avoided, of whatever nature they may be; but I can affirm, from daily experience, that when pus is decidedly formed, whatever may be done, resorption takes place but in a very few cases, and that, if it be attempted to procure it in other cases, there is great risk of serious consequences. Blisters and the caustic lotion, which are so advantageous before the suppuration has taken place, may still, if the cavity be of little extent, and the skin has not become thin, and if the buboes be not virulent, produce a complete resolution without opening; but should the suppuration be copious, the cavity considerable, the skin thin, and deprived of its cellular tissue, in which case the solution no longer produces that thickening which was previously mentioned, this treatment does not prevent the abscess from opening, and far from inducing the absorption of the pus, it favors its escape through the eschar which it produces, and that often by a number of holes like a sieve, which has led to the belief that it is only a simple purulent perspiration.

If, however, this result were the most frequent, by favoring the re-union of the skin with the subjacent parts as the pus is evacuated, the method would still be favorable; but, unfortunately, this is not the case, and whilst this treatment is employed, the cavity extends, the pus accumulates, the skin becomes undermined, till the eschar falls, and then it may not be of sufficient depth to allow of the complete evacuation of the pus.

From observation, I have been induced to adopt and recommend the following treatment: whatever may have been the treatment previously employed, as soon as we are assured of the existence of

pus, we must give it issue. It is not necessary to enter into a description of the signs which denote suppuration, and which are to be found in the history of abscesses generally; but I must mention that the elastic tension of the ganglions often deceives, and leads to a belief in the presence of pus, where in reality none exists. Sometimes the suppuration is deep-seated, and enveloped in indurated masses, which mask it and prevent its detection; yet if the tumors in which the presence of pus is suspected be carefully examined, a point will often be found, generally on the most prominent part of their surface, soft and fluctuating, and, being pressed, the pus is forced through a kind of indurated ring which forms a passage with the deeper parts of communication. We are sometimes astonished upon opening these buboes to see an enormous quantity of pus escape, when the fluctuation had only indicated the existence of a few drops.

In every case, the opening ought to be made in the direction of the greatest diameter of buboes. In the inguino-crural region, in the direction of the inguinal plica; the vertical ganglions of the thigh ought to be opened in the direction of the axis of the limb. The incisions made according to these rules do not expose so much to consecutive collections of pus, and the necessity of subsequent crucial incisions.

When the cavity is of little extent, and the skin but slightly changed, a small puncture will suffice; otherwise a large incision ought to be made in the undermined skin. If, at the time of making the incision, the skin is threatened with gangrene, or becomes thin and bluish, it is incapable of being re-united or cicatrizing, and must, therefore, be destroyed. For this purpose either a bistoury or curved scissors may be used; but I prefer the *Pâte de Vienne*, with which we can remove as much as we desire: not only do we by this means remove the useless parts, but also, as we said when treating of phagedænic chancres, a healthy inflammation is excited in those which remain, and in some cases of virulent buboes a prompt neutralization. It ought to be understood, that if we have to do with a gangrenous bubo with excessive inflammation, we must first have recourse to antiphlogistics and incision, and the indications which gangrene in general presents.

After opening the bubo, it is useless to press out the pus very

forcibly, which causes great pain; fomentations and emollient or opiated cataplasms must be applied. In case the opening is small, and a non-virulent bubo exists, a bit of lint between the lips of the wound is necessary, during the first few days.

In simple buboes everything goes on as in ordinary or scrofulous abscesses; but in some particular cases, as especially where there is a ganglionic chancre, the edges of the incision ulcerate, the cavity continues to extend, or at least remains stationary. Then, after the second day from the time of the bubo being opened, or as soon as the patients require my services, I fill the cavity with powdered cantharides and cover the whole with a blister. The next day, if any induration be present, I apply ung. hydrarg., and dress the cavity with the aromatic wine; otherwise I dress the surface of the blister with cerate, and cover it with compresses dipped in decoct. alb., continuing the wine for the cavity.

The treatment of virulent buboes, after they are laid open, is the same as that of chancres.

We may add, that where the opening has existed some time, as in those fresh made, all the portions of skin which are too much changed ought to be destroyed, and all fistulous canals and accumulations of pus laid open. Detergent irritating injections, which so often succeed in cases of simple fistulæ, are little to be depended upon in virulent buboes; compression in the regions in which the pus is situated is not much more advantageous, as surfaces affected with virulent ulcers cannot unite, and the parts ought in such cases to be exposed.

In all cases when the granulation is tardy and slow, powdered cantharides, placed in the cavity and covered with dry lint, excites the production of granulations, which, when excessive or atonic, ought to be cauterized, or stimulated with nitrate of silver, like every wound which is cicatrizing. Should any induration remain, after the cicatrization, the treatment which we have pointed out for this circumstance must be employed.

If the local treatment of buboes is of the first importance, the general treatment ought not to be neglected.

The acute stage requires, as we have said, antiphlogistic treatment proportionate to the degree of the disease and strength of the subject; but when these most common indications are attended

to, others, of not less importance, present themselves. The lymphatic habit and scrofulous complication being very frequently met with in individuals affected with buboes, we must use bitters and tonics, and when no contra indication exists, they ought to be combined with a strengthening regimen, particularly when the system is much exhausted by copious secretion of pus. In these cases, I have derived great benefit from the use of proto-iodide of iron, in doses of ten, twelve, to twenty grains per diem, with a decoction of hops or saponaria and sirup of gentian.

As regards the antisyphilitic treatment, properly so called, the presence of a bubo is no more indication for it than a chancre; it is only required in certain conditions, and then frictions seem to be preferable, perhaps as being more direct.

Sometimes buboes are complicated with scurvy, hospital gangrene, hemorrhage, fever from resorptions, &c., but we cannot here enter into a detailed examination of these symptoms

ORDER I.

VIRULENT AFFECTIONS.

SECTION II.—CONSTITUTIONAL SYPHILIS.

§ I.—GENERAL REMARKS.

FROM the foregoing considerations, we have seen that we possess an infallible criterion by which we can distinguish and diagnose the primary symptom of syphilis ; but this is not the case with regard to those resulting from general infection. The well characterized and recognised antecedent in the absence of any other appreciable cause ; the form in each case ; the peculiar progress ; the concomitants, and the results of certain treatment, generally lead to a rational, but more often doubtful diagnosis, when symptoms are concerned, which other causes than syphilis can produce or considerably modify, such as certain cutaneous, glandular, or osseous affections, &c. However, if the diagnosis be not always possible, there are yet many affections about which there can be no doubt. For instance, it is impossible to mistake a mucous tubercle, if well defined, after having once seen it. Are there any circumstances unconnected with the syphilitic virus which can produce it? Is there any treatment, which acts more powerfully upon it than the mercurial ; and of all the hereditary symptoms, is it not, with the lenticular eruption, that which occurs most frequently ?

However they may have explained them by the action of the syphilitic virus, or by the doctrine of the sympathies, all writers on syphilis are agreed, that the primary venereal affections may give rise to consecutive lesions of the various tissues of the system, but more especially of the skin, the mucous membranes of certain parts, the cellular tissues, lymphatic, fibrous, osseous system, &c., of the eyes, testicles, &c

Except by inheritance, there is no primary constitutional syphilis; in those cases which have been thought such, the primary affections had escaped notice, as is frequently the case in women; or had been concealed by the patients, under circumstances in which it would have been dangerous for them to have acknowledged them, which, in order to avoid being deceived, ought always to be borne in mind, particularly in cases of nurses.

In order not to wander from the path proposed, and enter into discussions which would be out of place here, I shall now proceed to consider, whether there exists a really prophylactic treatment for the symptoms of general infection.

§ II.—PROPHYLACTIC TREATMENT OF GENERAL SYPHILIS.

THE cure of primary affections, which are generally of little extent, and most frequently of little severity, has at all times been the least important question to decide. Whoever will give themselves the trouble to observe, will find, as we before stated, that it may be spontaneous, or take place under the influence of a host of different medicines, to which no specific properties can be attributed; but a patient who is cured of an indurated chancre is far from being in all cases freed from syphilis. In the treatment of the symptoms with which syphilis commences, our endeavor must be to prevent the consecutive (secondary or tertiary) affections. I have stated, from examination of various authors, and more particularly from personal experience, that I do not know of a single instance in which the primary symptom having been destroyed, before the fifth day of its real existence, symptoms of constitutional infection appeared. I can firmly assert, that as soon as every one is convinced of this fact, syphilis will cease to make the ravages to which it is urged by opposite doctrines. Let every erosion or solution of continuity, which appears after a coition, be destroyed, not only where the connexion is of a suspicious nature, but in every case; for this symptom is unfortunately overlooked by the greater number of patients, whom horrible consequences too frequently undeceive when it is too late, and un-

der circumstances in which the moral and social position would seem to protect from every chance of infection.

As, however, in most cases, the primary symptom is allowed to progress, and the patients only apply for advice at a later period, the chances of destroying this symptom before absorption has been allowed to take place, diminish, if not in regular proportion to its duration, at least in proportion to the specific induration with which it may be accompanied.

Be this as it may, I can most positively affirm, that, contrary to an opinion professed by many, and by Dupuytren in particular the destruction of chancres by caustic or other local application cannot be regarded as favoring the development of constitutional affections by the repercussion, or throwing of the virus into the system; all we can say is, that when cauterization has been employed too late, it cannot prevent the general infection.

The result of my experience in the vast and fertile field of the Hôpital des Vénériens, has taught me that in general the best prophylactic measure against the constitutional symptom, is the radical cure of the primary affection in the shortest possible time, and without leaving any induration, and that whatever method of treatment has been employed, the induration which remains, after a mercurial or other treatment, leaves the patient nearly certainly exposed to secondary affections.

But is there any treatment which, besides the specific cause, the peculiar poison, favors the development of the syphilitic temperament and diathesis? Yes, and it is that which does not destroy the virus and radically cure the primary affection. Thus it is not mercury more than sudorifics or antiphlogistics, but it is that the medication has been injudiciously or insufficiently administered. Mercury has not only been accused of aiding the production of constitutional symptoms, but some inconsiderate enthusiasts, carried away by the love of novelty, have even asserted that mercury was the sole cause of all the frightful affections which syphilis produces. If indeed syphilis was of rare occurrence; if it were with us, as the oriental plague, of which many write without ever having seen it, there might be some excuse for these paradoxical propositions; but as it is to be met in our streets and fills our hospitals, to refuse to see is voluntarily to forego the use of one of the

senses, which ought then not to be appealed to in making other observations. To convince me that mercury can produce the bad effects which are imputed to it, I must be shown a subject, who, under its influence alone, and without having had any specific antecedents, has afterwards been attacked with mucous tubercles or lenticular eruption. Such a proof must be easy to furnish, if this medicament could alone cause such symptoms ; for it is every day administered in every form, in cases unconnected with syphilis. Amongst the numerous persons affected with blenorrhœa, and who were formerly treated with mercury, as is still the case with some surgeons, how many have been found later to present constitutional symptoms, besides those who have had urethral or concealed chancres ? If, on the other hand, the actual population above the age of fifty were interrogated, we should be astonished at the number of persons who have, under the influence of the old doctrines, undergone mercurial treatment, without ever having experienced anything of it. This number is indeed so large, that the amount would appear exaggerated, unless we were able to have it actually verified by the individuals.

We undoubtedly see every day the most severe cases of syphilis, in patients who have most of them used mercury ; but have the explanations always been free from prejudice, and especially from the spirit of party doctrines ? Do we not generally find, that those patients who are stated to have used a mercurial treatment, have not undergone any influence from it, either from the form in which it was administered having only had a purgative action, or that the pills being in a manner petrified, like those formerly used in the Hôpital des Vénériens, passed through the digestive canal without losing an atom of their substance. Would it then not be more rational to say, and in accordance with hundreds of facts which might be adduced, that there are some patients with whom the treatment has been insufficient or badly administered ? Is not this proved by the successful issue of a more methodic treatment of these same individuals ? Are not others completely refractory to the treatment ? Do we not, on the other hand, find that all forms of constitutional syphilis do not yield to the same treatment, any more than the same treatment can in every case prevent their development ? and lastly, that in some individuals, the most unfortunate of all, but

incontestably the least numerous, the disease develops itself nevertheless, and becomes the more formidable as the remedy cannot arrest it, and undermines the constitution? These latter circumstances have undoubtedly been better understood and better appreciated of late, and much credit is due to those who have aided the researches by their works, as Thomas Rose, Guthrie, Rust, Bruninghausen, Richond, Jourdan, Devergie, Desruelles, Fricke, &c., although some of them may have somewhat exaggerated the circumstances they observed.

The numerous observations which I have been enabled to make, lead me rather to consider a mercurial treatment as curative, than prophylactic of certain symptoms.

However, in the question before us, which has never been solved, we must say, that the surgeon who leaves an indurated chancre without general treatment, is in a measure responsible for the consecutive symptoms, and mercury is by far the most prompt and efficacious in its action. If a mercurial treatment be indicated, it ought to be pursued till the symptoms disappear.

Whilst speaking of the prophylaxy, we ought to mention that all persons are not susceptible of general infection, a fact which has been overlooked and not properly appreciated by many writers; that peculiar conditions are required for it to take place, and that especially after the infection has taken place, in order that its material manifestation may be effected, certain accidental or rather assisting circumstances are requisite, which may be tardy in their appearance, or altogether wanting.

Thus a sudden change from a mild to an exciting, or from a tonic to a debilitating diet, change of climate, &c., favor its development. The same is the case in the change from foetal to extra-uterine life; from pregnancy, and from the time of the cessation of the menses, which has been so well observed by Thiéry de Hery.* The same influence results from a disordered state of the digestive canal, anterior or concomitant cutaneous affections, habitual irritations of the throat and mucous membrane of the

* M. Pailloux, a distinguished physician, thought that the cessation of the menses was one of the principal causes of ulcerations of the throat in females; forgetting that this could not be true of men, who are much more frequently affected with it.

mouth, frequently owing to the use of a pipe, irritated hemorrhoids scrofula, or other diathesis. Further, a blow, a fall, want of cleanliness, and over exertion of certain parts, produce the same effects.

From the preceding general views, into whose details we will not enter, it results as the most prominent point, that in every individual exposed to the primitive infection, to prevent further consequences, attention ought to be paid to the general health and proper action of the functions, and to the maintenance of health by proper hygienic precautions, or by the rational treatment of any diseases not dependant on syphilis, but which might actually co-exist with it.

§ III.—GENERAL REMARKS ON THE TREATMENT OF SECONDARY AND TERTIARY AFFECTIONS.

ALL the consecutive affections of chancre may, like the chancre itself, heal spontaneously, often without any explanatory cause; at other times, in consequence of certain more or less apparent conditions, such as accidental perspiration, change of diet, climate, or occupation, the critical termination of concomitant diseases, &c. But although many curious observations of this kind have been made, it must be confessed that these cases are rare, and that of all diseases, constitutional syphilis is perhaps the one which most decidedly requires the aid of art.

This principle being established, we will say that if difference of opinion exists as to the treatment required by the primary symptoms among physicians, there is still greater as regards that of confirmed syphilis. The following is the result of my clinical experience, and the treatment it has led me to adopt.

1. *Time at which the treatment ought to commence.* The first symptoms which make their appearance after a chancre, ought to be treated as promptly as possible. The serious nature of syphilis depends only on the time allowed it to undermine the system.

2. *Conditions.* No age nor habit is an absolute contra-indication of treatment.

As regards women, the period of gestation, far from being an

obstacle to energetic means being adopted, requires yet more attention and judicious promptitude. I have seen more abortions in syphilitic women who were not treated, than in those who had been timely submitted to a methodic medication. The same is the case during the period of suckling.

3. *Climate. Seasons.* Climates and seasons are never absolute impediments; undoubtedly a temperate climate and warm season are preferable, but yet, under opposite circumstances, when the symptoms are urgent, an immediate treatment is preferable to delay.

4. *Syphilis without complication.* When constitutional syphilis exists alone and uncomplicated, and at its commencement in an individual enjoying a good constitution, and who has never been tormented with injudicious treatment, its cure is generally easy and rapid.

5. *Syphilis with complications.* When constitutional syphilis is complicated, its complications ought never to be neglected; if they be acute affections of some importance, their treatment ought first to be attended to, so as to reduce the syphilis to the most simple form; the same is the case when new primary syphilitic symptoms have been acquired. When the affections are of a slow chronic nature, as some diseases of the skin, scrofula, organic affections, &c., the syphilis must be attacked, if its treatment does not aggravate the concomitant disease, which must be attended to at the same time. In short, the most prominent symptom, whatever it be, must be first attended to, without neglecting any points which may furnish a therapeutical indication. The exclusive treatments which regard only a single symptom, whilst there may be many which require to be modified, are the worst which can be pursued, to whatever system they may belong.

6. *Antiphlogistic treatment.* In like manner the antiphlogistics ought to be considered as the principal means to be employed, whenever any symptoms of super-excitation, and particularly inflammation, exist. There can be no certainty of success without strict regard being paid to this rule. Whatever the nature of the affection may be, if inflammation be present, the antiphlogistic method must first be used, according to the seat, extent, local intensity, and sympathetic reaction. But dangerous as it is to

neglect this precept, it is equally so to pursue it as an absolute and curative method in all cases. Doubtless thousands of symptoms of a reputed syphilitic nature may be found which have yielded to it; but the true symptoms of general infection, whose complications it may modify, resist it, and then constitute those particular cases, which the advocates of this doctrine treat, as we do, by a more powerful and certain medication.

7 *Diet.* So great is the influence of diet upon the diseases of which we are treating, that it has induced some to make a special treatment of it, under the name of *cura famis*. The observations I have made have taught me, that whenever the subject affected with irritable inflammatory venereal symptoms is robust and vigorous, a spare diet will produce a happy modification, and cause a number of symptoms, which are not dependant on the syphilitic virus, to disappear. But the privation from food, either in part or entirely, according to the habit of the patient, applied without discrimination to all cases, is, notwithstanding the powerful authorities who support it, one of the worst means that can be adopted. Thus in weak debilitated individuals with a scrofulous habit, a spare diet aggravates the disease, whilst a generous, tonic diet is a principal condition on which the success of the treatment depends. This assertion may be verified every day in the wards of my hospital, where patients who at home were destitute of every thing, will be found quickly to recover their strength and health under the influence of a better diet, whilst others, accustomed to plenty, droop and only become re-established by quitting the abode and nourishment of an hospital. The diet must therefore be regulated by the more or less inflammatory nature of the disease, the strength of the patients, and particularly their former habits.

8. *Baths* are almost always of great assistance as sedatives, and adapted to maintain the functions of the skin, so necessary in most affections, and especially in those which have their seat in the skin itself.

9. *Remarks upon the influence of the digestive canal.* If it be requisite in the treatment of the secondary affections that the functions of the skin should be undisturbed, it is equally important that the digestive organs should be perfectly free. Without attributing to them supremacy of action in the economy and the arbitrary

direction of the progress of syphilis, it is not to be denied that their influence is often immense, and perhaps more particularly in the ulcerous forms, and in the affections of the osseous and lymphatic systems.

10. *Sudorifics.* As a general medication, sudorifics have been too much lauded, and there seem to be too many cases in their favor to allow of their curative influence being entirely denied. Without, however, fully adopting the views of Cullen, particularly as regards sarsaparilla, I must say that in well characterized constitutional symptoms, this substance, or those which resemble it, are far from possessing all the power which has been attributed to them, and which commercial speculations have sought to maintain.

I must nevertheless say, that there are some indications to which this class of medicaments answer, and which render it useful in rational practice. Thus, when the digestive organs are healthy, and too much general or local irritation does not exist, and the functions of the skin are defectively fulfilled, sudorifics produce good effects as adjuvantia to the mercurial treatment. They are moreover indicated and very useful when circumstances forbid the use of mercury; when it has been injudiciously administered, and has produced ill effects, or when its use has to be suspended. In the affections of the osseous system, and more particularly when suppuration exists, they are used alone, if not as active and curative, yet as a *moral* medication, on account of their common reputation, and the confidence most patients place in them.

Further, as regards the moral or mental treatment, if we may be allowed to employ the term, we must have recourse to sudorifics for patients affected with *syphilophobia*, who, being haunted by an idea of a syphilitic affection improperly treated, or, as they express it, badly cured, believe themselves a prey to the most incongruous symptoms, of which they really possess no trace; in such cases we may conscientiously do with these medicaments, calling them correctives, or depuratives, what it would not be allowable to do with mercurials.

Amongst the sudorifics, giving the first place to sarsaparilla, although it is not always certain, except from other diaphoretic indications, I greatly prefer the tisane de Feltz, where not contra-indicated. I usually employ the form communicated by Boyer, who

received it from the son of the author. Guaiacum, which is to be ranked third, has succeeded with me better in affections of the osseous system. As regards Zitmann's decoction, the results I have obtained from it are far from equalling the wonders attributed to it, although it may sometimes succeed. I administer sudorifics in the form of tisane, (diet drink,) when the circumstances of the patient allow of it; otherwise, if they must conceal their treatment, in the form of sirup.

Unless the patients keep in a temperature of from 14° to 16° C., the tisanes are to be given cold during the day; they then act upon the digestive canal and urinary organs. Towards evening, and upon going to bed, they are to be given warm and in somewhat larger quantity. I have derived benefit from adding, in these cases, a little acetate of ammonia.

11. *Tonics, antiscorbutics, &c.* According to the habit or the complications, tonics, antiscorbutics, or antiscrofulosæ ought never to be neglected; thus, I administer either alone or combined with mercurials, quinine, bitter and other extracts, iron, and particularly the proto-iodide of iron, which has been so useful to me in the treatment of scrofula in its simple form or combined with syphilis, and also iodine, internally or locally, not, strictly speaking, as antisiphilitic, but as a treatment for these frequent and troublesome complications.

12. *Remarks on other medicaments.* Before we come to the consideration of mercury, which has and still does, in spite of all that has been said against it, enjoy so just a celebrity, I must say a word upon some substances which it has been attempted to substitute for it.

In studying the history of therapeutics, it is very obvious that if a disinterested love of humanity and science has directed the labors of many, far more have been influenced by other motives. Each has desired a peculiar treatment, a nominal method, which might furnish a pretext for making a book, or publishing a prospectus.

I shall not pause to examine those means to which these reproaches may apply; I shall only relate what I have found from experience, concerning the preparations of gold and silver, &c.

I have always found gold, as a general method in primary af-

fections, useless. In the consecutive constitutional affections, its effects are most uncertain; most of the symptoms reputed to have been cured by this medicine, are far from being incontestably of a syphilitic nature, and where it has been administered in well characterized cases, or where other methods, and especially mercury, had failed, it has not appeared to me proved, that the cure ought not to be attributed rather to the suspension of the medicine, which was in this case hurtful.

Notwithstanding the encomiums which have been passed upon the treatment with gold by its author, and those learned men who have imitated him, I only employ it when I have no other resource; but this is only my personal opinion, and does not attack the interesting works which have been published upon this method.

All the preparations of silver have appeared to me, upon trial, according to the directions of Professor Serres, of Montpellier, far more uncertain, which all, who have attended my clinical practice, may have observed. In primary affections and confirmed syphilis, commencing with small doses and gradually increasing to the enormous dose of fourteen and sixteen grains per diem, I have obtained no result, but a derangement of the digestive organs, which obliged me to discontinue its use.

13. *Mercury.* We must then give a preference to mercurial treatment in confirmed syphilis, when not otherwise contradicted. Mercury is not an absolute specific, but it is the most certain and powerful remedy we yet possess, and it will, notwithstanding the objections which have been raised, maintain its rank, as a therapeutical agent.

My method. The method of applying the mercurial treatment which I employ in my hospital and private practice, belongs to no exclusive system; the rules by which I am guided, are the result of observation.

Without, in this place, determining to which class of medicaments mercury ought to be referred, some of the effects which it produces are constant and incontestable, and must be admitted even by its greatest opponents. These effects are either pathological modifications, or curative results. But it must not be supposed that mercurials, in invariable doses for all subjects, will always act; for there are some patients, who, to a certain extent, resist their

action. These propositions, which are so simple that it may seem almost absurd to state them, viz. : that in some subjects mercury is inert and in others hurtful, whilst in others it cures, have not always been acknowledged, and as a proof I may mention the attacks which have latterly been made upon this powerful medication.

Guided alone by clinical observation, and profiting by this simple and so practically useful condition, we must not conclude that a mercurial treatment has been unavailing, because it has been continued a long time, or repeated without results ; we must not regard it as hurtful because, being administered in doses ill proportioned to the disease, or the patient, it may have produced inomentary symptoms, nor must we require of it more than it can produce, i. e. the cure of symptoms which may actually exist, and of those which may appear at a later period.

In order to obtain from this medicament the advantage which we have a right to expect, we must employ it in suitable doses, which, as we have before said, cannot be the same for all patients. The proportions of these doses for each individual must be ascertained by gradually increasing them, until a favorable modification of the affection we are treating be obtained, or until symptoms arise which cause us to desist. These increasing doses, which are so necessary in many cases, have appeared to me still more so when it is done suddenly from a weak to a stronger dose, allowing an interval of five or six days, than when the increase was made daily and by an insensible gradation. From the foregoing it will be easily understood, that it is impossible precisely to fix the daily dose of the medicament, and that great difference of opinion may exist upon this subject. Moreover, we must in some manner reckon upon the action of each separate dose, and not upon the total quantity taken, at least not in an absolute manner, and that one individual who may have swallowed a hundred grains of sublimate for instance, in small doses within a long period, will be less affected than another who has taken upon the whole a less quantity but in doses better suited to his constitution, and within a much shorter time.

We must reduce to their proper value the symptoms which limit the doses, or require the temporary or entire suspension of the

medicament; thus one of the inconveniences of the mercurial treatment which is now pretty generally acknowledged, though formerly considered a favorable symptom, is its action on the mouth. Mercurial stomatitis (ptyalism or mercurial salivation) must be placed foremost amongst the bad effects which mercury produces. If, in some rare and exceptional cases, we find the venereal symptoms improve under its influence, we see them more frequently aggravated, especially when they are situated in the cavity of the mouth, or at least, in the greater number of cases, they remain stationary during the course of the salivation.

If it be settled that salivation is useless in the cure, the progress of which it sometimes retards, and that it always constitutes a disease, if not most frequently serious, yet always very tedious and painful; the greatest care must be taken to avoid it, by discontinuing the use of the agent which produces it, as soon as the mouth becomes affected. The use of mercury must indeed be wholly suspended if the stomatitis is developed, to allow this affection to subside, when we may return to the same treatment, beginning with weaker doses, which may afterwards be greatly increased without producing salivation.

The tenderness of the mouth being in many cases the first sign of the patient receiving an impression from the medicament, and one of the scale by which to regulate the dose in practice, we ought to be able to take all possible advantage of it, and not be deceived by accidental affections unconnected with it. In order to do this, we must, before we commence a treatment, ascertain the state of this cavity, and take into consideration the bad dispositions which, if I may be allowed the expression, too soon excite the action of the medicament in it.

Next to stomatitis, derangement of the stomach and intestines is most frequently observed under the influence of mercury, especially when administered internally. Here too, taking the previous conditions into account, the doses must either be diminished or suspended, according to the foregoing rules.

The same course must be pursued in case of the rare and dubious hydrargyriasis or mercurial eczema, when it is not the result of a local action of the mercury in consequence of frictions; the like will be the case in the wandering pains, tremors, fever, and,

in short, every morbid symptom unconnected with syphilis; but which, having been developed under the influence of the medicament, would necessarily increase if its use were continued. If the affection which mercury produces serve to regulate its employment, its curative effects are a still better guide. Thus, as long as a dose amends the symptom treated, it should be adhered to, and only augmented when its efficacy ceases.

The preparation to which I now give the preference, not only in the treatment of the secondary symptoms, but also of the primary, is the proto-iodide of mercury, commencing with a single grain in the form of pills.

In some patients, according to the rules laid down above, the daily dose has been increased to six grains, and the total quantity sometimes to two hundred, by its being continued till the complete disappearance of the symptoms. My experience has led me to the following conclusion; that the most powerful way of action was by the intestinal canal, and that the application by the skin was far inferior, and ought only to be employed when the bad state of the digestive organs will not allow of the direct introduction of the medicament.

In giving, however, the preference to the proto-iodide of mercury, I ought not, without entering into details foreign to the limits of this work, to omit that there are some cases in which the form in which mercury is administered ought to be changed, when that first employed either remains without effect or produces inconvenience.

13. *Opium*. Opium, which some have placed amongst the specifics in venereal diseases, is of the greatest utility in their treatment. Its employment is indicated whenever the nervous symptoms are prominent amongst those we have to treat. The extreme irritability of any organ in particular, or of the system in general, and pain, either the mother or the daughter of inflammation, often require it, either as the sole medicament, or as an adjuvant. We find the use of opium peculiarly required during the employment of mercury, to enable the digestive canal to support this remedy, when the stomach would otherwise reject it. Opium corrects the tendency mercury has to purge, and prevents cholic and the gripping in the stomach which some patients feel, particularly in using sublimate.

Its effects, as regards salivation, are not so well ascertained. Its direct action on the mouth is perhaps rather to repress the salivation, or at least to allay the pains which accompany it; but in the digestive canal, by frequently producing constipation, it incontestably predisposes to it, a circumstance which deserves the greatest consideration. As a correcter of mercury, opium is advantageously employed in removing, or even preventing, the tremors which are sometimes observed after the use of mercury.

In a word, opium employed in its various forms, either locally or generally, alone or combined with other methods of treatment, ought never to be neglected.

§ III.—APPLICATION OF THE GENERAL PRECEPTS TO PARTICULAR CASES.

SPECIAL TREATMENT OF SECONDARY AFFECTIONS.

Syphiloids. THE cutaneous eruptions, or syphiloids, are the most frequent symptoms of constitutional syphilis, and appear the soonest after the primary affection, or, when inherited, after birth. These eruptions, which are seated on the skin and certain regions of the mucous membranes, seldom occur before the fourteenth day after the appearance of a chancre, and do not develop themselves generally till after the fourth, fifth, or sixth week, or even later.

The forms under which the syphilitic eruptions present themselves, are all those which have been admitted in the general classification of the diseases of the skin. But the specific cause of all of them being the same, the differences are only owing to the duration of the eruption, the period at which it occurred, the seat it occupies, and the influence which concomitant diseases may exercise over it, the temperament of the patient, and the treatment, both hygienic and therapeutic, to which he may be subjected.

The progress of syphilitic eruptions is generally chronic, and the time of their duration difficult to determine. They may terminate by delitescence or sudden disappearance, whilst they are still in the period of roseola, or simple maculæ; by a gradual resolution;

by suppuration when they give rise to the formation of pustules, which may be followed by ulceration; and lastly, by indurated or ulcerated tubercles.

In the absence of other causes, we must refer to chancre or inheritance for a rational diagnosis; and in cases of lenticular, herpetiform, syphiloid and mucous tubercle, to the peculiar appearance, which no other affection without these antecedents ever presents. I may here be permitted, without entering into further details, to say that generally the dark coppery color, which is usually considered characteristic, never appears till very late, and is only well defined in the spots which follow the cure of the forms which have attacked the skin more deeply, never leaving any trace upon the mucous membranes.

A venereal scabies does not exist. Syphilitic patients may most assuredly be affected with the itch, but it is not syphilitic; the syphilitic virus never produces the itch.

When the syphilitic eruptions are accompanied or preceded by fever or super-excitation, antiphlogistic treatment ought first to be employed; then recourse must be had to mercury, aided by antiphlogistics, if the irritation still exist, and in other cases to sudorifics. If inflammation be still present, gelatinous baths are very useful; if the disease resist, especially in the simple eruptive period, or with formation of squama without ulceration, vapor baths may be used; but fumigations with cinnabar are highly efficacious.

In the squamous or the pustular forms, without irritation, and when the crusts have dried, and still adhere, as well as in the case of the production of tubercles in the period of secondary affections, the frictions recently recommended, with ointment of proto-iodide of mercury, have often proved successful, united with gelatinous baths. Here also, in cases which resist, baths with sublimate, repeated every or every other day, according to the effects produced, as mercurial agents, are very often useful. But there is one of these forms where a cure is effected with an astonishing rapidity. I mean that of mucous tubercles or papulæ. Whatever its seat may be, whether in the anus, vulva, groin, between the toes, umbilicus, or axilla, at the same time as the general treatment, which it requires as a secondary symptom, is employed, the local

medication, which from the rapidity of its result is truly specific, is as follows :

The diseased parts are first to be washed, if they are not indurated, with pure chloride of sodium, which in the contrary cases, or where there is too much irritation, should be diluted with water, so as to excite a slight tingling without pain. Then, after the washings, which are to be repeated twice a day, the diseased parts are to be sprinkled with calomel. Eight or ten days of this treatment will cause enormous masses of these eruptions to disappear, which perhaps, situated between the toes, have for many months prevented the patients from walking. Those which are situated in the nostrils, on the internal surface of the lips or cheeks, on the edges of the tongue, the palate, tonsils, &c., must not be confounded with the superficial, spongy, and grayish ulcerations, which mercurials sometimes produce, and which always commence on the gums, and particularly the lower, and those of the last molar teeth. Besides the general treatment, which alone almost always suffices, and the local use of simple or mucilaginous gargles, sweetened with honey, cauterizations with liquid nitrate of mercury, which are less painful than on cutaneous tubercles, greatly accelerate the cure. In the acute pustular period, with copious suppuration, we must not be precipitate with the use of mercurials; we must first have recourse to sedatives and antiphlogistics, carefully examining what gives the syphilitic this form, which scarce ever is the sole product of syphilis. The special treatment ought not to commence till all other indications have been fulfilled.

Ulcers. When consecutive ulcers exist, having been preceded by one of the forms of which we have been treating, their peculiar state is referable to what we said elsewhere on chancre, which they resemble in many respects, especially as regards their treatment. We must here bear in mind, that many ulcers, reputed syphilitic, may be maintained by conditions unconnected with syphilis, and which must by no means be neglected.

The ulcers which are seated in the throat are either the consequence of mucous tubercles, or they assume the appearance of an indurated chancre, or follow the course of phagedænic gangrenous ulcers, from excess of inflammation. In the two first cases,

which require mercurial treatment, gargles, with cicuta and morella, with corrosive sublimate, will be found very beneficial ; cauterization with the acid nitrate of mercury only succeeds in cases of mucous tubercles ; it is less efficacious, when not injurious, in cases of true indurated ulcer. In phagedænic ulcers, opiated and narcotic gargles, and when the inflammation has abated, cauterization with hydrochloric acid, and gargles with quinine, ought to be put in the foremost rank, reserving the general treatment in case other indications should afterwards require it.

In ulcerations of the pharynx, the uvula is often destroyed ; when it is nearly detached it should be removed, instead of waiting till it drops ; I have seen a patient nearly suffocated by its falling on the glottis whilst he was asleep. When the velum palatinum has been divided by syphilitic ulcers, the state of the tissues, and the nature of the cicatrices, either render staphyloraphy useless or injurious.

In consequence of the ulceration of the mucous membrane of the palate and nose, the bones of the palate, the cartilages and bones of the nose are often exposed. From this exposure may result osteitis, terminating in caries, or even necrosis ; but in this case the disease of the bones is less acute, and terminates sooner and better than in tertiary affections, where it commences in the bones themselves.

Syphilitic iritis. Secondary syphilitic ophthalmia, most frequently accompanies the syphilitic eruptions of the skin. It seldom appears as an isolated symptom, and frequently, though not always, presents a deformity of the pupil, which becomes elliptic, or rather egg-shaped ; having its large axis directed downward and outward, and with alteration of the color of the iris, which sometimes presents excrescences on its pupillary margin and anterior surface ; excrescences which have been regarded as true condylomata. Albuminous effusions often take place in the chambers of the eye ; they are either absorbed or form adhesions, which only restrict the movements of the pupil, or induce the formation of pseudo cataracts. The eye may, in ophthalmia, undergo all the alterations which occur in cases of non-specific inflammation, and from which the symptomatology differs but little. The inflammatory period of this affection, the consequences of which may be so

serious, requires an antiphlogistic treatment, which must quickly be followed by a general mercurial treatment.

The local treatment consists in applying leeches to the temples and mastoid processes, and as soon as the inflammation has a little abated, the pains become less, and the intensity of the photophobia decreased, we must immediately have recourse to blisters in the neck, on the temples, and over the orbita. The suppuration of that in the neck must be kept up, whilst those on the temples and forehead are dressed with ung. hydrarg., and renewed as often as they dry up under this treatment. Mercurial ointment may be rubbed in at the base of the orbit, but we must not lose sight of the irritation of the eye and the contraction of the pupil; for these symptoms, belladonna, which is peculiarly sedative for the eye, ought not only to be employed as frictions around the orbit, but also in the nostrils, and internally, combined with the proto-iodide of mercury, which I here also prefer to calomel. Besides these special indications, there are those which simple ophthalmia generally presents.

Syphilitic testicle. Syphilitic sarcocele, which must not be confounded with blenorrhœal epididymitis. This disease of the testicle, the consequence of symptoms which we have before considered, is seldom found as a sole sign of a secondary affection; commonly preceded or accompanied by other symptoms of general infection, it frequently attacks only one testicle at a time, although both may be affected. When the testicle is affected, it becomes indurated, increases in volume, and is pear-shaped; sometimes it is unequal, and becomes relatively heavy. The disease is frequently accompanied or preceded by nocturnal pains in the loins. The induration may have its seat in the epididymis or the cord; but it is the substance of the testicle which is almost invariably affected. A gonorrhœal epididymitis may be the cause which favors its development, without the blenorrhœa having any other influence over this affection, or being its specific cause.

Syphilitic sarcocele may often be complicated, which renders the diagnosis very obscure; in dubious diseases of the testicles, therefore, the patient must be examined as to the antecedents, and before amputating this organ, we should recollect the prudent course pursued by Dupuytren, who, before having recourse to the

operation, submitted his patients to an anti-syphilitic treatment, and thus saved a great number of testicles, which otherwise would have been excised.

To the general treatment, which almost always succeeds alone, ought be added, to accelerate the cure, repeated applications of five or six leeches every six or eight days, along the cord. If the patient can rest, half a drachm of ung. hydrarg. fort. may be applied to the scrotum, and the diseased parts should then be covered with emollient cataplasms; but should there be no pain, and if the patient cannot keep quiet, the scrotum should be enveloped in emplastr. de Vigo c. hydrarg., or recourse be had to compression, in the same manner as we advised for the blenorrhœal affection of the testicle.

Falling off of the hair and nails. Although these symptoms are not very frequent, yet they occur often and regularly enough for us to recognise their existence, without depending solely upon the testimony of Fracastor and Fallopius. Generally it is during an eruption of pustules of impetigo on the hairy portion of the head, or sometimes after the disappearance of a syphiloid, that the hairs fall, and most frequently in patients who have not taken mercury. The nails fall off, particularly when their matrix becomes the seat of the eruption.

Here the curative treatment is that of the affection which precedes or accompanies it.

For the falling off of the hair, besides the general treatment, the head must be shaved and rubbed with stimulants, ointment with proto-iodide of mercury, or tincture of cantharides diluted with alcohol.

As regards the nails, they must not be pulled out, as in cases of simple onyxia; we must wait till they fall off, or detach them partially by applying to their diseased matrix the local treatment advised for mucous tubercles.

§ V.—SPECIAL TREATMENT OF THE TERTIARY SYMPTOMS.

ACCORDING as the ravages of syphilis extend in depth, and the consecutive affections which it causes are removed from the com-

mencement of the general affection, we find them gradually losing their specific characters, which, much less prominent in the secondary symptoms, disappear entirely, or partly, in those of which we are about to speak.

The diagnosis of the affections of which we are now about to treat, and which may be grouped under the title of *tertiary affections*, from the order in which they are developed, is very obscure. Most frequently they appear only a very long time after the primary infection; and as other causes may produce similar effects, it is sometimes impossible to distinguish them. Being, as we before stated, non-contagious, they are only transmitted by inheritance, in so far as they produce effects in the habit and organization of the children, without any specific character, and which may generally be classed under the head of scrofula.

The signs by which we can determine the diagnosis of the tertiary affections are drawn from their acknowledged frequency, after the appearance of primary syphilis; the absence of all other causes, (when under dubious circumstances,) and especially as leading to a more certain diagnosis from the existence of characteristic secondary symptoms, either preceding their development, or being co-existent with them.

The secondary affections form a *characteristic chain* between the primary and tertiary symptoms. A careful observer will rarely find periostoses, exostoses, or deep-seated tubercles occur, in consequence of a chancre, after the lapse of a longer or shorter period, unless some sign of general infection has been developed at a prior period, or still exists.

Be this as it may, recognising, as we do, the syphilitic virus as the regular cause of the tertiary symptoms, we must, however, admit, that if it undergoes a modification in the secondary symptoms, in consequence of which, as we have seen, it is no longer capable of inoculation, this modification is here still greater; and if we might hazard an hypothesis to explain some facts, whose immediate cause is difficult to discover, we would say, that the virulent cause still exists in the secondary affection, whose existence it maintains by its presence, but it is completely transformed in the tertiary affection.

Here is a therapeutical fact of great importance. The more

the disease penetrates into the system, losing its specific nature, and undergoing the transformations which tend to assimilate it to diseases of another nature, the more difficult does the treatment become. The mercurial treatment presents something remarkable to those who will attentively observe its action: thus we find it of little efficacy, and indeed often hurtful, in the primary affection; during the period of progression or increasing ulceration, it then becomes powerful, as soon as induration manifests itself in the chancre, and shows its greatest efficacy when the characteristic general infection is in the period of incontestable secondary affections, again losing its curative properties in the tertiary affections, and the more so, the further they are removed in their form from the preceding.

Deep-seated tubercles of the skin and mucous membranes, (lupus syphiliticus.) These tubercles most frequently affect the alæ and lobulus of the nose, and sometimes show themselves on the glans, where they may be mistaken for superficial mucous tubercles; I have found them on the tongue, cervix uteri, &c., which then resemble schirrous or carcinomatous indurations.

Generally complicated with scrofula or herpetic affections, their progress is slow, and unattended with pain; they deform the parts on which they are seated, and are inclined to penetrate deeply, becoming more and more indurated; then, undergoing a kind of ramollissement, which is soon followed by an ulceration, the progress of which is difficult to arrest, and which destroys all the tissues which the induration had attacked.

These tubercles may appear alone or in considerable numbers, and assume forms to which more or less picturesque names have been given, are susceptible of a spontaneous resolution, or a kind of rapid resorption, under the influence of which they soften, wither, and without ulcerating, terminate by transforming themselves into a kind of crust on the skin, of a horny nature, which leaves, on falling off, a spot most frequently depressed.

The treatment of the deep tubercles of the skin or mucous membranes ought in the first place to consist in attacking all the complications which may co-exist with the syphilitic element, which is never the sole cause of their production. When all the indications which scrofula, cutaneous, or other concomitant affections

may present are fulfilled, we must recur to the mercurial treatment. In these cases, we derive much benefit from mercury, combined with conium, and the success is often complete when aided by other therapeutical agents, according to the case whose history and rules for their administration we have stated. The local treatment requires, whenever any irritation exists, the application of emollients and narcotics ; opiated cataplasms, fomentations with decoctum papaveris, conium, &c. If any inflammation exist, a few leeches ought to be applied at some distance from the indurated spots. Lastly, if the tubercles be in an indolent state, the dressings ought to be repeated once or twice a day with honey and proto-iodide of mercury, continued as long as it does not irritate. When the disease still persists, a cauterization with the acid nitrate of mercury must be employed, but not so as to suddenly extend too deep, in order to avoid the inflammatory action, which is always injurious. This method often produces with the general treatment pretty rapid cures, especially when it has been early applied. Dressings of chloride of soda and calomel, as recommended for mucous tubercles, often succeed, even in the ulcerative period, and when there is not too much irritation.

Most of the mercurial ointments are injurious ; they irritate and produce inflammation. It must be remembered, that the treatment ought to be purely antiphlogistic, as long as any inflammation exists, whatever may be the internal treatment indicated, and followed according to the general state, and the other symptoms which may be present.

Osteocopic pains. These pains do not alone constitute a disease ; they may, however, undoubtedly exist alone, continue a time, and then disappear without leaving any perceptible change of structure in the regions where they were situated ; but most frequently they are the first apparent symptoms, as in most inflammations of a periostitis or osteitis, and that especially when they become more confined to one spot. The intensity of these pains seems to depend upon the difficulty with which the periosteum and medullary membrane distend. They are generally nocturnal, but this is not a specific character without exception, for the contrary often occurs, and diseases unconnected with syphilis may present the same phenomenon.

The occurrence of osteocopic pains, when other characteristic symptoms of confirmed syphilis exist, ought not to induce us to suspend the mercurial treatment; on the contrary, this treatment, far from producing these pains, as has been asserted, soon calms them when properly administered. We must not mistake rheumatic for osteocopic pains, if we wish to obtain from mercury what we have a right to expect, nor confound them with certain swellings of the joints, which the abuse of this medicament may produce.

The direct treatment consists in the local application of leeches, emollients, and narcotics. Antiphlogistics and sedatives often suffice to suspend, or remove these pains entirely. Nevertheless, it is not unusual to see them resist the most methodic treatments, and constitute one of the most distressing symptoms, depriving the patients of sleep, and thus disturbing all the functions. It is in these truly desperate cases, and also in those which are less intense, that the effect of blisters is quite astonishing. In my clinical wards, patients may be seen, who for six months and more had not been able to obtain an instant's repose, and who, when no change of structure had taken place, have been freed from their sufferings in 24 or 48 hours.

The blister ought to be applied directly to the seat of the pain; when it has drawn, the epidermis should be divided, but not removed, to avoid giving pain. The dressing of opiated cerate should then be applied, and over it, warm cataplasms, which must frequently be renewed, so as not to allow them to get cold. When one blister is dry, another must be applied, and so on, if the pain return. In cases in which the pain returns too quickly after the cessation of the suppuration, perpetual blisters must be employed, instead of those recommended above. I can assert that by this treatment, without antiphlogistic preparation, eighty out of every hundred patients may be cured; in some important cases, however, the pain remains, in which case a more energetic local treatment is required, as it only yields to a deep incision into the diseased parts, by which a true strangulation is relieved. The cessation of the suffering in these fortunately rare cases is often instantaneous.

Periostitis. The uncomplicated and idiopathic inflammation of the periosteum is perhaps more rare than is generally imagined.

The loosening of this membrane and effusion under it, which thus forms tumors adherent at their base, and which are termed periostoses, are most frequently owing to a superficial osteitis. These more or less circumscribed tumors are generally situated on the superficial bones, tibia, clavicles, cubitus, radius, &c., and at the points where these bones are nearest to the skin. Sometimes they are indolent, but most frequently painful to the touch, and present a more or less evident fluctuation. The skin over them may remain for a long time moveable, and without any perceptible alteration. Lastly, they may undergo a spontaneous resolution, or terminate by suppuration and form abscesses. When they are opened, the bones are found simply denuded, carious, or necrotic to various depths, and in the most fortunate cases, already presenting a surface covered with granulations.

At first, we must have recourse to the treatment recommended for the osteocopic pains which accompany them, and under the influence of which they often disappear, often even when a very considerable effusion has taken place. If the tumor remain without acute symptoms, an application of diluted tincture of iodine, the strength of which must gradually be increased, has often succeeded with me, as well as the application of blisters and solution of corrosivè sublimate, as in case of buboes.

There are some cases, in which, after the resolution has progressed with a certain rapidity, it suddenly stops: then we may substitute a methodic compression, so well described and so happily applied by M. Lisfranc, avoiding causing an increase of pain; its effects may be increased by the simultaneous use of the mercurial plaster, or that of conium with iodide of lead.

If, however, the periostosis has terminated by suppuration, after having endeavored to procure its resolution without opening it, we must not wait till the skin becomes changed, and the pus has accumulated in a large quantity, and denuded those points of the bones which otherwise would have remained sound. An opening should be made with a bistoury in the same direction as the axis of the bones, so as to allow the pus to flow out freely. The opening being made, the same treatment must be pursued as in cases of simple abscesses, or diseases of the bones, where these are affected.

Syphilitic osteitis. According to many writers on syphilis, this

affection is owing to a combination of the syphilitic virus with mercury; but we have repeatedly seen it, in the wards of my hospital, in patients who have had characteristic, primary, and secondary affections, but without their having in any way employed mercurials. In fact, the occurrence of affections of the osseous system, by no means depends upon the employment or abuse of mercurials, in the treatment of syphilitic affections; but, as every attentive observer must acknowledge, their occurrence depends upon the antecedent syphilitic affection, for it will be found that, in most individuals affected with exostoses, either a chancre and secondary symptoms have existed, or a blenorrhœa, in which case there must have been a chancre in the urethra. The development of these symptoms will never be found to depend upon the absolute quantity of mercury taken, but on a peculiar idiosyncrasy, or the defective treatment of their antecedents, and their bad administration.

Other causes than syphilis may give rise to osteitis, as we have already said in our general remarks; but whilst syphilis is one of the most frequent, there is no case to prove that mercury alone, except what comes consecutively on the alveola, in consequence of a mercurial stomatitis, can produce similar effects, *without venereal antecedents*.

Osteitis affects the same regions as periostitis; it is sometimes circumscribed, sometimes diffuse; it attacks the superficies or parenchyma of the bones. Slow or chronic in its progress, it often assumes a subacute form, and after remaining some time as merely a simple osteocopic pain, the swelling it causes betrays its existence. The tumor arising from an osteitis is either owing to an effusion of the osseous matter, as in the formation of callus in fractures, and then constitutes an epigenetic exostosis of various form and volume, with either a broad or narrow base, and smooth or rugged periphery; or else the swelling depends upon the increase of the whole thickness of the bone, and produces the parenchymatous exostosis or hyperostosis.

Osteitis terminates in resolution, suppuration, caries, necrosis, and in induration (exostosis eburnée.)

Resolution is easy, when the swelling depends on the organic tissue, or an effusion of coagulable lymph. When the disease is seated in the spongy bones, those of the face in particular, suppura-

tion is easy and frequent. Necrosis, often caused by the violence of the inflammation, relatively to the vitality of the osseous system, is still more frequent from a sudden effusion in the tissue of the bones, or from the loosening and destruction of the soft parts which surround them, and which involves that of their nutritious vessels. Lastly, the termination in permanent induration takes place whenever the tumor is only owing to an effusion of the inorganic saline matter which enters into the composition of the bones.

The treatment of osteitis in the commencement must be the same as that of osteocopic pains and periostitis. When the osseous tumor is developed, to the use of blisters, dressings of mercurial ointment on the denuded surface (from half a drachm to a drachm per diem) may be added. Under this most powerful treatment, with the internal exhibition of mercury when not contra-indicated, and sudorifics, proto-iodide of iron, (in complications of scrofula,) and vapor baths, we obtain results, if opportunely employed, such as no other treatment affords.

In these cases, the other resolvents (iodine, iodides, &c.) locally employed, as also compression, are most frequently void of any decided effects.

The treatment ought to be continued as long as any pain remains, or the swelling increases or diminishes; but when it becomes decidedly indolent and stationary, without any other symptom requiring active treatment, we must stop, and not exhaust the system by useless, and therefore injurious medication.

In venereal suppuration of the bones, or caries, especially of the bones of the face, mercury, which has hitherto been so serviceable, ceases to be useful, and even aggravates the disease, particularly when salivation is allowed to ensue. We do not say its employment must always be avoided, but that its effect ought to be most narrowly watched.

Except as regards the syphilitic element, which ought never to be lost sight of, and which in a few cases affords the best indication without being the only one to be fulfilled, the treatment required by syphilitic caries is the same as is applicable to caries in general. Nevertheless, in caries, generally complicated with necrosis of the bones, of the face particularly, and which must be distinguished from the more superficial and less serious, which follow previous affec

tions of the soft integuments, which we mentioned above, we must not neglect to remove the diseased bones as soon as they are separated from the sound parts. I have seen the worst consequences ensue from the neglect of this precept, and the more so, when at the same time an injudicious mercurial treatment has been used. I am convinced, that caries engenders caries, and that a bone, whose organic tissue has been destroyed by suppuration, or has perished, cannot be regenerated by any general treatment, and that we must not wait till the remains are spontaneously thrown out, as they form true foreign substances, maintaining and propagating the suppuration, which by reaching important parts, as the brain, for instance, produce the most serious consequences, and even death.

In the frequent cases of destruction of the upper jaw, the teeth may remain perfectly sound, firm, or loose in their alveolæ, but when they are attacked above their neck, they ought to be extracted; for they only serve to retain portions of the dead bone, which, by remaining, allow the disease to proceed still further. The destruction of the vomer is generally accompanied by that of part of the palate, where on the median line a tumor appears, which is soon followed by suppuration and ulceration of the soft parts. Here also the diseased portions of the bones ought to be extracted as soon as possible. I published some observations in the *Gazette des Hôpitaux*, on a case in which a large portion of the upper jaw became carious, necrotic, and deprived of its teeth, had become loose in the fossæ nasales, the soft parts of the cheek having remained sound. These portions of bone being too large to be extracted through the nostrils, I removed them by first crushing them with the instruments employed in lithotrity.

Before quitting this subject, I would merely add, that the continued use of blisters, placed as near to the diseased parts as possible, affords the most advantageous results. I shall make no remarks as to trepanning, the actual cautery, &c., which come under the province of surgery.

When an osteitis has produced an exostosis, which has become permanently indurated, these tumors must not be touched, except when they produce too great a deformity, or interfere with important functions; the epigenetic pediculated tumors may easily be re-

moved. A short time since I extirpated a tumor of this character from the metacarpal bone of the index finger of one of our most distinguished violinists, who has since regained the use of his hand.

The treatment required by necrosis is the same as is applicable to it in general; the special indications are derived from the concomitant symptoms.

Gummata, nodus. Deep seated tubercles of the cellular tissue; a kind of chronic furuncle situated in the subcutaneous or sub-mucous cellular tissue; generally they do not appear till very late after the primary affection, and, except in a few less severe cases, they are the consequence of a deeply undermined constitution, under the influence of syphilitic cachexy. These tubercles, which are rarely isolated, but generally pretty numerous, and on different parts of the body at the same time, commence by a small, scarcely perceptible, but hard tumor, adhering to the skin by a kind of peduncle, and moveable on the subjacent and neighboring parts. Their increase is generally slow and without pain, and their growth is frequently five or six months, or more. They then attain the size of a nut; still remaining very hard; they become adherent on all points of their surface, and then there is a kind of obscure fluctuation which gradually becomes more perceptible. The skin becomes red, purplish, and then thin, and perforated on several points, from which thin ichorous pus escapes, carrying with it the organic remains. These openings are succeeded by extensive irregular ulcerations, the skin being undermined and thin. These ulcers continue as long as the shell of the tubercle, in which the suppuration commences at the centre, is not thrown out, after which, if nothing else be present to keep up the suppuration, they progress towards reparation and produce a cicatrix, similar to those after extensive burns.

The evolution of these tumors seldom occurs in every part at the same time; most frequently they come in succession, so as to occupy months or years, notwithstanding any treatment which may be employed.

They are sometimes distant from each other, sometimes agglomerated. Those who have followed my lectures will remember, that in two cases in my wards the tubercles were situated in the

substance of the tongue. These two patients both entered for the third time, an interval of five or six months having elapsed between each time. To the touch their tongues appeared filled with nuts. The destruction from ulceration was each time horrible, and, to unaccustomed eyes, resembled cancers; but both have now been cured two years.

The principal aim of the treatment must be to sustain and recruit the constitution by all possible means. It must be remembered, that we have to deal with a long and serious disease, which no medication can cut short in its development. As these symptoms generally appear in patients who have resisted the effects of mercury, it has therefore no power over it, and if its use be imprudently pushed far enough to produce the symptoms which may attend its administration, the severity of the disease will be increased.

In the affection under our consideration, mercury is only indicated, when at the bottom of the cavity, after the escape of the pus, ulcers, with indurated base and callous edges, remain. The general treatment which succeeds best, although it frequently does not procure the resolution of these tumors, is the internal exhibition of iodine, either alone or combined with iron. Bitters and tonics, and that course of hygiene adapted to scrofulous subjects, also deserve to be placed in the first rank. In many cases, however, these tubercles are the sole remaining symptoms, and their severity depends only on their purulent secretion and the ulceration which follows them; so that the most rational treatment is to destroy them in their commencement.

M. Cullerier has suggested, that they should be attacked with blisters, and the caustic solution employed for the treatment of buboes, and this plan with him, as well as myself, has often succeeded. I have also found their extirpation, while yet hard, and before the adjacent parts are affected, very advantageous. From our remarks it follows, that our method consists, first, in attacking these tumors by blisters and caustic, when they can be reached by these remedies. If under the influence of this treatment they continue to progress, I should extirpate them before they suppurate, and heal the skin by the first intention. When supuration is very evident, the pus ought to be allowed to escape

before the skin becomes too much affected. When suppuration has ensued, and even after the opening of the abscess, as long as inflammatory symptoms exist, emollients and local sedatives should be used; at a later period, the ulcers which do not become clean, should be dressed with simple digestive ointment, and after that just like chancres. Frequently extensive ulcerations become atonic, as in other cases of this kind, independent of the antecedents, have been promptly brought to cicatrization by being bandaged with mercurial plaster. (Empl. de Vigo c. merc.)

There are a vast number of diseases which may be referred to tertiary syphilitic affections, but we are not at present able to determine their diagnosis. It is not probable that there are tissues which are fortunate enough to escape the ravages of syphilis; but to mention these would be to enter the entire field of medicine; and until there are other modes of discerning these obscure cases, we must content ourselves with saying, with Mercurialis, "Cum videretis morbum quempiam communibus remediis non curari, putate esse morbum gallicum cognominatum." And thus we must try a treatment which may succeed, when the more rational have failed.

ORDER II.

TREATMENT OF NONVIRULENT AFFECTIONS.

§ I.—BLENNORRHOEA.

THE treatment of blennorrhœa ought to be divided into, 1st, the prophylactic—2d, the abortive—3d, the curative, properly so called. The prophylactic treatment having been considered generally above, we will proceed to examine that which is calculated to prevent the development of the disease, after it has commenced; (abortive treatment.) In the first place, the patients must not only be removed from the causes which may have produced the disease, such as every kind of excitement of the sexual organs, but also all possible antiphlogistic means must be used. The following is the result of my experience: when an individual has exposed himself to a blennorrhœal affection, amongst the hygienic means then indicated, such as diet, rest, &c., baths and copious refreshing drinks, which are generally considered as so important, are far from possessing the efficacy which has been attributed to them. The large quantities of fluid cause the urine to be passed very frequently, thus fatiguing the canal, and predisposing it to inflammation; with regard to baths, when we find with what facility they frequently recall a discharge which has ceased for some days, we may easily conceive that they may favor its development. After these general precautions, the diseased surfaces require to be modified; here two methods present themselves, 1st, revulsion,—2d, direct medication. As all the varieties of blennorrhœa require modification in each, we shall further develop the following principles in the proper place.

What is to be done, when the abortive treatment has not been employed or has failed, and the disease has become confirmed? As blennorrhœa in the acute stage presents the characters of a catarrhal inflammation, the treatment ought to be essentially antiphlogistic. The abstraction of blood will form the basis, and local depletion

will be found the most advantageous. Leeches as has before been observed, as is generally observed in inflammations of the membranes, are very valuable, but they must be used with certain precautions; they ought never to be applied on loose duplicatures of the skin, with intervening cellular tissues, as on the eyelids, skin of the penis, &c., wherever the blennorrhœa may be situated, as they may cause œdematous swelling and a gangrenous erysipelas; when applied at some distance from the seat of the disease, they are equally efficient, provided their number be in proportion to the gravity of the disease. Another no less important point to be observed is, that leeches ought never to be applied upon a declivity, or within reach of the diseased organs, that their bites may not become soiled by the morbid secretions; for if the blennorrhœa be complicated with chancres, they will be transformed into so many syphilitic ulcers.

The use of general or partial baths during this period has been much praised; generally they answer well, but it may not be amiss here to note some peculiarities in their employment.

I prefer general baths. The temperature at which they are used ought to be moderate, as very hot or very cold baths have very different properties from those properly termed tepid, and which depends upon the impression made upon the patient; so that the proper degree of heat depends upon the feelings of each individual, and not upon the thermometer. A temperature which would render a bath exciting, would be very hurtful, and it is by no means uncommon to hear a patient complain of having suffered more, either during or after its use, than before. Baths prolonged during a considerable time, are, from the relaxation they produce, very favorable in their effects; but in ordering them, we must pay attention to the individual disposition; for there are some in whom they produce an excitement by their action on the nerves. Their efficacy is therefore relative, and sometimes their use must be altogether forbidden. In all cases, and whatever may be the mucous membrane which is diseased, it is very important to free its surface from the morbid secretion. Washings, injections, and local baths, will advantageously accomplish this end; but these different means must be judiciously employed, duly weighing the good they produce, with the inconveniences which sometimes attend them.

They ought never to be so used as to fatigue the organs, or to invite the fluids to them. We must also facilitate the functions of the parts diseased, or modify or even suspend them if possible, when they are the cause of irritation.

The patient's drink should be diluent, copious, simple, agreeable, and easily procurable fluids. There is no proper medicine possessing these properties to so great a degree, that it should be employed in preference to others. It is better for the patients to have a drink which pleases them, provided it is not stimulant, for the tisanes generally prescribed are more agreeable to the pride of the physician than to the taste of the patient, while both should remember, that it is only necessary to drink a good deal of water, in which there is no treason. The diet must be more or less restricted, according to the intensity of the inflammation and the state of the patient. When the affection is severe and intense, it should be absolute; in less violent cases, when the digestive organs are healthy, we must permit the use of broths, milk, and fruit, and avoid all exciting food and drink. The utility of perfect rest is not less apparent than in other cases of inflammation.

Under the influence of the treatment which we have just described, the symptoms of the acute stage may completely disappear; sometimes it has sufficed to allow the disease to exhaust itself, only removing the causes which produced it; but more frequently it becomes chronic, in which case another treatment must be employed. When it is bordering on the acute stage, we must not too soon abandon the employment of antiphlogistics; but at the same time neither ought we recklessly to continue their use, as they often favor its prolongation. A very favorable methodic transition consists in suspending the use of the too relaxing agents, and employing direct resolutes, which must be succeeded by revulsives, the properly so called antibleorrhagics and astringents, either general or local tonics used in the same manner, excitants, &c., as soon as the acute symptoms or pains diminish or disappear.

We will examine the antibleorrhœal medicaments, as they will best apply to the several varieties.

Frequently, however, notwithstanding the use of remedies, the blenorhœa or the chronic state remains; in which case we must

endeavor to discover the cause which maintains it. Sometimes, without inquiring about the existence of any change of structure in the tissues, upon the disease not having yielded to the usual treatment, the acute stage has been reintroduced, either by means of simple irritants, or by a new infection. If the efficacy of the former of these means is not proved in most of these cases, the latter is quite unjustifiable.

An antisymphilitic treatment has frequently been employed, either from ignorance of the cause, or from a conviction of the syphilitic nature of blennorrhœa, and has sometimes been attended with success. In cases in which the discharge is only the consequence of concealed syphilitic ulcerations, the results of the treatment are more decided and easier to understand. But the antisymphilitics which are employed, may influence other diseases, beside those dependant on syphilis. May they not, by acting as revulsives or tonics, so modify the system as to produce a cure? For my own part, I never employ antisymphilitics, nor especially mercury, in blennorrhœa, except they be positively indicated, as where every other treatment has been resisted, or true syphilitic symptoms exist, under circumstances which we have before described. In all cases in which I have found them indicated, I have avoided giving them during the acute stage.

§ II.—SPECIAL TREATMENT OF BLENNORRHOEA.

First Species : Blennorrhœa in Women.

Varieties { of the vulva,
— vagina,
— uterus,
— urethra, } alone or variously combined.

THE prophylactic treatment of blennorrhœa in the female presents nothing peculiar, which has not been already mentioned; only we must insist on extreme cleanliness, on account of the extent of the surfaces, and the facility with which infecting matters are arrested in the folds of the external and internal genital organs.

Women rarely consult a medical man early enough to allow of

the blennorrhœa being cut short in its development, either because they do not acknowledge the disease until it is too late, or because they do not at once perceive it. However, if applied soon enough, that is, within the first two or three days, astringent injections and applications would be generally crowned with success, in cases where the vulva, vagina, or uterus is affected; whilst copaiva and cubebs have sometimes succeeded in urethral cases. If slight inflammatory symptoms should already exist, the application of a few leeches near the vulva might be added.

But, as we before said, we have rarely an opportunity of preventing the development of blennorrhœa in women, and we must therefore obtain its cure by a slower and more methodic treatment.

In the acute stage, whatever may be the variety or varieties, the most absolute rest possible is of the first importance, and abstemious diet ought to be observed. General baths are most useful, and whenever the state of the parts will allow, vaginal injections should be made, whilst in the bath, with the same water, which might be mucilaginous or gelatinous. These injections are peculiarly efficacious in vaginitis and uterine blennorrhœa.

Should the acuteness of the symptoms require the employment of leeches, (if no secretion takes place in the fold of the thighs, and the alteration of the skin constituting an extra-genital blennorrhœa,) they should be applied on the exterior of the external labia, and always nearer to the plica cruralis than to the perinæum, to shelter them as much as possible from contact with the morbid secretion, which always flows towards the inferior parts, and tends to irritate the wounds they make. In the contrary cases, the leeches must be applied in the fold of the thigh. When the blennorrhœa, and especially uterine blennorrhœa, is attended with febrile reaction, great benefit will be derived from general depletion. The patient should drink freely of some agreeable beverage, but the quantity taken does not require to be so large as in men, as the heat upon voiding the urine is by no means so intense. The local treatment is however the most important. Where the vulva and external parts are affected, cleanliness, and emollient and slightly narcotic fomentations, with decoctions of roots of marshmallows, morella, and poppies, will be found very beneficial. The parts diseased ought to be isolated; thus the thighs should be prevented from

touching the external labia, which should be separated from each other by a tampon of fine lint, dipped in emollient narcotic liquids. When the inflammation is very acute, and the introitus vulvæ is either naturally very small, or has become so from the inflammatory swelling, we must confine ourselves to external applications, and even avoid injections, as even the introduction of the olive-shaped canula may produce too much irritation. This generally occurs in young children and virgins; but as soon as injections can be employed, they should be used several times daily.

When the entrance to the vagina can be dilated without giving pain, a tampon of fine lint, dipped in the medicated fluid, and moistened two or three times a day, should be introduced, as it supplies, in a manner, the place of cataplasms. When the uterus is affected, emollient fomentations and cataplasms should be applied to the body. Here also, as in metritis generally, we may employ vaginal cataplasms prepared with rice or flax-seed; but as they ferment in these parts, I generally prefer fomentations with the tampon, as mentioned above. I never order leeches to be applied on the cervix uteri, as in case of the existence of virulent ulcers in the interior of this organ, they would probably be transformed into as many chancres. The tampons ought, if possible, to be renewed two or three times a day, as otherwise they retain the morbid secretions too long, and thus increase the irritation. I need scarcely add, that if a pessary has been introduced into the vagina, it ought at once to be removed.

Acute urethritis is seldom accompanied by retention of urine, and when it does exist, it is generally of short duration, and yields to antiphlogistic treatment; but nevertheless, sometimes it requires the use of the catheter, which ought to be introduced with the parts exposed, notwithstanding the objections raised, as less pain will be caused, than if the surgeon had to feel his way. I have found in two nervous subjects, in whom the strangury seemed to depend on spasms, that a tampon, soaked in a solution of belladonna, sufficed to relieve the symptoms.

The swelling of the nymphæ and labia, which we have compared to a kind of phimosis or paraphimosis peculiar to women, yields generally to rest and antiphlogistic treatment; but when the swelling is considerable, with serous infiltration, incisions must be

made in it, as gangrene from excessive inflammation only occurs in cases of neglect, and where sufficient blood-letting has not been insisted on. When this unfortunate termination already exists, if inflammation be still present, an antiphlogistic treatment must be pursued, consulting the general strength of the patient, and lint, dipped in a solution of extract of opium, applied. A urethro-genital blennorrhœa may be complicated with simple abscesses, whose detailed history we shall not enter upon here. We may, however, remark, that as these abscesses are generally the result of a violent inflammation, their development will be prevented by the treatment which is used to combat it, and more especially when we avoid any further irritation of the already diseased parts.

Thus, in cases of acute blennorrhœa, we ought not to use the speculum, although I can affirm, that during seven years of practice, and the treatment of hundreds of patients, I have never seen a case at the Hôpital des Vénériens, in which these abscesses have been developed in consequence of the use of this instrument, as some have thought. The females affected with this symptom have never been subjected to its application. We can conceive that the contrary may occur, although this instrument cannot then be considered the efficient cause, unless employed contrary to all rules.

These abscesses sometimes depend upon the inflammation of the cysts, which some women have at the entrance of the vulva; in all cases, they ought to be promptly opened. It ought to be noted that suppuration here quickly succeeds to phlegmonous inflammation, and if the pus be not allowed to escape, infiltration of the loose cellular tissue surrounding the rectum, and lastly, perforation of this intestine occurs, thus forming either complete or incomplete fistulas, according to the point where it opens into the vulva.

The vaginal abscesses ought to be opened by a large incision, parallel to their axes: the pus is often brownish, with the odor of fœcal matter from the neighborhood of the rectum, although no communication with this intestine may exist. When the abscess is the consequence of an inflamed cyst, the matter is stringy, and glairy in many cases. If these fistulæ are yet in an early stage, before their passages have undergone the mucous transformation, compression, by means of a tampon introduced into the vagina, generally suffices to obliterate them. When this means has failed,

cauterization of the passage, with nitrate of silver, either in powder, by means of a director, or better with M. Lallemand's instrument, has often succeeded. I have derived much benefit in some cases from traversing the fistula with a probe, covered with a bit of lint rolled around it in a spiral form, and dipped in nitrate of mercury. After one or two cauterizations to destroy the pseudo-mucous surface, tincture of cantharides has been introduced in the same manner, to excite the development of the granulations necessary to obliterate the cavity.

In one case which had resisted these various treatments, I obtained a cure by introducing into the fistulous passage the urethrotome, which is employed to divide the meatus urinarius, and thus scarifying its whole length in several points of its circumference. When the fistulæ are of but little extent, the shortest method is to treat them like common fistulæ in ano.

Ovaritis, considered as a complication of blennorrhœa, requires antiphlogistic treatment, commensurate with the intensity of the symptoms. Leeches applied to the lateral and lower parts of the abdomen, anus, and sacral region, general depletion, aided by emollient fomentations and cataplasms, generally succeed. The bowels ought to be kept open by gentle laxatives. Here, as in orchitis, frictions with mercurial ointment, made upon the abdomen, may promote the resolution.

When the acute stage is passed, revulsives, such as blisters to the inner surface of the thighs, frictions with ung. antim. et pot tart. in the iliac region, will be found very advantageous. I have not found it necessary to employ mercurials internally.

But sometimes acute blennorrhœa in women, whether complicated or not, resists the most judicious soothing treatment, and is aggravated by the use of mercurials. In some of these cases, in which the red and turgid mucous membranes afford a copious purulent discharge, attended with acute pain, which neither rest, depletion, emollients, nor narcotics can assuage, I have obtained astonishing results from the use of nitrate of silver.

A superficial cauterization with solid nitrate of silver, or a solution of it, applied by means of lint, has favorably modified the inflamed surfaces and produced a solution of the disease. After the

use of the nitrate of silver, a tampon of dry lint must be employed, to prevent the contact of the parietes of the vagina.

As has been seen, when the disease is fully developed, and in the acute stage, we never use the antibleorrhœal medicaments, such as copaiva and cubebs, &c., for if they are not always hurtful, they are at least without effect.

When the acute stage has yielded, while the sedatives are continued, such as diet drinks, regimen, repose, and baths, we must hasten the cure, so as not to allow the chronic state to become established, by employing resolvent applications and injections. The fluid I prefer, is either a solution of crystallized acetate of lead, or sulphate of alum and potass.

As the affection becomes removed from the acute stage, the strength of the solution is to be increased to an ounce to the pound of water. By means of these injections and tampons dipped in the same liquids, sixty out of a hundred patients will generally be cured in the space of from twenty days to two months, including the treatment of the acute period; at least, this is the result of the observations made in my wards.

The chronic stage is, however, far from always yielding in so prompt a manner. When the tissues have undergone no change, we must employ more tonic applications; one which I frequently use, is a decoction of oak bark, with equal parts of the solution of sulphate of alum. In the chronic state, when sensibility exists, and there is a kind of permanent irritation of the tissues, I substitute a decoction of mallows with the alum. Zinc, extract of ratanhia, sublimate, alum, &c., may be successively employed. Injections with alkaline chlorides have only appeared to me suitable to some cases, in which the vaginal discharge was offensive, or where ulcerations existed; when the blennorrhœa is situated in the vagina or vulva, the medicaments mentioned are applied in the same way as the emollients; but when the discharge is situated in the uterine cavities, it frequently escapes their action. In order to reach the cavity of the cervix uteri with resolvent tonic or astringent remedies, a syringe, such as is employed for injecting a hydrocele, should be used; these injections, however, continue only for a moment; if we wish them to be more permanent, the clyso-pompe of Charrière should be used.

Some discharges, which resist all the above applications, seem to be maintained by the contact even of the mucous membranes, and the depth of the parts continually placed in the unfavorable conditions of heat and moisture. It occurred to me, without knowing that Ambrosius Paré had proposed it, to isolate the diseased surfaces, by means of a speculum fenestratum, and thereby allow the continued introduction of the external air, as the parts which are most exposed to it heal the quickest. But as I found some difficulty in applying it, I was obliged to relinquish its use. Latterly, the following process has succeeded well with me; I fill the vagina, without much distending it, with dry lint, renewed two or three times a day, according to the quantity of the discharge, which in the cases which terminated successfully, was white and milky, and proceeded from the vagina alone. But when the chronic stage or the blenorrhœa is accompanied by a change of tissue, it is that which we have to contend with, in order to procure a cessation of the discharge. If any vegetations exist, they must be treated as we shall presently describe. Ulcerations and papular granulations must be cauterized either with nitrate of silver, which is to be preferred, or with nitrate of mercury, by means of a bit of lint; the parts to which it is to be applied having previously been cleaned with a piece of dry lint. Should the mucous secretions, as those on the cervix, be too adherent, they must first be coagulated with the liquid caustic, so that they may be removed with the pincette. The energy with which the caustic is to be applied, must be in proportion to the affection. Its efficacy is particularly evident during the granulating period, and when the ulcerations present the appearance of a blister. When the tissues have been destroyed to a certain depth by the ulceration, caution is required in the use of the caustics. Under these circumstances, I have succeeded by sprinkling calomel on the diseased parts, and then applying dry lint. After each cauterization, a tampon must be applied, moistened according to the case with one of the before mentioned liquids.

Like other portions of the mucous membrane of the sexual organs, the internal surface of the womb in chronic discharges is frequently the seat of ulcerations, which the means hitherto pointed out cannot cure. We must here, as in the ulcerations of other parts, modify

The surfaces in a more powerful manner ; but the greatest precautions are necessary in cauterizing the interior of so delicate an organ, the reaction of which would be so powerful ; for whilst the most powerful caustics applied to the orifice of the cervix generally produce no pain, fluids scarce possessing any caustic properties, being introduced into the cavity of the uterus, may cause the most serious consequences.

Wearied with the protracted continuance of certain uterine discharges, I made some attempts to cure them. I first used an injection of one part nitrate of mercury, and eight of water. Some patients had very violent hysterical attacks ; one of them had a cerebral congestion, which caused a momentary apprehension of apoplexy. These symptoms, which all arose a few minutes after the injections, yielded very rapidly to antispasmodics, and in the case with cerebral congestion, when a quantity of blood was taken from the arm. Although the affections submitted to this treatment were either cured or partially so, I was obliged to reduce the doses to avoid the serious consequences. Thus, I subsequently obtained some cures with one part of nitrate of mercury, to twelve of water, without producing the symptoms I before mentioned ; but yet the action of these injections was not always unattended with pain, or some nervous reaction of an hysterical character. To avoid the inconveniences of the acid nitrate of mercury, I then substituted six grains of nitrate of silver to the ounce of water, and found that in some instances a chronic purulent uterine discharge was cured after two or three injections, made at eight days of interval, and others after the second only. I may here remark, that nitrate of silver, applied to the cervix and cavity of the uterus, frequently acts as an emmenagogue. We may from the foregoing conclude, that uterine injections of a solution of nitrate of silver ought to form a powerful means of treatment in uterine catarrh, and particularly in uterine blennorrhœa.

The antiblennorrhœal treatment by internal medication is far from possessing an absolute efficacy in utero-genital blennorrhœa, as it seems in women to act only on some isolated varieties. In like manner, the ergot of rye appears to me, in the few cases in which it has been of service, only to influence uterine blennorrhœa, and to be inert in cases where the vagina and vulva were affected. Co-

paiva and cubebs appear to have no decided action on the vagina or uterus, whilst a urethral blennorrhœa is in women, as in men, powerfully influenced by them, so that what we shall say with regard to urethral blennorrhœa in men, will be equally applicable here. Sometimes, however, a local treatment is required by alterations of tissue; thus it is not rare to find vegetations originating in the interior of the urethra, constituting what were formerly termed caruncles or carnosities; these maintain discharges, which cease when they are destroyed by incision or cauterization.

Some time since, I was called on by Dr. Sorbier to operate on one which protruded from the meatus urinarius, and occupied the whole extent of the urethra, arising from near the neck of the bladder. In many cases, chronic urethral discharges, which are more frequent and obstinate than is generally supposed, only yielded to injections made in the same manner and with the same fluids as we shall point out, when we come to treat of blennorrhœa in men. Under some circumstances, even cauterizations with nitrate of silver, and made with the *porte caustique* of Lallemande, have terminated discharges, which were probably kept up by erosions, whose presence was betrayed by great sensibility during catheterism.

After the cure of vaginal and uterine blennorrhœa, I advise injections of cold water to be continued for some time, once or twice a day, taking care to discontinue them four or five days before the period when the menses are expected, and again employing them four or five days after their cessation.

As the local treatment of blennorrhœa in females is of the greatest importance, it may not be amiss to give some details as to its mode of application.

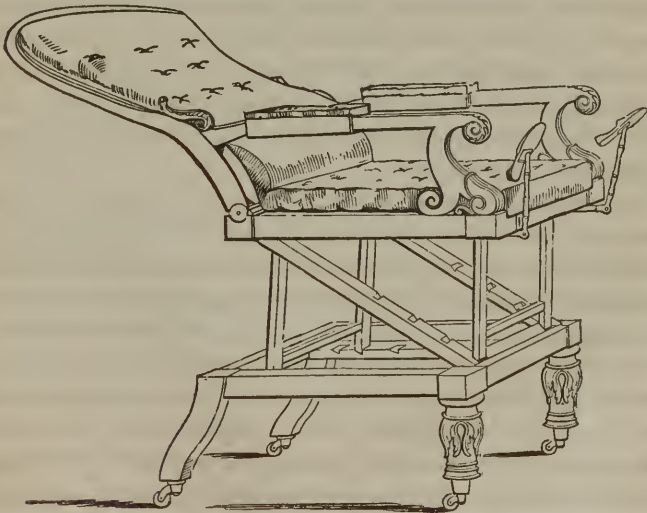
I. Fomentations and injections ought to be tepid, when composed of emollient liquids; but cold when resolutive, tonics, astringents, &c., are applied.

II. The injections may be made with the common female syringe, with a long curved canula, terminating in an olive-shaped end, pierced with holes. The portion of the canula extending to the curve should be of sufficient length to extend into the vagina, and not wound the neck of the uterus; but the patients should be instructed not to introduce the instrument more than an inch or two beyond the

annulus vulvæ; where acute inflammation exists, a gum elastic canula is better. In children, or where the hymen exists, a straight canula, with a conic end, must be employed. The position of the patients should be attended to; many females place themselves in a bidet to use the injections, when the liquid escapes without reaching the diseased parts, and often the higher parts of the vagina. I have ascertained this by placing a tampon of dry lint on the neck of the uterus itself and of the speculum, and then injecting it with colored liquids; each time the lint was withdrawn unstained. The patients should place themselves in a recumbent posture, with the pelvis elevated so as to allow the fluid to reach the more remote parts of the vagina; this position being continued after the injection, causes it to act as a local bath.

Vaginal cataplasms can only be applied where the annulus vulvæ is of sufficient dimensions.

It has been proposed lately to foment or bathe the neck of the uterus by a bottle having the shape of a horn, the neck of which can be introduced into the vagina, and can discharge the fluids contained in the bottle to the neck of the uterus and into the peri-uterine cul-de-sac. As the vulva fits exactly the neck of the instrument, the liquid cannot escape externally, and from the



SPECULUM CHAIR.

influence of the difference in the temperature of the portion contained in the genital organs and that found in the bottle, which has also an opening by which the pressure of the atmosphere acts on it, that a current is established of the fluids, which touch the neck and adjacent tissues. Cloquet has in some cases used Hall's double sound with great success.

To administer uterine injections, the patient must be so placed as to allow of the introduction of the speculum, and to expose the neck of the uterus, for which purpose Acton's chair will be found useful. The fluid, whether emollient, astringent, or simply tonic, can be injected by means of a simple syringe, furnished with an elastic rubber tube, the free end of which is to be introduced a few lines into the orifice of the cervix uteri; this portion of the tube must be covered with some fatty substance, and its dimensions must not be such as entirely to fill the orifice, but permit the reflux of the injected fluid.

As the caustic injections ought to be allowed to remain but a short time, I have had a syringe constructed by Charrière, composed of two pumps, with separate pistons, terminating in a double canula; one contains the caustic fluid, the other water, so that either can be injected at pleasure, without removing the instrument. I first inject the caustic fluid, which I allow to remain a minute or two, after which the water is forced in so as to wash the surfaces.

Urethral injections are made with the same syringe as in men. To prevent the fluid entering the bladder, the posterior part of the urethra must be compressed against the pubis, with the finger introduced into the vagina.

Tampons are applied either by the patient or surgeon; to introduce them, an injection must first be used, of the same fluid as is used to moisten the tampon, made of lint, and sufficiently large to fill without distending the vagina, which must next be introduced into the genital organs. Women, in applying it themselves, attach a piece of tape to the tampon, long enough to withdraw it from the genitals, and use a finger to push the lint as far as possible, so as to reach the cervix; but if much of the fluid has been pressed out, a fresh injection must be made. Although it is generally necessary to allow the patients to apply the dressings themselves, those applied by a surgeon are far more efficacious. When the surgeon

places the tampon himself, he ought to use the speculum, by which means he can carry it with certainty to the cervix, and distribute it to all parts of the vagina, keeping it there with forceps till he withdraws the instrument.

It may be proper to remark, in concluding these observations, that sometimes when a solution of acetate of lead has been employed, its color becomes changed, and in some women the tampon, after remaining twelve or fourteen hours, becomes quite black; this seems to be owing to the formation of a sulphuret of lead; for this has been most frequently observed in women affected with a fetid discharge, or who have the annulus vulvæ greatly dilated, and thereby allowing the easy introduction of the mephitic air, when the bowels are relieved.

To apply the solid nitrate of silver, I use a holder, with three blades, having a slightly curved tooth at their extremity, and moving in a straight canula, like the instruments employed in lithotomy. By means of this instrument the caustic is held firmly and very easily applied.

Second Species : Blenorrhœa in Men.

Varieties . { of the glans, balanitis, } pseudo blenorrhœa, }
 { ——— prepuce, posthitis, } alone or combined.
 { ——— urethra, blenorrhœal urethritis, }

External Blenorrhœa.—Balanitis and posthitis. .

WHEN the external blenorrhœa is slight, it frequently yields to rest, soothing diet, and cleanliness. The cessation in these cases is the more easy if the prepuce is still moveable on the glans; but when the disease has become a little developed, the aid of art is required. When the glans can be uncovered, and the inflammation is not excessive, the method which I have found to succeed best, is passing the pencil of nitrate of silver gently over the diseased surfaces, so as to cauterize them superficially, after which it will suffice to place a bit of dry linen around the glans, drawing the

prepuce again over it. After this little operation, slightly resolutive fomentations should be applied to the penis, consisting of compresses, either dipped in cold water or diluted liq. plumbi. The linen should be removed twice a day, applying each time a little lead water.

The disease frequently yields to a single cauterization with nitrate of silver; but under some circumstances it has to be repeated two or three times, at intervals of two or three days.

Should the inflammation be very acute, or complications exist, especially a natural or acquired phimosis, active antiphlogistic treatment will often be required; thus leeches must be applied in the genito-crural plica, at each side. Emollient local baths of decoctum malvæ, linseed, tepid milk, the slightly narcotic decoction of dulcamara or poppy heads, repeated injections of the above fluids between the glans and the prepuce are indispensable. When there is much œdema and but little inflammation, one or two slight incisions on the lower part of the prepuce produce a salutary disengagement. When an erysipelatos state exists, the incisions seem to hasten the termination in gangrene, whilst depletion, as directed above, strict diet, absolute rest, are of the greatest service; gentle laxatives are also frequently very useful. When gangrene was threatened or already existed, I have derived much benefit from fomentations with a solution of extract of opium, and injections of the same fluid between the glans and prepuce. The internal administration of opium has also afforded great relief in doses of a grain, two or three times in the four and twenty hours, but more particularly when given in an enema with eight grains of camphor. Mercurial ointment applied between the glans and prepuce, which some have so highly praised, has appeared to me hurtful at some period of the disease in which it was employed; but I have sometimes found it of service, when, according to my method of treating erysipelas, I have applied it to the prepuce when this complication existed. I ought, however, to observe, that I have found mercurial ointment less advantageous in œdematous erysipelas of the sexual organs, than in the other varieties of this affection.

But under the circumstances we have just mentioned, and while uncertain whether the catarrhal inflammation of the glans and prepuce is or is not attended with syphilis, in imitation of the course

pursued by my friend Cullerier, I am never in haste to operate for phimosis, unless there be imminent danger of gangrene, or that it already exists; being convinced by numerous facts that the operation frequently adds to the gravity of the disease, as we shall have occasion to point out when we treat of the different kinds of phimosis.

Frequently we find an external blennorrhœa maintained in the chronic state by a want of cleanliness, an herpetic affection, alterations of tissue, such as ulcerations, of which we have already been treating; by the presence of vegetations, and especially by the existence of a permanent phimosis, either congenital or accidental.

Generally, as the phimosis is one of the most powerful agents in maintaining the discharge, we can seldom hope to cure it until the phimosis be removed. Sometimes, however, a cure may be obtained whilst it still exists, by using resolute and astringent injections between the glans and prepuce, and fomentations of the same fluids along the whole of the penis. But here also an application of nitrate of silver, either in substance or solution, offers the most favorable chances of success.

So efficacious have I found the nitrate of silver, that the first thing I do in treating a case of acute balanitis with an inflammatory phimosis, is to cauterize superficially by introducing a stick of this caustic, and carrying it rapidly round between the glans and prepuce. So rapid are its resolute effects, that a single cauterization frequently suffices, and in four-and-twenty hours enables us to uncover the glass.

In the treatment of balanitis, neither mercurials, copaiva, cubebs, nor other anti-blennorrhœal medicaments are required.

Urethral Blennorrhœa.—Blennorrhœal Urethritis.

We are often consulted by patients who are disturbed after having exposed themselves to infection by a suspicious intercourse. Sometimes no symptoms yet exist; in other cases the premonitory symptoms have appeared; slight itching in the urethra, especially in passing water; a sense of weight in the penis and scrotum; and sometimes a want to pass the water frequently, which is soon fol-

lowed by a little redness of the meatus urinarius, and an increased secretion of mucus, but not yet altered.

These slight symptoms, which a little fatigue and excitement may produce, do not announce the presence of a blenorrhœa, for they frequently disappear again; but at least it ought to induce a patient to be on his guard.

Where there is an uncertainty as to the future symptoms, an energetic abortive treatment would certainly not be indicated; but it ought to be remembered, that many blenorrhœas, after the ordinary cause which produces them, are only definitely produced by errors in diet, and excitement of every kind, to which the patients sometimes continue to subject themselves.

As soon as a person has just fears, he should be advised to submit to a judicious diet; rest, particularly of the parts affected; a mild diet, especially avoiding fermented liquors, which, like beer and cider, tend to produce the disease, as is proved by the observations of Lombard and others which are made daily. In this kind of prophylaxy, we must beware of advising warm baths, as they often suffice to favor the development of the discharge.

If, however, the blenorrhœa manifests itself with its pathognomonic sign, that is, the muco-purulent discharge proceeding from the interior of the urethra, whether there be pain or not, it ought to be arrested as soon as possible after its origin, without any prejudice or false doctrine intervening to prevent the treatment.

The symptoms which may follow a blenorrhœa, are in direct proportion to its duration, and the development it is allowed to attain, or to which it is urged by bad treatment.

When a discharge appears, it has been preceded or accompanied by pain, or is indolent. In the two former cases, it is always more difficult to prevent the development of the disease than in the latter. The method which I have found to succeed best, is as follows: when the discharge is at its commencement, from the first to the third or fourth day, and pain, without other signs of a very acute inflammation, be present, twenty, thirty, or forty leeches ought to be applied to the perinæum, according to the strength of the patient; and we will remark here, once for all, that whatever advantage may be derived from applying leeches to the spongy parts of the canal, we should never advise them, since they are quite as

useful applied to the perinæum, where they never cause œdema and erysipelas, which have occurred after they have been applied to the penis, as in all parts where the skin is lined with a very loose cellular tissue.

But at the same time, as leeches are applied as a prophylactic against inflammation, or at least to prevent the increase of it, if it already exist, the discharge may be suppressed by the internal use of copaiva, cubebs, or their analogous substances. It is to be observed here, that the doses of these medicines must be larger than those required gradually to suppress a discharge, as the end sought to be attained requires a perturbatory effect, a sudden revulsion. The strictest repose ought to be observed, with a rigorous diet, unstimulating broths, cooked fruits, and small quantities of diluent fluids.

By pursuing this treatment, we have not unfrequently found discharges, taken at the proper time, stop in three or four days. If this has not always cut short the blenorrhœa, in the majority of cases the very acute symptoms have not been developed, and by pursuing the same treatment a short time longer, the disease was terminated by the fifteenth or twentieth day.

I have generally found that when pain exists from the commencement of the disease, injections have not been so serviceable as in the contrary cases. Indeed, they have sometimes seemed to me to have been the cause of the failure of the abortive treatment, although in some cases injections alone, either of a resolutive, tonic, astringent, or caustic nature, have checked certain discharges at their commencement.

Should the discharge commence without pain, or any sign of inflammation, abstraction of blood is unnecessary, and the action of copaiva, or its substitutes, is in most cases sufficient. Under these circumstances, the common empirical method (by drastic purgatives) is very successful. One of the preparations frequently employed is the vinous tincture of colocynth, but which will be rejected by every judicious practitioner: in this case, great benefit may be derived from the employment of astringent injections alone, when there is little discharge, but when more copious, associated with internal medication. A means for cutting short the development of a blenorrhœa, consists, according to the proposition of Carmichael, in injections of nitrate of silver into the urethra. These

injections, which are to be repeated twice a day, are composed of ten grains of solid nitrate of silver to the ounce of distilled water. I have employed and prefer the following method; I introduce into the urethra Lallemand's caustic holder, and then, exposing the caustic, I withdraw it, at the same time giving it a rotatory motion, so as superficially to cauterize the whole of the mucous membrane of the urethra. If, after the first cauterization, too much inflammation should supervene, recourse must be had to antiphlogistics, otherwise a similar cauterization should be made, three or four days after the first.

The use of the nitrate of silver deserves great attention, and its employment ought to be more experimented on than hitherto has been done, to ascertain the best mode of its application, and the precise circumstances under which it ought to succeed. The recent researches I have made allow me to recommend, as at present most preferable, injections of weak solution of nitrate of silver, commencing with a quarter of a grain to the ounce of water. If after a day or two there be no increase of pain, nor diminution of the discharge, the strength may be increased by a quarter of a grain, till one of these two effects occur.

I have also procured the cessation of discharges which were at their commencement, by superficially cauterizing the canal, and then introducing a bit of dry lint into the urethra, by a manipulation which we shall presently have occasion to notice.

Unfortunately, we cannot always succeed in the abortive treatment, either from the failure of the medicaments, although judiciously employed, or from the patients not regularly submitting themselves to it, or lastly, from continuing their excesses in diet or sexual intercourse, or any other bodily fatigue, which, it may be observed, may, in a few rare cases, have been of service, but they cannot be quoted as examples to be imitated.

More frequently we are only consulted by the patients at a more advanced period of the disease, when a different treatment is required.

In the acute stage, some otherwise celebrated practitioners have advised recourse to be had in the first instance to the anti-blennorrhœal medicaments, at the head of which always stands copaiva. This may sometimes succeed, but I think that all who have had the

opportunity of seeing a great number of cases, and of accurately observing them, will confess that it generally only oppresses the digestive organs, causing them to revolt against a medicament which at a later period may become necessary; sometimes we moreover find the inflammation increase under the untimely use of anti-blennorrhœal remedies. The most rational treatment is here that of the symptoms. To the general treatment mentioned above, must be added local depletion in as great a degree as possible; local baths of decoction of mallows and poppy-heads to be used after each emission of urine, for eight or ten minutes at a time; should the pain be very acute, a little laudanum may be added, or a decoction of belladonna may be substituted. As the emission of urine is one of the principal exciting causes of pain, either by distending the urethra by the volume of the jet, or by its irritating properties, we must, especially in men, seek to modify it. The more aqueous it be rendered, the less hurtful it will be; and the more frequently the water be passed, the smaller will be the jet, as it depends on the degree of contraction of the bladder, which also depends on the distention of this organ. We see, that of two evils we must here avoid the worst; for were it possible entirely, and without danger, to suppress the urine, it would be far preferable.

The erections require peculiar attention, whether they are lascivious or simply automatic, accompanied with pain or free from it; the patient must be removed from everything which can excite voluptuous ideas. Rest, general and local antiphlogistic treatment, to which the patient is subjected, often act in a powerful manner in repressing this symptom, but generally it nevertheless continues or increases. The patient should be recommended to avoid covering himself too much in bed when the erections occur, and also to apply cold lotions to the penis. Placing the naked feet on the cold floor is frequently very efficacious. But the most powerful remedy is the use of camphor, combined with opium, either in pills or an enema. I have found but few patients who have not experienced benefit from this treatment, and that is asked for daily in the hospitals by those who have experienced its benefits.

Whatever may be the degree of intensity of the blennorrhœa, the treatment just pointed out will, when it is uncomplicated, suffice to combat the disease, during the acute period of which not only

the actual anti-syphilitics, either mercurials or sudorifics, but the anti-blennorrhœal medicaments, as copaiva, cubebes, turpentine, and injections, ought to be excluded. As long as there is much inflammation, injections ought not to be used; even emollient and narcotic fluids produce more inconvenience by their mechanical action upon the urethra, than good by their soothing properties. To the foregoing but very few exceptions will be found.

During the continuance of a blennorrhœa, the patient must never be allowed to expose himself to the least fatigue without wearing a suspensory bandage, which ought to fit exactly, so as not to produce any uneasiness in the organs which it is designed to sustain.

Although mostly urethral blennorrhœa exists without complications, and may be cured by the means we have just pointed out, cases sometimes unhappily occur which require a peculiar treatment.

Sometimes a hemorrhage occurs in consequence of the urethra being ruptured during an erection. This hemorrhage, which in some cases proves salutary, as a means of local depletion, may have been caused by the patients, who, with the intention of removing the painful retraction of the urethra in the *erection cordée*, break, as they term it, the cord, by placing the penis on a resisting flat surface, a table for instance, and then strike it pretty sharply. The hemorrhage is seldom great, and stops of itself, without generally requiring any application. More absolute rest must be insisted on than ever, and emollients and camphor to prevent the return of the erections will suffice. In some few more severe cases, in which the rupture has been either deeper or attained a larger vessel, recourse must be had to cold applications to the penis, the internal surface of the thighs, the perinæum and hypogastrium. Vinegar and water, or especially ice, generally succeed; acidulated drinks, lemonade, &c., are equally suitable. The quantities of fluid taken should however not be too great, so as to require a frequent emission of urine, which, by distending the canal, tends to recall the hemorrhage by opening the lips of the wound. The pelvis should be raised, and the patient not kept too warm in bed. Should the hemorrhage nevertheless continue in a sufficient degree to become alarming, a slight compression might be applied. By compressing different parts of the canal, beginning at the posterior

part, we might render the diagnosis more certain. In one case, in which the hemorrhage seemed to proceed from the membranous portion of the urethra, it was stopped by placing a rolled napkin between the thighs, and compressing the perinæum. A circular and slight compression might be applied to the penis for the pars spongiosa ; it often suffices to stop the flow of blood, but frequently the hemorrhage returns the first time the urine is passed. Then, however objectionable it is to place a foreign substance in the inflamed urethra, we must introduce a bougie, which, by compressing the vessels, stops the effusion of blood ; sometimes additional circular external compression is required, but great caution must be used in its application. Generally this bougie may be removed after twenty-four hours, but when the hemorrhage has been great, and the instrument does not excite much pain, it is advisable to leave it a day or two longer. In all cases, if the bougie has been removed too soon, and the hemorrhage reappears, it must be reapplied, if it be not merely a slight sanguinolent discharge.

A symptom of gonorrhœal urethritis, which requires peculiar attention, is the dysuria in its different degrees to complete retention. As soon as difficulty in the emission of urine appears, antiphlogistics must be particularly insisted on, leeches in large numbers on the perinæum, blood from the arm, baths, frictions with extract of belladonna on the perinæum, and the same extract introduced into the rectum.

As long as the patient passes his urine, we must content ourselves with the means just pointed out, and beware of having recourse to other diuretic drinks than those mentioned above, as the obstruction is not in the kidneys, but in the urethra, and depends on the swelling of its tissues.

When, however, the retention is great, or even complete, catheterism must be employed ; but it should always be preceded by depletion, in order to facilitate it. A curved elastic gum catheter is to be preferred. It has generally been found that a middling-sized catheter (No. 8 or 10 for instance) was more easy to introduce than a very small one. The instrument, lubricated with an ointment containing extract of belladonna, should be introduced very slowly ; it must in some measure make its way by compressing the engorgement. Without discussing catheterism here, a question

arises, after the introduction of the catheter and the evacuation of the urine, should the catheter be allowed to remain or be removed? The fear of increasing the existing inflammation by the presence of a foreign body in the urethra has caused some to direct that the catheter should be withdrawn as soon as the bladder is emptied, and passed again when it becomes necessary. But this practice, which may succeed, is not without objections. Frequently after having once passed the catheter with facility, the inflammatory stricture which required this operation remaining or even increasing, perhaps from passing the catheter, renders the passing it a second or third time much more difficult, or even impossible; so that I prefer, whenever any difficulty is found on passing the instrument the first time, to leave it in the urethra, and recur with still more energy to the means calculated to combat the inflammation, and only remove it when it is no longer confined or retained at the point at which the stricture is situated.

A complication of blennorrhœal urethritis of not frequent occurrence, but nevertheless deserving particular attention, is the presence of phlegmonous engorgements, either simple or owing to an infiltration of urine, which may occur in various parts of the urethra, near the frenum, fossa navicularis, the pars spongiosa, or posterior parts. These engorgements, at times of considerable extent, are not generally so, and have the form of knots encompassing the canal. They sometimes occur singly, sometimes several together, and are frequently very painful. Those which depend only on an extension of the inflammation of the mucous membrane of the urethra, are more limited, their progress less rapid, and their termination in resolution or induration more common. Those, on the other hand, resulting from infiltration of urine through a rupture of the urethra, follow the course of urinary abscesses, into the history of which we need not enter. These engorgements, which sometimes, as we have said before, are owing to the presence of indurated chancres, then depend on the specific cause of syphilis, and are to be referred to concealed chancres, most frequently in the fossa navicularis, thus explaining the assertion of Wedekind, that the existence of tubercles near the frenum was a pathognomonic sign of a virulent blennorrhœa.

But as regards the treatment of blennorrhœa, complicated with

the above named symptoms, as soon as the engorgement is perceived about the urethra, the antiphlogistic treatment ought to be still more rigorously enforced. The tumors resulting from the engorgement must be carefully examined every day, and opened as soon as fluctuation is perceived.

Sometimes the skin is attached to the point§ where the subcutaneous cellular tissue is also inflamed; but it is also frequently moveable, even when pus is already present. After the opening has been made, a small bit of lint should be placed in the wound, not only to prevent it from closing too soon, but also to keep the opening in the skin parallel with that made in the cavity beneath. Of course, this cannot apply to cases in which a communication exists with the urethra, in which case it will suffice to keep the lips of the wound in the skin apart without inserting the lint deeper. The presence of engorgements and urinary abscesses may produce a retention of urine, and then catheterism may cause the purulent cavity to be opened into the interior of the urethra.

I have never seen any serious consequences occur from opening urethral abscesses early, although in some cases, either at the time of opening or soon after, a certain quantity of urine has escaped, but it soon resumed its course by the proper passage. In some patients, where these abscesses have been mistaken, or treated with a hope of obtaining their resolution, I have seen very serious consequences, such as the rapid propagation of the inflammation, the formation of extensive abscesses, and destruction of a greater or less portion of the urethra. So long as no pus exists, we ought to endeavor to procure the resolution of engorgements in the acute stage, by the means already stated, to which should be added, emollient local applications, and fomentations in preference to cataplasms, which in some cases cause an œdematous swelling. When the acute stage is passed, we must have recourse to the means generally known as resolvents. Sometimes, during the acute period of an urethral blennorrhœa, an œdematous state of the skin of the penis manifests itself, which may produce a phimosis, or in case of a displacement of the prepuce, a paraphimosis.

Not unfrequently a kind of cord is observed running the whole length of the penis, generally on the dorsal surface. It is owing to an engorgement of the lymphatics, and very rarely extends beyond

the posterior part of the penis ; but sometimes can be traced to the inguino-crural region, where it terminates in swollen ganglions.

These complications of gonorrhœa also require antiphlogistic treatment ; leeches are particularly serviceable, and should be applied on the penis and in the groin.

During the acute period, or when it has seemed to yield, the neck of the bladder often becomes irritated or even inflamed, and the patients are tormented by the frequency of the emission of urine (tenesmus of the bladder), accompanied by some few drops of blood ; the urine is frequently thick and purulent. The treatment I pursue, and which I seldom find fail, consists in adding to the local and general treatment, frictions with laudanum and emollient cataplasms to the perinæum and abdomen. But a method, the effect of which is immediate, consists in administering a cold enema with a little laudanum, and which ought to be retained in the bowels. The food and drink should also be cold and in small quantities.

In cases of prostatitis, emissions of blood with half a drachm of mercurial ointment applied to the perinæum with emollient cataplasms, produce most beneficial results ; but the ointment should be renewed twice a day, and with a double quantity of mercury.

The other complications which may exist, constituting separate diseases, must be treated according to their nature, always having regard to the most urgent symptoms, either of blenorhœa or the disease with which it may be complicated.

To sum up the foregoing, we may say, that the most powerful treatment in the acute stage of blenorhœa and its complications, consists, excepting a few particular indications, in the judicious employment of antiphlogistics. If patients would carry out this mode of treatment to its full extent, with sufficient patience, the cure would be, if not the most rapid, yet the most certain. This opinion should be duly considered.

When the acute form has ceded to the chronic, it would not be proper to persevere in the use of antiphlogistics, or reckon upon the powers of nature, aided alone by diet ; we should thereby risk not only exposing the patient to a perpetual discharge, but also, from the duration of the inflammation, to alterations of the tissue.

Whenever, therefore, the acute stage has ceased, although the

erections may still be pretty frequent and painful, the glans still red, especially at the meatus, the penis, as sometimes occurs, in a state of semi-erection, with a feeling of weight, I employ the medicaments more particularly termed antibleorrhœal, which, however, if they produce the least degree of relapse, ought to be discontinued, and antiphlogistics again employed. When the patients first present themselves to us in the chronic stage, we do not think it proper, as some have asserted, always to commence the treatment with antiphlogistics, which here, as in a host of chronic affections, far from curing, only serve to perpetuate the evil.

In the treatment of urethral blennorrhœa after the acute period, the quantity of fluid taken into the stomach ought to be limited, and the use of warm baths for the whole body relinquished, as in many subjects they maintain the discharge, or even recall it. The local baths should be nearly cold when near the acute stage, and afterwards quite cold. They should not be used long at a time, and seldom employed except as a means of cleanliness, unless required as tonics or astringents. In some cases of blennorrhœa, with but slight discharge, depending on some error of secretion without alteration of tissue, partial baths of a solution of sugar of lead, or slightly acidulated lotion, repeated three or four times a day, will be found of great service, as also sea or river bathing, should the season permit.

The patient's diet may be a little more substantial, and gradually increased to a tonic regimen, when the disease only consists in a slight mucous discharge. The use of good wine and generous diet suffice in some cases to put an end to discharges, which have resisted other treatment. The patients should continue the use of the suspensory, and carefully avoid every kind of fatigue, more particularly when near the acute stage, nor commit any error of regimen, as the least fault of this kind may produce a renewal of the acute symptoms at the moment when the cure seemed complete. Acidulated drinks are here of great service. Natural or artificial chalybeate waters, the sirups of symphitum, quinces, ratanhia, and tolu, ought more particularly to be employed when the acute stage has long ceased. The bowels should be kept open, by means of laxatives, but should not be too free.

After the means we have just pointed out, there are other more

powerful medicaments, which are employed to remove the morbid discharge. They may be divided into internal or external revulsives, and direct or local medicaments. The internal revulsives consist, as we have already had occasion to remark, in simple purgatives, having no particular action on the urinary organs, and in medicaments, which act not only on the digestive organs, but also on those which secrete the urine. We shall add nothing to our previous remarks on purgatives, but will speak of copaiva, cubeb, and turpentine.

Copaiva. I shall here relate the observations I have made, as regards its use, and which confirm those of some of the most distinguished authorities. It is very evident that copaiva has a primary action on the digestive canal. In some individuals, its action on the stomach is more decided, in which case it produces vomiting; but this observation requires a little consideration, as it is of great importance in practice; the vomiting does not always take place in the same manner; in many persons it is only owing to disgust, a purely nervous effect, a want of tolerance, which manifests itself from the beginning; in others, on the contrary, after having been borne for a time, it causes an irritation, and the vomiting occurs from a more or less intense gastritis.

These different modes of action of copaiva ought to be taken into consideration, for us to suspend its use, and resume it after allowing the organs to repose, and, if requisite, to treat the morbid state which it has produced, and which sometimes compels us entirely to relinquish it.

It is to be observed, that the action of copaiva on the stomach has generally no influence on the progress of a blennorrhœa, and consequently it is useless or even hurtful to continue it, if the vomiting prevents it from traversing the digestive canal; but when it does arrive in the intestines, it may remain inactive, or cause frequent stools, and even diarrhœa. These two modes of action have not the same result in every individual, and all who have treated many cases of blennorrhœa must have found, that in some individuals it causes the disease to disappear when it purges, and in others is only efficient when it does not produce this effect. These two kinds of revulsion present yet other differences. *Ceteris paribus*, when copaiva does not purge, independent of the peculiar action

which it may have upon the bowels, it is quite evident that a certain quantity passes through the kidneys. The urine voided by the patients contains a portion of it, as is to be found by the powerful smell. It seems to me to be worthy of note, that urethral blenorhœa alone is greatly influenced by copaiva, whilst it is of little efficacy where the vagina and uterus are affected. In the case in which we are now examining the use of copaiva, that is, as proper to stop an urethral discharge, it has seemed to me that it was the more useful to arrest the disease at its commencement, the more its purgative action was developed; the contrary was the case in the curative treatment of blenorhœa in the chronic form.

Copaiva, like all other medicines, does not produce the same effects, by the like doses in all individuals. In this respect there are a host of varieties, depending on the idiosyncrasies of the patients, or the peculiar state of the intestinal canal; so that it is impossible to determine *à priori* what dose will be required to produce or not a purgative effect; although, according to the laws of therapeutics, purging will be in a direct ratio with the strength of the doses, and the irritability of the intestines. Under some circumstances, certain additions must be made to the copaiva, to determine its action in the manner desired. In the administration of this medicament, I think sufficient attention has not been paid to the practical observations, which have given rise to a host of valuable formulæ, and it seems that caprice rather than a well-directed choice directs the employment of one or other of the preparations. If it be wished to obtain the purgative action of copaiva, it must be administered in sufficient doses, or even aided by laxatives or purgatives. If, on the other hand, it be desired to avoid this effect, it is then important to graduate the doses, and add opium, or actual astringents. If the action is wished to be more especially directed to the kidneys, a combination with diuretics must be employed.

Besides our remarks above, on the action of copaiva, we sometimes see other effects produced after its use; the excessive vomiting and hypercatharsis may indeed be considered as such; the patients in these cases have a feeling resembling sea-sickness. At other times, copaiva produces cholic, and during the epidemic at Paris, we found it occasionally the exciting cause of cholera. When given in large doses, copaiva has produced very serious effects on

the nervous system ; in my clinical lectures, I showed a woman, in whom its improper administration had produced chorea with *semi-paraplegia*. I was requested to see a young woman, in whom six drachms of copaiva, administered in an enema, had an hour afterwards produced a severe cerebral congestion, with temporary hemiplegia. Amongst the effects peculiar to this medicament, may be ranked a cutaneous eruption of greater or less extent, and a form generally resembling roseola, although it may assume that of urticaria, or simple erythema, and this, according to the individual and idiosyncrasies. In a practical point of view it is worthy of remark, that these symptoms which are produced by copaiva, are almost always owing to a bad state of the intestinal canal, and that roseola shows itself most frequently when a saburral state exists. It is also generally during cold and wet weather, in spring and autumn, that these eruptions become epidemic, in all persons treated with copaiva. The cutaneous affection is always injurious, and never lessens the discharge ; but indeed, it may be said, that on the other hand, it aggravates it so much that its use must be suspended.

Copaiva may be administered either by the mouth or rectum ; but notwithstanding the eulogiums which have of late been passed upon its administration in the form of enema, I can positively assert that its action is as uncertain, as it is efficacious when conveyed into the stomach. Copaiva balsam is frequently administered in substance, in doses of from ten to sixty drops ; Ansiaux and Ribes have, after the example of Bell and Swédiaur, extended the dose to two ounces per diem. Without adopting this practice generally, we will not join with M. Jourdan in his condemnation of it, as without playing with the lives of our patients, there are circumstances under which, after having proved the susceptibility of the individuals, the good effect can only be obtained from this medicament by giving it in the above large doses, continued for several days, if nothing occurs to forbid it. The most common dose is, however, from a drachm to an ounce, two or three times a day.

Copaiva is the more efficacious when it is administered in a liquid form ; and unless there be some particular indication requiring a corrective or adjuvant, it should be given uncombined. Yet, besides the cases which require other substances to be associated with it,

in some subjects it produces so much disgust and nausea when given in a liquid form, that we are obliged to render it solid, and give it in the form of pills. Latterly it has been enclosed in divers envelopes or capsules, which have facilitated its administration without disgust, but which does not so effectually prevent the nausea as has been asserted.

When copaiva is administered by the stomach, care must be taken that it be given at a certain period after the meals, two or three hours at least, as otherwise the digestion is liable to be disturbed. For this reason the patients generally prefer taking it morning or evening. It is by no means uncommon for persons who are taking copaiva for the first time, especially in the alcoholic form, as given at the end of the work, to find the taste very agreeable; but the illusion seldom lasts long, for the first eructations produce repugnance to take the medicine which was formerly pleasing.

Most patients can bear this medicine better if an acid draught, as lemonade, be taken at the same time. When it nevertheless tends to produce vomiting, I have found the effervescing lemonade of service.

When, from the susceptibility of the stomach, uncontrollable vomiting, or repugnance on the part of the patients, copaiva cannot be introduced into the superior part of the digestive canal, it must be given in an enema, which is best administered in the evening, for the patients retain it better when in bed. The rectum should be previously cleared by a simple evacuative enema, a certain time previous to that containing the medicine, otherwise it would not be retained, as the already excited contractions of the rectum would be augmented by its action. The dose of copaiva, *ceteris paribus*, should be larger than if taken by the mouth, and except where a purgative effect is desired, as the medicament ought to be retained, to produce its effect, it should be administered in a small quantity of vehicle, and combined with opium.

In whatever manner this remedy may be applied, it seldom arrests the discharge at once; generally when it has been suppressed it returns, if the medicine be discontinued, and again disappears when it is resumed, so that to obtain a durable effect it

must be continued eight or ten days after the entire cessation of the discharge, gradually diminishing the doses.

Cubeb. This drug, which the Indians praise so much in the treatment of blenorrhœa, and which was then eulogized by the English, is, notwithstanding the opinion of the author of the Pharmacopée Universelle, an excellent means of suppressing gonorrhœal discharges. Sometimes less efficacious than copaiva, it has, however, frequently succeeded in cases where the latter had failed. Not unfrequently it is necessary to use them alternately or combined.

Cubebæ do not act quite in the same manner as copaiva; its powerfully exciting action influences more particularly the digestive organs, irritating the stomach and small intestines, without so much affecting the urinary organs. Although some instances may be mentioned of its successful employment in the acute stage, it is then generally more hurtful than useful. It is given in doses of a scruple to two drachms, either alone or variously combined, from once to four times a day; it may be given by mouth or in the form of an enema. I have, though rarely, seen it produce the same effects upon the skin as copaiva, so that it ought to be preferred for individuals and in seasons in which cutaneous eruptions are to be feared.

Turpentine. I have found the anti-bleorrhœal action of turpentine far inferior to the two former substances, although it has sometimes succeeded.

As external revulsives in the treatment of chronic discharges in men, blisters applied to the internal surfaces of the thighs and hypogastrium have been of service, and this means has appeared to me particularly serviceable when an herpetic complication has existed. Dry frictions and vapor baths have also arrested obstinate urethral discharges.

Injections. Much has been said for and against the employment of this mode of treatment. Their employment is sanctioned by great names, but without going into detail, we will state the reasons for and against their employment. It is evident that in general, in the treatment of any disease, local medications are the most effectual where the diseased organ is attainable, and the more especially is it the case in an affection generally admitted to be

of a purely local nature. On one side the most rapid cure being the most favorable, and injections being the means by which it is to be obtained, they have necessarily been preferred in a host of cases. To which may be added, that they form an easy and cheap application, which may easily be concealed, and have the immense advantage of not disturbing the functions of any other organ or the general health. The principal objection to injections, and that which has caused them to be rejected by those who are averse to them, is the property which has been attributed to them of producing strictures. A modern author, to whom we are indebted for many excellent pathological works, and amongst others on the diseases of the urethra, quotes a case in which a single injection produced a stricture. But upon careful examination it will be found, that most strictures of the urethra only occur in patients who have had a blenorrhœa several times, or one of very long duration, or which remained unarrested. Many patients have never used injections, or have used them at too late a period, when alterations of tissue had already occurred. If strictures have occurred when the injections have been made at a proper time, it is because they have remained ineffectual, and have not prevented the disease from continuing, and producing, merely by its long duration and progress, morbid alterations, which have falsely been attributed to the remedies. And further, it has not been possible in all cases to ascertain the state of the tissues before using the injections. I have found that the judicious use of injections affords the most prompt and favorable results, and that the more rapidly they cure, the less the patient will be exposed to organic changes in the tissue of the urethra, which, as we have before said, are always in proportion to the time of duration of the disease.

The symptoms attributed to the repercussion from this method of treatment are either chimerical or ill explained; at any rate, they are not sufficiently constant to authorize us in considering them as effects necessarily depending on this cause. Most frequently their development is only a coincidence, or to be attributed to the improper use of the remedy. Thus, under some circumstances, irritating injections used at an improper time may have produced a cystitis, orchitis, &c.; in like manner an inflammation of the urethra may occur, or by their acting suddenly in an

astringent manner they may produce induration. But in these cases the surgeon or the remedy is to be blamed.

Moreover, at the time when the researches which appeared the most conclusive against the use of injections were made, this treatment being most frequently used, most of the patients affected with stricture had of course been submitted to it; but if a similar inquiry were instituted at the present day, an equal number of strictures would be found in subjects who have never used injections. This latter examination would be attended with great difficulty, as the individuals who have strictures are generally those who have had obstinate discharges, for the cure of which every kind of medication has been employed before an examination was made, which showed the organic alteration.

When it is required to suppress a discharge in its commencement, I prefer the alterative perturbatory injections of nitrate of silver. After the acute period, I advise resolute injections of liq. plumb. to be employed; then, if after these have been used six or eight days, no result be produced, the nitrate of silver must again be employed or replaced by astringents; alum, zinc, laudanum, &c. Where all sensibility has disappeared, and only a whitish gleet remains, tonic injections of red wine, either alone, or combined with tannin or sugar, sometimes suffice.

The injections should be used cold, and repeated three or four times a day, a single syringeful at a time, forced into the urethra with moderate strength, without hurting the meatus urinarius with the canula of the instrument. The patient should be seated on the edge of a chair with the penis raised, the lips of the orifice gently pressed against the canula, to prevent the reflux of the fluid, which should be allowed to run through the whole length of the canal, and be retained in it for the space of about a minute.

As soon as the discharge has stopped, the number of the injections must be gradually diminished, and soon altogether discontinued; for the treatment which has produced the cure may recall the disease if injudiciously continued.

I cannot conclude my remarks on injections without saying one word upon a new preparation, which I have lately employed at the Hôpital des Vénériens; I mean the iodide of iron, (iodure de fer). Iodine had already been employed in the treatment of gonor-

rhœa by Richond and Henry ; and it occurred to me that its combination with iron might produce still better effects. The following is the result of my researches :

In some patients affected with obstinate gonorrhœa, the injections with iodide of iron have arrested the discharge in four or five days. In others, this medicament produced at first some pain, reproducing the acute stage and changing the nature of the discharge, which from being muco-purulent, became serous and tinged with blood. In these cases, by suspending the treatment, the disease completely disappeared in seven or eight days. Some other patients were obliged to discontinue this remedy, from its causing too much irritation.

The iodide of iron, which has afforded me a considerable degree of success, deserves to be better examined, in order to ascertain the conditions of its decomposition, which hitherto has caused its effect to vary. To attain the same end, in some patients, one grain of the iodide of iron has sufficed, whereas in others, the disproportionate dose of eighteen grains to the same quantity of fluid has been required.

Although blenorhœa in its divers periods may yield to a variety of treatments, without one being superior to another, yet it sometimes resists every method which science can devise. In these cases, the urethra should be attentively examined, for which purpose a variety of instruments may be employed, and we shall frequently detect, at various depths, either morbid sensibility alone, or some obstacle which announces the presence of an organic change.

Where a morbid sensibility exists in any part of the canal, without any other signs being requisite, the precepts of Lallemand must be followed ; the solid nitrate of silver must be conveyed to this point, by means of his caustic holder. I apply the cauterization in cases where even no morbid sensibility exists ; but where a discharge has resisted every other treatment, I introduce the curved instrument as far as the prostatic region, and exposing the caustic, withdraw it, giving it at the same time a rotatory motion.

Under similar circumstances, I have recently introduced a bit of lint, with a view to keep the parietes of the urethra separate, as in the treatment of balanitis. This strip of lint is introduced with the

greatest facility, by means of an Indian rubber canula, well oiled, and introduced to the posterior part of the urethra. One of the ends has a loop made with a thread, so as to afford a resting point for a style, which holds it whilst the canula is withdrawn; when this is done, the style is also removed, whilst the lint remains in its place, where it ought to be kept till the next time of passing the urine. If too much irritability be not present, it should be replaced two or three times in the twenty-four hours; otherwise once will suffice. The use of this strip of lint often succeeds alone, or may powerfully aid the effect of injections, cauterization, or internal treatment. When the running depends on an organic alteration of the urethra, this must be treated, otherwise the best plan of treatment will fail.

Stricture of the urethra. Frequently, only a slight hypertrophy exists, and temporary dilatation suffices: an elastic gum bougie should be worn for five or six minutes every evening, beginning with the sizes which can be introduced with little trouble, and gradually increasing their dimensions, as they pass with greater facility.

When the mucous membrane is little softened, which shows itself by easily bleeding, cauterization, combined with dilatation, is an excellent method of treatment.

When any ligatures exist, they must be divided. These ligatures, formed by plastic tissues, have a tendency to reproduce themselves after being once divided. Here permanent dilatation would be advisable, and should at first be powerful, at least as much so as the irritability of the canal will permit.

In the case of indurated or callous strictures, which sometimes exist with a considerable shortening of the canal, it is necessary to ascertain if the induration be not the consequence of an urethral chancre. If the induration be owing to a chancre, the treatment for indurated chancre must be applied, and it then yields without mechanical means.

When a simple blennorrhœa has caused an induration and callus, unconnected with the syphilitic virus, cauterization imprudently employed may produce serious consequences. Scarifications prudently made, and combined with a gradual dilatation, aided by

resolvents, applied both internally and externally, must be prescribed.

If actual excrescences exist in the canal, the existence of which, admitted by Galien, Daran, &c., cannot be denied by those who have never seen them, dilatation combined with cauterization often succeeds. The excrescences which may sometimes be recognised by bleeding from the canal, without the instrument having made a false passage, and which then yield a sensation like that which would be felt in passing through the tissue of the spleen, easily yield to calomel, conveyed in substance by means of a bougie, or to a cauterization with alum, according to the method of M. Jobert. When a stricture is irritable, to whatever kind it may belong, the irritation must be first subdued, and we must not be rash with the direct applications, and even, if possible, abstain from them altogether.

When the action of the dilating bodies can be borne, a quicker and better method is that of the permanent dilatation, as before described; but where it produces symptoms of irritation in the urethra, testicles, neck of the bladder, febrile reaction, or where the patient is compelled to pursue any occupation which requires him to rise, we must give the preference to the temporary dilatation made in the evening. In some patients, an interval of a day should be allowed between; in which case there will be less difficulty in passing the instrument, and it will be borne with greater facility.

Generally I prefer the instrument made of gum elastic. For permanent dilators, curved bougies are less liable to fatigue and hurt the surface of the bladder. For temporary dilators, very supple conic bougies are required; and when only one point requires dilatation, sounds or bougies à ventre, as they are called, which have been condemned by some practitioners, are decidedly preferable. Rapid dilatation, by the large metallic sounds of Mayor, cannot be used in all cases without danger, and are useful only when there is spasm, small bands, and hypertrophy, without friability or induration of the urethra.

Blenorrhæal epididymitis. All diseases of the testicle may exist during or after the course of blenorrhœa. Some diseases,

although in their nature foreign to blenorhœa, are influenced by it, or modify it in their turn.

But there is one which shows itself as a frequent and regular consequence, namely, an engorgement of the epididymis, which should be strictly termed *blenorhœal epididymitis*, and which has been improperly designated orchitis, gonorrhœal testicle, &c.

The affection of which we are now speaking does not occur once in three hundred cases, during the first week of the existence of a discharge; generally it is after the second, but especially the third or later, that it becomes developed. The same proportions exist after an acute or chronic state of a running.

Besides the discharge, which is in some degree the special cause, the *sine qua non*, the most constant occasional causes are fatigue, constipation, the use of excitements of every kind, and the want of a suspensory bandage. According to my observations upon patients affected with epididymitis, about one in twenty of them will be found, in whom it showed itself after the use of the special anti-blenorrhœal medicaments, so that it is not absolutely correct to say that this affection most frequently depends on the sudden suppression of a discharge, by the use of the ordinary medications. The contrary may be maintained, namely, that the sooner a blenorhœa is cured, the more speedily is the patient protected from epididymitis.

It has at all times been observed, that the left testicle was more frequently affected than the right. This proposition has been assailed from an abstract of twenty cases, but it is nevertheless true. The reason of this greater immunity of the right testicle is, according to the observations made in my wards at the Hôpital des Vénériens, as follows:—all the individuals who carry the scrotum on the left side of the seam of the trousers, and most persons do so, have the epididymitis on the left side, and vice versa. In the last research made relative to the seat of the epididymitis, we found but a single exception to this rule, which was in an individual, the seam of whose trousers did not come up to the perinæum. In a patient who had had an epididymitis on both sides, and who came to the hospital with the affection on the left side, although he wore the scrotum on the right side, it had commenced on the latter side.

There may be some exceptions, but the principal cause which determines the side, is that which we have just mentioned.

As regards the symptomatology, the following is what occurs: the first part affected, that in which the disease commences, and in which it may continue without extending further, is *the epididymis*. No blenorrhœal affection of the testicle occurs without epididymitis being present. The engorgement of the epididymis which generally succeeds, but sometimes precedes the pain, is the symptom which is the most obstinate. Next in frequency to the epididymis, the cord is affected, and more particularly the vas deferens; but the affection is never confined solely to it, but the epididymis is always implicated.

A fact, important to be observed as regards the disease of the epididymis and vas deferens is, that there are two varieties of epididymitis: the one sympathetic, when the epididymis alone is affected, the other from succession, or from continuity of the tissue, or by extension of the inflammation, when it extends from the urethra to the canalis ejaculatorius, and thence to the vesicula seminalis, vas deferens, and lastly, to the epididymis, as demonstrated by pathological anatomy, and as I demonstrated to the Academy, by a preparation I presented there. This distinction is by no means unimportant, as regards the prognosis and the treatment.

If the disease increases in intensity, the neighboring parts become affected, either from the extension of the inflammation or hinderance in their functions; it is thus that the affections of the tunica vaginalis occur; sometimes it becomes inflamed, and produces all the symptoms common to the inflammations of the serous membranes: pseudo membranes, serous or albuminous pus, sanguinolent exhalations; at other times, and which is most commonly the case, without partaking of the inflammation, it presents the symptoms of symptomatic dropsies, which arise from a hinderance in the circulation. In all cases, epididymitis is the *cause of these symptoms, which never exist alone.*

The swelling in the epididymis may occur either gradually or suddenly; the effusions in the tunica vaginalis are more rare when the swelling occurs slowly.

If the disease continues to progress, the cellular tissue of the

scrotum, and even that of the cord become affected, and the same result occurs as in the tunica vaginalis; either œdema from deranged circulation, or an actual phlegmonous state. Finally, the skin of the scrotum, the veins of which may only be swollen, and the capillary circulation increased, sometimes presents the characters of erysipelatous inflammation. The body of the testicle, however, which most frequently remains unaffected, and only suffers from pressure, the greater and more painful when to the engorgement of the epididymis is added a hydrocele, may, however, in some cases participate in the disease. Without, in this place, entering into the details of symptoms and their course, which are too well known to require our consideration, we may state, that the last parts which have become affected recover first. Hydrocele in particular yields the more quickly, when owing to an inflammation of the tunica vaginalis; but when it is a passive effusion, it may be produced long after, and offer much more resistance.

Epididymitis rarely ends in suppuration, but when the cellular tissue of the scrotum becomes inflamed, it is perhaps more frequent.

It deserves to be noted, as the contrary opinion generally prevails, that the discharge, which is often much diminished during the course of an epididymitis, never entirely ceases, or at least it does not occur more than once in two hundred cases; the more abundant return of the discharge follows the decrease of the intensity of the inflammation of the epididymis; but the artificial increase of the discharge, during the acute stage of the epididymitis, either does not influence this disease or else aggravates it.

As a diagnostical sign, one of the most constant is the co-existent discharge. The sympathetic epididymitis is less serious than that from extension of the inflammation.

The epiphenomena, or less constant symptoms, such as hydrocele, œdema, erysipelas, or phlegmon of the scrotum, &c., add to the seriousness of the affection, according to their intensity.

The treatment I have found to answer best is, in the first place the prophylactic, as the use of a suspensory bandage, the antiphlogistic treatment of the blenorrhœa, and anti-blenorrhœal medicaments administered at an early period; then, for the curative treatment of the epididymitis, rest in a horizontal position, keeping the testicle elevated, general blood-letting, and leeches applied

on the course of the cord and to the perinæum; and at the same time with the antiphlogistics, the application of compression.

By means of compression, we obtain the cure of sympathetic epididymitis in five or six days. When well applied, it prevents the development of hydrocele, and indeed it may permit of the patients continuing to follow their occupation without feeling any ill effects.

Compression is applied by means of bandages of emplastr. c. hydrarg. from six to eight lines broad. The diseased testicle being then carefully held, so as not to occasion too much pain, is to be turned towards the lower part of the scrotum without distending the cord, at the same time separating it from that on the other side. The strips should then be applied in circles, beginning by placing the first on the insertion of the cord, and sufficiently firm to prevent the organ from slipping. This being done, the circles should be continued around the testicle, so as to produce a considerable, but uniform pressure, avoiding as much as possible making any folds in the skin. Beyond this point, separate strips should be applied, so as to exercise a pressure from above below, and thus form a kind of basket, as is seen in the cut.



COMPRESSION OF THE TESTICLES.

If this dressing is to succeed, the sufferings of the patient will diminish from the moment of its being applied, and at length entirely cease. If this be not the case, it must immediately be removed; for if it increases the pain, it has either been ill applied or does not suit. We must not, however, allow ourselves to be deceived by some little pain proceeding from the first band pressing the skin, and which is generally only felt the following day or later. It will in this case suffice to cut the band, in order to allow the patient to support the rest of the dressing. Otherwise the dressing should not be renewed, except when the organ has decreased, and become loose under it.

To obtain, by the foregoing means, a radical cure, and to prevent a relapse at the same time as the epididymitis is treated, the discharge should be repressed instead of excited; for as long as it remains, it continues to be the cause of the disease, which it frequently reproduces.

Third Species: Blenorrhœa common to both sexes.

Varieties $\left\{ \begin{array}{l} \text{of the eyes} \\ \text{— anus} \\ \text{— mouth} \\ \text{— nose, \&c.} \end{array} \right\}$

FIRST VARIETY.

Blenorrhœa oculi:—Ophthalmia gonorrhœica.

THIS disease is undoubtedly more frequent in men than in women, and far more frequent in infants, immediately after birth, than in adults; it generally commences in one eye only, although both are frequently attacked, especially in children. Its development must be attributed to the direct application of the blenorrhœal matter to the conjunctiva, and not to the sympathy existing between the sexual organs and the eyes. A man is more likely to soil his fingers, which may then convey the irritating matter into the eyes, and the infant to come in contact with it, in passing through the infected vagina. Were it owing to sympathy, the disease would certainly be more common. Simple catarrhal ophthalmia may de-

velop itself, during the existence of an urethral blennorrhœa, as under any other circumstances, and thus render the diagnosis somewhat obscure or even impossible, as there is no difference between simple catarrhal and blennorrhœal ophthalmia, except in the cause, which is often difficult to determine, and in the more serious consequences of this latter variety.

The first thing to be urged in the treatment of blennorrhœal ophthalmia, is prompt and energetic employment of the treatment, as hesitation involves most frequently the loss of the eye.

After having recommended the patient to avoid everything that may irritate the organs of vision, as touching them with the fingers, soiled with the muco-pus of the blennorrhœa, we ought, as soon as the first symptoms of ophthalmia show themselves, and without waiting till it becomes fully developed, or for a more certain diagnosis, to pursue the following treatment: if the patient be robust, he should be bled, and a large number of leeches, twenty to fifty, applied at the same time to the nostril, the temple, and around the eye affected, carefully avoiding the eyelids. This being done, the eyelids should be everted without fatiguing them by too great a pressure, and then a stick of nitrate of silver gently passed over them, so as to whiten the surface of the palpebral conjunctiva, and then still more superficially that of the bulb.

After this cauterization, which, to succeed, must not be very energetic, an injection of cold water must be made between the eyelids, so as not to allow any of the caustic to remain on the cornea. As soon as this little operation is ended, the eye must be covered with compresses, dipped in a cold decoction of poppy heads. But as in this serious ophthalmia, much sympathetic irritability, or even successive inflammation of the deeper seated parts exists, the pain is often very acute and attended with photophobia. This latter symptom, and the consequences it produces by the contractions of the pupil, and the adhesions from effusions which sometimes occur, are very advantageously treated by extract of belladonna applied to the basis of the orbit, and the nostril of the side affected.

Should a chemosis already exist, a symptom requiring the greatest attention, and which generally involves the destruction of the cornea, by a kind of strangulation, at whatever period the treatment may be commenced, it must without delay be excised by raising

the mucous membrane with a small hooked forceps, and removing it with the curved scissors. When it is only an œdematous chemosis, the chances of success are far greater than when the chemosis depends on an actual phlegmonous and indurated state; in which case the excision generally becomes impossible, and only allows of incisions being made, which are far less to be depended on.

Whether a chemosis have been excised or not, stress should be laid on the application of nitrate of silver. When it is applied to a mucous membrane, it almost immediately changes the nature of the secretion, which from muco-purulent becomes sero-sanguinolent. When an application has succeeded, after this artificial secretion, the œdematous swelling of the palpebræ decreases, the congestion and inflammation of the conjunctiva become less intense, and the disease progresses towards resolution; to complete which, a derivative in the back of the neck, (a blister or seton,) and some collyrium should be used; foremost amongst those to be preferred is nitrate of silver, a grain to the ounce of water.

But if the disease still remains, and the puriform secretion continues or increases, we must return to the application of nitrate of silver always with great caution, but without being alarmed by vain fears. These applications should be repeated every day or every other day; and in children at the commencement of the disease, I have sometimes repeated them twice in the same day.

At the same time as this energetic treatment is employed and repeated as often as the intensity of the symptoms require, and without waiting from one day to another, so as always to be behind the symptoms, which progress with such rapidity, we must not fail to act upon the intestinal canal, not only to keep it free, but thus to diminish the causes of cephalic congestion, and to benefit by a powerful revulsion. All the accessory treatment required by catarrhal ophthalmia in general, is applicable and ought not to be neglected. If the prunitive discharge is diminished during the blenorrhœal ophthalmia, it is never completely suspended, and there is nothing gained by reviving it, opinions to the contrary notwithstanding.

Anti-blenorrhœal medicines, as copaiva, cubebs, &c., have no action on this disease, in whatever manner they may be administered. The same is the case with the anti-syphilitics, such as mercurials, &c.

SECOND VARIETY.

Blenorrhœa ani.

THIS is unquestionably the most rare of all the forms, yet it often occurs in women and little girls, in consequence of the discharge of blenorrhœal muco-pus flowing from the vulva. Blenorrhœal discharges from the anus also frequently accompany or follow the development of chancres in this region, or are the more frequent consequence of an eruption of mucous tubercles.

In the acute stage, antiphlogistic treatment must be used, baths, emollient fomentations, repose, and care be taken to keep the bowels free. As soon as the inflammation is subdued, resolvent fomentations with acetate of lead, or astringents with alum, often succeed. But a still more preferable medication is the application of solid nitrate of silver, to all parts that can be reached, or injections of it in solution in various doses, from one grain to six or more to the ounce of water; in these cases, the fluid should be injected into the rectum with a small urethra syringe.

We may say that as regards the anus and rectum, not only do copaiva and cubeb seldom succeed, but they frequently only serve to maintain the disease, by the irritation they cause at the lower extremity of the large intestine, of which many patients who use it in other cases complain.

THIRD VARIETY.

Blenorrhœal affection of the mouth, nose, &c.

It is evident that all mucous membranes may be affected with blenorrhœa or blenorrhœal affections; but these affections are very rare. In all cases, if they can affect the mouth, it is certain, from the conditions in which the patients are often placed, and the frequency of genital blenorrhœa in females, that the instances of it would be more common. The treatment, when they do exist, requires nothing which has not already been indicated.

§ III.—EXCRESCENCES, OR VEGETATIONS.

EXCRESCENCES, which vary in form and appearance, and are called cauliflower, pear-shaped, &c., do not seem, strictly speaking, to be the consequence of the syphilitic virus, as in the opinion of all good observers, and as may be seen every day, they are frequently developed under the influence of causes entirely unconnected with syphilis.

In the treatment of these excrescences, the following conditions must be considered; either there is only a hypertrophy of the tissues without epigenic increase, improperly stated by some writers on syphilis amongst the vegetations, and which constitute the morbid changes of structure, to which the name of condyloma is applied, or else there is an actual production of new tissues, vegetations properly so termed.

The treatment of condylomata is either that of indurated chancres or mucous tubercles.

When we have to do with true vegetations, either the indurations depend on a chancre, of which they are then the consequence, or they have arisen on unindurated tissues. In the first case the specific induration must be removed, as directed when treating of indurated chancres, and then, if they have not fallen off or withered during the treatment, they must be excised. When there was no induration at the commencement, excision should at once be had recourse to, for which purpose the curved scissors will be found most convenient. The part should immediately afterwards be enveloped in compresses, moistened with cold water; rest and simple lotions till cicatrization will suffice to complete the cure. In some cases, where the little wounds suppurate, they must be dressed either with a little simple cerate or aromatic wine. When the excision, which should embrace the whole thickness of the skin, or mucous membrane on which the vegetations are seated, is well made, cauterization is useless. But it would be otherwise in case of the existence of a chancre in the period of increase, as immediate cauterization would be requisite to prevent the inoculation of fresh-made wounds. When, however, there are chancres still

capable of inoculating, I prefer waiting till they are cicatrized before excising the vegetations.

We may undoubtedly destroy the excrescences by caustics alone, sometimes with nitrate of silver, but especially with liquid nitrate of mercury; but when they are provided with a foot-stalk, excision is far preferable; only in cases where the base is broad, or the patients fear the knife, I have recourse to these or other means, opium paste, calomel, powdered savine, &c.

As regards the strictly speaking antisyphilitic treatment, it is only indicated where the concomitant symptoms require it; as to the vegetations alone, those which are really epigenetic, without specific induration, there can only be a loss of time. The precepts of the ancients were, first, institute a general methodical treatment; that is, take during a stated time a certain quantity of mercury. Mine are, first, destroy the vegetations; and I frequently cure my patients in three or four days, adopting no other treatment, unless other symptoms require it.

IV.—PHYMOSIS AND PARAPHYMOSIS.

PHYMOSIS is either complete or incomplete, permanent or temporary. The permanent may be congenital or acquired; it may exist with excess of length of the prepuce, with a prepuce not covering the whole of the glans, with excess of length of the frenum; there may be adhesions to the glans, either old or new, complete or incomplete. The temporary may be either inflammatory or œdematous, complicated with erysipelas, considerable tension, gangrene, balanitis, blenorrhœa, chancres, vegetations, herpes, perforations of the prepuce, difficulty of passing the urine, or complete retention. There may have existed a little narrowness of the margin of the prepuce before the development of the phymosis.

Temporary phymosis occurs in individuals who could previously easily uncover the glans: it readily yields without an operation.

Permanent phymosis, with too great a length of prepuce, or with indurations on the margin of this cutaneous covering, requires circumcision, if it be desired to cure one deformity by producing another. When recent adhesions, easy to be destroyed, are pre-

sent, they must be dissected; when they are too intimate, and especially too extensive, we must content ourselves with removing sufficient of the prepuce to uncover the meatus urinarius. When the frenum is too long, it should be resected; if vegetations be present, they must be removed; if there be chancres, unless there be urgent indications, we must wait till they are cured before operating, so as not to expose ourselves to the risk of increasing their extent, by inoculating the wound which results from the operation. If the operation be performed, the chancres still existing, they should, if possible, be removed at the same time. In this manner the whole disease, which may yet be only local, may be removed at once. At other times, if they be allowed to remain, immediate cauterization is necessary. When there are perforations of the prepuce, they ought to be removed in the operation.

If the prepuce is short, the section of the superior part, according to the old method, may suffice. If the prepuce is only straitened by the vegetations which are developed between it and the glans, a slight incision will suffice; otherwise the incision must be carried to the level of the base of the glans. It ought to be remembered, that after making the superior incision and removing the angles, a long strip of skin corresponding to the frenum remains, which constitutes a real deformity.

In some cases, I take a fold of the skin of a certain extent, and thus remove a flap, which leaves a division in the form of a V, with its basis on the margin of the prepuce, and its summit towards the base of the glans.

The section of the lower part of the prepuce, after the method of Celsus, an operation which Cloquet has much improved, does not expose the urethra to be wounded, more than the upper section. In most cases, however, I reject it, particularly in cases of phymosis, with excessive length of the prepuce, for it occasions a deformity similar to that seen in hypospadias.

Preferring circumcision, the following is the method I adopt:

First period. The penis being relaxed, without stretching the skin which forms the prepuce, I draw with ink a line which follows, in all its circumference, the oblique direction of the base of the glans, and about an eighth of an inch from it.

Second period. I next draw the prepuce forward, and fix it be-



CIRCUMCISION AS PERFORMED BY M. RICORD.

tween the blades of a common dressing forceps, placed directly before the glans, the inked line held by an assistant.

Third period. The portion of the prepuce which projects beyond the forceps is to be held by the operator with his left hand, whilst with his right he makes an incision with a bistoury, following the line traced with the ink.

Fourth period. After this section, the mucous lining, which by its anatomical disposition does not allow of its being drawn forward like the skin, remains entire and covers the glans; to avoid a secondary phymosis or paraphymosis, it should be immediately divided. I do this by dividing this mucous membrane by a single cut with the scissors on the dorsal surface of the glans to its base; then I remove the flaps around to the frenum, and with a single stroke, still holding the two flaps together, I remove the frenum with them. The results of circumcision, according to my method, are more successful than other processes, as may be seen at the Hôpital des Vénériens. The cure is complete in twenty or twenty-five days; no deformity ever remains, nor is there any fear of a consecutive phymosis or paraphymosis supervening.

After the operation, the artery of the frenum, or some of the prepuce branches, often bleed considerably; they must, in these cases, either be tied or torsion applied. The penis must then be

constantly covered with cold water, to avoid erections and inflammation; to avoid the erection, the patients should also have camphor, given in form of pills. The interrupted suture presents no advantages.

Paraphymosis, which is only a phymosis removed behind the glans, which it compresses, and thus produces all the symptoms which result from strangulation, requires that the parts should be again reduced to their normal position. When the constriction is but slight, it may be reduced by methodical compressions. For this, the penis is enveloped in a compress soaked with cold water; it is then taken in both hands, and the compress is removed; the penis is held with the left hand, and the base of the glans is pressed with the right, so as to force it into the ring of the prepuce behind it. Sometimes the penis is grasped behind the strangulation, between the index and middle fingers, while the thumbs compress the sides of the glans and force it through the strangulations. Should œdema exist, incisions must be made, so as to degorge the tissues before attempting the reduction. But whenever the strangulation is considerable, or there are ulcerations of the strangulating tissues, adhesions, inflammations of the glans, threatened or actual gangrene, and more especially when the paraphymosis has succeeded a phymosis, it would be absurd to persevere in reducing it, putting the patient to useless pain, and only substituting a phymosis for a paraphymosis, which would at a later period require an operation.

In this case, I make an incision with a straight bistoury on the dorsal side of the penis, which divides the whole skin from the point of strangulation, going backward as far as the glans. The incision is made with a straight and narrow-bladed bistoury, which is introduced under the skin, entering under the band formed by the prepuce behind the glans. The mucous lining of the prepuce, which produces an œdematous sac, must also be divided in the same direction and in its whole extent. The operation is in fact only the operation of phymosis, excepting the situation; the effects and after treatment are the same as in the preceding case.

SPECIAL FORMULARY

*Of the Medicaments used in my wards of the Hôpital des
Vénériens.*

I.—LOTIONS, FOMENTATIONS, LOCAL OR PARTIAL BATHS.

Emollients—Decoction of althæa.

Sedatives—Decoctions of althæa and poppy-heads.

Narcotics—Decoction of conium, solanum, and belladonna, to which may be added either laudanum or opium. I frequently use the following formula:—

	℞.	Decoct. conii et solani . . .	℥viii
Mix.		Extract. gum. opii . . .	gr.viii

Solutio plumbi acetatis.

	℞.	Plumbi acet. crist. . . .	ʒi
Mix.		Aquæ distill. . . .	℥viii

For balanitis, lotions for the vulva, and applications to leech-bites.

Solutio opiata.

	℞.	Aquæ lactucæ	℥viii
Mix.		Extr. gum. opii	ʒi—ii

In gangrenous affections. When the irritability increases, the quantity of opium must sometimes be decreased.

Solutio ammoniæ hydrochloratis.

	℞.	Aquæ	℥viii
Mix.		Ammoniæ hydrochlor. . . .	ʒii

For resolvent applications and fomentations, particularly applicable in the treatment of buboes.

Tincturæ iodin. diluta.

	℞.	Aquæ distill.	℥iii
Mix.		Tinct. iodinæ	ʒi

The tincture may be increased to six drachms to the same quantity of water. It is employed in the treatment of buboes, hydrocele accompanying epididymitis, &c.

Soda chlorinata diluta.

	R.	Sodæ chlorin.	. . . . .	ʒii
Mix.		Aquæ	. . . . .	ʒvi

The quantity of soda may be increased till a slight tingling sensation and heat are produced. Used in the treatment of mucous tubercles, &c.

Solutio hydrargyri bichloridi concentrata.

	R.	Hydrarg. bichlor.	. . . . .	gr. xx
Mix.		Aquæ dist.	. . . . .	ʒi

For the cauterization of vesicated surfaces in the treatment of buboes.

Vinum aromaticum, (Ph. Fr.)

	R.	Spec. aromat.* <i>Cod.</i>	. . . . .	ʒiv
		Vin. rubr.	. . . . .	℥ii
Mix.		Spirit aromat.*	. . . . .	ʒii

The species to be macerated eight days in the wine, then expressed and strained, and the spirit added to it.

To the above preparations I add, if it be required to be still more astringent, two scruples of tannic acid to eight ounces of the wine.

Vinum aromaticum, c. opio.

	R.	Vin. aromat.	. . . . .	ʒviii
Mix.		Ext. gum. opii	. . . . .	ʒss.

The foregoing preparations of wine are employed as dressings for chancres and ulcers.

II.—INJECTIONS.

The emollient, sedative, and narcotic injections, consist of the same liquids as those mentioned above for lotions.

Injectio plumbi acetatis pro urethra.

	R.	Aquæ rosar.	. . . . .	ʒvi
Mix.		Plumb. acet. crist.	. . . . .	ʒii

Idem pro vagina.

	R.	Aquæ	. . . . .	℥ii
Mix.		Plumb. acet. crist.	. . . . .	ʒiii—ʒi

Gradually increased.

Injectio sulphatis aluminis et potassæ pro urethra.

	R.	Aquæ rosar.	. . . . .	ʒvi
Mix.		Alum. et potass. sulph.	. . . . .	gr. xviii

* Both the above preparations contain a host of articles. I have found the *Sp. rosarinæ* or *Sp. lavend. co.* an excellent substitute for them.

Idem pro vagina.

	R.	Aquæ	℥.ii
Mix.		Alum. et potass. sulph.	ʒiii

The alum is increased to the ratio of an ounce to the pound, according to the effect obtained, and the greater or less degree of irritation in the diseased surfaces.

Injectio c. vino pro urethra.

	R.	Aquæ rosar.	ʒiv
Mix.		Vin. rubr.	ʒii

The quantity of wine may be increased, and if it does not cause any irritation, it may afterwards be used alone.

Idem c. acido tannico.

	R.	Vin. rubr.	ʒvi
Mix.		Acid. tannic.	gr.xviii

When used for the vagina, the quantity of the tannic acid should be doubled and gradually increased, according to the effects produced.

For the vagina are also employed concentrated vinous infusions of Provence roses.

Injectio zinci sulphurici.

	R.	Aquæ rosar.	ʒviii
Mix.		Zinc. sulph.	ʒi

To which a scruple of laudanum may be added.

Injectio argenti nitratis.

	R.	Aquæ dist.	ʒviii
Mix.		Argent. nitr. crist.	gr.ii

The nitrate of silver may be increased, till a favorable result be obtained, if irritation be not produced.

If a caustic solution be required:—

	R.	Aquæ dist.	ʒi
Mix.		Argent. nitr.	gr.x

Injectio ferri iodidi.

	R.	Aquæ dist.	ʒvi
Mix.		Ferri iodid.	gr.iii

The quantity may be increased to nine grains to the ounce of water, but care is required to avoid irritation.

III.—COLLYRIA.

For emollient, sedative, or narcotic collyria, the fluids must be used as mentioned under No. 1.

C. zinci.

	R.	Aquæ rosar.	℥iii
		Zinci sulph.	gr.vi
Mix.		To which may be added Tr. opii	gtt.xx

C. argenti nitratis.

	R.	Aquæ dist.	℥iii
Mix.		Argent. nitr.	gr.iii

IV.—GARGARISMATA.

The emollient, sedative, and narcotic gargles are prepared in the same manner as the fomentations, &c.

G. c. hydrarg. bichlor.

	R.	Decoct. conii et morell. . . .	℥viii
Mix.		Hydrarg. bichlor.	gr.ii—viii

This is used in case of ulcerations of the throat, after the acute period.

G. aluminis et potass. sulph.

	R.	Aquæ lactuc.	℥vii
		Alum. et potass. sulph. . . .	℥i
Mix.		Mel. rosat.	℥i

In cases of apthous affections and mercurial stomatitis, without too great inflammation.

G. cinchonix.

	R.	Cort. cinchon. rubr.	℥ii
Mix.		Aquæ	℥xii

Boil to ℥viii, to this, when strained, add extr. opii gr.viii, in cases of gangrene; or ℥ii tinct. cochleariæ, should there be a scorbutic tendency, or permanent ramollissement of the gums.

G. c. acido hydrochlorico.

	R.	Aquæ lactucæ	℥vii
		Acid. hydrochlor. fort. . . .	gtt.xx
Mix.		Mel. rosat.	℥i

In apthous affections and mercurial stomatitis.

To combat mercurial salivation, I prefer applying the fuming acid. hydrochlor. fort. to the gums and tongue when this is ulcerated. We must be careful not to touch the teeth with the acid. The hydrochloric acid is a most powerful remedy for mercurial salivation; the application should be repeated every day, or every other day. The bleeding of the surface ought not to be an obstacle. The acute pain it produces, soon ceases and

nothing equals its beneficial effects. Of course, the peculiar indications which may present themselves must not be neglected.*

V.—CERATES, &c.

Unguent. opiatum.

	R.	Axung.	. . . . .	℥i
Mix.		Tr. Opii	. . . . .	ʒi

C. plumbi.

	R.	Cerat.	. . . . .	ʒi
Mix.		Liq. plumb. diacet.	. . . . .	ʒi

Unguent. hydrarg. opiat.

	R.	Unguent. opiat.		
Mix.		Ung. hydrarg.	. . . . .	āā ʒi

Used in cases where the mercurial ointment is too irritating. The gray ointment contains only two ounces of mercury to the pound of lard.

Ung. hydrarg. dup.

	R.	Axung.		
		Hydrarg.	. . . . .	āā ʒi

Unguentum digestivum.

	R.	Ol. terebinth.	. . . . .	ʒi
		Vitel. ovi	. . . . .	ii
Mix.		Ol. hyperic.	. . . . .	ʒss

Mix the yolks of eggs in a mortar with the turpentine, and gradually add the oil of hypericum. In poulticing phagedænic chancres, alternate dressings with the ointment and wine are highly useful.

Unguent. hydrarg. chlorid.

	R.	Hydrarg. chlorid.	. . . . .	gr. vi
Mix.		Cerat. opiat.	. . . . .	ʒii

Unguent. belladonnæ.

	R.	Extr. belladon.	. . . . .	ʒss
Mix.		Axung.	. . . . .	ʒi

U. hydrarg. iodid.

	R.	Hydrarg. iodid.	. . . . .	ʒi
Mix.		Axung.	. . . . .	ʒi

The quantity of the iodide may be increased to two drachms, if too great irritation be not produced.

* In No. 11. (1837) of the Journal (Experience,) we find curious and important researches of M. Grudin, proving that mercury is found in substance in the saliva of individuals salivated by using it.

Mel. iodatum.

	R.	Mel.	. . . . .	ʒiiss
Mix.		Hydrarg. iodid.	. . . . .	ʒi

Unguentum potass. hydriod.

	R.	Potass. hydriod.	. . . . .	ʒss
Mix.		Axung.	. . . . .	ʒi

If to the above be added two grains of iodine, it forms the unguent. potass. hydriodid. iodatum. The unguent. plumb. iodat. is formed in the same manner as the ung. potass. hydriod., the iodide of lead being substituted for the hydriodate of potash.

Pommade du Goudion of M. Emery.

	R.	Goudion	. . . . .	1 part
Mix		Axung.	. . . . .	8 parts

M. Giraud proposes the following formula:—

	R.	Axung.	. . . . .	℥i
		Ol. pyrelain.	. . . . .	ʒiv

This pommade does not stain the linen.

VI.—EMPLASTRA.

Emplastrum c. hydrarg. (de Vigo) according to the codex.*

This plaster is spread upon muslin, instead of diachylon.

Emplastr. conii c. plumb. iodid.

	R.	Emp. conii	. . . . .	ʒi
Mix.		Plumb. iodid.	. . . . .	ʒi

This is used in the treatment of buboes, and especially in chronic engorgements of the testicles. If twenty grains of antim. et potass. tart. be sprinkled upon a plaster of emplastr. conii of the size of the hand, it forms an excellent excitant where the buboes are indolent.

VII.—CATAPLASMATA.

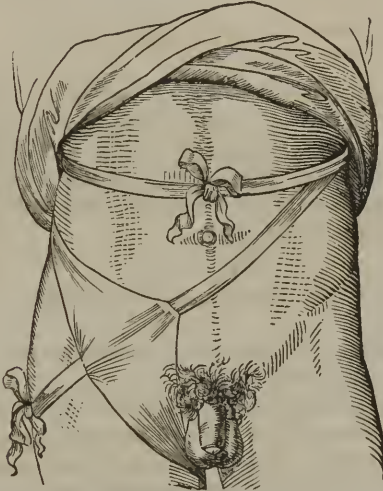
Of linseed meal, bread, rice, oatmeal, made with water, or the narcotic decoctions.

* *Emplatre de Vigo. c. mercurio* consists of

Emplast. simpl.	℔.iiss	Myrrhæ	. . . . .	dr.v
Ceræ pur.		Pulvis croci	. . . . .	dr.iii
Resinæ	aa oz.ii	Hydrarg.	. . . . .	oz. xii
Gum. ammon.		Ol. terebinth.	. . . . .	oz. ii
Bdellii		Styracis liquid.	. . . . .	oz. vi
Olibani	. . . . . āā dr.v	Ol. lavend.	. . . . .	dr.ii

For this I substitute the emplastr. ammoniac. c. hydrarg.—P. L.

They are rendered resolute by using them cold, and adding the decoctum album, or a solution of sal ammoniac; or narcotic and sedative, by adding laudanum. They should always be used between two cloths, or two pieces of muslin, and the mode of applying them to buboes may be seen in the annexed cut.



INGUINAL BANDAGE.

VIII.—ENEMATA.

E. c. copaiva.

℞.	Ol. copaivæ	3ii—vi
	Vitel. ovi	i
	Ext. opii	gr.i
	Aquæ	℥v.

Given in cases in which the copaiva cannot be administered by the mouth.

E. c. camphora et opio.

℞.	Camphoræ	gr.℞
	Ext. opii	gr.i
	Vitel ovi	1
	Aquæ	℥vi.

To prevent the erections, when the pills do not succeed.

IX.—ESCHAROTICA.

Vienna paste is formed by adding to six parts of caustic potass, five of quick-lime. When required for use, it should be made into a paste, by adding a sufficient quantity of alcohol.

X.—BATHS.

Gelatinous baths are made by adding from one to two pounds of glue; alkaline baths by the same quantity of subcarbonate of potass. If sublimate be used, half an ounce should be added to the usual quantity of water, increasing to two or even three ounces, according to the effects produced.

For sulphurous baths, the inodorous, according to the process of M. de Quesnuille, should be preferred.

XI.—FRICTIONS, UNCTIONS.

Frictions should only be used where the parts are not irritated; in other cases, unctions are called for.

The regions to be rubbed should be shaved, and the frictions should be made in the direction of the hairs, otherwise an *eczema pilaris* might be caused. Unless certain local indications are to be fulfilled, the axillary space should be selected, and double mercurial ointment used.

Frictions should be made every other day, alternating from one axilla to the other. The quantity used should be from half a drachm to a drachm.

This ointment is used also to destroy the pediculi pubis. The friction is made at night; the next day a bath is used, and soap-suds likewise, so as to leave no ointment on the skin; three frictions are generally sufficient.

XII.—PILULÆ.

P. hydrarg. bichlor. co. (Dupuytren.)

R.	Hydrarg. bichlorid.	. . .	gr.1-5th—1-4tn
	Ext. aquos. opii	. . .	gr.1-4th—1-half
	Resin. guiaci	. . .	gr.iv

P. hydrarg. iodid.

R.	Hydrarg. iodid.		
	Extr. lactucæ	. . .	ãã 3ss
	“ gum. opii	. . .	gr.ix
	“ guiaci	. . .	ʒi

To be made into 36 pills.

In cases of inveterate affections, accompanied with much induration of the tissues, two or three grains of pulvis. fol. conii may be added.

These pills are to be taken at night, four or five hours after the last meal; when the dose is increased, they may be taken night and morning.

P. hydrarg. chlorid. comp.

R.	Hydrarg. chlorid.	. . . . .	℞i
	Pulv. fol. conii		
	Sapon. castil.	. . . . .	āā ℞ii

To be made into 24 pills.

These pills are employed in the treatment of the engorgements which remain after a blenorrhœal epididymitis, commencing with one and increasing every five days to the number of six, unless the symptoms of mercurialization occur, and then the number must be diminished, or their use be entirely suspended.

P. opii c. camphora.

R.	Camph.	. . . . .	℞ii
	Extr. gum. opii	. . . . .	gr.viii
	Mucilag. q. s.		

To be made into 16 pills.

Given in doses of 2 to 3 every evening, to allay the irritation in the neck of the bladder and the erections.

Copaiva, Cubebs, &c.

Copaiva, cubebs, and turpentine, are used as potions, pills, boluses, mixtures, as they are given in substance. Every physician has his formula. The following of Chopard has become classic:—

R.	Resin. copaiv.	} āā ℞i
	Alcohol.	
	Syr. bals. Tolut.	
	Aquæ Menth. piss.	
	Aquæ flor. orang.	
	Alcool nitr.	3ii

Dose from two to six table-spoonfuls daily. The copaiva capsules are extremely useful, as the patients bear it better.

I prefer cubebs in powder, or mixed in with bread, or enclosed in capsules, to its use in the form of cubebine, which I think less efficacious.

XIII.—LIQUOR. VAN SWIETENII.

There are several forms of this liquid, and that most generally used is as follows:—

R.	Hydrarg. bichlorid.	. . . . .	gr.viii
	Sp. vini rect.	. . . . .	℞iss
	Aquæ dist.	. . . . .	℞xivss

One ounce contains half a grain of sublimate. The dose is two drachms per diem, increased to four. To be taken in three or four doses, at intervals of four to six hours, so as not to interfere with the meals. It may be given in milk, in a cup of tisane, sarsaparilla, gum water, or any mucilaginous drink, to which may be added a small quantity of syrupus papaveris, if it cause pain in the stomach or intestines.

XIV.—TISANES. DIET DRINKS.

Tisane of Sarsaparilla.

R.	Sarsaparil.	. . . . .	℥ii
	Aquæ	. . . . .	℔.ii

Boil to one half, and take a glass daily. The sarsaparilla may be macerated for 24 or 48 hours, and not be boiled. It is sweetened with sugar, or sudorific sirup. It is better for some irritable stomachs to add half an ounce of gum arabic to the pound of tisane.

Tisane of guiacum.

R.	Guiaç. rasp.	. . . . .	℥i
	Aquæ	. . . . .	℔.i

Boil to one half.

Tisane de feltz.

R.	Rad. sarzæ incis.	. . . . .	℥iii
	Gum. arab.	. . . . .	3ss—℥ii
	Antim. sulph.	. . . . .	℥iv
	Aquæ	. . . . .	℔.vi

Boil to half—the antimony being enclosed in a piece of cloth, and suspended in the fluid. Three or four wine-glasses a day should be given, carefully observing the susceptibilities of the patient. This treatment must be continued for five or six months, seldom less than two.

The patient's food should consist of roast or boiled meat, and vegetables cooked without salt, to avoid the decomposition of the antimony, held in suspension or mixture by the tisane; some have then thought that the decoction holds none of it in solution, and only gives to it a small quantity of arsenic.

Decoctum Zittmanni.

No. 1.

R.	Rad. sarzæ	. . . . .	℥xii
	Aquæ	. . . . .	℔.ii
	Sacchr. alumin.	. . . . .	℥iss
	Hydrarg. chlor.	. . . . .	℥ss
	Cinnabaris	. . . . .	℥i

Fol. sennæ	ʒiii
Rad. glycyrrh.	ʒiiss
Sem. anisi	
Sem. feniculi	āā ʒx

The sarsaparilla and water should be boiled together a quarter of an hour, and then the sacchr. alumin. calomel, and cinnabar added, enclosed in a linen bag, and all boiled down one third. The other ingredients being added, and allowed to stand a short time, it should be strained for use

This is termed the strong decoction.

The weaker is made as follows:—

No. 2.

To the residuum of No. 1, add—

Rad. sarzæ	ʒii
Aquæ	℞.xxiv

Boil and add—

Cort. citr.	
Cort. cannell.	
Sem. cardam. minor.	
Rad. glycyrrh	āā ʒiii

On the first day, the patient must take a purgative; each morning he is to take half a pint of No. 1, to be drunk warm, and keep his bed. In the afternoon, a pint of the No. 2. And again, half a pint of No. 1 in the evening, the two latter doses to be taken cold. This to be continued for four days, on the fifth, a purgative is given. The treatment is then to be repeated for four days, and again followed by a purgative. If then after an interval of a week it be required, the foregoing treatment must be repeated. The diet should be strict.

The decoct. alb. frequently referred to is given thus, in the codex Phar. franc.

℞. Phosph. calcici (cornu. ustum. P. L.)	ʒii
Medullæ panis	ʒvi
Gum. arab.	ʒii
Sacchr. alb.	ʒi
Aquæ simpl.	ʒxxii

Mix well in a mortar, boil altogether half an hour in a covered vessel. This will yield a pint of the decoction.

This is used externally, and also internally as a vehicle.

XV.—SIRUPI.

S. sudorificus.

℞. Rad. sarzæ	
Lig. guiaci	āā ʒvi
Aquæ	℞.iv

Macerate twenty-four hours, then gently boil down to half, express and add from one to two pounds of lump sugar.

The dose is from 2 to 4 ounces per diem.

S. sarzæ co. (de Cuisinier.)

Rad. sarzæ	℥xxx
Aquæ	℔.xxiv.

Infuse for 24 hours, and then boil down to *℔.viii.* Repeat this operation twice. Strain and mix these three decoctions, then add—

Flor. borag. off.	
“ rosar. alb.	
Sem. anis.	āā ℥i
Fol sennæ	℥iss

Boil this down to half; strain and add—

Sacchr. alb. et mel.	āā ℔.ii
------------------------------	---------

Two to four ounces may be given daily. It is suitable for patients who are subject to constipation. When it purges gently, it may be advantageous, but when it gripes or produces diarrhœa, its use must be suspended.

To the foregoing sirups may be added mercurial preparations, and particularly sublimate. I prefer the cyanide of mercury, 4 grains to the pound, which is less liable to be decomposed than the deuto-chloride.

A drachm should be given night and morning, gradually increasing to half an ounce per diem. Should it purge, I combine with it the sudorific sirup, to which I add 8 grains of extr. opii to the pound.

Syrupus ferri iodid.

R. Syrupi sudorific.	℔.i
Ferri iodid.	℥i

Dose: 2—6 drachms per diem.

S. ferri et ratanhæ.

R. Syr. toltan.	℔.i
Ferri sesquicarb.	
Extract. ratanhæ	āā ℥i

Dose: 4—6 drachms per diem, used in blenorrhœa and mucous discharges.

S. calmans.

R. Syr. papav.	℥iv
“ amygdal.	℥xiv

To this sirup may be added, two drachms of nitrate of potass: to be given during the acute stage of blenorrhœa, in linseed tea or barley water. I have given here only the formula most used by me, and for others I refer to the excellent formulary of my friend Dr. Foy.

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