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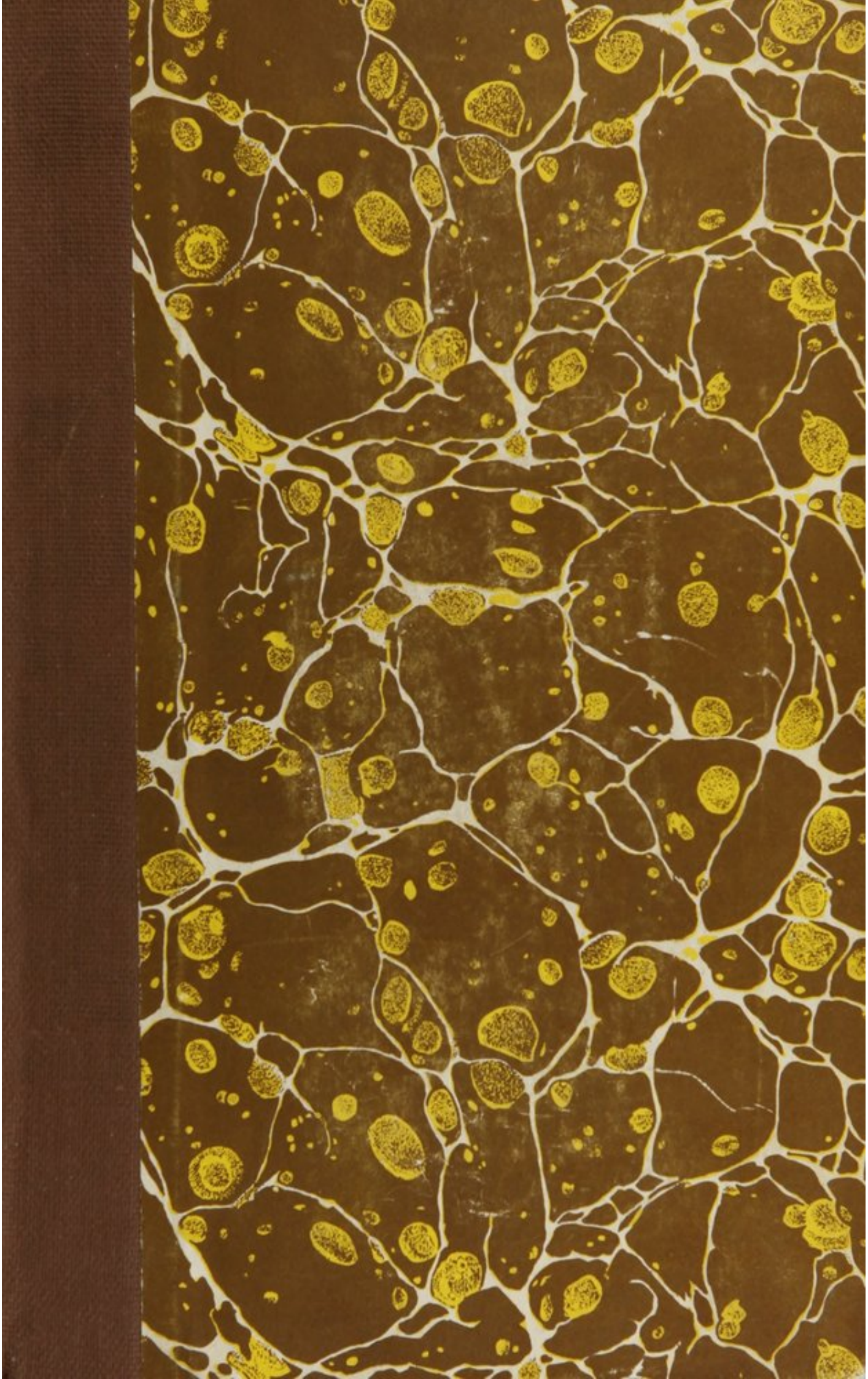
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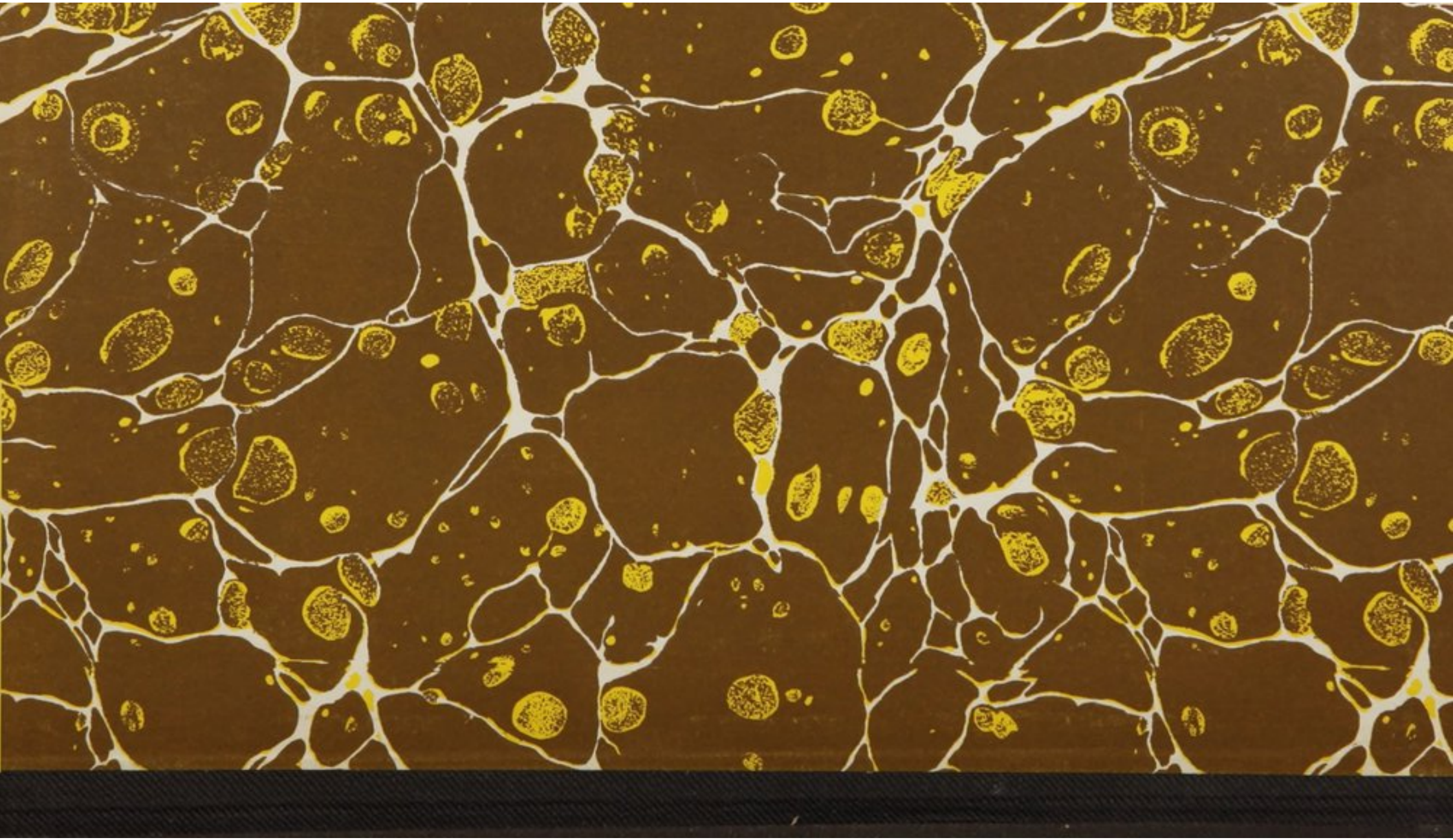
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A

# TREATISE

ON THE

# DISEASES OF FEMALES.

BY WM. P. DEWEES, M. D.

ABJUNCT PROFESSOR OF MIDWIFERY IN THE UNIVERSITY OF PENNSYLVANIA,

&c. &c.




*PHILADELPHIA:*

H. C. CAREY & I. LEA—CHESNUT STREET.

1826.

WP
D516t
1826

EASTERN DISTRICT OF PENNSYLVANIA, to wit:

BE IT REMEMBERED, That on the twentieth day of November, in the fifty-first year of the Independence of the United States (L. S.) of America, A. D. 1826, *Wm. P. Dewees, M. D.*, of the said District, hath deposited in this Office the Title of a Book, the right whereof he claims as Author, in the words following, to wit:—

"A Treatise on the Diseases of Females. By Wm. P. Dewees, M. D. Adjunct Professor of Midwifery in the University of Pennsylvania, &c. &c."

In conformity to the Act of the Congress of the United States, intituled, "An Act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies, during the times therein mentioned." And also to the Act, entitled, "An Act supplementary to an Act, entitled, 'An Act for the encouragement of learning, by securing the copies of maps, charts, and books, to the authors and proprietors of such copies during the times therein mentioned,' and extending the benefits thereof to the arts of designing, engraving, and etching historical and other prints."

D. CALDWELL, *Clerk of the*
*Eastern District of Pennsylvania.*

L. R. Bailey, Printer.

# ADVERTISEMENT.

The following pages are presented to the public, without preface, or apology. The necessity of a work on the Diseases of Females, and especially the most common of them, seems to be pretty generally acknowledged; but the difficulty of executing it, can only be known to him who undertakes it. This will plead with the liberal, for moderation in criticism; though it may be no extenuation to those of a contrary feeling. From the observations of the former, we hope to profit, should any such honour the work with their notice; and from the latter, we will not flinch, however severe may be the castigation, as we know it is much easier to find fault, than to excel.

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TO

# N. CHAPMAN, M. D.

PROFESSOR OF THE INSTITUTES AND PRACTICE OF PHYSIC, &c. &c.

THIS WORK IS INSCRIBED,

WITH SENTIMENTS OF THE HIGHEST ESTEEM FOR HIS MANY VIRTUES,
AND THE SINCEREST ADMIRATION OF HIS VARIOUS TALENTS,

BY HIS OBLIGED FRIEND,

THE AUTHOR.

*November 20th*, 1826.

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ON

# THE DISEASES OF FEMALES.

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## CHAPTER I.

### OF THE PECULIARITIES OF THE FEMALE SYSTEM.

HOWEVER extensive the influence of education, and the mode of life may be upon the human frame, they are not capable of effecting so great a change upon the female constitution, as to deprive it of its distinctive peculiarities. We are aware, however, that much is done by these great agents; and that where they have been employed under equal circumstances, for an equal period, that an approximation of physical and moral similarity has been observed; but they have not been able to change the general character of the female, so far as to leave the slightest doubt to which of the sexes the individual belongs, even independent of sexual peculiarity.

The intentions of nature in the formation of man, are not, nor cannot be performed by one sex alone; both must concur in this great object; and it would be idle to decide, by any process of reasoning, to which is assigned the most important role in this great work. Participation is essential to the end in view; and to each is allotted respective duties; duties which cannot be exchanged, or even varied; for they are immutable. To preserve, therefore, the moral and physical distinctions in his favourite creatures, and to prevent either neglect or con-

fusion in the performance of the duties assigned to them, the Deity has imposed such distinct organization upon sexes, as defies alienation, or exchange, in the exercise of the functions resulting from it.

In this place, however, we have only to detail, and that very briefly, the peculiarities which distinguish the female from the male; peculiarities, which impose upon her, functions and diseases altogether her own; as both her particular organization, and temperament, are made subservient to the important part she is destined to perform: for upon her devolves conception, gestation, delivery, suckling, and all the contingencies connected with these processes.

To what evils, then, do not these processes subject the female! yet, before she experiences these, she is liable to all such as may arise from functions which depend upon sexual organization: and before she can perform one of the ultimate intentions of her creation, she is liable, from mere structure, to painful, and sometimes to fatal diseases.

For to her, the period of puberty is oftentimes replete with evils; she is constantly liable to irregularities in her menstrua, and menaced severely by their consequences. She may be visited by them precociously, and be debilitated by their quantity or frequency; or they may be withheld so long, as to involve her health in ruin. Or she may be defective or exuberant in structure, and be obliged to submit, if not to a dangerous, yet to an indelicate operation, to free her from them. Besides these, she is liable to all the diseases of the male, that do not depend upon sexual distinction; thus is multiplied upon her, almost all the evils that can befall both the sexes. How much then is she entitled to the sympathy of the other sex; and how much does it become their duty, by a careful investigation of her diseases, to discover the mode of relieving them!

The anatomical and physiological peculiarities of the female, are both numerous and curious; we shall only, however, succinctly enumerate a few. One of the most striking differences between the male and female, is the inferiority of her stature. Her whole osseous fabric is more delicate, and less extended. The bones of her cranium are thinner, smaller, and more pli-

ant; and the space destined to be filled with the brain, is smaller.

The chest is more elevated, in consequence of the ribs forming nearly right angles with the spine; but these bones themselves are broader and flatter than in the male. This disposition of the ribs renders the thorax shorter, though its upper part is larger; but the sternum and cartilage have less length, and are flatter: the clavicles are shorter and more crooked. The pelvis of the female differs in a number of points from that of the male: it is calculated to subserve one of the most important, as well as interesting functions of the body; namely, the passage of the child during labour: hence, we find all its diameters larger than those of the male; together with a much greater expansion of the bones which constitute the arch of the pubes.

The general character of the bones, as well as their connexions with each other, differ from those of the male; their angles are less salient; and, consequently, their articulations are better concealed.

The muscular system differs also from that of the male; its mobility is much greater; the whole of the fibres of the female would seem to possess a greater tenuity and sensibility; hence, the proneness of the female to spasmodic and convulsive diseases; hence, the greater susceptibility of impressions from physical and moral causes; hence, the greater quickness of contraction of the muscles; and hence, less permanency of impressions.

The nervous system has also its peculiar properties; the nerves themselves are smaller, and of more delicate structure. They are endowed with greater sensibility, and of course liable to more frequent impressions from external agents, or moral influences; and thus contribute, with the muscular system, to render them liable to spasmodic diseases, and obnoxious to inordinate stimulation.

But these peculiarities are considered by some, rather an advantage than an evil. Thus, Vigarous declares, "Cette sensibilité excessive, loin d'être un mal, devient un avantage dans leur condition; car plus les sensations sont grandes, moins elles sont durable, parce que la mollesse et la flaccidité

des solids leur faisant opposer moins de résistance, leur réaction est moins forte, et cesse bientôt."

"Il n'en est pas de même dans l'homme; la rigidité et la force de ses solides exigent plus d'energie et un plus grand degré d'entensité dans le cause qui agit sur lui; mais aussi l'effect est plus durable, par la grand résistance que sont en état d'opposer ses organs, resistance qui le fait souvent succomber. Je comparerois volentiers, dans ce cas, la femme à ce frêle roseau, qui, incapable de resistance, fléchit humblement la tête sous l'effort de la tempête, et la relève doucement quand le calme est revenu; et l'homme à ce chêne altier, qui se trouve abattu, par la seule raison qu'il est fort et capable de resister."*

In the sanguiferous system, we may perhaps recognise the united peculiarities of the muscular and nervous systems; for in that system, we constantly find the circulation carried on with more rapidity, but with less force; the arteries are smaller, more irritable, and more easily urged into action, and more easily appeased, after having been excited to inordinate action. The veins offer less resistance to any given distending force; hence, they are more strongly marked upon the surface of the body; more decidedly full or permanently distended, and more disposed to become varicose. The arteries have smaller calibres, are quicker in their action, and but rarely ossify.

The cellular system is more abundant; more flexible; and more easily distended. It is better supplied with moisture, and from the compressibility of its texture, permits the blood vessels to divaricate, and pass unrestrainedly in all directions. From its abundance, and especially about the articulations of the great joints, and large foldings of the body, a roundness and beauty is given to parts, which in the male are angular, and perhaps even forbidding.

The cutaneous system differs much from that of the male; for it of itself almost becomes an object of beauty. Its texture is infinitely finer, more highly polished, more distinctly transparent. It permits the veins, which so gracefully ramify

* Vol. i. p. 40, Maladies des Femmes.

through its structure, to be distinctly seen, and this in fine contrast with the white ground on which they repose. It shows, from its fineness, to the greatest advantage, the arterial extremities which so beautifully assemble upon the cheeks. Its sensibility is much greater; and its sympathies, if not more extensive, are certainly more vivid than in the male. It is much more distensible than in the male; especially that portion which covers the abdomen; an important provision for the period of gestation.

The lymphatic system of the female does not differ widely, as regards conformation, from that system in the male: it absorbs and transmits, perhaps, with more rapidity, its appropriate fluids, than in the male; yet, there is no peculiarity, perhaps, in it, except the lymphatic vessels are more numerous; and when they have a certain predominance, they constitute a temperament; and then, unfortunately for the possessor, it but too certainly becomes the seat of terrible, and oftentimes incurable disease.

The peculiarities which we have thus briefly pointed out, necessarily render the female constitution one of a marked and distinct character. The assemblage of the differences which constitute it, renders it, in general terms, one in which the solids are less dense and resisting; more relaxed and flabby, owing probably to the predominance of the cellular and nervous systems. The lymphatic system is more extensive than the sanguineous; which, it is supposed, gives to the female a greater quantity of fluids than to the male.

To these causes, or rather circumstances, is attributed the formation of the predominant temperament of the female constitution; namely, the sanguineous temperament; so much insisted on by Rousel, and agreed to by Vigarous.

In attributing the sanguineous temperament, as the predominant one of the female, we only mean to express it as occurring as a general rule; for we are aware, that there are many exceptions to be found to it; for, among them, as with the male, every temperament may be found. It has, however, been given so generally, that some object must attach to its frequency; and perhaps the opinion of Vigarous, is as plausible as any. He says, "destinées, comme elles le sont (females,) à passer

de révolutions en révolutions, à eprouver des transitions brusques dans leur manière d'être, la nature a dû former les femmes d'une trempe molle, pour les mettre en etat de résister aux orages aux quels elle sont exposées." p. 39. vol. i.

Many are disposed, besides the systems just enumerated as belonging to the human system, to give to the female another, and endowing it with an extent of influence which belongs to no other; namely, the uterine system. It has been handed down to us from time immemorial, that this organ exerted a paramount power over every other system; and governed them with a sway no less whimsical than potent. It created, exalted, or modified disease in every portion of the body; hence, the aphorism of Hippocrates, "morborum omnium qui muliebres vocantur uteri in causâ sint." It not only formed, or governed the moral character of the female, but regulated the physical movements of her body; hence, the declaration of Van Helmont: "propter solum uterum, est mulier id quod est."

By many, the uterus has been declared to possess a separate and a peculiar life; having its own mode of existence, and totally independent of the laws which govern the other portions of the system. Aretæus compared it to "an animal confined within another animal; that it travelled without restraint from one portion of the body to another; that it would take possession of any sense; or occupy any viscera, whether situated at the right or the left side of the body; but that its movements were rather towards the inferior portions of the body. It was like a wandering being; that it relished agreeable odours, and would move itself towards the place from which they appeared to emanate; but would remove itself in sadness from places which had disagreeable smells," &c.*

Sydenham, Cullen, Good, and very many others, have given extensive powers to this organ, to produce, or modify disease. To venture an opinion, that would very much differ from the sentiments of the great men just named, would have the appearance of fastidiousness at least, if not of rashness. Yet, as we have never witnessed any decided instances of this extensive influence of the uterus, in the production of disease, we feel

* Chambon.

ourselves justified in entering our protest against it. In doing this, however, let us make ourselves as clearly understood as the nature of the thing will permit.

First.—We have ever found the unoccupied uterus to be one of great passiveness when in a state of perfect health; and that so long as it preserved this condition, it manifested no agency in the production of a disease, or in modifying it, if present. Thus fever, inflammation, either local or general; or spasm, has never appeared to us to derive advantage, or suffer inconvenience, from the influence of this organ.

Second.—That when in a state of disease, we have found several parts of the body sympathize with the uterus; as the stomach; the head; the breasts; &c. but precisely the same thing can be said of other parts of the body, for neither of which is such influence admitted, as is claimed for the uterus. Thus the brain, the stomach, the kidneys, the liver, &c. when in a diseased state, will have particular parts deranged, by a sympathetic influence; yet it has never been asserted, that either of these parts, had at any other time, or under any other circumstance but disease, any agency in producing or modifying disease in any other portion of the body.

Third.—While the uterus is performing one of its functional duties, namely, forming the menstrual blood; when it is known to be in a state of excitement, and decidedly engorged with blood; a time when it would most likely exert an influence, if it really possessed any; we never find this organ betraying a power over other parts, so long as the functional process is carried on healthfully; and that, during this period, we have hitherto not been able to detect the slightest influence over any disease, that may have been present in the system; nor has it ever made us vary a prescription, or modify a treatment.

Fourth.—That when the menstruous function is performed with pain and difficulty, other portions of the system are found to suffer from sympathy; but in no greater degree, than these very parts have been known to suffer, when some other organ was the source of irritation. In dysmenorrhœa, we have known the back and stomach suffer severely; the first by pretty intense pain, and the second by severe vomiting; but we have seen

the same consequences attend an irritated kidney, or an inflamed neck of the bladder.

Fifth.—That, when this organ is labouring under severe disease; as inflammation, scirrhus, or cancer; where all its ordinary functions are either deranged, perverted or suspended, and this for a long period together, we do not find, that it involves the system in any severer penalties, than any other equally important viscus would do, under similar circumstances.

Sixth.—That, when its functional powers are irregularly and imperfectly performed, or altogether suspended, by some derangement or power, if the general health suffers from this cause, it is not because the uterus has any superior power to effect this, but because one of the links is broken, (and we are willing to admit it to be an important link,) whereby the chain of healthy functions is maintained. A similar condition of any of the other viscera, would be followed by the same consequences.

Seventh.—That when the uterus is impregnated, various other portions of the system are deranged, in consequence of their strong sympathy with this organ; but even here, the complaints are not sui generis; for every one of them can be, and have been very often similated from other causes.* The whole phenomena of impregnation are so well understood as not to require reciting; but has not almost every body witnessed the whole train of these morbid sympathies to arise from very different causes?

We would then ask, what evidence is there, that the uterus possesses such unlimited sway over the healthy and diseased movements of every other portion of the body? Does not this error proceed from the influence of authority, and a supineness and indifference to rational inquiry and correct observation? Should the names of Hippocrates, Galen, Aretæus, Van Hel-

* In this assertion, we do not mean to include that beautiful and magic-like play of sympathies, which is established for the future welfare of the expected being; namely, the swelling of the mammæ, and the secretion of milk. These parts have a mutual, and an associated sympathy, which they with great fidelity maintain, as long as either is capable of performing their appropriate functions. The nature and extent of these intercommunions are too well known to need a particular mention.

mont, and a hundred others of greater or less authority, be permitted so to satisfy our judgment, or so paralyze our exertions as to prevent all investigation?

Do not let it be understood, from what we have just said, that we undervalue the importance of the uterus as an organ; and as an organ we are free to admit, that it has high destinies to fulfil; we only wish to insist, that it has no exclusive, or concurrent power, to produce, modify, exalt, or diminish, any disease or affection of the body, beyond several other viscera; and perhaps less than some. The stomach decidedly, and perhaps the liver, have more entire influence, either in a state of health, or of disease, over the animal economy, than the uterus.

Nor are we to be supposed to countenance the opinions advanced by Mr. Fogo,* some few years since, in a paper entitled, "On the degree of importance which should be attached to the functions of the uterus, in regard to health." He declares it to be his opinion, that it is of so little consequence to the animal economy, that it might be spared from the body, without the system suffering by its removal. He calls it "a simple, passive, accommodating organ;" and on this account can have but little influence or control upon the functions of the body. If the value of an organ is to be tested by such estimates, to what a low value would be reduced, the brain, or the stomach.

But the stomach especially, may be called, "a simple, passive, accommodating organ:" and possessing perhaps in a greater degree these qualities, than even the uterus itself. In the first place, its structure is less complicated than the uterus; it is equally passive, when permitted to be so; and it is doubtless as "accommodating;" as the efforts of the gourmand have frequently proved. Yet Mr. Fogo himself would not hesitate to admit, that this "simple, passive, accommodating organ," cannot well be spared because it possesses these qualities.

In a word, we are of opinion, that the uterus ranks in the first order of viscera; that its health is every way important to the general health of the system; but that it does not exert any particular power over other portions of the body,

* See an answer to Mr. Fogo's paper, in the "Essays connected with Midwifery," by William P. Dewees.

more than any other important viscus would, under the same circumstances; namely, of disease. That its influence is greatest, while performing, or giving evidence of its best state of health; namely, during gestation.

## CHAPTER II.

### OF THE DISEASES OF THE EXTERNAL AND INTERNAL ORGANS.

The structure of the external organs is such, as to render them liable to a variety of complaints; these always excite alarm, however free they may be from danger. Indeed, any disease of these parts creates a great deal of apprehension; especially in the married, or pregnant woman. Women are kept in a state of great anxiety, when labouring under any affection of these parts, until they can be assured it is not one of *a particular kind*, and that it will be attended with no danger. On this account, it is of consequence to the young practitioner, that he be acquainted with their general diseases, both in the unimpregnated, and in the impregnated state of the uterus.

It may be observed as a general rule, as regards inflammation of these parts, that, from their great vascularity and sensibility, inflammation is accompanied with much pain; and that it runs on very rapidly to suppuration. Indeed, we have seen severe inflammation of the labia terminate very rapidly in gangrene, though much exertion had been employed to prevent it. It may also be observed, that suppurations of the labia are attended with more than a usual degree of fœtor; this may be owing to the very cellular construction of them; this tissue dying more easily when much accumulated, than when in more spare proportions. We may also add, that they granulate more slowly than many other portions of the body, from the same cause.

From the looseness of the texture of some of these parts,

especially the nymphæ and labia, they become sometimes very much enlarged, from very slight irritations. When there has been a neglect of proper cleanliness, the natural secretions become acrid from stagnation, and produce an itching, which is very slight at first, but which seems to increase by the indulgence of scratching; which if persisted in, so inflames the parts, that they sometimes swell inordinately, but which does no mischief, if not too long persevered in. This happens especially with those who have a dread of water after the catamenial discharge; and who neglect to wash themselves after these purgations. On this account, it is important that the parts should be daily washed with warm water; particularly during the flow, and immediately after the menses have ceased; or if the woman be subject to fluor albus. The prejudices of some women on the subject of washing, should be removed, by the practitioner making it a point to recommend its frequent use, when consulted on these diseases.

## CHAPTER III.

### OF TUMOURS AND EXCRESCENCES OF THE EXTERNAL PARTS.

Some portions of the external organs are more liable to tumours and excrescences than others; thus, the labia and nymphæ are more frequently the subjects of these affections than other portions of the vestibulum. The nymphæ appear more obnoxious to indurations and excrescences, than even the labia; and they are especially so, when they are so long as to protrude themselves beyond the labia.

#### Sect. I.—*Diseases of the Nymphæ.*

When they are thus enlarged, they become of a very *dark colour*,* dense, and sometimes studded with a number of little

* Mr. Burns says, white; but this we have never seen.

tumours resembling warts. From their position, they are constantly liable to irritation; and in cold weather, to excoriation. Sometimes violent inflammation seizes upon these parts, in consequence of the reaction which follows a great reduction of temperature.

In such cases, rest should be enjoined; a free purging instituted; and, if the arterial system becomes involved, blood should be taken from the arm, or from the parts by leeching. A soft bread and milk poultice should be applied to the part, and renewed as frequently as occasion may require; that is, in warm weather every three or four hours; in cool or cold weather, more seldom.

These parts, sometimes, from the intensity of the inflammation, and especially if they have been much irritated by scratching, run on to suppuration. When this takes place, they must be treated as any other suppurating surface; taking care, at the same time, that the labia are not permitted to coalesce. We once saw an instance of the nymphæ suppurating, and thus getting rid of a number of warty excrescences, with which it had been previously studded.

Should these excrescences attend or follow a venereal affection, it might be well to try the effect of mercury; but this remedy holds out but little prospect of success, unless there be an unsubdued venereal taint present. When they are in the form of warts, and are, as is the case very often, very numerous, nothing will succeed so well as keeping the parts very dry, and exposed as much as possible to the air. The following case will illustrate this practice sufficiently.

Mrs. ——, who had been severely injured by her husband; and who had the venereal disease in its most aggravated forms; namely, chancres and buboes, about six months after she appeared to have recovered from these affections, found a vast number of little tumours spread over the labia, the nymphæ, and other portions of the vulva, which increased rapidly in numbers, as well as augmented in size; and from the whole surface of which issued a disagreeable smelling matter, which excited itching, and when the parts were rubbed, blood would issue.

The gentleman who had formerly attended this patient, pre-

scribed mercury to salivation; this was complied with, but the little warty tumours increased, and to such an extent, that a severe bleeding would follow every attempt at conjugal enjoyment. We were now consulted. The whole vulva was found to be completely occupied by these warty productions; they were almost without number, and of great variety of sizes. As we had treated these productions in the male with success, by exposing them, and keeping them perfectly dry, it was agreed that our patient should follow this plan.

The patient was ordered to her bed; the labia were kept separate, by means of adhesive plaster: this being done, the whole vestibulum, and crop of warts, were exposed. A quantity of prepared chalk was dusted upon the surface, and no other application was permitted; if we except the occasional washing with warm water; that is, morning and evening. This plan, though a little difficult of accomplishment, succeeded in about a fortnight to remove every excrescence, so as not to leave a vestige behind.

It was truly remarkable, to see how rapidly these parasite productions lost their life, by depriving them of moisture. They would drop off in large portions at every bathing of the parts, until each one perished in its turn.

Besides the excrescences just noticed, these parts are subject to prodigious enlargements; and sometimes require the knife for their removal. There is a preparation of these parts in the Museum of the Medical College of Pennsylvania, of an enormous size, and well worth the trouble of an examination.

The operation for extirpation, is considered by all surgeons, we believe, as perfectly safe. This complaint never seems to involve any large blood vessels. And Dr. Denman informs us, he has seen the enlarged nymphæ and excrescences removed by the knife, without the necessity of tying a single blood vessel. Introd. Francis's ed. p. 100.

In certain parts of the world, the nymphæ are peculiarly liable to enlargement; in some instances they have measured several inches, as among the Bosjesman women, if the accounts of travellers are to be depended upon. On the shores of the Persian gulf, the Christian women of Abyssinia; and in parts of

hardened, as very much to diminish the risk of its taking place after less attention is paid them.

We have dwelt upon this subject, because we know its importance; and because, it has not sufficiently attracted attention. Sometimes, unfortunately for the female, it has not been discovered during infancy; and it is especially so, when it remains concealed until womanhood; when perhaps the first intimation she may receive of her situation, is at a time, when of all others she would wish to have been ignorant of it. The alternative, now, subjects her to an operation which should have been performed in early life; and by which all her finer feelings are excruciated, with a severity that can be better conceived, than described.

This complaint sometimes becomes relieved spontaneously, but not fortunately always; and this may occur more frequently than we are aware of; since the causes which may produce it, are so constantly operating, as to lead us to suppose this accident to occur, in cases where it may not be detected. We had two instances of this spontaneous change to happen under our own observation.

In one of these, there was so much inflammation and tenderness in the parts, that we did not think it advisable to operate, until the existing state of things was changed. We directed soft bread and milk poultices, and a cathartic. On our next examination, we found that a complete separation had taken place, by the adhering parts having suppurated, and exposing two raw surfaces, which required much attention to prevent a re-union by their healing.

The other case was something similar; suppuration had commenced, and the connecting medium was nearly destroyed, when it was first observed. It was poulticed, as in the other case; and when about to heal, care was taken to prevent a second coalescence of the parts.

This condition of the labia is easily detected, by their refusing to be separated. When the parts are distended as much as their condition will permit, a continuous line of adhesion will be observed through the whole track of the labia; as far as the meatus urinarius above; and to the fourchette below; of course, the os externum of the vagina is entirely concealed.

The child passes its water without much difficulty; and when the complaint has been suffered to run on, or is not discovered until womanhood, the menstruous fluid has been evacuated through the same external aperture, by which the urine was discharged.

There is but one remedy, that we know of, for this complaint—and that is, to divide the parts. This is very easily performed, by passing a probe pointed bistoury into the orifice immediately before the meatus urinarius, and cutting downward to the inferior junction of the labia. A small dosil of lint, moistened with sweet oil, may be insinuated between the separated portions. The wounds heal without the smallest difficulty, in two or three days.

Dr. Denman, however, gives another opinion upon this subject; he says, "in such cases, we have been directed to separate them (the labia) with a knife; and how far such an operation may be necessary in the adult, if the parts should cohere, either in consequence of some new affection, or if a cohesion originating in infancy, should continue to adult age, must depend upon the judgment of the surgeon. But in infants, such an operation is neither requisite nor proper; because a separation may always be made, by a firm and somewhat distracting pressure upon each labium at the same time, which scarcely makes the child complain; though the small vessels, which had inosculated from one labium to the other, may be perceived to be dragged out during the continuance of the pressure. When a separation of the cohering labia has been made in the manner before mentioned, a folded piece of linen, moistened in a very weak solution of the zincum vitriolatum, or some lightly astringent liquor, should be applied every night when the child is put to rest, to prevent the re-union, to which there is a great disposition." Introduction to Midwifery, Francis's Edition, p. 101.

We cannot give an opinion upon the success of the mode of operating in adhesions of the labia, recommended by Dr. Denman. His reputation as a man of skill, would justify any one in making the attempt he proposes; though we should, ourselves, not be tempted to imitate him. The little pain, and the entire success which has followed the knife in the numerous

cases we have employed it, gives our mind a strong bias in its favour. A preference for the mode recommended by Dr. D., can only arise from an ill founded dread of the knife; it would unquestionably have required violent exertions to have torn some of the adhesions we have seen; and much pain and inflammation, we think, would have followed such efforts.

## SECT. IV.—*Abscess in the Labium.*

A variety of causes may excite inflammation of the labia; and when once produced, it is always interrupted with difficulty; the vascular and cellular construction of these parts, contribute much to hasten the suppurative stage. We do not remember a single instance in which a phlegmonous inflammation terminated by resolution, though in several instances the chances were as fair for trial, from the early application of the patient for relief, as these cases generally are. Indeed our failures to procure resolution have been so uniform, that of late years we do not attempt it; on the contrary, the immediate application of the Ung. Hydrarg. fort. sine tereb., or of a warm bread and milk poultice, is advised.

The process of suppuration usually runs on so rapidly, that but little time is permitted to make any attempt to procure resolution. The suppurative stage we have known to take place in a few hours; and it seldom continues beyond three or four days.

This complaint is usually announced by a sense of heat, or rather of burning, in one of the labia; and if it be touched, and this even slightly, pain is felt. Pain is also experienced, upon any kind of motion, which employs the lower extremities, and especially upon sitting down, or crossing the legs. The internal face of the labium, is found distended, very red, and protruding beyond the external covering of this part. It is from the great tenuity of the internal membrane, and on this account, bearing distention but ill, that we may look for the little good that has followed either general and local bleeding, purging, very low diet, or sedative local applications.

We have seen these abscesses in children, in several instances, follow bruises of these parts; they seem to be more painful in young subjects, than in older; they are almost always accompanied in children as in older people, by fever; and re-

quire a strict antiphlogistic treatment. We have thought the application of the Ung. Hydrarg. fort. sine tereb., to be more useful than poultices; and in young subjects especially, as the latter are always difficult to confine to the parts with sufficient exactness. One of the most painful and largest abscesses of this kind we remember to have seen, arose from a young lady sitting down suddenly upon a hard pin cushion; this case was treated exclusively with the ointment, until the moment the matter was discharged. They sometimes succeed to labour; but more frequently after a first child, than subsequent ones, unless some violence has been used to terminate the labour.

From the great delicacy of the membrane covering the internal face of the vulva, it is apt when inflamed and much distended, to take on the erysipelatous form, and very quickly become vesicated; and if not soon relieved, will often slough. On this account, we have been in the habit for these few last years, of exclusively employing for this species of inflammation, the mercurial ointment.

It happens, however, notwithstanding the rapidity with which matter sometimes forms, that the inflammation is less active; requiring a number of days for it to pass through its stages. When this happens, the tumour feels like a moveable gland under the skin. But this lesser rapidity of march, gives but little additional security that it will not suppurate; for this will take place, though at a more remote period.

When pain is considerable, laudanum must be given; but unfortunately, it does not always procure rest. These abscesses are not always, however, attended by severe pain; we have known them discharge, with very little inconvenience to the patient.

It has been taught by many, that these abscesses should always be permitted to break spontaneously; but for what reason, we do not perceive. We have always pursued a contrary plan, only taking care that the lancet is not employed prematurely. It, however, very rarely requires this interference; as the tumour opens of itself in a short time; but should it not, if the sufferings are great, and the fluctuation very evident, we do not hesitate to puncture it; for puncturing is all that is necessary; unless the most depending part of it cannot well be

commanded: in this case, it becomes sometimes necessary to lay it open to some distance, in order to secure a favourable healing.

## Sect. V.—*Œdematous swellings of the Labia.*

It is not an unfrequent occurrence, for the external parts to swell, or become œdematous. Women who have borne many children, and who labour under the anterior obliquity of the uterus, are more liable to this complaint, than those who are pregnant for the first time, and those who have not this obliquity. Women of leucophlegmatic habits, who are much upon their feet, and who may be disposed to anasarca, are also more liable to this complaint than others.

It rarely happens, however, that this affection is confined to the labia; it pervades the whole of the lower extremities, sometimes to a very troublesome degree; nay, even to bursting.

This condition creates a great deal of alarm, and is looked upon as a genuine dropsy. Some have thought it promised an easy labour; we have never seen this connexion: on the contrary, when excessive, we have thought it rather retarded this operation, by interfering with the voluntary exertions of the woman, and the development of the external parts: and on this account it subjects the labia, and perhaps the perineum, to laceration. At least we witnessed a case of this kind, in which the laceration took place, though not very extensively. The midwife, who had charge of this case, said she could account for it in no other way, as from its thickness it would not yield. In this instance, also, the labia suffered very much from giving way. Considerable inflammation, of an erysipelatous kind, followed; and was attended with considerable sloughing, and a great discharge of ill concocted pus, or rather sanies.

This case has rendered me attentive to these swellings, before labour is expected; when it is purely a consequence of gestation, it will sometimes recede of itself, several days before pain shows itself; but this must not be always relied on, since this change does not always take place. This condition is almost always accompanied by a full, hard pulse; with constipated bowels, and a paucity of urine, notwithstanding that these swellings owe their origin to a mechanical cause.

We have sometimes found great advantage from the loss of a few ounces of blood; a horizontal posture, and twenty grains of nitre, three or four times a day; taking care to keep the bowels soluble by the neutral salts in small doses. If it be evident, from the degree of swelling, that the cutis will give way if not relieved, it is best to take off the distention, by puncturing such parts as are most in danger.

Should it arise from a dropsical disposition in the general system, but little can be done towards a cure, until after delivery, though it must be constantly proper to relieve the bursting skin by punctures, should labour even be begun. We have, in several instances, been obliged to do this, before the finger could be well introduced into the vagina; nor have we ever seen the least inconvenience follow the practice.

It should always be directed, that the woman should confine herself almost entirely to the bed for the last week or ten days of her gestation; and to put her upon her guard against a full and stimulating diet. Indeed, the less she eats, the better.

## CHAPTER IV.

### IMPERFORATION, AND TOO GREAT DENSITY OF THE HYMEN.

A DISPUTE was long maintained, by a number of celebrated anatomists, whether there really belonged to the female organs of generation, the appendage called hymen. The dispute is not entirely settled to this day; nor is it a matter of much consequence whether it ever be, or even whether it ever can, if the same mode be followed by those who deny its existence. If it be attempted to demonstrate it, they deny it to be a proper portion of the human body; and, like Ambrose Paré, and some others, when present, declare it to be an unnatural production. If the occasional absence of a part, is to be assumed as the natural condition, in defiance of its frequent presence, it

would "confound all our philosophy;" for acephali would be considered as the natural state of the human body, in spite of the ten thousand examples to the contrary.

All that has been urged by Fallopius, Vesalius, De Graaf, Buffon, and many others, amounts but to this negative; that they did not always find the hymen when they sought for it. And this is, perhaps, satisfactorily accounted for by Cuvier, by saying, "Pendant longtemps il y à eu des disputes assez ridicules sur l'existance de cette membrane; on avait peu d'occasions de la voir, à une époque où l'anatomie ne s'exerçait que sur les cadavres criminels, et l'on s'appuya ensuite sur des observations incomplettes, pour soutenir des systèmes hazardés." Dict. des Scien. Med. art. Hymen.

If the existence of the hymen be denied, it would be in vain to talk of its imperforate state; yet, those who have done so, have furnished examples of this condition. With respect to this state of the hymen, we have nothing to add from our own experience; we have never met with an instance. All, therefore, that we can say upon this subject, must be derived from the observations of others.

The first inconvenience that is experienced, is soon after puberty: the menstruous fluid is regularly secreted; but, not finding an outlet, it accumulates from time to time, until the uterus itself becomes distended, and this sometimes to a very large size, before the cause of suffering is discovered. Thus, Dr. Denman relates an interesting history, where this state existed in a young lady, who, after incurring the ill-natured suspicions of those around her, submitted to an examination, which eventuated in the discovery of the imperforate state of the hymen. The doctor says, "the circumscribed tumour of the uterus was found to reach as high as the navel, and the external parts were stretched by a round soft substance at the entrance of the vagina, in such a manner, as to resemble that appearance which they have when the head of a child is passing through them; but there was no entrance into the vagina. On the following morning, an incision was carefully made through the hymen, which had a fleshy appearance, and was thickened in proportion to its distention. Not less than four pounds of blood, of the colour and consistence of tar, were

discharged;* and the tumefaction of the abdomen was immediately removed. Several stellated incisions were afterwards made through the divided edges, which is a very necessary part of the operation; and care was taken to prevent a reunion of the hymen till the next period of menstruation, after which she suffered no inconvenience." Introduction to Mid. Francis's ed. p. 110.

When the hymen is imperforate, the patient suffers at each return of the menstrual period; and these pains resemble the pains of labour, and have sometimes been mistaken for them. Dr. M'Cauley confesses that in one instance he mistook the protrusion of the hymen for the membranes forced down by the pains of labour; this case, like that of Dr. Denman, was relieved by incision through the dense and resisting membrane. Smellie's Col. I. No. 1. Case V.

In the case just related from Smellie, the patient suffered severely; and what added to her distress much, was the suppression of urine, which was not relieved until the contents of the vagina were discharged. There is something curious in the economy of the uterus under such circumstances; when its body becomes distended by the accumulation of the menstruous fluid, it seems to yield for a time without much opposition: but by and by it makes an effort to discharge its contents, and pains are excited. After these pains have continued a while, they cease; nor are they renewed, until another menstrual period arrives. It is now again stimulated to contraction, and pains again declare themselves; and in this manner things proceed until art affords relief. But the remarkable circumstance attending these cases, is the cessation and renewal of pain. The menstruous fluid is to all intents and purposes an extraneous substance to the cavity of the uterus when retained there; the surprise is, that it should not continue its painful contractions without ceasing; but this is not the case—for after continuing a certain time, the patient enjoys an interval of rest;

* Dr. Denman observes of this blood, that "it was not putrid, nor coagulated, and seemed to have undergone no other change, after its secretion, but what was occasioned by the absorption of its more fluid parts." This is one among the many proofs which present themselves, that the menstruous fluid is not common blood.

nor is the calm disturbed, until a fresh secretion, by renewing distention, again provokes it to contraction.

In consequence of the vagina and uterus being filled with this fluid, its pressure after a while becomes very severe; it not only produces pain as just stated, but it also interrupts two important functions; namely, the discharge of urine, and the evacuation of the fæces. And in a case related by Mr. Fynney,* convulsions were repeatedly produced. Mr. Fynney had to contend, in his case, with a hymen "more than an inch thick;" this is not, however, usual, agreeably to Mr. Burns; he declares they are generally thin. The quantity of fluid discharged is sometimes very large. Most of the cases make it at least two quarts; but Benevoli, as quoted by Mr. Burns, makes the quantity in his patient to be thirty-two pints. They appear all to agree as to the appearance of the evacuated fluid—in no instance is it mentioned, that it was found coagulated.

The remedy, in all instances, appears to be the same; it is to cut through the confining membrane. In some instances, as just noticed, the hymen has been found very thick; which of course will require additional caution in the performance of the operation. It is desirable, upon such occasions, that the parts be well distended, as it not only gives additional facility to the operation, but also additional safety. Dr. Denman says, "some caution is required when the hymen is closed in those who are advanced in life, unless the membrane be distended by the confined menses, as I once saw an instance of inflammation of the peritonæum being immediately produced by the operation, of which the patient as in the true puerperal fever, and no other reason could be assigned for the disease." Introd. p. 110.

The hymen is sometimes found extremely dense, though perforated sufficiently for the passage of the menses; but not so much, as to admit with freedom the veneral congress. However this may embarrass the act, it nevertheless does not prevent conception. A number of unquestionable cases are upon record, where this act was never properly consummated; yet the women were impregnated, and the child's passage through the os externum was facilitated by an operation at the last pe-

* Med. Comment. Vol. III. p. 194.

riod of labour. Hildanus, Paré, Ruysch, Mauriceau, and many others, make mention of such cases.

The late Dr. Cleaver invited my friend Dr. Chapman and myself to witness a case of this kind. The woman had been in labour for at least twelve hours, with a first child, when we saw her; the pains were now strong and frequent; the perinæum very much distended, and alone supported the efforts of the uterus. The os externum was entirely closed, if we except an opening of about the size of a common goose quill. Things had been precisely in this situation, several hours before we were called; and as all chance of a spontaneous dilatation, or even one effected by the force of pain, was at an end, it was thought best to cut the rigid hymen, and give a chance to the vagina to dilate, and the perinæum to unfold.

I accordingly passed a probe pointed bistoury between the child's head and the hymen, and made a slight incision in the latter, which enabled me to introduce a finger, by the means of which, I dilated, or rather broke down, the whole of the resisting membrane, in such a manner, that nothing but the natural resistance of the parts was now to be contended with. In about two hours more, the child was safely delivered, and without the parts sustaining any injury.

The mode of operating in this case, perhaps may not have been different from that pursued by others under similar circumstances; for none, so far as I know, have described the exact manner in which it was performed. But, as they have been silent upon that subject; and as my previous impressions as to the mode of affording relief, were altogether different from what I found necessary in this case, I think it best, that it should be clearly understood, that all that can be necessary to ensure success to the operation is, merely to destroy the continuity of the hymen in one part of it; for by this means the opening will be large enough immediately, for the finger to pass, by the aid of which, by giving it a rotatory motion, the adhesions of the hymen with the vagina may certainly be destroyed—at least, so it appears from its success in this case. I cannot think it ever necessary, on reflecting upon the mechanism of these parts, to cut into either the vagina or perinæum, or even to wound them.

# CHAPTER V.

## OF THE DISEASES OF THE VAGINA.

The diseases of the vagina may be natural or accidental. The natural consists, agreeably to Dr. Denman, of "such an abbreviation or contraction as to render it unfit for the purposes for which it was designed."* We have never encountered but one such case; and this was not so excessive, as altogether to destroy the usefulness of the part.† A great difficulty was at first experienced from coition; but this gradually lessened, and was never altogether removed. Upon an examination, it was found to be difficult to pass the finger, unless the parts were previously well lubricated; and this expedient was always necessary, before each conjugal consummation. The os uteri was found just within the os externum; and the whole distance to which the finger could be passed, did not exceed an inch, or an inch and a half.

This person was barren; but extremely anxious to be fruitful; aware of some natural defect, she submitted to the examination which led to the knowledge of what has been just stated above. As there was nothing to be done in this case, the parts were left undisturbed by any attempts to dilate the contracted passage.

In greater departures, Dr. Denman says "the curative indications are to relax the parts by the use of emollient applications, and to dilate them to their proper size by sponge or

* Morgagni mentions a case in which the vagina was only one-third of the common length; this was terminated by a firm fleshy substance—this woman was barren. "Columbus dissected a woman who always complained of great pain in coitu. The vagina was very short, and had no uterus at its termination." Burns. p. 87.

† Since writing the above, a woman of thirty-five years of age presented herself for advice. She informed me she never had menstruated, or felt any symptoms that would indicate it. She had been married nine years; had all the marks of womanhood; was not averse to, but rather enjoyed sexual intercourse; but of course never was pregnant. Upon an examination *per vaginam*, this canal was found narrow, and about an inch and a half in depth, terminating in a *cul de sac*. Nothing like a uterus could be felt.

other tents, or which are more effectual, by bougies gradually enlarged."

Dr. Denman informs us, that in a case of this kind, the efforts of the husband to overcome the resistance of the parts, so irritated them, as to produce a purulent discharge from them, which was mistaken for a venereal affection. The inflammation was subdued by the ordinary means; and living for a time absque marito; the parts were afterwards dilated by means of tents and bougies of various sizes. After her return to her husband she became pregnant; and was safely delivered after a slow, but not uncommon labour.

The accidental, consists of cohesions of the sides from previous ulceration; and of cicatrices after such ulcerations.

The difficulties arising from such causes, are most severely felt in the time of labour, as they are rarely of such extent as to interrupt coition. The time to be useful in such is, before the parts heal; if attended to then, much mischief might be avoided by the proper use of tents, &c. During labour, extensive bleeding seems to be the only remedy.

## CHAPTER VI.

### OF THE HISTORY OF MENSTRUATION.

The diseases connected with menstruation are so important, that I have thought it best to premise them with a general history of this process, that the deviations from health should be more evidently seen, as well as better understood.

The menstrual discharge may, with much propriety, be considered as peculiar to the human female; if there be exceptions to this rule, they are few, and but ill ascertained. We are told that the female of some species of monkey is liable to it; but, perhaps, in no other way than the bitch, the cow, the mare, the female elephant, &c. are said to be; for these, in the time of heat, have sometimes a sanguineous discharge from

the vagina. But this must not be considered as a genuine menstrual evacuation, as it proceeds merely from the rupture or abrasion of some small vessel, during the excessive engorgement that is wont to take place in the vaginæ of these animals, at such times. Besides, no moral end could be answered in the brute, as in the human female, by such a discharge.

Indeed, some would deny the menstrual discharge to be an original function, even in the human female, as Roussel, and after him Emmet; that this evacuation is the result of the social condition of man, and not the consequence of organization. Roussel has endeavoured to prove this, by declaring that man, in a state of society, feeds more than is absolutely necessary for his exigences; and that he becomes plethoric in consequence; and that this condition must be relieved by some artificial drain; in the male, by hæmorrhage from some part or other of the body; and in the female, by the menstrual discharge.

He declares, "que le flux menstruel, bien loin d'etre une institution naturelle, est au contraire un besoin factice contracté dans *l'etat social.*"* But it may be asked, what is to be understood by "l'etat social?" If it be declared, it does not express the condition of man in a state of refinement, it must be admitted to mean man united by some social compact; yet, wherever he has been found, so far, we have unquestionable proof that women menstruate; notwithstanding Roussel declares, that the uteri of the Brasilian women do not perform this function.

But, were this true with these particular women, (a circumstance much to be doubted,) it would be but an exception, and should not be taken, or rather mistaken, for the rule. Among the aborigines of this country hitherto examined, no such exception prevails: yet, were this a design of nature, it might most reasonably be looked for, among these varied, widely spread, and simple people.

Why this opinion of Roussel should have found abettors, is difficult to say; since it has neither facts nor ingenuity to sustain it. The hypothesis is founded upon circumstances to-

* Systeme Physique et Morale de la Femme, p. 113.

tally inadequate to the effect—namely, "Les hommes rassemblés ont toujours cherché à resserrer les liens de la cordialité dans les festins. La joie est plus vive, et les épanchmens plus tendres dans ces momens où la machine se remonte par une nouvelle nourriture: on est alors plus content des autres, parcequ'on est plus content de soi meme; l'absence de soucis laisse alors à la nature la liberté de jouir de tous ses droits, et meme d'en abuser; car il arrive souvent que, ne démêlant plus la sensation des mets d'avec l'impression de la gaîté, elle prend le change, et se surcharge d'alimens qu'elle croit encore necessaires, longtemps après que le besoin est satisfait."*

The consequence of these indulgences, he supposes to be a plethora: and this plethora finds an outlet in the female, by the menstrual discharge; and in the male, by hemorrhagies from various parts of the body, according to the period of life; or if the hemorrhagies do not take place, the consequences of the excess of blood show themselves in a variety of other forms; as affections of the chest, rheumatism, hypochondriasm, stone, gout, asthma, &c. &c.

It will be perceived, that this doctrine is but a modification of that promulgated by Galen—the only difference is, that Galen thought women were ever subject to the menstrual discharge, but a plethoric condition of the system was essential to its production: while Roussel supposes this plethora is of artificial origin; and that the menstrual discharge is the fortuitous consequence, to relieve the system from danger.

A few observations will be sufficient to destroy this curious speculation. 1st. From no record of the history of the human race, does it appear other than, that the female was always obnoxious to this discharge—thus, by Moses, it is distinctly stated to have obtained among the women of his time, and we have every season to believe as an arrangement of nature; so also among all the tribes of the most savage people. In this country, the most abundant proof exists in the journeys of Major Long, that the menstrual evacuation is a constant at-

* Systeme Physique et Morale de la Femme, p. 113.

tendant on the female, where human nature existed in its greatest simplicity. 2d. The cause assigned by Roussel, namely, "plethora," exists where this discharge has been interrupted; and to recall the menses often requires the abstraction of blood and other debilitating remedies. 3d. This function is oftentimes performed with the utmost regularity, and in the accustomed quantity, where the most decided debility prevails. 4th. That this discharge is *certainly* prevented, however long and regularly it may have been established, by the removal of, or from the diseased condition of the ovaries. 5th. That an abstraction of blood just before the period, or at any other time, does not prevent it.

Besides, very many, indeed all the mammiferous animals have, at certain periods, a discharge from the vagina, which is either a discharge essential to fecundation, or gives evidence of the capacity of the animal at that moment to be impregnated; and this discharge is sometimes coloured, as observed above, accidentally, but not necessarily; and that this discharge is in some manner connected with impregnation, is evident, since it never appears in its healthy condition, but at the periods when the animal is capable of fecundation. Now it is equally certain, that the human female is also capable of being impregnated after each healthy menstrual period.

Nor is this discharge in the brute, a mere increase of quantity of the ordinary excretion of the parts—it differs essentially from it, at least in its sensible qualities; as is evident to the discriminating nose of the male. Thus it would appear, that nature intended some end should be answered by this peculiar condition of the brute; is it not then equally certain, a similar end is answered in the human female, by the menstrual evacuation?

Again, this discharge commences only when the female is in a condition to meet and overcome the ordinary contingencies of impregnation and delivery. Now, were this a fortuitous discharge merely, why should it occur only at periods, at which the female can propagate her species, and always at a certain period of female life? for I must protest against the opinion of Roussel and some others, who suppose impregnation

may take place, before the menstrual action has been awakened, and after it has ceased.*

That impregnation has taken place before a coloured discharge has been witnessed from the vagina, and after it has ceased, I am every way willing to admit: but neither of these circumstances prove the absence of the menstrual action; or that action which only exists during the integrity of the ovaria, and which ceases, or never takes place, if they be imperfect, and which is essential, either directly or indirectly, to impregnation.

Roussel† declares menstruation to be, "less a cause than a sign of fecundity." In this I agree: for the menstrual action cannot be a cause of fecundity, since this capacity is known to depend upon the ovaria. Yet it is nevertheless essential to propagation, that the internal secreting surface of the uterus be in a healthy condition, and this manifested by a heathful catamenial discharge; or, in other words, only when the quantity and quality of the menses are free from objection, and the ovaries free from imperfection.

It may therefore be considered as highly probable, that the absence of the capacity to be impregnated, will sometimes depend upon the imperfect condition of either the uterus itself, or of the ovaries. If the former, it may consist in some derangement of the secreting surface of the uterus; and though there may be a regular discharge of a coloured fluid, and this so nearly resembling the perfect secretion as to deceive the senses, it may yet want an essential condition or quality, and thus entail barrenness—hence, all women are not fruitful who may have a regular catamenial discharge; though, as far as can be judged of by appearances, this discharge is every way healthy; and at the same time the ovaries free from fault.

Nor is this perhaps difficult to explain, or rather to imagine, how this may happen. I adopt the opinion that the menstrual discharge is a genuine secretion; and that the internal face

* Would it not seem extraordinary, that the plethora of Roussel should not exist until a certain period of life; and this period uniformly modified by climate, &c., or that it should not take place after another certain period of life, to maintain this discharge!

† Page 117.

or lining of this organ is the portion which furnishes it; now it will be evident, that whenever this part is in any way deranged, its product must also be impaired; but the injury does not consist so much in the imperfect elaboration of the menstrual fluid, as in the inability of this surface to furnish a healthy decidua after impregnation has taken place; for there can be but little doubt that the same apparatus furnishes both one and the other. This condition of the uterus I have reason to think is not of frequent occurrence; an ovum may be fecundated, and duly conveyed to the cavity of the uterus; but it is suffered to perish there, from the want of a healthy decidua; it is therefore cast off unperceived, at the next menstrual purgation, and the woman is relatively barren.

What strengthens this opinion is, that this lesion of the uterus is frequently repaired, by either proper remedies, or by the powers of the system alone; and the woman afterwards becomes fruitful. I am fully persuaded I have witnessed a number of such cases.

If it depend upon some imperfection of the ovaria, it may not, perhaps, admit of relief. The diseases of the ovaria may consist; 1st, in their imperfect development; 2d, in derangement of structure; 3d, in a want of healthy organization of the ova themselves. Now either of these conditions of the ovaria may be so complete as to altogether destroy their influence upon the secreting surface of the uterus; the catamenial discharge may therefore continue with all due regularity, and yet the woman may be barren; and hence this discharge cannot be considered rigidly, even as a sign of fertility.

Yet it may be admitted safely as a general rule, that women who menstruate regularly, without pain, or the expulsion of coagula, are fecund; and that the reverse of these conditions is sure to be attended with sterility. It may also be observed, that we cannot attach much meaning to the quantity evacuated; for the woman who may evacuate double the quantity of another, is not for this reason more certainly prolific. I have known a number of instances of repeated impregnations, where, as far as could be ascertained, not more than two ounces were habitually evacuated; and this not occupying more than a day and a half, or two days, for its elimi-

nation: while, on the contrary, I have known women who were barren, discharge three or four times this quantity; and the fluid bear all the sensible marks of a healthy secretion. From this it would appear, that mere regularity in returns, the elimination of a proper quantity of fluid, and this fluid of apparently a healthy character, do not always declare the woman to be fecund; yet, when the woman has never menstruated, or when this discharge has ceased, agreeably to the ordinary arrangement of nature, she never is impregnated, or ceases to become so if she ever have been.

It is true, we are told, by highly respectable authority, as observed before, that impregnation has taken place before the inception of the menses,* as well as after their final cessation. The explanation of this seeming exception is not difficult, for the reason already assigned; namely, that because a coloured fluid was not observed, it was taken for granted that the uterus had not assumed the menstrual action, or had not resumed it.

Now it is admitted by all practical men† who have paid attention to this subject, to be a fact, of no very rare occurrence, for the menstruous evacuation to be serous for several periods, before the menstrual blood, properly so called, shows itself, more decidedly to mark the establishment of this process. This is especially the case with those who have this discharge to commence early.

I was consulted some months since, in the case of a young lady between twelve and thirteen years of age, who was labouring under a diseased spine, but who was also afflicted with head-ache, palpitations of the heart, and great sickness of stomach. She had also at somewhat regular periods a pain in the small of the back, with a bearing down sensation; a desire to pass water; to go to stool; &c. From these circumstances her mother concluded, and in this I concurred, that an

* Rondelet mentions a woman who was delivered twelve times; and Joubert another, who bore eighteen children, neither of which had ever menstruated. *Gardien Traité d'accouchemens*, Vol. I. p. 220.

† Gardien says, "Si quelquefois le sang sort brusquement sous couleur rouge, le plus constamment les regles commencent par un flux séreux et finissent de meme." *Traité complet d'accouchemens*, Vol. I. p. 238.

effort was making for the production of the menses, though the common external signs of puberty were almost entirely wanting. I however requested the mother to be careful in examining the linen worn by her daughter at these periods, and ascertain whether there was not a discharge from the vagina resembling leucorrhœa. This was done: she reported there were considerable marks upon her linen; and this was observed for at least four periods; after this, menses of the usual appearances were established, and continued with tolerable regularity up to the present time. This is the third instance I have witnessed of rather precocious menstruation in girls with diseased spines; whether there is any connexion between this affection and the functions of the uterus, must be left to future observation to determine.

Thus we see how easy it is to err on this point with young girls; and to suppose they have been made to conceive before the catamenial period had commenced; nor is the error less liable to be made in those rare instances of impregnation, after the final cessation is supposed to have taken place; for in several well attested instances of pregnancy at advanced periods of life, it was found, upon close examination, an effort had been made by the system to restore the catamenial flux by a periodical, serous discharge.

In one case, which fell in part under my own notice, this effort was certainly made; but perhaps without the knowledge of the person concerned; yet it was sufficiently evident to the individual who washed her clothes, and who furnished me with the account; for it is presumable, with such evidence of returning youthfulness, she would scarcely have risked the consequences which followed her amour.

I was requested, in the month of March, 1795, to visit a young child, ill with the natural small pox. At almost every visit I paid the child, I observed an aged woman much afflicted at its dangerous condition. Having an opportunity, during the absence of this person, to inquire who she was, to my great surprise I was informed, she was the mother of the child. I thought my informant was attempting to impose upon me, and told her so; but she seriously declared I might rely upon the fact. I was now informed that the mother of the child had

never been married, and that she was in her sixty-first year when the child was born.

The case interested me much, and my inquiries became very particular; and from much conversation, I learnt that the old woman had ceased to menstruate at forty-five; but, that about two years before the period of my attendance on the child, she, (the nurse of the child, and the washerwoman of the mother,) had observed monthly evidence of a return of the catamenia; it was not much coloured, yet sufficiently so as to excite attention. Now this case would certainly pass for an instance of impregnation, after the menses had ceased, and it is one every way calculated to deceive upon this point. I have therefore concluded, that the cases upon record purporting to be of this kind, may have been similar to the one now related.

So far, facts seem to oppose the idea, that impregnation can take place before the menstrual action has been established, and after it has finally ceased; let us now see if reasoning will not corroborate them.

It will not be disputed, that a part cannot perform its peculiar or appropriate action, until such part is completely developed, or its organization perfected; consequently, the uterus will not be subject to the mentrual action, until the surface which furnishes this fluid is perfect in its arrangement; and not then, unless it receive the peculiar stimulus given by, or it sympathize with, the perfect ovarium or ovaria. Now, by all we learn either from experiment or accident, it is certain, that the menstrual action is for ever prevented, by the extirpation or destruction of the ovaria; consequently, this action is dependent for its existence upon the state of integrity of one or both of these bodies.

Now, it is equally certain, that if the ovaria be incomplete, they cannot furnish perfect ova, or ova capable of fecundation: nor can they give or excite that action which furnishes the menstruous fluid. If, on the other hand, the ovaria be properly developed, and the menstrual action does not take place, it is but reasonable to suppose that some imperfection must exist in the uterus itself; and if this be admitted, it would seem to follow, that a perfect action cannot be expected from an imperfect organ; and it will be yielded without

dispute, that no process in the human system requires greater perfection of organs, than those subservient to generation.

Therefore, as regards the main point, it is unimportant whether the imperfection be seated in the ovaria, or in the secreting surface of the uterus; for if it exist in either, coition cannot be entirely successful. If the ovarium furnish a perfect ovum, it may be fecundated, though the mentrual action had never taken place; but this is but one step in the march of generation; for if the ovum be not properly cherished after it shall have arrived in the uterus, it will soon perish and be cast off. For that it may be sustained and properly developed, it is essential that the uterus produce the decidua; and that it cannot furnish this sine qua non is highly probable, since the part or organization which is to yield it, is the same as that which performs the menstrual secretion; and the imperfection of this is beyond doubt, since it has not formed this fluid.

From the history of impregnation, it seems to require the united perfection of the internal uterine surface, and at least of one of the ovaria, that its object shall not be defeated; for if these organs be imperfect, either fecundation cannot result, or it will take place unavailingly. Thus, if the ovaria, from disease or imperfection, cannot furnish an ovum fit to profit by the application of the male semen, fecundation will not ensue; if, on the other hand, the internal face of the uterus be diseased, and incapable of furnishing the decidua, the ovum must perish though fecundated. It is therefore but reasonable to conclude, that if the uterus be not sufficiently developed to secrete the menstruous fluid, it must be imperfect; and if imperfect, it cannot perform what is essential for the preservation of the ovum after it has been placed in its cavity.

Fecundation, after the cessation of the menses, must be equally doubtful; since it is probable it would require a renewal of the menstruous action, that fecundation should be successful. At present, we are not sufficiently acquainted with the conditions constituting this cessation; or in other words, what changes take place in either the ovaria, or in the secreting surface of the uterus itself. We only know it does take

place, but how, we are altogether ignorant. The moral cause of the cessation is better comprehended than the physical.

It would seem but fair to conclude, that if the early part of female life required a certain condition of the uterus and ovaria, to render coition successful, it would be no less necessary at the more advanced stage: I have attempted to prove this necessity, and the same arguments should serve for the later period. For it is evident that the ovaria and uterus must have suffered a change, or the woman would have continued to menstruate: now it is of little moment whether the change occurs in the uterus or in the ovaria, since either incapacitates the woman, both for menstruation and conception.

It is, however, probable, that the ovaria suffer deterioration earlier than the uterus; as many women continue to menstruate regularly for a considerable time, until the final cessation, without conceiving. The ovaria may cease to produce ova to be fecundated, and the absence of this power may eventually cause the final departure of the menses, since they would be no longer necessary or useful.

It is probable, then, from impregnation now and then taking place, long after the disappearance of the menses, that an ovarium may regain its powers and furnish a new ovum; and when it does regain this capacity, the internal face of the uterus may re-assume its menstrual action, and impregnation may be under proper circumstances the consequence. But that it may be eventually successful, precisely the same condition of the uterus must exist, as when this process was successful in the earlier periods of life; for if this be wanting, the same consequences must necessarily result.

It seems that the production of efficient ova is governed by some general law in each individual female; in the brute it is regulated with great exactness, as they have regular periods of salacity, and this salacity may depend upon the presence of a perfected ovum or ova. In the human female this periodicity is not so exactly limited, as individuals differ very much in their capacity to be impregnated; and each have a marked period, cæteris paribus. Thus some women are impregnated every twelve or thirteen months; others every eighteen

months or two years; while others enjoy much longer intervals.

I know a lady who conceived but once every seven years, and she bore four children at these intervals. I have known several to have a lapse of three years between each pregnancy, &c. It would seem from these facts, that it requires a lapse of a certain period to perfect an ovum; and that this process is much more rapid in some instances than in others. But when the ovaria lose the power of furnishing ova, as at the cessation of the menses, impregnation ceases of course.

Impregnation after the final cessation of the menses, is of extremely rare occurrence, and should be ranked among those extraordinary instances, in which the system makes attempts to renew certain lost functions, or repair lost parts. Thus, the eyesight has been restored, after having remained imperfect many years; the hearing in like manner has returned after long deafness; the teeth have been renewed after they have for many years been lost, &c. Is it not then more than probable, that if this case occur, that all the functions ordinarily esteemed essential to this process in the early part of life, should obtain, when it takes place after the menses have ceased? Now, a healthy menstrual action is a sine qua non, in the earlier parts of life, to this process, it would seem then to be indispensable at the latter period; and where impregnation has obtained, we cannot well question that it was preceded by this action.

The period at which the menses make their appearance, is various; it is much influenced by constitution, climate, and mode of life. As a general rule, it takes place at puberty; or that period when the female is capable of propagating her species; and this period varies as climate may differ. They constantly, however, keep pace with the development of the body; where this is rapid, they will appear proportionally earlier; where this process is slower, they will appear later: but whenever the menses appear as regular evacuations, they mark the period of puberty; thus, in hot countries, women commence to menstruate at eight or nine years of age, and are not unfrequently mothers at ten.

In the more northern regions, as in Lapland, &c. this eva-

cuation is generally delayed, until the female has attained her eighteenth, or nineteenth year; in the temperate latitudes the average period will be found from the fourteenth to the sixteenth year. A difference will nevertheless be found, in the women who may reside in cities, and in those who dwell in the country of each respective portion of the globe. It may also be observed, that in cold countries, the women continue to menstruate for a longer period than in warm; and as a general rule, it will be found, they are obnoxious to this discharge, double the period that elapses before it commences. Thus, women who have not this discharge until eighteen, will be found to have it until beyond fifty; those who commence at fourteen or fifteen, will leave off at about forty-five; those who begin so early as eight or nine, will have it cease at twenty-five or six.

There are, however, a number of curious exceptions to these general rules; they consist in the precocious appearance, and unusual protraction of the menses. Haller, Van Swieten, &c. give instances of each kind. I have seen several cases where this discharge was regularly continued until the fifty-fourth or fifth year.

This evacuation rarely fails to be announced by a variety of symptoms of greater or less severity, or danger; especially, among girls who have been delicately and luxuriously brought up; and thus having their nervous system rendered morbidly sensible or vibratile, a great variety of nervous symptoms, as they are called, precede the eruption of the menses; such as ringing of the ears; a sense of suffocation; palpitation of the heart; starting from slight and sudden noises; precarious, and whimsical appetite; loathings and cravings; convulsive twitchings; convulsions; chorea sancti viti, &c. &c. all of which are sometimes instantly relieved by a trifling discharge from the vagina, and this not necessarily coloured.

The last mentioned circumstance, must have been observed by every attentive practitioner, who may have had charge of females; and it is one worthy of note, as it goes to confirm what has been advanced above, of the indentity of the action, which produces these fluids, though so different in their appearance.

The vascular system is sometimes also much disturbed; we often witness determinations of blood to various parts of the body; as to the head; the lungs; the mammæ; the stomach and bowels, &c. for the relief of which, we are obliged to abstract blood, and employ other remedies, if a kindly discharge from the uterus does not quickly tranquillize the disturbed and embarrassed circulation.

Sometimes the inconveniences are confined to the genital system—in such cases, a sense of weight; bearing down; ardor urinæ; pain in the region of the uterus, &c. are experienced; all of which, for the most part, announce the approaching discharge.

It is at this period also, that nature perfects her work, both as regards development, and proportion; it is the period of the most perfect beauty, of which the female is susceptible; it is the one at which the moral changes are not less remarkable than the physical; it is a moment, of all others, the most replete with consequences to the inexperienced and confiding female.

At this period a great variety of interesting and curious phenomena present themselves; the voice is found to change; the neck and throat to increase in size, and to become more symmetrical; the mammæ to swell; the nipple to protrude; the chest to expand; the eyes to acquire intelligence, and an increase of brilliancy; in a word, a new being almost, is created.

The quantity of fluid expended at a menstruous period differs in different individuals; with girls who precociously menstruate, the quantity is in general smaller, and the returns less regular. Climate exerts an influence upon the quantity discharged, as well as upon the periods at which this evacuation shall commence. Thus, in the equatorial and more northern regions, it is less than in the more temperate climates.*

A variety of causes, independent of climate, are said to have the power of increasing the menstrual discharge; as all circumstances suited to increase the activity of the system;

* Gardien, p. 227.

and thus tend to its more hasty development. Such are the passions of the mind frequently indulged in, as anger and joy, a too stimulating diet, rendered so by either spices or spirits of any kind. All such as would have a tendency to produce a plethora of the uterus, and thus increasing its sensibility; as the frequent use of foot baths, foot stoves, &c. all such as excite a pruriency of the imagination; and lastly, those which augment the quantity of blood; as too full a diet, especially chocolate as a constant article of food; great indulgence in feather beds, with a want of sufficient exercise.

It would be difficult to ascertain the exact quantity evacuated at each period, as it cannot be well subjected to measurement; hence the discrepancy upon this subject. Hippocrates set it down at twenty ounces; there can be no doubt but this is very much overrated; at an average, from four to six ounces may be considered as the proper mean. It usually employs from three to six days for its evacuation, and for the most part is extremely regular in its returns. I know a number of females who can tell not only the day on which it will return, but even indicate the hour at which it shall show itself. With other females, however, it is less regular; but it rarely exceeds the twenty-eighth day with women who are in good health; if we except, when it approaches the period for its final cessation.

When the time approaches at which this evacuation is to cease, agreeably to the arrangement of nature, this flux becomes more desultory, both as regards the periods of return and the quantity of fluid eliminated. The discharge may return every two or three weeks, or it may procrastinate until the fifth or sixth week, or sometimes even longer; and instead of the four or five ounces which were wont to be effused, twenty, or even more may be evacuated. But it must be remarked that when the quantity becomes thus excessive, it is not a genuine menstruous product that is poured out—for this process is now accompanied by a true hemorrhage, as is evinced by the expulsion of coagula.

From the last expression it may be collected, that I consider the menstruous fluid not as a pure or unmodified blood: I shall therefore state the reasons for this belief. "1st. Its colour is between the arterial and venal blood; being less brilliant than

the former, and more florid than the latter. 2d. It never separates into parts; blood drawn or evacuated from any other part of a healthy body does separate in a short time into its component parts. 3d. It never coagulates, though kept for years; while other blood, when free from disease, quickly does when exposed to the influence of the air. 4th. Its odour is remarkably distinct from that of the circulating mass; and it is less disposed to putrefaction."

It has been supposed, because the menstruous fluid does not coagulate, that it contains no fibrin; but it is more probable that this substance has been deprived of its power of coagulation, by being subjected to the influence of the vessels of the secerning portion of the uterus. This opinion is strengthened by recurring to the fact, that the coagulating lymph always accompanies the red globules, wherever the latter may be found.

The menstruous blood may therefore be considered as a substance differing from the blood of the circulating mass in at least two remarkable properties; namely, in not coagulating; and second, in not separating into parts. It is true, there are many of high authority, who declare a contrary belief; Hippocrates declared it to be pure blood; similar to that of a victim, if the victim be in health; and this opinion has been handed down to the present day, without inquiry or dispute.

If mere blood were evacuated from the uterus at the menstrual periods, it would be, strictly speaking, an hemorrhage; but that this is not the case, the whole phenomena of this process seem to declare. I have stated above, some reasons for my disbelief on this point; and shall now add, that had this operation consisted in the mere evacuation of unchanged blood, it would be attended by precisely the same inconveniences as almost always attend hemorrhage from this part; namely, pain of an alternate kind, arising from the contractions of the uterus to expel coagula, which are too apt to form, and require the efforts of the uterus to expel them.

It may also be added, that in cases of imperforate hymen, the accumulated menstruous blood remains fluid, though a little thickened; and when relieved by an operation from its confinement, it is found to flow with considerable freedom from

the orifice made for this purpose. No coagula present themselves, as would be the case, were this fluid true blood.

That the menstruous blood may contain all the constituent parts of common blood, I am not at present about to dispute, since I am not prepared to say in how many, or how few details it may differ upon a strict analysis: it is sufficient for my present purpose to state, that it must experience some change during its elimination, as it is uniformly, when in a healthy state, deprived of the property of coagulation.

This last circumstance, from its uniformity, must have a meaning; I have just stated what I believe to be the probable intention of this change, namely, the comfort of the woman; but it may have a higher object; it may be essential to the propagation of our species. Certain it is, the sensible properties of this evacuation differ in certain individuals; and it is found, that when this discharge is very profuse; when many coagula are thrown off; when it is thin and pink coloured; when very black, and resembling, in some measure, coffee-grounds; or, when it is discharged with pain, and accompanied by a whitish membrane, the women so circumstanced, are barren, so far as my observations have extended.

As I do not believe this discharge to be a mere exudation from the internal surface of the uterus, and constituting a species of hemorrhage, it is proper to declare, what I believe to be its real nature. I look upon this discharge to be a genuine secretion, from the mucous membrane with which the cavity of the uterus is lined; since it would be difficult to explain by any other process, than some peculiar mode of arterial action, the change which evidently is wrought upon the coagulating lymph; and we know that this substance is, in many instances, under the immediate influence of this set of vessels, as is proved in cases of scurvy; death from a blow on the stomach; a certain stage of yellow fever; small pox, &c.

In these cases, the blood loses the power of coagulation by some peculiar arterial action; and this sometimes in a very short lapse of time. The same effect is produced by the uterine arteries during the menstrual process; and this process may, with much propriety, be termed a secretory process.

The menstrual fluid has been considered as a secretory pro-

duct for very many years, and this opinion is now generally adopted by many of the physiologists of the present day: thus Haller, Bordeu, Sanders, John Hunter, &c. called menstruation, without hesitation, a secretion. Who first broached this doctrine, is, perhaps, at the present day, impossible to say. The credit has been given to each of the gentlemen just named, but not with justice, as I shall show immediately.

In Rammazini's "Essai sur les maladies des artisans, par Fourcroy," p. 214, we find the following passages; "il y à tout lieu de croire que le sang des regles à quelque qualité maligne et cachée; et on lui à donné à juste titre le nom de *secretion* et excretion." In this passage, the word secretion appears to be familiarly employed, and one most probably used in common parlance among the medical men of the day.

Fourcroy, the translator of this work from the Latin, in a note to a part of the paragraph from which the above extract is taken, says, "Rien cependant n'etoit plus naturel, sans avoir recours aux phénomenes chymiques, que de concevoir le flux des regles, comme une secretion, qui à son organe, ses périods reglées, sa marche et son départment, ainsi que toutes les autres secrétions." P. 216.

From these extracts it is evident, that neither of the gentlemen above mentioned, is justly entitled to the honour of the suggestion: for the first edition of Rammazini's work was published in 1700. Indeed, it would seem, from the manner in which it is mentioned in this work, that the doctrine was not new at that time: at least there is no claim laid by Rammazini for originality.

I consider the uterus to be lined with a membrane of the mucous class, as taught by Bichat and others, notwithstanding its existence has been lately called in question. In examining the latest authority on this subject within my reach, I find it doubtfully mentioned by Meckel, in his Manuel d'Anatomie, as translated by Jourdan and Breschet, vol. iii. p. 611. He says—

"La face interne de la matrice est tapissée par une membrane muqueuse rougeâtre, presque lisse, garnie seulment de villosités tres fines, qui se continue superieurement, et de chaque côté, avec celles des trompes, inférieurement avec celle

du vagin. Dans l'etat frais, cette membrane adhére d'une maniere si intime à la substance fibreuse sous-jacente, qu'on ne peut l'en isoler, quoique sa structure annonce assez qu'elle appertient à la classe des membranes muqueuses; mais, avec du soin et de precautions, on parvient à en detacher quelques lambeaux, apres avoir soumis, la matrice à la maceration."

"Son union intime avez le reste de la substance de la matrice à fait revoquer son existence en doute par plusieurs anatomistes."*

It is truly a matter of surprise, that it should be questioned for an instant, that the uterus is lined with a membrane, and this of the mucous kind; for neither the authority of Morgagni, Boerhaave, nor Haller, all of whom Chaussier has called to his aid to support the opinion, can possibly alter the structure of this part; a membrane is obvious to the eye, and when macerated, tangible to the fingers; and the nature of its discharges proves it to be a mucous membrane. It has been thought by some to be of a deciduous kind, and regularly cast off after each delivery, or even after abortions. There is much reason, from the appearances of this part after delivery, to countenance this opinion—it however yet wants confirmation. But, if this suggestion were admitted in its fullest extent, it would not militate against the presumption that it is a mucous membrane. For this membrane must be considered as possessing a considerable variety of function under particular circumstances: for mucous membranes are made to throw out, not only mucus, but pus, and even modifications of these substances.

It is, in truth, most intimately connected with the substance of the uterus immediately beneath it, and cannot, perhaps, ever be separated from it in the recent and sound state. But this only proves the closeness of its connexion, and not its want of

* "C'est l'opinion de Chaussier et de Ribes. Me. Boivin dit aussi n'avoir jamais aperçu cette membrane muqueuse, et pense que la face interne de la matrice n'est formée que par l'extremité des vaisseaux exhalans qui s'y ouvrent. Une pareille explication est tres vague, sinon même tout à fait inintelligible. L'Analogie, quand il n'y aurait pas d'autre motif que celui-là, ne permettrait pas de douter que la face interne de la matrice ne soit tapissée par une membrane." *Note des Traducteurs.*

existence. Indeed, this strict union strikes me as highly useful in the economy of gestation: for were it loosely and uncertainly attached to the substance of the uterus, much inconvenience would result from the great distention this organ must undergo during the advancement of pregnancy.

Upon opening an unimpregnated uterus, and viewing the cavity it presents, we are immediately struck with the smoothness and polish of its surface: now, it may be proper to ask, what is this whitish and shining surface which thus presents itself? Can it be the extremities of the exhalents of Mme. Boivin? or the proper substance of the uterus, as insisted on by Chaussier? Will an arrangement like that of Mme. Boivin, or Messrs. Chaussier and Ribes, secrete a mucous fluid; yield a fluor albus; or render a pus? Or, in other words, will any other surface, save a mucous surface, display the phenomena of a confessed mucous membrane?

This membrane is denied to exist, because it cannot be separated from the substance of the uterus; and when it is urged that this can be effected by maceration, or incipient putrefaction, they declare the separated portion to be no membrane, but some accidental concretion. It is said by Chaussier and Ribes, that the membrane which lines the vagina, terminates at the orifice of the uterus.

The quality of the menstrual blood has been a matter of much dispute with many of the writers upon this subject. It is by some considered perfectly innoxious, and by others as extremely deleterious. The ancients attributed to it the most baleful effects upon both living and inanimate matter. Thus Pliny declares the approach of a menstruating woman will turn new wine sour, render fruit trees sterile, or even destroy them; burn up the seeds and fruit of a garden, if she should sit near them, &c. &c. While Fallopius, Rodrigue à Castro, Baillou,* &c. assure us, in its natural state, that it is perfectly free from all bad qualities. La Motte, though apparently willing to remove the imputation urged against the menstrual blood by Pliny and others, cannot altogether divest himself of the prejudices of the times and of education. He seems dis-

* Rammazini, p. 214.

posed, however, to compromise between the force of opposing facts, which he confesses daily to have observed, and the influence of names and of instruction, by relating, with great *naiveté*, the following story.

After having timidly attempted the refutation of Pliny and others, "that the menstrual blood is most injurious," he says, "But I see sufficient to make me apprehend the presence of a woman in this situation, especially if she have red hair. I had a servant of this kind. One day I gave a breakfast to a number of my friends; white wine is the kind which is usually preferred upon these occasions; especially if you intend to eat oysters; and mine was excellent; and was drawn by this servant. My friends expatiated upon the goodness of my wine. The next day I breakfasted in like manner with one of the friends who had been with me; but he had no wine but red; I immediately sent for some of my white wine; but it was found so spoiled as to serve for nothing but vinegar. The same servant aided in salting some pork, which was afterwards found to be spoiled; though the part which was salted by another person in another cellar, was perfectly good." He adds, with his usual candour, "but I cannot say whether this may not have been the fault of the salt."*

It must be admitted that this secretion is acrid occasionally, and will leave traces of its acrimony upon the parts over which it flows; but when this happens, it must be recollected that this discharge is in a deranged state, and no longer a pure menstruous evacuation. This occurs more frequently towards the decline of life; and especially if there be a tendency to cancer. It must, however, be recollected, that even in such instances, the general system is not contaminated in the commencement of this condition of the uterus; the acrimony of the discharge results from an altered action of the vessels concerned in the process of elimination and exposure to the air, and it is not until portions of this discharge is absorbed, or until the system at large sympathizes with these diseased parts, that any evidence of the uterine affection is betrayed by the skin or other parts becoming diseased.

* Traité des accouchemens, p. 57

The idea of the impurity of the menstruous blood took its rise from the supposition, that this discharge was intended to relieve the woman from certain noxious humours generated in her body, from her sedentary habits, as well as other causes. Hence, so much dread was entertained, when this evacuation was interrupted from any other cause than pregnancy. But no alarm was excited, when this flux was arrested by gestation; as the fœtus and secundines employed it they said for their own purposes.

This opinion they thought supported by the appearance of certain eruptions upon various parts of the body when this discharge was suppressed, and which yielded only to such remedies, as restored this evacuation. But this fact, at the present day, would be explained upon very different views of the animal economy; and it will no longer serve to support the notion of the deleterious effects of suppressed menses.

It was also supposed, that hemorrhagies from other parts of the body must be a necessary consequence of the uterus failing to secrete the menstruous blood; and we find in the books of medicine, very many instances purporting to be illustrative of this hypothesis. I am not prepared to say that such a thing never existed;* but I can with the most entire confidence de-

* Gardien relates a curious case, upon the authority of Mr. Brulé, which he considers as a proof of the diversion of the menstrual action, but which I cannot regard but as a periodical hemorrhage: and altogether analogous to the bleeding hæmorrhoids, which frequently in females, observe as much regularity when the menses are regular, as when they may be absent.

"*First deviation.*" "The menses were suppressed in a young girl, whose life had been a series of illnesses up to that moment. She became regular after this; for six months the discharge was evacuated from little wounds in the legs, occasioned by the breaking of some small vesicles."

"*Second deviation.*" "There appeared upon the left arm some vesicles or pimples, (boutons,) which yielded blood at the menstrual period during a year."

"*Third deviation.*" "This was succeeded by a whitlow on the left thumb, and a chap upon the first phalanx: and at the end of two months the menstrual blood flowed periodically from this part for six months."

"*Fourth deviation.*" "The girl was now attacked by an erysipelas in the face and the left eye, which terminated by two openings, one at the angle with the nose, and the other in the middle of the upper eyelid: these two openings yielded an evacuation periodically for two years; it then ceased from these parts, to be voided by the left thumb."

clare, I never witnessed such an example; and when they occur, must be considered, if entitled to any weight, but as exceptions to the rule. Have not instances occurred of fœtuses being found in the ovaria of virgins?

At the present day, I believe, no one will imagine, that he observes a woman's health to be worse, as a regular occurrence, as she approaches the period when she looks for her catamenial flow; nor imagine he sees an improvement, after this period has passed over: yet it would seem essential to the support of this conjecture, that both one and the other, should follow. Nor is there much reliance to be placed upon the existence of the "menstrual fever" of the older writers, though supported by the later authority of Bordeu. That a fever may occasionally be perceived at such periods, I have no reason to deny; but that it is an attendant upon this discharge as one of its phenomena, there is much cause to doubt. When this opinion arose, it was the order of the day to be minute; and an accidental circumstance was recorded, as an essential character.

## CHAPTER VII.

### DERANGED MENSTRUATION.

After giving the history of menstruation, it would seem proper we should furnish an account of the varieties of derangements to which this function is liable, and the mode of treating them.

"*Fifth deviation.*" "An erysipelas now showed itself upon the abdomen, attended by a great itching; the navel was very painful, and for five months the blood flowed regularly from this part at each menstrual period."

"*Sixth deviation.*" "A slight accident happened to the left internal malleolus of the ankle, and the blood flowed regularly from this part for four months."

"*Seventh deviation.*" "An acute pain was felt in the left ear; a discharge took place from this part for two months."

"When the blood did not flow from any determinate spot, it would vent itself by an hemorrhage from the nose, or from the stomach by vomitings, preceded by head-aches and giddiness." *Traité complet d'accouchemens, &c.* Vol. I. p. 239

The derangements to which this discharge is liable, are as follow:—

1st. Its too tardy appearance.

2d. Its interruption after having been established, commonly called the suppression of the menses.

3d. Its excess of quantity.

4th. Menorrhagia.

5th. Dysmenorrhœa or painful menstruation.

6th. Its irregularity towards the decline of life.

### Sect. I—1. *Tardy Appearance of the Menses.*

In our history of menstruation we have shown, that this process is more regulated by the condition of the sytem, than by the age of the female; and that though the climate and manners of each portion of the globe exert an influence upon the human constitution, yet that influence is constantly observed to especially manifest itself, in the more early, or tardy development of the genital organs. This being the case, the period of puberty, or that period at which the human female is capable of propagating her species, and of which condition the menstrual discharge is the sign, will arrive at different periods of female life; but never, until the organs destined to furnish this evacuation, are sufficiently developed, to meet, and overcome, all the ordinary contingencies of impregnation and of labour.

It will therefore follow, as a general rule, that climate will determine for the female constitution, a period, for the development of these organs; and consequently, for the appearance of the menses, in each particular portion of the globe. This being the case, a general period is established, at which this evacuation may be looked for; and this is so nearly constant, (cæteris paribus,) that any deviation in this respect is looked upon as a state of derangement, if not of disease; hence, the surprise that is always expressed, when this evacuation anticipates the common period; and the solicitude, when it does not take place at the ordinary time.

In consequence of this general law, a law established by climate and manners, many vulgar errors have arisen, which have too successfully exerted an influence upon the conduct of those

who may have charge of females at this critical and interesting period of their lives.

The average period for the first appearance of the menses, may be between the fourteenth and the fifteenth year in this country; when they fail at this time, much anxiety is evinced on the part of the friends of the girl so circumstanced; and every indisposition with which she may be attacked, is sure to be attributed to this cause. In the hope of provoking the menses, now due as they suppose, the patient is almost always condemned to medical discipline; and but too frequently injured by submitting to its rules. Nothing perhaps would be more difficult to overcome, than the prejudices, upon the necessity of this discharge, at a certain period of female life; and this period determined by the number of years which have passed. Women, upon this subject, are but too often incorrigibly wrong-headed, and we are obliged to yield, for the patient's sake, an appearance of acquiescence. In many instances, did we attempt to convince them of their error, it would not only be labour lost, but, what is worse, would too often deliver the patient over to the discipline of some rapacious quack, or some ignorant pretender to medicine.

The lapse of a certain number of years is not all that is required, that the menses may make their appearance; the uterus, and ovaria, must be developed, and be in good health, if I may so term it, before this discharge will show itself; and this condition of the genital system, is always indicated by corresponding changes in certain other portions of the system—there must, and will be evidences of womanhood, before this event shall happen;* and when these are absent, the girl should never be tortured by the class of medicines called emmenagogues.

There seems to be four conditions of the female system, in which the menses are tardy in their appearance: *a*, Where there is little or no development of the genital organs; *b*, where it is taking place very slowly; *c*, where this development is interrupted by a chronic affection of some other part; *d*, where

* I have lately seen three instances which contradict this rule—in neither of which was there the slightest development of the mammæ; but, in each of these cases there were diseased spines. Whether this condition of the spine has any influence upon the appearance of the menstrual evacuation, remains to be proved.

the most perfect development has taken place, but they do not make their appearance. The management of each of these conditions, is different—I shall therefore treat of them in order.

Condition *a.* Or where there is little or no development of the genital organs. This condition of the system is easily detected by the absence of all the signs which should characterize puberty—the breasts do not swell; nor is hair always on the pubes. In a girl thus circumstanced, who otherwise is in good health, it would be more than idle, it would be cruel and dishonest, merely because she had attained her fourteenth or fifteenth year, to subject her to medical rule, or goad her system by stimulating emmenagogues. In such a case, if the mother or friends are rational, and to be trusted, we may honestly give our opinion of the entire insufficiency of medicine to produce the desired end. We should explain, so far as we can, the nature of the function of menstruation, and of the pre-requisites to this discharge; and attempt to produce on their minds the important conviction, that time, under proper circumstances, is all that is required, to effect the anxiously hoped for change.

I have encountered many such cases—with some I have succeeded, to bring them to my opinion; in others I have not been so fortunate;—the latter may be divided into two classes—the one, though not convinced by our reasoning, dare not openly bid defiance to it; because, they fear the responsibility, and thus will yield a reluctant acquiescence. The second, confident in their own judgment, will sometimes act upon it, to the imminent risk, if not to the destruction of the poor girl, who may be the object of their solicitude.

With the latter, when importunate, we should use a temporizing plan; and, by the administration of some entirely inert medicine, gain time, and save the patient from permanent ill health, or an untimely grave. I but too often call to mind with bitter recollection, the fate of a most amiable, and interesting young creature, for whom I was requested to prescribe for the expected menses, but who had not one mark which would justify an interference; and especially, as she was in perfectly good health—she was fifteen, it was true; and this was all that could be urged by the mother in favour of an attempt to "bring down her courses." I relied too much upon

the good sense of her anxious parent; and freely explained myself to her—she left me apparently satisfied with my reasoning; and I heard nothing of the poor child for six months; at which time I was suddenly summoned to attend her, as she was said to be alarmingly ill.

When I saw her, she was throwing up blood in considerable quantities from the lungs; she died a few days after, from the excess of this discharge. The distracted mother told me, that, though she appeared satisfied with what I had said when she left me, she was convinced I was wrong; and that her daughter's health required the immediate establishment of the menstrual evacuation. With this view, she determined upon the trial of a medicine of much celebrity in similar cases, vended by a quack. She procured it; and gave it according to directions; in a few days her daughter became feverish, lost her appetite, and frequently puked; her strength failed, and after a short time she was confined to her bed—she called upon the "Doctor," and told him of the condition of her daughter; he encouraged her to persevere: and told her, that the fever, &c. was an effort nature was making for the end proposed—she persevered, fatally persevered; for, in a few days more, she lost her only, and lovely daughter. I examined the medicine which had been exhibited; it proved to be the oil of savin.

Condition *b*, or where the development is taking place slowly. This condition is known by the partial alteration the mammæ have undergone; by some expansion of body; and the protrusion of hair on the pubes. The general health sometimes suffers slightly; especially if the girl has passed the fifteenth year, and grows rapidly—she is assailed by a train of nervous symptoms, as they are called; such as palpitation of the heart, ringing in the ears, headach, a temporary loss of strength upon any sudden exertion, and a loss of, or a whimsical state of, the appetite.

This condition is not unfrequently accompanied by fluor albus; and when it is, it more particularly deserves notice. This case merits attention, when the health is injured; but must not be meddled with, when it is not.

Our exertions in favour of such patients, should tend to the invigoration of the system in general, and the development

of the uterine system in particular. The first should be attempted, 1st. by the establishment of a regular course of exercise:—such as riding on horseback, when practicable; walking in proper weather; skipping the rope within doors, when the weather will not permit exercise abroad; dancing moderately, and with strict attention not to become overheated, and cooling too suddenly; 2d. by proper attention to dress; wearing flannel next to the skin in cold weather, and properly protecting the feet and legs against cold; carefully avoiding damp and wet places, and partial streams of cold air, especially when warm: 3d. by a diet of easily digested substances, both of the animal and vegetable kind; avoiding all stimulating drinks, such as wine, spirits, or beer, &c. under the specious pretext of strengthening.

The second must be accomplished by such medicines as appear to have a direct, or indirect action upon the uterus itself; of the direct, the tincture of cantharides appears to be the most efficient, and should be preferred to all others when leucorrhœa attends—thirty drops should be given three times a day, until this discharge cease. We may gradually increase the dose, should the complaint be obstinate; for it is of primary importance that it be removed; for we need scarcely look for the catamenia, while this remains in any force—leucorrhœa is a kind of local depletion, and prevents that partial congestion so favourable to development, and the production of the catamenial discharge. The parts should be regularly bathed every day with warm water; especially, during the continuance of the fluor albus.

Of the indirect kind, aloes seems to be the most certain—the influence of this drug upon the uterus, has been very long acknowledged, and was much extolled for this purpose by Morgagni and his contemporaries—it should be given in very small doses, and perseveringly continued; this medicine is perhaps preferable to the tinct. canth. where leucorrhœa does not attend; the following is the formula I generally employ:

R. Gum. aloe. suc. ʒss.
Pulv. Rhæi. opt. ʒj.
Ol. Caryoph. gut. iv.
Sapo Venet. gr. viij.
Syr. Rhæi. q. s.—M. f. pil. lx.

One of these to be given every night, night and morning, or every other night, as they may affect the bowels—the object is to keep the bowels free, but not purged. This prescription is a remarkable instance of the power of combination; for the very small dose just recommended, will sometimes act with great force upon the bowels—so much so, sometimes, as to oblige us to reduce the above quantity one half. The same regard must be paid, at the same time, to air, exercise, and diet, as just recommended.

Condition *c*, or where this development is interrupted by a chronic affection of some other part. This condition is readily detected, by the presence of any such disease, as may be capable of interrupting this discharge, after it has been thoroughly well established; such as phthisis pulmonalis; chronic inflammation of the liver, or spleen; dropsy, &c. Under the existence of either of these diseases, the menses will almost always be suspended; because, it will certainly interrupt the development of the organs, essential to the formation of this discharge, however favourably this expansion may have commenced.

This case constantly exposes the physician to the importunities of the friends of the patient, for something "to bring down the menses;" it is in this case, of all others, they are persuaded that nothing more is wanted to re-establish health—we must here conceal our real sentiments; for however convinced we may be of the inefficacy of remedies for this purpose, we must not say so, if we regard the welfare of our patient. For no reasoning will convince them, that the disappearance of the catamenia depended upon the diseased condition of some other part of the body; and that until this be removed, their re-appearance is not to be expected. Indeed the attempt would be mischievous; for the patient would most probably be taken from us, and consigned perhaps to worse hands. We should, however, declare to the friends, that this circumstance (the absence of the menses) has been duly weighed, and will influence our prescriptions.

In such cases, no prescription can be availing, but that calculated to remove the original disease; and of the diseases

which may interrupt the menstrual action, it is not our immediate province to speak; for they are not peculiar to females.

It is true, however, that the long continued suppression of the menses, may seriously involve other viscera than the uterus; and their cure when thus implicated, may depend upon the restoration of this discharge; but when this is the case, it constitutes the chronic suppression of the catamenia; which suppression was the original disease. A want of attention to these different states of suppressed menses, whether ideopathic or symptomatic, has led to the empirical treatment of this complaint.

Condition *d*, or when the most perfect development has taken place, but the menses do not make their appearance. This condition is easily known, by the girl having all the outward signs of womanhood; the menses is all that is wanting to complete her title to it, and fit her for the duties she is destined to fill. This case is sometimes attended by fluor albus; when it is, it must be treated as recommended above; at other times, there is a manifestation of an attempt to produce the discharge, by the institution of pain in the back, hips, and loins, with a sensation of fulness in the pelvis, attended sometimes with a forcing or bearing down. This is periodical sometimes; and may be accompanied even by a serous discharge from the vagina, resembling whites. The tinct. canthar. as recommended above, will rarely fail to produce the discharge, if given steadily for two or three weeks; or the madder may be given; especially, if the period for the return of the pains just spoken of, be near at hand. Indeed, this seems to be the only period at which this substance is more decidedly useful, than any other of the emmenagogue medicines; it acts at times so promptly, as almost to call in doubt its agency: but repeated success under such circumstances, has convinced me of its efficacy. From its possessing no general stimulating property, it becomes very valuable, in cases of great irritability of the system, or where there may be slight febrile paroxysms; for it seems to be a law of the animal economy, to institute fever, whenever strength is considerably impaired—hence, we almost always see it after wasting discharges of every kind.

I have found that a strong decoction of this wood is of equal efficacy with the substance, and is much more easily taken—a pint of boiling water is directed to be poured upon an ounce of finely powdered madder, and a scruple of bruised cloves, and gently simmered for fifteen minutes; when cool, strain off, and give a wine glassful every three hours—I have lately had a case of this kind, where the madder succeeded most promptly. This case rarely gives much trouble, unless the interruption has been occasioned by imprudent exposure to wet or cold—in this instance, it must be treated as an obstruction.

A remarkable case of the non-appearance of the menses, is at this moment under the care of my friend Dr. Physick and myself. A lady of thirty years of age, had the usual concomitants of puberty at the ordinary age; these signs, however, were not followed by the catamenial flow, though pain in the hips, loins, abdomen, particularly in the region of the uterus; numbness of the thighs; &c. periodically, seemed to premise it would be so. In this situation this young lady has remained to the present period. Previously to my seeing her, she had tried, without the least benefit, all the known emmenagogues; as her sufferings were severe, and so long continued, several medical gentlemen were consulted previously to my seeing her; and so effectually were all the established remedies tried, that I was left almost without resource. On examining her per vaginam, nothing faulty could be discovered about the uterus.

The only thing that suggested itself, as a *possible* remedy, was to pass a flexible catheter into the cavity of the uterus, under a hope, that something in the neck of this organ might obstruct the flow, of perhaps accumulated menses. This suggestion was accordingly acted upon; and the extremity of a catheter was passed an inch and a half through the neck of the uterus. The withdrawing of the instrument, was not followed by a discharge of any kind; and consequently, our hopes were immediately destroyed, and our patient nowise relieved. She has never been troubled with leucorrhœa, or any other discharge from the vagina. This case we looked upon as not less ambiguous, than hopeless. The sufferings of this patient are great; the abdomen, during the periods of pain, is very tender to the touch, and a little distended; a considerable hardness is

felt immediately over the region of the pubes; but no circumscribed tumour, like the distended uterus, could be felt. This case is remarkable for several of its circumstances; 1st. there is every outward manifestation of the development of the genital system; 2d. at every return of the period at which this discharge should take place, there is pain and other symptoms which commonly announce this discharge to be at hand, when not regularly established; 3d. as far as an examination per vaginam could ascertain, there was no defect in the uterus itself. In this case, the most probable conjecture I can make is, that there is an anatomical defect in the secreting surface of the uterus itself; and that the pains which are endured at each returning four weeks, may be owing to the plethoric, or engorged state of this organ, and which is not relieved, as is common, by the secretion of the menstrual fluid.

### Sect. II.—2. *Of the Suppression of the Menses.*

However well established the menstrual discharge may be, it is liable to be interrupted from a variety of causes, independently of pregnancy and suckling. The little regard which females pay to this period, exposes them too frequently to a derangement of the menses; nay, some I have known, so heedless of consequences, as to designedly interrupt them, by putting their feet in cold water, when engaged for a party of pleasure. Cold in some form or other may be considered as the most frequent remote cause of this suppression; and it may be applied either in the interval; just as they are making their appearance; or after they have flowed some time.

When cold is applied with sufficient force in the interval to arrest this discharge, the first notice the woman has of its influence is, the want of return of the menses, at the subsequent period; she for the most part neither suffers pain, or other inconvenience, until the menses may have failed in their return for several periods; she then may experience the approach of ill health; and may become an object of medical care. She now becomes pale, emaciates, and is much enfeebled—a train of nervous symptoms may be superadded; such as palpitation of the heart; difficulty of breathing; a sense of suffocation; especially, after any thing has hurried the circulation—she may

also be attacked by fluor albus, which soon aggravates the previous unpleasant symptoms.

When cold is applied as the menses are about to appear, or after they have flowed some time, the symptoms are generally very different: in such cases, the patient is frequently attacked with violent pain in the head, back, or bowels, and this with such force, as to give great alarm for her safety. I have known temporary derangement, violent hysteria, and severe colics, result from this cause. For the relief of these, we are obliged to have recourse to blood-letting, purging, warm bath, camphor, opium, assafœtida, &c.; and, for the time being, are necessitated to treat the complaints as if they were independent of such a cause; for we very rarely can re-establish the discharge, at the moment when it has been thus interrupted; nor should it always be attempted, as sometimes much injury is done, by neglecting the consequences of this interruption, and directing the whole force of our endeavours to the recall of the discharge. I admit, that after bleeding and purging have been performed, advantage is sometimes derived from either the general or partial warm bath, or hot fomentations to the abdomen; especially, if pain be experienced in the region of the uterus. Should pain be severe, I have found nothing to answer so well as an injection composed of a gill of thin starch, a tea spoonful of laudanum, and thirty grains of finely powdered camphor. If it be complicated with hysteria, the addition of three tea spoonsfull of the tincture of assafœtida, instead of camphor, may be useful; this may be repeated pro re nata. When colic supervenes upon the interruption of the menses, after bleeding, (should the pulse have indicated it,) I have found the most certain relief given by half-ounce doses of the elix. proprietat. in warm sweetened milk, until the bowels are opened.

Having pointed out, in a cursory manner, the plan of treatment for the consequences of a sudden interruption of the menses, I shall now proceed to the consideration of such plans as will invite their return. In doing this, I must be considered as only speaking of the idiopathic suppressions, and the modes of treatment proper for them. I must here premise, that I do not look upon every deviation in regularity, as a legitimate

cause for medical interference; for in many instances with young girls, and especially, those who began precociously to menstruate, there will be a want of precision in return, that must not be mistaken for disease. Did we subject the poor girl to medical treatment upon every aberration of this kind, we should be condemning her to most improper discipline. So also, it many times happens with hale robust young women, that a temporary suspension of the menses takes place from cold, or passions or emotions of the mind,* which after a certain duration, return without medical application, or even the slightest premonition. My rule on this point constantly is, never to interfere, unless there be some evidence that the health is suffering by the absence of this discharge.

The general health rarely suffers, until three successive periods have passed, unless this obstruction be accompanied by fluor albus. If this attend, the health may be earlier affected; and when it happens, it should be immediately noticed. The remedies will vary, according to *the state of the system;* and I cannot too earnestly recommend attention to it, as success in the treatment of these complaints almost exclusively depends upon this discrimination. Perhaps there is not in the whole range of medical practice, such a departure from principles, as in the treatment of certain female complaints—they seem to be prescribed for with determined empiricism; as if the laws which govern diseases in general, were not applicable to them. The want of success in many of the complaints of females, is owing almost altogether to the determination to discover specifics for them; for the existing condition of the system is never taken into calculation, when the prescription is made; hence, the almost uniform failure of certain remedies in the hands of some practitioners, which are as uniformly successful, in the hands of others. A practitioner acquires, by long habit and correct observation, a control over certain diseases, that will not yield even to the same remedies, when indiscriminately used by others—this tact in the use of certain medicines, is but the result of accurate observations on the various conditions of the

* A lady informed me, that while menstruating, she fell down stairs; and from that moment, the discharge was suspended; nor did it re-appear, until the next period.

circulating system; and when this study is neglected, it is a moot point whether the remedy succeed or not.

In prescribing then for the disease, or rather, derangement under consideration, it were almost hopeless to employ remedies without the strictest attention to the existing state of the system; the remedy which shall relieve in one case, may not only be used unavailingly, but perhaps injuriously, in another; it therefore behooves every one to become familiar with the various states of pulse, before he prescribe his remedies, if he expect to succeed by their employment.

The word *debility* has occasioned the death of thousands; and perhaps to the end of time, it will have its victims—every interruption of a natural action, which may involve the system at large, with nine-tenths of the writers upon diseases, originates in *debility;* hence, the whole class of diseases we are considering, is supposed to either originate in, or be perpetuated by, *weakness:* thus fluor albus, and the deranged conditions of the menses, are considered as diseases of *weakness;* than which, nothing can be farther from the truth. The most opposite remedies will in their turn remove the same diseases; and the person who cannot understand the reason of this simple fact, will never be able successfully to combat them.

Having stated some general notions on the management of the complaints under consideration, I shall now proceed to detail the practice essential in each particular state of the system. When the suppression is of recent date, that is, not more than of three or four months standing, I almost always find, that the pulse, so far from betraying marks of *debility*, manifests a tendency to an excess of action; when this is the case, we should commence the treatment with such remedies and regimen, as will reduce the pulse to a proper standard, before we proceed to the exhibition of such medicines as shall have a direct tendency to produce the menstruous discharge—this is to be done, by blood-letting, by purging, and by a strict vegetable diet—this plan is so effective in some cases, as to require nothing more, for the re-establishment of health; and in others so indispensable, that success can only result from its employment as a preparative step. I will illustrate both of these cases by appropriate cases.

*Case First.*

Miss ——, after having stood a long time on a damp brick-paved cellar on a hot day, and at the warm employment of "preserving," found herself chilly, and her menses arrested: her mother had her daughter's feet put in warm water, and gave her some hot pennyroyal tea; this removed the chilliness, but did not restore the discharge; she was occasionally taking remedies without effect, until some time after the third month; at this time she became more indisposed, and I was requested to visit her—I found her labouring under severe headach, which was much increased by sitting up, or motion; her pulse full, and a little quickened; her tongue slightly furred; her appetite impaired, and her bowels costive. I directed her to lose twelve ounces of blood; to be freely purged by senna; and to confine herself to rennet-whey, barley water, or thin tapioca, for nourishment.

Her symptoms were much less severe next day, but not entirely removed—I ordered another dose of senna tea, and the same diet to be observed: on my next visit she appeared perfectly relieved, but I insisted on her using a spare diet for some time longer, and to take an aloetic pill every night; this plan was pursued for several days, at the end of which time her menses made their appearance.

*Case Second.*

Miss——, after a stoppage of her menses for four months, desired my advice; her health of late began to suffer considerably—she was pale and emaciated; had some fluor albus; headach; loss of appetite; and was readily agitated by slight causes; much palpitation of the heart; especially on going up stairs. Her pulse was tense and hurried; skin hot; and tongue furred considerably; especially in the morning. I ordered her to lose ten ounces of blood; to be purged by senna, and to be confined to a vegetable diet—she was relieved by these remedies; but as the force of her pulse was not entirely subdued, I thought it best to keep the bowels loose, and confine her still to a vegetable diet. This plan, strictly persisted in for about ten days, reduced her pulse sufficiently to bear

the tincture of cantharides, in doses of five-and-thirty drops, three times a day; in a few days the fluor albus stopped; and in a few more, the menses made their appearance. Upon these two cases, I shall merely remark, that had I given any emmenagogue medicine in the commencement, I should not have had the pleasure of seeing my patients so quickly restored—or, in other words; had these cases been treated as cases of *debility*, I am certain the complaints would have been aggravated; yet, in the last, there were strong marks of *debility*, agreeably to the common notions upon this subject.

The madder may be given more safely than any other remedy with which I am acquainted, without such particular attention to the pulse, as it excites no increased action in it. I am in the habit of using this drug without previous preparation, should I be applied to, near the period at which the menses should have appeared; and succeed sometimes most promptly with it—indeed this is the only time at which it seems successful; for if it fail then, it is rarely more fortunate afterwards.*

When the madder fails, I commence, in recent cases, with the cantharides, after having duly prepared the system for its reception. I rarely increase the dose more than ten or fifteen drops beyond the original dose; as the moderate doses of thirty-five or forty, have always been found sufficient with me, when the medicine would succeed at all. Should the cantharides fail, the volatile tincture of guaiacum is then ordered: which, when exhibited in proper cases, has never yet failed in my hands—I give it with a confidence I attach to no other medicine for this purpose. This confidence is the result of very many years' experience of its efficacy. I have often succeeded with it, where almost all the other emmenagogues have failed; nay, I have done more; I have found it to answer completely, after it was said to have had a fair trial—but this fair trial was very far from being so. As it is much more stimulating than the madder, or cantharides, I am always more attentive to have the system properly prepared. I therefore almost always reduce the pulse lower, than for the medicines just named: this is easily effected, by the loss of a little more

* See p. 72

blood than in the other cases; purging more freely; and insisting on a low diet, for a few days.

When speaking of the tact that is acquired in the administration of certain medicines in certain diseases, I had particular reference to the employment of the tincture of guaiacum as an emmenagogue. I have, for nearly seven-and-thirty years, almost daily used this medicine, in suppressed catamenia; and more especially, in those of long standing, without its having failed in any case proper for its use*—more cannot be said of any remedy.

I say this in the most perfect good faith, as I have learned that some of my brother practitioners have not been equally successful with it—but I think I can readily account for their failure: 1st. From their not placing the system in a proper situation for its use; and, 2d, by not properly persevering in the remedy. Neglecting these important points, it can readily be imagined, that it may not succeed; for I deem an attention to them essential to its success; more especially in those cases, where many months of interruption have existed. I think one of its superiorities consists in its certainty in cases of very long standing; and I could readily furnish from my note book, a number of instances, where it succeeded to restore the menses after an interruption of from nine months, to nearly three years.

The mode of using it is, a tea spoonful every morning, noon, and evening, in a wine-glassful of sweetened milk; or, where not forbidden by some peculiarity or circumstance, as much white wine, as sherry, Teneriffe, or Madeira. The dose must be gradually increased in those cases, where a perseverance beyond four or five weeks becomes necessary. Should this medicine disturb the bowels too much; a few drops of laudanum must be added to each dose; but if on the contrary they

* By a proper case, I mean, where the suppression is idiopathic, and not one, where the uterus has its functions interrupted by disease, or pregnancy—for, in the latter, I have in two or three instances been imposed upon, notwithstanding all my caution; and where I dared not suppose this condition to exist. But by these few cases, I learned, so far as they could go, that it would not produce abortion.

should not be sufficiently opened, the addition of a little of the resin of jalap, or of powdered rhubarb, will be an improvement.

As the tincture I employ, is different from the tincture of the shops, I think it right to subjoin my formula.

℞. Pulv. G. Guaiac. opt. ℥iv.
Carbon. sod. vel potas. ʒiss.
Pulv. Piment. - ℥i.
Alcohol. dilut. - ℔i.
digt.—for a few days.

The volatile spirit of sal ammoniac, to be added pro re nata, in the proportion of a drachm, or two, to every four ounces of tincture; or less, or more, agreeably to the state of the system.*

Analogous to suppression may be considered the very sparing quantity of the menstrual discharge—this may happen, 1st, to young women in the prime of life; and, 2d, to women pretty far advanced towards the period at which the menses are about to cease. With the first, when the usual quantity fails to be discharged, it always excites alarm, and recourse is almost instantly had to the nostrums of old women, or perhaps regular application is made to the physician—I have seen many of these cases; and they may be classed under two heads:—1st. Where this takes place from some accidental irregularity in the secreting powers of the uterus; and 2d. Where there is too early a tendency to cessation. The first may be again divided into two states: 1st. When, after it has continued some time, the health seems to be impaired pretty much after the same manner, as if a decided suppression were present; for it has very much the same accompanying symptoms; and, when this happens, this complaint, for the most part, seems to be relieved by the same remedies, as for obstruction; especially, by the tincture of cantharides. In the second state, it seems to be an habitual condition of the uterus, in a number of instances which have fallen under my notice; and, though the quantity

* It has recently been proposed to relieve amenorrhœa, by the injection of liquid ammonia into the vagina. Dr. Hosack (New-York Med. & Phys. Journ.) declares, he treated a case successfully, of ten years' standing, by means of this remedy, after many others had been unavailingly employed. He directed a drachm of the ammonia, and a pint of rain water, to be thrown up the vagina, three times a day. The cure was effected in five weeks.

discharged is sometimes extremely small, yet all the natural, or prolific powers of the genital system seem to be preserved; for I have in several cases known pregnancy to follow. I have prescribed for all of these cases, all the usual remedies, without effecting any change in the quantity discharged; yet after marriage, some of these women became mothers. I have, therefore, of late years, not interfered in cases, where there was no evidence of ill health accompanying them. But it must be confessed, though no ill health may have attended, some are not fruitful; but in these cases, so far as I have yet seen, it has been an anticipation of final cessation—I have met with three instances, where this evacuation has ceased altogether, before the twenty-fifth year; and two before the thirtieth year —the health of these women appeared to be as perfect, as if they had this discharge, in the most regular manner.

When this scanty menstruation takes place in women in the decline of life, so far as I have observed, it is not so regular in its periods as in young women; yet, as it never has, so far as I know, been productive of any unpleasant consequence, I have never thought it proper to interfere; especially, in women after their five-and-thirtieth year. This condition of the menses, is more apt to take place in unmarried women, and in widows, than in married women.

In some instances of young married women, I have had strong reason to believe, it was owing to some deranged condition of the ovaria; for they were not only barren, but had never discovered any desire for sexual intercourse; or at least were perfectly indifferent to it.

It would seem to follow from these observations, that the cases of deficient menstruation in which the health appears to suffer in a greater or less degree, are those of the most easy management; but in the treatment of them, the same regard must be paid to the condition of the vascular system, as if an absolute obstruction existed—I shall relate a case, by way of illustrating the material points in question. Mrs. ——, aged twenty, during a period of her catamenial flow, suddenly heard of the death of her absent husband—the menses were immediately suspended, and continued so, for five months; during this time she suffered much from a train of most untoward

nervous symptoms; at the end of five months there was a slight show, which was repeated at the end of another month, and so on, for two or three periods—but her health did not improve by this slight discharge, as was fondly hoped; and I was consulted. I found her, as stated above, with a variety of nervous symptoms, which were easily exacerbated by the slightest mental distress; together, with considerable leucorrhœa—much headach, and hot skin towards evening; and costive bowels—she lost ten ounces of blood; was purged by aloes and rhubarb; kept upon a milk and vegetable diet, and took the tincture of cantharides; the next month she had an ample discharge.

### Sect. III.—3. *Of the immoderate Flow of the Menses.*

This complaint is much more rare, than we should be led to imagine, did we regard popular opinion; or even some of the writers of practical systems of either medicine, or midwifery. I have seen, comparatively, very few cases of superabundant *menses*—for in my consideration of this subject, I shall confine myself to what should strictly be called an inordinate menstrual secretion. This complaint has been almost constantly confounded with uterine hemorrhage;* because the latter almost always commences with a genuine menstrual evacuation, and which continues two or three days, and is then followed by a discharge of pure common blood; all of which, by careless observers, has been classed under an "immoderate flow of the menses." Should this confusion be admitted into descriptions of this complaint, we need not be much surprised at the avowed frequency of immoderate menses.

There is an almost endless variety of uterine constitution, if I may so term it; consequently, there will be a corresponding variety in the performance of its duties—hence, one woman will lose twice or three times as much of the menstruous fluid as another, without suffering from this appearance of excess. As respects this discharge, excess must be regarded as a relative term; and we should only consider it excessive, by ob-

* Mr. Burns says, "some women menstruate more copiously or more frequently, than by the general laws of the system they ought to do. The discharge is menstruous, and does not coagulate, which distinguishes this state from uterine hemorrhage." Vol. I. p. 155, James's Ed.

serving the effects it has upon the general health of the individual so circumstanced; should it not appear to produce debility, we have no right to call this discharge immoderate, or excessive—for it is only so, as compared with those who may evacuate less, but yet be in no better health. I must therefore repeat, that this discharge, in excess, is of very rare occurrence; and that so long as it does not impair the constitution, it should never be meddled with; especially, if it be not inimical to impregnation.

I am well acquainted with a lady, now forty-five years of age, who has more than once assured me, that from her earliest recollection after this discharge commenced, (which was at her twelfth year) she never enjoyed a longer exemption from it than ten days, unless she were pregnant, or suckling; yet, during the whole of that time, she had never suffered the slightest indisposition that could be attributed to that cause; she was, therefore, two-thirds of her time, with the exceptions just mentioned, giving issue to this discharge—she also declared her belief, that from what she could learn from others, she evacuated daily, as much as women in general—consequently she must have parted with at least three times as much as is generally lost during a common period.

Should this complaint prove excessive, in my acceptation of the term, namely, where health suffers from this cause, it should be treated, *perhaps*, as an hemorrhage, properly so called—I say perhaps; because, I have seen but one case, where, from the quantity of the discharge, debility, and other evils were induced; and this was treated in this manner.

Miss——, aged seventeen, was seized with a severe tertian, which, before it could be arrested, required much depletion, and left her for some time in a state of great weakness. After she was considered to be recovered, her mentrual discharges became very abundant, and recurred as they were always wont to do, every three weeks. The quantity discharged was very great, as far as could be determined by the pulse at the time, and its appearance upon the cloths. She became very feeble; was confined to her bed from weakness, before I visited her; and this was while the mentrual period was upon her; she was greatly reduced in strength, and much emaciated. Her pulse

was frequent and weak; and her feet and hands cold; she was extremely pale, and distressed by palpitation of the heart; ringing in the ears; and great sickness of stomach.

She was immediately ordered to have bottles of warm water to her feet, and thirty drops of laudanum, with as much of Hoffman's anodyne liquor; two grains of the sugar of lead, with a third of a grain of opium, every hour until the discharge should be moderated, were also directed. The character of the discharge I was particular to ascertain; and, from the most cautious examination, I had no hesitation to believe, (contrary to my first impression,) that it was a genuine menstrual flux, of unusual severity. By the plan just mentioned, the discharge appeared to be much moderated in the course of a few hours; but early the next morning, I was sent for in great haste, as the flow had very much increased. I now ordered twenty grains of the sugar of lead; a tea spoonful of laudanum; and a gill of lukewarm water, as an injection—this quickly arrested the discharge; and she had no return of it from that time, if we except a very moderate stillicidium of three or four days continuance. In the interval, a nourishing diet was directed—quiet, and a mattress to sleep upon; also twenty drops of the elixir of vitriol, in strong, sweetened rose-leaf tea, four times a day, and the bowels kept open by small, but repeated doses of the sulphate of magnesia. On the arrival of the next period she was again attacked with a flow as abundant as on the former occasion; the same remedies were again successfully employed. During the succeeding interval, two grains of the sacch. sat. every morning, noon, and evening, were ordered in lieu of the vitriol; she was directed to drink freely of cold camomile, and orange-peel tea; a plaster of Burgundy pitch to be applied to the back; and the legs and feet to be kept very warmly clothed.

The next discharge was considerably more moderate, but still too abundant; the sugar of lead pills, were now given every two hours, until the flow should cease. The interval was conducted as before; and, after this time, there was no further necessity of medicine. Exercise and sea bathing, very soon confirmed her health; nor did she afterwards suffer any return.

The plan, just detailed, proved successful in the instance mentioned; but whether it would be so in other cases, my limit-

ed experience in "excessive menstruation," will not permit me to declare—though I am disposed to think it might; and under similar circumstances I should certainly adopt it.

### Sect. IV.—4. *Dysmenorrhæa, or Painful Menstruation.*

This disease is very common in our climate; and is one not only of great suffering, but also very frequently of great obstinacy. The woman is obnoxious to it during every part of the menstruating period. It would, perhaps, be very difficult to assign all its remote causes: the most common are, the application of cold during the flow of the menses; taking cold after abortion; and, in several instances, I have known it to follow the consummation of marriage. This latter cause is, perhaps, the most difficult of explanation; for, it would seem it should have no such agency, reasoning *à priori.* In a number of instances, the causes appeared to be so hidden, as not to be cognizable. The married and the single woman, is alike subject to it.

The sufferings at the menstrual periods, are severe sometimes beyond description: they resemble, in point of intensity, the pains of labour, or an abortion, properly so called; for, to either, it may be said to have a strong analogy. It usually commences by a slight menstruous discharge, which is pretty suddenly arrested: a pain almost instantly ensues, which is described by women as a forcing, bearing down pain; returning at longer or shorter intervals, until a membranous substance, or small coagula, are discharged. If it be a membrane-like substance, it will be found of unequal size; sometimes small, at other times large, and resembling the cavity of the uterus in shape; at other times, it will be broken into many fragments. After the expulsion of this substance, the woman enjoys ease, unless there be a fresh production of it; in which case it requires fresh contractile exertions of the uterus for its expulsion.

The quantity discharged is very various; sometimes it is small, and at other times very abundant: I have seen a portion not much larger than my nail; and again, I have witnessed as much as would fill a small tumbler. The period employed for the expulsion of this substance, is various; sometimes requir-

ing but a few hours, at other times several days. The degree of suffering is not always in proportion to the quantity of substance expelled; indeed, the pain would rather appear to be less, when much is discharged; which, perhaps, is not of difficult explanation.

There appears to be two distinct states of this affection: one, where the mammæ sympathize with the uterus, by becoming tumid, and oftentimes extremely painful; the other is, where there is no such affection. These two conditions are not equally manageable; the one accompanied with painful breasts, so far as my observations have gone, is the most so of the two.

Besides the alternate or labour-like pains, I have just mentioned, there is almost always a permanent one in the back, hips, and loins, which continues until the alternate cease: indeed this aching pain sometimes precedes the others, and announces the discharge to be at hand.

I have, in another place, declared that the menstruous fluid is the product of a secretory process;* I have there given my reasons for this opinion: I therefore assume it here as a principle; and, upon that principle, attempt to account for the formation of the membranous production, so often yielded in dysmenorrhæa. But, before I attempt an explanation of the formation of this membrane, I must direct the attention to a very remarkable circumstance in the character of the menstrual blood; namely, its not possessing the property of coagulation. From this, it appears that the blood, or a part of it, has suffered some change by the action of the uterine vessels; and that this change has been imposed upon the coagulating lymph, by the process of secretion. I have assigned reasons for this change, when speaking of menstruation.† Now, it is not difficult to suppose that the uterus, like every other organ, may have its functions impaired; and that, instead of the texture of the coagulating lymph being subdued as it is wont to be, when the uterine secretory action is perfect, it remains nearly the same as when it entered this viscus; except, that it may be attenuated, as in some inflammatory diseases: it will, from

* See p. 59, et seq. † See p. 58.

this imperfect elaboration, be thrown into the cavity of the uterus, without being dispossessed of the power of separation, and of coagulation.

It is poured into the uterus in a most gradual manner; and, from this circumstance, may tarry there sufficiently long to separate into its constituent parts: the coloured part, or red globules, from their greater weight, will leave the imperfectly subdued coagulating lymph, and fall to the bottom of the uterus, and sooner or later be discharged; while the coagulating lymph, either in part or altogether, will be left to spread itself over the internal face of the uterus, and there quickly assume, as is usual with it when in contact with living parts, the appearance of a membrane.* This membrane will be, to all intents and purposes, an extraneous substance to the uterus; and will, sooner or later, urge it to repeated contractions to throw it off; which contractions will be painful, like those of labour—hence, the pain in this kind of menstruation.

The treatment of this complaint consists of the temporary, and the radical; the first consists in the administration of remedies to relieve pain at the commencement of, and during the attack; and the most efficient, and uniformly certain, that I have yet discovered, is camphor in sufficient doses; the following is the formula I generally use:

℞. Gum. Camph. ℈i.
Sp. vin. rect. q. s. f. pulv.—Add
Pulv. G. arab. ʒi.
Sacch. alb. q. s.
Aq. Cinnam. simp. ℥i.
M.

One half of this draught is to be given the instant pain is experienced; and if it be not relieved in an hour or two, the

* Morgagni explains the production of the membranes formed in the case he relates, differently, but perhaps not more satisfactorily. He says, "it was easy to conceive, that the viscid particles of the serum of the blood, issuing from the uterine orifices of the vessels, which had formerly been discharged in the form of a fluor albus, were now become more viscid, and adhered to all the internal parietes of the uterus, and by this means were concreted into a polypus membrane." Epist. xlviii. art. 12.

other half is to be given—this quantity, however, is not always sufficient to subdue pain; in this case, let the mixture be repeated—or the same quantity of camphor may be finely powdered, and given in ten grain doses every hour, entangled in a little syrup of any kind, until relief is procured. Sometimes the stomach is much deranged in this complaint, and will bear nothing—when this happens, I order thirty or forty grains of camphor to be rubbed down with a few drops of the spirit of wine, to a very fine powder; one drachm of laudanum; and three ounces of thin starch or flaxseed tea, as an injection. Should this be too suddenly discharged, it may be repeated.

Opium, in various shapes, has also been administered; either alone, or in combination with camphor, or ipecacuanha. The ergot has also been recommended. I have tried it; and, with one exception, it has failed. It must, however, be declared, that my use of this substance has not been extensive; and even in the few trials I made, I perhaps may not have given it a fair chance. These doubts have lately arisen, from two or three of my friends telling me it had been entirely successful with them; and, also, from a case of success occurring within a short time in my own practice. As the case was unusual, by combining with it a rare occurrence, namely, menorrhagia, I will relate it.

In October, 1825, Mrs. —— applied to be relieved of painful menstruation, together with an immoderate discharge of blood. The pain appeared to be produced by the discharge of coagula; at least there was no appearance of membrane in what was passed. She also had leucorrhœa to a considerable extent. I ordered her the ergot in the following form.

℞. Pulv. secale cornut. ℥ss.
Ext. gentian. ℥j.
M. f. pil. xv. One of these was taken every morning, noon, and evening.

She began the use of the pills about a week after a period, and continued their use until the next made its appearance. At this time she found herself much relieved, both as regarded pain, and the quantity discharged. The next period was still better; and since that she has had no farther trouble. Warm

bath, pediluvium, and bleeding, have also been prescribed; but nothing has succeeded with me so well as camphor.

The radical treatment consists in the exhibition of remedies in the interval, with a view to prevent a recurrence of pain—the one which has proved most successful, is the volatile tincture of guaiacum, given as directed in suppressed menses. The same regard to the state of the system as is there recommended, is also here insisted on. Perseverance for two or three months, is oftentimes necessary. I think I have observed that this medicine is more decidedly useful, where the first menstrual period after its use, is more than usually severe. This has been pretty uniformly found a favourable sign.

Though the tincture of guaiacum has been generally successful, it has not been uniformly so.* In two instances where it failed, the ext. cicutæ succeeded; and in one other, where it had not been successful, the tincture of cantharides gave perfect relief.

I have never met with a case of fruitfulness, where there was a discharge of membrane in a married woman; though Morgagni relates one in which it was otherwise. As this is a rare and curious case, I shall take the liberty of introducing it. "A noble lady, of tall stature and good health, had suffered several miscarriages in the early part of her pregnancies; but between these miscarriages, she would carry her children to the full time. She sometimes had twins, and very difficult labours. She also was troubled slightly with leucorrhœa. Of this she had become well about her thirty-fourth year; but was afflicted, at each return of her menses, with pains resembling labour. About the second or third day she would discharge a membranous body, of a triangular form, and which appeared to have filled up the whole of the cavity of the uterus."

"The exclusion of this substance was followed by a great lochial discharge; it did not always come away whole; but

* This remedy, in the hands of others, I learn has not been equally successful. I can only account for this in one of two ways; first, they have not, perhaps, prepared it as directed; and, second, and the most probable, they have not persevered sufficiently long in its use; for it is still successful in most cases in my hands.

when this happened, the lochia also followed. As the patient had abstained for some time from intercourse with her husband, and had suffered much, she began to think it would be more advantageous to her, if she could be free from the pains for nine months at least, and determined to lie alone no longer: wherefore, in the month of March, 1724, she became pregnant, but only carried the fœtus until June."

"But in July, and the two following months, her menstrua flowed properly, and without uneasiness. In October, she had no return of her menses; and the pains returned in November, with the discharge of a membranous body. She continued to suffer from time to time after this, until the cessation of the menses put an end to it." Epist. xlviii. art. 12.

It is evident that impregnation took place in the instance above named; yet the patient miscarried at the third month, and was not made to conceive afterwards. It therefore forms only an exception to the rule.

I have seen a few instances where there was painful menstruation without this membranous production, but where a few small coagula were discharged, and the women were fruitful. But such cases are rare.

Does this disease reside in the ovaria, or in the secreting surface of the uterus? I believe in the latter; and that its being unfavourable to impregnation, is not owing to any influence it may exert upon the ovaria, (for I have reason to believe that ova have been impregnated, but not finding the uterus in a condition to receive them, have perished,) but to either the non, or the imperfect formation of the decidua. I believe the same surface furnishes both the menstrual secretion, and the efflorescence called the decidua; it would seem then to follow, if it performed the first of these offices imperfectly, it would also the latter; and, consequently, the ovum would perish for want of a proper nidus.

This opinion is strengthened by the facts, that so soon as this wrong action is changed, the woman is instantly capable of being impregnated; or, in other words, fecundation becomes successful; and also, by the influence of camphor, a temporary change is induced in the secerning vessels of the uterus, and the formation of membrane is prevented. Were

it necessary, I could illustrate both of these positions, by very many cases; but I shall confine myself to one of the former, as it is the most remarkable I have met with.

In 1791, I was applied to by a lady, who had always suffered at her menstrual periods; and who, at such times, discharged a number of membranous portions. She had been married nineteen years, without being impregnated. After due preparation, for she was very plethoric, I put her upon the use of the tincture of guaiacum; in this she persevered for three months. The first period after she commenced the use of this medicine, was one of prodigious severity; so much so, as to make her resolve to abandon it. I, however, persuaded her to persevere: the next period was better; and the one after was without pain. She conceived immediately after, and was delivered, in due time, of a fine girl. She took twenty-four ounces of the tincture.

### Sect. V.—5. *Of the Decline of the Menses.*

The nearer a woman approaches her forty-fifth year, *cæteris paribus*, will be the chance of some irregularity in the menses; and as this period is more frequently the one at which any latent disease of the uterus shows itself, it is always looked forward to with much anxiety by women. Indeed, so replete is this time with horrors to some, that we may very justly suspect apprehension to be the cause of some of the distressing symptoms, which sometimes accompany this interesting process of the human uterus.

Delicate women, and especially those who have lived idly, have this period of life arrive earlier than those of a contrary constitution, and opposite habits. We have already noticed, in our section on suppression, that this change sometimes takes place at a very early period of life, and this without leaving any injurious consequences behind it: and, on the other hand, we find many cases on record, where this discharge had continued with regularity to a much longer period than the ordinary one. Gardien mentions a case which fell under his own notice, where this evacuation continued with great exactness, until beyond the seventy-fifth year; others still more uncommon, are mentioned by various writers.

The reason of this discharge leaving the woman at this time of life, appears to be founded in the highest wisdom and beneficence: it is to prevent child-bearing beyond that period, at which the mother would be capable, from the common chances of human life, of extending her care to her offspring; and, consequently, submitting her child to the doubtful management of strangers, or subjecting it to the waywardness and caprice of those, who could not feel a parent's affection; or would not yield a mother's devotion to its necessities, at a time when its helplessness would most require the kind offices.

This change is sometimes effected so silently, that the woman scarcely notices her altered condition; at others, its approach is so gradual, as not to attract observation, until the diminished quantity gives warning that it is about to take its leave for ever; while again, the irregularity, both in period and quantity, may be such, as justly to give alarm, as well as to produce the most serious danger.

It seems, that the apprehensions of this period of life, have arisen mainly from the notions entertained of the final cause of the menses; namely, that it gives vent to peccant humours. But they should be made to know, that all this is purely the theory of the vulgar; for that the menstrual blood is formed from the general mass of blood; and, consequently, if that be pure, the other will be; therefore, the idea is altogether ill founded. But, unfortunately, whenever this discharge is less abundant than usual, the most serious fears are entertained, that there will be a retention of a portion, which will cause disease, either in the uterus itself, or in some other part of the body: hence, a diminished menstruous secretion is always more alarming to the female, than an unusual flow. But it may be well to remark, that there is a great difference between the cessation of this discharge, and the suppression of it. In the one instance, it is an event which nature has designed should take place, and is effected altogether by arrangements of the system, and of course one of its natural processes; in a word, as much so as its commencement: but the suppression, from some morbid agency, is in direct opposition to the intentions of nature, and will of course be followed by some baleful consequence, if it continue beyond a certain period.

The vulgar error, that "women at this period of life are always in danger," is replete with mischief to the suffering sex: and I feel it a duty to declare, that they are not necessarily more obnoxious to disease at this, than at any other period of their existence.* That they are sometimes liable to a disease at this time; and that disease, one of the most terrible in the long list of human infirmities, I admit; but must insist, that cancer (the disease to which I allude, and the one so much dreaded,) is more rare in the uterus, than in certain other portions of the body; for instance, the mammæ; and, perhaps, I am within the truth, when I say, that there are three instances of the latter, for one of the former. If latent dispositions to disease, in the uterus and other parts, become active about this period of life, it is not because the declining menses excite them; but because the disease is slow in developing itself, and is, perhaps, kept in check for a long time, by the menstrual discharge serving as an important evacuation; especially, when the uterus may be the seat of the complaint. In such instance, the foundation of the disease was laid, perhaps, at a time when the menses were the most perfect, as regards period and quantity; consequently, they could have had no agency in its production; but, on the contrary, from its frequently relieving the engorgement of the vessels, served to keep it in subjection for a long time; not as a specific discharge, but as mere depletion; or, in other words, that if an equal quantity of blood could have been by any other means as certainly abstracted from the uterus, the same favourable result would have followed. Coincidences in the human system are so common, that they are frequently mistaken for cause and effect; hence, the cessation of the menstrual discharge, and the appearance of scirrhi and cancers, are considered as cause and effect.

At this period of life, nothing will so effectually secure the woman against injuries which may arise from the irregularities

* Indeed, it would seem that this period of female life is freer from diseases causing death, than almost any other. By some late observations made on the bills of mortality in France, it appears, that fewer women die between the ages of forty and fifty, than men, or at any other period of their lives after puberty. And farther, that if this change is effected without much disturbance, that they live not only longer than men, but are freer from all morbid inconveniences.

of the menstrual discharge, as a well regulated regimen. By regimen, in this place, we would wish to be understood, not only eating and drinking, but exercise of both body and mind, including the proper government of the passions; in a word, every thing which relates to both moral and physical existence.

A well ordered course of exercise in the open air in well selected weather, and great simplicity of diet, is of the utmost importance to the female at this period of life, and should never be neglected, if it be possible to indulge in them. By these, the nervous, muscular, vascular, and lymphatic systems, are all preserved in more certain equilibrium with each other; since they are the means best calculated to ensure a reciprocation of their respective offices; and, consequently, to maintain that condition of the system, termed health. Hence, the justness of the remark, that the women who live in the country, and who exercise freely in the open air; who have fulfilled their duties scrupulously as mothers, by suckling their children, agreeably to the views of nature; who do not goad their systems by over stimulating food and drinks; who do not relax their bodies by too long indulgence in bed, have but little suffering at this period.

From this it will follow, that a milk and vegetable diet, together with pure water to drink; daily exercise, but not carried to fatigue; keeping the bowels open, by well selected food, as the fruits of the season in proper quantities, and the bran bread if necessary, and not by medicine, unless absolutely required; governing the temper; restraining the passions, as well mental as animal, will largely contribute to the safety and comfort of this period of life. All that we have just recommended, is calculated to place the system in a condition, by which it shall preserve its various forces; have its irritability diminished; its sensibility moderated; and pretty certainly prevent that condition of the blood vessels, most decidedly unfriendly to the general health at this time, called plethora. And though last, not least in fair estimation, is an attention to cleanliness. The external organs should be washed with lukewarm water at least twice a day, and the whole body once a week, by going into a lukewarm bath. In using the bath, care

should be taken to come out of it, so soon as the purposes of cleanliness are answered.

Our next concern is with the derangement of the discharge at or about the period of cessation; this will consist, 1st. in a diminution of the usual quantity; and 2d. in an excess of it. As regards the first, I have already said enough when treating of the suppression of the menses; and, with respect to the second, it must be treated according to the rules prescribed for the management of hemorrhage from the uterus from any other cause; that is, first, to diminish the quantity discharging; second, to prevent an excessive return.

The first indication is best fulfilled by rest; by cool air, and drinks; by cold local applications; by the acetate of lead, and laudanum; and by the use of the tampon.* We should immemediately confine a patient so circumstanced to a horizontal position; and strictly forbid motion of every kind, even turning in bed. We should admit with freedom cool air where practicable; and give neither nourishment, nor drinks, except they be cooled—the latter may even be iced. Cold applied to the abdomen is frequently useful in excessive discharges of this kind; the best mode of applying it, is by large bladders not quite filled with water, in which there is ice, if it be in summer, or during hot weather; cold water alone will be sufficient, if in winter; during the use of this, care should be taken that the feet and legs are kept warm. We should also give two or three grains of the acetate of lead, guarded with a sufficient quantity of opium, or laudanum, by the mouth, every hour or two; or a scruple of it with a drachm of laudanum, and two or three ounces of water, as an injection—this to be repeated pro re nata. And should these not control the discharge upon fair trial, recourse must be had to the sponge tampon. I have repeatedly seen the discharge of blood, at this period of life, so enormous and so rapid, as to threaten almost instant exhaustion. When thus excessive, it can only be met successfully by the most prompt application of the most efficient remedies.

Whether this disease shows itself in the rapid expenditure of fluid blood, or in the repeated expulsion of large coagula, it

* See Chapter on Uterine Hemorrhage, and on Menorrhagia.

must be opposed by the same remedies—these two conditions present no difference of indication, nor any essential difference in the complaint itself; the former, however, generally requires more prompt interference than the latter, as more blood is expended in a given time.

The second indication must be fulfilled by blood-letting; by purgatives; by hemlock; and by tonics. Notwithstanding the immense loss of blood, which sometimes takes place suddenly at each period of return of this hemorrhage, it does not prevent the almost continual draining off of this fluid, even when its violence is much abated; hence, we sometimes find a greater or less discharge almost always present—this renders the woman not only feeble, but keeps her mind in a state of extreme apprehension, from one period to another. These two causes, namely, the excessive discharge, and mental anxiety, keep the system in a constant state of excitement; and if the pulse be examined, it will be found quick and corded. We are, therefore, under the frequent necessity of abstracting a few ounces of blood during the interval of each discharge; especially, towards that period, the disease has assumed for its movements—this, however, varies in different individuals; and in even the same individual, if any error has been committed, in either diet or exercise. But when all things are equal, we find the period pretty certainly marked; and it may be every three, or four weeks; or sometimes even longer. I have known two or three violent cases, where the discharge returned every two weeks.

To aid the vessels to contract, we should confine the patient to a strictly vegetable diet; or to a diet of milk, if this should agree with her—all kinds of liquor, and spices, should be forbidden; and exercise absolutely prohibited. The patient should sleep upon a mattress; and should be directed to repose herself upon it, or a sofa, as often as she may feel a little weakened, or fatigued by sitting up. The feet and legs should, however, be kept warm; and, if habitually cold, should be rubbed two or three times a week with spirit or brandy, in which a quantity of the flour of mustard is mixed.

The bowels should be kept open, by diet if possible, as just suggested, or by the exhibition of some mild purgative; as

rhubarb, sulphur, magnesia, or any of the neutral salts. Against the use of aloes there is much clamour; but I have some reason to believe, not with justice. I do not wish by any means to decide this point at this time; as my experience in its use is rather limited. I have thought it proper to direct attention to it, that I may be aided by the experience of others, in determining the powers of this medicine—but I will relate what I know upon the subject, and leave it to the farther employment of this drug, to either confirm, or destroy my present favourable impressions. Fothergill and Gardien are decidedly opposed to its use.

A lady, aged forty-two years, for whom I had prescribed almost all the known remedies for the hemorrhage under consideration, with very little benefit, was told by some old woman, that the hiera picra was a certain cure in her complaint; she mentioned this, and I very candidly stated my own, as well as the general prejudices against the principal ingredient in this compound; but, at the same time, observed, that as the old woman who had recommended it, cited the cases of two or three ladies who were known to her, it would be easy to make the inquiry; and, if it were as she stated, it would be well to give it a trial, as every thing else had failed—the medicine was warmly recommended by these ladies; and she proceeded to make use of the old woman's prescription; which was half an ounce of the hiera picra to a pint of gin; of this a wine glass-full was directed at bed-time—it was taken, and the lady was completely intoxicated all night, and very sick next morning. Thinking the effects would next night be less severe, she again ventured on it, and with similar results.

She was now determined to abandon it, unless some less objectionable mode could be adopted for its exhibition—I prescribed it for her in the manner following:

℞. Hiera Picra, ʒij.
Ol. Caryoph. gut. x.
Sapo Venet. gr. xij.
Syr. Rhæi. q. s.
M. f. pil. xxxx.

One of these was directed every morning, noon, and evening, unless they should prove too purgative—this did not happen,

as the patient was of an extremely costive habit. She soon perceived, after she began the use of this medicine, a diminution of the discharge; and by the time she had finished the pills prescribed above, it was so much reduced in quantity, as to give no farther uneasiness.

Two cases of a similar kind, but of less severity, were entirely relieved after the use of the same formula—here ends my experience:—from this it would appear, that in the only three cases in which it was prescribed, the patients got well; but the precise agency of the medicine, remains to be determined by future observation. I am, however, convinced, of the importance of gentle purging, in this oftentimes tedious complaint.

One of the most successful general remedies I have employed, is the extract of cicuta; beginning with a minimum dose, and increasing it gradually; but at the same time as rapidly, as the system will well bear. When the decided marks of its influence, such as vertigo, headach, or sickness of stomach, begin to show themselves, I do not increase the dose until they go off—when this happens, I again give an increased dose, and so on, until the complaint has so far yielded, as to render its farther exhibition unnecessary, or until I am convinced that it will not succeed in arresting it. I have thought this medicine most useful in those cases where the discharge was chiefly by coagula.

No class of medicine has done so much mischief in the complaint I am now treating of as tonics—and this from a wrong view of the disease in question; for it has too generally been treated, as one of debility; consequently, all the most powerful tonics have been put in requisition for its cure. Bark, steel, wine, and all the bitters, have again and again, been unavailingly tried; and oftentimes the patient abandoned to the ravages of this disease, because it could not be conquered by tonics—the opposite mode of treatment, with such views, would necessarily be considered as death to the patient, and of course would not be employed.

I well recollect a case, where three pounds of bark had been taken in less than two months, with a proportionate quantity of the elixir vitriol, to the manifest increase of the disease, and risk to the patient—she was afterwards entirely cured, by

an extremely low diet, gentle purging with neutral salts, quiet, and repeated blood-lettings. I must therefore caution the young practitioner against the use of tonics in such cases, because they may be attended by absolute weakness in the muscular system. The state of the vascular system alone is to be attended to; and here a chorded pulse must not be mistaken for a weak one, because it happens to be a small one. But how shall we reconcile the contending opinions of the pathology of this complaint, and that of the suppression of the menses? It is insisted on by many, that it is the *debility* of the extreme vessels, that prevents the formation of the menses when they are suppressed; to overcome this, tonics and stimulants are advised; in the menorrhagia of this period of life, the cause of the too abundant flow is *debility;* and tonics and stimulants are here recommended to restrain the excess of discharge.

With respect to the preparations of iron, I have perfectly convinced *myself*, they can never be usefully employed during the active state of any hemorrhagy—in my hands they have never failed to do mischief; I have not used them therefore for many years, in the cases of which I am now speaking. The use of wine, I am also certain, has done mischief—it is port wine alone, however, that has any reputation in such cases; and this has arisen from its possessing a slight astringent property—but it must also be strictly forbidden. The bitters will fall under a slighter censure than the bark; because, they are generally much less powerful—the same objections, however, attach to them; but in a minor degree.

Tonics are only admissible, where there is nothing but debility to contend with; they may then be advantageously employed in properly regulated doses. The diet may now consist of more generous living; and when well ordered, and properly pursued, may be looked upon as the best possible tonic.

Hitherto I have been considering the severer forms of this complaint—I shall now say a few words upon the occasional irregularities of the menses, both as to period and quantity. The periods of return may be anticipated, or protracted; and the quantity may be very small, or more or less excessive; or it may employ a great many days for its evacuation, without the aggregate quantity being very great. I have constantly

advised against any interference at this period of life, for mere irregularity, or irregularity with a diminished discharge; and for this plain reason; that, no other inconvenience is experienced; and this is so trifling, as not to merit consideration. But if with this irregularity, the discharge be too abundant, I treat it as directed already for hemorrhage; and try to prevent the recurrence, by bleeding a little before the expected return; a low diet; and purging with the neutral salts; these rarely fail to give relief.

When a great many days are employed in the discharge, or, as the women term it, being almost constantly unwell; and where the aggregate quantity may not greatly exceed the common monthly amount, I have frequently succeeded by the tincture of rathany in two-drachm doses, three or four times a day. Gardien speaks in very high terms of the "rathany." He thinks it merits more confidence than the alum, the sanguis draconis, the kino, the nut galls, or catachu. He says that M. Ruitz used both the extract, and the decoction of the root of the rathany. The extract should be given in doses of half-drachm or a drachm. In severe cases, it may be given to the amount of two drachms a day. Agreeably to M. Ruitz, the second or third dose rarely fails to produce the desired effect. The remedy should be continued some time after the discharge has ceased; but the quantity may be gradually diminished. To prevent the nausea, which its bitterness sometimes creates, he advises the mouth to be rinsed with lemonade. Frequently bathing the parts with cold water; abstaining from too much exercise; and refraining from stimulating diet and drinks; are of much consequence to the cure. The alum whey, has often been useful in similar cases, and deserves trial; the sugar of lead, in small doses with opium, given daily for some time, has many times answered every end.*

In every form of the disease under consideration, it may be remarked, I have thought, that very decided advantage has constantly resulted from injections of the solution of the ace-

* The prejudices against the use of the sugar of lead appear to be ill founded—we have given it very often, without witnessing any inconvenience, except in one instance; where it had been too long continued: it produced obstinate vomiting.

tate* of lead thrown up the vagina several times a day; except, during a very profuse flow of blood, and which renders the use of the tampon necessary.† It may also be proper to remark, that the sponge or tampon, should not be suffered to remain within the vagina, longer than ten or twelve hours at a time. When taken away, it should be carefully washed in soap suds; and before it is again returned, it should be imbued thoroughly with vinegar, or, if it can be procured, with the pyroligneous acid; on this account there should always be two pieces of sponge.

We have already adverted to the fact, that if there be any latent disposition in the system to produce scirrhus, or to convert scirrhus into cancer, that it most frequently manifests itself at this period of life; hence, as before observed, the dread the woman has of the "disappearing of the menses." And this is especially the case, when the uterus is the seat of the affection. We have also declared, that this manifestation of disease at this time, is not the direct consequence of this change in the uterine surface; but because a powerful local means of preventing congestion in that organ is now removed, by the menstrual fluid not being formed, and thus relieving the engorged state of its vessels.

It is highly probable, that the congestion which always preceded the menstrual discharge, would continue to take place from time to time, though the menstrual secretion might be interrupted; and this congestion not being relieved as before, may induce a part already strongly disposed to diseased action, to take on inflammation, and hastily develop scirrhus, or cancer. On this account, it is important that females should be so attentive to their regimen, as to prevent any thing like undue excitement in the arterial system; for it is only by reducing the quantity of nourishment; employing properly regulated exercise; and governing, or controlling, moral influences, that the predisposition to dangerous affections can be kept in any subjection.

* The injections should be made of two drachms of the sugar of lead, to about a pint and a half of water.

† I lately succeeded in arresting a constant and long-continued flow, by injections of warm alum water. A half-ounce of alum to a pint of water, was used.

And as the disposition of the system at this period strongly inclines to plethora, that this state must be carefully guarded against, by every means capable of such an effect. Therefore, besides the rules suggested for the "regimen" of the woman, she must lose a few ounces of blood from time to time, if the pulse and other symptoms declare this state to be present, or if there be a well marked tendency to it. The blood may be abstracted from the arm upon common occasions; but if there be pain in the region of the pubes, back, hips, and rectum; and especially if this be of the lancinating kind, accompanied by a sensation of heat about the seat of the uterus, it should be taken by leeches, or by cupping, as near the parts as it can well be drawn. The top of the sacrum, just over the pubes, the groins, or the labia pudendi, are the best places. The bowels must be gently, but regularly; purged by neutral salts, and the woman confined to a very strict diet, and she must also avoid all kinds of exertion during this commenced state of excitement.

The woman should be at the same time attentive to cleanliness, as before directed; especially, as will most probably be the case, if these symptoms be attended by leucorrhœa. If these measures be rigorously adopted, and steadily persevered in, there is much reason to believe, that this congestive condition of the uterus will be much relieved; and of course, the evils arising from it diminished, if not altogether subdued.

A variety of other affections show themselves at the period we are now considering; such as eruptions, erysipelatous inflammations, rheumatic pains, swelling of the lower limbs, violent headach, and a great variety of nervous or hysterical symptoms. None of these require any peculiarity of treatment, except, that the loss of the menses, and the tendency to plethora, must always be kept in view.

It must, however, be remarked, that though hysterical symptoms are wont to appear about this time, and to be sometimes even violent, owing to an augmented sensibility of the nervous system, yet, this complaint almost always disappears, so soon as the system becomes accustomed to the change in the nature of the circulation, and its more general determinations over the other parts of the system.

It is highly important, that the cutaneous circulation and sensibility be properly preserved; for this reason, the woman should avoid all causes which may tend to impair them; such as cold damp places; too humid an atmosphere; too thin clothing; partial draughts of air; wet, or damp clothing. To maintain an equality of excitement of the circulation, she should wear flannel next her skin, and carefully protect her feet and legs, by shoes of a proper thickness, and stockings of a proper quality. Should she be habitually subject to cold feet, she should employ the mustard bath at least twice a week, so long as this symptom continues.*

## CHAPTER VIII.

### OF MENORRHAGIA.

By this term, we should understand an immoderate discharge of *blood*, properly so called, or coagula, or both, from the internal cavity of the uterus; recurring at the menstrual period, and following the secretion, termed the menses.

I have already said, that this discharge is of *blood*, properly so called, in contradistinction to the fluid yielded by the internal uterine surface every lunar month, called the menses. When treating of the catamenia generally, the difference between the menstruous fluid and blood, was insisted on; and it is important, that this distinction be preserved, that two distinct conditions of the uterus may not be confounded.†

It will probably ever remain a matter of doubt, whether the blood which is expended in menorrhagia, be from the same vessels that furnish the menstrual fluid, or from a distinct set,

* The mustard bath is made by putting two or three table spoonsful of the flower of mustard, to a gallon and a half of warm water. The feet are to be put in this and rubbed until they glow, just before getting into bed for the night.

† Gardien evidently confounds these two conditions, both by the caption of his chapter on this subject, (de la menorrhagia ou flux *immodéré des regles*,) and by his text.

which may terminate upon the internal uterine surface; nor is it, perhaps, at this moment, of much consequence to determine, since it would not lead, with our present knowledge, to any practical good. Reasoning, perhaps, would be against this identity; and would tempt us to believe, that the blood of hemorrhagy does not proceed from the same vessels which furnish the menstrual fluid: for, menorrhagia is always, so far as we have witnessed, preceded by the regular menstrual discharge;* which it would be but rational to suppose, would effectually relieve any engorgement that might be imagined present at this time; provided, this accumulation were confined to the vessels concerned in the production of the menstrual fluid.

Now, if this were so, we should be at a loss to understand how an hemorrhage should take place from vessels, after their distention was diminished by the evacuation of a portion of their contents; which must be the case, did the vessels which ordinarily furnish the menstrual blood, also yield that of menorrhagia. But, if we suppose that a distinct set of vessels are concerned, we can more readily understand how they might be forced or induced, from some local cause, to open themselves, so as to pour out blood; since their distention may not be relieved by the catamenial discharge, for it is not difficult to conceive, that the whole uterus may be in a congestive state at this time.

Gardien (Traité complete d'Accouchemens, vol. i. p. 289,) declares, that "so great a relation exists between menorrhagia and the menstrual flux, that it would be difficult to determine

* Under the head of menorrhagia, we do not include those hemorrhagies which arise from a lesion of the internal surface of the uterus, or a portion of its proper substance; as in open cancer, or other ulcerations of this organ. We confine ourselves to that discharge of blood which follows, or accompanies, the menstrual action. We pretend not to account for this condition of the uterus; we only know the fact that it takes place; and that the woman is liable to it so long as the menstrual process continues, be this longer or shorter. Women are therefore obnoxious to this state of hemorrhagy, during a great period of their lives; that is, during the whole menstrual period; for we have no evidence, that this takes place after the congestion of the uterus, that is necessary for the menstrual secretion, ceases to take place; though hemorrhagies from lesion do very often happen after this period.

where the one ends and the other begins." Again: "In fact, all spontaneous hemorrhagies have the strongest analogy with the menstrual flux. The phenomena which accompanies the issue of blood, are absolutely the same in both cases: only in menorrhagia, the flow partly belongs to an original law, while that of hemorrhages is accidental." P. 289.

It is evident from these passages, that he looked upon both discharges to be the common blood of the system; yet, it is notorious they differ widely in many particulars. The one is the result of a secretory process; the other is blood which has escaped from its confinement, by the rupture, or the opening of the vessels which contained it. Now, were it true that the menstrual fluid, and the blood thrown off in menorrhagia, were the same, there would be no difference between the menstrual flux and menorrhagia; except in the quantity of blood that might be expended; and, consequently, that menorrhagia is nothing but an excessive secretion of the menstrual fluid, or that the menstrual fluid is nothing but proper blood.

Mr. Hunter declares, "it (the menstrual fluid,) is neither similar to blood taken from a vein of the same person, nor to that which is extravasated by accident in any other part of the body; but is a species of blood changed, separated, or thrown off from the common mass, by an action of the vessels of the uterus, similar to that of secretion, (see p. 59,) by which action the blood loses the principle of coagulation, and, I suppose, life." Dr. Good* observes upon this subject, that, "as this distinction has not been sufficiently attended to, either by nosologists or physiologists, many of the diseases occurring in the present arrangement, (his own) under Paramenia,† have been placed by other writers under a genus named Menorrhagia, (a morbid flow of *blood alone*) from the menstrual vessels. And we have here not only a wrong doctrine, but the formation of an improper genus; for menorrhagia is, correctly speaking, only a species of the genus Hæmorrhagia."

We have just intimated, that, with our present ignorance of the agency of remedies upon the different portions of the uterine system, the knowledge, whether the blood expended in

* Study of Medicine, vol. iv. p. 30. Amer. Ed.

† "Morbid evacuation, or deficiency of the catamenial flux." Ibid.

menorrhagia, is from the vessels which prepare the menstrual fluid, or from a distinct set of vessels, might be of little consequence in a practical point of view; yet, the time may arrive, and that soon, when such knowledge would be highly useful. For, at the present moment, we are well acquainted with the influence the ovaria exert over the internal surface of the uterus, in the production of the menstrual fluid; and, consequently, that it may be essential in the various deviations in the formation of this fluid, that the restorative remedies be addressed to these bodies; whereas, if a different set of vessels from the menstrual, yield the blood, the cure might require remedies that would exert an influence upon the extreme vessels of the uterine surface.

At first sight, it may appear idle to expect the possession of remedies, that should have such exclusive control upon these parts; but the present history of the Materia Medica will justify the expectation. The ergot for instance, manifests its action upon the uterine fibre; the sugar of lead upon the extremities of bleeding vessels; the spirit of turpentine upon the mucous surfaces; mercury upon the salivary glands, &c. &c. Is it then unreasonable to hope, we may soon be in possession of substances, whose action shall be confined to the ovaria, and to the internal surface of the uterus? for until we do find such *specifics*,* our practice in the inordinate flow of the menses, and in menorrhagia, will be rather uncertain.

It may be asked, of what practical value would the knowledge be, whether the fluid expended in menorrhagia be an in-

* Every substance, which can exert an influence upon the animal system, has its own peculiar mode of action; and from what we already know, there is every reason to believe, that each organ belonging to the human fabric, has appropriate stimuli in a state of health, or counter agents, when in a state of disease, among the varied productions of nature; and that these stimuli, or counter agents, are capable of changing the mode of action of such parts, on which they are destined to act. If this be true, how important is it, that the peculiar action of every substance should be closely watched when administered to the living animal! It is but by such attention to the influence of medicines, that remedies can be discovered, and properly classed; and it is but by the same kind of scrutiny, that an individual article of that class, shall at one time, or occasion, merit a preference over every other individual of the same class. To prove this, we need but refer to every day's experience, in the choice of cathartics, emetics, astringents, &c. when prescribing for the body in a state of disease.

creased secretion of the menstrual, or truly an hemorrhage? We would answer, that the truth is always of consequence, either directly or indirectly; and, that if they be the same fluids, the disease in question would consist of a morbid condition of a natural action; and if they be not, as we believe they are not, the menorrhagic discharge would consist of a morbid condition of some other portion of the uterine surface, than that which furnishes the menstrual blood; the knowledge of which, may lead to great practical results. Be this as it may, the disease is of such frequency and consequence, as to render a complete knowledge of its mode of treatment, highly important. We shall, therefore, proceed to give a history of this disease, together with the mode of treatment.

When treating of the "immoderate flow of the menses," we observed, that excess of discharge must be considered as a relative term; and that we should rather consider the consequences of the quantity, than the quantity itself. But with respect to menorrhagia, it will be found the best practice, to attempt to arrest it in limine; we have, therefore, for many years, treated this disease as one that would most probably increase if neglected, though the hemorrhage may be small at the time.

Gardien,* however, says, that "we should judge less by the quantity expended, that menstruation is immoderate, than by the loss of strength that is the consequence of it." This advice we have agreed would be correct, if the discharge were that of the menstrual blood; but we cannot agree it would be proper in menorrhagia. We have just declared that Gardien had confounded these two conditions of the uterus, and this in mere compliance with a preconceived notion; and that notion, in our opinion, founded on no better ground than the weight of authority.† Hippocrates compared the purity of the menstrual blood, to that of the immolated victim; and declared it would coagulate quickly, if the woman were in good health. This opinion has been copied into almost all the books

* Vol. I. p. 289.

† "L' hemorrhagie naturelle qui constitue les règles est artérielle: à cette époque de la vie, presque toutes les hémorrhagies sont artérielles." Vol. I. p. 223. In this quotation it is perceived, that he calls the menstruous action an hemorrhage; and an arterial hemorrhage.

since that time, and handed down to the present day; and is believed by many at this moment. Our own inquiries upon this subject, and they may strictly be called extensive, have uniformly led to a result contrary to that declared by Hippocrates, and believed by some at this day; namely, that this discharge, when in a state of health, differs widely from the blood of hemorrhage.*

With respect to menorrhagia, as distinguishable from menstruation, we have in our definition declared it to be a discharge "of blood, or coagula, or both," and in these respects differing widely from the product of the menstrual action. If blood flow from the vagina, that will coagulate when exposed to the air; or if coagula be expelled, we no longer consider this the healthful process termed menstruation, but the disease called menorrhagia; and when applied to for this purpose, we prescribe for a state of disease; for it is agreeable to all our observation, that when this condition obtain, the uterus is not in an entire healthy state. And we may urge as a proof of this, that those women who habitually expel coagula to any amount, do not conceive, until this state of the uterus is changed.

Women who live indolently, and indulge in stimuli; who use little or no exercise; who keep late hours; who dance inordinately;† who are intemperate; who have borne many children; who have been subject to febrile affections; who have much leucorrhœa; who are too prodigal of the joys of wedlock; who are advancing towards the non-menstrual period; who yield too readily to passions or emotions of the mind, are those most obnoxious to menorrhagia.

This complaint is almost always announced by certain unpleasant feelings, which the woman after a while recognises to be the harbingers of this hemorrhagy; such as lassitude, and especially of the limbs; back ache; a sense of fulness; and pressure about the region of the uterus; a dragging sensation about the groins; frequent inclination to make water; chilli-

* See p. 58.

† Gardien, especially, condemns the "Waltz." He says "il n'en est point de plus propre à produire cet effet que cette danse voluptueuse connue sous le nom de Walse." Vol. I. p. 296.

ness; a variety of nervous symptoms; feverishness; pulse quick, and oftentimes tense, full, &c. All of which disappear, or are much moderated so soon as the discharge appears. This discharge almost always is the true menstrual secretion in the commencement; but it is either arrested, or is, more properly speaking, confounded with the *blood*, or coagula which now make their appearance; and which may continue a longer or shorter period; and of which more or less may be expended.

It may take place without any premonition; especially if any moral cause has been operating capable of producing it; and the quantity thrown out may be so moderate as to induce very little weakness, or any other inconvenience, save that which arises from its duration; or it may be so profuse as to suddenly prostrate the strength, and become quickly alarming. It may continue but the ordinary menstrual period; or it may persevere for many days beyond this time. It rarely ceases suddenly; but gradually declines, both in quantity and in the intensity of its colour, several days before it stops altogether.

When it has continued for many days together, it becomes serous towards the decline; and this change is almost always attended with an unpleasant odour; sometimes extremely offensive, and occasionally even acrid. If it has been habitual for some time, the woman becomes pale, feeble, and emaciated. The breasts lose their fulness, and become flaccid. Leucorrhœa is almost always an attendant, and may be very abundant, and even offensive. The digestive organs become involved; and betray many distressing dyspeptic symptoms. Every thing turns sour upon the stomach; the bowels become constipated, or are urged to diarrhœa; the feet swell; and if not arrested, dropsy may ensue.

There are evidently two conditions of this affection; the one, where the whole system participates; plethora, and even a distinctly formed fever, is excited, just before the hemorrhage takes place. In this case, the face, the eyes, the spirits, all partake of this general state of excitement, nor does it subside until the uterine irritation ceases. The other, seems to consist of mere local determination to the uterus; producing an engorgement of this organ; but which does not implicate the

general system, except from the waste of strength it occasions, when the discharge is profuse or long continued.

Most writers on the subject of hemorrhage, have divided them into active and passive; but there is great room to question at least the propriety of this mechanical distinction, if there be not sufficient ground to reject it altogether.

Broussais powerfully opposed the doctrine of passive hemorrhages: he contended, that in all cases, there existed an irritation in the part that yielded the blood; and that weakness, without irritation, could no more produce hemorrhage, than inflammation. It is supposed by those who advocate this doctrine, that the expended blood proceeds from the relaxed, or partially paralyzed exhalents. But he contends, that this cannot be the case, since Bichat, and other modern physiologists, appear to have proved, that after the blood arrives in the capillary system, that it is no longer subject to the action of the heart. If this be admitted, where is the power that can force the blood into these orifices!

Dr. Caldwell,* in a note on Cullen's division of hemorrhagies into active and passive, observes, that this distinction "is utterly unfounded, and ought to be rejected from pathological science. The phraseology leads to a physiological error. The expression, 'passive hemorrhagy,' as applied to living matter, is a gross misnomer. During life, no hemorrhage can possibly be passive. Blood flows from the vessels that contain it, at least in part, by means of the action of that vessel. Now, is it possible for such action to cease, otherwise than by the cessation of life in the part? But the cessation of life is the commencement of gangrene. An hemorrhagy really passive, therefore, cannot take place, except from gangrenous vessels. But from such vessels, unless they be very large, blood does not flow at all. The reason is obvious. They act on the blood which they contain, like dead matter; and we well know, that the action of dead matter on blood forces it to coagulate. Hence, in the vessels of a gangrenous part, the blood does coagulate, and prevents the hemorrhagy that would otherwise ensue."†

* Ed. of Cullen's Practice, p. 734.

† It seems to be a law of the system, that the tendency of the blood to coagu-

"Every hemorrhagy, therefore, that does or can take place from the living body, is really an active one. It arises, not from the absolute want of action in the part, but from its wrong action. The vessels *dilate*, or rather contract and *dilate alternately*, when they ought to contract only, and thus prevent the escape of the blood they contain."

For these reasons, and because we have never been able to perceive any practical benefit from the division of hemorrhagies into active and passive, we shall consider the hemorrhagy of which we are treating, always to be of the active kind.

We have just stated above, that there are two varieties of menorrhagia; and that the first owes its character to the plethoric condition of the blood vessels, and the general participation of the system; hence, the fevered cheek; the brilliant, and sometimes engorged eye; the quick hard pulse; pain and other uneasiness about the back, and uterine region, just before the hemorrhage takes place; as well as the character of the fluid which is discharged.

The blood discharged in this variety of menorrhagia, is sure to betray the general condition of the system; for it is always found pretty florid, dense, with but little serum, and much disposed to coagulate. The quantity evacuated, will of course differ in different individuals; but, whatever may be the quantity, it is sure to present the qualities just named.

This hemorrhagic disposition of the uterus, may take place

late, is in proportion to the diminution of vital energy. This law is one of great consequence and efficacy, in those threatening lesions of the body, called hemorrhagies; for, oftentimes, death would instantly ensue from these causes, did not the blood, by a sudden coagulation, prevent the farther waste of this fluid. This disposition to coagulate, is almost certain, when the powers of life are put suddenly upon the wane from the expenditure of blood, by inducing a state of syncope. Now, syncope is a kind of counterfeit death; all the vital energies are suspended for a while, as effectively almost as if death had really taken place; and the law of coagulation is now put in operation, by coagula forming, and thus putting a stop to farther bleeding. These facts are well ascertained. Now, when syncope takes place, the blood vessels are almost in a state of death, or at least, of temporary paralysis; they no longer propel by acting upon their contents; consequently, their contents remain quiescent. But, agreeably to the doctrine of passive hemorrhage, the blood should now flow faster, since the vessels are in a state of the greatest possible relaxation.

at any moment of the menstruating period; and at any age within that limit. But the vigorous and plethoric, who are liable to the action of the exciting causes, are more subject to it than the feeble pulsed, and those who do not encounter such causes. Thus, we find women of cities more obnoxious to menorrhagia than those of the country; because the physical and moral causes, which tend to produce that condition of the system, are applied with more force and certainty to the former than to the latter.

But, independently of the causes which may tend to induce a general plethoric disposition of the body, there are some which act by creating a local congestion of the uterus itself. Thus, the frequency of this complaint among the women of Holland,* is attributed to the almost constant use of foot stoves, and the inordinate drinking of hot thin liquids, as tea and coffee: they are also indolent and luxurious. Dancing immoderately, and then permitting the body to cool suddenly; tight lacing; ill protected lower extremities; frequent use of demi-baths; excess of venery, &c., may be considered as the most common of such causes.

The most frequent of the exciting causes, are all such as shall suddenly augment the force of the circulation, and the motion of the heart; or such as shall tend to have a direct action upon the uterus itself. Of the first kind, is an over stimulating diet; passions or emotions of the mind; violent exercise, or exertion of a sudden kind. Of the second kind, emmenagogue medicines, as the tincture of cantharides, aloes, savin, (ergot?) immoderate venery, especially during the flow, &c.

The indications of cure in this first species, may be readily deduced from the premonitory and accompanying symptoms. They all show the plethoric condition of the system in general, and of the uterus in particular; therefore, the means to be employed to prevent this hemorrhagy, will consist, first, of their application during the absence of the hemorrhagy; and, second, during the period of the discharge. For the first,

The predisposing causes should be withdrawn as effectually as possible, by obliging the patient to renounce her indolent habits; by taking regular and well adapted exercise in proper

* Dr. Rush, MS. Lectures, Leake, Gardien, &c.

weather in the open air; to live upon a milk and vegetable diet; to abstain from all spirituous and fermented liquors; to indulge in no stimulating articles of diet, as spices, or other condiments; to keep the bowels regular, or even a little loose; to sleep, and that not too long at a time, in a cool room, upon a hard bed, and without too many bed clothes, or even curtains; to keep the feet and legs warm; and occasional blood lettings.*

To shun the exciting causes enumerated above, with the most scrupulous care.

During the flow, the first object is to diminish the force of the circulation, by blood letting from the arm, rest, a horizontal posture, cool air, and cold drinks; second, to reduce the quantity of the discharge, by such means as favour the contraction of the vessels concerned in the hemorrhage, and shall favour the coagulation of the blood. Of the remedies which are calculated to fulfil these useful purposes, the sugar of lead seems to stand foremost; it should be given in liberal doses, often repeated, if necessary, but always guarded with opium. The following is our usual formula:

℞. Acetat. plumb. ℈j.
Gum. opii. gr. iv. M. f. pil. xij. One of these to be given every half hour, hour, two hours, or more seldom, as the necessity may be.

* Blood letting should always be employed in the intervals, in cases of this kind, whenever the pulse is active, and must be repeated so long as the pulse is tense, irritable, or full. The best time to abstract blood, we think, is a few days after the discharge has ceased, provided the pulse be active at this time; if it be not, let it be watched, and when it is found to be acquiring strength, let the blood be taken then, and in sufficient quantity to reduce both the size and vigour of the pulse; for blooding is useful in such cases, in proportion to the contraction of the vessels it produces. If the pulse rise only near the period for the renewal of the hemorrhagy, blood must then be abstracted by all means, and in larger quantity than at the other periods just indicated. For if this direction be not attended to, very little advantage will be derived from the operation, as the desired object, the contraction of the vessels, will scarcely take place; as those of the uterus are so insulated, and independent of those of the general system.

I have thought I have derived much advantage, at these times, from the application of leeches to the small of the back; for eight or ten ounces abstracted by them, seems to have more control over the uterine circulation, than double that quantity taken from the arm.

If this make the stomach sick, or if nausea and vomiting attend, which sometimes happens, it may be administered in the form of an enema, as follows: a scruple of the acetate dissolved in two ounces of warm water, to which must be added a tea spoonful of laudanum. Should this be discharged soon, it should be repeated.

Cold applications, consisting of equal parts of whiskey or brandy, and vinegar, should be applied over the pubes, and renewed as soon as it becomes warm. In warm weather, the addition of ice is very important. The best mode of applying the cold mixture, is by cloths wrung out of the mixture; or by means of a large bladder, partially filled. If the latter be used, cold water is as good as the mixture just named, as it does not come in contact with the skin; its whole virtue being in its coldness.

The plan just detailed, is intended only for such cases as have a profuse and threatening discharge; for in ordinary cases, the sugar of lead as prescribed above, answers every purpose without the cold application. We deem, however, the other cautions important, even in very moderate cases; as very slight errors will sometimes create a great deal of mischief. Rest, cool air, and a very low diet, and cold drinks, should be always insisted on, even in cases where the patient does not think it important to lie by, if we expect a permanent cure. Where the discharge is very profuse and alarming, which sometimes happens, even with young girls, but more especially with women pretty well advanced in life, and the means above recommended have not proved successful, the tampon must be had recourse to.

The variety we have just described, is generally of much easier management than the second; which consists "in a mere local determination to the uterus, producing an engorgement of this organ; but which does not implicate the general system, except from the waste of strength it occasions, when the discharge is profuse, or long continued."

The variety now under consideration, is most common to women of an irritable and feeble constitution; and where, agreeably to Gardien, there exists an accumulation of vital power towards the uterus.

This variety, like the one just spoken of, is accompanied by some pain and heaviness in the uterine region; heat, and sometimes itching in the pudendum. The pulse is small, and rather frequent; the extremities disposed to become cold; the face pale, and sometimes cachectic; the appetite feeble; the tongue frequently found furred, especially in the morning; palpitation of the heart; and respiration hurried upon motion.

The indications in this variety, are to destroy or diminish this congestive tendency of the uterus; and to moderate, or interrupt the unnatural discharge.

The first indication must be attempted to be fulfilled, by equalizing the circulation as much as possible, by determining it towards the surface; by well regulated exercise; by wearing flannel next the skin; by keeping the lower extremities warm; by a nutritive and easily assimilated diet; abstaining however from stimulating condiments and drinks; by preventing constipation, by even purging with aloetic medicines;* by diverting the current of blood to some neighbouring part, by dry cupping the small of the back; and blistering the inner side of the thighs. Emetics, and especially the ipecacuanha emetics, are thought to be useful in this variety of menorrhagia; they were first proposed by Dr. Bryan Robinson for hemorrhagy, and have since been recommended in menorrhagia; but of these, we can say nothing decisive from experience. If useful at all in such cases, it must be just before the menstrual eruption; for during the flow, we never remember to have seen vomiting abate the discharge when it came on spontaneously, though this may have been pretty severe. Taking a grain of the sugar of lead with a little opium, three or four times a day in the absence of the discharge; or drachm doses of the tincture of rathany, will be found highly useful.

To fulfil the second indication, the means are precisely the same as recommended in the first variety; with this exception;

* We have, in several cases of menorrhagia, in women somewhat advanced in life, found great advantage from the hiera picra as a cathartic; it may be used agreeably to the following formula:

℞. Hiera Picra ℥j.
Sapo. Venet. gr. viij.
Syr. Rhæi. q. s. M.—f. pil. xx.

One or two of these taken every night, until the bowels are found free. See p. 98

that if the discharge be long continued, we may employ the dry cupping, and apply blisters.

In both varieties, we have often found decided advantage from injections per vaginam, made of the solution of the acetate of lead, of sufficient strength—that is, two drachms to a pint of lukewarm water. Half of this, or one-third, may be thrown up the vagina by means of a syringe, three or four times a day.

In all cases of menorrhagia, opium is found highly useful, when combined with small portions of ipecacuanha; and should always be exhibited, so soon as the pulse will bear its stimulus. It should be certainly given at night, if pain prevents sleep; or even during the day, if necessary from the same cause.

Gardien makes a third variety of menorrhagia; namely, "a spasmodic." Of this variety I can say nothing; nor do I believe in its existence; the only evidence of this variety is, that menorrhagia is sometimes relieved by opium, or other antispasmodics.

## CHAPTER IX.

### OF THE DISEASES OF PREGNANCY.

Dr. Denman seems rather unwilling to call the various affections to which the female is liable from impregnation, as diseases. He says, "the state of pregnancy is an altered, but cannot with propriety be called a morbid state." We are of opinion, that pregnancy is not necessarily a disease in itself; but that it very frequently induces this condition in other organs of the body, by means of a strong sympathetic feeling, if we may so term it.

As an arrangement of nature, the uterus being occupied with the rudiments of new being, cannot with propriety be said to be in a morbid condition; on the contrary, it is essential to the object of this condition, that it preserve almost inviolate, its healthful integrity. For if it become diseased, in the strict meaning of the word, the intentions of this condition, will al-

most to a certainty be prostrated. It therefore has decidedly the power of exciting other parts to diseased, or at least to deranged action, while it preserves itself in the most healthful state. Indeed the healthful condition of this organ, seems necessary to its power of calling other parts into sympathy, either morbid or salutary.

This is abundantly proved, by the fact, that the process of gestation goes best on as a general rule, where certain, or what are termed the rational signs of pregnancy, are present, and even in full force; such as nausea; vomiting; salivation; heartburn; swelling of the breasts; &c. &c. and consequently proving it to be in a healthful condition. This is a fact, almost universally admitted by the writers upon the subject of midwifery. "It is a popular observation," says Dr. Denman, "confirmed by experience, that those women are less subject to abortion, and ultimately fare better, who have such symptoms as generally attend pregnancy, than those who are exempt from them." p. 225.

Is it not then certain, that the uterus is in the best health, when it excites the various parts concerned in the affections just enumerated? and when it does not move them to sympathy as above stated, that it is performing its functions less healthily; since it may be excited, and very often is, in the absence of these symptoms, to abortion? For habitual aborters, are very rarely attacked with the more common affections belonging to pregnancy.

The impregnated uterus then produces commotions in various degrees, while it preserves to itself the most healthy condition; as if these various sympathies were intended to divert all evil from it, that the great object of nature, (the propagation of the species) should not be circumvented with too much facility. In civilized life very frequently, and it is not uncommon in savage life, the "breeding symptoms" are very often called forth; now it is not reasonable to suppose that all the severe sufferings to which the pregnant woman is subjected, can be idly instituted, without a physical end or a moral purpose! It cannot be, that the trying privations, and the absolute evils of gestation, should have been intended as an affliction, without an object.

The sympathies called forth by pregnancy, though they are strictly speaking chains of morbid actions, so far as the parts immediately affected are concerned, yet they are not like most morbid actions, called forth by a morbid cause; and we must still insist, that pregnancy, abstractly considered, is not a disease; for we have already shown, that the uterus, the part most immediately and extensively concerned in this process, must preserve its healthy powers, that this function shall not cease. It is therefore unlike any other process in the human body; it provokes disease in other parts, to preserve the integrity of its own functions.

The disturbances excited by the impregnated uterus in other portions of the body, in general have but one tendency; namely, to prevent plethora. This is chiefly effected through the agency of the stomach; the part which is most generally, and most extensively involved in this kind of obedience. Hence, nausea, vomiting, loss of appetite, disgusts, or loathings, or longing for certain unnutritious substances, &c. These affections are evidently instituted with a view to diminish the quantity of circulating fluids; and thus to prevent the evils which are sure to attend that condition of the system, called plethora. Now, if this circumstance be closely examined, it will be pretty generally found, that the sympathetic affections are violent, in proportion to the necessity of subduing this state of fulness, or preventing its occurrence.

We may be told, that many women "breed" without any, or very few of the affections which generally attend pregnancy. This is at once admitted; but in all such cases there is no necessity for instituting this subduing process; as there is in such women no tendency, or but very little, to the condition of the blood vessels.

Generally, the women who are exempt from this common penalty, are those who possess great physical powers, and are in the habit of constantly employing them. In these cases, the same end is answered by another means. The excitability of the system is expended by the regular application of the stimulus of exercise; and consequently, that state of irritability of the muscular and vascular systems, so injurious at this period, is prevented. Besides, people who employ their physical pow-

ers in useful exertion, have few provocatives, save that of regular exercise and regular rest, to produce appetite; no artificial condition of the stomach is created; they satisfy their cravings by a simple, but nutritious diet; and no more blood is formed, than is sufficient for the contingencies of the system.

In these cases also, the irritability of the uterus never becomes so excessive, as where the contrary life is led. For the uterus being a muscle, participates like the other muscles of the body, in the general benefit derived from healthful and regular occupation and exercise. The nervous system has less mobility, for the same reason; consequently, the uterus will have less disposition to be thrown into contraction by the application of either physical or mental stimuli; consequently there will be less disposition to abortion.

With those who lead indolent lives, and who feed luxuriously, the case is very different. In such, more blood will be made, than can advantageously be employed; consequently, there will be "plethora"—and not only plethora, but augmented irritability; and therefore, a liability on the part of the uterus to be thrown into contraction, by much less causes sometimes, than ordinary.

Now, should such, not be visited by the common affections of gestation, the liability to abortion will be increased in proportion to the disposition of the system to become plethoric. Hence, the truth of the remark made above, "that those women are less subject to abortion, and ultimately fare better, who have such symptoms as generally attend pregnancy, than those who are exempt from them."

We know a lady who is easily provoked to abortion, who will tell, soon after the stopping of her catamenia, whether she will carry her child or not, by the state of her stomach. If she have no morning sickness, or vomiting, with nausea and loss of appetite or disgust, she is certain to abort; and under these circumstances did so in several instances. She has now acquired sufficient knowledge of herself to prevent this accident; and whenever she faithfully acts up to the dictates of her reason and experience, she is sure to succeed.

If after the interruption of her menses, she does not become affected with the common consequences, of what this sign de-

clares she should expect, she instantly reduces the ordinary quantity and quality of her food; drinks nothing but water; keeps her bowels soluble; and sometimes, but not always, loses a little blood; (but this, never without the advice of a physician;) uses very little exercise, lest she produce fatigue; in a word, she so conducts her regimen as not to produce plethora, or at least to moderate it very much; and so manages her physical exertions, as not to convert them into an unusual stimulus to her nervous and muscular systems.

But at other times, when she becomes pregnant, and has the ordinary accompanying signs, she takes no extraordinary trouble to regulate the condition of her system; as she finds, they are almost always sufficient to subdue any excessive tendency to plethora. But should she feel headach, or other signs of fulness, she loses a little blood, or eats less.

In pregnancy, the system is in a state of constant stimulation; from this very cause itself. First, there is the stimulus of distention constantly operating, from the first six weeks, to the full period of utero gestation. This is most obvious in the first few months; and for this reason; that at this period, the uterus yields with more reluctance than at any subsequent period, either from its own specific density, or from the smallness, as well as feebleness, of the distending cause, the ovum within.* Hence, in the first few months of pregnancy, the sympathetic affections are more violent than in the after periods. 2d. Joined to the stimulus of distention, is that disturbance, which is, and must be consequent, upon the change of position of all the abdominal viscera, which sometimes is very considerable. (See Sect. on the pain in the right side of pregnant women.) 3d. The constant, though not uniform pressure upon the intestines, both above the fundus, and below its posterior and lateral portions, giving rise sometimes to many unpleasant symptoms; such as cramping pains, from the unequal distention of the bowels, constipation, diarrhœa, &c.

* So reluctantly does the uterus yield, at this period, sometimes, that much inconvenience is experienced on the part of the patient, from severe alternating pains in this part, which are sometimes tranquillized with difficulty, by blood-letting, opium, &c. At other times, it absolutely refuses to yield farther than a certain point; contractions are excited, and the ovum is eventually expelled—this forms one of the causes of abortion.

The combination of these causes, keeps the system in a state of constant excitement; the pulse is therefore almost always accelerated; and the nervous system directly, and the arterial indirectly, are always found to bear stimuli ill. Hence, the caution necessary in their exhibition at such periods.

The young practitioner should never lose sight of the important fact just mentioned, if he expect to be successful in the treatment of the diseases of the female at such periods. We have known many errors committed for want of due attention to this state of the female system; some of great, and some of minor importance; but all errors of this kind should be eschewed with great care.

To show the susceptibility of the system, at this period, in some cases, to stimuli, we will relate one instance of many of similar kind, which have fallen within our own knowledge. Mrs.——, pregnant with her sixth child, and at the eighth month complete of utero gestation, complained suddenly of sickness, accompanied by a distressing sensation of the stomach; she was advised by a young practitioner of medicine, who happened to be present, to take a little pretty strong brandy and water; which he accordingly prepared, and gave her.

She had not swallowed the mixture more than fifteen minutes, before she felt the distressing sensation increase, though the nausea was abated; at the same time she experienced a confusion, and severe pain in the head, which seemed more concentrated in the forehead, immediately above the eyes; a dimness, or rather a temporary loss of sight, with strong twitchings in the muscles of the arms and legs.

The physician, as well as the family, became alarmed lest this should eventuate in a "fit;" and we were requested to see the lady immediately. When we visited this patient, she was labouring under the above named symptoms, and which had been gradually increasing from the beginning of the attack.

We found her with an accelerated pulse; a flushed face, and considerable confusion of intellect. The remedy in such a case could not be mistaken. Her arm was immediately tied up, and blood abstracted, until her head and senses were perfectly relieved: it did not, however, require more than four-

teen or fifteen ounces of blood to effect this. She had no return of any unpleasant symptom after that evening.

So much does pregnancy modify the affections of the system, that even the sensations called nervous, can rarely be relieved by the usual remedies, however successful they may have been with the same patient at other times, but under different circumstances. The common symptoms by which hysteria shows itself; such as palpitation of the heart; a sense of suffocation; difficulty of swallowing, &c. rarely can be controlled by the common remedies, unless they are anticipated by a bleeding of a greater or less extent—this should be borne in mind; for success will not follow the use of remedies, without attention be paid to it.

But the susceptibility of the system to stimuli, during pregnancy, is more evident when a patient is attacked with an acute disease, such as fever. To relieve her at this time, it is found more difficult always, than at any other; for the system is now so susceptible; so disposed from this circumstance to maintain diseased action, that remedies of the most appropriate kind, succeed with difficulty. And if convalescence is attempted to be accelerated by tonics, and these even of the mildest kind, we are almost sure to meet with disappointment, if we do not even recall the disease.

Nothing, perhaps, shows the difficulty of employing tonics during pregnancy, more than the want of success of the Peruvian bark in intermittents. In substance, we scarcely ever succeed in arresting the paroxysms, as we might calculate to do in ordinary cases, unless its exhibition has been preceded by very ample depletion. We have seen a number of instances, where an intermittent has been quickly converted into a remittent, by the exhibition of the bark. Indeed, it is hardly ever safe to trust it, even after very liberal evacuations. The sulphate of quinine, however, is less objectionable, or less treacherous.

In a word, we rarely use tonics of the more powerful kind, in the convalescence after acute diseases in females, when complicated by pregnancy; especially in the earlier months. After the fifth month, up to the full period, the system is less irritable. For soon after the time, at which the woman has quick-

ened, all the sympathetic affections begin to moderate, and very often cease altogether.

This, it is probable, is owing to the following causes: 1st. From the uterus now making greater demands upon the system at large for blood, from the increased size of itself and vessels; and consequently, relieving in a degree, its state of plethora. 2d. By the system now becoming familiar to its peculiar stimulus, from its long continuance. 3d. To less irritation being experienced, by the greater disposition of this organ to be distended—for after the fifth month, the resistance of the fundus and body is less; 1st, from its increase of vascularity; and 2d, from the ovum augmenting in power. Hence the melioration of symptoms after the fifth month.

*Bleeding.*

From all this it follows, that the female constitution, during pregnancy, has great susceptibilities, and even peculiarities, which it is highly important to know and regard; especially when prescribing for their acute diseases. The process of sanguification is much more rapid during this period; as all the functions of the body are more quickly performed. Hence, they bear, at this time, the loss of blood so well; and hence the more frequent necessity of abstracting it; and the difficulty of overcoming the morbid actions of their systems, at such times.

There is much prejudice connected with the depletion of the pregnant woman. This is sometimes so great, as to render it extremely difficult to subdue their diseases. This prejudice, for so it truly is, is founded upon false views of the functions of the uterus, and the economy of the fœtus, during the period of utero gestation. It is imagined, that for every ounce of blood the mother loses, the fœtus is deprived of a certain portion of it; consequently, that we should be very sparing of this fluid, that we may not deprive the fœtus of its due proportion of nourishment. On this account, the clamour of friends frequently arrests the lancet, when its aid is most essential to the welfare of the mother.

There are few errors of greater magnitude than the one just noticed; and, though it is based in error, yet it has, nevertheless, much concern with the free and unbiassed practice of

medicine. It very often causes the young practitioner to abandon some of the best established principles in the practice of his art; namely, that women bear the loss of blood better when pregnant than at any other period; and that all the acute diseases by which they may be attended, require a more extensive use of the lancet. If, then, the interference of friends interrupts the free exercise of his judgment, the practitioner is reduced to the office of a nurse; for it is not he who prescribes, it is the friends of the patient; while all the responsibility rests upon his shoulders. We have known much mischief produced by the exercise of these mistaken views of the animal economy.

It should be recollected, that the circulation through the uterus has most wisely been rendered almost independent of the general circulation of the system; and that no one viscus in the body is so little influenced by the general changes in this important function, as the uterus is during the whole period of utero gestation. The uterus contrives, if we may use the expression, to make its demands upon the general mass always successful; or, at least, so long as there is any thing to ask for: hence, when almost every other organ is but sparingly supplied, we find the uterus abundantly furnished. Who, in the practice of midwifery, has not seen a fully developed fœtus yielded by a mother, in the last stage of a wasting disease, like phthisis pulmonalis; and where the quantity of circulating fluids was extremely abridged?

Is it to be supposed, then, in such, and in similar cases, that this could have happened, had the uterus had no more than a common participation in the distribution of the blood? certainly not; since every other portion of the body was reduced, by being mulcted of their necessary supplies. But it may be said, that the uterus, in this respect, only enjoys this property of amassing supplies, in common with other viscera: let this be so; it is not a part of our present purpose to inquire into it: all that we insist on is, that the uterus absolutely possesses this power.

We may be told by some, that the fœtus is by no means so secure as is represented, when the mother suffers considerable losses of blood; and will attempt to illustrate this, by showing

that the child often perishes from uterine hemorrhages. This is true; but it does not interfere with our remark; for we have not said, that the uterus cannot be exhausted of blood, if this blood be taken immediately from it, as in flooding: we have only declared, that when this fluid is drawn from the general system, as in bleedings performed for the relief of disease, that very large quantities might be abstracted, without making the uterus give up any portion of what it absolutely possesses; and this is strictly true.

### *Purging.*

The pregnant woman does not bear purging so well as the woman who is not so; or, rather, if this operation be carried very far, there is a risk of producing abortion, owing to the strong consent between the uterus and rectum. Hence, the occurrence sometimes of this accident, from a profuse diarrhœa, or a violent dysentery. Some caution then is required, in treating the diseases of pregnant females by purging; for, if carried to a great extent, it may do mischief. But, let us be understood exactly on this head; lest we deprive females of the advantage of this remedy, in the acute forms of disease. We mean, that a pregnant woman would not bear, without the risk of abortion, as much purging as she could, if she were not pregnant; yet she bears it with advantage, when carried to a considerable extent, especially if tenesmus be not excited, either by the quality of the drug employed, or by the accidental severity of the operation of a medicine, generally eligible. In a word, we believe that the pregnant woman will bear, without risk, any common or necessary degree of purging, unless she is prone to abortion.

We suggest a caution in the choice of purgative medicines, rather than in the employment of this evacuation as a remedy; for in them, with the pregnant woman, there is a great choice. All such as act with great force upon the bowels, should be avoided, as all such as are classed among the drastic purgatives, as scammony, gamboge, colycynth, aloes, &c.; because, all these produce, during their operation, great irritation in the rectum, and excite, very frequently, tenesmus. It is this peculiar irritation, which renders unsafe any cathartic that may

produce it, no matter to what class of cathartics this may belong; for, if castor oil, magnesia, or any other mild medicine, were to produce this effect, it would be equally improper to employ it, as any of the drugs proscribed above.

Hence, we see abortion frequently occur from dysentery, and but very rarely from diarrhœa, however profuse. Those cases of habitual abortion, which are preceded by severe diarrhœa, might be considered as exceptions to this rule; but this is, perhaps, more specious than just. For in all the instances which we have witnessed of this kind of diarrhœa, there was more or less of tenesmus accompanying it; and it is with us a doubtful point, whether the diarrhœa is not, in such cases, a concomitant, rather than a cause. For there is no fact better established, than that there exists a strong sympathy between the uterus, and perhaps the mouth of this organ particularly, and the rectum. We witness this oftentimes in the commencement of labour, during its progress, and towards its termination.

We have more than one patient, whose labours always commence with a diarrhœa; that is, so soon as the os uteri is stimulated to dilatation. Now, in abortion, there must always exist some irritation at the os uteri, or it would not yield to the impulses of the fundus and body of this organ; for it is by no means a mechanical operation; so soon then as this nisus is perceived, (for the uterus prematurely throwing off its contents, is a kind of tenesmus of this organ,) the rectum sympathizes with the uterus, and a diarrhœa, with tenesmus, is produced.

If this be objected to, by saying, that abortion is sometimes prevented by the application of opium to the rectum, thereby removing the disease, or quieting the irritation which invited the action of the uterus; we would answer, there is not the smallest proof in this; since the sympathy between these parts is reciprocal; and, consequently, when a remedy is applied to the one, it will influence the other. In proof of this, how often do we apply the remedies, and that with success, to the rectum, when we mean their effects shall be felt by the uterus alone!

We believe, then, it is not the frequency of the discharges from the bowels, produced by the operation of purgative me-

dicines, that do mischief in pregnancy, but it is to the peculiar, and oftentimes severe irritation, they produce in the rectum, that we may attribute the injury.

### *Emetics.*

Emetics should be given sparingly to pregnant women: they are rarely eligible after the fifth month, and should only be considered as remedies of necessity. Towards the last months of pregnancy, their operation is oftentimes uncertain, in properly or freely evacuating the stomach, as this organ can be very little aided in its efforts, by the other powers concerned in this operation; and from the parietes of the abdomen being greatly upon the stretch, much pain is experienced in their contractions during the efforts to vomit; followed, sometimes, by severe cramping pains.

We have known much and permanent pain produced by the exhibition of an emetic at the last period of utero gestation, and from which the patient was not entirely relieved, until the termination of her labour.

In the early months, nature oftentimes establishes this process for wise purposes; but, even then, the action of the stomach is rather frequently than violently excited: and it may generally be said, there is more nausea than vomiting. But, even in the early periods, emetics are to be used with caution; and when determined on, the ipecacuanha should be made choice of.

### *Blisters.*

Blisters are to be used with great caution with pregnant women: owing to the great excitability of their systems, they produce a great deal of pain during their operation; and this is not always followed by benefit.

During pregnancy, blisters are much more apt to produce strangury than at other times; and when it does occur, it is almost sure to be followed by most distressing and untoward symptoms. We have seen entire retention of urine follow their use, which was only relieved by the catheter, together with such distressing inclination, and violence of effort, as to surpass the pains of labour. Bloody urine has sometimes followed

the use of a blister; and a discharge of mucus from the internal face of the bladder, has continued for a long time after. It is true, these are extreme cases; but they nevertheless occur, and should, therefore, suggest a great deal of caution in their employment, especially in the more advanced periods of gestation. We think we have seen two instances of premature labour from the action of blisters.

*On the febrile Condition of the System during Pregnancy.*

From what has just been said, it will be seen, that the system of the pregnant woman is almost always labouring under a degree of excitement not common to her at other periods; and that she bears stimuli but ill. But this acceleration of pulse, and this susceptibility, must not be looked upon as a state of absolute disease, when nothing more attends upon this condition; it should only be regarded as a state that is easily operated on by morbid or other causes; hence their proneness to fever, from slight causes.

Dr. Denman conjectures, from the universality of this febrile disposition, that "when duly regulated, it is probably intended to answer some important purpose to the child." He thinks there is something like proof, "by the blood of the pregnant woman, which, independently of disease, is always found to have what is called a sizy appearance, though of a peculiar kind, and evidently very different from that which is observed in cases of inflammation, and which may be considered as a consequence of some new and specific action." P. 233.

It is a fact, notorious almost to every body, that the blood drawn from a pregnant woman, exhibits an appearance very different from the blood of a healthy woman who is not pregnant. This difference in the aspect of the two bloods, depends upon a kind of separation of the red globules from the coagulating lymph, in the blood of the pregnant woman; while no such change is observed in the other. Dr. Denman declares this to be "evidently very different from that which is observed in cases of inflammation." This is by no means so evident to us—the white, or rather yellowish coat, observed upon the surface of both these bloods, unquestionably consists of the same material, namely, the coagulating lymph. The difference which

he declares to be so evident, he has not pointed out, unfortunately; and it certainly remains to be proved, that this coat, in both instances, is not owing to an alteration of the blood, and produced by the same agency; namely, by that peculiar arterial action attending on both pregnancy and inflammation.

Mr. Hewson first taught us, that when this coat appeared on the surface of drawn blood, it was owing to the thinning of the serous parts of this fluid, which enabled the colouring matter, and other denser parts of it, to separate, and precipitate themselves to the bottom of the vessel. That the density of this "coat" may differ in the two instances, we have no objection to admit, since this will not prove, that both are not one and the same thing; namely, the coagulating lymph. Besides, to our view, the cause of this peculiarity appears so analogous in both instances, that we do not hesitate to admit them to be the same; namely, an increased arterial action, which we call inflammatory, for want of a more definite term.

We have already said, that this condition of the arterial system is so general, as to force us almost to the belief, that some specific object is attained by it—but what this condition is, can at present only be left to conjecture.

Dr. Denman supposes it may contribute to some good in the child; but how this is effected, he has not informed us. We will therefore offer a conjecture upon this subject. It seems now pretty generally admitted, that the fœtus in utero, is not nourished by blood furnished directly by the mother; that is, there are no continuous vessels from mother to child; consequently, the communication between the two must be indirect.

The most probable manner in which this indirect mode is carried on, is that of Schreger, as published in his dissertation "de functione placentæ uterinæ."

He says, "that the uterine vessels pour nothing but serous fluids in the spongy tissue of the placenta; and that the uterine portion of this mass is not as high coloured as its corresponding, or fœtal portion. And that the blood which circulates in the uterine vessels of the mother is already too highly charged with carbon and other heterogeneous matters, to serve as nourishment for the fœtus; it therefore only exhales its serous part, which is purer *and more highly oxygenated.*" Agreeably to

Schreger, then, the placenta performs, as regards the fœtus, the office of a lung, in which the blood is revived, and becomes better fitted for nourishing the fœtus.

He also has a new theory for the uses of the umbilical vein. He says, "the serous fluid thrown out by the uterine arteries into the maternal portion of the placenta, is absorbed by a set of lymphatics, which carry it along the umbilical cord to the thoracic duct; from thence to the left subclavian vein; the superior cava; the heart; and from thence to the aorta, by means of the arterial canal. From this artery, after being mixed with the blood and hematosé by the action of the vessels through which it has passed, it is carried to the umbilical arteries, which return it to the placenta. When it has arrived here, it is not poured into the cellules to be returned to the mother; but passes into the umbilical veins, whose radicles accompany those of the umbilical artery. Nevertheless, the lateral pores of these arteries deposit the fluid which the fœtus could not elaborate, or which requires to be again submitted to the action of these organs, before it can serve as nourishment."

This highly probable and ingenious theory would lead me then to conjecture, that the excitement in the arterial system so invariably produced by pregnancy, is intended to have the blood more highly oxygenated, and at the same time, from its increase of fluidity, to more easily permit the lymph and serum to be separated from the other portions of the blood in the maternal portion of the placenta, and by this means convey an additional quantity of oxygen for the purposes of the fœtus. The vermilion colour of the blood shows it is highly charged with this gas.

May we not in this way account for the fœtus being so well sustained, while the mother is lingering in the last stage of phthisis pulmonalis? And on the other hand, explain the frequency of abortion and premature delivery, in almost all the cases of small pox, measles, scarlet fever, &c., where the sanguineous system is tending to typhoid action? And also in other cases not of the exanthematous kind, where this typhoid disposition prevails?

This excited state, must not always be looked upon as a *morbid* condition of the system; for were this always to be rigor-

ously acted upon as such, much mischief would be done. As it is, women frequently suffer from the injudicious use of the lancet, or the too frequent employment of cathartics. It should only be considered as disease, when a mischievous tendency is perceived, by the formation of fever; or in local determinations, giving rise to pain or other inconvenience, as headach, giddiness, imperfect vision, &c. difficulty of breathing, pain in the side, which is augmented by breathing, a full bounding pulse, and a hot dry skin, and especially if these exacerbate, either in the evening or in the morning. When this happens, this febrile condition of the system calls for remedies.

A few ounces of blood abstracted from the arm; a vegetable diet; and keeping the bowels open by any of the mild purgatives, will be found sufficient for the immediate removal of this state of the system. If acidity prevail, magnesia will be the best purgative we can employ; if there be no acidity, pills of rhubarb, castor oil, Seidlitz powders, sulphate of magnesia, or flower of sulphur, will be found best. All stimulating substances should be carefully avoided; every kind of liquor should be prohibited—water alone should be the drink.

All fatigue should be avoided; crowded or heated rooms should be shunned; and all undue exercise, under the pretence of "wearing off the fever," should be forbidden.

Dr. Denman is a strong advocate for exercise during pregnancy, and cites as instances of its usefulness, the lower class of people, who are obliged to take much of it. We are always unwilling to differ with this gentleman, though he furnishes so many instances from which we must dissent. The case before us is one of many, on which our experience will not permit us to do otherwise than to differ. For we have always found, that those women whose habits of life did not, from their infancy, oblige them to be much upon their feet, were always injured, when they used much exercise, because it was thought useful to their situation. Besides, we are very far from thinking that the lower class of women bear the consequences of pregnancy, the fatigues of labour, and the contingencies of the puerperal state, better than women in the higher walks of life.

In this country, we can declare with much certainty, that a much larger proportion of the labours of those who are in the

humbler condition of life, have an unfavourable termination, than the same number of labours among the females in the higher ranks of society. Besides, all analogy is against it, as the Doctor himself admits, by declaring that quadrupeds "neglect their common pursuits, the gregarious disposition is suspended, and if left to their own inclinations, gradually lessen their exercise, as they advance in pregnancy."

Errors in diet are almost constantly committed during pregnancy; than which, few things are more mischievous. We have already adverted to the tendency there is to plethora, during this condition of the female; on this account, it cannot fail to be injurious to overcharge, or to over stimulate the stomach.

No one circumstance has contributed so certainly to fix this error, as the vulgar speculation upon this subject; namely, the necessity the female is under to prepare nourishment for two beings, at one and the same time; herself, and the child within her. It is therefore constantly recommended, to eat and drink heartily; and this she too often does, until the system is goaded on to fever; and sometimes to more sudden, and greater evils; as convulsions, or to apoplexy.

Mrs.——, pregnant with her first child, complained of slight headach, of heat and restlessness at night, disagreeable taste in the mouth, with a furred tongue in the morning, loss of appetite, or rather disgust to food, and constipated bowels. She was near her seventh month of pregnancy. She was directed to be bled; to take doses of rhubarb and magnesia; to drink rennet whey, and use nothing stronger than water as drink. In a few days she was perfectly well, and returned at once to her old habits of eating and drinking, which were those of full feeding. She soon had a return of her old symptoms, which were relieved in the same manner as just stated. After continuing the moderate plan of living for some time with great advantage, she was told she was very wrong to live so abstemiously, as it would weaken both her and her child so much, that much mischief would follow. She obeyed the advice of this ill judging friend, by returning to her high living; the consequence was convulsions, from which she was saved with difficulty, and by which her child perished.

*Vomiting.*

In the early part of pregnancy, this effort of the stomach is considered among the rational signs of pregnancy; and it seems to be instituted for the purpose of preventing or subduing plethora. Its advantages, which we admit, when confined within the bounds of moderation, are confined to the early periods of pregnancy. When it continues after the period of quickening, or renews itself with severity towards the latter period of gestation, its usefulness is equivocal, if not certainly mischievous.

Dr. Denman says, "if the vomiting should not be violent, and occur only in the early part of the day, though very troublesome, it is so far from being detrimental, that it is generally found to be serviceable, by exciting a more vigorous action of the uterus, by bringing the stomach into a better state." P. 234.

To us, this appears rather curious reasoning; for, how vomiting is to be useful, by producing more vigorous action of the uterus, when that action is not required, or would be distinctly mischievous if excited, we cannot comprehend. Or, how vomiting can bring the stomach into a better state than it would be, when there is neither a necessity nor a disposition to this effect, is equally unintelligible. That the efforts of the stomach may be useful in removing offensive matters from it, when these matters produce nausea or vomiting, we can readily comprehend; but this certainly does not bring this organ into a better state, than when no such matters were deranging it.

Vomiting we believe to be only useful, as it may reduce or prevent plethora; and for this purpose, a very moderate degree of it is all that is necessary. For this end is almost always answered in one of two ways; first, by discharging the food almost immediately after it is taken down, without the intervention of nausea; thus preventing digestion by throwing up the materials: second, by severe and distressing nausea, without much vomiting; thus controlling the inordinate actions of the system by this subduing sensation, and by diminishing or suspending the powers of digestion. Now, this is for the most part only useful, as we have already said, in the earlier months

of pregnancy; for, in the later months, the increasing demands of the fœtus generally keep down the disposition to plethora.

But, however useful the act of vomiting may be in the earlier periods, it becomes sometimes a most dangerous disease, when continued through the greater part of the period of gestation. We have seen it involve the patient in the most imminent danger, where, from its indomitable nature, it was not amenable to any remedy. We have seen several instances where we thought it would be right to bring on premature labour, and would in one instance have done so, had not this taken place spontaneously. In such extreme cases, we think it every way reconcileable to the most scrupulous morality, to induce premature delivery for the preservation of the mother. But it should also be recommended to the attending physician, in such cases, never to perform this operation, unless it be sanctioned in a very especial and satisfactory manner, or by the determination of a consultation.

This sickness commonly occurs upon their leaving their beds, and frequently harasses them for two or three succeeding hours. The matter thrown up is usually a sour, tenacious mucus; at other times, a thin extremely acid water, which now and then even excoriates the fauces, and sets "the teeth on edge." At other times, bile accompanies the discharge, even in considerable quantities. When bile is thrown from the stomach, an emetic of ipecacuanha, will frequently be found useful, and may, in the early months, be given with safety. For the most part, this vomiting is attended with confined bowels; the appetite is either voracious, or nearly destroyed; and almost always whimsical; and, what is oftentimes remarkable at such times, the most unpromising, and apparently preposterous article, will not only be most acceptable to it, but best suited to its wayward humour.

The vomitings, however, rarely proceed to any very dangerous lengths; and as rarely require strict medical treatment; a pro re nata plan, is, for the most part, all that is required. I have found a glass of warm water, or camomile tea, taken so soon as nausea is felt, very frequently abridge the sickness, by immediately inducing vomiting, or by composing the disturbed stomach. Should much acidity prevail at such times,

a glass of soda water will have a very good effect: or what succeeds admirably sometimes, is the soda in the following form:

℞. Bis-carbon. sodæ. ʒj.
Pulv. G. Arab. ʒij.
Ol. menthæ gut. viij.
Tinct. Thebaic. gut. xxxx.
Sacch. alb. ʒiij.
Aq. Seltzer. ℥iv.

M. Of this, a table spoonful is to be taken every hour or two, as occasion may require.

Should the bowels be in fault by their tardiness, small doses of calcined magnesia in a little milk, will be found highly useful. If nausea, and frequent vomitings occur during the day, and the food be thrown up, the patient should be confined to a table spoonful of milk every fifteen or twenty minutes, and no one thing beside; this rarely fails to tranquillize the stomach, and enable it to take food with advantage: we may occasionally add a spoonful of lime water to the milk, until the stomach is relieved.

But such is the predominance of acid, that none of the antacids is capable of overcoming it, though administered with a liberal, or even a daring hand. I rarely persevere in the use of the alkaline remedies, when I find that considerable doses will scarcely have a temporary effect; when this is the case, I have recourse to acids themselves, for the relief of this most distressing state of the stomach. Both vegetable and mineral acids have been employed by me, with perhaps about equal success; but the vegetable will merit the preference in general, on account of the teeth. I have, in several instances, confined patients for days together upon lemon juice and water, with the most decided advantage.*

In two instances, I have witnessed the best effects from substituting a glass of iced water, for tea or coffee in the morning, by which the patients were enabled to retain a cracker or two upon their stomach; which would not have been the case, had

* One lady took the juice of a dozen lemons daily, for many days together, with the most decided advantage, and nothing beside.

they taken either of the other substances. When the vomiting is so persevering as to discharge every thing from the stomach as fast as taken in, the bowels should be carefully evacuated daily, by mild injections; permitting these to act rather by their bulk, than by their stimulus. Should the pulse be full, as it almost always is under these circumstances, a little blood should be taken from the arm; more especially, if headach attend. Should pain, and a sensation of burning about the region of the stomach be felt, much good is experienced by the application of a few leeches to the part, so as to abstract five or six ounces of blood.

I have repeatedly found much benefit from the use of the spirit of turpentine three or four times a day, in twenty-drop doses. This medicine is very easily taken if mixed in cold sweetened water. When the system is not excited to febrile action, and where the stomach rejects every thing almost as soon as swallowed, I have often known a table spoonful of clove tea* act most promptly and successfully.

With respect to the diet of patients so circumstanced, it would be in vain to point it out; as any plan we could devise would scarcely apply to any two patients—I generally direct the use of such articles, as their experience has proved best suited to their condition; and sometimes, it is truly astonishing to observe the waywardness of the stomach upon such occasions. I have lately had a patient who could retain no article, except Indian meal cakes, baked pretty hard upon a board —these uniformly kept down, and she literally lived upon them for weeks.

Our experience of opium confirms in great measure the observations of Dr. Denman, on the employment of this drug. He says, "in cases of excessive vomiting, opium in tincture or substance, is generally given, and often with great advantage. Perhaps no well founded objection can be made to the occasional use of opiates, when violent pain, or any other urgent symptom demands them. But I have persuaded myself, that their habitual or very frequent use, is prejudicial to the fœtus." P. 235.

* This tea is made by bruising about twenty cloves, on which you pour a half pint of boiling water, and permit it to stand covered until cool.

We think we have found the solid opium newly made into a pill, of at least two grains, the best mode of employing it, when given by the mouth; but the most decidedly useful mode, is by enemata. The enema may consist of a gill of lukewarm water and a large tea spoonful of laudanum. This may be repeated pro re nata.

We have lately found the most prompt advantage, in two or three cases of excessive vomiting, from a plaster applied over the region of the uterus, composed of equal parts of opium, camphor, and hard soap, moistened sufficiently to spread, by laudanum.

### *Heartburn.*

This very distressing symptom is sometimes one of the first the woman experiences after impregnation—at other times it does not make its appearance until gestation is pretty well advanced; and sometimes is absent altogether. It is generally very distressing, and very difficult to subdue. I have known large and repeated doses of the alkalies exhibited with scarcely a temporary truce, much less with permanent benefit; in consequence of which, I have for many years past ceased to urge them in large quantities, where I find smaller ones producing no effect. In such cases, I think it better to abandon the attempt to neutralize the acid, and begin with the use of the acids, so soon as the other class of remedies shall prove useless.

Dr. James, in a note, (see his Edition of Burns) makes the following remarks upon this condition of the stomach. "The late much regretted Dr. Young of Maryland, in his ingenious experiments on the digestive process, has almost reduced it to a certainty, that the acid which exists in the stomach is to be referred to the liquor gastricus; that it is the phosphoric acid, and that the acidity of dyspeptic and pregnant women is owing to the morbid quantity of this acid. Hence, as he justly remarks, the superiority of lime water as a corrector, from its great affinity to the phosphoric acid." P. 219.

He recommends, from his own experience, the formula of Dr. Sims for this complaint, viz.

R. Magnesiæ Ustæ ʒj.
Aq. Ammoniæ puræ ʒj.
Sp. Cinnam. ʒiij.
Aq. puræ ℥vss. M.

Two or three spoonsful to be taken either occasionally, or when the symptoms are more continual, immediately after every meal.

I have already, under the head of vomiting, mentioned the advantage of acids, to counteract that of the stomach, and they well deserve a trial. The vitriolic, or the citric, may be used freely in such cases, but the latter, as already observed, merits the preference.

Magnesia and chalk are in familiar use; and in moderate cases are every way competent to the exigency, especially the former. Magnesia should always be preferred to chalk, except (which very rarely happens) a looseness of bowels accompanies this complaint. The chalk is never so pure as magnesia, and is always sure to constipate the bowels—sometimes it is used in immoderate quantities, and always with decided injury. I formerly attended a lady with several children, who was in the habit of eating chalk during her whole term of pregnancy; she used it in such excessive quantities, as to render the bowels almost useless. I have often known her without an evacuation for ten or twelve days together, and then it was only procured by enemata; the stools were literally nothing but chalk. Her calculation, I well remember, was three half pecks for each pregnancy—she became as white nearly as the substance itself; and it eventually destroyed her, by so deranging her stomach, that it would retain nothing upon it.

When heartburn is moderate, it may be relieved by soda water, lime water and milk, and the occasional use of magnesia. The operation of these substances in the cure of an acid stomach is easily understood; but the action of a few blanched almonds, or a few roasted ground-nuts, is not so easily explained; yet both of these substances, I have known most successfully employed where the complaint was mild—they should be taken from time to time, as the acidity may prevail.

Confining the patient to any one article of diet, of either the vegetable or animal kind, is sometimes productive of great

advantage; as simple boiled rice; oysters; milk or cream: or very sweet butter and stale bread, &c.

Costiveness is very common, and should be carefully guarded against; the diet should be made to conform to this end, whenever practicable; where the stomach will bear bread or biscuit, they should be made of unbolted flour. The ship bread, as it is called, I have found answer occasionally a valuable purpose—but where this is not sufficient, or it cannot be used, I have found the following pills of great advantage when properly persevered in:—

R. Gum Aloes. suc. ℥ss.
Pulv. Rhæi. ℥i.
Ol. Caryoph. gut. iv.
Sapo. Venet. gr. viij.
Syr. Rhæi. q. s. M. f. pil. xxx.

One of these every night, or every other night, as may be found necessary. One of these pills is generally found to be sufficient—but the dose must be determined by the habit of the patient.

### *Salivation.*

The sympathy between the salivary glands and the impregnated uterus, is perhaps as remarkable as any that takes place. In a very moderate degree it may be considered as a pretty general attendant upon gestation; as almost all women, at such times, have more than an ordinary quantity of saliva secreted. In this mild form it will scarcely require attention; for it may even pass without notice. But it becomes very distressing, and enfeebling, when excessive. It is almost always accompanied with acidity of stomach, and constipation of bowels; the fluid discharged from the mouth, for the most part, is perfectly colourless, and transparent; at other times it is more tenacious and frothy, and the quantity poured out is sometimes incredibly profuse. It almost always has an unpleasant taste; though not attended with an offensive smell;—it keeps the stomach in a state of constant irritation, and not unfrequently provokes puking; especially, if the saliva be tenacious, and require an effort to discharge it. At night it is often very

troublesome; interrupting sleep, by the frequency of the necessity of emptying the mouth.

If it continue long, the woman becomes weak, both from the quantity of fluid poured from the mouth, as well as the inability to take and retain sufficient food upon the stomach. I have never known this complaint prove fatal; though I have witnessed two cases in which the patients were in great jeopardy—one of which I will relate, as it is remarkable for the extent to which it ran.

I was called upon to prescribe for Mrs. I. who was advanced to the fifth month of her pregnancy. At the second month she was attacked by a profuse salivation; she discharged daily from one to three quarts of saliva; and was at the same time harassed by incessant nausea, and frequent vomitings—so irritable was the stomach, that it rejected almost instantly any thing that was put into it; she now became extremely debilitated; so much so, as to be unable to keep out of bed; and, when she did attempt to sit up, she would faint, if not quickly replaced.

From a belief that the affection might be local, astringent gargles were freely employed; but with marked disadvantage. A large blister was next applied to the back of the neck, with decided, but transient benefit—that is, the salivary discharge was less, the nausea diminished, and the vomiting less frequent; but this favourable impression was but of three or four days duration: for, after this time, all the unpleasant symptoms returned with their former severity. An emetic of ipecacuanha was now exhibited, followed by a cathartic of rhubarb and magnesia, without the smallest benefit;—soda water, lime water and milk, milk itself, &c. were, in turn, unavailingly employed. I now put my patient upon a diet altogether of animal substances, and ordered ten drops of laudanum morning and evening, and fifteen at bed-time: this plan succeeded most perfectly in the course of a few days; nausea and vomiting ceased, and the discharge was reduced to less than a pint per diem; and, perhaps, the force of habit had no inconsiderable agency in the production of this quantity. The bowels, during this plan, were kept open by the extract of butter-nut and rhu-

barb, in the form of pills. This lady never had any return of this complaint in her subsequent pregnancies.

As a general plan of treatment in this complaint, either when moderate, or severe, I endeavour to destroy the acidity of the stomach, by the various antacids; to keep the bowels free, by the frequent use of magnesia; rinsing the mouth frequently with lime water, and the use of solid animal food; together with a strict injunction to the patient to resist the desire to discharge the saliva from the mouth, as much as possible.

This complaint, when moderate, almost always abates, if it does not altogether cease, after the fifth or sixth month; but, when severe, its period is doubtful. A lady informed me, that this affection continued with considerable force, during the whole period of gestation, in one of her pregnancies.

### *Fluor Albus, during Pregnancy.*

This complaint is a very frequent attendant upon pregnancy, though the woman may not be subject to it at other times; when connected with pregnancy, it seems to be owing to the increased flow of blood to these parts; and almost always assumes a mild form. When this discharge, as an attendant upon pregnancy, is in excess, it merits the attention of the practitioner, though he must not expect, nay, must not attempt, a radical cure of it, unless it can be accomplished by mild local applications, and a strict attention to cleanliness. I am persuaded that much mischief has arisen from the attempts to cure this complaint during gestation, when, for its accomplishment, the active remedy recommended by Mr. Roberton, has been employed: I therefore, during this period, confine myself to a temporizing plan, from a conviction, a more active one would be injurious. For this reason, I simply direct washing the parts three or four times a day with lukewarm water; and throwing into the vagina, by means of a syringe, a weak solution of the acetate of lead; that is, a scruple to eight ounces of water. Previously to using the injection, the parts should be well washed with a weak solution of fine soap in warm water, by throwing up the vagina a few syringes full of it in quick succession, and then followed by the saturnine solution. Much

advantage is derived from this last plan; for I am convinced it will afford relief, when the non-observance of it might not be followed by the smallest benefit.

I am aware that I differ from almost every practitioner, in recommending as a common wash, warm water; but I feel, that I am recommending the better plan; it is one I have pursued for the last thirty years; and am abundantly convinced of its superiority over the other.

With respect to constitutional remedies in this kind of fluor albus, I rarely recommend any; but control the pulse by occasional blood-letting, when necessary; and carefully regulate the bowels—should much acidity of stomach attend, I give magnesia; or magnesia and prepared oyster-shells, when the bowels are disposed to looseness.

### *Pain in the Right Side.*

A little after, and seldom before the fifth month, the woman is frequently attacked with a deep seated, and rather obscure pain immediately in the region of the liver. It first begins with a very trifling sensation in this part, and gradually increases as gestation advances. It is rarely extremely painful; but is almost constant, both day and night; and is especially severe during the latter.

It is not increased by respiration, unless this be made very full, and then the pain is rather more acute than ordinary. No cough, as a necessary attendant, accompanies this complaint, but if one be present, there is an augmentation of pain, but not of the sudden and embarrassing kind, which attends an inflammation of the pleura; and may, therefore, by this circumstance, be easily distinguished from this affection. Besides, there is no fever belonging to this complaint; and if one be present, it is independent of this affection; and must therefore be considered as a coincidence, and not as a necessary consequence.

The woman, with a view to relieve the pain she experiences, leans almost constantly to the right side when sitting; if standing, she may be observed to frequently place her hand over the pained part, and press it pretty forcibly. She often seeks relief, by stretching herself upwards, and maintaining this po-

sition as long as she well can, or until she finds herself somewhat relieved. She can lie upon either side; but better on the left, than on the right.

A sensation of heat is frequently experienced in the side, at the time she may feel the other pain. This is sometimes very distressing, as it is occasionally very permanent. The bowels are not necessarily influenced by this pain; they maintain, most probably, the condition they would be in, were this pain not present.

As pains in the side are familiarly treated by blood-letting, so it is almost always had recourse to in this complaint; but never, so far as we have observed, with the slightest advantage. Nor has any other treatment which we have advised, been more fortunate. Leeching, cupping, and blistering, have in their turns been employed; but always without benefit. Indeed, we have now ceased to prescribe for this complaint, unless it be attended with some alteration in the circulating system; if this be disturbed, and the pulse tense and frequent, advantage is sometimes experienced from the loss of blood, and gentle purging.

Women with their first children, are more liable to this affection, than with the subsequent ones, unless with these, they carry their child "high" as it is called. After a woman has borne several children, the anterior obliquity of the uterus generally prevails, which frees them from the risk of this complaint; for it is caused, we believe, altogether by the mechanical pressure which the fundus of the uterus makes against the liver, as it mounts itself up in the progress of gestation. Our reasons for thinking this is the cause, are, 1st, because the woman who has the fundus of the uterus thrown in advance of the symphysis pubis, is never troubled with this complaint, so far as we have yet observed; 2d, besause it never commences, until after the uterus has risen out of the superior strait; 3d, because, the woman who has the fundus of the uterus thrown to the right side, is more severely afflicted, than if the right lateral obliquity of the uterus did not exist; 4th, because, after the eighth month has passed, the woman experiences great relief, if the uterus sinks into the pelvis as it is wont to do at this period; or undergoes that change which the women term "falling;" 5th, because

this pain is increased, whenever the diaphragm is suddenly and powerfully forced down, as in coughing, and in sneezing, though it is not felt in ordinary respiration; 6th, because the pain increases almost in proportion to the development of the uterus, or the advancement of the fundus; 7th, because the woman feels less pain when standing, than while lying; for when standing, the uterus sinks a little, and thus diminishes the pressure against the liver; 8th, because the woman can relieve herself, by placing herself in certain positions; as leaning to the right side, or stretching herself upwards.

From this statement of the cause of this complaint, it will at once be seen, that nothing can relieve this affection, but the removal of the fundus of the uterus from its contact with the liver. It may be asked, if this explanation be true, why do not all women suffer it? The answer is easy; all women have not the fundus of the uterus to press against the liver; because all have not the right lateral obliquity; because many have a tendency to the anterior obliquity, after the third or fourth child; in both instances, the fundus does not press against this viscus.

### *Inquietude and Want of Sleep.*

Many women experience much inquietude towards the latter end of pregnancy. This is so annoying at times, as to prevent all sleep. The limbs are agitated by the involuntary contractions of the muscles belonging to them; and by the frequency and suddenness of their motion, instantly interrupt the sleep, to which the woman was at the moment strongly inclining.

In most cases, there is a strong desire to sleep; but it cannot be indulged, in consequence of this particular state of the nervous system; this ennui of the limbs, if we may so term it. We have known it so severe at times, as to make the woman dread to lie in her bed; for she is sure, until near daylight, to be doomed to constant restlessness. To relieve this inquietude, she traverses the room, until fatigue, or diminution of the paroxysm, affords the long desired rest. This repeated loss of sleep, does not sensibly impair the health of the woman; for, as Dr. Denman very correctly observes, "after a short repose at the dawn of day, she seems as much refreshed as after the most quiet night."

Dr. Denman's theory of this affection, does not by any means comport with his method of treatment. He says, "perhaps the confinement of the air of the room, and the heat of the bed, may be the immediate cause of this complaint; but I have generally considered them as arising from the constant and strenuous demands for nourishment, made by the child upon the constitution of the parent; for it is remarkable, that those women who suffer most on this account, though reduced in appearance, bring forth lusty children, and have easy labours." P. 245.

From this explanation, and what he afterwards says, the fœtus makes larger demands than the mother can well supply; consequently, there would, or should be, a deficiency of blood in the general system of the mother, if this were true. Yet the Doctor recommends almost the only remedies we have seen useful in this case; namely, "bleeding in small quantities, and the occasional use of cooling and laxative medicines." Now, is it not self-evident, that were a deficiency of blood in the mother's system the cause of this inquietude, that it could not possibly be relieved, by diminishing the quantity of the blood? We believe, that this inquietude arises from that peculiar irritability of the nervous system, which seems to constantly attend upon a *fulness* of the system, rather than on a deficiency of blood. In proof of this, the pulse is always quickened and full in the evening, and during the night; and is a true exacerbation, or febrile paroxysm, which spends itself by morning, and permits the patient to sleep at that time. Again, bleeding, purging, low diet, cool air, and cold water, are the best remedies for this complaint.

The quantity of blood to be drawn, must be regulated by the fall of the pulse; and it must be repeated pro re nata. A mattress should be substituted for a feather bed, even in winter; the room should be well ventilated; and the patient should be prohibited animal food, suppers, or any stimulating drink. The bowels should be kept gently open. Dr. Denman says, that "a glass of cold water, drunk at bed time, is not a contemptible remedy." We know, that bathing the face and hands in cold water is an excellent remedy, and should always be resorted to.

Dr. Denman says, "preparations of opium have little effect,

unless they are given in large quantities, and often repeated." This is the very reverse of our mode of exhibiting the preparations of opium, and the one we have found the most effectual. We never prescribe opium in any form, unless the necessity is very urgent; and when bleeding and the other remedies have failed: and when we do order it, it is always in small doses. We prefer the acetated tincture, or black drop, to any other form of opium; of this, we give ten drops only at first; and if it does not tranquillize in two hours, we direct five drops more; believing, if this quantity does not succeed, a larger quantity will not; we therefore never urge its use.

After bleeding, &c. the Liq. Anod. Hoffm. answers for the most part admirably, and should always be tried.

*Costiveness.*

It seems that this condition of the bowels is almost sure to attend the early periods, and also the latter stages of pregnancy. For the most part, it is only mischievous when excessive; though it is always inconvenient. Dr. Denman is willing to attach some importance to this state of the alimentary canal; with what propriety, remains to be proved. I am fully persuaded, however, that it is only decidedly *mischievous* when it exists in excess; when so, I have known much trouble to arise from it, and sometimes alarm for the safety of the fœtus.

When this state is allowed to continue beyond two, or at most three days, much disturbance is sometimes created by the generation of flatus, and colicky pains, with a frequent and unsuccessful desire to evacuate the rectum. When permitted to continue beyond this time, it is sure to occasion headach, flushed face, frequent desire to make water, and tenesmus. The stomach is also not unfrequently disturbed by heartburn, sour eructations, and vomiting, if this had previously been suspended; or an increase of it, if it had not ceased.

To those occasionally liable to abortion, it is particularly desirable to have this state of the bowels altered; as we have every reason to believe it has, in a number of instances, caused it. We have known some ladies so regardless of consequences, as to allow this confined state of the bowels to continue for ten or twelve days together. One lady in particular, had reason

to blame costiveness for three consecutive miscarriages. When she became pregnant again, she was put under my care, with a hope that I might be able to interrupt this unlucky habit.

I learnt from this lady, that so soon as she becomes pregnant, her bowels become so tardy, as not to have a spontaneous opening oftener than once in ten, twelve, or fourteen days. Hitherto, she had concealed this condition from her friends, from the mere aversion she had to taking medicine, even of the most simple kind; and honestly confessed, she thought her former miscarriages were altogether owing to this cause; but said, she began to feel there would be a criminal neglect on her part, did she permit this to continue; she therefore determined to change this habit, and was now willing to submit to any plan we would think proper to direct.

She suffered dreadfully from sickness of stomach, and vomiting; severe and constant headach; palpitation of the heart; and, now and then, long continued syncopes. She was in her third month of pregnancy; and declared she began to feel as she had always previously done, for two or three weeks before she would miscarry; that is, she rested ill at night, had great thirst, severe pain in her back, together with considerable leucorrhœa, which, she observed, always preceded the more violent symptoms. At the time she was giving me this information, she had not had an evacuation for more than a week. Her pulse was full, frequent, and tense; face flushed, and skin dry and hot.

I directed the loss of a few ounces of blood; to have an injection simply of flaxseed tea; to take small doses of castor oil, at intervals of two hours, until it should operate; to drink nothing but water, or molasses and water; to abstain from animal food and broths; to use light, but regular exercise; to take rennet whey freely; and to eat no other bread but that made of unbolted flower. She readily promised compliance, and as faithfully performed her promise; for which she was amply repaid, in the melioration of all, and the extinction of some of her symptoms; besides carrying her child the full period.

She was, however, chiefly indebted to the brown bread for the permanent soluble state of her bowels; for, after she

commenced its use, she had but very rarely to aid it by magnesia.

To women who are habitually costive, this bread is most important, and should always be used; and though not always sufficient to do away the tendency to constipation, it nevertheless renders any other mild aperient much more successful.

A tumbler full of rich bran tea, sweetened or otherwise, taken before breakfast, has had a very good effect upon the bowels. Coffee, sweetened with manna, answers very well; honey, where the stomach will bear it, is useful. Injections, made to act rather by their bulk than their quality, are exceedingly proper in all states of costiveness; but when it is excessive, *they should always be made to precede the use of purgative medicine:* we have seen much inconvenience arise from a neglect of this caution. The severe effort which is always required to discharge hardened fæces, is sure to produce hemorrhoids.

Mr. Burns says, this state of costiveness is "partly owing to the pressure of the uterus on the rectum, and partly owing to the increased activity of the womb producing a sluggish motion of the bowels." We would ask, in what does the "increased activity of the womb" consist? Is there any evidence of such activity? Is it not, at the period at which costiveness is most common, passive, and obedient to the distending forces within it? Would not abortion follow an increased activity of this organ? for we see no way in which the uterus ever displays "activity," but by contracting; consequently, costiveness cannot depend upon an "increased activity of the womb;" for, did it contract, abortion would follow.

The cause of this state of the bowels, depends chiefly upon that irritation of the stomach, which gives rise to either nausea or vomiting; and thus diverts or diminishes the regular or habitual force of the peristaltic motion of the lower intestines. As a proof of this, where there is obstinate costiveness, we almost always have an irritable stomach. Indeed, Dr. Denman remarks, that "the stomach of pregnant women is often in such a state, that no internal medicines can be retained, and we are obliged to have recourse to clysters." P. 239, art. Costiveness. And farther, we may add, that there exists be-

tween the rectum and the stomach, a reciprocal influence of this kind; for the inordinate motions of the latter are most successfully allayed by irritating the former by stimulating injections.

But, let the cause of costiveness be what it may, it is always important to guard against it in the pregnant woman; but it should be by the gentlest methods, as suggested above; for stimulating, or drastic medicines, should be carefully avoided.

For, though Dr. Denman informs us, that "experience has proved, that abortion most frequently happens to those who are subject to too relaxed a state of the bowels," it does not prove, that constipation is either useful or innocent.

Indeed, we are of opinion, that though the fact is precisely as stated by Dr. Denman, yet, that it does not prove diarrhœa, in such cases, to be the cause of abortion; on the contrary, we are fully persuaded, that it is but the consequence of an irritation in the uterus to cast off its contents; and that the intestines, in this instance, but sympathize with this state of this organ. We may perhaps be told, as an evidence that diarrhœa is the cause of abortion, that this accident has been prevented, in such cases, by the application of opium to the rectum. We believe it to be strictly true, that abortion has been prevented by this means; yet we cannot admit it as evidence of the fact insisted on; for this remedy is equally, if not more certainly useful in threatened abortion, when used in this manner, but where there is no diarrhœa. It quiets the irritation of the uterus, through the medium of that sympathy which is known to exist between these parts; as the same sympathy excites the intestines to looseness, when the uterus is the seat of irritation.

### *Hemorrhoids, or Piles.*

We have observed, that the bowels of pregnant women are disposed to become costive; in consequence of this, there is very often a tendency to piles induced, which, if not early relieved, will end in an inflammation, and an extreme distention sometimes of the hemorrhoidal veins. We may add to this, the constant and strong pressure, which the increasing uterus exerts upon the vessels within the pelvis. Another cause may

aid and confirm the disposition to hemorrhoids; namely, the sedentary habits of many women during gestation.

Joined to all these, is the habit sedentary women have of using soft cushions to sit upon. This permits the vessels to distend, though gently compressed; and by and by a hemorrhoidal "fit" is produced. In others again, piles are brought on by long standing upon the feet; hence, all such as are obliged to stand much during pregnancy, are much disposed to this affection.

A sensation of fulness and aching, is first felt in the verge of the anus; this is followed by a slight throbbing, which excites the woman to make a pressure with her hand upon the part; swelling now soon succeeds, to various extents, and is accompanied by various degrees of pain. As a general rule, the pain is in proportion to the size and degree of inflammation of the tumours which constitute the disease, and the degree of contraction of the sphincter ani.

We have said, that the pain is generally in proportion to the size of the tumours, and the degree of inflammation, &c.; but this is not always so: for we have seen prodigious suffering from small sized piles; and once witnessed the most intense, and long continued anguish, from a pile not larger than a very small filbert. Why the pain was so intense, in this instance, we have never been able to account; it resisted puncturing, leechings, cold, hot, and anodyne applications, and purging. A horizontal position, with elevated hips, &c., for several days, appeared to be the only source of comfort to the patient.

The degree of distention which these tumours sometimes suffer, is almost beyond belief. We have certainly seen from two to three at one time, of the size of small walnuts; of a very dark red, or modena colour, or even livid; and of such exquisite tenderness, as not to permit the lightest touch, without much pain.* In these cases, the sphincter ani acted like a ligature moderately drawn; and the tumours themselves had

* The degree of pain which attends the active stage of piles, depends very much upon the constitutional force of the sphincter ani. Where this is very active, and constricts the protruded pile with great firmness, much suffering will be endured; while an equal, or even greater degree of swelling, in lax and debilitated habits, will be attended by less.

the appearance of strangulation. Indeed, Mr. Copeland* considers the action of the sphincter ani one of the causes of piles; especially in those who possess this power in a high degree, and are, in consequence, subject to a spasmodic stricture of the rectum. In such persons, he supposes, that, at every attempt to pass the fæces, a portion of the internal membrane of the rectum, with its vessels, is protruded and detained by the forcible constriction of this muscle; hence, the formation of piles.

Mr. Burns thinks this disease is "chiefly to be attributed to a sluggish state of the alimentary canal, communicating a similar torpor to the hemorrhoidal veins." P. 223. Now, we do not understand how torpor of the intestinal tube, is to communicate torpor to the hemorrhoidal veins; or how torpor, any how communicated to these veins, shall give the phenomena of piles. Certain it is, a paroxysm of this disease is as frequently, or at least as readily produced by purging, as by costiveness. For, generally speaking, the paroxysm of piles takes place when costiveness is about to be removed, and not during the passive state of the colon and rectum. Costiveness, then, as a sign of the "sluggish state of the intestinal tube," is rarely the exciting cause of the disease in question; for it takes place with most certainty, when this "torpor" is absolutely removed, and the bowels are stimulated to brisker action. Therefore, the mechanical pressure of the fæces may have some agency in producing a "spell."†

Besides, it is familiar to every body, with what facility a "fit" of the piles is brought on by a brisk purgative, when the hemorrhoidal veins are varicose; nor is this, perhaps, of difficult solution, when we take into view, that the action of the bowels, and that for the returning of the blood through the vessels concerned, are in opposite directions; and that the peristaltic action of the colon and rectum, must be superior to that of the hemorrhoidal veins; hence, the accumulation of

* Observations on the Principal Diseases of the Rectum, &c. p. 68.

† Costiveness is not always necessary, either as a remote, or as an exciting cause to this disease. We have known this complaint to be occasionally violent, where the bowels were never costive for a day, during a long life.

blood in them, and their sometimes severe distention; a distention rendered easier, by these veins not possessing valves.

Again; relief from suffering, is sometimes obtained only by inducing a "torpor" in the rectum, by means of sedative applications, and opiate injections.

When this disease attacks the pregnant woman, it is almost sure to produce feverish excitement in the system; and this often attended by severe headach, and pain in the small of the back. Blood letting is here clearly indicated; but the local, is preferable to the general abstraction of blood. Six or eight ounces of blood should be taken from the tumours, and their immediate neighbourhood, by leeches, and their bites encouraged to bleed, after their dismissal, by the application of a soft bread and milk poultice. The bowels should be opened by the most gentle laxatives; the best of which, for immediate purposes, is the castor oil, when the patient may have no fixed aversion to it.

If leeches cannot be procured, and the tumours are distended to great thinness, puncturing them with the point of a sharp lancet in several places, will often afford great relief. But, when the swellings are less, and their coats appear thick and dense, we do not recollect to have seen any advantage follow puncturing; indeed, we may safely go farther, and forbid it.

Local applications are rarely found to be of benefit during the very active stage of hemorrhoids; indeed, for the most part, they seem but to aggravate the pain, unless it is after leeching or puncturing; then, as already directed, a simple bread and milk poultice is sometimes found to afford much relief. This application should always follow either of these operations, and it may be renewed frequently.

During this time, the patient should be kept in a horizontal position, with her hips elevated, and the knees drawn up; and when the leech bites, or the puncture has ceased to bleed, there is sometimes much comfort in cold applications; even ice itself. This is best managed by being enclosed in a small bladder, in which there is some water. A weak solution of the acetate of lead, that is, in the proportion of a scruple to eight ounces of water, and a few drops of the acetated tincture of opium, sometimes affords much relief.

It may be necessary to reapply leeches, or repeat the puncturing; this will especially be the case, when the sphincter ani acts as a ligature; for nothing effects the relaxation of this muscle like blood letting: the bleeding may be followed again by the poultices; and these by the cold applications, or the saturnine solution, and the opium.

When the hemorrhoidal tumours are not very large, nor very painful, much advantage is sometimes obtained by discharging the blood from them by a very gentle, but persevering pressure by the ball of the thumb, or extremity of a finger. This succeeds best, where the sphincter ani is contracted upon the tumours; but, in order to secure the good effect of this pressure, the pile must be returned within the verge of the anus, by the finger following it beyond the sphincter. When the sphincter is relaxed, we have seen no advantage derived from this practice; as the vein prolapses again immediately. To succeed in putting up the pile, much patience must sometimes be exercised in making the pressure; for, if it be done suddenly, much pain is excited, and no advantage gained. Mr. Burns recommends for the same object, a pressure made by the thumb and finger.

This disease is almost always more severe after labour than during pregnancy; and, though it is not strictly a disease of females, they may be considered, however, as more obnoxious to it than males; and as it is an attendant upon gestation, and is almost always a follower of delivery, it seems every way entitled to our notice.

Much may be done during labour to prevent a severe "spell" of piles, by the accoucheur making a firm pressure upon the verge of the anus with the palm of his hand, guarded by a diaper, during the progress of the head through the external parts; and by carefully returning them immediately after the expulsion of the placenta, as the sphincter is now fatigued, and will not oppose their ascent. In lying-in women, this complaint rarely becomes severe until the fourth or fifth day; and then it is generally after the operation of the medicine which it is judged proper to give on the third day.

The hemorrhoidal veins sometimes swell enormously at this time, for they seem to be weakened by the distention which

they have suffered during the progress of the labour; and to regain the power of contracting with great difficulty. They are to be treated as above directed; except, that we cannot use the cold applications with the same freedom. In order to prevent as much as possible the accession of this disease, with those who are subject to hemorrhoids after delivery, we should open the bowels a day or two earlier than is usual; that is, the day but one after the termination of the labour.

This should be done by the very mildest means; and small, or divided doses of the purgative should be given, instead of the full dose at once. Thus, half an ounce of castor oil should be given; and repeated in four hours, if the first does not answer. Or coffee may be sweetened with manna, and the patient take a cup of it once in two or three hours, until the effect is produced. The lenitive electuary is also an excellent aperient at this time; the size of a nutmeg may be taken every three hours, until the bowels are stirred. Small doses of the sulphate of magnesia in lemonade, are also very gentle, and very certain. But the magnesia itself, we think, is always productive of much irritation in the rectum at this time.

All the more stimulating cathartics should be avoided; and even the effects of the milder ones should be stopped in such cases, if they appear to be proceeding too far—this is readily effected by a few drops of laudanum.

The diet of the patient should consist altogether of the vegetable jellies, rennet, or cremor tartar whey; if we except tea and coffee. The sago, tapioca, arrow root, or gum arabic, may be given freely, but they should always be made thin. They may be made palatable by a little lemon juice and sugar; they should rather be drinks, than considered as food. This plan has advantages which are rarely considered; they afford an ample and very mild nourishment; and the recrement from such diet is smaller in quantity, as well as much less firm in quality, than that from more solid food when indulged in. Milk, at this time, should be used sparingly; as the curd becomes impacted in the rectum, and produces great irritation. We have known much inconvenience arise from a perseverance in this article as a diet, from the great firmness of the fæces.

The pregnant woman may derive both comfort and advan-

tage from sitting in a demi-bath of cold water for five or ten minutes at a time, two or three times a day, when the complaint is advancing, or when about to retire; that is, after the severer inflammatory symptoms have abated.

During the progress of treatment, and for some time after, the patient should be as little as possible upon her feet; sufficient attention is not paid to this circumstance; and the neglect of it, obliges the woman to go through her troubles again. The vessels should be allowed to contract as much as they are capable of, before the woman should either stand or walk much; for the mere effect of gravitation will renew the complaint, when it has but imperfectly, or but for a short time, ceased to be troublesome.

We have said, purging should be carefully avoided; but costiveness should be equally shunned. The patient, therefore, should have such a plan laid down, as will ensure one liquid evacuation per diem: this will be best effected, by using the bran bread constantly instead of the common bread. This article then will form an exception to the rule suggested above, of allowing no other than fluid nourishment. And when all inflammatory action has ceased, she may be indulged daily with chicken water and beef tea.

Should the bran bread be found insufficient to keep the bowels open, a large tea spoonful of the following electuary should be taken at bed time; either every night or oftener, or every other night, as its effects may be upon the bowels.

℞. Lac. sulph. ℥j.
Crem. tart. āā.
Syr. commun. vel. lemon. q. s.
f. elect.

Dr. Leake is prejudiced against the use of sulphur in this complaint; he says, "from what I have repeatedly seen of its effects, I cannot think favourably of it, having twice observed a very dangerous and profuse discharge of blood from the womb, occasioned by its liberal use." Treatise on child-bed fevers, vol. I, p. 173.

The experience of Dr. Leake, from its extent, should upon most occasions go for much; but in this instance, we think he

has yielded to a prejudice, arising from coincidences. For were the sulphur capable of producing such discharges as one of its common effects, it would certainly have been oftener observed by the doctor; at least it would have been confirmed by the observations of other practitioners. As regards ourselves, it is one of the most common of our prescriptions in this complaint; yet we have never seen any thing like what has been observed by Dr. Leake; we are therefore inclined to suppose, the discharges of blood spoken of, must have been accidental, or coincident.

Dr. Good observes of this article, "sulphur has long been regarded as a specific for piles; but I do not know that it possesses any other virtue than that of being a mild aperient. It seems, however, to be an aperient particularly calculated to act upon the large intestines; since, being soluble with difficulty in animal fluids, it dissolves slowly, and does not spend itself till it has descended to a considerable depth in the alvine canal. And it is on this ground, perhaps, if any, that it sometimes proves serviceable in the present disease." Study of Med. vol. I. p. 237.

Dr. Cullen speaks favourably of the balsam of copaiva. He says, "I have learned from an empirical practitioner, that it gives relief in hemorrhoidal affections, and I have frequently employed it with success." Mat. Med. part ii. cap. v. p. 190. Of this medicine I can say nothing from experience; if it be useful in this complaint, it must, most probably like turpentine, be in cases accompanied by discharges of blood.

Dr. Good seems to think differently; and he may be right, as he has experience, on his side, of its effects. He says, "I have tried this medicine often, frequently without the slightest benefit, though I have varied the dose: and when it has appeared useful, it has been chiefly in the mucous piles." p. 237.

"Where the tubercles are not very sore, they will often yield to a layer of gypsum, or, what is better, fuller's earth, which, however, should be rubbed into as soft a paste as possible. This is a remedy which has been long employed on the Continent; and I have sometimes prescribed it with singular advantage, and have known piles, when softish, and compressible, removed by it in a single night." Study, p. 238.

These excrescences often remain of considerable size, and rather painful, after the more active stage of the inflammation is removed; and if they be neglected at this time, a return of them is most easily provoked. Experience has proved the value of the vegetable astringents for this purpose; but they are but too indiscriminately used, not to make some caution nescessary in their use.

The astringents are indicated, but in the decline of the inflammatory stage of this affection, or after it has entirely subsided. If used before this period, as is but too frequently the case, they aggravate the complaint, and render it sometimes very unmanageable; therefore, the period at which they can be used with advantage, is that stated above. The nutgall has long held the first rank in the list of the vegetable astringents; and the following formula is justly entitled to much praise for its convenience and efficacy.

℞. Gallæ Alep. subtil. pulv. ℈j.
Cerate simp. ʒj. M. Adde
Ess. Lemon gut. xx. vel. xxx.
Acet. Lythrag. gut. xxxx.
Tinct. Thebaic gut. xxxx. M.

A little of this ointment is to be rubbed upon the parts, morning and evening. Should it excite much smarting, it must be reduced by incorporating a little more of the cerate with it.

At this stage of the disease, much benefit has occasionally been found, from dusting the parts with the flower of sulphur. Another substance has gained, in a certain district of this state, the title of a specific in this complaint, at the stage now considering; namely, the brown powder contained in a fungus when dry, commonly called the "Puff Ball," the dust of which is to be incorporated with hog's lard.

## *Palpitation of the Heart.*

This is not an unfrequent attendant upon pregnancy; especially, before the period of quickening. After this time, it often ceases, and does not return until towards the latter part of the term of gestation.

This complaint may arise from very different causes; and

it is important that it shall not be confounded, as it requires very opposite remedies for its relief.

It may proceed from mere nervous irritability, and may be looked upon but as a symptom of hysteria; to which some delicate women are particularly liable during gestation; or it may arise from fulness of blood, joined to a nervous temperament, or from fulness alone.

In the first case, the palpitation will be attended by other symptoms which mark the nervous temperament; such as glotus hystericus; large discharges of limpid urine; coldness on the top of the head; &c. and this may not be accompanied by any extraordinary fulness of the circulating system.

Should it not, we may administer with immediate advantage, almost any of the remedies in familiar use for such affections; as the assafœtida, Hoffman's anodyne liquor, orange flower water, hartshorn spirit, &c. It is however best, in all such cases, to inquire into the state of the digestive organs, and ascertain if there be any derangement there, which may give rise to it—such as acidity, or indigestion.

The first may be detected by a sense of burning at the pit of the stomach, sour eructations, or belchings tasting like unsound eggs. If this be the case, the regimen should be regulated; by forbidding such substances as will readily turn sour upon the stomach; as tea, coffee, vegetable substances, fruit, porter, wine, &c. and confining the patient to simple water as a drink; and animal substances as food. Giving at the same time small doses of magnesia mixed in milk, several times a day, if the bowels be confined; if not, the extra soda water, lime water and milk, aq. ammon. puræ, &c. If from indigestion, which is a frequent cause, by avoiding such substances as are known not to sit well upon the stomach; by a dose of rhubarb and magnesia to carry off the offensive material, and confining the patient for the next twenty hours to chicken water, or beef tea.

If with these symptoms, the pulse is accelerated, or full, and tense; and especially if there be a throbbing at the temples, blood should be abstracted, to an amount sufficient to restore the natural force of the arterial system. When this is accomplished, the "nervous medicines" just enumerated, may be

given with advantage, if the bleeding has not relieved the palpitation.

Where this complaint is habitual at these periods, and particularly when it observes a pretty regular movement, much advantage is found, from taking a small tea spoonful of the Liq. Anod. Hoffm., about half an hour before it comes on. If the period of attack be in the evening about bed time, this remedy should not be neglected, as it will almost certainly relieve the sensation, and procure sleep.

If this complaint comes on at any period of the day; or is provoked at any time by slight causes, we have found much advantage from a pretty steady use of the following tinctures:

℞. Tinct. Valerian vol. ℥j.
——— Castor āā M.

Of this, a tea spoonful in sweetened water, may be taken three or four times a day, or whenever the palpitation is troublesome.

If palpitation be unaccompanied by other nervous sensations; if there be headach; flushed face; giddiness of the head; and if these be increased upon rising up: if a sense of fulness in the head, with a feeling of oppression about the chest; and if sleep be disturbed by unpleasant dreams, we shall find almost always, that the arterial system is too full; for the pulse will be found tense, full, creeping, irregular, and sluggish; which nothing will relieve, but the loss of blood; gentle purging; and an abstemious diet.

Should stimulating remedies be given, as is too common, under the persuasion that weakness is the cause, or that all nervous affections are to be treated by stimuli, much mischief may ensue; such as intense headach; fever; and sometimes, even convulsions.

Mr. Burns says, that "Roderic a Castro prescribes a draught of hot water." This remedy, we have learnt, is sometimes very efficacious; it must be, however, only when the stomach is in some manner or other the cause of the affection. When this complaint is accompanied by nausea or vomiting, the hot water may be serviceable, as it is very successful in allaying gastric irritation.

## *Pruritus.*

One of the most troublesome and distressing complaints to which the female is subject, is the pruritus, or itching of the pudendum. Women who are not pregnant, are subject to this complaint; though not equally liable, as those who are pregnant; in both, the desire to scratch is so indomitable, as sometimes to put decency at defiance. I knew one instance in which the itching was so severe, and so continued, that the lady was obliged to keep her chamber for three months. The only relief that was found in this case, was from the almost constant application of water, in which ice was dissolved. Every remedy that could be suggested by two eminent practitioners of this city, was tried in vain. No relief was obtained, until after delivery; this case came to my knowledge in the year 1796, by being related by one of the gentlemen in attendance. The parts were not examined; the child was delivered perfectly healthy, though the mother was much exhausted by her long sufferings, and the severe discipline to which she submitted for relief.

The disease may attack the whole of the vulva, and most probably, in some instances, it may affect the vagina. It sometimes commences in the early part of pregnancy; when this happens, and is neglected, it may continue until delivery takes place. At other times, and this I believe to be the most common, it does not attack until the sixth or seventh month. If cleanliness be neglected, the complaint is sure to be much aggravated; though no attentions of this kind, are capable of overcoming this complaint.

A great variety of causes have been assigned for this disease; such as want of cleanliness; an acrid secretion within the labia; an inveterate eruption; the pediculi pubis; varicose veins; an aphthous efflorescence; &c.

It is certain, that in a number of the cases which have fallen under my notice, a want of cleanliness could not be considered as a cause; though we are persuaded, it is well calculated to increase it. There must be a secretion of some acrid fluid in all cases of pruritus, be the remote cause what it may; and it seems to renew the itching whenever it may take place. In

some instances, this itching has intervals of longer or shorter duration; and its return seems to be produced by a discharge taking place, of a thin and generally limpid serum, of which the woman is perfectly conscious; and aware at the same moment, that her troubles are about to be renewed. I have met with no instance in which a dartrous eruption, or pediculi pubis, could be considered as the cause; nor have I met with one, where a varicose vein has been in fault.

The aphthous efflorescence, as an attendant on this complaint, we believe we were the first to point out; and for this discovery, we were indebted to accident, as will be mentioned presently. We do not know in what proportion of cases this state of the parts may exist—we are well satisfied, it is not present in all. This fact we were enabled to ascertain lately; in this case the external labia, the whole vestibulum, the caruncule myrtiformes, and as much of the vagina as could well be viewed, were swelled, and much inflamed. The appearance of the inflammation was curious; it was of copper-red colour, with a number of slight abrasions, which very much increased the sensibility of the parts. From the whole of the inflamed surface, an ichorous dew seemed to be constantly distilling; and when this accumulated in sufficient quantity to become sensible to the woman, that an increase of discharge was taking place, the most intolerable itching would begin, nor would it cease until the poor woman would become exhausted, by her efforts to appease it. Cold iced water was her only solace; and this afforded but a very temporary suspension of her misery.

This patient, it may be proper to remark, was not pregnant; she was advancing towards the critical period of life, and had always, at least for many years, been subject to fluor albus. Suspecting some disease in the uterus itself, I examined my patient per vaginam: this afforded no room to suspect any thing wrong with this organ; I also carefully traced the urethra, but could detect nothing wrong in it. I prescribed a free use of the saturated solution of the borax, both as a wash, and as an injection; from this, much relief was experienced; but the disease not yielding, as I had frequently found it to do in other cases, I began the use of the balsam capaiva, agreeably to a suggestion of my friend Dr. Ruan of its usefulness in this

complaint; in this she persevered, and in a few days she was completely relieved.

I believe the balsam, in this case, contributed much to the relief of the poor woman; this belief is founded on its success in another instance, where it alone was used; if we except frequent bathing with lukewarm water; one bleeding, a brisk purging, and an extremely abstemious diet.

Dr. Ruan informs me he has succeeded with the capaiva, after the borax had failed in several instances; and so far, I am disposed to consider it a valuable addition to this article. In cases of pruritus accompanied by the aphthous incrustation, I think the borax will almost always succeed; therefore, I prescribe it in all instances for which my advice is required, but what proportion these cases bear to those without this efflorescence, I am alogether unprepared to say at this moment.

In a case of great violence, and as great obstinacy, where it did not yield to depletion, to low diet, nor the borax, instant relief was obtained by an injection of a tea spoonful of the aqua ammonia puræ, to a half pint of water. This mixture was had recourse to in the middle of the night, by the patient, while under great agony from the violence and pertinacity of the itching; and which she considered rather as a desperate experiment, than as a probable means of relief; yet it succeeded like a charm. It was used for several days when the itching was troublesome, with almost instant advantage; but after this, it seemed to lose its influence. The borax was again had recourse to; and it now completely succeeded; this lady was three months advanced in her pregnancy; and had been before, when in this situation, obnoxious to this complaint.

The cases which occur during pregnancy seem more obstinate than those which take place at other times, if we except such as occur towards the decline of the menses, and where there is evidently a disease of the womb. In these latter cases, relief may be obtained; but they are perhaps never cured, unless the affection of which pruritus is a symptom, is also removed. Much will depend upon frequent washing, and often rinsing out the vagina, by means of a large and powerful syringe. The solution of borax may be used for this purpose with advantage; and the balsam capaiva might perhaps be useful in

such cases; but of this, I have no experience. Opium, or opium and camphor, at bed-time, in pretty full doses, have a temporary good effect; as it procures a degree of rest, that would otherwise be denied. The woman should exercise much forbearance, and not too easily yield to the gratification of the predominant feeling.

This complaint has been generally confounded with one of a very different character; named the furor uterinus; they are very easily distinguished from each other; the latter is a voluptuous sensation, accompanied by venereal desire; and is not accompanied by an itching, properly so called; but by a sensual irritation, which makes the *rubbing* of the parts contribute, in a degree, to gratification. The pruritus, on the other hand, is an intense, and an indomitable itching, not accompanied by voluptuous desire, but which finds, to a certain extent, a relief from *scratching*. For were the feelings excited in the two cases, to be allayed by any mechanical application, one would be found to select a substance, which would comport best with the pruriency of the thoughts, which suggested the necessity and nature of the means; while the other would seek relief from the application of her nails, or some other equally rough substance. The two complaints must therefore be looked upon as altogether distinct in their nature and objects; nor does the one ever degenerate into the other, as some have imagined; for there is no analogy whatever between pruritus and furor uterinus. The one is an ungovernable lasciviousness; the other, an intolerable itching, without the slightest desire. Indeed, from all I can learn on this subject, pruritus is so far from being accompanied by desire, that women at such times manifest the greatest repugnance to the venereal act.

We have known a complaint communicated to the male, by intercourse with a woman labouring under pruritus; it was very similar to that which infested the female, in its general character; that is, there was great itching and swelling of the prepuce; the whole internal surface of which, together with the glans penis, were covered with an aphthous efflorescence. When this occurs with the married man, much disturbance is sometimes created, from a supposition that the wife has been unfaithful; and much will depend upon the good sense and ex-

perience of the medical attendant, that it shall not be subversive of the peace of a family.

Indeed, it has occurred in more instances than one, within our own knowledge, where the woman has thought herself the injured party: and in one case, which fell under our notice, the crimination was mutual. In this instance, the friends of the parties assembled to determine on the terms of separation; when it was suggested by one of them, who happened to be more rational than the rest, that before they proceeded to such an extremity, their family physician should be consulted; and, that it should be left to him to determine, whether there really was any cause, from the nature of the disease in question, to justify such a measure. We were accordingly sent for. We gave an attentive hearing to both. From what was related, we were at once of opinion, that there was not the slightest ground, for either to be charged with want of fidelity. We requested to speak to the gentleman in private; when he withdrew, we solicited an examination of the parts supposed to be injured, and found the prepuce and glans penis in the condition stated above.

From the appearance of the penis, we were convinced that the lady had nothing but "pruritus;" and we assured the husband that this was the case; and upon a private conversation with the lady, we were confirmed in the opinion given to the husband; and fortunate enough to make her suspend all farther proceedings, if not entirely to satisfy her that she had nothing to apprehend, as we had previously done with the husband.

It was mutually agreed, therefore, that no farther steps should be taken in the business; in the meantime, we were to satisfy each, that they had nothing to complain of. The borax wash and injections were ordered for the wife; and for the husband, the borax wash alone. In three or four days both one and the other were perfectly well; and, to this moment, most happy in the explanation they had so fortunately received. See page 167.

Chambon* describes a variety of pruritus, which we have never seen; it is where the neck of the uterus is the seat of

* Des Maladies des Filles, vol. ii. p. 73.

the itching. As we have never met with this case, we shall employ his own description of it. "Le prurit du col de la matrice est plus intolérable qui celui de la vulve, parce qu'on ne peut satisfaire le désir de grater cette partie. Quand il est porté à un certain dégre d'intensité, il cause un emportement, une apparence de fureur, et des movemens convulsifs, des distorsions du tronc, des gonflemens du bas ventre, et des suffocations semblables à celles qu'on remarque dans la passion histérique. Les femmes qui voient leurs maris dans cet état, deviendroient furieuses, si la liqueur séminale de l'un et de l'autre ne tempéroit pas la chaleur du col de la utérus." He recommends no particular treatment for this affection; nor indeed for the other, save the most feeble that can well be imagined: as bathing, fumigations, and injections, together with decoctions of some of the mucilaginous grains, as flax-seed, quince-seed, &c.

Dr. Denman says, "when this complaint, independently of pregnancy, originates from an affection of the uterus, and is of long continuance, the applications must be varied, and such medicines given as promise relief by changing the state of that part. Sulphur, taken internally, has sometimes been of much service; or applied to the part as a powder, liniment, or lotion. The burnt sponge, with nitre, and the extractum cicutæ, have also been given with advantage; together with a lotion composed of equal parts of the aqua zinci vitriolati cum camphora and rose water; or the application of the ung. hydrargyr. fort. I have also frequently given five grains of Plummer's pill every night at bed time for a month, and a pint of the decoction of sarsaparilla daily; though there was no suspicion of any venereal infection."*

Dr. Denman also observes, "it is sometimes occasioned by a disease or affection of the bladder, and is then equivalent to the itching of the glans penis in men." "When this complaint has been occasioned by an affection of the bladder, the constant or daily use of a bougie in the urethra has, in some cases, effectually cured the patient.†

In young female children, we very often witness an inflamma-

* Introduction to Midwifery. Francis's ed. p. 109. † Ibid.

tion and swelling of the labia, accompanied by a discharge of rather a purulent appearance, attended by great and frequent itching. To relieve which, they rub the parts violently, and even in sleep, until they become denuded sometimes of the cuticle. This, however, I believe never happens, but where there is a great neglect of cleanliness; at least frequently washing the parts with warm water, always cures it.

Dr. Denman farther says, "that those women who carry dead children, are more subject to this disease than those who carry living children." This remark is not confirmed by my own experience. I have known many instances, where dead children were carried, without this disease being present; and I have known a number of cases of pruritus, where the child was certainly alive. The precise nature of this affection, has not hitherto been pointed out; and accident furnished me with an opportunity of detecting a condition of the parts, where this complaint was in full force, which has never, I believe, been noticed by any one; and which led to, generally, a very successful mode of practice.

A lady, whose husband was more notorious for his gallantries, than for his domestic virtues, was attacked in the incipient stage of pregnancy, with an intolerable itching in the pudendum, and even within the os externum and vagina. Suspecting the affection to be venereal, I was sent for; and she giving such an account of her feelings as to make me think it might truly be the case, I proposed an examination of the parts; which was finally acceded to. Upon separating the labia, the whole face of the vulva, the os externum, and as much of the vagina as could be viewed, were covered with an incrustation of aphthæ. I assured the patient, her disease was not what she suspected, but one, I hoped, that could quickly be removed. I accordingly ordered a strong solution of borax in water, and requested her to wash the parts with it four or five times a day, as well as to throw it up the vagina. She did so; and was perfectly well in twenty-four hours.

I was led to the employment of the borax in this case, from the analogy which the thrush in children furnished me with; and its success since, has led me to regard it, if not a certain, yet a very valuable remedy: it has rarely failed in my hands,

or in the hands of others, as far as I have hitherto learned. It therefore always deserves a trial; especially as I have never known it to aggravate the complaint. I have had a number of cases within the last few years, in nearly all of which it proved completely successful; but not with equal speed. Two of the cases just mentioned were pretty obstinate, especially one: in both, I was obliged to bleed and purge liberally; and to confine the patients to a low diet; but in one, I was under the necessity of applying leeches to the part, before the disease would yield. I thought that small doses of magnesia, with the daily use of lime water and milk, were useful in this case. But in the others, the disease yielded almost immediately, to the simple application of the borax and water.

Where this complaint proves at all obstinate, depletion adds very much to the influence of the borax, I therefore would advise attention to this circumstance. I am now certain, however, that in every case of pruritus, there does not exist this aphthous efflorescence. I have had but three opportunities of examining the parts, under such circumstances: in two of which, this condition obtained; but in the other, the parts were as described above.

Gardien recommends the application of blisters, in those cases of pruritus, which proceed from a dartrous eruption. He says, "si ce prurit dérive d'une dartre fixée vers ce lieu, on ne peut attendre de soulagement que des médicamens propres à changer l'etat de la malade, telsque les bains sulfureux, l'usage intérieur du soufre, et autres moyens adaptés à la nature de l'affection. Un vésicatoire placé à la partie interne de la cuisse est souvent le moyen le plus sûr de déliver la femme de ce prurit en de plaçant la dartre: on pourrait l'appliquer sur les grandes lévres mêmes, pour changer la mode de sensibilité de la partie en y établissant momentanément un autre mode de douleur." Traite Complete, vol. i. p. 73.

# CHAPTER X.

## OF THE DISPLACEMENTS OF THE UTERUS.

UNDER this head, we might very properly place every deviation from the natural position of this organ. But to do this agreeably to the exact meaning of the words "natural position," would require an extreme degree of minuteness of description, as well as a most useless division of the different portions of the vagina. We shall therefore not consider any deviation of position of this organ, as coming within the meaning of "displacement," that is not attended with more or less inconvenience to the patient.

Agreeably to this intention, we shall consider the prolapsus; the retroversion; the anteversion; and the inversion of the uterus. There are other derangements of position of this organ; but of these we shall not take notice, as they do not amount to disease during gestation, (the only time they exist,) though they may become very important during the progress of labour—the consideration, therefore, of the obliquities of the uterus, and the derangements alluded to, rather belongs to the economy of labour, in a work especially confined to midwifery, than as claiming a place among "the diseases of females."

### *Prolapsus of the Uterus.*

Notwithstanding the uterus has four ligaments, purporting to support and sustain it in situ, yet they so ill perform this office, as to render it very doubtful whether such was the express intention of nature in their formation—certain it is, the uterus is subject to the impulses of the abdominal viscera, to the pressure of the distended bladder, and to the influence of the loaded rectum and sigmoid flexion of the colon; and we

may add, to the influence of its own internal weight after conception. Therefore many causes may tend to produce this displacement; as falls, blows, delivery, fluor albus, severe coughs, &c. On this account, it will be proper to consider this complaint, 1st, as it exists during pregnancy; and 2d, its peculiarities, and consequences, when the uterus is not impregnated.

Gardien* makes three degrees of prolapsus; namely, 1st, relaxation of the uterus; 2d, descent, or falling of the uterus; 3d, the precipitation of the uterus. These distinctions are not entirely useless in practice; for though they are only different degrees of the same affection; they yet require a little difference in the mode of treatment.

"In the first degree, the inconveniences arise from the increase of size of the uterus; and are confined to a disagreeable dragging towards the groins, and the umbilicus. In the second degree, the woman complains of a sensation of weight about the fundament, and a dragging about the groins, back, and umbilicus, which are more severe than in the first degree, and are augmented when the woman is on her feet or walks. If a horizontal position be observed for some time, it always affords relief; and the woman every morning would think herself cured, did she not know from experience, all those symptoms would return after exercise or standing. In the third degree, the uterus becomes engaged more or less in the os externum, and sometimes even escapes from the vulva."

"In this case, it draws the vagina with it, which turns upon itself." "In this last degree, all the symptoms just enumerated are increased; the woman feels a nisus, or bearing down effort at the anus and neck of the bladder, in consequence of the uterus being engaged in the external parts, thereby compressing the rectum and bladder. But if the uterus escape through the external parts, the symptoms last mentioned are less severe, or are found to moderate, when this takes place; but the pain in the back, and the dragging about the groins, increase, in consequence of the fundus of the uterus being still lower." P. 179.

* Traite Comp. p. 179.

*Prolapsus during Pregnancy.*

Each of the degrees of the falling of the uterus may take place in the impregnated state of this organ; but the two first are very much the most frequent; indeed pregnancy alone often causes them in the first and second degree, and may even produce the third, if aided by some of the occasional causes just named. For pregnancy often sinks the uterus so low in the pelvis, as to make it completely occupy the vagina; and it sometimes discovers even a disposition to escape from the os externum—this subjects the woman, when excessive, to certain inconveniences; but to none when moderate; except, perhaps, a sensation, as if something were desirous of escaping from the vagina, when she is in an erect posture; but this is almost instantly relieved, when she disposes herself in a horizontal position. When more excessive, it creates embarrassments to the flow of urine, and the discharge of fæces. These inconveniences rarely require medical interference; as they are relieved after a short time, when the uterus acquires a sufficient bulk to rise out of the brim of the pelvis. When interference is required, the application of a proper pessary is all that is necessary.

I recollect distinctly but two instances, in which it was necessary to introduce the catheter—for the woman is easily instructed to lie upon her back, with her hips a little elevated, when she is importuned to pass her urine; or readily taught to press back the uterus with her finger, should this not succeed; or to go upon her knees, which has, in several instances, been all that was necessary.

It will readily occur in a prolapsus from pregnancy, that an horizontal position is every way important: and when it can be indulged in, should always be observed, and this until the fundus of the uterus can be distinctly felt above the pubes. If this direction cannot be complied with, it is every way important, if the symptoms be at all importunate, that a pessary be recommended. Gardien recommends the sponge for this purpose; but it is a very rude and improper application.

## *Retroversion of the Uterus.*

The retroversion, is that displacement of the uterus, where the fundus is precipitated backwards, and places itself between the rectum and bladder, in such a manner as to be readily felt upon the introduction of the finger into the vagina, while the neck is mounted up, behind the symphysis pubis.

This situation of the uterus was not distinctly known, until Dr. W. Hunter,* in 1754, favoured the world with his account of it; this he accompanied by accurate drawings of the parts. Since this period, this disease has claimed much attention, and is now perfectly understood. It is not, however, regarded as of equal consequence by all; while Hunter, Baudelocque, Gardien, Meygrier, Burns, &c. look upon it as an accident of serious moment; others, as Denman and Merriman, view it almost with careless indifference—as both cannot be right, I shall, in the prosecution of this subject, attempt to show which of the opinions has the strongest claims to public confidence.

This deranged situation of the uterus may take place in its unimpregnated, as well as in its impregnated state—the latter is, however, by far the more common. It usually takes place between the second and the fourth month of pregnancy, as after this period the length and thickness of the uterus will exceed the opening of the superior strait, and prevent its folding down upon itself.

The remote cause of this complaint is, whatever tends to depress the fundus; and may be either external violence, such as blows, falls,† pressure, sudden exertion,‡ &c. or violent efforts to vomit, violent coughing, an over distended bladder; or perhaps, an unusual accumulation of fæces in the rectum, or sigmoid flection of the colon. These causes may operate suddenly, so as instantly to produce the disease; or slowly, requiring a long time for its completion.

* Med. Obs. Vols. IV. and V.

† See Dr. Swan's case. This case terminated favourably by reposition. Med. Com. vol. vi.

‡ See Dr. Swan's case. This terminated favourably by reposition. Med. Com. vol. vi. p. 257.

The symptoms produced by this unnatural situation of the uterus, may be more or less violent; according to the size it may have acquired; or as the displacement may have been suddenly, or slowly produced. When suddenly induced, the symptoms are usually violent, and alarming—such as an immediate interruption to the flow of urine, or the passage of the fæces; alternate pains, accompanied by great forcing or bearing down; a disposition to fainting, &c. When considerable time is spent in completing this displacement, the evils arising from it are less urgent and severe. But in both cases, if the uterus be not restored, the symptoms will increase in intensity; instead of a difficulty, and frequent inclination to make water, there will be a total suppression of it, accompanied by a painfully intense desire to do so—for the fœtus will go on to increase in size, and the uterus to developing itself; thus, giving additional pressure, to the parts with which it is in contact.

In the unimpregnated state of the uterus, the symptoms, so far as I have observed, are never so distressing; the reason for this will be easily comprehended; but the parts never become entirely reconciled to their new situation. In the impregnated state, however, so much restraint is not imposed upon the uterus, as to prevent farther development, as we have already stated; but the effects of this increase can most readily be anticipated. Experience has abundantly shown, that, if it be not restored, it will go on to augment, and at last completely occupy, the cavity of the pelvis.* This distinctly points out the time for the restoration of the fundus uteri.

The symptoms I have enumerated may, however, proceed from other causes; it will, therefore, be proper to ascertain by the touch, the situation of the uterus, so soon as symptoms become urgent. If retroversion has taken place, a roundish tumour will be felt at the posterior and inferior part of the lower strait, occupying more or less room, as the uterus may be a longer or shorter time impregnated, or as it may have been a longer or shorter time displaced. The finger cannot touch the projection of the sacrum; but may gain a passage to the upper strait, immediately behind the symphysis pubis, where, if the neck has not mounted up too high, the os tincæ may be felt.

* See Dr. Hunter's case, Med. Obs. and Inq. also, Wilmer's cases, p. 144.

This disease may be mistaken for a prolapsus uteri; but can most easily be disinguished from it: 1st. In the retroversion, by the vagina interposing between the finger and the tumour; and the neck of the uterus being mounted up behind the symphysis pubis. 2d. By the absence of the neck of the uterus, which is always found in advance of the body and fundus in a prolapsus. 3d. To the symptoms never being so extreme in the latter; and confined to those already noticed, when speaking of this complaint. 4th. By the prolapsed uterus always being moveable, the other obstinately fixed. It may also, according to Mr. Burns, be confounded with a diseased ovarium, when it may chance to occupy this place, or with an extra-uterine conception, when it may have been found between the rectum and vagina. I believe it may serve to distinguish between these two complaints, by noticing, that in both the diseased ovarium and the extra-uterine conception, the neck of the uterus is always within reach of the finger; and also that a long catheter may be readily passed in the natural axis of the uterus; for I believe the fundus would not be carried down with either of these bodies.

I may, moreover, observe, that both ovarial tumours and extra-uterine conceptions, are of slow and regular progress; especially, perhaps, the latter; therefore, should it produce symptoms analogous to retroversion, they would be of very gradual increase; and would require a long time for the symptoms to become imperative.

Dr. Denman has well described the mechanism of this accident; but I cannot agree with him entirely as to the cause; he considers that a distended bladder is always the immediate cause of the retroversion, and that a suppression of urine is absolute only before, or during the act of retroverting; therefore, a stoppage of the water is the cause, and not the consequence of this complaint, as we have described it to be. I cannot subscribe to this doctrine, for the following reasons: 1st. Because I am certain that it has been suddenly produced by violence, and without the intervention of a suppression of urine.* Baudelocque also declares the same thing. 2d. Be-

* See Mr. Wall and Dr. Hunter's case. Med. Obs. and Inq. vol. iv.

cause, Baudelocque demonstrated to his class a slow retroversion of the uterus, which lasted three or four weeks before it was complete; in this case, there is no mention of any difficulty in making water.

Dr. Denman declares, also, that "the uterus must be elevated before it can be retroverted." To disprove this, it is only necessary to recur to those cases which have been suddenly induced, as I myself have witnessed, from external violences: though, I admit, that the elevation of the uterus would render it more easy of retroversion, were the remote causes acting at the same time.

The diagnosis of this complaint, as given by Dr. Denman, will readily lead to the explanation of his considering this a trifling disease; for, he says, "If a woman, about the third month of pregnancy, has a suppression of urine continuing a *certain* length of time, and producing a certain degree of distention of the bladder, we may be assured that the uterus is retroverted." Should a mere suppression of urine in a pregnant woman, really indicate a retroversion, as is declared by this gentleman, we can readily account for his indifference to its consequences, and his trusting its cure to nature, or the occasional drawing off the water by the catheter. The young practitioner is forewarned against this uncertain plan; he is to look upon this complaint as one of eventual, if not of immediate danger; especially, when the temporising plan we shall now speak of, does not succeed.

As the most pressing symptom in retroversion, is the stoppage of the urine, we should most sedulously endeavour to prevent this being of too long continuance; the consequences should be candidly stated to the woman, should she permit her delicacy to interrupt an essential point of duty. The catheter should be employed pro re nata; and the bowels emptied daily, either by medicine of a mild kind, or by injections; if this plan should not succeed in restoring the fundus, we should then maturely consider the propriety of mechanically replacing it. To aid our judgment, we should consider; first, the period of gestation; secondly, the degree of development of the uterus; thirdly, the nature or severity of existing symptoms. The period of gestation should almost always influence our con-

duct in this complaint; and we may lay it down as a general rule; the nearer that period approaches the fourth month, the greater will be the necessity to act promptly, in procuring the restoration of the fundus; the reason for this is obvious; every day after this, will but increase the difficulty of restoration, from the continually augmenting size of the ovum. The degree of development should also be taken into consideration; as some uteri are as much expanded at three months, as others are at four; consequently, when this obtains, there is a decided reason for acting earlier, than may at other times be necessary; so also at the fourth month, if the development be less than is usual for that period; we may, every thing being equal, delay the attempt at reposition, if any reason present itself to make this eligible. The extent, or severity of symptoms, must ever be kept in view: for instance; we must not temporise too long when the retention of urine is complete, and is not to be relieved by the catheter, lest the bladder become inflamed,* gangrenous,† or burst.‡ For the bladder, from its very organization, cannot bear distention beyond a certain degree; or beyond a certain time, without suffering serious mischief.

From this I conclude, that the uterus should in every instance be restored when practicable, at or very little after the fourth month: if left longer than this, the risk of not succeeding is every day increased; and I am firmly of opinion, that nothing can justify longer delay at this time; more especially, when it proceeds from the vain hope, that nature will relieve herself at the full period of gestation.§

The symptoms I have noticed above, should teach us the propriety, and necessity, of ascertaining the true situation of the woman, by an examination per vaginam; and, until this be done, however we may hint our suspicions, we should never positively affirm her labouring under retroversion. For I have frequently prescribed a little sweet nitre and laudanum, for a difficulty of passing water in pregnant women, with the most decided success; and, when more severe or obstinate than

* Dr. Bell. Med. Facts, Vol. III. p. 32. † Mr. Lynn, Med. Obs. Vol. IV. p. 388.
‡ Dr. Squire, Med. Review for 1801. § Merriman.

common, have examined per vaginam, sometimes without finding the uterus in a state of retroversion.

My experience has furnished me with few facts of which I am more certain, than that "a certain degree of distention of the bladder" may exist, and for a considerable time; and even where I have been under the necessity of using the catheter, without producing retroversion. And I am also certain, in retroversion, that the mere removal of the urine will but rarely, nay, not once perhaps in ten times, be sufficient to ensure the spontaneous restoration of the fundus, where the complaint is of long standing, or the pregnancy advanced beyond the third month. But let me be clearly understood to mean, that the precaution of drawing off the water where practicable, and that as frequently as the exigencies of the case demand, is indispensable, either to the spontaneous, or artificial reposition of the uterus.

I have great reason to believe, that an exclusive reliance upon drawing off the water, has been productive of the most serious evils, if not in some cases of death itself: it therefore should never be exclusively trusted, except at the early period of gestation. If the woman approach, or a little exceed the fourth month, the attempt at restoration should most unquestionably be made; nor should it be abandoned, but for very strong reasons: nothing, indeed, but the impossibility of succeeding, should induce us to abandon the patient to her fate—I say, to her fate; for, what can we promise ourselves in her favour?

Gardien recommends replacing the uterus without reserve; but if it take place near the fourth month, the necessity of reduction is urgent, lest the uterus should mould itself within the cavity of the pelvis. For its "enclavement" does not depend solely upon the increase of its volume from the development of the fœtus, but it also becomes tumid in consequence of inflammation with which it may be attacked. P. 194.

The objections usually urged against the attempt to replace the fundus, are: 1st. The hazard of provoking abortion. 2d. That it does not always succeed, after strong and repeated efforts.

With respect to the first, there is abundant proof in my own

experience, as well as that of others,* that abortion is not a necessary, though it may be a possible consequence of the attempt. In Mr. Lynn's case, abortion took place spontaneously, after the rupture of the bladder. In this case, no attempt was made to restore the fundus. Abortion can therefore take place, without any force being applied to the fundus for its restoration. I have never seen abortion follow; the fear of an imaginary evil, must not induce us to subject our patient to a more serious and positive harm. The risk of abortion is but trifling; but the neglect of reposition at the proper time, is a very serious piece of mismanagement.

As regards the second, if it fail, it must in general be attributed to our neglecting the proper moment for acting; or when it has not been properly performed. Having decided upon the propriety and necessity of giving aid to the woman, I shall next give directions for the best mode of doing this. I must first consider what forces are operating to prevent the restoration of the fundus, before I describe how they are to be overcome; they will be found to be; 1st. A distended bladder. 2d. An impacted rectum; and most probably, a loaded colon at its sigmoid flexure. 3d. The counteracting efforts of the woman herself. 4th. The too great bulk of the uterus.

The first thing to be accomplished is, the evacuation of the urine by the catheter; in this, it is said, we cannot always succeed. I have never met with such a case; and Mr. Burns declares the same thing; nay, he even goes farther—he says he does not believe it can occur—it must, therefore, be very rare.† Dr. Denman has some very useful remarks upon this subject, which I would recommend to be studied—he advises the employment of the flexible male catheter; in this I fully concur: he also cautions against any attempt to display dexterity, by

* See Baudelocque, Hunter, Wall, Meygrier, &c.

† In cases where it has been found impracticable to pass the catheter, it has been proposed to puncture the bladder above the pubes, to prevent its bursting. In the case which fell under the notice of Mr. Lynn, in which the retention was complete, he proposed this alternative to the woman, but she preferred death to the operation: this she unfortunately soon met, by the giving way of the bladder. In her abdomen was found nine or ten pints of water. In Dr. Hunter's case, seven or eight pints were drawn off by the catheter. Med. Obs. and Inq. vol. iv. pages 393 and 402.

the quick introduction of this instrument; and recommends the slow and cautious use of it—he also proposes pressure upon the abdomen, to promote the discharge of the urine; I may, however, add, that not only the introduction of the catheter should be slow, but the drawing off the water should also be so—I am certain I once saw serious mischief arise from inattention to this direction.

To overcome the second difficulty, injections should be thrown up the rectum if practicable; but which, it must be confessed, is sometimes impossible—we can succeed, however, with the elastic gum catheter of a large size, when the common means have failed; the injection should consist simply of salt and water, in the proportion of a table spoonful to a pint. A few hours before we commence the operation, small and repeated doses of the sulphate of magnesia may be given, provided the stomach is not distressed by vomiting, or severe nausea.

The third difficulty which may oppose us, is, the violent and involuntary efforts to bear down, to which the woman is excited, by the presence of the hand within the vagina—this is decidedly the greatest trouble we meet with in ordinary cases—for we may be foiled in our attempts at reposition, though the emptying of the bladder and rectum should not have been found troublesome. To overcome this opposition, experience has repeatedly taught me the efficacy of bleeding to fainting, or near to it.

When we have determined upon the bleeding, we should be prepared beforehand, to take advantage of the deliquium; as its effects are but transitory—the bed should be prepared in such a manner, as will allow the patient to lie upon her back, with the perinæum free over the edge of the bedstead, and her shoulders a little depressed—some protection should be placed between the back of the woman and edge of the bedstead, that she may receive no injury from its hardness—the parts should be well lubricated with hog's lard or oil— a chair should be placed for each foot to rest upon, and these supported by two bystanders.

When every thing is in readiness, the arm should be tied up (the patient standing near the bed); a large orifice should

be made, and blood drawn until faintness is induced—when this happens, the arm must be secured, and the woman placed as just directed—the hand, after being well lubricated, should be passed into the vagina, in a state of supination; the fingers retracted in such a manner, as to form a straight line at their extremities; they must then be gently pressed against the base, as it were of the tumour that is found within the vagina, so as to move it backwards and upwards along the hollow of the sacrum, until the mass shall reach above the projection of this bone; when thus far, the hand may be withdrawn; and a pessary introduced of a proper size: the woman must remain quiet in bed for three or four days; the urine for this period should be drawn off as often as may be required; and the fæces evacuated by injections.

The last of our embarrassments arise from the size of the uterus being equal to, or greater than the opening of the superior strait; this will be confessed to be one of much moment and interest—yet, I trust, it is not beyond remedy—I believe that the plan just suggested, might succeed even here: but I confess it wants the test of experience. It should upon every consideration be tried, before severer means be adopted; should it fail, we lose nothing. But suppose it fail, what is then to be done? Five modes of operating present themselves in this dilemma.

First, to confide entirely in the resources of nature, as recommended by Dr. Merriman.

Second, to attempt provoking of abortion by rupturing the membranes through the os tincæ.

Third, to puncture the uterus through the rectum, as advised by Dr. Hunter, or through the vagina, as practised by M. Jourel.

Fourth, puncturing the bladder above the pubes.

Fifth, section of the pubes.

With respect to the first, there is, from all we can learn, but little temptation to trust to it. See strictures on Dr. Merriman's opinions, in "Essays on various Subjects connected with Midwifery," by the author, p. 291.

The second, if practicable, would unquestionably be the mildest and safest; but we are led to believe that it will not

always, nor indeed perhaps ever be practicable; but it should be tried, before we have recourse to the third.*

The third alternative has been condemned by some of the British writers; but, as it would appear, without sufficient reason; since M. Jourel succeeded recently in a case, the details of which are highly interesting and instructive, and should be carefully consulted by all who practise midwifery.† Gardien, p. 200, mentions, that in a thesis for 1813, sustained before the Faculty of Medicine of Paris, there is a successful case related of the puncture of the uterus. This case was witnessed by Messrs. Véricel and Bouchet.

The fourth means is the puncture of the bladder above the pubes. This is proposed on the presumption, that the weight of the full bladder prevents the restoration of the fundus. By this plan, it is supposed, also, that the fœtus may be more certainly saved. This plan of Sebatier, however, should never be employed, but when, 1st, it is impracticable to draw off the water; a case which we believe can rarely happen, if a flexible catheter of proper length be employed; 2d, but after the means recommended have failed; 3d, but, where it is certain, that after the water is evacuated, the size of the uterus is such, as will certainly permit its fundus to pass through the superior strait. The value of this plan is however lessened in some degree, from the want of success in Mr. Wall's and Dr. Hunter's case; for, after Mr. Wall had discharged the contents of the bladder, to the amount of seven or eight quarts, he could not reduce the fundus to its natural position. There can be no doubt, but a bladder distended so enormously as to contain seven or eight quarts of urine, would, from its weight, very much oppose the restoration of the uterus; yet the removal of this great weight does not always ensure it. For upon opening the parts, says Dr. Hunter, "it was found, that

* By some error in transcribing the above, from "Essays on Retroversion of the Uterus," from my "Essays upon various Subjects connected with Midwifery," I am made to say, "the second, if practicable, would unquestionably be the mildest and safest; but its *success*, (so far as I can at present determine,) must be very uncertain, or it may always be impracticable." See Essays on various Subjects connected with Midwifery, p. 287.

† Dictionnaire des Sciences Medicales, vol. ix. p. 31.

the uterus was so impacted, that it could not be removed, till we had cut through the symphysis of the ossa pubis, and *torn those bones considerably asunder*, to enlarge the space within the bones of the pelvis." Med. Obs. and Inq. vol. iv. p. 405. Yet this was a case, where the woman was advanced but about four months in pregnancy.

From this, it would appear, that the puncturing of the bladder above the pubes, (to say nothing of the danger of the operation itself,) would always be unsuccessful, if the uterus was not moveable in the pelvis; hence the propriety of the third caution.

Analogous to this, is perhaps the question of Gardien;* he asks, "the mother and child being destined to perish, if we have not recourse to some extreme means to facilitate reduction, might we not substitute with advantage, for the proposition of Hunter and Lynn, the section of the pubis, which might save the child, without the mother incurring a greater risk than puncturing the uterus through the vagina?"

The objections to this plan are even stronger than that of the puncture of the bladder, and for these reasons: 1st, it is in itself an operation of considerable difficulty and uncertainty; since, very important structures are cut through, especially the symphysis pubis, and it is not certain that the parts will ever again unite: 2d, so little room is acquired in the antero-posterior diameter of the superior strait, that it requires a prodigious extent of separation of one pubis from the other, to gain a few lines in favour of the diameter just mentioned; and, consequently, that irreparable mischief might be done to the mother, for merely a possible advantage to the child.

For it is seen in Dr. Hunter's case, that much violence was done to these parts at the fourth month of utero gestation, without permitting the uterus to pass through the upper strait, but with difficulty. At all events, it should be considered but as a forlorn hope.

The proposition for the employment of such extreme means, most emphatically points out the necessity we have so strongly

* We are informed by Capuron, Traité des maladies des femmes, p. 289, that the section of the pubes was first proposed by Purcell, Med. Comment. vol. vi, with a view to save the child.

urged, of acting, whenever in our power, as early as the fourth month; for even this period is not free from its dangers.

In Anderson's Quarterly Journal for July, 1826, I find some observations on "Retroversion," arising from my work on Midwifery, which I have thought it would be right to notice in this place.* The writer of the review says, "he appears (Dr. Dewees,) to have formed a very exaggerated idea of the danger of delaying this operation, (reduction,) even when it is possible to secure the discharge of the urine from the bladder." Certainly, that idea of the danger, in such cases, cannot be "exaggerated," which has caused fear in Hunter, Baudelocque, Gardien, Meygrier, Capuron, Burns, and many others, for the safety of the woman when the uterus is not reduced. Certainly, the drawing off of the urine does not prevent the successive development of the fœtus; and if it does not, is not every thing to be apprehended, if it proceed beyond the fourth month? Hunter's case of fatal termination was about the fourth month; in which Mr. Wall had succeeded to draw off an immoderate quantity of water, yet the patient died.

Besides, he has not read what I have said upon this subject, with the attention he should, if he meant to review the doctrines, which the chapter on "Retroversion" contains. I expressly state, "that the catheter must be employed pro re nata; and the bowels emptied daily; *if this plan should not succeed in restoring the fundus*, we should then maturely consider the propriety of mechanically replacing it." Again; "the extent, or severity of symptoms, must ever be kept in view: for instance; we must not temporise too long, when the retention of *urine is complete, and is not to be relieved by the catheter, lest the bladder burst*," &c. Does this look like recommending "the practitioner to devote too much attention to what is comparatively the least important?" What would the gentleman himself recommend to be done under such circumstances? Would he see his patient die, rather than attempt reposition? He will

* The author feels himself much indebted to the writer of the review now referred to, for the very liberal feelings and temper he has displayed towards him; and is really sorry he is now obliged to stand upon the defensive; especially, as he believes he has rather been misunderstood, than that he has laid himself open to criticism, in the parts of the subject noticed by the reviewer.

answer, perhaps, (for he distinctly says,) the accumulation of urine can always be prevented by the catheter. I say so also, so far as I have yet seen; but others of equal skill and equal experience, have declared otherwise: in case of such failures, I recommend the attempt at reposition; and am, up to this moment, perfectly satisfied that it is the soundest practice.

He adds, "his injunctions on this point are calculated to mislead, and to induce the practitioner to devote too much attention to what is comparatively the least important part of the complaint. The only possibility of mischief arises from the imperfect evacuation of the contents of the bladder, which may always be obviated by employing the catheter of more than ordinary size." Mr. Lynn, Dr. Hunter, Dr. Bell, Dr. Squire, &c. failed to draw off the urine in the cases they were concerned in. It may be said, that a catheter of a certain description may succeed, when another, of a different form, will not; this may be the case: but, if the practitioner have not such, is the patient to die, rather than attempt reposition? We believe no one will concur with this gentleman in the alternative.

He adds immediately after, "we cannot find that Dr. Dewees has shown any bad effects attributable to the mere retroversion, at all comparable with those which may arise from premature attempts at reduction." I am really at a loss to understand the gentleman's meaning in this passage. I have shown, from the most respectable authority, that death has frequently followed the neglect of this case. Now, can the gentleman show any effects from attempts (*premature*, if you please) at reduction, which are worse than death; especially, as the worst that has ever been feared from this manœuvre, is abortion?

He declares also, he is not disposed to coincide with me in suggesting, (for it is merely a suggestion; and the remedy proposed, a dernier resource,) the bringing on abortion, by rupturing the membranes through the os tincæ. I would ask this gentleman candidly, which he would prefer, or which he would think would be attended by the least risk, in a given case, where no alternative remained, but to puncture the uterus through its own walls, with a view to lessen its size, by the

escape of the liquor amnii; or to discharge it (if practicable,) through the os uteri? We are certain he would, under such circumstances, prefer the latter method. It is only a suggestion, which holds out a milder method (perhaps) of effecting the object in view; namely, diminishing the bulk of the uterus.

Nor do I agree with this gentleman in his conclusion; "surely there is nothing in either of these propositions, (Hunter's or mine) so very encouraging, as to tempt us to employ them in preference to leaving the case to nature." Anceps remedium, &c. should always be the physician's motto; and in the case before us, it should certainly be acted upon; since we defy the gentleman to produce a single instance of success, when the case has been trusted to nature, under the circumstances supposed above; for we will not permit him to use the cases, purporting to be "cases of retroversion at full time," as insisted on by Dr. Merriman, unless he can disprove what we have urged against them, in "Essays on various Subjects, connected with Midwifery." P. 291.

Now, we think the case stands fairly thus; we can show a number of cases where reposition has been performed with the most entire success; yet not one, in which mischief has arisen from the attempt. And farther, that when the case has been submitted to nature after the fourth month, there is no instance on record, that we have ever met with, that has terminated favourably.

In the anteversion, the fundus of the uterus is thrown forward, and downward; so that it presses immediately against the posterior and inferior portion of the bladder, while its neck is carried backward towards the projection of the sacrum. In this displacement, the symptoms are said to be less severe, than with the retroversion—the tumour being anterior, and the neck of the uterus posterior, will readily distinguish the one from the other—I have never seen a case of this kind so strongly marked, as to leave no doubts of its existence—I was once called to a patient in whom I suspected it had taken place; but it was in a partial degree, if at all—the symptoms were distressing, but eventually relieved by the use of the catheter, and anodyne injections. This disease has been mistaken for

stone in the bladder, agreeably to Levret,* and the operation of lithotomy absolutely performed.

When the unimpregnated uterus is retroverted, it creates fewer inconveniences than when impregnated—the indications are precisely the same—the mode of reduction is also similar. This can sometimes, however, be effected without the introduction of the hand, by the proper application of the fingers alone—this happened to be the case with me in two instances of this kind of retroversion; both of which, however, were very recent when the attempt was made.

### *Inversion of the Uterus.*

This untoward, and too fatal accident, is, perhaps, more frequent than is commonly supposed. Instances of sudden death after delivery, often remain unaccounted for; and there is every reason to believe, that this displacement of the uterus is sometimes the cause. Examinations of women who have died during, or soon after delivery, are not so frequent as their importance seems to demand. This indifference to examinations after death, has arisen, first, from a proper estimate of their value not being made, even by medical practitioners; second, from the aversion most people feel to have their friends' remains disturbed; third, to the disingenuous conduct of the attending physician himself, who may not wish the cause of death to be ascertained, lest it should do injury to his character, either from his not having known or suspected the true one, or by exposing some accident for which he fears the world would hold him accountable. Hence, as I have just observed, this complaint is, most probably, every now and then concealed; and, therefore, its frequency in producing death, cannot be exactly estimated.

Notwithstanding the many cases of inversion upon record, from the most respectable authorities, yet Ant. Petit thought it impossible: he declared, that authors who mentioned this condition of the uterus, had mistaken a polypus for it, attended with a prolapsus of the vagina. We have taken occasion, when on the subject of "polypus of the uterus," to observe, that this excrescence had not unfrequently been mistaken for the

* Jour. de Med. vol. iv.

uterus; since some of the older surgeons declared they had amputated the uterus, and the woman conceived afterwards.

Inversions of the uterus may be either complete, or incomplete. By a complete inversion, I mean the passing of the fundus and body of the uterus through the os internum; or being turned entirely inside out, to the very neck of this organ. But it is not necessary to the complete inversion, that the body and fundus escape through the os externum; for inversion may be complete, and the uterus be concealed within the vagina.

The incomplete may be in different degrees; first, where the fundus falls down to the mouth of the uterus; but is prevented from passing through it, by the latter being contracted; or the force may have been insufficient for this purpose; second, where it has passed perhaps half its length through the os uteri; third, where it is completely inverted, with the exception of a small portion of the body and neck. In the two latter conditions, the body and fundus may be compressed, or strangulated, by the neck of the uterus contracting forcibly upon the protruded part; or it may be free from this restraint; each of these presents different indications.

Proximate cause.—For the uterus to become completely inverted, several circumstances must combine; first, the fundus must most probably contract, while the body and neck must be flaccid; second, a force or weight must be applied to the fundus, capable of making it descend through the os internum: this force may be a power applied to the cord; and the weight may be the placenta itself, engrafted immediately upon the fundus. We are told, indeed, by Sabatier and others, that the uterus has been inverted in girls, and in women who were not pregnant, in consequence of the pedicle of a polypus being affixed to the fundus. After a certain period, the uterus makes an effort to expel this body, and in this effort becomes inverted sometimes. Gardien.

Dr. Denman furnishes an interesting case of a young lady whose uterus was inverted by a polypus. See chapter on Polypus, case ii.

Other causes are also assigned for this accident; as collections of water, or blood; or air may distend the uterus so as to produce inversion. Gardien.

Remote cause.—The remote cause of this accident, is the want of power or disposition, in the body and neck of the uterus, to contract. This may be occasioned by an over-distention of this organ; from an excess of liquor amnii; from the unusual size of the fœtus; from a compound pregnancy; from hemorrhagy; from passions or emotions of the mind; from exhaustion, in consequence of previous disease; from long continued uterine efforts to effect delivery, &c.

Symptoms.—When this accident takes place, the woman almost instantly complains of a severe and distressing pain about the region of the uterus; an effort to force or bear down; nausea, and sometimes vomiting; great faintness, with more or less hemorrhage; cold clammy sweats; pulse small, frequent, or extinct. A variety of nervous symptoms may also occur of a most distressing kind, arising most probably from the new situation the abdominal viscera are forced to take, when deprived of the support of the uterus.

If we examine per vaginam, it will be found that this passage is occupied by a firm resisting tumour, covered by the placenta, or otherwise, as the period may be at which this accident occurs; or the fundus and body may be pushed through the os externum, either bare, or covered by the placenta. This casualty may take place immediately after the birth of the child; or it may not occur for hours, or even days, after this event. If the hand be now placed upon the abdomen, we shall fail to find the uterus. Ané gives an account of a case, where this accident took place several days after delivery. He was called to the assistance of a woman, who had syncopes so frequently, as to render him uneasy on her account, and which induced him to pass his hand into the uterus, with a hope to discover the cause. He satisfied himself that the fundus was not depressed. He stimulated the uterus with his fingers, which induced it to contract; but on the twelfth day, after a severe flooding, the uterus became inverted. Gardien.

Incomplete.—The incomplete must have the same general causes as regards the effects upon the fundus and body—that is, the fundus cannot be supported by the body, from its loss of power, by the operation of either of the remote causes, but is prevented from entirely passing through the neck, by the

latter contracting, and arresting it within, or only permitting it to pass in part. The same general train of symptoms occur, but this condition is almost always attended with a greater discharge of blood, than when the inversion is complete.* If an examination be carefully made per vaginam, the fundus of the uterus may be detected in one of the situations mentioned for this species or variety of inversion.

The mechanism of inversion is sufficiently simple; it would seem to require but a state of atony of this organ to produce it, with (perhaps) more or less pressure upon the fundus; or the mere contraction of the fundus; or the implantation of the placenta on this part. When this derangement takes place before the delivery of the after-birth, we have much reason to suspect that its weight, as well as its location, materially contributes to its production—location, indeed, would seem almost a sine qua non to inversion; for we either find the placenta discharged from the vagina, or else attached to the fundus of this organ; now, had the placenta been attached to any portion of the uterine parietes, that part must have contracted, that it might be thrown off; and that contraction of the body of the uterus, most probably would have given such support to the fundus, as to have prevented its falling down.

It is almost universally supposed, that an undue force applied to the cord for the delivery of the placenta, is the principal cause of this accident; but in this I differ from such as have adopted this opinion; and for the following reasons: first, because the accident has occurred after the delivery of the placenta; second, because it has taken place, when no such force has been applied. A case under my own care, in February, 1826, will perhaps satisfactorily prove this to others, as it did, with some other cases, (see cases 3d and 4th) to me, that it is by no

* It is a remarkable fact, that less blood is lost when the uterus is completely, than when it is partially inverted. This is not, perhaps, of difficult explanation: since, when the inversion is complete, the uterus contracts to a certain extent; and, by this contraction, the now internal surface of this organ is made to impinge upon the vessels which carry blood to it, and thus interrupts or cuts off fresh supplies of this fluid. It may be also proper to observe, that the hemorrhage is never so suddenly severe, where inversion has taken place, as where this accident has not taken place, and the uterus in a state of atony, and the placenta is in part, or altogether, detached.

means essential to inversion, that force be applied to the cord. Mrs. S—— was delivered, after a labour of about four hours, of her first child; the labour was of no uncommon severity. After the child was delivered, it did not breathe very freely, in consequence of some mucus in the trachea; this occupied me some few minutes before it was discharged. Upon sitting down and examining my patient by tracing the cord, I found the placenta escaping through the os externum. Its firmness and bulk immediately suggested the probability, that the uterus was enclosed in it, in an inverted state.

Upon further search, this was found to be the case. The placenta was partially detached, and there was a slight flooding. I separated this mass from the uterus, and then pressed against the inverted fundus, and carried it through the os uteri, without the slightest difficulty, and restored it perfectly, without even pain to my patient. In this case, the cord was of the usual length, and no force had been applied. But the caution, not to apply too much force to the cord to withdraw the placenta, is founded upon just and important principles; since, did the disposition to inversion exist, and this mass be attached to the fundus, it would be almost certain to produce it; when, perhaps, without such force, the woman might escape from the danger.

Mr. Burns, after enumerating several causes of inversion, such as pulling of the cord; the too sudden delivery of the child when the cord is too short; &c. says, " from the same cause, or sometimes perhaps from sudden pressure of part of the intestines on the fundus uteri, occasioned by strong contraction of the abdominal muscles, a part of the fundus becomes depressed like a cup, and encroaches on the uterine cavity. This generally rectifies itself if let alone." I would inquire, for the sake of information, how this dipping of the fundus is known to exist? and how it is ascertained, that it " generally rectifies itself if let alone?"

I can readily comprehend, that an unusually short cord, with the sudden expulsion of the child, may produce inversion, even when there is no disposition to atony in the uterus; as the fundus may be dragged down at the instant relaxation is about to take place; but I confess myself entirely at a loss to

comprehend what Dr. Merriman* may mean by a short cord, when its length permitted a child, by a sudden effort of the uterus, to be " thrown to the extremity of the bed," though this cord was " naturally short, besides being twice passed round the child's neck," and the placenta retained, " though low in the pelvis." Quere, if this be a short cord, what constitutes a long one?

The indications in inversion are simply these; first, to restore the prolapsed fundus when practicable; second, to prevent a reinversion after restoration; and third, if the fundus cannot be restored, to take off the constriction occasioned by the contraction of the mouth of the uterus; or in other words, to make the inversion complete, if it be not so already.

When the fundus is prolapsed to the mouth of the uterus, but contained within it, should the mouth of the uterus be sufficiently yielding, the hand must be gradually passed through it, and the fundus carried upward until restored—if the placenta has been thrown off, we need but retain the hand within the uterine cavity, until we have sufficient evidence of its disposition to contract, and to maintain that contraction. If the placenta has not been thrown off, it will be found either loose, or adherent—if loose, it must be withdrawn with the hand after we are satisfied we may trust the uterus to itself. If adherent, we must gently separate it after the uterus shows signs of returning power; and when separated, it must be taken from the uterus, when the hand is retracted.

Should the fundus have escaped in part through the mouth of the uterus, it should be as quickly as possible returned, by pressing the most depending and central portion of the tumour, gently, steadily, and perseveringly, in the direction of the axis of the os uteri and body of the uterus, until it retire; then, if it does not return to its proper situation by its own resiliency, we must pursue it with the hand through the mouth of the uterus, nor leave it until placed in situ. The hand must be kept in the uterus, until, by the contraction of the uterus, there is assurance it may be withdrawn with safety.

If the placenta offer itself before the prolapsed fundus, we may, if detached, deliver it immediately; but if it be adherent,

* Denman's Midwifery, Francis's ed. p. 514.

and the mouth of the uterus does not offer too much resistance, it must be carried up with the fundus, and separated as directed. Should we, however, find much opposition to reduction, and this evidently arising, in part, from the bulk of the mass to be restored, it will (perhaps)* be best to separate it carefully, and then carry up the fundus.

Should the inversion be complete, it will, for the most part, be impossible to restore it, especially if several hours have elapsed since the accident.† Dr. Denman says, "the impossibility of replacing it, if not done soon after the accident, has been proved in several instances, to which I have been called, so early as within four hours, and the difficulty will be increased at the expiration of a longer time. Whenever an opinion is asked, or assistance required, in those cases which may not improperly be called chronic inversions, it is almost of course that the reposition should be attempted; but I have never succeeded in any one instance, though the trials were made with all the force I durst exert, and with whatever skill and ingenuity I possessed; and I remember the same complaint being made by the late doctors Hunter and Ford; so that a reposition of a uterus which has been long inverted, may be concluded to be impossible. It seems as if the cervix of the uterus continued to act, or had soon acted in such a manner, as to gird the inverted uterus so firmly, that it could not be moved."

This case was certainly an instance of a complete inversion of the uterus; which in itself presents, as we believe, insuperable difficulties to reduction, be it managed with what skill it may. We read of successful efforts of this kind, where the in-

* I say, "perhaps," because I cannot speak more positively upon a subject where my experience is so limited. The propriety of this practice I wish to leave to farther observation; for, having met with but four cases of "inversion," I think that number inadequate to establish the best mode of practice.

† Gardien, however, says, that authors insist upon restoring the fundus of the uterus immediately, from a belief, that if this moment be lost, the restoration will be impossible, or extremely difficult. Experience, however, he says, teaches us, on the contrary, that the reduction is easier at the end of some days, than at the end of some hours. Baudelocque gives an account of the wife of a vine dresser, whose uterus Mr. Ané was able to reduce at the end of eight days. Gardien, vol. iii. p. 313. This must be a rare exception.

version was said to be complete; but from what we have seen, and from all we can *think* upon this subject, we are certain that there has been some mistake. We will give our reasons for this belief. 1st. In the complete inversion, the neck of the uterus and os uteri reduce themselves, in the course of a short time, to near their natural size; while the fundus and body must, for a long time, remain of an augmented size. 2d. While the parts bear this proportion to each other, it is impossible that the one shall be made to pass through the other; because there is no method to diminish the size of the body and fundus to the capacity of the os uteri; nor so to dilate the os uteri, that it shall permit the fundus and body to pass through it. 3d. Force must be applied to the apex of the fundus, with a view to make it pass the os uteri; but that force, however gently and judiciously applied, must be sufficient to overcome the resistance; which resistance must necessarily be sustained by this organ at its union with the vagina; and if so much be employed, sa will carry the fundus *to the os uteri*, it will certainly require much more to make it *pass through the os uteri;* for this part is in a state of contraction, or perhaps almost natural repose; consequently, it is very small, and very unyielding; and if an attempt be made to force it, the power it would require to do so, would be every way sufficient to destroy the connexion between the uterus and vagina.

Mr. Newnham, who has written a work expressly on this subject, and who has displayed much patient research in the investigation of this disease, has fallen into precisely the same error that all have, who talk of the complete inversion of the uterus, and its reduction.* In his directions for the reduction of the fundus, (which, by the by, can never be put exactly in practice, and which he will find, if he ever try it,) he says, "it is here to be remembered, that the cervix uteri is constricted around the neck of the tumour," (p. 16,) a proof that the uterus is but partially inverted. For when it is complete, every portion of the uterus has passed through the os uteri, and

* It is a little remarkable, that Mr. Newnham should have given so vague a direction on this subject; as he appears to be aware, in other parts of his work, that in *complete inversion*, the neck of the uterus cannot be felt.

which now looks into the abdomen, and consequently there is no portion of this body, or its neck, to be constricted; therefore, this constriction can only exist while there is still a portion of the uterus to pass through the os uteri, and so long as this is the case, the uterus is only partially inverted. We must not then take our distinction of complete inversion from the fundus descending very low, or even passing through the os externum.*

This account of the impracticability of restoring the fundus when the inversion is complete, is in strict conformity with my own experience of this accident. For the natural tendency of the neck of the uterus is to contract; and it does so, and in such a manner as to increase the size of the inverted body and fundus: for the whole tissue of this organ becomes engorged with fluids soon after its precipitation, which continues to augment for some days, and occasionally it amounts to inflammation, which also increases its sensibility as well as its bulk. Now, during the whole of this time, no attempt should be made at reduction.

It is said, the uterus has been reinstated after "complete inversion;" but of this we may justly entertain strong doubts; for the one recorded by Mr. White, purporting to be of this kind, was certainly not one of "complete inversion." In Mr. White's patient, we recognise nothing more than a partial inversion, as the symptoms declare. Mr. W. says, he saw the patient about an hour after the accident, and "found the uterus of the size of a large new-born infant's head, *totally inverted.*" Yet he declares the woman "was in great pain, and had lost much blood," neither of which circumstances attends complete inversion; for it seems to be agreed, that there is not much hemorrhage at this time; and I know that pain immediately ceases when it becomes complete, as I shall state presently.

This patient "was very faint, and no pulse could be felt in either arm;" a condition which constantly attends the partial inversion; especially, when the mouth of the uterus contracts firmly upon the body, producing a strangulation of the uterus; which was precisely the situation of Mr. W.'s patient; for he

* Newnham, p. 3, makes this a part of his definition.

declares, "the neck was a little contracted." Now, it must be obvious, upon a moment's reflection, that, if the inversion were complete, there is no mouth of the uterus to feel; for this part is now offering its opening in the abdomen, and not tangible by the finger. See case second.

There is a condition of even a partial inversion, where it is as certainly impossible to restore the fundus, as if the inversion were complete; and this is when the fundus and a part of the body have passed the os uteri, and the latter contracts firmly, "so as," as Dr. Denman expresses it, "to gird the inverted uterus firmly, that it cannot be moved." When this happens, the stricture occasioned by the contracting mouth, is so firm and resisting, that a finger cannot be placed between its edge and the confined uterus. Here I believe it is impossible to pass the fundus, at least at this time, as the constriction will not yield. Yet, we confess, the opinion of Gardien and others is against us in this respect. Gardien says, that "the reduction may even take place spontaneously, though the uterus has been inverted for a long time. He declares there are instances, where this has taken place after the inversion has existed a month." We must believe that this has happened, because it is asserted by such good authority; yet it is not mentioned, so far as we know, by any British writer: certain it is, we have never witnessed such, we were going to say, a miracle; nor, do we ever expect to do so.

Indeed, we would wish to warn the young practitioner against entertaining any such hopes, if any such suggest themselves; for cases like these must be most rare. It is true, when reduction is impracticable, we have no alternative but to commit the case to nature, and to sustain the woman's constitution by tonics, &c. And should the reduction take place ad interim, it would be most fortunate for the woman, however unexpected it might be.

This variety of partial inversion, produces the most terrible and alarming symptoms imaginable; pain, faintness, vomiting, delirium, cold sweats, extinct pulse, convulsions, and, if not speedily relieved, death. Under such sufferings, where all chance of restoration is at an end, I have advised, with a view to terminate such severity of suffering, and to preserve life,

the drawing down of the fundus and body, so as to complete the inversion. Should the placenta be attached, it must be carefully separated before we draw down the fundus.

The propriety and safety of this plan, are, it must be confessed, predicated upon the happy result of a solitary case; but, from its entire and speedy success in that instance, it is rendered more than probable that it will be of equal advantage, if employed in others. "All reasoning upon the subject," is certainly in its favour; and experience, so far as a single case may be entitled such, is equally so.

Should the practitioner, however, be so fortunate as to meet with a case where the mouth did not confine the protruded part, he should attempt restoration, however large a portion of the uterus may have passed through, by gently, but firmly compressing it, so as to reduce its size; having first removed the placenta, if not previously done, and urging the prolapsed part upward in the axis of the os uteri. In such a case, perseverance may, I am willing to admit, do much; it ought most certainly to be tried, if there be the smallest chance of success.

In a case which recently presented itself, I found the uterus entirely inverted. The woman was nearly exhausted from a hemorrhage of two days' standing, but which did not commence till some hours after the delivery. The physician who was sent for succeeded in arresting the bleeding, or at least to moderate it very much for some hours. At the end of this period he was suddenly sent for, and told that something had escaped from the external parts, which, upon examination, was found to be the uterus inverted. I was now sent for; and found the uterus as had been represented. By gently and perseveringly pressing the tumour for some time, I made it pass into the vagina. I now attempted reduction, but without the smallest prospect of success, by placing the ball of my thumb against the centre of the prolapsed fundus, and making with it a gentle pressure in the axis of the uterus; and succeeded in forming an indenture of an inch, but could not gain any other advantage, though I persevered for a considerable length of time; at least long enough to convince me that I should not

succeed by farther efforts. The woman died in about twelve or fourteen hours after, from exhaustion.

This chance, however, should be clearly ascertained, by carefully examining the condition of the constricting part; if it be soft and yielding, a hope may be indulged that the resistance may, by proper proceeding, be overcome. If this friendly condition of the mouth obtain, there will be, beside this pliant disposition of the os uteri, an absence of all, or nearly all of the terrible symptoms just enumerated; but, if he cannot find the mouth of the uterus by a careful examination after the placenta is removed, and if there should be an absence of the train of appalling symptoms above named, he should desist at once from every attempt at reduction, as his efforts will not be attended by success, and the continuance of them will not only give his unhappy patient much unnecessary pain, but will hasten her death.

The mode to be pursued, when it is necessary to complete the inversion, is simply to place the woman upon her back near the edge of the bed; and have her legs supported by proper assistants: the hand is to be introduced along the inferior part of the vagina, but sufficiently high to seize the uterus pretty firmly; it is then to be drawn gently and steadily downward and outward, until the inversion is completed; this will be known by a kind of jerk announcing the passing of the confined part through the stricture. Traction should now cease, and the part be carefully examined; if the inversion be complete, the mouth of the uterus will no longer be felt, and there will be an immediate cessation of pain, and the other distressing sensations.

The situation of the uterus, is the very reverse of what it was a short time before; the internal face of it is now the external, while the external or peritoneal surface has become the internal, or the uterine cavity. It is probable that the ovaries, tubes, and broad ligaments will be included in this space. Dr. Denman informs us these surfaces do not coalesce. The woman may menstruate from the now external surface.

*Case First.*

On the 2d of July, 1807, at ten o'clock, A. M., I was called to the wife of Samuel N——, in labour with her first child.

Her pains were weak and irregular, but pretty frequent; presentation perfectly natural. As every thing appeared promising, I left her to the care of her midwife. At four o'clock, P. M., she was suddenly delivered—considerable hemorrhage with faintings followed. I was again sent for, but did not see her until six o'clock, as she lived at some distance from the city. I found her without pulse, cold, and covered with perspiration; with laborious and hurried breathing; the placenta not delivered, and the hemorrhage continuing. I ordered her such remedies as appeared most pressingly indicated, and immediately examined her per vaginam. I found the placenta just within reach of the finger, and attempted to withdraw it, but it gave great resistance and extreme pain. I now introduced my hand, and found a tumour, resembling, in shape and size, the indentation at the bottom of the common black bottle, over which the placenta was spread. This case was perfectly new to me, although I strongly suspected the nature of the disease. I searched for the detached portion of the placenta, from whence the flooding proceeded, and carefully detached this mass from the tumour; I then endeavoured to push up this body, but quickly desisted, from the extreme pain it occasioned, and the uncertainty that it was the best mode of proceeding to procure relief.* My patient died in half an hour.

I obtained leave to inspect the body, and Dr. Rush very kindly accompanied me. It proved, as I had previously suspected, to be a partial inversion of the uterus. I dissected out the uterus, which was still so flaccid, as to be turned inside out with as much facility as a soaked bladder. The fundus dipped into the body of the uterus about three inches.

*Case Second.*

On Friday, 24th March, 1808, at half past five o'clock in the morning, Mrs. P. was delivered of a living child; her waters

* I had had at this time a large share of obstetrical experience; yet, until that moment, I had not encountered a case of inversion. The novelty of the case, the extreme danger of my patient, and the great pain the attempt at reduction gave, rendered me less enterprising than I should now be. The horror of having a patient die while you are operating, can more readily be conceived than described; and the paralyzing effect of such apprehension, can only be known to those who have experienced it.

discharged themselves six or seven hours previously, and before her midwife was called. The placenta came away spontaneously, as the midwife asserted, and to which the patient herself agreed; its expulsion was attended with great pain and great flooding; she vomited severely for an hour, and several times fainted without an abatement of the discharge. This, however, was eventually moderated by the acetate of lead, and perhaps contraction of the uterus itself.

After this, she continued pretty tranquil, but weak, until Sunday morning, when there was a renewal of the hemorrhage, with pains resembling those of labour. These ceased in the afternoon; but she became more alarmingly ill. She now fainted frequently, and the discharge continued. In this way she kept until Tuesday, at which time I was called, at the desire of Dr. Atlee, whose patient she now was. The doctor suspected the true state of this woman's case, and mentioned his opinion to me, to which at first I could scarcely assent, as almost all the cases I had ever heard or read of, as well as I recollected, had soon proved fatal; and the case I had witnessed a few months before, but served to make me doubt the doctor's representation, or rather opinion. Here, if his judgment were correct, was an instance of inverted uterus of four days' standing; a case giving contradiction to all I had heard or believed on the subject.* I however visited the patient by appointment, and found her almost exhausted; her pulse so frequent as not to be numbered, and so small as scarcely to be perceived; had great difficulty of breathing, and became faint on the least motion; insatiable thirst, frequent vomiting, cold extremities, and a continuance of uterine discharge. I examined her, and found, as Dr. Atlee had declared, the uterus to be inverted. The fundus

* Since writing the above, I have strong reason to believe, that the inversion did not take place until the morning, namely Sunday, on which there was a renewal of the flooding, and the occurrence of pains resembling labour; as at this time, the uterus suffered a universal atony.

At the time alluded to, from my recollections of the opinions of others upon this subject, and the fatal case I had recently witnessed, my mind was disposed to doubt the existence of this disease, especially of several days' continuance. Farther experience, and refreshing my memory immediately after upon the subject, by reconsulting authorities, has of course altered the views I then had of its immediate fatality.

was down at the os externum, and could readily be seen partially covered with a thin coagulum of blood, when the labia were separated. The places not hid by this coagulum, were rough or spongy, and of a dark brown colour.

A very dreary prospect presented itself, by ascertaining this poor woman's situation; we believed death to be inevitable. But one resource offered itself, namely, to attempt the reduction of the fundus, hoping, as the uterus had not escaped from the vagina, the inversion might not be so complete, as to render this impossible. We accordingly proposed this attempt to the husband and friends of our patient, candidly stating her situation, and the almost certain result, if relief was not obtained in this way. They without hesitation submitted the case to our management.

We carefully drew her to the side of the bed, and had the knees drawn up and supported. I gently introduced my hand under the tumour, and gradually raised it; this gave me sufficient room to examine the nature and extent of the inversion. The instant I raised the womb, there was a large and sudden discharge of urine; this gave still more freedom to an examination, that was to terminate in the disappointment of my hope of the reduction of the fundus. I found so much of it had passed through the mouth of the uterus, as to render any attempt at reduction futile, and the more especially, as the tumour was augmented by its having swelled since its prolapsus. The stricture occasioned by the contracted mouth was readily felt, and was very strict. I was extremely perplexed for the moment how to proceed, or to announce the failure of an attempt, that alone, at first sight, appeared to promise success or even relief, but it fortunately occurred to me, before I withdrew my hand, that I might take off the stricture by inverting the uterus completely. Agreeably to this suggestion, I grasped the tumour firmly, and drew it pretty forcibly towards me, and thus happily succeeded in slipping the remaining portion through the constricting mouth. The woman was almost instantly relieved from much of the anxiety and faintness she had before experienced; but as she was so exhausted by previous sufferings and discharges, and as the internal surface of the uterus was now exposed to the influence of the external air, I was prevented from feeling

or giving the slightest encouragement of recovery to her friends; but fortunately the event proved how groundless were my fears, for from this day she rapidly recovered, without another alarming or troublesome symptom.

Milk was freely secreted on the fourth day after, and continued freely. Our patient was twenty-three years of age, delicate, but always healthy, but more especially so during her pregnancy.

I visited this patient to day, November 26, 1808, and found her at the wash-tub, perfectly well; suffers no inconvenience whatever from the uterus; menstruated regularly for three periods; had more or less discharge of mucus tinged with blood for four months; this last four months has had no discharge of any kind; suckles her child, which is remarkably thriving. The uterus is so much contracted, as to be no longer within reach of the finger.*

*Case Third.*

On the 23d of November, 1808, Mrs. G—— was suddenly delivered of a large female child, which breathed and cried freely immediately after its birth. The funis was not cut until after the pulsation in the cord had entirely ceased, which was in about ten minutes. After the child was taken away, I took hold of the cord, and merely tightened it, on which she begged me to wait, as it gave great pain. I, however, traced the cord to the vagina, and found at the os externum a placenta I thought unusually dense and large. On gently attempting to withdraw it, as I thought it loose in the vagina, I found uncommon resistance, which I attributed to its bulk, and desisted from further effort, hoping the uterus would, by contracting, push it

* I was this day (June 1, 1810) called to Mrs. P., on account of indisposition. She gave the following account of her situation: "She had been pretty regular ever since last report, but for the last few periods it has been more abundant, and is sometimes accompanied by the discharge of coagula: it continues longer than formerly; and, when it ceases, it is followed by profuse fluor albus." I saw Mrs. P. again in April, 1818, and found her enjoying a very fair proportion of health—the catamenial discharges had ceased for the last five years, and she has been a widow several years past. She has never been impregnated since her accident.

completely down. In this I was disappointed;—some hemorrhage ensued. I now expected a more than common cause detained the placenta in the vagina, and began a more minute examination. I pierced the substance of the placenta with the fore finger of my left hand, and tightened the cord with my right; beneath the placenta I perceived a round hard substance, which I but too quickly discovered to be the fundus of the uterus inverted. I immediately introduced my hand into the vagina, and found the detached edge of the placenta from which the discharge proceeded. I carefully separated the whole of this mass, and withdrew it from the pelvis without the least difficulty. A considerable flooding ensued.

As Mrs. N——'s case (case first) gave me a complete insight of the mechanism of this displacement of the fundus of the uterus, and as I had resolved to attempt its reduction if ever an opportunity again offered, I instantly, after withdrawing the placenta, introduced my hand, and pressed the prolapsed fundus firmly with the back of my fingers, and carried it upwards in the direction of the axis of the uterus, and in less than half a minute, succeeded completely in restoring it. Mrs. G—— has not had a single unpleasant symptom.

*Case Fourth.*

Mrs. G—— was delivered on the 25th of December, 1808, at six o'clock, P. M., after a labour of some hours, of her first child. The placenta was extracted in about fifteen minutes, without force. There was some hemorrhage, and considerable pain. She was put to bed, and became very faint, and complained of great pain, which was occasionally augmented. She continued in this way, only gradually becoming worse, until nine o'clock, at which time I was sent for.

I found her with a small frequent pulse, great anxiety, extremely pale and cadaverous, and in a profuse cold sweat. I inquired respecting the flooding; but this did not appear to be sufficient to account for her present situation. I immediately suspected a partial inversion of the uterus, and thought proper to apprize her friends of the probable cause of her distress and danger, and of the possible result of it. Every thing was

left to my management. I immediately after examined her per vaginam, and found my conjecture true.

The uterus was found inverted, and its fundus was just within the os externum. I was much alarmed for my patient, as three hours or rather more had elapsed between the time of her delivery and my being called; she was much exhausted, and in extreme agony. I quickly introduced my left hand into the vagina, and applied the back of my fingers firmly against the tumour, while I moderated its influence in carrying the uterus directly up through the pelvis, by having a gentle pressure made upon the abdomen above it. The tumour soon began to yield, and in about two minutes the fundus was completely restored.

On the third day after, my patient complained of a severe pain in the right side, just above the ilium, for which I bled her freely, and purged her briskly. Nothing unpleasant supervened; she might be said to have had a good getting up.

## CHAPTER XI.

### CHRONIC INVERSION OF THE UTERUS.

The consequences following an inversion, are not by any means trifling, should the woman escape with life. She will necessarily remain for a long time weak, not only from what she has already suffered from pain, but also from the loss of blood which attended the acute stage of the inversion. She will be liable, for a long time, to a sanguineous discharge from the surface of the uterus, as well as to a leucorrhœal one from the vagina. In consequence of which she may become hectical, and die from exhaustion. Much care is required on the part of the woman, that she may not even suffer much from the want of cleanliness.

It will be seen by case second, that the catamenial discharge may continue with perfect regularity for some time; and it may then cease, and does so, most probably, from the influence of the external air upon the body and fundus of the inverted uterus, altering the secreting surface of this organ.

Astringent injections have been recommended, and have been found useful; more, perhaps, from deterging the parts, than from any other influence. They should, however, always be employed; or at least injections of some kind should be regularly persevered in, so long as the discharge shall be too abundant.

A remarkable circumstance attends the inversion of the uterus, which is, that it disqualifies the woman for conception, at least for a uterine one; if she can conceive at all. This, however, appears as it should be; and must be considered as an act of great beneficence on the part of the Creator: for, did the woman conceive, to what misery would she be doomed at its completion. I know of no instance upon record, where impregnation has taken place after an inversion of the uterus.

Gardien observes, "les femmes dont la matrice n'a pas été reduite dans les premiers temps sont probablement inhabiles à la conception: cependant, une observation communiquée au professeur Baudelocque par M. Chevreul, médicin d'Angers, semblerait indiquer que la conception peut encore s'opérer dans l'une des trompes dont les extrémités utérines s'ouvrent dans le vagin." Vol. iii. p. 312. This observation is so unsatisfactory, for want of more detail, that it would not, perhaps, be safe to consider it, even in his opinion, as an instance of conception, after the inversion of the uterus. Besides, he has not indicated from whence he derived the case, that more light might be received on this point.

A woman who has an unreduced uterus, does not necessarily die suddenly, or even eventually from this cause; since, a few rare cases are upon record, where, after such an accident, they have enjoyed, for some time, a tolerable share of health: this was the case with Mrs. P., case second, the only one which has occurred in my practice, of an unrestored uterus after inversion. I have seen altogether but six cases; two of which

were fatal; one, to this moment, remains inverted; and the other three were reduced pretty soon after the accident.

The fatal termination of this disease in a vast majority of cases, seems, however, to be rather the result of improper treatment, than the necessary consequence of the accident itself. From what we have experienced of this complaint, much is in the power of the practitioner, if he be well instructed in the nature of the complaint, to prevent a fatal, or even a hazardous termination: for the disease is not necessarily fatal.

Experience sufficiently proves, that in by far the greater number of instances, the uterus may be restored, if the proper moment be seized, and the operation be properly conducted; for, certain it is, that the complete inversion rarely takes place at once, unless where it is produced by some improper manœuvre executed upon the placenta; a circumstance, which cannot well happen in the hands of a judicious practitioner. Though we must admit, that inversion may happen in the hands of the best instructed and most careful persons, as they cannot foresee, or prevent always that condition of the uterus which gives rise to the disease, yet the accident, and its fatal consequences, will be comparatively rare with them. And when it does occur in such hands, it will almost always be a manageable disease, as it will be discovered, before the fundus and body have entirely escaped through the os uteri, to constitute the complete inversion; in which case it will be rarely otherwise than reducible.

And when not reducible, though the inversion be not complete, as will occasionally happen, immediate death may perhaps be prevented, by the plan just proposed; namely, by making it complete.

When the inversion cannot be, or has not been reduced, the woman may die suddenly, or in a short time, from the profuseness of the discharge; or she may linger out a miserable existence for years. Sufferings, both severe and long continued, await the woman who has an unreduced uterus; her life is that of misery and wretchedness; which augment in proportion to her incapacity to support them. Under such circumstances, it is justifiable to attempt almost any thing which

would promise relief. Hence, it has been proposed to remove the pendant uterus, by excision, or by ligature.

The extirpation of the uterus is not a novel proposition; it has been frequently performed, and with perhaps a fair proportion of success; at least as far as can be determined by the histories of cases purporting to be of this kind. For the inverted uterus, and a polypus of this organ, may readily be confounded, and the mistake either way, may give rise to very different results.

The diagnostics of the inverted uterus, and a polypus of this organ, as laid down by writers, are both vague and discrepant. This has created no small embarrassment and uncertainty in the surgeon, who is about to undertake the removal of the tumour occupying the vagina, since he cannot satisfy himself of the real nature of the disease he has to contend with.

Mr. Newnham appears to have felt all this uncertainty in its fullest force, when he was about to apply the ligature on his patient, and makes it the basis of his essay upon "inversio uteri." To aid his judgment in this interesting case, he laboriously consulted almost all the authorities extant; and, after carefully collating their opinions, he reduces them to the following statement.

"It is generally remarked, that *inversio uteri* may be distinguished from polypus of that organ, by the *os uteri not encircling the former tumour in cases of complete inversion; and by the impossibility of passing the finger around the neck of the tumour, between it and the os uteri, where the inversion has been only partial;* by *the form of the tumour, polypus* being *broad at its base*, and attached by a *narrow peduncle*, while the *inverted uterus is broader above than below;* by the *insensibility* of the tumour in the one case, and by its extreme sensibility in the other; by the *comparative fixity* of the one tumour, and the *extensive sphere of motion* of the other; by the *rough and fungous surface* of inversio, contrasted with the *smooth and polished* surface of polypus; and by the previous history of patient's disease." "But it is clear, that these diagnostics are liable to a great degree of uncertainty," as he proves by most ample quotations.

For Mr. Newnham collected, as we have just remarked, with

great industry, nearly all that has been said upon the diagnostics of these two complaints; and from all that can be learnt from these various sources, a conclusion must be drawn, that there are none which are absolutely certain. Mr. N. says, "on reviewing the foregoing testimonies, we shall be induced to conclude, that it is *always difficult*, and *sometimes impossible*, with our present knowledge, to distinguish *partial and chronic inversion of the uterus from polypus:* since, in both diseases, the os uteri will be found encircling the summit of the tumour, and in either case, the finger may be readily passed around it. And if, in order to remove this uncertainty, the whole hand be introduced into the vagina, so as to allow the fingers to pass by the side of the tumour, to the extremity of the space remaining between it and the os uteri; and if we find that the finger *soon arrives* at this point, it will be impossible to ascertain whether it rests against a portion of the uterus, which has been inverted in the usual way, or by the *long continued dragging of polypus upon its fundus.* And if, under these embarrassing circumstances, we call to our assistance our ideas concerning the *form of polypus*, its *enlarged base, and narrow pedunc*le, we must also recollect the abundant evidence to prove, that the neck of such a tumour is often as large, and sometimes larger, than its inferior extremity; and we shall still be left in inexplicable difficulty." P. 82.

"But shall we not find some more infallible guide, in those other characteristics, which have been given as certain diagnostics? On the contrary, we shall always find it difficult to distinguish between the sensibility of the tumour, and *sensation* occurring in neighbouring viscera, which are irritated by the process of examination,—while, too, it must be remembered, that the sensibility of the inverted uterus is greatly diminished in its chronic stage, and that the sensibility of polypus may be increased by the presence of inflammatory action: we shall ascertain that the degree of apparent fixedness of the tumour, will depend upon the extent of its attachment to the uterus,—consequently, the polypus with a considerable stem, will be fully equal, if not greater, than in the inversion of the uterus, the size of which has been diminished by time, and the action of the absorbents:—that in either case, and interchangeably,

according to the different period and circumstances of the disease, the surface of the tumour may be either smooth and polished, or present a rough and fungous feel: and that with respect to the previous history of the case, it is embarrassed by the fact that polypi have been produced *in the uterus*, and have only first passed into the vagina, immediately after the expulsion of the fœtus, or of the placenta. In the case of recent inversion, the combination of some of these diagnostics may enable us to decide with accuracy on the nature of the case; but they are insufficient to guide our judgment, when we are first called to give our opinion on the disease in its chronic stage." P. 83.

The case which gave rise to the above conclusions, proved to be an inverted uterus; it was successfully removed by the ligature; and the woman was restored by the operation, to perfect health, and without the loss of those feelings, which it is thought have their origin in the ovaria: it was therefore presumed, that these bodies were not removed with the uterus; neither did they appear to be attached to the removed portion of the uterus.

The mode of applying the ligature, is not described by Mr. N.; but we presume it is precisely the same, as that recommended by Mr. Clarke for the removal of a polypus. See Chapter on Polypus.

## CHAPTER XII.

### PROLAPSUS UTERI, WHEN NOT IMPREGNATED.

Of the casualties to which the uterus is liable, few are more frequent, or more troublesome, than a prolapsus of this organ; this displacement may take place at almost any period of female life; we have witnessed it in the aged matron, and we have prescribed for it in the youthful virgin.

When we consider how imperfectly the ligaments attached to the uterus sustain it in situ; and when we reflect upon the debilitating discharges from the vagina, sapping as it were the very foundation of its support, we need not be surprised at the frequency, and sometimes the inveteracy of this distressing complaint. Fluor albus may be considered as one of the most frequent causes of prolapsus; it produces it by relaxing the vagina, and making it yield to the weight of the superincumbent uterus, and the impulses of the abdominal viscera. I have already remarked, that neither the broad nor the round ligaments, were calculated to sustain the uterus in its natural position; if this be so, we must look to some other part for the support of this organ—and this is the vagina itself; this office of the vagina we may deduce from the manner in which it is united to the uterus, and the mode in which that canal is joined to the rectum and bladder. The whole of this arrangement gives at once the idea, that the vagina is the efficient support of the uterus—it then follows, that whatever is capable of weakening the foundation, will tend to injure the superstructure: hence, leucorrhœa; frequent deliveries; too early rising after delivery; very large children; very large pelves; habitual coughs; severe pukings, and ill conducted instrumental deliveries, may all tend to this end, by destroying the natural tone of this part, either by the debilitating effects of an immoderate discharge, or by overstretching; thus preventing a return of its natural firmness, and resiliency; or by the frequently repeated concussions this part must suffer, from the abdominal viscera, by coughing and vomiting.

The degree of precipitation to which the uterus may be subject, will depend upon the extent of injury the vagina may have sustained from the causes above enumerated, and this will vary, from a slight depression, to an entire displacement; so that in some cases it will be but barely within the os externum, and in others it will be without it, as observed above.

The symptoms which characterize this complaint, will be modified by the greater or less descent of the uterus in the vagina—they will be intense in proportion (cæteris paribus) to the extent of the displacement; if we except the last as before noticed: but in all there will be a sense of something sinking

in the vagina, as if the perinæum were sustaining an unusual weight; with a dragging sensation about the hips and loins; a desire to make water, sometimes without the ability; and, when it does pass, it is reluctantly; and oftentimes painfully hot—a sense of faintness, and occasionally a number of nervous or hysterical feelings and alarms, which almost overwhelm the patient. A pressure, and a feeling about the rectum resembling a slight tenesmus, sometimes importunately demand the patient's attention, which, if she obey, almost always end in unavailing efforts. The pain in the back is sometimes extremely distressing while the patient is on her feet; and gives to her walk the appearance of great weakness in her lower extremities. A benumbing sensation shoots down the thighs; especially, when the woman first rises upon her feet; or when she changes this position for a horizontal one. In some few instances, the woman is obliged to throw her body very much in advance; or she is obliged to support herself by placing her hands upon her thighs when she attempts to walk. But all these unpleasant symptoms subside almost immediately, by the woman placing herself in a recumbent posture.

In addition to the inconveniences we have just stated, there is always a discharge of more or less matter, of a purulent appearance, from the vagina; this, in severe cases, is frequently tinged with blood, and is occasionally offensive. In addition to this, we often find the menstrual discharge also suffers some derangement: it is almost always more abundant, and sometimes more frequent, than it should be,—this, with the accompanying leucorrhœa, very often reduces the woman's strength to a very low ebb; and, if not relieved, entails upon her permanent ill health.

In married women, this complaint is readily detected, when excessive, from the severe pain that coition is sure almost always to inflict; and this becomes oftentimes one of the most powerful inducements to apply for relief.

Notwithstanding the diagnostics of this complaint are so strongly and decidedly marked, yet they are not sufficiently so to warrant us in taking it for granted: we should never, but from a careful examination, pronounce this complaint positively present, lest we may be in error, as once happened to

myself. I was consulted by a lady who had almost every symptom recorded above; I pronounced her disease to be a prolapsus of the uterus, and, without examination per vaginam, had a pessary made for its support—but, to my sad mortification, when I was about to apply it, a careful examination proved that no such condition existed, and that all the unpleasant symptoms had arisen from a thickening of the neck of the bladder.

A pessary of proper construction, is the only efficient remedy for this complaint—it should be as well fitted to the parts as the nature of things will permit; for much depends upon its proper adjustment. The one I prefer I have given a drawing of; and it is to be considered as a modification of the circular elastic gum pessary, or rather of that of Levret. I made the alteration many years ago, and I have every reason to be satisfied with it. It is made of silver, strongly gilt; it is hollow, and pierced with a hole, of only sufficient size to permit the escape of the discharges incident to the parts. I have three different sizes, one larger than the one of which a drawing is given, and one smaller—the medium size is most frequently required. The difference in size, is only one eighth of an inch; either in addition or in reduction. See Plate XI.

When this is to be placed, care should be taken that the woman's bowels shall have been freely opened, and her urine passed; and also that she should have kept her bed for an hour or two previously to the operation. She must be placed perfectly horizontally on the bed, and near its edge—the parts lubricated, as well as the instrument, with hog's lard; the labia must be separated by a couple of fingers, one placed on each labium,* and the pessary then pressed gently, but firmly, against the os externum, directing the force downwards towards the internal face of the perinæum, and backwards in the direction of the vagina; but in such manner, as shall make the introduced edge look towards one of the sacro-iliac junctions.† We continue to press the instrument forwards in the course

*It is generally best to use the left hand for this purpose. See note following.

†It will generally be found most convenient for the operator, to have the right side of his patient next to him; as in this position, he will command the introduction of the pessary with his right hand.

just pointed out, until the whole is received into the vagina. Then the finger must give it a transverse direction; or, in other words, the breadth of the pessary must correspond with the small diameter of the inferior strait—this is easily effected: and we can judge whether it be well placed, by feeling for the hole in its centre, which must always correspond with the axis of the os externum.

The next consideration is to ascertain whether the neck of the uterus is placed in the excavation in the instrument; (for it must be remembered, it should be introduced, so as its hollow shall look upwards;) this may be known by passing the finger over the edge which is under the symphysis pubis, and depressing it a little; the finger will then readily detect the position of the neck of the uterus; and, should it not be found in the centre of the pessary, it can readily be drawn there by the extremity of the finger. When this is adjusted, we take care that the transverse position of the instrument be correct, before we withdraw the finger; the woman may now be permitted to get up.

A proper size of the instrument is a matter of considerable consequence; and we cannot always determine à priori which of the sizes will answer best—if it be too large, it will give pain; and if too small, it will escape, perhaps, on the first effort to go to stool—we can ascertain when too large, by its producing uneasiness in the parts; should this happen, it must be removed, and one of smaller size introduced. And for fear the instrument be too small, we should direct the patient not to go to the privy, for a day or two, lest it escape from her, and be lost.

The relief, in many instances, is immediate; but if not, it is almost always secured, if the instrument be of a proper size, and well adjusted. It may be proper to remark, that the pessary will do no good, where the perinæum has been destroyed by laceration.

Before I employ the pessary, I always make use of astringent injections for two or three weeks, with very decided advantage—the best perhaps is a solution of alum in the proportion of a half ounce to a pint of water; and after the instrument is adjusted, a few syringes full of fine soap and water should be

thrown up daily—if the gilt pessary be employed, it will need removal but very rarely; not oftener than once in two, or perhaps three months; this gives it a very decided advantage over every other. The period it must be worn, must necessarily depend upon, 1st. The inveteracy of the disease; 2d. The extent of the displacement; 3d. The employment of the patient; 4th. The greater or less disposition to fluor albus. As a general rule with young women, where the complaint has not been of long standing, from three to four months will be sufficient—it will of course require a longer time, where the woman is aged, and where the complaint is of long standing—one of my patients wore the instrument a year; but this was the longest time I have known it to be required.

Besides the inconveniences just related, this condition of the uterus gives rise to a fixed pain in one of the sides, but especially the left, which bids defiance to all general, as well as local applications, hitherto employed for its removal.

In the complaint now alluded to, and which we shall exemplify by cases, no suspicion was entertained by the practitioners, who had previously had the care of them, that it depended upon the prolapsed condition of the womb; and it is but a few years since I was myself aware of it. But as this complaint is more common than is generally suspected; and as it cannot be removed, so far as I know, but by the use of the pessary; and especially, as I have, since the publication of the cases about to follow, received various communications and thanks for their promulgation, I have thought it proper to detail them in this place, that the attention of practitioners may be directed to the consideration of it.

Case I. Mrs. T. aged thirty-six years, applied for my advice for a severe pain in the left side, immediately under the margin of the false ribs, extending to the spine of the ileum of the same side. She informed me she had had this for several years with more or less severity, and for which she had undergone severe medical treatment, such as bleeding, purging, blistering, leeching, &c. without the slightest benefit. The pain was not increased by respiration, pressure, or motion, but some relief was constantly experienced upon lying down, and espe-

cially as the night advanced. She could lie in any position without any increase of inconvenience, but felt most comfortable in a bent posture.

I prescribed for her a variety of medicines, with no better success than those who preceded me, and began seriously to despair of being any way useful to her; when, thinking the leucorrhœa, with which she was severely afflicted, might have some agency in weakening her; and believing this, from the description of her feelings, to arise from a prolapsed uterus, I mentioned my suspicions to her, and stated the propriety of an examination to ascertain the fact.—To this she submitted, and the uterus was found low in the vagina.

I ordered her some astringent injections, as I always do in cases of prolapsus, which were persevered in for three weeks, with as much advantage as I contemplated—for the only benefit I expected from them, was to give a temporary tone to the vagina, before I should introduce a pessary.

At the end of three weeks, I introduced a gilt pessary, and desired my patient to place herself upon her feet—this she did, and declared she felt much more comfortable than she was wont to do when she arose from her bed; and observed, that for the first time for several years, she was free from the pain in her side. Believing this to be only accidental, I paid but little attention to the declaration at the moment—but upon my visiting her the next day, she assured me she had had no return of it whatever, nor has she had to this moment.

This case made a strong impression upon me, especially as I could call to mind several similar affections of the side, in which I had failed to give relief, and made me determine, should another case of painful side occur, to inquire immediately into the state of the uterus. It was not long before this opportunity presented itself, in a lady from the West Indies.

Case II. Mrs. D. had for several years, (five,) been much afflicted by a train of severe nervous affections—she would, frequently, from the slightest causes, be thrown into violent hysterical paroxysms, which required considerable time to calm. She had a fixed pain in the left side, which would occasionally appear to swell, and become extremely painful to the touch—when this took place, she was almost certain that hysteria

would follow. Her appetite was good, but her stomach could only digest certain articles—her bowels were constipated, and she had a profuse leucorrhœa of a purulent appearance. She was considerably reduced in flesh, and much debilitated.

She had tried a variety of remedies in the West Indies for the local affection of the side—she had been repeatedly bled and blistered, without the smallest advantage—took mercury to a considerable extent—was freely purged and puked—but all to no purpose. When the pain was unusually severe, it was considered as spasm of the stomach. From the detail of her symptoms, I was led, however, to suspect a prolapsus of the uterus, and inquired whether that opinion had been given by her physicians at home—but she said it never had been suggested; it was considered as an affection of the stomach altogether, and all remedies were addressed to it, either directly or indirectly.

I proposed an examination per vaginam, to which she very reluctantly consented—but that examination confirmed my first suspicion of her case. I ordered her the tincture of cantharides, and some astringent injections—also, small, but daily doses of rhubarb; and continued this plan for nearly three weeks. At the end of this time I placed the pessary. She was almost instantly relieved from the usual symptoms attending a prolapsed uterus, and also the afflicting pain in her left side.

Experiencing such immediate relief, and the almost total exemption from her nervous feelings, she became careless, and allowed her bowels to become, as they were wont to be, excessively costive; and in an effort to relieve herself, she discharged the pessary. This accident she concealed from her friends, until a recurrence of all her former inconveniences and pain, forced her to a confession of it. I was immediately sent for; and the loss of the pessary made known to me. I replaced it, and she again was restored to comfort; and now, is in the most perfect health. She is no longer troubled with hysteria—palpitation of the heart—or any of her former nervous sensations. She can eat without selection, and her bowels are perfectly regular.

Case III. I was requested to visit Mrs. P. who was represented to be suffering very much from an habitual colic. Not

being well, my friend, Dr. Knight, kindly visited her for me, and prescribed a dose of laudanum. &c. which procured her a tolerably good night's rest. I saw her the next morning, and found her under the distressing after effects of laudanum, but comparatively easy. She gave the following history of her complaint. She was attacked about twelve years ago with a pain in her left side, which was occasionally so severe as to produce hysteria, and other disagreeable nervous affections. The pain was not augmented by pressure, cough, or respiration. She would swell, sometimes very suddenly, and then the pain was increased. She was much incommoded by exercise, or long standing, and if either were continued too long, she would become faint, and much pained. When this took place, she would be obliged to go to bed, take laudanum, and be unable to rise for several days together. She had leucorrhœa to a great extent—was much debilitated—extremely pale—her appetite feeble—and her digestion bad.

She was much afflicted with headach, and pain in her back—also with a severe numbness down the thighs, after standing awhile upon her feet. She had tried a great many remedies for the period above stated, and she considered herself growing worse daily.

Suspecting a prolapsus of the uterus, as the cause of her complaints, I proposed to ascertain it, to which she readily consented. The uterus was found very low; the os uteri could be felt just within the labia. I procured a pessary, and introduced it immediately, without any previous preparation, as she was obliged to go to New-York, her place of abode, the next day. She was instantly relieved by the pessary, and declared herself, in five minutes after its application, to be perfectly free from all pain and inconvenience.

Case IV. Mrs. L. a very delicate woman, aged twenty-eight, after a premature labour, attended with a great expenditure of blood, was attacked with a severe cough, which seemed to threaten phthisis. She was, however, relieved by a persevering use of remedies, and change of air, of her cough, but there remained a fixed pain in her left side, together with a sense of bearing down in the pelvis, and a strong desire to make water, whenever she stood upon her feet. I was con-

vinced she laboured under a prolapsus, and mentioned this opinion to her friends. She would not, however, submit to having it tested, but permitted an old nurse to prescribe leeching to her side, followed by blistering. She experienced no advantage from these remedies, and was at length prevailed upon to allow an examination per vaginam.

I was again requested to visit her, and to make the proposed search—this proved the uterus prolapsed. After due preparation, as above suggested, I applied the pessary, and she was immediately relieved, and continues well to this moment.

These cases prove most satisfactorily, that sometimes the consequences of a prolapsed uterus are more extensive and more severe than have hitherto been suspected; and also teach us, under circumstances like those above detailed, to make the necessary inquiries into the condition of the uterus. I will not pretend to account for this pain in the left side from this cause, nor decide that this is invariably the seat of this sympathetic affection; since my experience is not sufficiently ample to warrant such a deduction; I can only say, at present, it has prevailed in four consecutive cases; but these are by no means to be considered as sufficient to establish a rule.

The pessaries I employ, are of silver, well gilt, and are made by Mr. John Rorer, surgeon's instrument maker, Philadelphia.

Since the above cases were published, a number of similar ones have occurred, of greater or less severity, all of which have been relieved in the same way. In one instance, a complete retention of urine was produced, and so permanent was it, and so often repeated, that the husband learnt the mode of introducing the catheter. The relief afforded, was instantaneous and effectual.

The circular form of the pessary I employ, I find answers perfectly, as regards its mechanical operations; it does not press too violently upon the neck of the bladder, or rectum. All that is essential to be observed, is its size; it should be neither too large nor too small. Many have preferred the oval form for the pessary; thinking it allowed more room for the neck of the bladder, and for the occasional distention of the rectum. But as we have never witnessed any advantage

from this shape, as regards the objects just stated; and as the small ends of the oval instrument are more easily acted upon, and by this means more easily displaced; we give, after many trials, the preference to the circular form. Gardien says, "le pessaire de forme ronde est plus facile à placer: il est en outre moins sujet à sorter." P. 183.

Gardien speaks of replacing the uterus, in the first and second degree, by means of the finger introduced into the vagina, and pushing up this organ; and then confining the woman for some time to a horizontal position: and after all fear of inflammation has passed, to throw up cold astringent injections into the vagina; and lays some stress upon the efficacy of sulphur waters for this purpose.

Of this plan, we can say but little from our own experience; it may succeed in certain recent cases, but must be totally inadequate to relieve prolapses of long standing. He objects to the use of pessaries, until every other means have been tried; and appears to entertain many apprehensions of the action of these instruments, which we are certain, from long experience, are ill founded, when they are properly constructed, and judiciously used.

In some cases, a subsequent pregnancy and delivery, have cured a moderate prolapsus. We have, in a number of instances, recommended this mode of cure, and sometimes it has succeeded perfectly. To be useful, however, it requires a pretty long perseverance in the plan; and to which patients will not always submit, however strongly we may urge its importance. This method requires an almost exclusive confinement to a horizontal position after delivery, for six or eight weeks: (Gardien says, four or five; but we have never seen so short a time successful,) the woman must be careful how she passes her water, or voids per anum; that is, she must not strain, or make strong efforts for these purposes.

# CHAPTER XIII.

## ON LEUCORRHŒA.

This complaint has been familiar to the practitioner from the time of Hippocrates to the present moment; yet it is not so well understood, as always to ensure to the patient a certainty of cure. Indeed, this affection even at the present day, is ranked by many, among the opprobria medicorum. Woman seems to be obnoxious to leucorrhœa in every known climate; and in all situations of life, she is more or less exposed to its occurrence. So decidedly is this the case, (at least in civilized life,) that the woman, who has not had the complaint, appears accidentally to have escaped from an impending mischief, rather than to have been constitutionally entitled to the exemption. Yet some are more obnoxious to it than others; and this difference arises principally from the following causes.

First; Original constitution or temperament; thus, women of the sanguine temperament and rigid fibre are less liable to this complaint, than those who are fair-skinned, light-haired, and of a relaxed fibre.

Second; Location, atmosphere, and occupation, will exert influences, or modify causes capable of producing it. Thus, women of high and mountainous countries, who enjoy a pure and dry air, are freer from this complaint, than those who inhabit a moist and cold climate. Those who live in the country, and from the nature of their occupations, use much exercise, and who enjoy an unconfined atmosphere, are less visited by this scourge than the indolent women of large cities; hence, women of very sedentary habits, and who indulge in luxurious idleness, are almost sure to have this complaint.

Third; Habits of life, and the quality and quantity of nourishment, will have on operation upon all constitutions or tem-

peraments. Thus, women who indulge much in bed, who keep late hours, who over-stimulate, who drink immoderately of thin unnourishing drinks, as tea and coffee; are more disposed to this discharge, than those who observe a contrary plan; those are especially liable to it, who use the warm bath too freely, or are in the habit of employing "foot-stoves." Hence, the women of Holland are particularly liable to leucorrhœa, as their climate, habits, and nourishment, all dispose to it.

Fourth; Habits of cleanliness will tend very much to preserve the parts concerned from this discharge, even of those who may be disposed to it; while the neglect of this moral virtue will be almost sure to produce it.

At all periods of life, females are liable to a discharge from the vulva; thus, we witness it in the infant girl, and in the aged matron, but not equally often in both; in the latter it is more frequently found than in the former. It frequently commences about puberty—it may therefore anticipate, accompany, or follow the menstrual secretion; but, at this period, it is of but temporary continuance for the most part, unless great errors have been committed in the management of the female at this time; or unless there should be a particular predisposition to the complaint, from hereditary taint, or original temperament.*

As the woman advances in life, after she becomes a mother; when her necessities demand great exertions, and will prevent proper indulgencies during pregnancy and after labour, she is more liable to it than at any other period, and generally in its worst forms. Hence, women in the lower walks of life, are more obnoxious to leucorrhœa than those who may indulge in what the other cannot enjoy, provided they do not abuse their privileges and comforts.

Women, who from their calling and their necessities, are constantly exposed to the abuse of venery; or those who may too freely indulge in the gratifications of love without that ne-

* Gardien, and some others, think leucorrhœa is sometimes hereditary; he says, "Le catarrhe utérin peut attaquer, dès le bas âge, les filles qui ont eu pour mères des femmes sujettes habituellement à un écoulement; mais cette leucorrhée héréditaire ne peut pas être distinguée de celle qui est entretenue par la débilité de la constitution: comme cette dernière, elle depend de l'organisation primitive, qui est faible et lâche."—Traité Complete, &c. vol. i. p. 321.

cessity; and especially those who selfishly abuse the enjoyment, are always obnoxious to leucorrhœa.

Those who may suffer from long protracted and difficult labours, or who may have been under the necessity of yielding to artificial modes of delivery; those, who from the relaxation of the system generally, and the uterine in particular, and have sudden labours; those who have become debilitated from menorrhagia, diarrhœa, hemorrhoids, or who may labour under irregularity, or suppression of their menses, are ever prone to this complaint.

Nervous and hysterical women are also liable to this complaint; it may not commence with these affections, though it is pretty sure to follow them, especially if great irritability of temper accompany, and this indulged in, by giving vent to sudden bursts of passion, or displays of bad humour.

Some are of opinion, that the season of the year has considerable influence on this discharge. Leake says, "I have attended more patients labouring under fluor albus in autumn than at any other season of the year, especially when the weather was uncommonly moist and cold." Diseases of Women, vol. i. p. 107. I have never observed this influence; and I am rather disposed to believe it accidental, when it occurs. A disease of such long standing as leucorrhœa almost always is; one, for the most part, so obstinately confirmed by local irritation and habit, is not very likely to be influenced by mere change of temperature, or moisture. It is not a sufficient explanation of this, (perhaps assumed,) fact, to say, that the surface which yields the discharge, is like those mucous membranes which are affected by the changes of the atmosphere; and may like them, be attacked by inflammation, and urged to an increase of discharge; for from their locality, and perfect defence against the vicissitudes of season, they cannot be very liable to their influence. I fear there is rather too much refinement in these opinions, to be confirmed by fact.*

* The mucous membranes very generally sympathize with impressions made upon the skin; thus, the lining of the trachea; of the nostrils; of the throat; of the frontal sinuses, &c. are very often brought into morbid action through the medium of the skin, by the changes in atmospheric temperature; but the uterus and vagina, we believe, are very rarely affected by such vicissitudes, however strongly they may affect the skin.

The only causes, I have been able to ascertain, capable of influencing this discharge, are those which affect the system at large, or the uterus in particular; such as, fever; passions or emotions of the mind; too stimulating diet; gastric irritations; the approach, and the cessation of the menstrual discharge at each period; pregnancy; and excessive coition. Now, all the causes just enumerated, will be acknowledged to be capable of such a consequence, since, the whole arterial system is acted upon; and of course the uterus and vagina, constituting important portions of the general system, they must partake of the general effect.

I know several ladies, who are not habitually liable to fluor albus, yet will be attacked by this discharge, whenever their systems are excited by fever. Others, will have an immediate leucorrhœal discharge, when angered, alarmed, or overjoyed. Others, upon drinking a glass of wine extraordinary, or eating very highly seasoned victuals, will feel an increase of vaginal secretion; others, when their stomach is acid, or otherwise irritated, will have the fluor albus more abundant; very many, who are only sensible of the existence of the disposition of the vagina to furnish fluor albus, just before the catamenia are about to take place, or immediately after they have ceased. Most women, who are accustomed to leucorrhœa, will have an augmented discharge when pregnant; while some will have it at no other time; and all perhaps will have it more abundant, after too great venereal indulgence.

Almost all the authorities I have consulted on the subject of leucorrhœa, make it a constitutional disease; and hence the immense number of causes assigned for its origin; and hence the multiplication of species and varieties by systematic writers. Thus Pinel enumerates—

1st. The constitutional.
2d. The accidental.
3d. The vicarious.
4th. The syphilitic.
5th. The critical.*

* Dict. de Scien. Med. art. Leucorrhœa.

While Blattin, who has written a very long and erudite work upon the subject, wishes to add to the above—

6th. From derangement of the menses.

7th. Hereditary.

8th. From indigestion.

Gardien, however, makes but three—

1st. Leucorrhœa from irritation.

2d. Constitutional or adynamic.

3d. Metastatic leucorrhœa; but observes, he would think it proper to add to these three species two others, when leucorrhœa is only symptomatic; one of these he would call "spasmodic leucorrhœa," and the other "sympathetic leucorrhœa."

That a variety of causes may dispose the uterus and vagina to take on the leucorrhœal action, we have no hesitation to believe; but the production of the complaint requires an immediate exciting cause; and that cause must be of an irritating kind. I would therefore only acknowledge—

1st. The leucorrhœa of direct irritation.

2d. The leucorrhœa of remote or indirect irritation.

3d. The leucorrhœa of habit.

I cannot have an idea of Pinel's first species; that is, I have no conception of any separate or distinct constitutional power, which, independently of local irritation, shall produce the disease in question: or in other words, thus to influence the mucous membrane of the vagina and uterus.

His second species must necessarily comprise the exciting, or local cause; if so, it becomes the leucorrhœa of direct or indirect irritation; for the parts are only accidentally or fortuitously irritated and brought into diseased action.

His third, or the vicarious, we have never witnessed, if we comprehend the term; that is, leucorrhœa by metastasis, or by an assumption of action. Yet we are not prepared to deny the possibility of such a condition of the uterus and vagina; for metastases are not unfrequent in arthritic or rheumatic constitutions, or when there has been a suppression of an accustomed evacuation, other parts may assume a morbid action. But if this be admitted, it will only prove that there has been a transfer of irritation; consequently it forms "the leucorrhœa of irritation."

His fourth, or "syphilitic," is obviously the product of irritation; the syphilitic virus being the remote cause, the irritation consequent upon its application, produces an increase of discharge from the surface to which it is applied; but this discharge is one of a specific nature, and not the matter discharged in common leucorrhœa; and therefore is nothing more nor less than syphilis itself, so long as the syphilitic action continues. But after a time the surface may cease to secrete a morbid poison; though an irritation continue of sufficient force to maintain an increase of secretion; therefore the disease in this last form is leucorrhœa of direct irritation and habit.

His fifth, or "critical," may exist; we have never witnessed it; but when it occurs, it must necessarily resemble his "vicarious," in its general phenomena; and like it, become a leucorrhœa of irritation.

Those added by Blattin resolve themselves into the same species; or the leucorrhœa of irritation; therefore the sixth, or that from disordered menstruation, becomes the leucorrhœa of indirect irritation; while the seventh is only a modification of Pinel's first, or constitutional leucorrhœa, which like it can only produce predisposition; for we do not believe that children are ever born with this disease upon them, or even subject to it very soon after birth; and were this even the fact, it might not be difficult to account for, provided the mother was labouring under the affection at the time of the child's birth; for the matter of leucorrhœa might be applied to the child in transitu, and produce the disease.

His eighth, or "leucorrhœa from indigestion," must necessarily be considered a disease of sympathy, or leucorrhœa of indirect irritation, since the source of irritation is the disordered stomach, with which the uterus and vagina sympathize.

The division of Gardien is much less exceptionable, since he reduces the species to three. His first, or the leucorrhœa of irritation, we cheerfully adopt, as it strictly speaking comprehends every thing. His second is exceptionable, as it is but a modification of Pinel and Blattin. We have no idea of a *disease*, of pure weakness. His third is an adoption of the third of Pinel, and of course liable to the same objections.

In a practical point of view, very little is gained by the mul-

tiplication or knowledge of the remote causes of disease; and it is fortunate, in a general sense, that it is so—for were an absolute knowledge of the remote cause essential to the cure of the proximate, or the disease itself, we should be much less successful in the cure, than we are at present; for in very many instances we are entirely ignorant of the remote cause.

In the "leucorrhœa from derangement in the digestive organs," (if it really exist,) the knowledge of the fact might be useful; as the remedies calculated to alter the condition of these organs, should be addressed to them, with a view to destroy the source of irritation, and thus diminish the intensity of sympathy. In the case under consideration, much uncertainty would exist, whether the long-continued discharge from the vagina is not the cause of the derangement of stomach, as in chlorosis, rather than the derangement of stomach, the cause of the discharge from the vagina. Gardien declares, "le derangement des digestions accompagne constamment la leucorrhée constitutionnelle. Les tiraillemens d'estomac ont aussi toujours lieu dans le catarrhe utérin chronique." P. 322. But this offers no illustration, or explanation, which is the cause, or which is the effect. Besides, we feel rather disposed to doubt the frequency of this combination; for of one thing we are certain, that we have seen many instances of leucorrhœa without derangement of stomach; and we have as certainly seen many cases of dyspepsia without leucorrhœa. Indeed, he seems to confess the fact himself, that causes are admitted with too much facility; for he immediately after adds, "les causes prédisposantes et determinantes du catarrhe uterin sont extrément variées: peut-être pourrait—on reprocher aux auteurs d'en avoir admis plusieurs trop légèrement, et d'avoir souvent conclu *post hoc*, *Ergo propter hoc*. Dans la recherche des causes, on a souvent regardé comme liés deux phénomènes qui n'étaient, que coexistans." P. 322.

In the syphilitic leucorrhœa as it is called, it would also be useful to know of its existence; since syphilis itself would require a distinct treatment from common leucorrhœa; in this case, the disease, as just observed, would not be leucorrhœa, but syphilis during the active stage; but the remote effects, would require no specific treatment, as the leucorrhœa follow-

ing syphilis, would yield to the same remedies as leucorrhœa from any other cause.

Gardien's occasional extension of species into, 1st, sympathetic leucorrhœa; 2d, spasmodic leucorrhœa, answers no good purpose whatever in practice, since there is no competent evidence of the existence of the last, and the first will naturally range itself under the head of leucorrhœa, from remote or indirect irritation.

He tells us, (with what propriety the profession must judge,) "J'ai donné le nom spasmodiques, à celles qui surviennent chez de jeunes personnes, pour avoir pris du lait, ou pour avoir fait usage de compositions emménagogues." P. 319.

The division we have made, we think can be defended, by both reason and practical observation.

Under the first head, or "the leucorrhœa of direct irritation," we would consider all such instances of this discharge, as follow an active inflammation of the mucous membrane of the uterus or vagina, and produced by some local cause; as laborious paturition, application of instruments, excess of venery, irritating substances applied to the surface of the vagina, extraneous bodies introduced into it, a prolapsed uterus,* tumours within the vagina, injections of too stimulating a kind, or from the simple inflammation of the parts, for any portion of the body is liable to such attacks, without our being able to determine why this or that part has been selected. We have known, in a number of instances, a leucorrhœa to follow a lingering or tedious labour, both where instruments were used, and where they were not, &c.

Under the second head, or "the leucorrhœa of remote, or indirect irritation," we would range all such instances in which the vagina sympathizes with some other portions of the body; as with the uterus during pregnancy, or with it in long obstructed menses, producing or becoming what is called chlorosis; with it, when the menstrual action is about to furnish the catamenial discharge; or after that action has just ceased. With the rectum when subject to hemorrhoids, or when irri-

* Of this particular cause, we have had occasion to speak under the head of "Prolapsus Uteri," which see.

tated by ascarides; with the gums, as in early dentition; with the stomach when dyspeptic, &c.

Under the third, or "leucorrhœa of habit," we would enumerate those instances of this discharge, which continue after the active or inflammatory condition of the parts has ceased, as after syphilis or gonorrhœa has been cured, a prolapsed uterus restored, or a tumour removed; which may remain after the inflammation in the two former species have ceased, and the discharge become analogous to the "gleet" of the male. Almost every part of the body which is susceptible of action, may have it to continue after it has been once excited, though the exciting cause be removed; in the nervous and muscular systems we witness it, as in chorea, whooping cough, &c.; in the vascular and glandular systems, as in the continuance of spitting, after the action of mercury has ceased; in the membranes and vascular systems; the discharge of mucus after dysentery; and, agreeably to Mr. Hunter, as in the gleet after gonorrhœa. He distinguishes the condition of the mucous membrane of the urethra in gonorrhœa, and in gleet, in the following manner. "The venereal inflammation is of such a nature as to go off of itself, or to wear itself out; or, in other words, it is such an action of the living powers as can subsist but a given time. But this is not the case with a gleet, which seems to take its rise from a habit of action which the parts have contracted, and as they have no disposition to lay aside this action, it of course is continued; for, we find in those gonorrhœas which last long, and are tedious in their cure, that this habit is more rooted than in those which go off soon."—Treatise on the Ven. Dis. art. Gleet.

It is, in many instances, precisely the same in leucorrhœa; the mucous membrane of the vagina may be so irritated by a spontaneous inflammation, by mechanical agencies, by acrid substances, by morbid poisons, or perhaps by some sympathetic influence, as to produce leucorrhœa in all its stages. The irritating causes may, nevertheless, be altogether withdrawn; yet the surface which had for so long a time continued to produce the fluor albus, will from habit persevere in the production of it. Hence, the leucorrhœa of long standing, is always much more difficult to overcome, than one which is in its pri-

mitive and active condition. But this last species, it may be remarked, very rarely occurs, and is perhaps more common after gonorrhœa, than from any other cause.

Gardien seems desirous to establish a species of leucorrhœa "purely local;" we have endeavoured to prove them all so; but in this effort he unquestionably confounds two distinct conditions of the mucous membrane of the vagina. He says, "The *acute uterine catarrh* is a purely local affection, and depends on a peculiar irritation of the genital organs. It offers four periods in its progress; the first is announced by an itching, at first slight, of the vulva and interior of the vagina, which is occasionally extended to the womb. The woman complains of a considerable heat in the vicinity of this organ; of a feeling of dryness which suspends immediately the secretion of the mucosities which lubricate the vagina, and of pains of the back and loins; the itching increases, and sometimes becomes insupportable. In some cases it augments the sexual appetite; if this disposition be yielded to, the disease is aggravated. This period is accompanied by frequent disposition to pass the urine."

"The second period, which takes place on the second or third day, is characterized by a serous discharge, not very abundant at first; this augments in quantity, and assumes a green or yellowish colour, varying in intensity according to the degree of irritation; the ardor urinæ becomes more fatiguing; the labia majora, the vagina, and sometimes the urethra, show signs of inflammation. Fever sometimes ensues; the pains, at first concentrated in the loins, sometimes extend to the groins, to the haunches, internal part of the thighs, and perinæum."

"In the third period, which begins on the ninth or tenth day, the intensity of the inflammatory symptoms diminish; the discharge is still very copious; it successively becomes thicker, and offers shades of colour, until it grows entirely white; then it soon diminishes, and the ardor urinæ suddenly disappears."

"The fourth period, which forms the passage to the chronic state, presents many irregularities; the discharge disappears for some time, and returns without obvious cause. That of

which the matter is flocculent, or resembles glairy threads or jelly, is commonly most difficult to cure." P. 324.

We have made this long extract, concerning what the author terms the "*leucorrhée aigu*," to show that he confounds almost all the discharges from the vagina under one general head; namely, "le catarrhe uterin;" than which there cannot well be a more obvious error: thus, the purulent discharge of gonorrhœa; the mere increase of the natural discharge; or the temporary augmentation of it, (which he considers either sympathetic or critical,) he classes under the same head, but looks upon them as constitutional. But a disease which he admits to be *local and acute*, and of which we have given his own account, he also makes a leucorrhœa; but to which it has not the slightest analogy, either in its symptoms, or in its method of cure; for the disease in question consists of a peculiar inflammation, and oftentimes an aphthous condition of part of the vagina, and of the vestibulum especially;* and is properly the "pruritus" of authors. See chapter on Pruritus.

The discharge constituting leucorrhœa, is declared by authors to proceed from the uterus and vagina. To determine this point, may not at first sight appear to be of much consequence, yet the practitioner may find it of great use in making his prescriptions; for the remedies which may be found useful in the one instance, may fail altogether in the other. We are of opinion, that this discharge rarely proceeds from the cavity of the uterus, not even in its most aggravated forms; and when it does, it must always be looked upon as the most difficult of management.

If Dr. Cullen's definition be admitted, leucorrhœa would be limited to the internal cavity of the uterus itself.

He says, "every serous or puriform discharge from the vagina may be, and has been comprehended under one or other of these appellations—leucorrhœa, fluor albus, or whites. Such discharges may be various, and may proceed from various causes, not yet well ascertained; but I confine myself here to treat of those discharges alone *which may be presumed to pro-*

* All that portion of the vulva, which is anterior to the hymen in virgins, and the caruncule myrtiformes in those who are not, is called the vestibulum.

*ceed from the same vessels, which, in their natural state, pour out the menses.*"

From this definition of fluor albus, it will be perceived at once, that a pregnant woman cannot have this complaint; yet, the fact is notorious, that all women, (or at least with very few exceptions, as far as our observations have extended,) have, during this period, a greater discharge from the vagina than when they are not pregnant: and many have not this discharge, as already noticed, but at such times. Now, the discharge which continues, and even increases during pregnancy, and that which only takes place at that period, cannot be leucorrhœa; or Dr. Cullen, confining this complaint to the "vessels, which, in their natural state, pour out the menses," must be wrong. Astruc, indeed, declares, he has seen both leucorrhœa and the menses flow at the same time.

"I conclude," says the doctor, "a discharge from the vagina to be of this kind, (namely, from the vessels which furnish the menses.) 1. From its happening to women who are subject to an immoderate flow of the menses, and liable to this from causes weakening the vessels of the uterus."

To this we would observe, that there is no natural connexion between the two complaints stated by Dr. Cullen; for our experience furnishes us with so many exceptions to this rule, that we cannot look upon them as necessarily associated: we have seen many instances of menorrhagia without leucorrhœa; and we have seen more cases of leucorrhœa without menorrhagia. Besides, the doctor attributes this discharge following immoderate flows of the menses, to "causes weakening the vessels of the uterus." Is it an evidence of weakened vessels, when they are forced to secrete a fluid of a colour and quality different from that of the natural, and at the same time very much more abundant? Is not secretion an action; and if that action produces a greater quantity of a material, than it does when it is acknowledged to be in health, would it not seem to imply an increase of power, rather than a diminution of force? What would seem to be the natural consequence of a weakened state of the uterine vessels, or any other vessels in a state of weakness? Why, that they would perform a lesser, instead of a greater duty.

If the vessels of a part are really weakened, it seems to follow, that less exertion can be expected from them, than when in a state of health and vigour; yet agreeably to this doctrine, they perform more, than in that state of vigour, because they are weaker, and (as we should think,) less able to do so. It would also seem, that when vessels were really weakened, they would be less able to transmit their contents; yet more is poured out—first, in the form of blood, as in menorrhagia; and then, of an elaborated fluid, called fluor albus, for elaborated it really is; yet these vessels are said to be weaker than in a state of health.

But would it not seem to be a natural effect, if the vessels of a part be preternaturally weak, that the loss of several ounces of blood immediately from them, would increase this weakness? Yet so far is this from being the case, agreeably to the scheme of Dr. Cullen and many others, that they must be strengthened; since the fluid they evacuate, is more elaborated, and in greater quantity, than in a state of health. Will any one declare the vessels of the kidneys to be in a state of weakness in diabetes because they yield quadruple the ordinary quantity of urine? will any one say that the salivary glands are in a state of weakness, because they secrete a many fold quantity of saliva, under the action of mercury?

But Dr. Cullen does not stand alone in this assumption; almost all the writers upon the subject have yielded to the same erroneous opinion; thus Chambon, Denman, Leake, Vigareous, Gardien,* Capuron, Burns, &c. all talk of debility, either local or constitutional, as the cause of leucorrhœa. Even Mr. Clarke, who has written so ably upon several of the complaints of females, joins in the same belief.

Mr. Hunter says, that the term "weakness," "gives us no idea of a disease; and indeed there is none that can be annexed to the expression. By mechanical weakness is understood the inability to perform some action, or sustain some force. By animal weakness the same thing is understood; but when the expression is applied to the animal's performing an uncommon

* Gardien, however, it must be observed, has scarcely done more than given a literal translation of a great part of Cullen's chapter on this subject.

or additional action, I do not understand it." Treatise, art. Gleet.

"2d. From its appearing chiefly, and often only a little before, as well as immediately after the flow of the menses."

This will certainly prove nothing in favour of the position of Dr. Cullen; for though we admit it to be a fact in many instances, that the discharge is increased "a little before the appearance of the menses," it is not always the case, immediately after; though if it were allowed to be precisely as stated by Dr. Cullen, it would not confirm his doctrine, nor militate against the explanation we shall give of that phenomenon.

It is admitted by all, be their theories of menstruation what they may, that there is more blood invited to the uterus and its dependencies at the time the menses are about to be secreted, during their secretion, and immediately after, than at any other period, except when this organ is in a state of gravidity; it will not then be disputed, that this increase of blood is intended to furnish the menstruous fluid; and that this process is effected by an increase of action in the vessels of the uterus. Now, when the vessels of the uterus and vagina are more abundantly supplied with blood, it is more than probable that the vessels on the secreting surfaces of these parts will be urged from this stimulus to greater duty; and consequently made to furnish a greater supply of the fluid they are in the habit of eliminating; and hence, the appearance and sometimes increase of this discharge.* This will therefore account for that fluid being more abundant just before the menses appear; and a continuation of this action, (which it is nowise doubtful sometimes exists,) after the menses have been poured out, will account for the fluor albus, or an increase of discharge at this time. For it may again be proper to observe, that the engorged state of the vessels of the vagina during pregnancy, produces very often the same consequences, and when it is every way certain that this discharge cannot be furnished "from the same vessels, which in their natural state pour out the menses."

* Dr. Cullen himself tells us, par. 988, that, "though the leucorrhœa depends chiefly upon the laxity mentioned, (of the extreme vessels of the uterus,) it may have proceeded from irritations inducing that laxity, and seems *to be always increased by any irritations applied to the uterus.*"

"3d. From the flow of the menses being diminished, in proportion as the leucorrhœa is increased."

Were this statement a fact, it would not interfere in the least, with an explanation that is easily and well ascertained, to have this effect in other portions of the body; namely, that the congestive state of the uterine vessels, so essential to the production of the menses, are relieved, to a certain extent, by the continual drain of fluids from the vagina.* But the assumption of Dr. Cullen, that the menses diminish in proportion to the increase of leucorrhœa, is contradicted by all observation; for all writers declare, that those women who are subject to menorrhagia, are most liable to leucorrhœa. Indeed, he says himself, that it often follows, or accompanies this complaint.

"4th. From the leucorrhœa continuing after the menses have entirely ceased, and with some appearance of its observing a periodical recurrence."

To us, this statement appears to be conclusive against the doctor's argument; for if the same vessels furnished both the menstrual and leucorrhœal discharge in the early part of life, why should these vessels be unable to furnish the menses in the latter part, if they are still as capable as formerly, to throw out the discharge of fluor albus? It must, however, be remembered, that leucorrhœa is by no means so common after the cessation of the menses as before, unless there is some organic lesion of either the uterus or vagina, and when this is the case, every body seems to agree that this discharge should not be considered as a genuine leucorrhœa.

"5th. From the leucorrhœa being accompanied with the effects of the menorrhagia."†

* Every body is familiar with the influence of drains of every kind in relieving local inflammation, and congestion. It is upon this principle, that blisters, issues, and setons, are constantly employed, with so much success, in cases where this kind of counter irritation is required, or even where it is desirable to counteract the waste from discharging surfaces, be these discharges sanguineous, serous, or purulent, or wherever situated.

† "When, in consequence of the circumstances, and the repetition of them, (the too frequent, and too abundant menses,) the face becomes pale; the pulse grows weak; an unusual debility is felt in exercise; when, also, the back becomes pained from any continuance in an erect posture; when the extremities become frequently cold; and when, in the evening, the feet appear affected with

This is a most hasty and ill founded conclusion; for hemorrhoids, a diseased liver, or diseased viscera of any kind; a sore leg, &c. &c. will have, after a certain time, almost every symptom described by Dr. Cullen, as belonging to menorrhagia.

"6th. From the discharge having been neither preceded by, nor accompanied with, symptoms of any topical affections of the uterus."

Now, if this prove any thing, it should be the reverse of what Dr. Cullen seems to insist on, namely, that leucorrhœa "proceeds from the same vessels, which, in their natural state, pour out the menses;" for how a want of evidence, of "topical affections of the uterus," should prove the identity of the vessels which furnish at one time the menses, and the other the matter of fluor albus, is really beyond our comprehension. His seventh argument we shall not notice, as it has not the slightest bearing upon the subject.

I have never been perfectly satisfied, but in three or four instances, of the very many cases of leucorrhœa which have been under my care, that the discharge in question proceeded from the cavity of the uterus.* In all these cases, the following peculiarities were present. 1st. During the night, there was no discharge whatever; but upon rising, there would be a very abundant one, of a glairy, tenacious substance, and sometimes mixed with some of a purulent appearance.† 2d. That during

œdematous swellings; we may, from these symptoms, certainly conclude, that the flow of the menses has been immoderate, and has already induced a dangerous state of debility." First Lines, par. 972.

"The debility thus induced, does often discover itself also by the affections of the stomach, anorexia, and other symptoms of dyspepsia; by a palpitation of the heart, and frequent faintings; by a weakness of mind liable to strong emotions from slight causes, especially when suddenly presented." Par. 973.

* It will be seen, that I am not disposed to deny altogether, that leucorrhœa may occasionally have its seat in the uterus; I only wish to be understood, that I do not by any means think it as common as authors would lead us to suppose. Morgagni tells us expressly, he pressed from the orifice of the uterus a matter resembling that which the woman was wont to render from the vagina while living. But he also tells us of an instance, in which the matter was confined to the vagina alone; and which he expressly states, had no higher origin than the vagina. Epist. xvi. art. 47.

† "The uterus is lined throughout with a mucous membrane;" "the secre-

the day, when it did escape, it was always suddenly, and accompanied by a sensation of effort within. 3d. That when a piece of sponge was introduced into the vagina at night, for the sake of determining the point, it was never found filled with the kind of matter, that very quickly issued when this was removed. 4th. All these cases I found to be incurable, though capable of some relief. 5th. All these women were barren.

These considerations make me believe, that fluor albus has its seat, for the most part, in the vagina. I believe farther, that it is almost always local; but from the excess of quantity, or peculiarity of quality, the system frequently becomes involved. Mr. Clarke says, "the constitution is rarely affected in this disease; the action of the heart and arteries is not increased, and the functions of health are seldom interrupted." Vol. ii. p. 14. This statement is in entire conformity with my own experience, as far as regards the first, and sometimes the second stage, that I make of this complaint, as I shall observe presently; but in the third, the system suffers in a greater or less degree, the same alterations that any long continued irritation or excessive discharges of any kind produce upon it. The quantity of the discharge will almost necessarily determine in what degree the system at large suffers, or at least when this complaint is idiopathic, and such it almost always is. But when this discharge is purely sympathetic, the disease, of which this may be merely an anomalous symptom, must, in great measure, determine the degree of injury the system may sustain—as in cases of ascarides; hemorrhoids; prolapsus uteri, &c. &c. though it will be evident that the two diseases will deteriorate the constitution faster, than either would alone.

But whether this discharge proceeds from the uterus or vagina, or both, it is evidently maintained by some local, or perhaps specific irritation; but on the nature of which I am not

tion from this membrane is permanent;" the mucus secreted by this membrane, "resembles, in consistence and appearance, the uncoagulated white of an egg, and does not differ from mucus in other parts of the body." (*a*)

(*a*) "According to the experiments of Mr. William Brande, mucus consists of albumen and soda." Clarke on the Diseases of Females, vol. i. p. 15. Am. Ed.

prepared to decide; but its influence is evidently spent upon the vaginal lacunæ, or glands, which, in a state of health, furnish the moisture so important to this part. In my present consideration of this subject, I would wish to be understood, not to include the discharge from this part, which is symptomatic of some derangement of the proper substance of the uterus, or that which always accompanies a prolapsus of this organ; these will be treated of under their respective heads.

The idiopathic forms of this disease may be divided into three stages; each of which requires a little difference of management; in the first, or most simple form, the matter discharged is glairy and transparent, or resembling a thin starch made by boiling; this very often accumulates from its tenacity, in considerable quantity within the vagina, and is then suddenly discharged, either by its own weight, or from some sudden exertion of the woman; especially, upon stooping, or lifting a weight—this never becomes acrid, unless there is the most reprehensible neglect of cleanliness; nor, so far as I have observed, is the system generally implicated, though it may take place in women constitutionally plethoric, or very feeble; and where it is easy to suppose, it might be called into action by a trifling irritation. But in this instance, the irritation, or inflammation, which provokes an increase of discharge from these parts, is so entirely local and mild, as to have no influence whatever upon the general system. But this is not always so; especially if the system is easily brought into sympathy from local irritations; in this case, we shall observe presently, the sanguiferous system will be found disturbed.

It is probable that this peculiar mucus may be furnished by the neck of the uterus alone, and therefore, this first stage may consist of the inflammation of this part; since, agreeably to Mr. Clarke, this part yields a fluid differing, at least in sensible qualities, from that found upon the surface of the vagina. He informs us, that "the mucus secreted by the glands of the neck of the uterus, contains less water than any other mucus in the body, approaching nearer to the nature of a solid than that of a fluid body: it is semi-transparent, and possessed of a great tenacity; it adheres to the fingers like bird-lime." "These glands, in a state of health, perform the office of se-

cretion in pregnancy only; or if at any other time, the matter secreted is of a very different kind, so resembling common mucus, as not to be distinguished from it." Clarke, vol. i. p. 17.

In the stage now under consideration,* (namely the first,) we sometimes find the discharge vary from time to time, without the woman being able to account for the difference of appearance: but these changes must have causes, however occult they may be: I think I have almost always traced them to some imprudence on the part of the patient; for though the complaint is confessedly a troublesome one, it does not always challenge the attention of those labouring under it, sufficiently to secure their best aid in getting well of it—hence, errors in diet will be committed; costiveness permitted for a long time together; cleanliness will oftentimes be neglected; over exertions will be made, or a series of fatiguing duties will be submitted to, all of which will have more or less influence upon the parts concerned in the production of this discharge.

During an attempt to cure this complaint, every thing capable of increasing it, should be carefully avoided, and the female will find her best interests involved in the most strict conformity to the physician's directions for this purpose. While on the other hand, the physician will find it best to be very particular in his inquiries respecting the quantity and the appearance of the discharge, as he can only prescribe with certainty

* It has been thought by some, that the difference in the appearance of the discharges in leucorrhœa, and from which we derive the stages into which we have divided this complaint, did not indicate the degree or the inveteracy of it, but determined the part of the genital system which furnished it, or the specific nature of the inflammation that produced the matter discharged. Thus Chambon (*a*) thinks when the discharge is green, that it proceeds from "une disposition prochaine au scorbut, qui ont un vice dartreux ancien, ou scrophuleux ou érésipélateux." But the various shades of colour which this discharge assumes, only manifest the intensity of the irritation. Notwithstanding we have divided the complaint into three stages, because in general when left to itself it goes regularly through them, yet the force of the irritating cause may be so very great as to make the first discharge observed by the woman, of the quality of the third stage. We have seen this in a number of instances; but we think it has almost always happened after some severe mechanical injury done to the vagina; hence, it is more frequent after severe labours.

(*a*) Vol. 2d. p. 112.

and effect, while his attention is directed to these points. It is but by the uniform, or varying appearances of the discharge, that he can determine the actual state of this disease; whether his remedies are acting according to his intentions, or that he can be led to suspect a want of fidelity to her own health on the part of the patient.

It is possible, that the inflammation, (or perhaps only a sub-inflammation,) which gives rise to the first stage of the fluor albus, may be confined to the neck of the uterus alone for a considerable length of time; if it be suffered to remain unheeded in this condition, it will sooner or later, and in different degrees, involve the surface of the vagina. Or the inflammation may suffer various degrees of intensity, while its location is confined to its original seat.

It may appear a gratuitous assumption to those who make leucorrhœa consist solely in a "weakness" of the uterus and vagina, to declare that in the first stage of this complaint, an inflammation really exists in the neck of this organ. But such is the fact; at least so far as certain phenomena, without the aid of ocular demonstration, will warrant such a conclusion. In the first place, it seems that the quality of the natural secretion of this part is altered;* for from being of extreme tenacity, and considerable density, it becomes less tenacious, transparent, and thinner; in the second, that still farther changes can be imposed upon the discharge, by such causes as are calculated to augment the general action of the system, or to increase local determination;† in the third place, when this part is touched, and this even not rudely, pain is invariably

* It has just been declared above, that the natural secretion of the neck of the uterus, "was semi-transparent, and of great tenacity, adhering to the fingers like bird-lime." It seems then the first degree of morbid change, alters the secretion to one that is "glairy and transparent, or resembling a thin starch made by boiling." A greater degree makes it "opaque, and of a perfectly white colour; and it resembles in consistence, a mixture of starch and water made *without heat*, or thin cream; it is easily washed from the finger after an examination, and it is capable of being diffused through water, rendering it turbid."—Clarke on the Diseases of Females, vol. ii. p. 5.

† An attack of fever, high living, excess of venery, exercise carried to fatigue, intemperance in drinking, over-stimulating injections, excessive costiveness, an attack of hemorrhoids, and approach of the menstrual period, will each occasionally increase the irritation at the neck of the uterus.

produced;* in the fourth place, that parts both adjacent and remote are frequently brought into sympathy from this condition of the neck of the uterus;† and in the fifth place, the remedies found most effectual for the removal of the complaint, are opposite in quality to those which would be employed, did the discharge in fluor albus depend upon weakness.‡

*Method of Cure of the first stage of Leucorrhœa.*

The cure should be commenced, by directing that the parts be regularly washed with warm water, three or four times a day—if the patient be plethoric, I cause her to be well purged; confine her to milk and vegetable diet; and sometimes, order her to lose blood§—when the pulse is sufficiently reduced by these means, or if the pulse be in a proper condition without these means, I exhibit the tincture of cantharides; of this I direct thirty drops every morning, noon, and evening, in a little sugar and water; increasing the dose every third day, five drops at a time, until strangury‖ is produced, unless the disease is

* "A morbid state of the glands in the cervix of the uterus, probably gives rise to this discharge; at least, the cases in which it comes away, are those in which the symptoms are referred to this part; and when pressure is made upon this part, under such circumstances, the woman complains of considerable pain."—Clarke on the Diseases of Females, vol. i. p. 37.

† A pain in the small of the back, is almost sure to attend a morbid condition of the cervix uteri, as in cancers, ulcers, lesions from rude delivery, and the incautious use of instruments. The bladder is frequently urged to discharge itself, and a numbness is felt down the thighs.

‡ Mr. Clarke makes two species of "the transparent mucous discharge;" the first, is that which originates from, and is accompanied by increased action of the vessels of the parts. The second, that which originates in debility; in which latter case, the former may terminate.—Clarke on the Diseases of Females, vol. i. p. 300.

It will be seen, that we acknowledge but the first of these as an original disease; and that when the inflammatory stage is subdued, and the discharge continues, that it then becomes "the leucorrhœa of habit;" and that this almost always takes place before the cure is completed.

§ It may be well to observe, that a strict antiphlogistic plan is constantly pursued during the cure of either stage of this complaint, until we are assured the discharge is maintained by habit.

‖ I always direct my patient to desist from the use of the tincture, so soon as she feels the approach of strangury, and not to resume it until all uneasiness disappears. If the strangury be severe, I order the free use of flaxseed tea, barley

arrested, which is not unfrequently the case before this symptom appears. Should the complaint withstand the first strangury, I am not discouraged, but re-commence the tincture at the original dose of thirty drops, and increase it as before, until a difficulty in making water is again experienced—it rarely, however, withstands the second irritation of the bladder.

Astringent injections are employed so soon as a change is observed in the discharge, by its becoming thinner and more abundant, *but never until then;* should this require three or four stranguries to effect it. The best kinds of astringent injections, are the acetate of zinc, in the proportion of five or six grains to the ounce of water, or the sulphate of copper in solution, in the proportion of a scruple to half a drachm to eight ounces of water; either of these may be employed three times a day, taking care to wash out the vagina with soap and water previously.

In the treatment of leucorrhœa, too little attention is commonly paid to cleanliness; if this necessary act be neglected as reprehensibly as it generally is, very little good will be derived from the prosecution of the best plan of cure. On this account, we importunately urge the compliance with the direction, of frequent washings with warm water, as well as the cleansing of the vagina, by throwing up it, several syringes full of warm soap suds; especially, before the injections intended immediately for the complaint, be administered. By this plan, two important objects are gained; first, the matter occupying the vagina, is removed frequently; and thus is prevented, all the injuries that might arise from its stagnation in this place; second, the surface of the vagina is deterged by this means, and the medicated injections have full opportunity to exert their control, upon the inflamed surface which furnishes the discharge.

It is also difficult to secure compliance, as regards diet and drinks—the patient, her friends, and perhaps the physician, de-

water, or gum Arabic water—to take five-and-thirty drops of laudanum, and go to bed. Should this not succeed, I direct an enema of a gill of thin starch, a teaspoonful of laudanum, and thirty grains of finely powdered camphor—as far as I recollect, this enema has never failed. It may be also proper to mention, that the tincture of cantharides I employ, is fifty per cent. stronger than the ordinary tincture of the shops; or in other words, where they use two drachms, I use three.

clare the disease to be a disease of "weakness;" one which requires tonic and stimulating remedies for its cure; hence, the most stimulating and nutritious articles of diet, are generally had recourse to, to the manifest injury of the patient.

We have never witnessed an instance of the first stage of this complaint being attended by such a degree of debility as would require either tonics, or animal diet for its relief. Mr. Clarke has fallen into an error upon this subject, at which we are not a little surprised, especially, as his general view of the disease is correct and well founded.

He says, "the food should be of the *lightest kind*, such as *animal broths and jellies;* vegetable jellies, bread properly fermented and well baked."* This direction seems in direct variance with his opinions of the complaint; for he has declared the neck of the womb to be in a state of inflammation; and has also said, that "if this disease arises from inflammatory action, this must be removed before any endeavour to restrain it is employed; for as the discharge during its continuance lessens the disease which occasioned it, it should not be checked till such inflammatory action is diminished."† Yet he advises "animal broths and jellies" during the inflammatory stage of this complaint; than which nothing can be more contradictory.

He appears however to look upon the modifications of animal substances to do away their specific nutritive and stimulating qualities; for in the very paragraph in which he advises the use of "animal broths and jellies," he tells us, "it will be better that the patient should not eat solid animal food until the powers of the stomach are in some degree restored." Now it is very well ascertained, that the stomach will almost always better assimilate small quantities of solid animal food, than the preparations he has recommended. But "when the powers of the digestive organs become more vigorous, recourse may be had to animal food;" and this is not all, for he also says, "wine, either pure or mixed with water, as may best suit the palate or the stomach, may be allowed in moderate quantities."‡ The medical treatment consists of the exhibition of the various tonics, both vegetable and mineral. We are not acquainted

* Vol. I. p. 316. † Ibid. p. 34. ‡ Ibid. p. 16.

with the agency that a difference of climate, constitution, and mode of life may have, to render the above plan successful in the part of the world in which Mr. Clarke resides; but certain it is, we could not succeed with such treatment in this country, even in those cases, where debility might appear to be the most certain of the causes, which produced the disease in question.

It is true, that the view Mr. Clarke has taken of this complaint, in the instances for which the above plan is recommended, would certainly justify the treatment recommended, were it a true one; namely, that it is a disease of "weakness;" but this character of the disease, is the debateable point; and here we are unfortunately at issue—he believes in the existence of this complaint from "weakness;" we declare, that until it becomes the "leucorrhœa of habit," that local inflammation is always present; and that with this state of the neck of the uterus, the system at large sometimes sympathizes so much as to require strict attention to be paid to its condition; and that this condition requires for some time, depletion, and an antiphlogistic regimen. But notwithstanding this, we will not say that Mr. Clarke has not met with cases to justify the mode of treatment he recommends; we mean merely to insist, that we have never met with a case, where the antiphlogistic plan was not necessary, when there was evidence of this inflamed condition of the neck of the uterus being present.

But Mr. Clarke declares at the same time in another part of his work,* that "in ordinary cases, the most successful mode of treatment is to take away some blood, either by cupping or by leeches applied to the groins or to the back; and it may be necessary to repeat the local bleedings several times. If sympathetic fever be present, it will be prudent to open a large vessel, but this is seldom necessary, and all useful purposes are answered by local blood-letting."

It may not be thought amiss, to repeat, that where there is evidence of this condition of the neck of the uterus, that it must be met by blood-letting, purging, and low diet. It must however be admitted, that the degree of inflammation is rarely so high as to require a repetition of blood-letting, either general

* Vol. II. p. 24.

or topical. The low seated pain at the very bottom of the back, pain within the vagina upon sitting down, together with a somewhat severe irritation about the neck of the bladder, with frequent desire to make water, though very strongly characterizing the disease in a certain stage, is but rarely met with.

It is a circumstance worthy of remark, and one every way calculated to confirm the correctness of the pathology adopted of this complaint, that the discharge successively alters its character as the disease diminishes by the successful application of the remedial means. For as the pain and inflammation abate, the discharge becomes thinner and more transparent, and if the cantharides have been successful, nothing but the natural discharge of the part is discovered to issue from the vagina.

In this stage of the complaint, medicated injections are not always necessary; for after the system will bear with profit the tinctura lyttæ, it for the most part soon puts a stop to the discharge. Should the discharge however be copious and obstinate, after it has become thinner; it is best to aid the cure by injections, provided it is not a young girl that is the subject of the complaint, or should the discharge resume its late appearance, the system must again be acted upon by blood-letting, or a few repetitions of smart purging.

Exercise of a very moderate kind may be indulged in, but fatigue should always be very carefully avoided; passions or emotions of the mind should be guarded against, and venery very little indulged.

In the second stage, the matter discharged has a white, yellowish, or purulent appearance—it is usually more abundant than in the first stage; and is constantly leaving the vagina by a uniform stillicidium. If proper attention be not paid to cleanliness, it may become offensive, or may even excoriate—this state is almost always accompanied with pain in the back, hips, and in the region of the pubes; the woman's complexion is generally sallow; and when the discharge is excessive, she becomes subject to a train of nervous symptoms, that are both troublesome to the patient, and difficult of management to the physician. This stage consists of an extension of the inflammation with which the first stage commenced; it has now spread to the vagina, the surface of which at this time principally fur-

nishes the fluid that is discharged. The character of the fluor is also changed; it is now of a deep white, or yellowish colour, resembling thick cream that has stood some time.

The system is almost always distinctly involved in this second stage; for if the pulse be carefully examined, it will be found hard, wiry, and irritated—in this stage, as in the former, the most scrupulous attention to cleanliness is recommended—I purge most commonly; confine the patient to a vegetable diet; and sometimes bleed—I am sure, that in every stage of fluor albus, time is always saved, as well as a material point gained, by a brisk catharsis in the commencement of the curative plan; it should therefore never be neglected. When the pulse is in a proper state to bear the tincture of cantharides, it is to be exhibited as above directed; subject to the same restrictions and distinctions, but with this difference, that we may commence advantageously in proper subjects with injections; but they should be of the sedative kind; a weak solution of the acetate of lead is perhaps the best; this may be used several times a day, preceded by the soap and water, as just mentioned.

In the third stage, there is an aggravation of all the symptoms of the second; the discharge is of a greenish colour, and is frequently tinged with blood—I consider both the last forms but exalted degrees of the first; that is, the inflammation is greater in their numerical order; in the last, therefore, we have more to contend with than in the second; and more in the second than in the first. It seems that this complaint, when neglected, is apt to run spontaneously through all these changes, and is truly one of the diseases which rarely cures itself. These changes are more certain and strongly marked in women who are a little advanced in life, than in younger subjects; and especially with those who have borne many children, and who are inattentive to cleanliness, and in such also it is more difficult to remove.

It is thought by many that there is a risk in stopping this complaint too suddenly; indeed all the writers upon this subject may be considered as of this opinion. How this notion took its rise is not very difficult perhaps to discover, since it is commonly thought to be critical or sympathetic. From an experience in many hundred cases, we have never known the slightest

inconvenience to arise from the cure of this complaint; nor is it probable that any can arise, however inveterate the disease may have been; and for this plain reason—that in proportion to the duration of the disease, will be the difficulty of arresting it; and agreeably to our own experience, this is effected always gradually; for it requires great perseverance to produce a change in the quantity discharged; the system becomes in consequence, in every respect prepared for the change. So much is this the case, that we have never seen an instance of the sudden stopping of leucorrhœa when this complaint was of long standing; and in recent cases, nothing is to be apprehended from a speedy arrest of the complaint. But, as regards the cure, the same general directions are applicable to all the stages. Nothing can compensate for the neglect of cleanliness—this must, therefore, be insisted on; the bowels must be purged; and as the system is more frequently, and extensively implicated in this, than in the former stages, we are oftener obliged to bleed, and to enforce a strict observance of a vegetable and milk diet. We may, as in the second stage, where the subject will permit, commence with the injections of a weak solution of the acetate of lead; then perseveringly employ the cantharides—in using this tincture in this stage, I depart from the method just recommended, if the disease be of long standing, by more gradually increasing the dose, or making the intervals of increase two or three days longer. My reason for this is, that the system may not too suddenly be affected by it; for I have observed, that when strangury is hastily induced, the effects are neither so satisfactory, nor so permanent, as when more slowly brought on—I may, however, remark in general, that the more susceptible the system is of the influence of this medicine in moderate doses, the more easily the cure is accomplished.

As on the former occasions, I do not use the astringent injections until the sign for their employment shows itself; that is, an increase and thinning of the discharge; even the first injections of this kind should be rather more feeble than those formerly directed; but the strength must be increased, as the parts become more accustomed to them. I go on, again and again, to renew the strangury, should the first not be sufficient. Nor am I discouraged, if the complaint does not yield to seve-

ral; for I am very rarely disappointed in the operation of this medicine, when sufficiently persevered in.

I confess, however, that I am occasionally unsuccessful; but cannot this most truly be said of every known remedy? I have now and then succeeded with the balsam capaiva, after the other has been fully tried without advantage; and I have also effected cures in some obstinate cases, by the use of alum and nitre—five grains of alum and ten of nitre, given three times a day, have proved very successful after other remedies have failed.

The discharge which attends the prolapsus uteri is owing altogether, or at least in great part, to the mechanical irritation the surface of the vagina suffers, from this displaced organ, and does not come under our present consideration.

## CHAPTER XIV.

### OF THE DISEASES OF THE UTERUS, OVARIA, AND TUBES.

The whole of the internal organs of generation are liable to diseases, the most of which may be considered as incurable. To describe minutely the whole that are known, would of itself require a volume; and after this were done, many would be disposed to inquire, in many instances, for the cui bono, as regards the success of medical treatment.

#### Sect. I. *Of the Disorders and Diseases of the Uterus.*

The affections of the uterus may be classed under the following general heads; and were we disposed to enumerate every departure from a healthy condition, we might make very many subdivisions, without adding to perspicuity or useful knowledge.

1. Imperfections in structure.
2. Variations and changes of structure.
3. Diseases of its external and internal surface.
4. Diseases of its neck.

1st. Under this head we may reckon,
- *a.* When this organ is larger, or smaller, than natural.
- *b.* Where the neck is altogether wanting.

2d. Under this head may be comprised,
- *a.* Extreme smallness of this organ.
- *b.* Where this organ is double, or is divided into two compartments.
- *c.* Where this body is cartilaginous, or scirrhous.

3d. Under this head may be classed,
- *a.* Tumours of various kinds.
- *b.* Abscesses.
- *c.* Ulcerations.
- *d.* Cancer.
- *e.* Tubercular, spongy, or polypus excrescences.
- *f.* Hydatids.
- *g.* Cauliflower excrescences.

4th. Under this head may be included,
- *a.* Cartilaginous rings of the os uteri.
- *b.* Its complete occlusion from
  1. Excrescences filling it up.
  2. Stones obstructing it.
  3. Membranes forming within it, and from membranes passing over it.
  4. Scirrhous tumours.

## Sect. II. *Of the Diseases of the Ovaries.*

These bodies are more frequently diseased or disordered than the uterus itself; but neither the diseases, nor disorders to which they are liable, are of such dangerous consequence. They are, however, for the most part, more occult than the other diseases of the genital system, if we except those of the tubes. Hitherto no remedy has been discovered, that has a decided operation on these bodies; consequently, they are very little under the control of remedies, whose operations are felt upon the general system, or of those which may exert an

influence on certain portions of it. It is probable, that, during an active state of disease, as inflammation, the usual remedies for fever, or this local affection, may be availing; as bleeding, purging, low diet, blistering, &c.; but here, perhaps, the power of the materia medica ceases: for no one instance, with which we are acquainted, would lead us to the conclusion, than any remedy has removed a disordered condition of these parts.

They seem to be removed so far from the general sympathies of the system; so insulated in position; so independent in function; that the common agents for the removal, or control of disease, seem to waste themselves in unavailing attempts to influence their actions, or to modify their affections. Who flatters himself that he has removed a dropsy, resolved a scirrhus, or interrupted a suppuration in these bodies? We believe, if he be candid, none will confess he has. Little more then at present is ascertained, than that they are very liable to disease, and but very little susceptible of cure. But, must we so humble the powers of the healing art, as to declare, we never shall be master of their diseases? Certainly not. Advances are constantly making towards at least the improvement, if not the perfection of the art; and we are now and then made acquainted with substances, which have a specific action upon certain tissues of the human body. The time may then arrive, when we shall be in possession of a remedy, whose agency shall be confined to the ovaries alone, or to similar organizations, if such there be in other portions of the system. But until then, unfortunately, the victims to affections of these important parts, must remain contented with the solace which palliatives may afford.

The affections of these organs may be classed as follows:

1. Scirrhus, or other derangements of organic structure.
2. The entire want of them; if a negative may be assumed for a positive condition.
3. Contracted, dry, shrivelled.
4. Enormous distention; from pus, water, fat, &c.
5. Containing extraneous substances; as hair, bones, teeth, &c.

These conditions of the ovaries are far from being very rare; Morgagni alone, from his own observations, furnishes a num-

ber of instances of them, as do others, who have been attentive to morbid anatomy. For, unfortunately, they have much more frequently furnished subjects for the anatomist's knife, than triumphs to the skill of the physician.

## Sect. III. *Of the Diseases of the Tubes.*

The alterations in structure, which these bodies undergo, are different from those to which the ovaria are liable. There is rarely any other change in these bodies, than that which inflammation might produce,* and they chiefly consist,

1. In the obliteration of their canals; or of one.
2. In adhesions with the ovaria, or an ovarium, by means of the fimbricated extremities, or extremity of both, or of only one tube.
3. Sometimes, in a great distention of one of them, from the partial development of an ovum.

The diseases of the tubes, like those of the ovaries, seem to be but little known at the time we might anticipate success from treatment; namely, during the active stage of the complaint. That these bodies are much more frequently inflamed than is generally imagined, we should infer from the number of instances of derangement of structure, which dissection brings to light. Yet, we are of opinion, that few practitioners have ever declared to themselves, that they were directing their remedial views to an inflammation of one or both of these bodies. We have every thing yet to learn, as regards the diagnostics of the diseased tubes; for, to this moment, we are altogether unacquainted with the portions of the body, with which they sympathize, or what parts they call into sympathy with them. We have, in a number of instances, prescribed for a deep seated pain about the situation we might suppose the tube to be; that is, a little to the right or to the left of the symphisis pubis, but posteriorly. If the part be pressed upon pretty firmly, some pain would be felt; but upon turning suddenly in bed, it would be sometimes acutely severe. There was constantly present, an aching, obtuse pain, and every now and then a lancinating

* They are said sometimes to be involved, as also the ovaria, in cancer of the uterus.

one. A frequent desire to pass water, which would be scantily secreted; after passing it, a pain would be felt at the neck of the bladder; the urine high coloured, and of a strong alkaline smell. The stomach occasionally sick; and easily provoked to vomit, if offended by medicine or food. The patient easier on her back than side; but altogether unable to sit up without great agony. Efforts to puke, attended by severe pain; and going to stool also attended by like inconvenience. The skin of the arms and hands below the natural standard, but other portions of the body hotter than natural. The tongue furred; and a constant disagreeable taste in the mouth. The pulse rather quick, tense, and wiry. No disposition to moisture, though occasionally, without knowing why, a profuse perspiration would break out, but without tarrying long, or affording relief.

The pain was sure to be much aggravated at night; so much so sometimes, as to prevent the patient from sleeping, unless under the influence of strong doses of opium; and these were not always found successful, in destroying the severity of suffering.

I have witnessed this pain on both sides of the pelvis at the same time; but more frequently only on one. In all the instances I have seen of this affection, there was an irregularity of the menses, and sometimes a total suppression of them. I have known the pain to continue from two weeks to three months, notwithstanding the most active plans were pursued; such as bleeding, leeching, cupping, blistering, purging, rubefacients, &c. In one instance of unusual severity and pertinacity, after the disease had lost its acute form, it was removed in a short time by the volatile tincture of guaiacum. Before this remedy was employed, the complaint had abated much of its severity; though the patient suffered considerably at the time it was commenced.

I am, however, by no means certain, that the disease now described, was an inflamed tube or tubes; but think it probable. That it was a disease of some one of the female organs of generation, I am pretty firmly convinced, as I never met with a similar affection in the male.

# CHAPTER XV.

## OF THE PARTICULAR DISEASES OF THE UTERUS.

UNDER this head, we shall only consider such affections as attack, or arise from the substance of this organ; meaning, by this distinction, to confine myself at present to the carcinomatous, and a few other diseases of this part. The many complaints to which this organ is liable, and with which every practitioner should be familiar, renders it necessary to give a full consideration to some of them; while others, from their incurable nature, will require little more than their history; as the method of cure is unknown to us at present.

Thus, it would be proper to dwell upon all the derangements of menstruation, menorrhagia, leucorrhœa, prolapsus, retroversion, inversion, &c.; while a short account of the carcinoma, cauliflower excrescence, corroding ulcer, &c., will be sufficient, as we unfortunately understand nothing but their ravages.

The diseases now about to be considered, are not very common in this country; at least, they would appear to be less common here than in Europe; nor is this, perhaps, of very difficult explanation. It would seem to follow as a natural consequence, that that part of the body which receives the most injury from mechanical or other causes, would be the most liable to disease; whether these be capable of themselves of producing an original complaint, or only acting as exciting causes, to certain predispositions.

We believe these injuries, however, capable of doing both one and the other; but the character of the diseases produced under these different circumstances, will be very different.

Thus, tumours, or other indurations of the uterus, pass too commonly under a common name; as scirrhi: but without scirrhus being the disease. While, on the other hand, when a predisposition to cancer exists, the true scirrhus or carcinoma may be formed; and eventually cancer will declare itself.

Now, as it is a fact sufficiently well established, that tedious, laborious, or impracticable labours, are very much more common in Europe than in this country, it will necessarily follow, that the uteri of the European women, are, in the same proportion, exposed to injuries from this cause; consequently, if the predisposition be admitted to be the same in the women of both countries, the exciting cause will be more rarely applied in the one instance than the other; and hence, fewer instances of cancer uteri in the one instance than in the other.

## Sect. I. *Of the Carcinoma Uteri.*

Our opportunities of seeing this disease, as well as that of the corroding ulcer of the uterus, have not been sufficiently ample, to make us rely altogether upon our own observations for the history, appearances, or mode of treatment, in these formidable complaints. We shall, therefore, mainly depend upon the descriptions given by Mr. Clarke (in his excellent work upon the diseases of females,) of these complaints, as they entirely agree with our own.

Mr. Clarke observes, that cases of carcinoma uteri* are frequently met with in practice; that very young women are seldom attacked; women of middle age are much more liable to it. It rarely commences with violence; but, like carcinoma in other parts of the body, becomes more distressing afterwards.

It attacks at first only the neck of the uterus; and Mr. Clarke lays great stress upon this observation. For tumours elsewhere situated, are of a different character; having different symptoms and terminations. In the dead body, they have some resemblance to carcinoma, but they are never found ulcerated.

* "By carcinoma uteri, is meant that disease, where there is a tumour near to, or a thickening of, the cervix of the uterus, which tumour or thickening is disposed to ulcerate." Diseases of Females, p. 207. Am. Ed.

Carcinoma particularly affects glandular parts; hence, its attack of the neck of the uterus.

Tumours of a large size, have frequently been called scirrhous; because they are hard in their texture: but the true carcinoma seldom becomes very large.

A sense of weight is felt in the vagina; a discharge of mucus, sometimes tinged with blood; or sometimes pure blood, after exercise, comes away, and in sufficient quantity at times to weaken, even to fainting. Menstruation, if it have not ceased, becomes irregular, and more abundant than in ordinary.

Strangury almost always attends; the inner membrane of the bladder secretes a transparent mucus, which falls to the bottom of the urinal. Pain, like the passage of a calculus from kidney to bladder, urticaria, heartburn, &c., attend.

Care must be taken, that these various affections of the stomach be not mistaken for the disease; they are only symptomatic of the condition of the uterus—they augment, as the disease advances; and much mischief would ensue, if they were treated for in the ordinary way.

An examination per vaginam, should always be requested. If the disease be carcinoma, the cervix of the uterus will be found thickened; and a resisting like gristle, or a distinct tumour, will be perceived on some part of the neck of the uterus; the other portions remaining healthy. In either case, pressure produces a lancinating pain.

The os uteri will be found changed. It becomes larger, though it retains its shape—it will sometimes admit the extremity of the finger. Patients rarely die during the carcinomatous state of the disease; when they do, it is with frequent hæmorrhagies. Clarke on Female Diseases.

## Sect. II.—*Of the Treatment of Carcinoma Uteri.*

It seems a doubtful point, by those best acquainted with this complaint, whether a cure, or mere suspension of the disease, has been occasionally effected. Mr. Clarke, with all that caution which should characterize the honest practitioner, thinks he has cured this affection in its incipient state, though he dare not absolutely avow it. We feel ourselves precisely in the same predicament—we have had two cases very similar to those

described by Mr. Clarke; in both of which, there was a restoration of the neck of the uterus to its natural size, with an entire cessation of all the previous distressing symptoms: these may not have been genuine cases of carcinoma, though we believe they were.

Nor do we see any thing very irreconcilable in the case; for if proper means be duly employed, they will almost surely be attended with advantage, if not with absolute success: and if the ulcerative process be prevented, or even retarded, which we are disposed to believe will often happen, very much is gained. Indeed, it is very well known that this disease is held long in subjection, by the continuance of the menstrual discharge, and temperate mode of living. And from this very circumstance a valuable practical hint is taken, in the management of this disease.

The first object in the treatment of carcinoma uteri, is to prevent the ulceration from taking place; this is to be done by the reduction of the local inflammation, (which is an essential to the disease,) by such means as are best calculated to diminish the quantity of circulating blood, and to abate arterial action.

These ends will be found best answered by

1st. Blood-letting, both general and local.
2d. By purging.
3d. By an abstemious diet.
4th. By cleanliness.
5th. By rest.

### 1. *Abstracting Blood.*

We believe that an increased pulse always attends this disease, when it so far declares itself, by pain in the lower region of the uterus, with an increase of the vaginal discharge. If it be not absolutely so, the arterial system is found at such times to be most easily excited. On this account, the abstraction of a few ounces of blood, becomes highly important from time to time, and if the catamenia have ceased, it becomes absolutely necessary. This may be taken from the arm, when considerable arterial excitement is present; and so far as we have wit-

nessed, it has been found with considerable buff, or as if cupped.

If there be less excitement, and particularly if there be a severe throbbing pain just above the sacrum, much immediate relief is found from losing six or eight ounces of blood, by either cupping or leeching. We have found it necessary to have this operation repeated, sometimes every three or four weeks.

We are generally directed to abstract blood from such patients as may be plethoric; this is certainly a proper direction, so far as it goes—but no farther; for it seems to forbid this operation, when this state of fulness is not manifestly present; now, were this operation withheld for the want of this evidence, we should very often deprive the patient of the best means of affording relief, though that relief may be but temporary. We have constantly found, when pain was severe, the pulse frequent, and tense, or wiry; for so it will almost always be found in these cases, the skin hot, and sleep uncertain, that the abstraction of a few ounces of blood, would afford not only considerable relief, but would place the system in a better condition for the use of narcotics, so indispensable in such cases.

Besides, it seems to lessen the hemorrhagic tendency of the uterus; and thus abates a discharge of this fluid, that might be too abundant. We generally prefer local bleeding, when it can be conveniently had recourse to; as its effects are more decided, and diminish the strength less. But we have no experience ourselves, to authorize us to decide, whether it will be best abstracted from the back or abdomen. Mr. Clarke says, "the relief produced by topical blood-letting is great, and often immediately felt: blood is generally procured more easily, when the cupping glasses are applied to the back, than when they are placed upon the abdomen. Nevertheless, when blood can be procured in sufficient quantity from the lower part of the abdomen, it will be proper to direct that it should be so taken, especially when cupping on the back has failed to produce the expected advantage." P. 226. Vol. I. Leeches, applied to the vulva, have had, we think, a more prompt effect, than when applied to the back.

### 2. *Purging.*

This should never be omitted: few things that we can do in this deplorable disease, are of such decided efficacy as purging. It not only comports with the general objects to be fulfilled, but it removes a prodigious source of irritation. In conducting this process, however, regard must be had, 1st, to the quality of the purgative; 2d, to the extent to which this must be carried; and 3d, to the effects which it produces.

1. It is not a matter of indifference, which of the purgatives we select for the purpose of affecting the bowels, in the disease under consideration. Such should always have the preference, as sit well upon the stomach; that operate without pain; and will afford copious discharges of fluids from the intestines themselves. Such are all the neutral salts; they therefore merit the preference. The sulphate of magnesia alone, or combined with an equal weight of the magnes. alb. ust. phosphate of soda; the Seidlitz powders; crem. tart., and the flor. sulp. in equal quantities; and the sulphur and magnesia. Next to the neutral salts, we may place rhubarb, or rhubarb and aloes; the castor oil, the magnesia alone; &c.

Mr. Clarke recommends, "when saline purgatives do not agree with the stomach, but excite vomiting, an additional quantity of acid may be given with them; thus eight or ten drops of diluted sulphuric acid may be added advantageously." P. 227.

We have known a saturated solution of the sulphate of soda, or of magnesia, in small doses, repeated every morning, or every other morning, continue to agree with the stomach admirably, for months together, and move the bowels freely two or three times a day, without either nausea or pain. This solution must be taken in the quantity of a large table spoonful, early in the morning, before eating; and contrary to expectation, sits well upon the stomach.

This solution is not, however, always sufficiently powerful to keep the bowels soluble; when this is the case, a little calcined magnesia must be added. Where those medicines would be disgusting, the phosphate of soda, the Seidlitz powders, the cream of tartar, and brimstone, or brimstone and magnesia

may be substituted. The castor oil occasionally may be resorted to, but it does not in general answer well when continued for a long time.

I have mentioned rhubarb, as the next best general cathartic; this is a valuable medicine in almost all cases, where a perseverance in purgative remedies is absolutely necessary, as it very seldom requires an increase of dose, if it be regularly administered. But, it happens with it, as with every other medicine, that it will lose its effect; when this happens, it should be combined with aloes; the following is the formula I generally employ:

℞ Gum. Aloes. suc. ʒss.
Pulv. Rhæi. ʒj.
Ol. Caryoph. gut. iv.
Sapo Venet. gr. viij.
Syr. Rhæi. q. s.—M. f. pil. xxx. One of these is to be taken every night, or every other night, as they affect the bowels.

This form rarely requires an increase of dose, unless the bowels are rendered costive by opium, which is almost always the case in one form or other, in this complaint; if this happens, two or even three may be required.

It is familiar to us, that aloes is generally proscribed in all cases where the uterus yields blood too frequently, or in too large a quantity; but we believe this to be an ill founded prejudice. We have used the pills now prescribed, in several instances of this complaint, with entire success, as regards the object for which they were ordered; namely, to gently purge the bowels; and certainly, without increasing at the same time the inconveniences, under which the patient was labouring.

It not unfrequently happens, that the bowels become obstinately costive; nor can they be made amenable to common remedies, even in increased doses: this condition is most unfortunate for the patient; for it not only deprives her of the advantages which constantly result from purging, but aggravates mechanically, all the evils of her situation. In such cases, the bowels should be emptied by mild injections; making them act more by their bulk, than by their stimulus, when they can be thrown up the rectum, which sometimes is a matter of great

difficulty. The common stiff pipe attached to a syringe, in these cases, is but ill calculated to succeed, when the rectum is partially obliterated by the enlarged uterus pressing against it; a flexible tube should always be used, where this difficulty occurs.

2. The extent to which purging must be carried, is next to be considered. It will readily occur to every body, that this process should have a limit, or much mischief would ensue; indeed, its very objects frustrated. The use of purging is, to solicit large serous discharges from the intestines, with a view to relieve the engorged state of the pelvic viscera; and at the same time, not to weaken the system too much, by any excess; consequently, if purging be carried too far, we shall have the following inconveniences to follow; 1st, the body will be unnecessarily debilitated, from the excess of discharge; 2d, we shall have mucous discharges, instead of serous, which will be attended by griping pains; 3d, instead of lessening the congestive tendency of these parts, it will increase it, by producing a sub-inflammation of the intestines; 4th, we should increase the activity of the inflammation in the neck of the uterus, by the mechanical pressure of the sigmoid flexion of the colon and rectum, in the act of passing the fæces. Therefore, more than two or three easy stools per day, has ever proved both inconvenient, as well as injurious, by the disturbances they must create during their passage.

3. Regard must be paid to the effects purging produces. This must be determined; 1st, by, whether the discharges are attended by much pain during the operation, or immediately after; if they are, the number of discharges must be diminished; unless, the pain arises from the costive condition of the bowels; 2d, by, whether these discharges produce faintness, or other decided signs of weakness; if they do, they should be moderated, or if judged proper, even suspended for a while.

### 3. *Abstemious Diet.*

There is no disease, unless it be one very much more acute, that so decidedly suffers aggravation from errors in diet, as the one under consideration. We have known severe and long continued pain, to follow an apparently slight error in diet.

For, it would seem evident, that if any expectation be entertained of curing, or even alleviating this complaint, that diet, like every thing else that is employed as remedial, should be made conformable to the great indications; namely, to diminish the quantity of circulating fluids; and to abate arterial action, both local and general.

Therefore, the most bland articles must be selected for this purpose, as milk and vegetables. If milk agree with the patient, as a general article of diet, it should be used in preference to almost any other; it may be taken, a little reduced by water, three times a day, with bread, rice, Indian, or rye mush, or unbolted wheat flower mush; but especially the last, as there is almost always costiveness. The fruits of the season; tapioca, oatmeal gruel, sago, Indian meal gruel, &c. may also be taken; the rennet whey, where the whole milk should disagree; in a word, almost any vegetable, that is neither stimulating, nor of difficult assimilation.

It is well known to every practitioner, that food may offend by its quantity, as well as by its quality; and though we have admitted a great variety of vegetable substances, it must be understood, that those must be moderately indulged in; otherwise they may offend by their quantity.

The influence of this course of diet, is much more efficient, than we might at first be willing to admit; but the fact is unquestionable, that it almost immediately relieves pain, after it has been adopted.

Mr. Clarke very well observes, that "the quantity of food taken should be very moderate; lest, not being digested, it should disturb the functions of the alimentary canal, and become the cause of fever; or lest, being digested, it should add to the quantity of blood, and improperly increase the vigour of the system." P. 229.

The patient, it must be remembered, must be forbidden, at the same time, every article of drink of a stimulating quality. Wine, spirits, or fermented liquor of every kind, must be prohibited with even more rigour, if possible, than animal substances for food. Spices, or any other condiment, must be considered as coming under the same ban.

"All local stimuli should of course be avoided. The sexual intercourse must, therefore, be improper." Clarke, p. 229.

4. *By Cleanliness.*

Nothing can compensate for the want of cleanliness; yet, in this case, some care is required, to conduct it with advantage. In the history just given of the carcinoma, it was observed, that there was an increase of vaginal discharge. This, if permitted to accumulate, or suffered to undergo the changes which heat always effects upon animal fluids, when thrown off from the system, would become offensive, and highly acrid; consequently, would increase the irritable condition of the cervix uteri, from its proximity, and even contact with it.

It therefore behooves the female to keep these parts extremely clean, by frequent ablutions with lukewarm water, as well as deterging the vagina with the same material, by means of the female syringe. Many have thought to improve the efficacy of the warm water, by the addition of certain medicaments; but, we believe, that advantage has rarely, if ever, been gained by this practice; unless the substance has been expressly added to destroy the fœtor of the discharge, by its chemical agencies.

If the disease has proceeded to ulceration, the smell sometimes becomes almost insupportable; for now a quantity of blood is almost constantly issuing from the ulcerated surface, which, becoming putrid, gives out so pestiferous a gas, that few can support its presence without great aversion, or even nausea.

The patient herself, becomes much annoyed by this stench; so much so, often, as to deprive her of both appetite and sleep, and she quickly becomes debilitated, even sometimes to exhaustion. All her evils are increased by the pervading influence of this odour; her digestive powers are so weakened, as to reject the little sustenance a wretched appetite allowed her to take: and the effort to puke, may renew a hemorrhage, which had been but a short time before arrested with difficulty. We once witnessed a very sudden death from this very cause; care should therefore be taken to guard against it.

It becomes, on this account, a matter of high importance to diminish this fœtor, both mechanically and chemically;

mechanically, by frequent washings with warm water; and chemically, 1st, by carbonic acid gas; 2d, by lime; and 3d, by the pyroligneous acid.

1st. By the carbonic acid gas.

We have enabled several patients to derive much comfort, as well as temporary relief, from the extrication of this gas within the cavity of the vagina, by means of a flexible tube of sufficient length and size, attached to the mouth of a bottle, in which there is placed the sulphuric acid and the carbonate of lime. This may be introduced into the vagina several times within the twenty-four hours. In two or three instances, this substance relieved the severity of pain whenever it was employed, as well as diminished the offensiveness of the discharge.

2d. By lime.

Lime may be useful by two modes of employing it; and they may both be used at the same time. First, lime water, a little warmed, may be thrown up the vagina by the syringe, several times a day. One of the best forms we have tried, is where a portion of quick lime is slacked in an infusion of camomile flowers, and permitted to settle clear before using it. The second, is by placing the caustic lime in various parts of the room, or even under the bed clothes. For this purpose, it should be broken up into small portions, and renewed every two or three days, or so often as it is perceived to slack.

3. By the pyroligneous acid.

The defecating power of this acid, is no less certain than surprising; and for the purposes now in view, is one of the most valuable articles of the materia medica. This substance, like the lime, may be used in two ways. First, as an injection, in a weak solution; we cannot give any exact directions for its strength, since its strength varies, as do the feelings of different patients, and even of the same patient at different times. It should at first be made very weak, and used warm, as directed for the other injections; its strength must be increased, as the feelings of the patient may permit; remembering, the stronger it can be used, the more certain is its control over the putrid exhalations. It may, at the same time, be used in its concentrated form, by wetting folded towels with it, and placed

over the external parts—this to be renewed when dry. The cheapness of this article, enables the patient to indulge in a liberal use of it.

### 5. *By Rest.*

Rest is a sine qua non in this complaint; whether it be in its incipient stage, or at a more advanced period of its progress. But by rest, do not let us be understood to mean absolute confinement to bed. By rest, we mean the indulgence of a horizontal position for the body, without intervening exercise. This auxiliary acts by equalizing the circulation; by diminishing its force; by abstracting the stimulus of motion; by preventing the consequences of the pressure of the abdominal viscera upon the fundus of the uterus, and thus avoid irritating the cervix; and in cases where hemorrhage attends, by permitting the coagula, which arrests for the time the bleeding, to remain undisturbed; thus preventing the renewal of it.

It may be well to caution the young practitioner against too much anxiety for the occasional discharges of blood, which are almost sure to take place, sooner or later, in this disease; he should regard them as occasional leechings, from which the patient derives much immediate comfort; if not eventual benefit.

Upon the same principle, he should not attempt to arrest the purulent discharge from the vagina, by the employment of astringent or stimulating injections. We have already directed strict attention to cleanliness, by means of simple warm water; but from this, there is no fear of doing mischief by its stimulus. But medicated injections of an astringent nature, must be forbidden; unless it may be the occasional use of a very weak solution of the acetate of lead—from this injection, we have thought advantage was derived, by its sedative influence, to the irritable neck of the uterus. Tonics are ever inadmissible in this complaint.

Mr. Clarke concludes his remarks on the treatment of this disease by observing, "in treating this disease, as no cure is known for it, the practitioner must be satisfied with palliatives, and not be anxious to restore the vigour of the body, which

might aggravate the disease again. Still, let it be remembered, that, by a strict attention to management, and an unwearied perseverance in the means suggested, all the cases of the disease may be relieved; in many, the farther enlargement of the tumour, or progress of the thickening, may be prevented; and if the author was not afraid of deceiving himself, or of deceiving others, he would venture to express a belief, that, in a few instances, the disease has altogether subsided." P. 235.

The consolation which this last suggestion affords, should be constantly kept in mind; it holds out a strong inducement to both the patient and the practitioner, to persevere in the use of the remedies pointed out, and to show that this formidable and loathsome disease may occasionally be prevented from running its terrible career; and that a useful individual may be restored to society. We are equally persuaded with Mr. Clarke, that, in three instances of the enlargements under consideration, we succeeded in entirely removing them by the plan laid down. And farther, that, from the success of such cases, it holds out strong inducements to the timid sex, to make known, at an early period, any unpleasant feelings they may have in these parts, that the fairest chance may be given to perseverance and to remedies. And to the practitioner, it offers a fair field for his exertions in the cause of humanity.

For the most part, after ulceration has commenced, the patient suffers much from the violence and peculiarity of the pain, which now almost constantly attends. This is so constant, especially at night, as to deprive her almost altogether of rest. There is no alternative now, but the employment of opium, or other narcotics, which soon lose their influence, however we may attempt to maintain it by increasing the dose; and the patient too soon becomes deprived of the only solace art can give her.

But in this state of carcinoma, the same regard must be paid to the general state of the system, as in its first stage. For, notwithstanding absorption has commenced, and ulceration is proceeding, the system becomes implicated, and the arteries are found to be much excited. A high sympathetic fever is produced, which is accompanied by a hot dry skin, and almost insatiable thirst, together with a sense of intense heat in the

stomach itself. This burning aggravates all the symptoms, by its intensity and pertinacity; sleep is interrupted, and the patient will sometimes almost starve, rather than take food at the risk of increasing this sensation. This feeling sometimes proceeds from acidity; when this is the case, absorbents or antacids should be given; and the frequent use of small quantities of good sweet cream, is almost sure to afford at least temporary ease.

The pulse, under these circumstances, is always, we believe, excited; and in a degree that requires the loss of blood either from the arm, or from near the part. Some may entertain fears of this remedy, from the appearance of weakness which the patient discovers; but this must not alarm, when the state of the system declares the necessity. Indeed, nature seems to offer this relief by producing a hemorrhage from the part, which hardly ever fails to afford relief. Besides, it is sure to place the system in a more favourable condition for the operation of narcotics, to which, at this stage of the disease, we must always have recourse; and happy is the patient, when she can obtain a truce to suffering by their agency: for the pain is generally so severe and protracted, that it quickly loses its powers. For this purpose, we believe it will be found, that opium, in one form or other, is the only one that can be relied upon for any length of time together.

Much, however, has been said in praise of several of the narcotics, beside opium, in the disease in question; such as the belladonna, the hyoscimus, the stramonium, and the hemlock. We are sorry we cannot add our testimony in their favour. In our hands, they have fallen far short of the anodyne powers of the opium; and have constantly failed to merit the high encomiums which have been bestowed upon them. This is truly a matter of regret; as it abridges our resources, at a period when so few can be commanded, yet when so many are required.

So frequent and so uniform have been our disappointments, that we neither consider the belladonna, hyoscimus, stramonium, nor the hemlock, as substitutes for the opium. And though altogether aware, how unfriendly some of its proper-

ties are to many constitutions, yet we cannot, as a general remedy, give it up for any others, with which we are acquainted.

Every preparation of opium is not equally objectionable; the common laudanum is, perhaps, the most so of any; even more so, than its solid form. The least so, is the acetated tincture of this drug, or what is commonly called "the black drop." In this form, several of its unfriendly tendencies are obviated altogether, and almost always very much diminished. It is seldom followed by headach or nausea; nor does it constipate the bowels, in any like degree, as the laudanum. It therefore always merits the preference, when it can be commanded; and when it cannot, much of the inconvenience of the laudanum may be avoided, by mixing the doses with sweetened vinegar; or by the addition of a few grains of the carbonate of soda or potash.

It has been a usual practice in carcinoma, to give the cicuta in increasing doses. We have thought we have sometimes derived a temporary benefit from it; but we have never witnessed a permanent advantage from it, to whatever extent its use may have been carried. We have thought, however, that opium was more certain to give relief from pain, while the patient was using the hemlock, than when she was not under its influence.

We have frequently found in the same patient, that opium would procure rest at one time, much more certainly than at another, even under the same circumstances, as far as could be determined. Why this has happened, we cannot pretend to say: but when this has occurred, we have found that camphor, in liberal doses, would succeed, when the other would not. Indeed, we have several times found, that the camphor was a valuable addition to our slender means of procuring rest, in cases of severe pain from ulcerated carcinoma; and this especially where opium disagreed, or had worn itself out. We have also, in several instances, found that the spirit of turpentine, in twenty drop doses, has also procured sleep, when it could not be obtained by opium. The same may be said of the liq. anod. Hoffm. in tea-spoonful doses.

When opium either disagrees, or its efficacy is waning, giving it in form of enemata, has very often a most happy

effect. When employed in this way, a treble dose of the laudanum, in two ounces of warm water, should be given at a time; and repeated, pro re nata.

When the stomach becomes affected, the case always becomes more deplorable, for reasons easily imagined. This rarely takes place as a sympathetic affection, until ulceration has commenced; and then it goes on, pari passu, with the ulceration, and becomes even more distressing sometimes, than the original complaint.

We have but a sorry choice of evils, when this condition of the stomach exists; but, as a general rule, we are obliged to forego a system of diet, which is calculated to mitigate the uterine sufferings, for one which is better calculated to appease the rebellious stomach. We must give up the vegetable course of diet, for one of animal substances, that we may tranquillize this organ; and we must also neutralize the predominating acid, by the various antacids, or by the sulphuric, or nitro muriatic acid, in small, but often repeated doses.

One of the best sitting substances that we have found, when the stomach is extremely irritable, is rich sweet cream; this must be given by the tea-spoonful; and repeated every fifteen or twenty minutes.

We shall conclude this account of carcinoma, with giving an extract from Mr. Clarke's work, so often mentioned. We do this, because his remarks upon this terrible disease are judicious, and bespeak the experienced practitioner, as well as the man of feeling. Moreover, there are some views of the disease which are novel, and a part of practice and resources, that is not sufficiently familiar to the American practitioner. We have preferred giving his opinions and suggestions in his own language, to condensing them, though at the risk of being blamed for so long a quotation, by those who have not yet met with the disease. But, from the practitioner who may have such a case in hand; and whose resources are nearly exhausted, we fear no such censure: on the contrary, we are sure we shall receive his thanks for any new suggestion that will, for even an hour, relieve his suffering patient.

"The management of the discharge from carcinomatous sores, is a circumstance deserving the best attention of the

surgeon. This discharge appears to have the power of converting the neighbouring parts to which it is applied, in some instances, into sores of a similar character to that by which it was itself secreted; and there is reason to believe, that the spreading of carcinomatous ulceration may be greatly retarded by the employment of those substances, which absorb or remove the ichorous fluid secreted by them. Common aphthous sores, which frequently arise in the vestibulum of women, who have long laboured under diseases of the female organs, may also possibly be converted into malignant ulcerations. These observations especially apply to carcinomatous ulcerations of the internal parts, in which the discharges are more likely to be retained, than where the disease attacks external surfaces. If it were only that the fœtor attending such sores would be removed by cleanliness, attention to this circumstance would be of great consequence, inasmuch as the patient's health, and that of such persons as may associate with her, will be less likely to suffer, than when constantly breathing an impure atmosphere.

"Of all the modes of applying water to sores at the upper part of the vagina, none is so effectual as the use of the hip bath; in the employment of which, the water is brought into contact with the sore without any risk of infusing the latter. By these means, the object of maintaining cleanliness is not only obtained, but a soothing application is made to an irritable surface; the careful injection of warm water into the vagina, by a syringe, or the agitation of the water with the hand, will render it more likely to remove any portions of coagulating lymph, or thickening matter, which may adhere to the inside of the vagina. The heat of the water employed, should depend upon the feelings of the patient in some measure; but, generally speaking, it may vary from about eighty-six to ninety-four degrees. Where the patient is too weak to bear the exertion of being put into a hip bath, her hips may be brought over the edge of the bed, and warm water may be carefully injected into the vagina by a small syringe. The quantity of the discharge is frequently increased by the means above mentioned, but the comfort which the patient will derive from it, will abundantly compensate her for any debility which may be pro-

duced by the remedy; and excruciating attacks of pain, are sometimes rendered very sufferable, by a frequent recurrence to it. Strong decoction of carrots, sometimes used for the same purpose, has the happiest effects. Warm water may also be made the vehicle for a variety of sedative applications, which are found by experience to tranquillize all irritable sores; and, in some, to expedite the healing process. Amongst the different applications for this purpose, the extractum conii, or extractum hyoscyami, may be mentioned, either of which may be employed in the proportion of about three or four drachms to a pint of water. Solutions of opium, or of extract of poppy, may also be used; of the former, two drachms; of the latter, half an ounce; may be dissolved in each pint of water. Starch, or mucilage of quince-seed, form good menstrua for these applications; their adhesive property enabling them to cling to surfaces to which they are applied. Three or four ounces of either of these fluids, impregnated with sedative substances, may be thrown into the rectum, in those cases where relief is not obtained by their application to the vagina; but when opium is used for this purpose, the practitioner should be very careful to watch over its effects, as it has sometimes happened that unpleasant consequences have arisen from the application of this drug to the rectum, such as vomiting, syncope, cold extremities, and irregularity of circulation. The action of the absorbents of the rectum is, in all probability, in these cases, increased by the inflammatory process which exists in the vicinity; besides which, the action of the rectum itself is temporarily taken off, so that the enema will probably be retained during a considerable length of time. Plasters and liniments, into the composition of which opium enters largely, will sometimes be found serviceable in allaying pain, and are useful auxiliaries in a disease, in which all the resources of the practitioner may be required to diminish the suffering of the patient.

"There are some applications which produce a sedative, or a stimulating effect, according to the strength of which they are used. A very diluted mixture of acetic acid, or of nitric acid in water, will form a soothing application to an irritable part, whilst in different proportions, they will become highly

irritating. Either of the lotions mentioned beneath, may be employed.

℞. Acidi acetici, ℥ss.
Aquæ distillatæ, Oj.—M. f. Injectio.

Or,

℞. Acidi nitrici gutt. x.
Aquæ distillatæ, Oi.—M. f. Injectio.

Or,

℞. Liquoris plumbi acetatis, ʒj.
Acidi acetici, ʒii.
Sp. Vinosi. ʒi.
Aquæ distillatæ, ℥xvss.—M. f. Injectio.

"If the discharge should become so profuse, as to induce great debility, injections which possess an astringent power, must be sought for.

℞. Decocti corticis granati, Oi.
Sulphatis aluminæ, ℥ss.—M. f. Injectio.

Or,

℞. Zinci sulphatis, ʒss.
Aquæ distillatæ, ℥xv.
Tinct. Rino. ℥i.—M. f. Injectio.

"If the discharge should assume a sanguineous appearance, it should be considered, how far it would be safe to permit its continuance. If the patient should be in great pain at the time, it may be right not to restrain it hastily, unless the patient's strength should have been previously much exhausted; but if it should appear desirable to diminish the hemorrhage, the astringents which have been before recommended, may be employed, and their strength may be increased, or the following may be employed in their stead:

℞. Argenti nitratis, gr. x.
Aquæ distillatæ, Oi.—M.

Or,

℞. Cupri sulphatis, ʒss.
Decocti cinchonæ, Oi.—M.

"Respecting internal remedies, although no one has as yet

discovered any medicine capable of removing the disease, it may not be too much to state, that there is scarcely a medicine of any class, which may not, in some way or other, or at some period or other, be useful in this complaint. Various are the symptoms which may arise; various must be the means of obviating them; and he will be the best practitioner, who best understands the adaptation of these means to their end. To point them out here, would be an endless labour, and a waste of the reader's time.

"It may be sufficient to observe that the patient should be treated upon general principles, bearing in mind, on the one hand, the hitherto intractable nature of the malady, and on the other, the sufferings of humanity, which call loudly for relief.

"Pain, the great evil of life, is the symptom by which the patient will be most distressed; and, happily, in the sedative class of medicines, there are to be found many capable of relieving it.

"It should be a rule of practice, never to exhibit a sedative of great power, when a milder will produce equal relief; because the disease is one of long duration, of increasing suffering, and every medicine will at length fail in producing its effect.

"Hyoscyamus and conium may be amongst the first employed, and the dose of each may vary from three to eight, or ten grains; larger doses have been exhibited; but the object is not to know how much of these, or of any other drug can be taken with impunity, but how much is necessary to produce the desired effect. If they are wantonly employed, the patient will be exposed to another set of symptoms, arising from a disturbed state of the stomach, and of the brain, as flatulence, heartburn, eructations, delirium: the necessity for the exhibition of these medicines, must regulate not only their dose, but the frequency of their exhibition.

"Extractum stramonii is another serviceable remedy in allaying pain, and it may be given in doses of a grain.

"The writer is not in the habit of exhibiting belladonna, having once seen a patient nearly destroyed by two small doses of it. Other practitioners, however, have employed it, it is said, with advantage. Mr. Brodie has informed the writer, that he has seen the happiest effects produced, by a suppository

containing extractæ belladonnæ gr. j. in cases of irritable bladder, and also of carcinoma of the rectum. Perhaps, therefore, in those instances, in which the administration of other sedatives is unavailing, it may be advisable to administer the above medicine in the form alluded to.

"As the symptoms become more pressing, and as the sufferings of the patient increase, still there will remain to the practitioner one resource, and to the patient one solace, in opium, by means of which, her distresses may be alleviated, and her passage from this world to another, rendered less agonizing. It will not be sufficient simply to prescribe a dose of opium, at stated intervals; that dose must be proportioned to the necessity for its use; and the skilful combination of it with other medicines, and the selection of its different preparations, will call forth the happiest efforts of the practitioner; in one case, opium in a solid form, will be found to agree; in another, the tinctura opii, of the pharmacopœia will better answer the purpose; in a third, the preparation known by the name of black drop; in a fourth, the liquor opii sedatives of Mr. Beattie, will quiet the patient, and at the same time, produce the least disturbance in the system; whilst the irritable state into which some patients fall, will be most successfully diminished by the very small quantity of opium, which enters into the composition of the tinctura camphoræ composita.

"In the greater number of painful diseases, which call for the use of opium, less care is required; but the sympathy of the stomach is so actively called forth, when the uterus is the seat of this disease, that it will be capriciously inclined towards one medicine, whilst it receives another with great comfort and advantage. If, as always happens towards the close of ulcerated carcinoma of the uterus, vomiting should come on, the combination of spices, with opium, will render this medicine more agreeable to the stomach. The julepum menthæ, cinnamon water, and, in some cases, weak brandy and water, will form the best vehicles for the different preparations of opium; sometimes, a mixture of confectio opiatæ, and spiritus ætheris sulphurici compositus, given in peppermint water, in small doses, at small intervals, will relieve, in an expeditious and certain

manner, the vomiting, singultus, and eructation, more effectually than any other combinations of medicines."

## Sect. III.—*Of the Polypus of the Uterus.*

This disease of the uterus, the author has never seen; he is therefore under the necessity of drawing his account of the polypus, from the experience of others. He has endeavoured to give a faithful history of this complaint, by consulting those he esteems the best authorities upon the subject; namely, Levret, Denman, and Clarke.

It would seem to be fairly presumable, that this disease is of more rare occurrence in this country, than in Europe; since, in the practice of the gentlemen just named, many cases have occurred; while in this, the experience of a number of gentlemen whom I have consulted, has not furnished one. This would also seem to call in doubt, one of the causes assigned for the production of this disease; namely, injuries which the uterus may have sustained during labour; for it is to be presumed, that were this a common cause, the American women would have a greater claim to polypi, than they appear to have.

Dr. Denman says, "the cause of polypi, is supposed to be some accidental injury done to the part at the time of labour, or otherwise; but more commonly, it is a spontaneous disease, proceeding from a certain disposition of the constitution, or of the part itself; as those who have a polypus of the uterus, are apt to have excrescences from other parts; and they sometimes exist in those who have never been pregnant, and even in virgins." Introd. Francis' Ed. p. 123.

Mr. Clarke defines polypus to be an "insensible tumour attached to the internal part of the uterus by a small neck, forming a disease of a very important character." P. 243, vol. i. This definition does not exactly correspond with the history given of this complaint by Dr. Denman; he says, "some of them hang by a small pedicle, and others have a broad basis, especially at their commencement." P. 123. Nor is it so satisfactory as the definition of Levret; he makes it "an indolent circumscribed tumour, more or less salient; resembling a fleshy or fungous excrescence; covered by the membrane from which it takes its rise, and which is of greater or less

thickness." Obser. sur la cure radicale de pleusieurs Poly. de la matrice, &c. p. 2.

Levret makes three species of uterine polypi; but this is certainly an unnecessary distinction, since his species are derived from their location in the uterus, and not from a difference in their organization; therefore, properly speaking, it is a mere difference of location. He says his first species, which he declares, at the same time, to be the most common, has its origin or attachment from the fundus of the uterus; the second, which is less frequent, takes its origin from the neck of this organ; and the third, which is the most rare, has its pedicle attached to the margin of the orifice of the uterus." P. 14. He has given plates, to prove the different locations of these tumours, which we have copied. See Plate IV.

These substances are vascular in different degrees; and agreeably to Levret, the veins are large in proportion to the arteries. The latter become varicose in that species, which is confined within the cavity of the uterus, or has its origin from its fundus.

The first species of Levret, is always attended, at a certain period, by hemorrhage; and is of course always accompanied by an increase of size of the uterus. A sense of weight, or bearing down, is experienced, with more or less intensity, as the polypus may be large or small. It is always of uncertain size; and may employ a longer or shorter period for such a growth as shall be very troublesome, or strongly engage the woman in a consideration of her situation.

It occasionally grows to a very large size, and distends the uterus so much, as to be distinctly felt above the pubes. When it acquires this size, and oftentimes before, there is found a discharge from the vagina, which in the commencement is serous; but may soon become purulent and sanguineous.

If a finger be introduced into the vagina, the os uteri will be found opened to an extent much beyond its natural size; and will permit its point to penetrate to its cavity, in which a substance will be felt of greater or less firmness, and of different degrees of inequality. The finger, if it be made to pass a sufficient distance within the womb, can be turned round the body, which the uterus seems to enclose. This examination may be

followed by a discharge of blood; it may be very small, or it may be very abundant.

The woman is almost always troubled with discharges of blood, which at times seem to assume a periodical movement; or it may only be more abundant at certain periods, while a constant but moderate flow fills up the interval. Pain of a periodical kind sometimes ensues; and this may be so long continued and severe, as to force the tumour from the cavity of the uterus into the vagina, and even through the os externum.*—When this takes place, it is generally mistaken for the uterus itself, and has been called by many a descent of this organ.

It is this condition of the polypus, which has given rise to the absurd stories related by many of the older authors, especially Cesalpinus, Ætius, Paul Eginetta, Carpi, &c., of the uterus having been amputated, and the woman having conceived afterwards. Levret, sur Polypes Uterine, p. 29.

The mechanism of the expulsion of the polypus, is very similar to that of an abortion;† that is, the os uteri is gradually,

* See Dr. Denman's cases, at the end of this chapter.

† The explanation given by Levret, of the mechanism which nature employs, when she attempts the expulsion of this species of polypus, is so ingenious, and so conformable to the general laws which govern this organ, that we cannot resist the temptation to transcribe it at length.

"Le polype utérin de la premiere espèce ayant une fois pris naissance au fond de la matrice par quelque cause que ce puisse être, croit peu à peu, sans que la femme ni le chirurgien même s'en apperçoivent; en effet, lorsque la malade se plaint pour la premiere fois, en ne peut d'abord décider si la cause de son mal est un polype ou toute autre maladie: car il n'y a dans les premiers tems aucun signe charactéristique de son existence."

"Ce corps étranger ayant acquis avec le tems plus de volume, oblige la matrice à se dilater, quoique par degrès tres-insensibles; mais comme l'attache de cette tumeur occupe, dans tous les tems, au fond de la matrice bien moins d'espace que le placenta d'un enfant en quelqu' etat d'accroissement que soit ce dernier, toutes choses neanmoins étant d'ailleurs égales, il faut, non pas que le fait dilater l'arriere-faix dans la grossesse; mais que les parois de ce viscère se prêtent un peu, de même de son fond, à cette puissance dilatante étrangere. Or il n'est point en ce cas de loix naturelles à sa destination qui sollicitent les parois de cette organe; elles doivent donc résister: le polype doit être comprimé; il doit donc aussi s'allonger plus ou moins, à raison de son plus ou moins solidité. Alors il s'insinue dans le col de cet organe, parce qu'il y trouve moins de résistance. Parvenu au sphyncter de l'orifice, il le force peu à peu, et s'introduit dans le vuide qu'il s'y

but successfully opened so far, as to permit the extrusion of this body. When this takes place, the body of the polypus is without the os uteri, while its pedicle maintains its attachment to the inner surface of the uterus itself. If it be examined now, it will appear to occupy the vagina, and might be supposed to proceed from its surface; yet, by a careful search, its pedicle will be found to be within the uterus, and the os uteri surrounding it entirely, as a sphincter; and as such it acts, agreeably to Levret. The polypus has been suddenly discharged from the cavity of the uterus, by falls or other violences.

He says, that in this species, hemorrhage is necessarily a consequence; but that it never appears, until the body of the tumour has in a great measure freed itself from the orifice of the uterus, and until it begins to extend itself in the vagina; then the sphincter of the uterus, (that is the os uteri) compresses the external veins of the polypus; in consequence of which, these veins become varicose, and finally burst; and their rupture gives rise to a hemorrhage, which is renewed at irregular periods." P. 25.

These frequent bleedings, if not relieved by the removal of the tumour, eventually exhaust the woman; but rather by their pertinacity, than by their immediate excess; yet examples are upon record, where a sudden hemorrhage has destroyed the woman immediately. Levret, p. 30.

These polypi seem not in general to do injury to the proper substance of the uterus; for several relate, that this organ was found sound after deaths, occasioned by the wasting hemorrhagies from the surface of the tumours. Levret, p. 41.

Agreeably to Levret, the signs of this species of polypus are, "whenever we examine a woman, who has been labouring under a discharge of blood from the vagina, or of a falling of the womb, whether they are both found together, or separate-

pratique, comme le feroit un coin: enfin l'extrémité du polype ne trouvant plus rien qui le gêne s'etend en avant et au large dans le vagin, et la tumeur prend plus ou moins de volume, selon que le permettent mille diverses circonstances, que sont plus aisées à concevoir qu'à détailler."

"Le pédicule ne peut pas s'etendre au large comme le reste de la tumeur, l'orifice de la uterus qui souffre un espece de violence, le comprime, le polype est donc comme étranglé en cet en droit: il faut qu'il prenne la figure pyriforme, de là naissent les varices; c'est là vraie cause de l'hemorrhagie." P. 38.

ly, if we find in the vagina a pyriform body, the insulated top of which passes through the orifice of the uterus, without destroying its circular form, we may always with certainty be assured, if we except pregnancy, that it is a polypus attached by its pedicle to the uterus, and that it is in the most favourable condition for the ligature." P. 48. See figure 1. Plate IV.

In the second species, the finger cannot pass entirely around the pedicle, as in the first; and the point which opposes the finger making its circle, is a little above the orifice of the uterus, and is found to be the pedicle of the polypus, inserted on the outside of the neck of the uterus. The os uteri may also be felt. See fig. 2. Plate IV.

This species is not commonly accompanied by hemorrhage, because the pedicle does not become strangulated, as in the first; but there is an increase of vaginal secretion. This species, nevertheless, is a genuine polypus.

The third species is thus distinguished; when there is in the vagina a moveable tumour, with a narrow neck attached to the orifice of the uterus, but in such a manner as to leave the orifice free, we may be pretty certain, that it is a polypus of this kind. In this case, the mouth of the uterus will be obliquely situated, as regards the axis of the vagina, in consequence of that part of the neck of the uterus to which the tumour is attached, descending a little lower than the other portions of it, from the weight of the tumour. This species is not necessarily attended by hemorrhage.

All these species have but one common remedy; namely, extirpation by ligature. In the first, it will be seen, that this remedy cannot be applied, until the tumour has descended into the vagina, and consequently will not admit of a cure until that event takes place. It would then seem desirable that this escape of the tumour from its confinement, should be promoted if possible so soon as it shall be determined that there exists a polypus within the uterus. But how shall it be ascertained, that there is a tumour in the cavity of the uterus, since no particular symptoms mark this condition until it fall into the vagina? There may be a great difficulty in distinguishing this condition at such a period; but we are informed, before this takes place, the woman suffers pain resembling labour; and

when pregnancy cannot account for these pains, nor dysmenorrhœa, it might be well to examine the patient per vaginam. In such an examination, the tumour might be felt making its way through the os uteri; if so, it would be every way desirable to facilitate its progress; and for this purpose I would ask, what would be the probable effect of the secale cornutum?

Nothing illustrates the routine of practice so well as the recital of cases; and no cases can be more interesting and satisfactory than those related by Dr. Denman. We shall therefore transcribe them for the benefit of those who may not have the advantage of possessing his work; as well as conveying to such in perspicuous language, the histories of several highly useful cases, treated with all the ability that that great metropolis, London, could furnish.

*Case First.*

"A single lady, twenty-two years of age, had, for a considerable time, been subject to frequent and profuse returns of uterine hemorrhage, which resisted all the means that could be devised for her relief, and at length reduced her to a state of great weakness. Dr. Turton (whose worth and continued friendship to me, I am happy on every occasion to acknowledge) was the physician who attended, and he, suspecting some local disease, desired I might be permitted to make inquiry. I discovered a polypus, not of a large size, lying low in the vagina. When I came to pass the ligature, there was much embarrassment from the state of the parts, any injury to which I was solicitous to avoid. On the fifth day from the time of my passing it, it came away; but the polypus could not be extracted without much caution and trouble. There was no return of the hemorrhage; she soon recovered her strength, and in a few months was married. She has since had seven fine children, with safe and easy labours. This polypus weighed four ounces."

*Case Second.*

"Another young lady had long suffered from frequent uterine hemorrhages, together with most violent pains, recurring in the manner of those of labour. High up in the vagina, just

cleared through the os uteri, I discovered a small polypus, round which a ligature was with difficulty passed. The late Mr. Hunter was with me at the time. When I began to tighten the ligature, she complained of very severe pain, and presently vomited. The ligature was immediately slackened, but on every future attempt to draw it tighter, the symptoms were instantly produced. After many trials, I was obliged to desist altogether, leaving the ligature loose round the polypus; merely to keep up in the mind of the patient, some faint hope of benefit. The health of this patient was very bad when I first saw her, and in about six weeks from the time of the operation, she died."

"Leave being given to open the body, the uterus was found inverted, and the ligature to have passed over the inverted part, which occasioned all the symptoms before mentioned. This polypus could not have weighed more than one ounce, and had a very short, if it could be said to have a stem; so that the uterus could not in this case have been inverted mechanically, but by its own vehement action, excited to expel the polypus, which, like any other extraneous and offending body, was a perpetual cause of irritation."

*Case Third.*

"Many years ago, I visited a lady, who had for a long time suffered greatly from various uterine complaints, and was supposed to have a cancer in the uterus, of which a general aspect gave very strong indications, but on examination I found a large polypus in the vagina. The late Dr. Ford, than whom no one was more intelligent or expert in practice, was in consultation with me. I passed the ligature and drew it tight, confidently expecting a happy termination of the case. The stem of the polypus was very thick, and it required eight or nine days' action of the ligature to divide it. When I had removed the polypus, I was very much mortified to find a new substance, nearly of the size of that which had been taken away, in the vagina. Her health being very infirm, it was thought advisable for her to go a short distance in the country, for the chance of establishing her health, before another operation

But a colliquative diarrhœa, with aphthæ, came on; she gradually declined, and about the end of the month died."

"Of this repullulation, if it were such, I have never seen any other instance, so early after the operation; and it might be attributed, 1st, to the thickness of the stem; or, 2d, to the slow decay of the stem; or, 3d, to a cancerous disposition of the uterus; or, 4th, to a large portion of the polypus remaining in the uterus; besides what was discoverable in the vagina. If a case similar to this were again to occur to me, I should certainly act more speedily with the ligature, and however reduced the patient might be, should feel justified in passing the ligature on the second excrescence, as affording the only chance of saving the patient; but this is perhaps to be considered as an instance of the great mischief done to the constitution, by too long delaying the operation."

*Case Fourth.*

"A lady about sixty years of age, who had several children, had, with violent pain, frequent hemorrhages from the uterus, so profuse as to bring her at each time of their return into the greatest danger. When she permitted me to take an examination, there was no polypus in the vagina, but the uterus was much distended, and the os uteri being opened nearly to one third of its circumference, I could discover within, and pressing upon it, a tumour of apparently a very large size. In the course of a few weeks, an immensely large polypus dropped into the vagina. Her health was much reduced, and the extirpation of the polypus appearing the only chance of saving her, I made many and strenuous attempts to pass the ligature, but without success. I then procured a large and different instrument, like that used in tying the tonsils, but with this I was also foiled. In my endeavours to pass this instrument round the polypus, the surface was abraded, a blood vessel of a considerable size was wounded, and there was a loss of blood, which rendered the patient still more weak. After a few days, without any instrument, I gradually introduced my hand into the vagina, got the ligature over the polypus, and then tightened it. Dr. Orme and Mr. Croft were with me at the time. But

many complaints came on, and she died in a few days, before the polypus could be extirpated."

"The blood vessels which convey nourishment to a polypus, probably bear a relation to its size, and must of course, be sometimes very large, so that in passing the ligature, it behooves us to be very careful that we do not wound the polypus; and, perhaps, in every case when the polypus is large, it would be better if possible to introduce the hand, for the conveyance of the ligature, than to use the instrument. Much will also depend on the texture of the polypus, which is sometimes so slight as to resemble an injected and corroded liver or kidney. I remember a case in which, though I only took a common examination, and the usual caution, so violent a hemorrhage was occasioned, that I thought the patient would have died instantly. Was a case similar to this to occur to me again, I should be disposed to try the effect of styptic injections, deferring any attempt to pass the ligature, till I had seen the effect which would be produced by them."

"The three preceding cases are the only ones among a very great number, in which I have not been successful; and I have judged it right to state them thus circumstantially, to set others upon their guard, and to prepare them for the possibility of disappointment."

"In the museum of the late Dr. Hunter, there is a large polypus from which an engraving was made, and by the register it appears, that after many attempts to pass the ligature, without success, this patient died. Perhaps by a knowledge of the causes of the miscarriages of others (as in case 4th, just recited,) subsequent trials, even in the polypi which are of the largest size, may be more fortunate. I have very great pleasure in relating the following case, which was lately under my care."

*Case Fifth.*

"A foreign lady, who was born, and had lived the greatest part of her time, in a hot climate, applied to me. She had had every day, for more than three years, a very considerable discharge of blood from the uterus, together with others of a different kind and complexion, by which her strength was very

much reduced. She had been attended by different gentlemen, who had not given any decided opinion of the nature of her disease. When I first examined her, I was indeed very much surprised; for not only the whole vagina was filled up with a fleshy substance, but the os uteri was as completely dilated as when the head of a child is passing through it, and the cavity of the uterus appeared to be much distended and filled with the same substance. I at first hesitated whether I should make an attempt to pass the ligature, as I could not reach the stem of the substance, but after deliberating on the state of the patient, who must soon perish, unless relief could be given, and knowing that if the ligature could be passed, I should have the power either of proceeding, or of stopping on the appearance of any untoward symptom, I determined to make a trial. The first and second attempts to pass the ligature were fruitless, but I at length conveyed the ligature beyond the bulk of the tumour, and far beyond my reach, by means of a piece of thin cane, notched at the end. The ligature being daily drawn gradually tighter, was at liberty on the sixth day. The external parts were unusually contracted, and as any endeavours to bring away the polypus at that time must have failed, it was left in the vagina to soften and decay. On the ninth day after the ligature was come away, she had pains as regular as those of labour, and when the os externum became somewhat dilated, I laid hold of a portion of the tumour, first with my fingers, and then with a small sharp pointed hook, favouring the expulsion of it as well as I could, during the pains, by which it was at length propelled with considerable force, after a labour of four hours continuance. From that time to the end of five weeks, there was not any discharge of any consequence. Then she menstruated regularly, and returned home in perfect health."

"This polypus, which was the largest I ever saw, was put into the hands of Dr. Ballie, who saw the patient during the operation. It weighed two pounds and three ounces; so that allowing for its decay, perhaps it could not originally have weighed less than three pounds. But the violence of the symptoms does not always depend on the large or small size of the polypus."

"When polypi are too large to be extracted without much difficulty after their separation, no harm can arise from their remaining some days in the vagina, as I have found in several instances; and their bulk hourly lessening by decay, their extraction is rendered more easy."

"These cases lead to an observation on the difference between what is properly meant by the term polypus, and excrescence. By the former is to be understood, those excrescences that arise distinctly from the uterus or vagina; and by the latter, a morbid enlargement of those parts. The first of these generally admits of extirpation with safety and advantage; but the latter, though they admit of extirpation, and even promise success, cannot with propriety and safety be removed."

"The late Dr. Hamilton, of Glasgow, obliged me with a drawing of a polypus which weighed one pound and four ounces, and had dropped through the os externum, inverting and dragging along with it the fundus of the uterus. The patient died. Had the nature of this complaint been understood in due time, it would, in all likelihood, have been possible to have tied and extirpated it, before it had occasioned so much mischief. It is an example among many others, of the impropriety of waiting till the polypus is excluded through the os externum, before we attempt to tie it; an opinion which some have entertained."

## Sect. IV.—*Of the Cauliflower Excrescence.*

This is another disease of the uterus, that the author has not seen. He has in several instances witnessed considerable discharges of a watery kind from the vagina, which he anticipated might be this disease; but upon examinations per vaginam, it did not prove to be so; nor could the cause of such profuse discharges be accounted for: they all were relieved by astringent injections, the tincture of cantharides, the bals. capaiv. &c.

The late Dr. John Clarke of London,* we believe, was the first who described this disease; in this country it must be

* See his paper, in Transactions of the Society for the Improvement of Medical Knowledge, 1812.

extremely rare, or our experience would have furnished a case. It may almost be looked upon among the incurable diseases of these parts, though considerable relief has been experienced at different times, by the application of the ligature, &c.

This disease has taken its name, from the strong resemblance it bears to the plant of that name. "The surface is granulated, and it consists of a great number of small projections, which may be picked off from the surface, as the granules may be detached from the vegetable." Clarke p. 59. The whole of this excrescence is covered by a membrane of extremely fine texture; and from the surface of which, an aqueous fluid pours, in great quantity; and thus gives a particular character to this disease.

This tumour for a long time occupies the upper part of the vagina, as it is the product of the os uteri; it however gradually, nay sometimes very rapidly, enlarges so much, as to fill up the whole of the vaginal cavity, and even occasionally to protrude beyond the labia. This extension of the disease, gives an opportunity to examine its texture, and to ascertain its colour.

Its texture is so extremely delicate, as to be injured by the slightest violence; and when this has been done, a discharge of florid arterial looking blood, immediately follows; and this in proportion to the extent of lesion the tumour may have suffered.

The appearance of the tumour, is of a bright flesh-colour; evidencing great vascularity, with very little solidity of structure.

This tumour possesses no sensibility; and is one of the rare instances of great vascularity, being unaccompanied by exalted feeling.

The vagina, in no instance, is involved, so far as observation has yet extended. It is yielded by the whole circle of the os uteri, or of a portion of it; so far, it has never been traced within the uterus.

Mr. Clarke thinks the growth of this excrescence is, in some measure, influenced by the capacity of the vagina; increasing more rapidly in capacious, than in restricted vaginæ. Hence, in married women, who have borne many children, the tumour

increases very rapidly; and, on the contrary, "the pressure of the sides of a less capacious vagina, as in single women, will greatly tend to control its enlargement, acting like a bandage." Clarke, p. 61.

It would seem, that the enlargement of the tumour, when so large at least as to protrude beyond the labia, occasions inconvenience by its mechanical pressure; as the parts immediately in contact with it, will not unfrequently ulcerate.

It is not ascertained what gives rise to this disease; conjecture even seems at bay. The mechanical violences of labour, are altogether insufficient to account for its production; for "married women, who have never been pregnant; nay, single women, are liable to the complaint, in whom no violence can have been offered to the os uteri." P. 62.

"It cannot be traced to any syphilitic cause. The common prostitutes of this metropolis (London,) are by no means more liable to it, than any similar number of women in different stations of life. The disease as often arises in the strong and robust as in the weak; in persons who live in the country, as those who inhabit large towns; in those whose situation in life obliges them to labour, as well as in those, who, from their rank in society, sometimes consider themselves privileged members of it."

"No period of life, after the age of twenty, seems to be exempt from the disease. The author has known it fatal at the age of twenty; and he has met with the disease at different periods of life, up to old age." Clarke, p. 62.

We have noticed above, that the blood which escapes from the tumour, when it has been injured, has the marks of arterial blood; indeed, this excrescence seems to be but a mass, or congeries of both arteries and veins.

A very remarkable circumstance attends this disease; it is, its disappearance after death. Mr. Clarke declares, "no one has seen a tumour, resembling a cauliflower excrescence, in the dead body." P. 63. It would seem, that so soon as life ceases, the whole tumour shrinks, and leaves nothing which resembles itself. All that can be perceived of the former tumour, however large this may have been previously, is "a soft, flaccid, slimy, whitish substance, resembling the fœtal

portion of the placenta of a calf, after it has been macerated in water." P. 66.

Notwithstanding the extremely vascular nature of this excrescence, it has hitherto resisted every attempt made to inject it; and, "though the uterine vessels were abundantly filled with the injection, the fluid escaped from its surface as fast as it was thrown in from the pipe of the injecting syringe."

Many attempts had been made by different practitioners, to procure a specimen of this disease; but all had failed, until Mr. Clarke was fortunate enough to remove one of these tumours on the third day after the application of a ligature. So soon as it was relieved from the vagina, it was put into alcohol: it was from this specimen, that his beautiful drawing and engraving were made.

## Sect. V. *Of the Symptoms of this Complaint.*

This complaint begins by an aqueous fluid discharge from the vagina, which is but little attended to in the beginning; nor, indeed, until the quantity which is yielded, obliges the woman to protect herself against its excess. But, as this profusion is not attended with either pain or stench, she neglects herself, until health yields to undermining disease. As a general rule, the quantity of watery discharge is in proportion to the surface of the tumour.

The water evacuated in this way, may be altogether transparent or colourless; or only occasionally tinged with red, upon the yielding of a small vessel; the quantity of water may be so small as not to create any great inconvenience, or it may be so excessive, as to require constant attention. Sexual intercourse is always followed by a discharge of blood; even common exertions may be succeeded by a similar hemorrhage. Thus, coughing, sneezing, straining at stool, will sometimes be followed by a great loss.

The watery discharge diminishes, in proportion as the sanguineous increases. From these multiplied discharges, the system becomes very much debilitated, and the body wastes, but not to great emaciation; the stomach becomes dyspeptic, and the belly tympanetic. Hysterical and nervous symptoms

supervene, to aggravate the distresses of the already overloaded victim.

Effusions now take place, and both local and general dropsy but too certainly follow. Sometimes the sufferings of the patient may have an unexpected termination, from the profuseness of the hemorrhage, which may suddenly have assailed her.

## Sect. VI. *Of the Prognostics in this Complaint.*

Mr. Clarke is of opinion, that the tonicity of the vagina will have a decided influence upon the progress of this complaint, and consequently must influence the prognostic. He says, "as the enlargement of vessels in other situations is much influenced by pressure, so it will be found, that the compression of the sides of the vagina will greatly retard the growth of this tumour. Now, as the quantity of the watery discharge depends upon the extent of the surface of the tumour, and as the danger of the patient is in proportion to the quantity of the discharge, it follows, that whenever the vagina has lost its tone, and the tumour has thereby been little subject to compression, the prognostic to be given to the friends of the patient, as to the probable duration of life, should be less favourable than when the sides of the tumour are supported by the sides of a more contracted canal. Added to this, the very pressure of a contracted vagina, is an evidence that the constitution still possesses a considerable degree of vigour: so that the capacity of the vagina, in this instance, as well as in many others, is by no means a bad criterion of the strength remaining in the constitution."

"When the tumour occupies only a small part of the os uteri, the opinion to be given should be more favourable, than when the whole circumference of the opening is involved in the disease." "The symptoms, in some cases of the disease, are diminished more easily than in others; of which circumstance no knowledge can be obtained until the experiment has been made; the greater the effect, therefore, which local remedies produce in controlling the discharge, the longer will the disease continue, cæteris paribus, without destroying life."

## SECT. VII.—*Treatment of the Cauliflower Excrescence.*

This disease, like some others of the uterus, if left alone, never cures itself. The debilitating nature of the discharges; the watery, from the excess of its quantity; and the sanguineous, from the importance of its quality, though it should not be profuse, will soon exhaust the woman that may be the subject of them. Unfortunately, this complaint, in its commencement, does not excite as much alarm as its mischievous tendency should create. It were to be wished, that the female should be better acquainted with the symptoms which forerun the dangerous diseases to which she is peculiarly liable, if it would always be safe to communicate such information. But unfortunately, the imagination exerts such influence over the happiness of mankind, as to render it extremely doubtful, whether more would not be lost than gained, by such a knowledge: it must, therefore, for the present, at least, be left to the contingent discovery, as heretofore.

From the nature of the formation, or rather organization, of this species of tumour, it is evident, that its extension or diminution will very much depend upon the state of the circulating system, as regards excitement, and the quantity of blood. And experience appears to have proved, that nothing keeps it in subjection, like controlling the force of the arterial system; and nothing is so effectual to this end, as lessening the quantity of blood, directly, by bleeding, and preventing its accumulation, by a well regulated system of dieting.

Blood may be abstracted from the arm by the lancet; or it may be taken from about the sacrum by cups; this will diminish the quantity of blood immediately present, and will afford relief. But this will be very transient, if care be not taken to prevent a new accumulation, by severely restricting the patient to a very bland, and unnutritious diet. The articles of diet must be not only void of stimulus, but should also be but little nourishing. If this be not attended to, no good can result from the abstraction of blood; on the contrary, it may be even injurious, as the excitability of the system is increased by the loss of blood.

Mr. Clarke appears to give the preference to local, rather

than to general bleeding. He also prefers cupping to the application of leeches; but without assigning any reason for the preference: we cannot see why either would not do.

Mr. Clarke says, "the diet should be of the mildest kind, such as puddings, white fish, and vegetables." In this country, we should look upon "puddings and white fish," as very substantial fare; and would be far from the articles we should select as proper for a woman in this situation. Were we to direct upon such an occasion, we would confine the patient to black tea, thin coffee, and stale bread, for the meals of morning and evening; and vegetables alone for dinner. These may consist of the potatoe, the turnip, the parsnip, the carrot, the tomatoe, and the ripe fruits of the season.

We might permit a little variety, by allowing rennet whey, buttermilk, baked or roasted apples, thin vegetable jellies, as that of the tapioca, sago, rice, or arrow root. Her drink should be absolutely limited to water alone, barley water, molasses and water, toast water, or thin flaxseed tea.

A recumbent posture must also be insisted on, or but little advantage will be derived from the attempts made to reduce the force of the circulation. But it should be remembered, that it is not a matter of indifference on what the patient reposes; it should either be upon a good elastic mattress, sacking bottom, or sofa. A feather bed would be directly injurious, by maintaining too much warmth about the pelvis. And Mr. Clarke insists, that, "if the patient be married, she should be separated from her husband's bed, to which she should never return."

An unceasing attention should be paid to the state of the bowels, that an evacuation of a loose stool may be procured daily. When this can be effected by diet, it is always best it should be. For this purpose, the bread which the patient eats should be made of unbolted wheat flower; or this may be made into mush, and eaten with molasses. Indian meal gruel, sweetened with molasses, has also a favourable effect upon the bowels.

But should these be found insufficient for the purpose, the patient may chew daily a little of the root of rhubarb: or take equal parts of cremor tartar and the flower of brimstone, made into an electuary by molasses. The lenitive electuary

alone, or a little increased in power, if necessary, by a small addition of powdered jalap, is oftentimes very effectual. Equal parts of calcined magnesia and the flower of brimstone, is a very certain laxative. The sulphate of magnesia in small doses in solution, taken before breakfast, is also very certain. At all events, costiveness must be avoided. Should it however accidentally occur, it should be removed in the most gentle manner, that strong efforts may be avoided. This will be best done by very mild injections, such as warm molasses and water, thin soap suds; making them of such a quantity, as will ensure their operation, rather by their bulk than their stimulus.

Mr. Clarke speaks in high terms of cold applied to the outside of the pelvis; and by injections of cold fluids within the vagina. The former to be applied by sponges, and the latter by the female syringe; these to be repeated twice each twenty-four hours.

With a view to diminish the size of the tumour, Mr. Clarke recommends astringent applications to it. For this purpose, he advises the sulphate of zinc, in the proportion of four or five grains to the ounce of water; or alum, in the proportion of ten or twelve grains, with a little of the mucilage of gum Arabic; or alum and the tincture of kino, as follows:

℞. Infus. lini, ℥xv.
Aluminis, ʒij.
Tinct. kino, ℥j.—M.

Or,

℞. Cupri sulphat. gr. x.
Aquæ Flor. samb.
Mist. camphoræ, ℥vj.—M.

He gives several other formulæ, of much the same character, but we think of no more efficacy. He suggests, with much propriety, the necessity of great care in throwing up these injections into the vagina, lest the extremity of the pipe should break a portion of the tumour, and occasion a bleeding. The round headed pewter female syringe is the best for this purpose; and even this should be introduced but a little way beyond the os externum.

If the tumour has so far increased, as to appear at the os externum, or just within the labia, it is advised, that the astringent fluids should be used by means of a common earthen butter boat; the woman having her hips elevated during the operation. And when the tumour has actually protruded, Mr. Clarke directs, "compresses dipped in an astringent fluid, to be applied to it; or the surface may be lightly touched with a soft sponge wetted with it." P. 98.

As this complaint is sure, sooner or later, to be attended by great debility, the woman should be supported by tonics when this occurs. The sulphuric and muriatic acids are recommended for this purpose, with the infusion of orange peel, or of rose leaves, with great confidence, and, we believe, justly: at least, we think they agree better than any other tonics we have tried, in wasting diseases.

Bark, in decoction, is also a favourite remedy with most practitioners, but it is sometimes difficult to restrain its effects on the bowels. The sulphate of quinine has not so often this inconvenience of passing through the bowels, like the bark in substance, or in decoction; it therefore merits the preference. The decoction of the cascarilla (cortex Eleuth.) has an admirable effect sometimes, where the bark is indicated.

Of the general plan of treatment now laid down, Mr. Clarke speaks in the following terms. "The author is justified in repeating, that by a strict attention to, and compliance with the rules above suggested, nearly every case of this disease may be made tolerable; and, perhaps, such a change wrought in the size or the actions of the excrescence, in a few instances, as to remove all the symptoms." P. 104. He confirms these hopes by the recital of several successful cases.

The ligature, however, he considers as an important auxiliary. It is to be applied, as recommended for the polypus of the uterus. He declares, however, that more care is necessary in its application in the one case than in the other; the cauliflower excrescence being so very liable to bleed, upon a kind of violence being offered it. The shield recommended for the polypus, is not so necessary in the cauliflower excrescence, as the tumour will be cut through in a much shorter time. The objection to the use of the shield in this operation, is the pos-

sibility that the weight of it may tear through the tumour, before the blood has coagulated in the vessels above.

"After the removal of the disease, (tumour?) it is recommended that the vagina should be washed out with cold water, and that a solution of alum, in a strong decoction of oak bark, should be thrown into the vagina twice or three times a day, and the external orifice blocked up with a dossil of lint, so as to prevent the too sudden escape of the fluid."

"A weak solution of the nitrate of silver, or of the sulphate of copper, may be preferable, in some instances, to any other injection: it may be used in the following proportions:

℞. Argenti nitrat. gr. xij.
Aq. distillat. ℥xij. f. sol.

Or,

℞. Cupri sulphat. gr. xviij.
Aquæ rosæ, ℥xij. f. sol."

A piece of lint, wetted with either of these solutions, may be introduced, and placed against the diseased portion of the os uteri. "By such means, a slight inflammation may be excited in the blood vessels, so as to produce a consolidation of the parts diseased; and thus the regeneration of the tumour may be more tardy."

"However favourable appearances may be in that part of the uterus which can be examined by the finger, there may exist out of reach, and consequently without the knowledge of the practitioner, morbid changes of structure, which may of themselves prove fatal." P. 112.

We have chosen to quote the opinions of Mr. Clarke upon the subject before us, pretty much at large, as his experience qualifies him to give opinions upon the disease, which our entire ignorance of it would not justify. The high standing of this gentleman, as a successful practitioner, adds much value to his practical directions; and what enhances these opinions still more, is, that they are altogether free from learned parade, without elucidation; and of ingenious speculations, without practical improvement.

## Sect. VIII.—*Mode of Applying the Ligature.*

As our own experience can furnish no suggestion towards improving the method of operating for polypi, we shall, without farther apology, transcribe the latest (and on that account we presume the best) method; it is the one recommended by Mr. Clarke in his chapter on this disease.

He directs, that, "previously to performing the operation, the rectum of the patient should be emptied by a glyster, or the intestinal canal may be cleared in its whole extent by a mild purgative. For a short time before the commencement of the operation, the patient should be kept in the upright posture, that the neck of the tumour may be more within reach."

"As the tumour possesses different degrees of convexity in different cases, and as the distance of its neck from the os externum is very various, the practitioner must be provided with two or three rods of different lengths, made of flexible metal, so as to be capable of being adapted to the shape of the tumour. The author's brother, the late Dr. Clarke, has contrived a brass rod, which being received into a hollow handle, is capable of having its length altered as each case may require; and by this means the multiplication of instruments is rendered unnecessary."

"A silver canula, of a length sufficient to reach from the neck of the tumour to the distance of an inch or an inch and a half from the os externum, should be prepared; and near the extremity which is to hang out of the external parts, there should be placed two small shoulders, round which the ends of the ligature may be twisted. A sort of windlass has been recommended for this purpose in the canula; but this is quite unnecessary, and renders the instrument more complicated."

"The ligature should be made of waxed silk, of such a thickness, as neither to cut the neck of the tumour, nor to break, nor block up the canula. In order to pass the ligature through the canula, a long piece of thin brass wire should be ready. This is absolutely necessary; because, when the ligature becomes slippery and pliable, it will not be possible to push it through the canula. The patient should be placed upon a bed. She should lie upon her left side, and her knees should

be drawn up towards the abdomen. If the external parts should not be readily dilatable, they should be dilated. The fore finger of the practitioner's left hand, (previously oiled,) is now to be carried through the vagina to the neck of the tumour. The brass rod (previously prepared with the ligature, and its curvature adapted to the shape of the tumour,) is to be passed up by the right hand to that part of the neck of the tumour where the fore finger of the other hand is placed. The ligature is then to be secured by the finger, and the brass rod is to be carefully carried round the neck of the tumour, till it comes to that part where the ligature was secured. The practitioner is now to secure also under his finger, that part of the ligature which has been carried round the neck of the tumour, and the rod is to be carefully withdrawn. In some cases, it will be found more convenient to steady a part of the ligature with the rod, and to carry the other part of the ligature round the neck of the tumour with the finger. In doing this part of the operation, great care is to be taken not to include any part of the os uteri. Before the ligature is tightened, the patient is to be desired to inform the operator if she feels pain; because if the tumour only is included in the ligature, no pain will be felt."

"The two extremities of the ligatures which hang out of the os externum are now to be drawn through the canula, by the piece of wire (which had been previously doubled, and carried through the canula, so as to form a noose projecting from it,) and after the canula has been gently passed up to the neck of the tumour, they are to be drawn tight, and are then to be twisted round the shoulders of the canula, where they are to be made secure. The ligature, therefore, should be long enough to encircle the neck of the tumour, to be carried through the canula, and a sufficient length of it should remain to be affixed to the shoulders of it. More than one ligature should always be prepared, lest that which is first used should become too slippery to be managed."

"After threading the eye of the rod, one extremity of the ligature is to be twisted once or twice round the instrument, whilst the other hangs loose. The patient should be made acquainted with the shape and situation of the instrument, that

it may not be liable to be moved when she gets up to make water. She is also to be desired to remain constantly upon her side, and should not be allowed to move from one side to the other, unless when the practitioner is present. For want of attention to this caution, there is reason to believe that the canula has been inadvertently pressed against, and its extremity pushed through the uterus of the patient, so as to occasion her death. In the engraving given of the polypus canula, there may be seen a contrivance, by means of which this accident may be prevented. The canula is made of the same diameter from one end to the other, and a spiral screw is cut upon it. To this spiral screw is adapted another screw, placed in the centre of a kind of shield, which (when the ligatures are fastened) is to be placed in contact with the external parts. The shield in the plate is of a circular form; but in women who are corpulent, it may be more convenient that its shape should be oval."

"The patient is now to be left, and great care is to be taken by the nurse that the canula is not moved when the contents of the bladder are expelled."

"Every day the practitioner is to examine the state of the ligature; and as often as it is found at all to slack, it is to be tightened. The mode of tightening it requires particular attention. If the canula should happen to be long, the practitioner should not hold the end of it whilst he tightens the ligature; lest with the force used, the ligature should cut through the neck of the tumour, and the other extremity of the canula should be forcibly and suddenly pushed by the left hand against the internal parts of the woman. In order to avoid this accident, the canula should be firmly held close to the external parts of the woman, which prevents the possibility of mischief being done. If the canula with a ligature is employed, it is next to impossible that this accident should happen."

"A syringe full of warm water should be thrown into the vagina every day, when the ligature is tightened, in order to wash away the putrid discharge."

"The time at which the ligature will come away, will depend upon the thickness and firmness of the neck of the tumour, and the tightness with which the ligature is at first applied.

The neck of the tumour sometimes is cut through in four days; sometimes ten or twelve days will elapse between the application of the ligature and the removal of the tumour, and occasionally the separation of the tumour will take up nearly three weeks, but this is an uncommon occurrence."

"The neck of the tumour being destroyed, the tumour itself is to be brought away by the practitioner. This will be accomplished in some cases with ease, by one or two fingers introduced into the vagina. If the polypus is large, or the external parts contracted, a single blade of a pair of midwife forceps may be used. If the size of the tumour should be such as not to be easily removed by these means, the crotchet may be fixed into it, and in this way it may be brought along. The palm of the hand should always be kept opposite to the beak of the instrument: so that if it should slip, the parts of the woman may not be injured by it."

"The cavity of the vagina should afterwards be cleansed by injecting some tepid water, and this should be repeated during several days."

"The mucous and bloody discharge seldom continue long after the extraction of the polypus; but if any should remain after a week or ten days, some astringent injection should be thrown into the vagina three or four times in a day."

"As the ligature is applied around the neck of the tumour, a part of the latter may remain between the ligature and the uterus. In consequence of the application of the ligature, this part putrefies, and comes away mixed with the discharges. In one case in which the author extracted a polypus from the uterus, he found that the os uteri had nearly recovered its natural size at the end of five days from the time at which the ligature came away; that at the end of fourteen days it was impossible to ascertain that any disease had existed in the parts; and upon the sixteenth day, the patient menstruated."

"It has been recommended, after the application of the ligature, that the tumour should be cut off with a knife; but there does not appear to be any necessity for doing this, particularly as no harm arises to the patient from suffering it to remain till it falls off. Besides which, mischief might be done with a

knife carried high into the vagina, and it is by no means certain that the tumour will not be more likely to return."

"It sometimes happens, that the ligature and canula fall out of the vagina when the practitioner is not with the patient; for which event she should be prepared, lest this occurrence should create alarm. Whenever this happens, it is obvious that the neck of the tumour is destroyed."

"The food of the patient should be simple, easy of digestion, and nutritious. If the bowels should be confined, a glyster of warm gruel may be thrown into the rectum. If the stomach should be irritable, a saline draught in a state of effervescence may be given, with a few drops of laudanum; and if the patient should complain of pain from long confinement to the same posture, a sufficient dose of opium should be taken to procure rest."

The cause of debility being removed, the patient generally, quickly recovers her strength; but as an auxiliary, a draught consisting of a decoction of bark with sulphuric acid, may be taken three times in a day."

## Sect. IX.—*Of Hydatids of the Uterus.*

By hydatids, is understood a congeries of vesicles of various sizes, containing a transparent lymph; attached to the internal face of the uterus, and with each other, by filamentous footstalks, much resembling a bunch of grapes. These vesicles differ in size, from the smallness of a pin's head, to the size of a walnut. They are looked upon as animals of extremely simple organization and functions. Of their origin we know nothing, and almost as little of their habits. Nor do we know how many species there may be of them; as several species are sometimes found in the same animal. A large hydatid has several small ones attached to it, by small filamentary processes.

These animals sometimes increase with great rapidity; and when their seat is in the cavity of the uterus, they distend this organ in proportion as they acquire size, or increase in number.

The cause of the disease under consideration, has never

been discovered. These animals sometimes attack the external covering of the ovum, and thus produce abortion.*

It is not, however, ascertained that pregnancy is, in any degree, necessary for their production. Indeed, in the only case we ever witnessed of this disease, it certainly was not immediately so. The patient was more than thirty years of age, and had been a widow upwards of three years, when she was attacked with hydatids of the uterus.

She observed herself to swell gradually, and also to decline in health; her menses were arrested, and her lower extremities were swelled. Her friends suspected she was pregnant; and when she was attacked with periodical pains, they were certain their conjectures were well founded; at this time we were sent for. Before our arrival, however, the uterus had relieved itself, by expelling nearly a chamber-pot full of hydatids; at least so we supposed them to be, for they had been thrown out unexpectedly before we arrived. They said, what came from her, was like a very large bunch of grapes of different sizes; from the size of a currant to that of a large fox grape.

When we arrived, we found the woman very much exhausted by the discharge of blood, and which was still flowing in an alarming degree. This was, however, arrested by frictions upon the abdomen; ice; and large doses of the acetate of lead and opium. In the course of two years she had several attacks of this kind, each of which seemed to be less severe than the former; and at last they seemed to cease spontaneously, and the woman recovered her health, without any thing particular having been done for her, except sea bathing for a whole season.

* A case of this kind, with a drawing of the ovum, has been kindly furnished me by Dr. Atlee of this place, accompanied by the following account of it.

"The above is a rough drawing of an *ovum*, beset with *hydatids*, which was expelled from the uterus of a particular friend, aged about forty-five years, who had had slight floodings every day, at intervals, for one month, unattended with pain; at the expiration of which time, labour pains came on, and the ovum soon escaped. The rationale of the case, I have supposed to be thus: the hydatids forming and increasing gradually, separated by degrees the ovum from the parietes of the uterus, at each renewed separation causing hemorrhage, and soon the death of the embryo, which, on cutting into the ovum, was let out, in appearance like pus. The hydatids contained pure lymph." See Plate VIII.

In consequence of the delicacy of the covering of the hydatid, it is easily destroyed by pressure, or any conquassatory motion of the abdominal muscles or uterus; hence, they frequently burst, and give rise to a discharge of a pale transparent fluid, without odour or tenacity. And this circumstance may be said to be the only one which characterizes this complaint; for every other attending symptom, is common to many other affections of this organ, and would not serve, without the above named circumstance, to distinguish it. The greater part of the inconveniences of this complaint, arise, as in pregnancy, from the pressure of the distended uterus upon the surrounding parts; hence, we sometimes have cramps of the lower extremities, œdematous swellings of them, retention of urine, &c. as in a genuine pregnancy. I cannot find, in any memoranda of the case just related, any notice taken of the condition of the mammæ, from this diseased occupation of the uterus.

This disease may be known from the cauliflower excrescence, by the *occasional* discharge of a watery fluid, and this in different quantities at different times; whereas, in the latter disease, the quantity of fluid discharged, is much greater, and more *constant*. As regards the sensible qualities of each, they perhaps resemble each other pretty strictly; but we know of no experiments to determine their chemical resemblances, or discrepancies.

No remedy has hitherto been discovered for the relief of this complaint. The patient is not to be led to expect any great relief from art; at least in the progress, or in the interval of the disease. All it can do, is to afford a degree of relief, by aiding in a species of labour, which will sooner or later take place, from the distention of the uterus.

Mr. Clarke advises, "when this period arrives, at which the uterus is striving to unload itself of its contents, then all the skill and energy of the practitioner will be wanting, and all his efforts will be called forth to control the hemorrhage, and to sustain the powers of the constitution. With this view, the patient should be kept perfectly still, in a horizontal posture; she should not be allowed to take any stimulating food, or drink. Cold applications to the loins, abdomen, and external organs," &c. Treating it as any other case of uterine hemor-

rhage, by promoting, by every possible means, the contraction of the uterus. "Should any portion of the hydatid remain, and if the hemorrhage should continue profuse, an attempt should be made to remove these, in order to produce complete contraction of the muscular fibres." Vol. i. p. 120.

This is to be done by introducing the hand, well lubricated, into the cavity of the uterus, and carefully detaching the adhering portions of the hydatids, and bringing them out with the hand. It will be perceived, that this direction cannot be complied with in all instances; for, in all instances, the uterus will not be sufficiently distended by the hydatids, to permit the passing of the hand with ease; and violence must never be employed in this, or any other instance, in passing the hand into the cavity of the uterus.

We would propose, and we think with a fair prospect of success, the free use of the secale cornutum in this complaint, to procure the expulsion of the hydatids; especially in such cases as would not freely admit the hand; or where the contractions of the uterus were too feeble, or insufficient for their extrusion.

So far as analogy, and reasoning upon a subject, will justify the employment of a novel remedy, we have them on our side; for it is certain, that the union of hydatids with the uterus is not more strict, than the ordinary connexion of the placenta with that body; and we know from experience, that this connexion can be destroyed, most fortunately sometimes, by this very peculiar and interesting drug. As regards ourselves, we should not hesitate a moment to employ it.

# CHAPTER XVI.

## ON UTERINE HEMORRHAGE.

The mode I shall pursue in the treatment of this subject, will be,

First. To consider very briefly the nature of the connexion of the ovum with the internal face of the uterus.

Secondly. To investigate the causes which may impair this connexion, and thus expose the source from which the blood is derived.

Thirdly. To examine into the mode of action of these agents in effecting this lesion.

Fourthly. To point out the several periods of utero-gestation, at which this may take place—and trace the various consequences which may result from these periods.

Fifthly. To notice the mode of treatment under the different stages and circumstances, which may accompany the disease.

### Sect. I.—1. *The Connexion of the Ovum with the Uterus.*

Soon after the ovum is deposited within the cavity of the uterus, we find it connected through the whole extent of its surface, with the internal face of this organ. Both uterus and ovum contribute to this end; on the part of the womb, we find it produce a soft spongy substance called decidua; on the part of the ovum, we discover its external covering or chorion shooting out innumerable vascular fibres—and both, when united, serve as the bond of union between ovum and uterus.

The efflorescence on the uterine surface, like that which covers the ovum, is decidedly vascular; and it would seem, that these minute vessels interlock with each other, after a certain period; and this so firmly, that they cannot be well separated without rupture. But should a portion of the ovum be de-

tached in the earlier months, the quantity of blood that may issue, will be commensurate with that surface; especially, if it be from the body or fundus. And as a general rule, it may be said, that the quantity of blood which may be expended, will be in proportion to the advancement of pregnancy.

SECT. II.—2. *The Causes which may tend to destroy this Connexion.*

In consulting authors upon this subject, we shall find a variety of causes enumerated, as capable of destroying, to a greater or less extent, the connexion between the placenta and uterus—and it is agreed by far the greater number, that no considerable hemorrhage can occur unless this happen.

In enumerating the remote causes of hemorrhage, I shall only name such as are most generally believed capable of this effect, either before or after delivery.

Before delivery: 1st, too short a funis; 2d, mechanical violences; 3d, passions or emotions of the mind; 4th, plethora: and after delivery, 1st, atony; 2d, spasm; 3d, humoral engorgement; 4th, unequal contraction of the uterus; 5th, inversion.

Though all these causes have been assigned for the disease we are considering—still it is sufficiently difficult of explanation how some of them act to produce it. When violence of any kind is offered a pregnant woman, and she miscarry, or is prematurely delivered, the cause, from its force or extent, at first sight appears capable of the end; and there, all investigation ceases. It may not, therefore, be time ill spent, to inquire into their respective agencies.

SECT. III.—3. *Mode of Action of Certain of the Remote Causes.*

And, first, too short a cord. It was the opinion of La Motte, that the cord may be naturally or accidentally too short—and that in either case, it might be the cause of hemorrhage. He gives a case purporting to be illustrative of this assumption—but confesses it was the first, and only one, he ever met with. The bleeding proceeded from one of the umbilical vessels, at a portion which was folded into a kind of knot, and which yielded, from the accidental shortness of the funis. Levret

met with a similar instance. And Baudelocque also mentions a remarkable case of this kind.* It must, however, be confessed by all conversant with the practice of midwifery, that though this may be a cause of hemorrhage, it must be a very rare one—or the extensive practice of these three celebrated authors, would have furnished more examples.

Secondly, mechanical violence: Thirdly, passions or emotions of the mind: Fourthly, plethora. Each of these causes may produce uterine hemorrhage; and perhaps all have. However, the mode in which they effect this, is not so well understood as it deserves to be—the whole of these causes have one common operation upon the system—they all induce an increased force of circulation; and this is generally considered sufficient, under certain circumstances, to produce the evil in question. It has been thought, that whatever gave an increase of force or velocity to the circulatory system of the mother, must always necessarily, in consequence of the large size of the hypogastric and spermatic arteries; the short distance they have to travel before they arrive at the uterus; together with their great increase in that viscus as gestation advances; very much affect the condition of the ovum within its cavity—that the arterial vis à tergo must act mechanically upon the ovum; and by mere force of circulation drive it from its connexion with the uterus—that plethora must act pretty much after the same manner—and, as a proof of this, it is said, that the periods at which the menses are wont to return, are those at which abortion is most readily provoked; for, at these times, though the uterus is impregnated, and this discharge has ceased, still the blood is sent in greater abundance than usual, until the demands of the embryo are such as to employ it, without suffering the vessels to become engorged.

For, if a mere increase of circulation were all that is required to effect this end, no woman would escape aborting, who may labour under high arterial action—thus, fevers of all kinds should be followed by this accident; but this is contrary to all experience. I am obliged, then, to suppose something more necessary than an invigorated circulation, to produce this effect.

* Midwifery, par. 1084.

I have said, that something more is required than an increased force of circulation, to effect a separation of the ovum in the early months, or of the placenta in the more advanced periods of pregnancy—and that something I believe to be uterine contraction, as without this, I am at a loss to understand the *modus agendi* of the remote causes.

I shall not pretend to say how the causes enumerated above, induce this action—though certain that this effect is produced through their agency, and for the following reasons: 1st. Because mere circulatory impulse appears from the anatomy of the uterus and ovum, to be inadequate to produce this effect—since neither abortion nor premature delivery follows as a consequence, when this condition has been present in its highest degree.

2dly. Because, contraction in every instance, is essential to the separation of the placenta, whether in abortions, premature labour, or delivery at full time.

3dly. Because we frequently detect this cause, by the presence of pain, hours, or sometimes even days before the eruption of blood; and because, so long as this contraction continues, hemorrhage will not cease, unless we diminish the bulk of the ovum, or interrupt its return by proper remedies.

Where the ovum is about to be cast off, either in the early or later periods of pregnancy, or where there is no chance of its preservation from the effect already produced upon it, contraction becomes useful, though originally the cause of the separation and hemorrhage, as it proves the healthy disposition of the uterus, so far as this circumstance is concerned. By it, the ovum is completely separated, and cast off; the bleeding put a stop to, and the woman secured from danger. Contraction and pain are now to contend with, as well as the bleeding, which always increases the difficulty of cure.

And it may not be amiss to inquire how far we may have a control, or whether we have any, over uterine contraction, after it has once been called into action. The no small authority of Mr. Burns is against me when I say, I think we have, though confessedly difficult of subjection. Yet, as it is a matter of high consequence to ascertain the truth upon this subject, I hope to be forgiven, if I differ from that respectable writer. He says,

"when abortion is threatened, the process is very apt to go on to completion, and it is only by interposing *before the expulsive efforts are begun*, that we can be successful in preventing it; for, whenever the muscular contraction is *universally established, marked by regular pains, and attempts to distend the cervix and os uteri*, nothing, I believe, can check the process."

That it is a matter of uncertainty, whether we succeed in our attempts to arrest uterine contraction after it is "established," must be acknowledged. But that it is never attended by success, I cannot concede, nor should the principle ever be inculcated, as it paralyzes exertion, and withholds from the suffering female, a comfort which the attempt rarely fails to give. My own experience would, I think, in more instances than one, declare that I have been occasionally rewarded; and should it fail nineteen times out of twenty, we are surely not justified, in withholding the probable means. I therefore make it an invariable rule, to treat the case as if I expected success.

There is one case however, in which I never interfere, with the slightest prospect of a happy issue; and that is, where the process of gestation has unequivocally ceased; and of which I take but one circumstance to be absolutely certain; namely, where the breasts have become tender and tumid, and then pretty suddenly subside. It would here be a forlorn hope to administer remedies with a view of retaining the ovum.

I am disposed to believe that this circumstance is the only one, which marks the loss of life of the ovum with sufficient certainty; it is perhaps the only one that is unequivocal; since, all others may be said to be deceptive. This mark was known to Hippocrates; and has, I believe, ever since his time, stood the test of experience. So long then as this sign be absent, I do not relax in my attempts to preserve the ovum. It must however be confessed, that I have known the ovum to be cast off, where this symptom was wanting. Yet I am persuaded, in each of these instances, that the ovum preserved its vitality almost to the last moment; and that its expulsion was owing to the indomitable nature of the contractions of the uterus; I think this has obtained most generally with women who are in the habit of miscarrying. I do not stand alone in my opinion upon this subject.

Puzos (Mem. de l'Acad. de Chirur. vol. i, p. 203) declares, that neither pain nor hemorrhage necessarily produces abortion. La Motte (Obs. 305) gives an instance where the woman went her full time, after the orifice of the uterus was considerably dilated. And, above all, I may cite Mr. Burns himself, for an example most strictly in point. (Princip. of Mid. ed. 2d, p. 195, in a note.) He relates, with seeming belief, that cases have occurred of twins, one of which has been expelled, while the other remained, and the "action of gestation," as he happily terms it, was still maintained to the proper period.

Now this is demonstration, that after muscular action has been "universally established," it can be suspended for a considerable time: if this be so, under the circumstance of one fœtus being expelled, and the uterus, by a cessation of action, shall permit a second to remain until the proper time, I should expect it, à fortiori, when the uterus is not so extensively, or so powerfully excited.

The remote causes which I have hitherto been tracing, may with propriety be considered as contingent, or accidental in their application and influence. But one still remains to be noticed, which must be regarded as absolute in its effects, whenever it may chance to exist—I allude to the implantation of the placenta over the mouth of the uterus.

The knowledge of this particular location of the placenta, is of modern discovery—and, perhaps, Levret is the first, who decidedly taught this doctrine. Mauriceau, La Motte, and others before his time, met with the placenta in this situation, but they all believed it was a mere precipitation of this mass, after an entire separation from the fundus of the uterus.

But when thus placed, flooding is inevitable, for the order of development of the uterus is so uniform, that a deviation can only result from accident, or such a combination of circumstances as very rarely happens; we can then with absolute certainty declare, that when the placenta is unhappily situated over the mouth of the uterus, a flooding, towards the latter periods of gestation, must happen—hence the propriety of the term "unavoidable," for this kind of hemorrhage.

During the first six months of utero-gestation, the body and fundus alone yield to the distending power of the ovum: after

this time, the neck is called upon (if I may so term it) for its proportion, as the other parts of this organ seem to refuse any farther supply: in consequence of which, it, in its turn, becomes distended; and, in this act, a portion of the placenta is necessarily removed; and a bleeding, according to the extent of injury, or the number of vessels exposed or ruptured, ensues.

After discharging more or less blood, the hemorrhage may cease; or it may be so reduced in quantity, as to excite little apprehension. But this is a false security—it is sooner or later renewed, either by a farther stretching of the neck, by the augmentation of the ovum, or by the removal of the coagulum, which had until now stopped the bleeding.

In this manner may things proceed, until near the last stage of pregnancy—or the extent of separation may be such, or the size of the vessels exposed be so large, that the woman's life is instantly jeopardised, and from which she can only be protected by the most prompt and efficient remedies.

## Sect. IV.—4. *The Periods of Pregnancy at which Hemorrhage may take place.*

There is no period at which this may not take place, after the first month of pregnancy; since it is presumable, that after the fourth or fifth week, a union more or less strict is formed betwixt the ovum and the uterus, by means of the chorion and the decidua; it must therefore necessarily follow, that a separation may be effected, and a bleeding ensue. Until about the fourth, or between the fourth and the fifth month of gestation, this accident may happen to any portion of the ovum; since, up to this period, the placenta, or what is to become placenta, completely surrounds the ovum.

As a general rule, then, we find the risk from floodings in proportion to the advancement of pregnancy; because the vessels are larger, and, in a given time, yield a much greater quantity of blood—though the chance of occurrence is in the earlier months. Puzos says, that abortions under the fourth month are rarely fatal—and this observation is perhaps confirmed by the experience of almost every practitioner; provided, a sufficiently early attention had been paid to it.

It must be confessed, that it is very difficult to establish any certain rule upon this subject; since, I have seen as alarming symptoms attend an abortion of six weeks, as I have witnessed from a premature labour of the seventh month; or indeed, at any other period. It may, however, with confidence be advanced, that alarming symptoms do not show themselves as quickly in the early, as in the later months; and, of course, we have much more time for the employment of proper remedies.

We shall now consider the mode of treatment. In pursuing my inquiry into this, I shall endeavour to be as explicit as the nature of the subject will admit; for I can only establish general principles, and modes of management; as every individual case will present a shade of difference; and the treatment of this shade of difference, whether important or otherwise, must be very much left to the good sense and judgment of the practitioner. I however trust, at the same time, that little embarrassment will be experienced, as the indications and their fulfilment will be so distinctly pointed out, as to render the one pretty certain, and the other without much ambiguity.

With a view to perspicuity, I shall divide the consideration of floodings into the several periods at which they may appear; and the remedies into their nature, or supposed mode of action. The peculiarities of each period, shall be pointed out; by which means, we can establish more clearly and certainly the mode of treatment. The nature of each remedy shall also be considered; and the period at which it is more especially indicated; together with its mode of action, and the degree of confidence to be placed in it.

In the division of this part of my subject, I shall nearly follow the arrangement of Dr. Denman; as it embraces every essential variety of period, at which hemorrhage, as a consequence of utero-gestation, may take place; this will embrace four periods. 1st. That period of its occurrence, in which the ovum is entirely surrounded by the decidua and decidua reflexa; this will comprehend the first four, or four and a half months of pregnancy. 2d. Into all the remaining period of utero-gestation. 3d. Into the period between the birth of the child, and the expulsion of the placenta.

This division is by no means arbitrary; it is founded upon principles, and circumstances, that must not carelessly be lost sight of, if we wish either to understand the nature of the disease in question, or become acquainted with its most successful mode of treatment. For instance, until after the time pointed out in our first division, it would be highly improper, under almost any circumstance, to pierce the ovum with a view to the discharge of the liquor amnii; yet, at the second period, it may become an essential remedy. In the third, the woman's safety may depend upon the immediate delivery of the placenta, and the subsequent contraction of the uterus; and each of these distinctions, by which the conduct of the practitioner is to be regulated, should be well understood.

## Sect. V.—*First Period.*

Until the period of four and a half months, or even to the fifth, the ovum, when separated entire from the uterus, appears to be an ovular, spongy, fleshy mass: it bears evidence of attachment to the parietes of the uterus, in every point of its surface—and it would seem to show, that at any one part of this, it may be subject to separation; and the effect of this separation will necessarily be, a solution of continuity of more or less vessels; and a consequent hemorrhage. I have just intimated that this separation may be at any point of the ovum; but the effects will be in some measure different, as it may happen near the neck, or at the body, or fundus, of the uterus. When the separation happens at the body or fundus, before the blood can issue from the os tincæ, it must necessarily loosen the attachment between the spot of commencement, and the point at which the blood issues; it will, therefore, follow, that when this takes place, the chance of arresting a flooding, and preserving the ovum, must be diminished in proportion to the destruction of the connecting medium. But when the disunion takes place near the neck, the mischief will be less serious, though the discharge may be very abundant.

It has been supposed by some, that the os tincæ was always soon affected, in cases of hemorrhage threatening abortion.

But I am rather of opinion that the uterus has been supposed to be open, because of the expulsion of clots from the vagina—but this by no means follows: for the coagula are always, perhaps, but certainly much the most frequently, formed in the vagina, when an ovum occupies the cavity of the uterus. Of this the most decisive proof can often be given, in the very early months of pregnancy, by a mere survey of the size of an expelled coagulum; for many times it is five or six times the size of the uterine cavity, were this not filled by the ovum.

But little information can be derived from an examination of the state of the uterus in the commencement of a flooding; for the os tincæ may be completely closed for a long time in some instances, and the ovum be eventually cast off; while in others, it may be naturally a little open, without offering additional risk to the embryo.

But I may safely declare, when the neck of the uterus is distended, so as to resemble in feel the extremity of an egg, that abortion will sooner or later take place, however small the opening of the os tincæ may be. In this case the uterus is thrown into complete action, and the extension of the neck of the uterus just spoken of, is the effect of these contractions. There is another mark equally unequivocal; and to which it may be proper now to advert, namely, the cessation of morning sickness; a diminution of the abdominal tumour; and, above all, the secretion of milk; followed by flaccid breasts. In both these cases, all attempts to save the ovum, will be unavailing; and our whole care must be directed to the state of the flooding.

Nor is the quantity of blood expended, any positive evidence that abortion will take place; especially, when unaccompanied by pain—for I have repeatedly seen a very large waste, without any other evil attending; while, on the contrary, I have witnessed the expulsion of the ovum with the loss of a very few ounces, when attended by pain.* As a general rule, perhaps, it may be said, that those cases of flooding following any

* Pain accompanying flooding should not make us abate our endeavours to save the ovum, but under the circumstances stated above: and I have witnessed several instances of ova being cast off, where neither pain nor flooding accompanied the expulsion.

violence, more certainly end in abortion, than those which come on silently, and slowly, without any apparent cause.

No reliance should be placed upon the opinion, that a moderate discharge of blood from the vagina, during pregnancy, is useful, by removing topical plethora.* On the contrary, we should look upon every appearance of this kind with great suspicion, and treat it as if it were to become decidedly mischievous. Therefore, every sanguineous discharge from the vagina of a pregnant woman, should be treated with the utmost care—all the essential indications for hemorrhage, should be instantly complied with; and no time should be lost by temporising.

The essential indications, are 1st. to arrest the bleeding; 2d, subdue pain if present; and 3d, prevent a recurrence of the hemorrhage.

These three points are constantly to be kept in view, as the preservation of the ovum, or even of the woman, is dependent upon their fulfilment. Therefore, whenever a woman is attacked with an hemorrhage from the uterus, the sooner it can be arrested, the better; every known remedy of efficacy is to be employed in succession, should the antecedent ones fail of success; and every advantage must be given to these means, by the patient and her attendants, by a strict adherence to the directions enjoined. It would be in vain for the physician to prescribe, if either the patient or attendants run counter to his instructions; and in no case, perhaps, is this observance of more decided consequence, than in the complaint I am now considering.

One of the first steps to be taken, is to command the most perfect possible rest of body and of mind. The patient should be placed upon a mattress, sacking-bottom, or even the floor, in preference to a feather bed. The room should be well ventilated; the patient very thinly covered; her drinks, toast water, cold balm tea, lemonade, ice-water, &c.—no stimulating substance of any kind should be permitted. Care should be taken, even in the administration of food and of drinks, that the patient be not subjected to exertion to receive them; they should be given to her while in a horizontal position. Her

* Kok says, that local plethora is a cause of hemorrhage. (See Pasta, p. 275.)

food should also be of the same character with her drinks—thin sago, tapioca, gruel, or panada—in neither of these should wine, or any other liquor, find admission; they can be rendered agreeable by lemon juice, sugar, or nutmeg. All animal food, or the juices of them, in the commencement of flooding, should be forbidden. Let whatever is given, be given cool. Absolute rest of every member of the body should be enjoined.

The officiousness of nurses and of friends very frequently thwarts the best directed measure of the physician, by an overweening desire to make the patient "comfortable." This consists in changing of clothes, "putting the bed to rights," or altering her position; all this should be strictly forbidden. Conversation should be prohibited the patient; and all *company* excluded. Much mischief is frequently done by the talk of bystanders, who delight for the most part in the marvellous; and but too often relate the histories of cases, which are every way calculated to appal the already too much alarmed patient; this kind of gossipping should be peremptorily forbidden, even at the risk of giving offence; rather than permitted to the certain injury of the sick.

Having established a proper system for the repose of the patient, and the government of the attendants, we should next determine the propriety of blood-letting—this becomes very often of high importance; especially, at this division of our subject; plethora is a usual attendant at this time; nay, may be, as I have hinted, the very cause of the alarm. Blood should be taken from the arm in a quantity proportionate to the exigency; remembering, we do little or no good by the operation, if we do not decidedly diminish the force of arterial action; let the pulse rather sink under the finger than otherwise; its repetition must be regulated by circumstances; recollecting, however, that hemorrhage is sometimes maintained solely by exalted arterial action; as the following case will very clearly show:

I was called to Mrs. B. in January, 1796, whom I found much exhausted by uterine hemorrhage, in the fourth month of gestation. She had, several days previous to my visit, returns of flooding, which were little attended to. The usual means were now employed, and for the time, the discharge

was arrested; this was early in the morning of the 16th. She remained very well until 5 o'clock, P. M. At this time she had a return of flooding; I was instantly sent for; and living but a few steps from the patient, was very quickly at her bedside. She was found to be flooding very rapidly; the pulse was very active; and the eruption of blood appeared to be preceded by a slight rigor, followed by high arterial action; she was instantly bled from the arm, and the abdomen covered with ice and snow, until there was a reduction in the force and frequency of the pulse; so soon as this took place, there was an abatement of the discharge; this condition was followed by slight alternate pains in the back, shooting towards the pubes. Forty-five drops of laudanum were now given; and strict injunctions left, that the patient should be kept as quiet as possible; and in case of return of the flooding, that I should be instantly apprized of it. 17th, A. M. The patient was found free from fever, and almost free from discharge; she continued so until about 5 o'clock, P. M. when the whole scene was renewed, as mentioned before; she was again bled; subjected to the application of the ice; and the laudanum was repeated for the same reasons as yesterday. 18th, A. M. 8 o'clock, I was called suddenly to my patient, as she again had a return of fever, with hemorrhage; she was again bled, &c.

In this manner did matters proceed for several days; it was found now, that the arterial exacerbations observed no regular period; but whenever they occurred, there was uniformly a return of the flooding, and during this state of excitement only; with a view to interrupt this condition, or to abridge it as much as possible, I placed a young gentleman at the patient's bedside, with orders to bleed, the moment he perceived an increase of pulse; this was accordingly done; and from each bleeding decided advantage was discovered. The loss of five or six ounces of blood was sure to put a stop to the uterine discharge, in the course of a few minutes; and sometimes, would prevent its appearance, when it could be very promptly used. By proceeding in this manner until the 23d, the patient was entirely freed from this distressing complaint. She was bled seventeen times; and lost, by computation, one hundred and ten ounces of blood in the course of seven days. She gra-

dually gathered strength, and was safely delivered at the proper time.

The acetate of lead should now be given, in doses and frequency proportionate to the violence of the discharge. From two to three grains may be given, guarded with opium, every half hour, hour, or less frequently, as circumstances may direct: or in case the stomach be irritable, a very efficient mode of exhibiting it is per anum—twenty or thirty grains may be dissolved in a gill of water, to which will be added a drachm of laudanum: this must be repeated pro re nata. If pain attend, more opium should be given than if there were none; and this must be repeated until a decided impression be made upon the uterine contractions; or until its exhibition appears totally unavailing. Should the discharge be profuse, the application of equal parts of cold vinegar, and spirit of any kind, may be applied to the region of the pubes; or, what is still better, a large bladder, two-thirds filled with ice and water.

The discharge from the vagina, when very profuse, will not always yield, however, to these remedies; and if it do not, it will very soon become highly alarming. To save even a few ounces of blood, is always a duty; and sometimes, is highly important: should the means just recommended fail in moderating, or stopping the threatening symptoms, no time should be lost in employing the tampon. The best I have ever used, is a piece of fine sponge, of sufficient size to fill the vagina. It should have pretty sharp vinegar squeezed from it several times, with a view to clean it, as also that it may be imbued with this acid; it may then be introduced into the vagina, and suffered to remain until its object is answered.

Previously, however, to the introduction of the sponge, it will be well to examine the state of the neck of the uterus and os tincæ; their condition will very much govern our decision and prognostics. Should the one be found entirely closed, and the other of its original shape, we may, notwithstanding the profuseness of the discharge, and even the presence of pain, still entertain a rational hope of preserving the ovum; but if, on the contrary, the form of the neck be altered, and the mouth opened, we are pretty certain it will sooner or later be cast off. But neither of these conditions is to affect our conduct,

as regards the bleeding; for this is to be staunched, though we are certain the embryo will be lost.

Much error is sometimes committed, under the impression that the ovum must be expelled; and that nothing can be done advantageously for the woman, until this be effected. I have known a hemorrhage suffered to continue, almost to the exhaustion of the patient, because pain was considered essential to this end; though on each return of it, a large coagulum would be expelled; or the discharge has been augmented, by manual attempts to aid its expulsion. Both of these mistaken methods cannot be too severely reprehended—one for blameable supineness; and the other for rash interference.

Whatever may be the rapidity of discharge in such cases, it is ever under command, so far as my experience will warrant the assertion, by the use of the tampon. This should be instantly resorted to; and its effects will be quickly perceived.

I deprecate, with much earnestness, frequent, and unnecessary touching. This is not only injurious, by fatiguing the patient, but by removing coagula, that may be important to the stopping of the hemorrhage. This should, therefore, always be avoided; except at such times, as it may become necessary to ascertain whether the mouth of the uterus be yielding to the influence of pain. It therefore can only be necessary in such cases as are, or have been, accompanied by uterine contractions.

I also must seriously forbid all attempts to remove the ovum, so long as the greater part of its bulk is within the cavity of the womb; lest its covering be broken, and the liquor amnii evacuated. We must let no false theory get the better of multiplied experience; all the latter goes to prove the impropriety of such a procedure; for it is agreed by the most enlightened men upon this subject, that it is mischievous to effect it; and unfortunate, when it spontaneously happens. The reason is obvious. The embryo is expelled, and its involucrum is retained; in consequence of which the flooding is perpetuated, and much pain, and other inconvenience, if not danger, is experienced, before it is expelled from the uterus. I must therefore repeat it to be a rule, that the ovum is never to be pierced before the commencement of the fifth month,* unless the flood-

* Burton, and some others, advise the rupturing of the ovum, even at the se-

ing is very profuse, the pains very urgent, and the os uteri pretty well opened.

In this advice I depart from the very high authority of Baudelocque, with whom it is not very safe to differ; he recommends this to be done always after the third month; provided, the membranes do not tear of themselves. But very ample experience has convinced me, that it is safer to preserve them, so long as the os uteri remains closed, be the pains ever so frequent or powerful, or the flooding ever so profuse; for the one may be diminished by opium, and the other arrested by the tampon. And if no pain attend, it almost becomes criminal to do so; since the ovum may, by the use of the tampon and the other remedies above suggested, be preserved.

I have ever found, in such cases, much effort is required to expel the secundines; nor need we be much surprised at this, when we recollect the strong disposition the uterus has to close at this period of utero-gestation. Indeed, I have repeatedly witnessed most alarming floodings from this cause; and am certain, that this arose from the presence of the placenta; as the discharge always ceased, so soon as this mass was removed.

When the hemorrhage is thus maintained, we should remove the placenta as quickly as possible; but this is the difficulty. At the early periods of pregnancy, which are comprehended within the first five months, the uterine cavity is too small to admit the hand, or a couple of fingers; and sometimes even one; therefore any attempt to deliver it by the hand alone, will almost always fail. If this mass be entirely within the uterus, or even nearly so, the os uteri will be found most generally so much closed, even at the fifth month, as to prevent the introduction of the finger so as to hook down the placenta; and as we descend from this to the second month or lower, it will be naturally so small, as to prevent the intromission of even one.

When this is attempted, (by the inexperienced especially,) it is sure to end in disappointment. Sometimes a portion of the placenta is felt without the os tincæ. If its greater bulk be so situated, we can sometimes remove the whole, by press-

cond month—than this, nothing can be less conformable to either sound reasoning, or good practice.

ing it between two fingers, and withdrawing it; and thus put a stop to the discharge; but we are rarely so fortunate.

In such cases, I have employed, with the most entire success, a small wire crotchet. This instrument is very simple in its construction, as well as in its mode of action.*

The manner of using it is as follows: The fore finger of the right hand is placed within, or at the edge of the os tincæ; with the left we conduct the hooked extremity along this finger, until it is within the uterus; it is gently carried up to the fundus, and then slowly drawn downwards, which makes its curved point fix in the placenta; when thus engaged, it is gradually withdrawn, and the placenta with it. The discharge instantly ceases, in every case in which I have used it. In all the instances to which I here refer, I am persuaded the women's lives were saved. In illustration of what I have just urged, I will relate one of the cases of the several that have fallen immediately within my notice. I was called to Mrs. H—— on the 3d of August, 1807; she was at the third month of pregnancy, and violently flooding; pains were frequent and severe; large doses of the acetate of lead and opium were ordered, together with cold applications externally—the mouth of the uterus was a little open, and the ovum protruding; quiet, cold drinks, &c. were ordered, before I took my leave. I returned at twelve o'clock, three hours after the first visit—the hemorrhage not abated; pains increased; the os tincæ more dilated, and the ovum more tangible. At three o'clock P. M. the ovum opened spontaneously, and the embryo escaped—flooding violent; pains trifling; syncopes frequent; pulse very small and quick; the placenta in part engaged in the os uteri—a stimulating injection was ordered, with the hope it would bring away the placenta. Four o'clock P. M.—the injection failed in the object for which it was given; hemorrhage continues; syncopes frequent; pulse scarcely perceptible. The placenta was now removed by the wire crotchet; the flooding ceased instantly: the subsequent symptoms were very mild.

* The drawing I have given of this instrument, is upon a reduced scale; the reduction is one-third. I consider this much more simple than the pince à faux germe of Levret, recommended by Leroux and Baudelocque; or that of Burton, for the same purpose.

Sometimes, when the ovum has opened, and the embryo escaped, but has left its involucrum behind, the hemorrhage may not be violent, but may be of long continuance; at least, as long as this mass may remain. In such cases, where time is not so precious to the safety of the woman, I have, in several instances, administered the ergot in twenty grain doses, with very decided and prompt advantage.

The peculiarity of this period consists in the ovum not having the transparent membranes formed; and the practice founded on this, as a general rule, is, never to break the walls of it.

## Sect. VI.—*Second Period.*

This comprises all the time, from the fourth and a half, or the fifth month, to the entire completion of utero gestation.

The woman is liable to hemorrhage during any part of this period, by the action of any of the remote causes already enumerated; and in proportion to the advancement of pregnancy, will be the risk from flooding; as the quantity of blood thrown out in a given time, is, cæteris paribus, greater and more difficult to arrest. Therefore, when a woman is attacked with a discharge of this kind, however moderate it may be in the commencement, we have no kind of security against its increase, at any after moment—she is to be carefully watched, and most fully advised. I should insist upon her compliance with the rules directed for the first period; and employ the remedies already proposed, as early as the nature of the case may require.

I have already intimated, that a hemorrhage from the uterus during pregnancy, can only happen from a portion of the placenta being detached. It will follow, that the issue of blood will be in proportion to the extent of surface so exposed; to the advancement of pregnancy; and the force of the circulation. Now, as the advancement of pregnancy is greater in this, our second division, than in the first, the chances for a more profuse discharge of blood, are increased in an equal proportion; hence, it is agreed upon all hands, that the risk the woman runs is very great; so great, indeed, sometimes, as to be very speedily fatal; since, we can have no influence over the ex-

tent of separation of the placenta, nor always have control over the force of arterial action.

The indications, however, are precisely the same as for the "first period;" but their fulfilment is not always effected after the same manner.

It is my practice, in cases of flooding during pregnancy, of a threatening aspect; or when, from the rapidity of the discharge, the woman's strength would quickly be exhausted; to use, in addition to the means just mentioned, the tampon. I have already said, I have found fine sponge the best; but where this cannot be procured, fine flax, or very well picked tow, or old linen, may be substituted.

When the latter substances are chosen, they should be used in portions of moderate size, and well moistened with sweet oil, or melted lard—they should be introduced one by one, until the vagina is completely filled; the whole may be secured by a compress, and T bandage. This latter precaution is not necessary when a sponge is used, if the piece be of proper size. From its compressibility, it is introduced without the least inconvenience, if previously wetted with vinegar; and I believe it promotes coagulation quicker than any other substance, from its numerous cells giving speedy passage to the finer parts of the blood. It almost instantly puts a stop to the hemorrhage; and, in some instances, I believe I was entirely indebted to it for the preservation of my patients' lives.

Some object to the employment of the tampon; the objection is as follows: namely, the danger of local inflammation from the use of vinegar. But experience has proved it futile.

The mode of action of the tampon in stopping hemorrhage, is precisely the one nature employs, when she alone effects this end. A coagulum is formed from the tampon to the mouths of the bleeding vessels, and thus puts a stop to, or very much diminishes, the farther issue of blood. It would seem, from all we know upon this subject, that there is a strong disposition in the cut or divided extremity of a blood-vessel, when at rest, or nearly at rest, to form a coagulum within itself, for the purpose of putting an end to the farther issue of blood: hence, the importance of coagula at the mouths of the bleeding arteries; the formation of which, is the first step towards

spontaneous suppression. Puzos,* many years since, had pretty nearly the same notion upon this subject; he said, that the coagula acted as corks to the mouths of the bleeding vessels.

The internal remedies for the suppression of uterine hemorrhage, when successfully employed, must act in such a manner as to dispose the blood to a more speedy coagulation, or immediately upon the opened extremities of the bleeding vessels, so as to induce a contraction of them. Hence, the almost universal employment of that class of medicines called astringents. Leroux,† however, forbids them in uterine hemorrhage, after delivery; but he does this upon a wrong principle. He says, "dans l'hemorrhagie uterine violente qui succède à l'accouchement, ils ne peuvent être d'aucune utilité. Pour s'en convaincre, il suffit de se représenter la route qu'ils sont obligés de suivre avant de parvenir ou lieu aù leur effect pourrait être utile, le temps qu'ils mettent à parcourir ce trajet, et les changemens qu'ils éprouvent avant d'y arriver."

In like manner, from their mode of action, Leake‡ objects to the use of astringents or styptics in this complaint; and, as I conceive, upon no better ground than Leroux; for I know that certain of them, as the sugar of lead especially, sometimes produces the most decided effects, let its mode of action be what it may.

In many instances, it seems to exert a control over the bleeding vessels, as prompt as the ergot does upon the uterine fibre: and, from the extent and certainty of this action, we might be tempted, without doing much violence to the delicacy of medical speculation, to call its action specific. In a word, we may justly question, whether any internal remedy can be successful in uterine hemorrhage, which does not exert an action somewhat specific.

But neither internal remedies, nor external applications,

* "Ces sages precautions ont suspendu souvent, et quelquefois ont fait cesser des pertes de sang accompagnées de petits caillots; non pas en soudant, pour ainsi dire, à l'interieur de la matrice les portiens du placenta séparées, mais en donnant le temps au sang arrêté à l'embouchure des vaisseaux de s'y cailleboter, et d'y former de petits bouchons moulés sur leur diamètre, capables d'arrêter le sang." (Mem. de l'Acad. tom. i. p. 211.)

† Observations, &c. p. 200. ‡ On Child-Bed Fever, vol. ii. p. 301.

should be exclusively relied upon, longer than is decidedly consistent with the safety of the patient; for neither astringents of any kind, nor the tampon, can be availing in all cases; and when they fail, there is but one resource, namely, delivery; the consideration of which, brings us to the other modes employed by a large class of practitioners, for stopping uterine hemorrhage; namely, those who consider delivery the only resource.

## Sect. VII.—*Delivery considered as a Mode of arresting Hemorrhage.*

From the time of Mauriceau and Dionis, to the present moment, the number belonging to this class is very considerable; and if numbers merely were to be considered, the weight of evidence would be in favour of their practice. The want of proper knowledge in treating uterine hemorrhage by other means; the fatal rapidity of its termination, sometimes, where rupturing of the membranes, or delivery, was not performed; or where a feeble plan had been pursued; the occasional success of these plans, together with the strong probability of uterine contraction after this organ is emptied, and the influence of this contraction in arresting the bleeding; has but too easily, and too generally, found advocates for its almost exclusive employment. Thus, La Motte* thought it impossible to restrain hemorrhage, when the placenta was detached in part or entirely, but by the extraction of this mass; Dionis declared we should not defer the delivery of the fœtus, if blood in great quantity, and without interruption, escaped from the uterus.† Mesnard advised delivery, if there was a flooding sufficient to cause fainting;‡ and Heister§ and Puzos‖ were of the same opinion, &c. &c.; for it would be easy to multiply authorities, to considerable extent, to the same end.

The advocates for delivery, as the only means of arresting hemorrhage, may be divided into two classes; first, into those who paid no regard to the condition of the uterus when the operation was undertaken. The second, those who evacuated

* Traite des Accouchemens, Obs. 216.
† Des Operations, p. 249.
‡ Pasta, p. 170.
§ Surgery, part ii. p. 957.
‖ Mem. de l'Acad. vol. i. p. 224.

the liquor amnii, with a view to promote the contraction of the uterus, and by this means put a stop to the flooding; these last may be subdivided into three: 1st. Those who did not regard the situation of the os tincæ, when they ruptured the membranes; and when this did not immediately succeed, entered the uterus with the hand, by forced means, and immediately effected the delivery. 2d. Those who, having torn the membranes and gained the feet, were contented to bring them to the orifice of the uterus, and then trust to the natural efforts to perform the delivery. 3d. Those who never pierced the membranes, but when the mouth of the uterus was either dilated or dilatable, and who, after rupturing them, permitted them to escape gradually, and finished the delivery very slowly, or waited for the efforts of nature.

From the improvements which midwifery has received within the last fifty years, I should not have expected to meet with an advocate for indiscriminate delivery, at the present day; yet, in Meygrier, we find that advocate. That the most mischievous consequences have followed the practice of those who compose the first class,* we have the authority of Pasta,† who deprecates the practice as both cruel and dangerous; of Kok,‡ who says he has seen it followed by inflammation of the womb; of Leroux,§ who declares it to be dangerous to both mother and child; of Baudelocque,‖ who insists that nothing can justify the accoucheur, who persists to deliver while the neck of the uterus retains its natural thickness and firmness. And I once witnessed death, as the consequence of such a proceeding.

The method pursued by those of the first division of the second class, is not free from serious inconveniences; and they are, perhaps, scarcely inferior to the first, as the same violence almost is obliged to be committed. The plan of the second division of the second class, (which I shall, in conformity

* Among the first class, may be reckoned all the accoucheurs prior to the time of Mauriceau. To the second class, and the first division of that class, belong Mauriceau, Dionis, La Motte, Deventer, &c. &c. To the second division, we may place Puzos, Smellie, Delourie, &c. &c. And to the third, we have Leroux, and most of the late writers upon midwifery.

† Vol. i. p. 132. ‡ Pasta, p. 276. § P. 241. ‖ Vol. ii. p. 90.

with custom, call Puzos' method,) is far from being the one most conformable to the principles of the art; since in its performance, *great* violence is frequently obliged to be resorted to.

The objections to this scheme are: 1st, that every flooding during pregnancy is not necessarily followed by delivery; but if we adopt this method, it must sooner or later take place, perhaps to the certain destruction of the fœtus.

2d. Because the mouth of the uterus may be so placed as to render this operation very difficult, if not impossible; especially, when the uterine orifice is still very thick and rigid; for Puzos* himself confesses, he was an hour or more before he could pierce the membranes; and this was a loss of most precious time to the patient, as the flooding still went on, and he began to despair of the success of his method, from the excessive loss of blood, and was fearful he should be obliged to have recourse to forced delivery.

3d. That the hemorrhage does not always cease after the rupture of the membranes; but on the contrary, it sometimes only manifests itself at that time.

4th. That the presentation of the child, and the presence of the placenta over the mouth of the uterus, will render this method ineligible.

5th. It is sometimes impossible to make a forced delivery; especially, from the fifth to the sixth and half month; of this La Motte† gives an example, and Smellie‡ another—and I once saw a similar failure. And, above all, they have not pointed out any alternative, when their plan shall have failed.

It is only upon the method of those who compose the third division of the second class; or those, who never pierce the membranes, but when the os uteri is dilated or dilatable, that we can safely place reliance, in cases of severe flooding.

It may be asked, what are we to do in cases of profuse hemorrhage, at any period from the fifth month to the full time, when the discharge threatens the life of the patient, and when the os uteri is both close and rigid? Are we silently to witness her death, rather than employ some violence to relieve her? Certainly not. If there really was no other remedy, forced

* Mem. sur les Pertes, &c. p. 336. † Obs. 452. ‡ Collect. 33, No. 2, Ob. 1.

delivery, with all its disastrous consequences, might be justifiable; but as we have the power of plugging the vagina, and preventing the farther issue of blood, we should have immediate recourse to it: and this plan, so far as I have witnessed, has not failed; and this experience is so supported by that of Leroux, as to entitle it to entire confidence. By this means, time is permitted to the natural agents of delivery for the performance of their duties; and this is done, for the most part, with both certainty and success.

The importance of the tampon is, perhaps, never so clearly demonstrated, as when it is employed in cases where the flooding has proceeded to almost complete exhaustion—where every ounce of blood is of immense value. In such cases (before delivery) I have seen it arrest a profuse flow in almost a moment, and where the farther loss of a few ounces, must have been followed by death. Syncope, and even convulsions, have ceased upon its application.

As it is confessed, that after the failure of the remedies recommended for the suppression of hemorrhage, the application of the tampon, &c. there is but one means left in our possession by which the flooding can be arrested, and the life of the woman preserved—yet it may be asked, is there no condition of the patient, in which it would be improper to attempt delivery, besides the rigidity of the os uteri? To this, I answer, yes—I would say, that a woman reduced to the last extremity of weakness, but with a suspension of the discharge, should not be meddled with, so long as the hemorrhage was kept in check.

But suppose the same degree of weakness, with a continuance of the flooding; should we in such case attempt delivery? I have no hesitation in answering this in the affirmative—but, previously to the operation, the condition of the patient should be candidly stated to her friends; it should be undisguisedly declared, that no undue calculation should be made of the benefit of delivery; but, as it offers the only possible chance of relief, it should be adopted. We should be the farther encouraged to do this, as it now and then happens that the woman has recovered, contrary to all expectation.

Hitherto, I have said nothing of opium as a remedy in ute-

rine hemorrhage; the reason is simply this—it has never in my hands merited the smallest commendation; for it has never been attended with the slightest success; of course, I cannot be of opinion, it deserves the encomiums which have been so lavishly bestowed upon it by Dr. Hamilton and others. I have read dispassionately, and with care, Dr. Stewart's book upon this subject; and have cautiously examined the cases detailed there; but all has not afforded me the slightest grounds to believe that the opium had any agency in arresting the floodings, for which it had been so liberally administered—the cessation uniformly appeared to be the result of the natural powers of the system in general, and of the uterus in particular. That it is highly beneficial, at all periods previous to delivery, in allaying pain, and in this way putting a stop to farther mischief, I most freely confess—but I cannot yield any thing more. I am not alone in this respect; Dr. Denman seemed to entertain a similar opinion; and Barlow has advanced similar sentiments.

It may be proper to say a few words upon the subject of cold applications; as no remedy has been more extensively employed, or more certainly abused. Cold, as a means to arrest flooding, is in almost universal employment; is usually one of the first resorted to, and the last that is abandoned—it has acquired so much popularity among the vulgar, as to render it unsafe to the reputation of a practitioner, to omit it in his treatment of this complaint.

But, though confessedly an agent of great power, it has nevertheless its limit of usefulness; and beyond which, it should never be urged—for its efficacy is entirely confined to its influence over the circulating system; by diminishing its vigour, and abating its velocity. When these ends are answered, it is truly doubtful, whether it should be farther persevered in; at least, its value is much diminished.

I employ it very liberally; and sometimes, if the case be urgent, at a very low temperature—in general, the best mode of applying it is by a large bladder, as has already been directed—but in very sudden and alarming cases, I have found teeming it from a height upon the abdomen, and from the

promptness and extent of its effects, to have a very decided preference.

But if the pulse flag, and the woman is much exhausted, I not only forbid it, but have a warm blanket, or other articles, to supply its place. During the use of cold water, &c. to the abdomen, I order warm applications to be made to the feet and legs; a bottle or jug of warm water well corked, is one of the best and handiest—this last direction I am particular not to omit, should the feet and legs be preternaturally cold. We also should be particularly careful not to wet the bed and clothes of the patient, if it can be possibly avoided; as it creates much inconvenience, without doing the least good—it will render the poor woman's situation extremely unpleasant, besides obliging her to be disturbed, that dry things may be substituted.

The injecting of cold water, cold alum-water, the solution of the acetate of lead, the introduction of ice into the vagina, and even into the uterus, &c. have been practised; and, it is said, with advantage. The merits of such applications, must rest upon the authority of those who recommend them; for I confess I have no experience in either of them; nor should I be tempted to rely upon them in very pressing cases.

It may be proper to observe, in addition to the remedies and modes of proceeding pointed out in this division of our subject, that, in certain cases of uterine hemorrhage, the forceps are the only means to be employed or relied upon. They are exclusively indicated, 1st. Where the discharge is threatening, and the labour well advanced; but where the membranes have been long ruptured, and the uterus is firmly embracing the body of the child, or the head does not advance with sufficient rapidity to afford security. 2dly. Where the head is low in the pelvis, and has escaped from the orifice of the uterus—in this case, turning must not be thought of, however recent may have been the escape of the waters; or however moveable the head may be in the pelvis. 3dly. Where the uterine efforts are either feeble, or suspended; and where the os uteri is sufficiently distended, but where the waters have been long discharged. 4thly. Where the head occupies the inferior strait; the orifice of the uterus sufficiently expanded; the waters either

recently or a long time expended; but where the natural agents of delivery would act too slowly for the safety of the patient. 5thly. Where the natural powers are incompetent to the sufficiently speedy delivery of the patient; owing either to the *mal*-position of the head, or to such a disparity between it and the pelvis, as shall prevent its timely expulsion.

## Sect. VIII.—*Hemorrhage from the Situation of the Placenta.*

I must now speak of that hemorrhage which is so appropriately termed the "unavoidable,"* and which, as I have already declared, arises from the peculiar location of the placenta. The first evidence of the placenta being over the mouth of the uterus, may declare itself so early as between the sixth and seventh months of utero-gestation. At this time, the neck of the uterus begins to be stretched for the more complete accommodation of the fœtus—in consequence of which, a small portion of the placenta will be separated from the uterus; this of course will be followed by a discharge of blood, commensurate with the extent of the lesion, and the size of the vessels involved in this separation.

This discharge may, by proper management, be made to cease; nor will it return until the uterus and placenta are again forced to separate—then, another slight hemorrhage ensues, which may also cease; and not be renewed perhaps until the last period of pregnancy; or there may be, as happens sometimes, a constant stillicidium of a bloody sanies. Dr. Rigby, who is considered the highest authority upon this subject, seems not to have bestowed as much attention to the condition of the patient before the full period of utero-gestation, as he did to the consequences when that time arrived, or he would not have held the doubtful language he did when speaking of the "time and manner" in which the "accidental" and un-

* We are indebted to Dr. Rigby, for this term being in general use—he has written a valuable treatise upon this subject; though anticipated by Levret, in the discovery that the placenta might be originally fixed upon the os uteri. But it would appear, it was an original suggestion with him, as well as with Levret; for he assures us, at the time he promulgated this doctrine (and no one will doubt Dr. Rigby's word,) he had never seen that author's work; and that his "ideas upon this subject were derived from his own personal observations and experience." (Essay on Uterine Hemorrhage, p. 13.)

avoidable hemorrhage came on; he says, "*probably* that which is occasioned by the placenta being fixed to the os uteri, will, for the most part, not come on till the full term of parturition, when the uterus begins to dilate from the approach of labour;" which is contrary to the history I have just given, as well as to the experience of almost all the writers* upon this subject. Besides, the very economy of the uterus makes my account correct.

Therefore, when the full time arrives, the woman may be surprised by a sudden, and an alarming issue of blood, without the smallest premonition—for it sometimes makes its approach so rapidly, and so insidiously, that the patient may be attacked in the midst of her domestic duties, or while in the enjoyment of company. At other times, it is preceded by slight and distant pains;† and when this is the case, the discharge, for the most part, is neither so sudden, nor so alarmingly extensive; for hemorrhage is never so overwhelming nor appalling, as when the os uteri silently and rapidly yields, and in an instant exposes a thousand bleeding vessels.‡

The blood flows in an almost unceasing stream, till the woman becomes much weakened and faint; coagula may then form, and a temporary truce ensue; but this in general is treacherous, and of short duration; especially, if pains attend; for the coagula, which had partially arrested the hemorrhage, are now driven away by the contractions of the uterus, or by the operation of some other cause, as accidental as unavoid-

* See Leroux, Kok, Baudelocque, Denman, Burns, &c.

† When this species of flooding is accompanied by pain, it will in general be found, that the waste is neither so sudden nor so profuse, as when none attends; though each contraction of the uterus augments, for the time being, the hemorrhage. It must, however, be observed, that in proportion to the discharge, will be (cæteris paribus) the diminution of uterine force—and hence the infrequency of natural deliveries, in this kind of flooding. Indeed the pains seem almost to cease; or, in other words, the contractions yield almost as soon as they commence; for a certain fulness of blood in the uterine vessels, seems essential to healthful contraction.

‡ This circumstance, however, rarely obtains, but where the woman has arrived at, or very near, her full term, and where she has been teased by some previous discharge. May not the pretty constant, though inconsiderable discharge just noticed, contribute to this sudden dilatation of the os uteri, by acting as a uniform local depletion?

able, and the discharge is renewed with perhaps even increased violence; and in this way do things proceed, until the poor sufferer is either exhausted by the waste of blood, or relieved by the judicious and successful interposition of art.

When the discharge is so extensive and sudden as I have just described, no time should be lost before it be ascertained whether the flooding proceeds from a separation of a portion of the placenta remotely situated from the os uteri, or from this mass being placed over it—the symptoms which designate these different situations, though perhaps pretty strongly marked, are not sufficiently accurate to render unnecessary a more certain and decided examination.

We should, therefore, upon such occasions, always examine the mouth of the uterus with great care. In conducting this, the finger, merely introduced into the vagina, will rarely sufficiently inform us, to prevent all error; the hand should be conducted into this canal, that the utmost freedom may be given to this important examination. A proper moment, however, should be chosen for this purpose, that no evil may result from this operation; for I have just remarked, that a suspension of the discharge is sometimes effected by a coagulum within the vagina or mouth of the uterus, which being removed in making the examination, may renew the flooding, to the decided injury of the patient: while the blood is flowing, is the time to make this attempt.

When the hand has possession of the vagina, a finger should be carried within the os uteri; it should then carefully ascertain the nature of the substance presented to it: if it be the placenta, it can be easily distinguished from a coagulum (the only thing to which it has any resemblance) by the following characters: 1st. The placenta always presents a fibrous structure of pretty considerable firmness. 2d. When this is pressed upon by the extremity of the finger, a sensation like tearing an organized substance is experienced. 3d. It being much firmer in its consistence, and offering more resistance to the movement of the finger within it. 4th. Its not escaping from the finger, when its substance is in some measure broken down by the pressure and free motion of it—it can never be mistaken for the membranes.

In a case of such importance, we should neither permit a false humanity, nor a false delicacy, to get the better of an imperious duty; for upon the early knowledge of the species of flooding, the woman's life may unquestionably depend. We should therefore, without reserve, state to the friends of the patient, our opinion of the nature and tendency of her case, and the importance of ascertaining it, by a proper examination. This will almost always be acquiesced in; and, if it be properly conducted, we shall neither excite any severity of pain, nor wound the most fastidious delicacy. The hand, for the most part, from the relaxation consequent upon a continued discharge, will pass without much difficulty, or may be made to do so by proper lubrication.

It is true, indeed, that with a first child, and at an incomplete period of utero-gestation, there may be some difficulty in passing the hand, if the discharge has not been pretty abundant—but in this case, the examination is not so immediately important; should it, however, be so, from the excess of the hemorrhage, the parts will then be found almost always sufficiently yielding to permit the passage of the hand without difficulty.

Having ascertained it to be a placental presentation, the condition of the mouth of the uterus should next be carefully examined—the degree of opening, and its disposition or indisposition to dilate, should be marked; for on this much depends. It will be found in one of the following situations: 1st, but little opened, and very rigid; 2d, but little opened, yet disposed to dilate; 3d, opened to some extent, but very unyielding; 4th, opened to the same extent, but soft; 5th, fully dilated.

The nature of the case being thus ascertained, the mode of treatment is next to be considered. This will necessarily be much influenced by the particular condition of the woman, and the period at which the discharge may show itself, and make interference necessary. I have already noticed, that when the placenta is situated over the mouth of the uterus, slight discharges of blood may take place after the sixth month, as a consequence of the economy of the uterus at this period; when these are moderate, they may, for the most part, be arrested by the means usually employed for flooding, when the placenta

is not placed over the mouth of the uterus; they should therefore be put into immediate requisition, and the patient placed under the strictest injunctions of obedience, and conformity to directions.

For a discharge of blood at this period is always to be looked upon as capable of extreme augmentation, and we should never lose the suspicion, that it may arise from the situation of the placenta. For we have no certain token, by which the "accidental" may at this time be distinguished from the "unavoidable," unless it be by a careful examination—but this is never necessary, so long as the flooding is moderate. I think, however, I have observed in the "unavoidable," that the flow of blood is more sudden and copious, in a given time; and that it is more fluid and florid, than in the "accidental." In the commencement, the "unavoidable" is never accompanied by coagula; and when pain attends, the discharge is always increased at each contraction. But in cases demanding precision, these marks cannot be relied upon. From the proximity of the bleeding vessels to the os externum, the blood will issue so quickly from them, as to appear both more fluid, and more florid, than in the "accidental" species; for in the "accidental," the blood may escape remote from the os uteri, and be obliged to travel slowly through the meshes of the connecting medium of the ovum and uterus; and hence will appear less florid, and fluid, and be more disposed to coagulate than in the "unavoidable."

But coagula will form in the "unavoidable," when the discharge is about to cease, either by proper treatment, or by the mere efforts of nature; and it is in this way, that a stop is put to farther waste.

As we cannot determine the situation of the placenta without much pain and force, when the flooding is moderate, and before the full period, it may always be well to treat them as if they were cases of placental presentations; as in doing so, we shall be erring on the safe side. We should insist upon the most perfect tranquillity, and an almost constant confinement, whenever practicable, to a horizontal position. Blood, at this period, may be taken from the arm, if the arterial force be too great; cold applications should be resorted to; and the

sugar of lead be exhibited in sufficient doses, either by the mouth, or by enemata, as already advised. Kok and others recommend cold astringent injections into the vagina: of the utility of these, as I have said before, I have much doubt—at least, I have never been tempted to employ them. I rarely pay any attention to the state of the bowels, unless they be very costive—then a mild, warm injection of molasses and water, or soap and water, will be every way sufficient. I am thoroughly convinced, that much mischief is sometimes done by the exhibition of even the very mildest purgatives; and the reason will be immediately obvious, when we consider the effects of them. I have frequently permitted my patients, under treatment for uterine hemorrhage, to be five or six days without a discharge from the bowels; and when I have thought it necessary to stir them, it has been, for the most part, by means of mild injections.

I have advised bleeding, when the pulse is active; Kok says, this is useless, if not injurious, in this kind of flooding. In this I cannot altogether agree with him, at this period of utero-gestation; and for the following reasons:—1st. Under any kind of active hemorrhage, when the pulse is vigorous, the taking away blood from the arm has uniformly been found useful, by producing contraction by merely unloading the vessels; and more especially, in diminishing the velocity of the blood within them. 2dly. At the period we are speaking of, as we cannot, from the contingencies just mentioned, decide with certainty that the discharge is from the peculiar location of the placenta, without manifest violence, we may act, as far as the bleeding is concerned, as if it were an "accidental" hemorrhage; especially, as the blood detracted will not seriously weaken the woman, and as there is a strong probability that it may be arrested until the last period of pregnancy, by proper applications and treatment. 3dly. That at the time this accident shows itself, it is, for the most part, from the mechanical separation of a portion of the placenta, which will not generally be renewed for some time; as the separated vessels, and the other connecting media, possess considerable elasticity; therefore, time will be given for the formation of coagula, provided the proper means be pursued to favour their production; among

which we must reckon bleeding. 4thly. If the discharge be not produced by external violence, or any other cause which will certainly excite the action of the uterus, there is a strong probability, that the discharge will cease for the time being; unless it be improperly treated, or unnecessarily provoked.

Should any cause whatever excite the contraction of the body and fundus of the uterus at this period; and the discharge be rather the effect of such contractions, than the natural and unavoidable stretching of the neck of this organ, we have great reason to fear, that we shall not be able to suspend these efforts, so as to enable the woman to go her full term of gestation. But we should ever have this intention in view, as it may sometimes be happily fulfilled; and, if it be not, it is decidedly the most proper mode of treatment.

In such cases, we should endeavour, as quickly as possible, to interrupt uterine contraction; for this purpose, we should bleed under the restrictions just mentioned; we should exhibit the sugar of lead with laudanum, as frequently as the exigencies of the case may require; and by enemata, I think, is much the most prompt and efficacious mode of administering them. From a scruple to half a drachm of this salt, with a drachm of laudanum, and a gill of water, may be thrown up the rectum every hour, or more seldom, as occasion may call for them. All the auxiliary plans I have already recommended, should be put in requisition, and their full adoption rigidly enforced.

Should these means moderate the discharge, and the blood be found disposed to form coagula; and if, at the same time, uterine contractions have ceased, or even have considerably diminished, we may be encouraged to persevere in the use of these remedies, and entertain an expectation of future success. The introduction of a moderate sized tampon at this time, as a mere *point d'appui*, I am persuaded is highly useful; for, without some such support, the coagula may be discharged, and the hemorrhage renewed.

The artificial support for coagula, which I have recommended above, is one of more consequence than we would at first sight imagine. It permits the thinner parts of the blood to escape through the meshes of the sponge, by which means the coagula are rendered more firm and tenacious; besides dimi-

nishing, by a counter action, the influence of the vis à tergo, which is constantly operating to throw them off.

Should all our endeavours, however, fail to arrest the discharge, we should, without further loss of time, ascertain the condition of the os uteri, and then proceed precisely as if the woman had arrived at her full time when the hemorrhage commenced; for it will now be found, they are reduced exactly to the same condition, and will require the same mode of management; of which I shall speak more at large presently.

A woman may escape these anticipating discharges, until she complete her full term; but, at this time, it will be seen that the uterus cannot expel its contents, without *necessarily* exposing the patient to the most imminent risk. So alarmingly profuse, and so suddenly dangerous, are these discharges, in some instances, that a few minutes are sufficient to exhaust the strength, or deprive the woman of life.

I once witnessed a case, in which there was discharged from the uterus, in the course of about fifteen minutes, a full half gallon of blood; and was sent for, in another instance, where the woman had expired before my arrival, though there had not, as the midwife assured me, more than half an hour passed from the commencement of the flooding to its fatal termination. These are, however, extreme cases; yet they show how suddenly, and certainly, they may be alarming or fatal. It is confessed, on all hands, that no accident attendant upon conception, is equally menacing as the disease in question; and it also emphatically declares to the physician, that much depends upon him that it shall not be very often fatal. It is one of those extraordinary cases, in which nature does less for the preservation of the individual, than almost any other.

This does not arise so much from want of exertion, if I may so term it, as from the almost entire incompatibility of giving birth to the child, and affording safety to the woman, at one and the same time. Yet we learn, from such authority as cannot be doubted, that the woman, left entirely to herself, will not always perish. The means, however, which nature employs to procure this security, neither offers a practical hint, nor holds out the smallest inducement to imitate her; for they are so entirely contingent, and sometimes so long withheld,

that the woman, from her great exhaustion, can scarcely be said to profit by the interposition.

Baudelocque* says, the woman may be preserved "when the orifice is fully dilated, and the mass separate entirely from it, and be so far removed from one side, that the membranes may present. The membranes may then tear spontaneously, and delivery be performed naturally, if the woman, notwithstanding her loss of blood, still preserves sufficient strength, as has sometimes happened." Leroux,† by the formation of coagula, and the spontaneous action of the uterus. Smellie,‡ to the entire separation of the placenta, rupture of the membranes, and the placenta being first delivered, &c. &c.

From this it would appear, that in some rare instances the woman has been saved, by the natural agents effecting the delivery, before she was too much exhausted; but we do not profit by the knowledge of the manner in which this was performed. It is, therefore, now completely established, that the only chance the woman has for life, is by a well-timed, and well-conducted delivery, in every case, *cæteris paribus*, of placenta presentation.

Though it be universally admitted, that in the cases we are now considering, there is but one certain mode of proceeding, yet it is not so generally conceded, that it is essential to the entire success of that mode, that the delivery be properly timed, and as properly conducted. All who have written upon this subject, seem to agree in one of the positions, namely, that delivery is absolutely necessary; but many, and indeed I may add too many, have been regardless of the conditions which serve to render this operation availing.

The time *when* we shall attempt delivery, is of the greatest moment, and deserves particular investigation. Dr. Denman says, "it would be of great advantage in practice, if some mark were discovered, or some symptom observed, which would indicate the precise time when women with hemorrhages of this kind ought to be delivered;" but declares, "we do not at present know any such mark." Yet almost immediately after de-

* System of Midwifery, Vol. ii. par. 986.

† Observations, &c. p. 306.

‡ Midwifery, Vol. ii. Col. 18. No. 3. Cases No. 3, 4, 5, 6, 7.

cides, that "whenever the case demands the operation, on account of the danger of the hemorrhage, the state of the parts will on this account always allow it to be performed with *safety*, though not with equal facility."

If this be true, we are certainly in possession of what Dr. D. thought so great a desideratum—for if the parts be in a condition to turn with *safety*, it is certainly all that is required, when "the danger of the hemorrhage demands the operation." For if the parts permit turning without risk, they must be in a dilated or a dilatable state, and this is all that is or can be required when the condition of the flooding "demands the operation." Then we have a rule which is never failing, when this condition of the parts obtains, if it be true that this can always be done with *safety*, if not with equal facility.

Now it is of importance to inquire whether turning can always be performed with *safety* when the parts are in a condition to permit it; for upon this much depends. It would seem, agreeably to this position, that the whole risk the woman runs in these cases, arises from the "state of the parts" opposing the introduction of the hand; and when they do not, then turning may be performed with *safety*—experience constantly contradicts this unqualified opinion, for the woman may be so far reduced, that she may expire before the operation is completed, or very quickly after.*

Besides, the manner we find the opinion stated by Dr. D., would lead to the persuasion, that so long as the os uteri was not opened, there could be no danger, whatever might be the quantity discharged; than which nothing can be more unfounded. For it is a well-known fact, that the powers of the uterus may be so far impaired as not to perform this office, even at the last moment of existence. In this I am supported by Rigby,† who declares, that were "this rule invariably ad-

* Of this we have ample proof, in cases 58, 81, 82, 89, 98, &c. of Rigby, in each of which the condition of the parts *easily* permitted turning, but not with *safety*. But I am clearly to be understood, that I attach no censure to the operation; for I am of opinion, it was the only thing that could be done to give the woman a chance—and I have no doubt, it was properly performed. But these cases go to prove the incorrectness of the position I am now examining.

† Essay, 6th ed. p. 40.

hered to, in some cases, it would be attended with danger, as we might wait for the opening of the uterus till it was too late to relieve the woman by turning the child."

This will be very readily understood, when it is recollected, that the opening of the uterus mainly depends upon the longitudinal fibres acquiring the mastery of the circular; but when the uterus is so far exhausted of contractile power as to remain passive, or nearly so, we shall always find the os uteri closed, (unless previously distended by an exertion of its powers,) though it may be most easily *dilatable*. I may perhaps even acquiesce in the explanation of Dr. Rigby* upon this subject, when he supposes that the position of the placenta may serve to keep the uterus closed, by surrounding its mouth, and the attachment of its fibres to this part, which is now perfectly passive and unresisting—this is both ingenious and probable.

I must now make a distinction of great practical importance, that has never, so far as I know, been attempted; which, if it be just, (and my experience gives me every reason to believe it is,) will in some measure serve to reconcile the conflicting opinions of writers upon the subject of the *time* when it would be invariably proper to attempt the relief of the patient by turning—it is simply this, that there is a most material difference between the dilatation of the os uteri, or even its dilatability, when effected by the natural powers of this organ, and that passive or quiescent condition which results from the languor of death.

The one is the result of its organization, when its powers are not impaired or prostrated by disease; while the other is a syncope, if I may so term it, produced when these powers are exhausted by an excessive waste of blood. This distinction must constantly be kept in view; for on it depends the rational mode of treating this formidable complaint; for if it be not, we prescribe both uncertainly and empirically. An attention to the one, leads us to husband, with the utmost care, the strength and vigour of the patient; while the neglect of it makes us regardless, if not prodigal of it; the one is almost always crowned by success; the other makes us constantly anticipate a doubtful issue.

* Essay, 6th ed. p. 40.

We can readily account, with this distinction in view, for the difference of success in the operation of turning. When it has been performed, and the dilatation of the uterus effected by the natural agents, it has perhaps almost always been attended by the much desired issue; but when performed after the flaccidity of approaching death had ceased to make it difficult, it too often has been followed by the loss of the patient. Under this impression, then, I should say, that, when the os uteri was either dilated or dilatable by the spontaneous operation of this organ; and before the strength of the patient was materially impaired, that then, and then only, was the desirable time to operate; but that, if circumstances prevent advantage being taken of this proper moment, and nothing but a choice of difficulties remain, we should certainly attempt to snatch the woman from her impending fate, under the cautions already suggested.

But I will attempt to put this subject in a clearer point of view, by considering what ought to be attempted for the relief of the patient, under each of the conditions of the uterus above pointed out; and which necessarily comprehends every state it is at this time susceptible of.

### Sect. IX.—1. *Where the Uterus is but little opened, and is very rigid.*

In this situation of the uterus, all the evils I have already enumerated, when speaking of a delivery under our second division, when the uterus was in this condition, would attend a forced delivery at this time—it must not, therefore, be thought of, however high the authority may be that recommends it. Indeed, this has ever been a case of great embarrassment to the practitioner; and in but too many instances makes him at variance with himself, or he gives his directions so obscurely and so hesitatingly, as to confuse the judgment of the young practitioner.* It has given rise to two modes of proceeding, each of which is equally wrong.

* For an instance of this kind, I may cite even Mr. Burns himself—he tells us, in one sentence, "if the hemorrhage have been or continues to be considerable, we must not wait until the os uteri be much dilated, as we thus reduce the woman to great danger, and diminish the chance of recovery." A few lines far-

The first is to force the uterus, however rigid, provided a finger can be introduced; I have already said much upon this plan, and shall only add in proof of it a quotation from Dr. Rigby,* every way illustrative of the impropriety of this outrageous practice. "In recommending early delivery, I think it right, however, to express a caution against the premature introduction of the hand, and the too forcible dilatation of the os uteri, before it is sufficiently relaxed by pain or discharge; for it is undoubtedly very certain, that the turning may be performed too soon, as well as too late, and that the consequences of the one may be as destructive to the patient as the other. I am particularly led to observe this, as I have lately been informed, from very good authority, (namely, a gentleman to whom one of the cases occurred,) of three unhappy instances of an error of this sort, which happened some years ago to three surgeons of established reputation, who, from the success they had met with in delivering several who were reduced to the last extremity, were encouraged to attempt it where but very little blood had been lost, in hopes that their patients' constitutions would suffer less injury, and their recovery be more speedy; which, till the experiment was made, was a very reasonable supposition—the women died, and they seemed convinced that their deaths were owing to the violence of being delivered too soon, and not to the loss of blood, or any other cause."

The other is, to permit the flooding to proceed until the woman shall be so much exhausted, as to render the uterus pliant. Dr. Denman, as I have just noticed, supposed that when danger created the necessity for delivery, that then, from the loss of blood, the uterus would permit it with safety. Dr. Rigby says, that when the uterus contracts firmly round the fingers, we should desist from any attempt to deliver, and wait

ther, in the same page, he says, "a prudent practitioner will not violently open up the os uteri, but will use the plug." A little farther on, he declares, "he (a prudent practitioner) will not allow his patient to lose much blood, or have many attacks; he will deliver her immediately, for we know that whenever that is necessary, that it is easy, the os uteri yielding to his cautious endeavours."—(Princip. 5th ed. p. 324.)

* Essay on Uterine Hemorrhage, 5th ed. p. 40.

till the part be more relaxed by pain or discharge; and adds, "as an encouragement that we may safely suffer a woman to lose more blood, the contraction may certainly be looked upon as a proof that there still remains a considerable portion of animal strength, and that she has not been so much affected by the loss as we before imagined."

I cannot recommend this plan, though it be the advice of the first authority upon this subject. I am convinced, from both reason and experience, that it is seldom or never necessary, and is perhaps always injurious. To save the woman an ounce of blood, is, as I have already declared, a duty: to save her forty, or perhaps much more, is a still greater one. To follow, then, the speculation of Dr. Denman, or the advice of Dr. Rigby, would be widely departing from that duty. I do not, I cannot adopt them.

What is essentially important to be done in this case? 1st. To save as much, and as quickly as we can, the further expenditure of blood. 2d. To obtain, as soon as the natural powers will effect it, the dilatation or dilatability of the uterus. 3d. To then deliver, with as much speed as is consistent with the welfare of both mother and child.

The first and second of these indications are, so far as I have witnessed for the last thirty years, readily complied with by the use of the tampon, and the other auxiliary remedies. It should be instantly had recourse to, and the discharge will almost immediately abate, and in a short time be so diminished as to give no immediate concern for its effects. By this means we not only staunch the hemorrhage, but gain most important time; for during this truce, the natural agents of delivery will effect the desired relaxation of the os uteri.

For the successful fulfilment of the third, and last indication, it is necessary that the practitioner should be well acquainted with the condition of the uterus, at the moment he is about to commence the operation; that is, he should know how far he may rely upon its co-operation, or how far it may be capable of that degree of contraction which shall secure the woman against a farther loss of blood. This can only be presumed, from taking into view the quantity of blood lost; the debility

or exhaustion it has occasioned; and the degree of force the uterus may exert, at each return of pain.

If it be found that the quantity of blood is not excessive; if the degree of exhaustion be not alarming; and if, above all, the uterus manifest considerable vigour; the delivery may be accomplished in much shorter time, and with a much greater promise of success, (especially to the child,) than if the contrary of these obtain—in the latter case, the delivery must be conducted with the utmost caution, that the uterus may not be too suddenly emptied, and thus augment the danger to both mother and child. I shall again advert to this subject, when I come to describe the manner of conducting the operation of turning, or effecting the delivery in such cases.

SECT. X.—2. *When but little opened, but disposed to dilate.*

In this situation of the uterus, but few obstacles to turning or delivery will present themselves; since, if the necessity of the case require the operation, the great objection to it is in some measure removed; for this disposition to yield to a moderate force, will secure the woman against an excessive loss of blood, by taking advantage of it, and effecting the delivery in proper time.

But it must be recollected, that though the uterus may be disposed to yield to a certain extent, with even a moderate force, if it be slowly and judiciously applied, yet it may refuse to relax beyond this, or to such a degree as would not embarrass the operation; nor can it sometimes be made to yield beyond this, unless a dangerous or reprehensible force be applied.*

In a case of this kind, we should gain time, by the employment of the tampon, as directed above; and not subject the woman to unnecessary risk, by attempting to overcome the resistance of the uterus by violence; and it must also be recollected, that, in cases like these, cases so replete with risk, we are to devote ourselves to the best interests of our patients—they should never be subjected to the chance of a fatal hemorrhage, by our leaving them even for a short time; for neither the plea of other engagements, nor a persuasion they can re-

*Leroux, Mauriceau, Rigby, &c.

ceive no injury during a short interval of absence, can justify our withdrawing ourselves from them; I could cite a number of instances in support of this, were such confirmation necessary. If it be judged necessary to employ the tampon, we should wait patiently for its effects; but we should wait at the bed-side, or near the person of the sufferer, that we may take immediate advantage of any favourable change in the condition of the parts, for which we were so anxiously looking; or guard against any unfavourable contingency, that may suddenly or unexpectedly arise.

SECT. XI.—3. *Opened to some extent, but very unyielding.*

Were we to consult authors upon the point of practice in this condition of the uterus, we should find but too many sanctioning forced delivery; while some others, would severely reprehend it. I might employ the same arguments here, as have already been used against any violence being committed upon an unyielding uterus; for it may sustain as much injury in the condition supposed here, as in the instances I have been considering; for if the opening be insufficient to permit the hand to pass without the employment of force, it will certainly be insufficient to allow the fœtus to pass without using much more; it should, therefore, be considered full as ineligible to operate in this case, as in the two I have just noticed.

But let not this case be confounded with the condition next to be mentioned. For when it is ascertained that the uterus, though opened to some extent, is, notwithstanding, very unyielding; a young practitioner may, in the confusion and embarrassment created by the exigency of the case, easily run into the error, that this case must be treated as the one just considered. To prevent this, he should carefully examine the condition of the os uteri, by placing, or rather hooking a finger within it, and drawing the edge towards him; if it readily yield, he may be pretty certain it will stretch by a well directed force within its circle.

SECT. XII.—4. *Where opened to the same extent, but soft.*

I have just declared, an error may be committed by an inexperienced or timid practitioner, in this condition of the uterus;

it therefore behooves him not to neglect to entirely satisfy himself, as to the situation of the os uteri, before he finally makes up his opinion on the proper mode of practice.

A careless or ill-conducted examination, may, in this instance, lead to the loss of the patient; for, by mistaking the *absolute* diameter of the uterus for the *possible*, he may delay operating so long, as to render it totally unavailing; for I perfectly agree with Dr. Rigby,* that, however important it may be as a general rule, that the uterus must be opened to the size of a shilling, or a half crown, before any attempt is made to introduce the hand, yet if this rule be rigidly enforced, "it would, in come cases, be attended with danger, as we might wait for the opening till it was too late to relieve the woman by turning; and for this reason, it seems right we should be sometimes as much influenced by the os uteri being in a state *capable of dilatation* without violence, as by its being nearly open."† In my directions for the management of cases in the second condition of the uterus, I noticed this situation of this organ, and remarked that it usually occurred when the woman had flooded to excess—but I have known at least two exceptions to this.

### Sect. XIII.—5. *Where fully dilated.*

When a case presents this condition of the uterus, there can be no hesitation about the proper mode of proceeding, if the exigencies of it require instant interference; for here all objection is removed to the operation of turning, so far as any mechanical injury to the uterus is to be feared—but this is a rare case; and when it does occur, it would seem to happen but under the following circumstances:—1st. In those women who are wont to have very rapid and very easy labours. 2dly. Where the *edge* of the placenta extends over the os uteri, and where, in consequence of this, the hemorrhage has not been sufficient, though pretty profuse, to seriously injure the contractile powers of the uterus. 3dly. Where the pains have been so rapid and powerful, as to suddenly dilate the os uteri, and cause the head to carry the placenta some distance before it.

* Rigby, p. 42. † Ibid, p. 43.

In the first case, the hemorrhage will be of the most profuse and alarming kind; and if the woman be not very quickly aided, she will most probably die—this was the case with the poor woman who lost her life before I could get to her assistance—here, not a moment is to be lost; turning must be instantly had recourse to.

In the second instance, the discharge, though perhaps very free, is never so overwhelming as in the first; for the edge of the placenta may be passed over the os uteri but a small distance, and the flooding will of course be in proportion as this may be more or less extensive—in these cases the membranes may even present, rupture spontaneously, and thus save the woman; here the natural agents may accomplish the delivery. But more of this by and by.

In the third case, the flooding will be, perhaps, for a period, as alarming, and, for the time of its continuance, as profuse as in the first—but the uterus acting promptly and vigorously, the head of the child is made to press so effectively upon the mouths of the bleeding vessels, as to arrest the hemorrhage*—here we must act according to circumstances; if we see the patient during the time of her profuse flooding, we should not hesitate a moment to deliver, even though the pains be brisk; for it is entirely contingent that the discharge will be stopped by the intervention of the head—but should we not see the patient, until by the progress of the head the bleeding be arrested, we should not interfere, but commit the case to nature.

It has been recommended by some, to rupture the membranes in the expectation of stopping the hemorrhage, as it frequently does when the placenta is not fixed at the mouth of the uterus—but this should never be done, especially before the uterus is well dilated or easily dilatable, and for the following reasons:—1st. Because they cannot be reached without great difficulty in some instances, and in these cases, when they are reached, it is either by piercing the centre of the mass, or separating a portion of the placenta, and thus increasing the bleeding surface. 2dly. When they are pierced, and the waters evacuated, it will very rarely stop the hemorrhage. 3dly.

* Baudelocque, Leroux, &c.

When it does not do this, we are sure to have the difficulties of turning increased. 4thly. That should the flooding for the moment cease, after the discharge of the waters, it is sure to return as the pains increase, and as the uterus expands. The only exceptions to these rules, are the cases just mentioned above, where the membranes present themselves in part.

Baudelocque assures us he had seen but one case, where the hemorrhage ceased after the discharge of the waters, and that was where the placenta was first delivered by a midwife, and the head of the child was made to press so firmly on the mouths of the bleeding vessels as to stop the hemorrhage.*

It may be inquired, what mode of relief is to be pursued in placental presentations, when they happen at or near the sixth month? These are truly embarrassing cases when they occur; as, for the most part, the uterus is not sufficiently enlarged to admit the hand to turn, and the hemorrhage is sometimes very alarming; the great risk in these situations arises from the want of disposition in the os uteri to dilate; and, before this is accomplished, the woman sometimes succumbs, from the unrestrained flow of blood.

In this case, the tampon should be early employed, as it will, by proper management, save a prodigious expenditure of blood; we gain by its application important time; time that is essential for the successful delivery of the fœtus—for by it the woman's strength is preserved; pain is permitted to increase, and eventually, though tardily, the os uteri is dilated, the placenta and the fœtus thrown off, and the flooding almost immediately controlled. The other means which I have constantly pointed out, should also be tried; they may aid the general intentions, and render the operation of the tampon more certain.

Experience has often convinced me, that the relaxation of the os tincæ, so desirable in the cases I am now considering, will be as certainly achieved by time, as by this excessive expenditure of blood; and this time procured by the *interruption of the flooding* by the tampon. When we effect this by this means, we assuredly gain a great deal—strength is saved by saving much blood, and the woman's future safety is almost insured; for as a general rule I may declare, that when no

* System, Vol. ii, par. 982.

violence is committed upon the uterus by an attempt at forced delivery, the only thing we have to apprehend, is the consequences of the hemorrhage.

When the woman is farther advanced, say at the seventh month, artificial delivery may most generally be effected,* provided we do not destroy the advantages this period gives us, by improper treatment;—for instance, by rupturing the membranes, and the consequent discharge of the waters; it should therefore be especially guarded against. An attention to this point, in these cases, is more important than at the full period, notwithstanding the advice of some accoucheurs to the contrary.

It now only remains to describe the mode of effecting the delivery, when it is judged proper it shall be performed. In doing this, we can give only general directions for the situation of the woman, as we cannot, from her extreme weakness and other causes, always command the most proper or convenient; it may nevertheless be well, when we have a control, to say what in our opinion is the best—that disposition of the woman's body, which will give us the most entire command of the uterus and its contents, will certainly be the most convenient for the accoucheur, and also the safest for the woman, and this position is upon the back.

The woman being properly placed, (if in our power,) the hand should be gently and gradually introduced into the vagina, and then into the mouth of the uterus, separating the placenta and membranes from it as it advances towards the fundus—when arrived there, the membranes should be broken by pressing firmly against them; but the waters should not be permitted to escape but at our pleasure.

The feet are to be seized, and the body made to descend by drawing them down to the superior strait. We should now allow a little time for the uterus to contract; when we are assured it has done so, either by pains declaring themselves, by the child advancing further into the pelvis without our exertion, or by the firm and hardened feel of the uterus through the parietes of the abdomen, we may most safely proceed with the delivery to its termination.

* Leroux, Rigby, &c.

But should the woman be very much exhausted before we commence our operations, we should use additional caution in the delivery—it should be very slowly performed, and we should have, at each step of the progress, assurances, if possible, that the uterus has not lost, or rather that it possesses, sufficient contractility to render the completion of the operation eventually safe, if performed with due and necessary care.

We are advised by some, to pierce the placenta by the hand; but this should never be done, especially as it is impossible to assign one single good reason for the practice, and there are several very strong ones against it. 1st. In attempting this, much time is lost that is highly important to the patient, as the flooding unabatedly, if not increasingly goes on. 2dly. In this attempt we are obliged to force against the membranes, so as to carry or urge the whole placentary mass towards the fundus of the uterus, by which means the separation of it from the neck is increased, and consequently the flooding augmented. 3dly. When the hand has even penetrated the cavity of the uterus, the hole which is made by it is no greater than itself, and consequently much too small for the fœtus to pass through, without a forced enlargement, and this must be done by the child during its passage. 4thly. As the hole made by the body of the child is not sufficiently large for the arms and head to pass through at the same time, they will consequently be arrested; and if force be applied to overcome this resistance, it will almost always separate the whole of the placenta from its connexion with the uterus.* 5thly, That when this is done, it never fails to increase the discharge, besides adding the bulk of the placenta to that of the arms and head of the child. 6thly. When the placenta is pierced, we augment the risk of the child; for in making the opening, we may destroy some of the large umbilical veins, and thus permit the child to die from hemorrhage.†‡ 7thly. By this method, we increase the chance of an atony of the uterus, as the discharge of the liquor amnii is not under due control. 8thly. That it is some-

* Baudelocque. † Ibid.

† Dr. Denman confesses, though he recommends the searching for an edge of the placenta, and penetrating it, that, in performing the latter, "there is rather more danger of losing the child." (Midwifery, Francis's ed. p. 484.)

times impossible to penetrate the placenta, especially when its centre answers to the centre of the os uteri; in this instance, much time is lost, that may be very important to the woman.*

It is a mistake to suppose we produce a greater separation of the placenta when we pass the hand between it and the uterus, than when we pierce the placenta; but if true, it would be no objection to the method I advocate; since both uterus and placenta are pretty firmly compressed by the arm in its passage to the fundus, and the bleeding by this means restrained; and as this is the only objection which is raised against the method I recommend, I shall consider it as completely answered by what is now said.

Should the placenta be found not entirely detached from the uterus after the birth of the child, we should give a little time for it to separate spontaneously; and we must endeavour to promote this by friction upon the abdomen over the uterus, unless the flooding continues to be violent; it will then be proper to pass up the hand and separate it, for it may be the bulk of the placenta which keeps up the hemorrhage, by preventing the uterus from closing sufficiently upon the bleeding vessels.

## CHAPTER XVII.

### HYSTERITIS, OR INFLAMMATION OF THE UTERUS.

THERE is more obscurity, or a greater want of precision, in the accounts of the acute diseases which attack the puerperal woman, than in any others whatever. This does not arise

* Dr. Rigby admits this, and declares he has "more than once found it." p. 64.

from necessity; for they are neither obscure, nor numerous. Those which attack the uterine system and its dependencies, have chiefly created the confusion; and this has mainly arisen from a fastidious desire of great accuracy of distinction, without a corresponding power, to give the signs by which each should be ascertained. Or, in some instances, from a blamable generalization, making every febrile affection puerperal fever.

Thus the disease now under consideration, has almost always been confounded with puerperal fever; and the latter, as frequently blended with the former; this has arisen almost entirely in not allowing, that puerperal fever is an inflammation of some one portion of the peritonæum, no matter which; and in not thinking or believing, that the proper substance of the uterus may be inflamed without necessarily involving this membrane; though it may become so secondarily. On this account it will be proper to divide Hysteritis into two species; the first we shall call the simple or pure; the second, the mixed or accidental inflammation of the peritonæum, or puerperal fever.

The first we shall define to be, an inflammation of all or any portion of the proper substance of the uterus, but in which, its peritonæal covering is not involved. The second, where it is implicated.

## Sect. I. *Causes.*

The causes which may produce inflammation of the uterus, are all, or any of the violences to which this organ may be exposed in the exercise of its functional powers, during the expulsion of the child; to those to which extrinsic aid may expose it, when its own powers have been either insufficient, or mistaken, for this purpose; to those which may arise from the artificial delivery of the placenta, or to those which may act independently of either.

Under the first head, we reckon, 1st, the long and reiterated efforts it is occasionally forced to make, to overcome the resistance which opposes the expulsion of the child; whether this arises from the rigidity of the neck of the uterus, or external soft parts; the construction of the pelvis; or the size or situation of the child.

2d. To violences committed in the use of instruments of any kind; to injuries sustained in the act of turning; or to ill directed manœuvres executed on the neck of the uterus, in attempting its dilatation, or by too frequent handling.

3d. To lesions in the internal face of this organ, from a sudden, rude, and unnecessary interference in the separation of the placenta, or to injuries it may sustain from a placenta that has been too adherent.

4th. To those which may arise from exposure to cold; checked perspiration; some secret influence of the air; improper regimen, &c.

## Sect. II. *Symptoms.*

Which ever of the causes have acted with sufficient force to produce inflammation of the uterus, we find that it generally betrays itself within the first five or six days after delivery.

The woman complains of a pain at the very lower part of the abdomen, which gradually increases, or can be easily augmented by pressure made immediately above the symphisis pubis. It is also increased by any motion which may disturb the repose of the uterus, as turning in bed; sitting up; passing of water; and going to stool.

If the fingers be made to press upon the uterus externally, it will be pretty readily distinguished, by its size being greater than usual for the period after delivery; its hardness, which is very resisting; and by its unusual tenderness.

The pain which the woman feels is constant; or it may be occasionally lancinating, but always greatest when the uterus contracts and produces after pains. From after pains, with which it is sometimes confounded, it may be distinguished by the latter always being alternate; and when the contraction subsides which produces them, the woman is altogether free from pain, until the contractions be renewed.

There is no swelling of the abdomen, in the commencement of this disease, unless it arise from the augmented size of the uterus itself; which is never so great in the commencement of the complaint, as to make it conspicuous. The abdomen does not participate, in the slightest degree, with the uterus, in simple hysteritis; hence there is none of the tenderness which is witnessed in peritonæal inflammation or puerperal fever.

Sometimes a frequent desire to make water is experienced, attended with more or less pain; or there may be a retention of urine; especially, if mechanical aid has been required to effect the delivery; and the passing of water is accompanied by a sense of heat or burning, in the urethra and vulva.

The urine is almost always high coloured; generally scanty, and will deposite a lateritious sediment. In judging of the urine however, we must take care, that the mingling of the uterine discharges with it, is not mistaken for the tone of colour of the urine.

### Sect. III. *Constitutional Symptoms.*

The symptoms which we have just enumerated, may be looked upon as strictly local, and such as would necessarily arise from an inflamed condition of the uterus; but these symptoms exist but a short time independently of the constitutional.

Soon after pain, &c. is felt as above described, we find the heat of the body very much increased, without, for the most part, the interposition of "chill." The head becomes painful, the face flushed, and very frequently there is delirium,* if the febrile irritation be not relieved.

The tongue is white, much loaded, and Dr. Clarke says dry; but this at the beginning of the disease we have never witnessed. It is true, there is less moisture than usual in the mouth, and the little fluid there is, is more clammy than is common in fevers of an ordinary kind. This creates an unusual, and sometimes almost an insatiable thirst.

The pulse is full, strong, and hard; its frequency is not very great; rarely an hundred.† Dr. Clarke says, from one hundred to a hundred and twenty strokes in a minute. This we have never seen in the simple hysteritis; nor does it become so, unless the disease is running on to a fatal termination.

* It may be looked upon as almost a character of hysteritis, that delirium almost always attends it; while in the unmixed puerperal fever, or peritonæal inflammation, it rarely occurs.

† This is another peculiarity in hysteritis, as distinguished from peritonitis, and serves to show how much inflammations of particular structures influence the circulating system. There is no instance of pure hysteritis, so far as we have seen, in which the pulse is quickened as in puerperal fever.

The stomach, we believe, is never much affected in the beginning of the disease; certainly never, or but very rarely, provoked to vomiting.

As the disease progresses, or rather as soon as the constitutional symptoms commence, the pain extends itself to the back, and down the thighs; and sometimes, a pretty severe one is felt beneath the lower part of the ribs on the left side.

As the lochia are interrupted to a greater or less extent in inflammation of the uterus; it has been commonly supposed, that the disease is produced in consequence of that obstruction. But, as the lochia are nothing but evacuations of the blood, with which the uterus was filled, and with which it will continue to be filled, until the vessels of this organ contract so much, together with their mouth or openings, as to refuse to transmit more, they must be looked upon as a discharge dependant upon the condition of these vessels. Consequently, their being more or less abundant, must depend upon the state of the vessels which furnish them; and the state of these vessels must necessarily be influenced like other portions of the uterus, by the degree of inflammation. Now, the uterus under inflammation swells, and this swelling, in consequence of its effect upon the extremities of the exposed vessels which yield the lochia, prevents its usual flow; from which two effects are produced; an accumulation of blood in the uterine vessels, which stretches them anew; and second, aggravating the inflammation by this distention, as well as augmenting pain at the same time.

We may assign another reason indeed, for the lochia being less abundant at this time; which is, the tonic contraction of the uterus being suspended; consequently, one of the causes by which the lochia are forced through the vessels of the uterus, is withdrawn, and the quantity discharged will consequently be less. It must therefore follow, that the diminished lochia is but a consequence of the condition of the uterus, and not the cause of it.

It would be as rational to say, because there is a sparing secretion of urine in nephitis, that this scarcity is the cause of the inflammation of the kidneys; or that a diminished quantity of bile, is the cause of the inflammation of the liver in hepatitis.

It is true, that the lochial discharge is highly important to the uterus itself; since it unloads its vessels, and thus prevents the consequences, very often, that would most probably follow its over exertions; as well as promotes the tonic contraction of this organ. But, as its existence altogether depends upon the degree of permeability of the uterine vessels, its quantity and qualities must necessarily be influenced by the condition of these vessels; therefore, the condition of the vessels of the uterus may influence the lochia, but the lochia cannot affect the vessels of the uterus.

The return of the lochia, however, is justly considered as a favourable sign; and has, for this reason, been urged as an additional argument in favour of its agency in producing this disease. But here the effect is evidently mistaken for the cause. The return of the lochia, is only an evidence of the diminished resistance of the extremities of the exposed uterine vessels; and this lessened resistance is owing to the abatement of the swelling which interrupted its flow; and the reduction of the swelling is consequent upon the retiring of the inflammation.

Therefore, the lochia being diminished, or arrested, would tend to increase the inflammation which was the cause of it; as there would now be accumulated in the substance of the uterus, not only all the blood sent there to supply the lochial discharge, but also that, which always attends upon inflamed vessels. And on the other hand, when the cause which arrested or diminished the lochia (namely, inflammation) was so far diminished, as to leave the extremities of the exposed uterine vessels free, they would, by again transmitting their contents to the cavity of the uterus, not only relieve the engorgement with which they were accidentally affected, but tend also to relieve the vessels of the inflamed portion of this organ; and in this way, is the lochial discharge useful.

In pure hysteritis, the mammæ sympathize with the uterus much less than in peritonæal inflammation, or puerperal fever; for we must be permitted to use them synonymously. (See Chapter on puerperal fever.) On this account, we never have an entire suppression of this secretion, as in puerperal fever, unless the disease runs an unusually long course, or has peritonæal inflammation added. Indeed, in a number of cases, we

have seen the offices of the breasts remain undisturbed during the whole continuance of the disease.

This circumstance is worthy of notice; since it not only serves as a distinguishing mark between the two species of hysteritis, but also proves to us, that the influence of the peritonæum, or some other portion of the genital system, has a stronger influence over the formation of milk, than the uterus proper, itself. Is this the peritonæal coat of the uterus? or is it only when the ovaria become involved, that this secretion is so decidedly interrupted, or suspended? We believe it to be the latter.

Does not this fact satisfactorily account for certain discrepancies in the accounts we have of the inflammation of the womb, and of the puerperal fever? In one instance calling the disease hysteritis, when the milk was interrupted; and in the other, denying the disease to be "*genuine*" puerperal fever, because this secretion was so little disturbed?

In the first case, it was a misnomer to call the disease hysteritis; for so soon as peritonæal inflammation takes place, the disease is, strictly speaking, puerperal fever, though its cause may have been a preceding violent inflammation of the uterus, as we shall say more particularly, presently. In the second case, the disease has been denied the title of puerperal fever, because the mammary secretion was but partially disturbed, though a true peritonæal inflammation existed.

Thus we find, that the epidemic fever described by Dr. Leake, as it appeared in the "Westminster lying-in hospital," was remarkable for these peculiarities; first, the omentum being the most common seat of the inflammation; 2d, the almost total exemption of the uterus, and its appendages, from disease; 3d, the little disturbance of the lactiferous secretion, as will appear from the following statements.

In Case V., "the uterus, as well as the bladder, was perfectly sound, and without mark of inflammation, or other morbid affection;" state of milk not mentioned. In this case, "the omentum was melted down." In Case VIII., "the omentum was much inflamed; but the greater part of it was destroyed by suppuration." "She had milk in her breasts, until a day or two before her death." "The fundus uteri seemed to partake

of the general inflammation which had attacked the omentum." "The lochia was not defective, neither was there a want of milk till after the febrile attack." Case XI., "the omentum was suppurated, and converted into thick matter." "The substance of the uterus was sound." "The secretion of milk was moderate on the third day;" on the fifth, "her breasts subsided, and the milk suddenly disappeared." She died on the seventh day. Case XIII., "the omentum was destroyed." "The uterus had a natural appearance, and was perfectly sound." The state of the milk not mentioned. Case XVI., "the contents of the pelvis were sound." Milk not mentioned. In none of these cases, is there any mention of the inflammation of the ovaria.

The abdomen, we have said, does not swell in hysteritis; unless it be merely in proportion to the increase of size of the uterus itself. This however we have seen pretty considerable, owing to confined coagula, but which has always subsided, so soon as they were expelled by the contractions of the uterus. Indeed, this circumstance alone produces much suffering; and, for a short time, threatens more serious mischief; especially as this takes place while the uterus is labouring under inflammation, as we have had occasion more than once to see; the sufferings then are very severe, and even menacing. Under such circumstances, we have known the uterus acquire nearly the size it does at the seventh month of pregnancy.

In this case, the abdomen becomes very tender, and the system is always excited to fever; the pain is constant, and scarcely to be borne; for now the uterus is suddenly put upon the stretch, and this during its inflamed condition. But this state, as far as we have witnessed, does not continue long; for the uterus becomes stimulated to contraction after being put painfully upon the stretch, by the presence of these foreign bodies; the mouth of the uterus opens, and the coagula are either expelled by one or two efforts, or it may require a number for this purpose. After the removal of these offensive clots, the woman is greatly relieved, and she is rarely exposed to a second attack.

In hysteritis, then, so long as the disease maintains the character of the first species, the abdomen may be considered as

but little affected; nor does it suffer at any period of the disease, as it does in puerperal fever, either original, or induced; as for instance, in the second species of hysteritis. On this account, the sufferings are not so severe, and the woman is enabled to change her position, without that intensity of suffering, which she experiences from the same effort in peritonitis.

The bowels are variously affected; but in the beginning, as in peritonitis, they are disposed to constipation generally; or this complaint may be ushered in by diarrhœa; but this is rare, though no unusual attendant in the progress, or last stage of the disease; or it may become critical.

The symptoms we have just detailed, may be considered as constituting the first stage of this disease; or the stage of high inflammatory action, which may terminate either in resolution, or in suppuration.

When the disease is about to abate, there is an alleviation of all the more distressing symptoms; there is a softening, or reduction of the uterine tumour, with an abatement of its tenderness; the pulse loses its febrile and inflammatory character; it is less frequent; softer, and more yielding; the skin becomes relaxed, and disposed to become moist. Headach abates, and delirium, if it had been present, subsides; the tongue begins to clean, and the thirst diminishes; the lochia return, and their appearance change to a more florid colour. The urine becomes more abundant, and less high coloured; the milk is more freely secreted, &c.

But should the disease not have yielded, either owing to its intensity, or the feebleness of the means employed, the inflammation may terminate in suppurations in various parts of the proper substance of the uterus, and which are almost sure to be followed by death. Sometimes, however, there is reason to believe, that the abscess opens within the cavity of the uterus, and escapes through the os uteri; in which case, the woman may recover. We have seen two or three instances, in which we believed this had occurred.

The disposition to suppuration may be presumed, from the pulse becoming more irritated, and increased in both frequency and quickness; the skin is alternately partially dry and moist; chills of more or less intensity, with dark flushings on the

cheek or cheeks; the tongue becomes dry and red; the lochia escape in a larger quantity, but very fœtid; in a word, the woman sinks from irritative fever. Or, the inflammation may communicate to the peritonæal coat of the uterus, by passing along the Fallopian tubes, or otherwise; and thus adding puerperal fever to the inflammation of the uterus, and then making the second species.

## CHAPTER XVIII.

### SPECIES II.

### THE MIXED INFLAMMATION OF THE UTERUS, OR ACCIDENTAL PUERPERAL FEVER.

When the peritonæum, covering the uterus, or its appendages, also becomes the seat of inflammation, the disease is called by Dr. Clarke, a mixed case; and is one of almost certain fatality. For we have an inflammation now besieging two very different tissues or structures, either of which may have been sufficient to have destroyed the patient.

This extension of inflammation may be always dreaded, when the first stage of the first species remains unsubdued, especially after a vigorous plan of treatment; and thus gives evidence of a disposition to run on to its second stage. This change announces itself, by the addition of several new symptoms to the unpleasant ones belonging to the second stage of the first species; such as a great increase in the frequency of the pulse; hiccough; tenderness, and swelling of the abdomen; vomiting; an inability to lie, other than on the back; a total stoppage of the lochia; a cessation of the mammary secretion; cold sweats; muttering delirium; a dry, husky, blackish tongue; diarrhœa; &c.

When the disease forms, by its extension, the second species of hysteritis, it may be considered as almost necessarily fatal; at least, we recollect no instance of recovery. Nor is this surprising; since, a highly dangerous complaint has made its attack, at the time the system is unable, from the force of the previous disease, and remedies, to withstand the shock, or support the farther use of means for its relief. The patient, therefore, almost necessarily dies.

Dr. Clarke has furnished us with the appearances of the parts after death, in both species of inflammation of the uterus. He says, "upon examining the bodies of women, who have died under this disease, we have found little or no extravasated or secreted fluids in the cavity of the abdomen, when the disease has existed simply. The peritonæal surfaces have been also discovered free from disease in some cases; in others, however, the peritonæum, which covers the uterus, has been partially inflamed, and that covering the posterior part of the bladder. Inflammation is often observed running along the Fallopian tubes, which, when cut into, will be seen loaded with blood. The ovaria, too, are often affected in the same way."

"The uterus will commonly be found very firm in its substance, but larger than when naturally contracted. Upon cutting into the substance of the uterus, pus is often found, which, in all the cases I have met with, is situated in the large veins of that part. Pus is also sometimes found in the cavity of the Fallopian tubes, and also in the substance of the ovaria, which are distended by inflammation and matter, so as to equal in bulk, in some cases, a pigeon's egg."

"I have never had occasion to meet with any case in which mortification had taken place in any part of the substance of the uterus, except in one instance, where there was a gangrenous appearance of the cervix; but it is to be remarked, that instruments had been employed in that case, by the gentleman who attended the labour." Essays, p. 69.

### Sect. I.—*Treatment of the First Stage, Bleeding, &c.*

The history of this disease, will suggest at once its general treatment. The high inflammatory character of this complaint, declares the necessity of the most ample depletion, and the

most abstemious diet. Blood-letting must be employed to the full extent the system will well bear, or it will not, cannot be successful. Bleeding, in this disease, cannot be regulated but by its effects; its quantity must ever be of a minor consideration, should the symptoms which created the necessity, continue to demand its repetition. Dr. Clarke says, "in the repetition of the operation, (bleeding,) we must be governed by the same circumstances, and the effect of the former evacuation upon the disease; and it must be observed, that it will frequently be found necessary, not only a second, but a third time." P. 73.

From the histories of the dissections of those who have died of hysteritis, it is evident, that nothing but ample blood-letting, and other depletions, can prevent the fatal termination of this disease; or, at least, its ending in suppuration, from which the escape with life must necessarily be rare. And though this disease is declared by Dr. Clarke, to be, "of all the serious complaints, which attack the woman in the puerperal state, the least fatal," he is not to be understood to mean, when this complaint is not boldly treated. For immediately after, he says, "every art, which has a tendency, in any manner, to diminish the quantity of the circulating fluids, and weaken the action of the heart and arteries, should be employed, in order to subdue the inflammation at the very outset." P. 72.

This exactly corresponds with our own experience in this disease; we have, in every instance in which we have encountered it, abstracted blood, both from the system at large by bleeding, and also by large leechings upon the abdomen. With regard to blood-letting, our plan has generally been as follows: to bleed from the arm, until it produce sickness of stomach at least; if syncope take place, we have no objection. It will almost always be found, after this, that the fever, and other signs of inflammation, will be much diminished; but this, in many cases, will be of short duration; for the system, if the bleeding has not been sufficient to "strangle" the disease, will react in the course of a few hours, and pain, fever, &c. will again be renewed. Whenever this takes place, be the period longer or shorter, it is to be repeated again and again; nor do we know any reason for stopping, but the reduction of the disease.

But, our bleedings are not always renewed from the arm; for, as soon as we get the pulse pretty well down by this means, we have leeches applied over the parts nearest to the fundus of the uterus, and also to the vulva, in such numbers as shall abstract at least eight or ten ounces, and encourage their after bleeding, by the application of moist warmth. Should these abstractions of blood not prove effective; and pain, fever, and other unpleasant symptoms continue; but especially, great pain and tenderness in the parts; if the pulse does not call for general bleeding, we repeat the leeching, nor stop until the end is answered; or that we are convinced our efforts have been unavailing, by the approach of the second stage, or by the addition of peritonæal inflammation.

Perhaps there is scarcely a disease which demands such extensive bleeding as the simple hysteritis; several reasons concur to render this necessary, nay, indispensable.

First, from delivery having lately taken place, the uterus is much engorged with blood, at the period at which it is attacked by inflammation; its vessels, therefore, are still distended, and its whole substance in a highly irritable state; consequently, a new quantity of blood is invited to its parietes.

Second, owing to the insulated position, and independent economy of this organ, it becomes very readily filled with blood, but parts with it, unless under particular circumstances, as in hemorrhagies from this part, with great difficulty, or at least very slowly, as is proved by its bulk several days after delivery; consequently, large quantities may be taken from the general system, without greatly influencing the quantity contained in the substance of the uterus.

Third, owing to the lax and distensible condition of the uterine vessels, they are readily re-stretched by any influx of blood; and, consequently, they again become charged by a fresh quantity of it, which now becomes another cause of irritation, (by distention,) to the newly provoked inflammation; and thus inviting a greater flux of blood to this part.

Fourth, that when the uterus becomes thus re-filled, the vessels cannot be relieved from this engorgement, as the only cause by which their capacities can be diminished, and of course this state relieved, is now suspended, namely, the tonic

contraction of this organ; hence, its enlargement in this disease; and hence, it is a favourable symptom, when this viscus diminishes in size, as it shows a return of this power, and consequently an abatement of inflammation.

All these circumstances show the necessity of blood-letting; and, at the same time, prove, that it will require much to be abstracted, before this particular condition of the uterus can be relieved by it. It also shows us the importance and propriety of local bleeding, by either leeching or cupping, as the blood abstracted by these means, acts with more certainty, and more promptly upon this part.

*a.—Purging.*

To co-operate with the bleeding, purging must be instituted simultaneously with it. Dr. Clarke entertains apprehensions of the propriety of this mode of depletion. He says, "neither can I recommend a course of purging, as serviceable in the inflammation of the uterus, which follows delivery. It is always, I believe, right, in the first instance, to procure two or three stools; but afterwards, it will be enough to preserve the regular motions of the bowels, by giving, from time to time, small quantities of castor oil, or a little rhubarb, mixed with other medicines, which may be proper. The objection which I have found to long continued purging, is, it has always the effect of preventing that gentle perspiration, which, if it can be produced and kept up, will do more towards curing the disease than any remedy which I know." P. 75.

We are always sorry to differ, in practical points, with this respectable author; but we cannot, in justice to ourselves, or to those who may feel disposed to consult our opinions, avoid saying, that it is contrary to our experience altogether. We have always found it absolutely necessary, as well as highly useful, to purge from the beginning to the end of the disease; and, as in puerperal fever, we continue it, with more or less activity, throughout. And, if we are to be governed by the pathology of this disease, there cannot be a moment's hesitation upon the subject.

The patient is labouring under an inflammation of a most active kind, which, if not speedily removed, will terminate

either in disorganization, or in dissolution. We have already noticed the peculiar situation of the uterus at this period; the difficulty of divesting it of its blood, by bleeding; and the great quantity which is required to be drawn, to have an influence upon the immediate seat of the disease. This being the case, it is every way evident, that, whatever will co-operate with blood-letting, in diminishing the general quantity of this fluid, without its absolute abstraction, or divert it from its tendency to the uterus, as well as emptying the vessels in the neighbourhood, will much contribute to the reduction of the disease. On this account, we would as earnestly recommend purging in this disease, as in puerperal fever, where its value is not disputed, and for nearly the same reasons. Besides, our experience is decidedly in favour of this treatment.

We cannot look upon the objection urged by Dr. Clarke, as having the least force; for we have never found it practically correct, that, in the inflammation of the uterus, "perspiration will do more towards curing the disease, than any other remedy." Dr. Clarke admits the absolute necessity of bleeding, and the propriety of repeating it again and again; yet, he would have us believe, that "a gentle perspiration, *if it can be produced*, and kept up," will compensate for the farther loss of blood, than which there can be no greater error; and were we to rely upon this state of the skin for the cure of an inflammation of the uterus, we should, we are persuaded, but add to the already too frequent opportunities, by post mortem examinations, of determining, that, "upon cutting into the substance of the uterus, pus is often found." P. 69. To us, it appears that Dr. Clarke has mistaken the gentle perspiration which takes place at the decline of the disease, and which, as a consequence of the solution of the fever, was procured by free blood-letting, and other depletions, for the cause of the abatement of the uterine inflammation; if this be so, and he has relied upon the production of perspiration for the cure of this complaint, we need be at no loss to account for the condition of the uterus just described. Besides, Dr. Clarke is no way confident that a perspiration can be procured at will; for he says, "if it can be produced;" and how much important time may be lost, for a benefit so contingent!

Can any farther evidence be required of the necessity of blood-letting, than the formation of pus within the substance of the uterus? or can there be stronger reasons to believe, that in the cases which presented these appearances after death, this remedy, and perhaps others of a similar kind, had been too sparingly employed? From these facts, we never have had the smallest hesitation to give purging medicines with a liberal hand; nor have we ever had reason to condemn ourselves for the practice.

We have said that purging should be commenced with promptness after bleeding; for this purpose, calomel should be given in a pretty liberal dose, say ten grains, and followed, unless it operate freely in two hours, which it very rarely does, by equal parts of the sulphate of magnesia and magnesia itself, in the manner following

℞ Sulph. Magnes. } āā ʒiij. M.—div. in iij.
Magnes. alb. ust. }

One of these to be taken every hour in sweetened water or lemonade, until they operate freely.

The discharges from the bowels should be kept up, by small doses of calomel, Seidlitz powders, or the Epsom salts, so as to procure eight or ten evacuations in the twenty-four hours; but so contrived as not to break in upon the rest at night. This is readily managed, by choosing proper times for the exhibition of the medicines. Our general plan is, after the first day, (for during that, we may not have a choice, owing to the time at which we may be called,) to give six or eight grains of calomel at bed time, and purging it off the next morning by any of the milder cathartics just mentioned.

Should there be bilious discharges, a circumstance very common, the continuation of the calomel should be insisted on as just directed, in preference to any other purge; for none other will answer with so much certainty or advantage.

Purging is then kept up with a vigour proportionate to the violence or abatement of the disease; but it is not to be abandoned, because the disease pertinaciously runs on to the second stage, and though it may be proper to withhold the farther drawing of blood, we have never known it proper to prevent the free action of the bowels. For should the disease termi-

nate in suppuration, and the woman not succumb immediately, there is nothing so likely to promote absorption, as purging.

*b.—Fomentations.*

Dr. Clarke recommends fomentations to the abdomen; we never advise them, for we have never seen them of the slightest use in hysteritis, and we have known them do mischief. They do mischief by the intensity of their heat; by their weight; by exposing the woman to chills; and by keeping her constantly wet. They are particularly inadmissible in the early stage of this disease, as they increase the circulation by their warmth.

In such cases of hysteritis as may be accompanied by after pains arising from coagula within the uterus, which is known, as we have said, by its alternate movements, we have seen an application of dry, or merely moist substances, very useful; by promoting the contractions of the uterus so as to expel these foreign bodies. The one we have most commonly used is the "tansy pancake." This is made by mixing flower and water together to the consistence of a batter; with this a quantity of tansy is mixed; it is now to be fried like a pancake, but it is to be made much thicker, say half an inch; it is to be placed between two cloths, and applied to the abdomen. Under the circumstances, for which we recommend this application, it will, we think, be found highly useful; at least it has proved repeatedly so with us. It certainly combines all the good properties of the fomentation, without its disadvantages; but let it be clearly understood, its employment is confined to the cases above stated; namely, where the uterus, distended with coagula, produces much pain, and the ordinary efforts of this organ are found insufficient to expel them.

*c.—Blisters.*

It is very doubtful whether blistering the abdomen in cases of hysteritis is of any benefit; we are at a loss, from what we have seen, how to decide; their efficacy, if they possess any, is unquestionably very limited. Dr. Clarke and others are decidedly against their use, and we are disposed to coincide with them; not that we are satisfied they are injurious, but because

they are very inconvenient, especially to such patients as may be treated by brisk purging. It is many years since we last used them; and we cannot venture to recommend them.

*d.—Sudorifics.*

Our opinion of this class of remedies, may be collected from what we have already said on the subject of "perspiration:" we shall only add, that, in the early stage of the complaint, they are altogether inadequate to the state of the disease; and, when it is on the decline, they are generally unnecessary. We have thought them occasionally useful, where the system had yielded to previous treatment, and nothing but a little feverishness came on in the evening, accompanied by watchfulness and a dry skin. We think we have seen the occasional use of Dover's powder, given at bed-time in ten grain doses, useful. But our rule is, never to rely upon them, to the exclusion of evacuants.

*e.—Opium.*

In the commencement of the disease, the pain which sometimes attends hysteritis, has led to the free use of opium; but it is always unfortunate for the patient; for it never subdues pain, and always augments the existing evils by its stimulus, and the constipating effects it has on the bowels. It is, therefore, clear, it is not proper to use it in the beginning of the disease; nor is it much more eligible in the decline of the disease, as it may interrupt the discharges from the bowels, at a time there may be much need of them. In combination, as in Dover's powder, it may be now and then useful; but we think no decided advantage is gained by its use, unless it be to relieve some sudden symptom, as severe and unexpected pain in the bowels, from flatulency, or other causes, when the fever is pretty well under command; to moderate unnecessarily severe purging, or hypercatharsis, or to give temporary comfort to an exhausted, or irrecoverable patient. Indeed, if depletion has been ample, there is very little use in the opium.*

* Dr. Clarke is much in favour of opium in this disease; this, perhaps, arises from his not carrying bleeding and purging as far as we are in the habit of doing: the consequence is, that pain is much more permanent, in such cases as have not

*f.—Emetics.*

Emetics have been thought highly useful, in almost every complaint of a puerperal woman. From their reputed efficacy in peritonæal inflammation, as recommended by Mr. Doulcet, they have been thought useful in inflammation of the uterus, and accordingly have been recommended in such cases. Our experience exactly coincides with that of Dr. Clarke on this point, that they "constantly add to the pain, by the agitation they occasion, and the pressure made by the muscles on the inflamed uterus." P. 77.

From all then that has been said upon the various remedies proposed for the relief of this disease, our dependence is chiefly to be put upon bleeding and purging.

## CHAPTER XIX.

### OF PUERPERAL FEVER.

By puerperal fever, we understand that disease which attacks the woman almost immediately, or within a few days after delivery; and is distinguished from every other affection of the febrile kind, by its being always attended by a highly accelerated pulse; a painful soreness of the abdomen; and with more or less distention, (after a short time,) of this cavity.

However authors may disagree about the nature of this disease, as regards its remote and proximate causes; mode of

been freely bled, and may require, for temporary purposes, the aid of laudanum. Its indiscriminate use, however, cannot be too severely condemned, in diseases of high action.

treatment; and its specific nature; they one and all consent to consider the marks just stated, to be the pathognomonic symptoms of it. And, perhaps, in no disease of the febrile kind, can so many peculiarities be enumerated, as almost constantly present themselves in this; such as the highly accelerated pulse; the failure in the secretion of the milk, if it has not taken place previously to the attack of the disease; its immediate arrest, if it has commenced to be formed; the diminution, or suppression of the lochia; the constipated condition of the bowels; the peculiar character of the alvine discharges; the exemption, for the most part, from delirium; the loss of maternal feeling, &c.; and its always being attended by peritonæal inflammation.

The fatal character of this fever, is almost proverbial; Dr. Denman declares, "it occasions the death of much the greater part of those who die in childbed;" and many others bear a like testimony of its dangerous tendency. Dr. Clarke declares, that three out of four die. "Perhaps there is scarcely a disease which we are acquainted with, whose consequences are more fatal than this; as far as I have observed, three-fourths of those who have been seized, have fallen sacrifices to its severity." Essays, p. 132.

## Sect. I.—*History.*

In Europe,* it frequently becomes epidemic; and when this happens, its ravages are sometimes truly awful, as its malignity is thought to be increased, by whatever may be the peculiarity in the constitution of the air, which renders it epidemical. In this, almost all the writers upon this subject agree. Dr. Leake says, "it will always be found most fatal, when most epidemical, that is, during the distemperature of

* In the year 1746, this disease raged in Paris to a terrible extent, and especially in the Hotel-Dieu. It attacked only the poor women; yet it was neither so violent nor so common when they were delivered at their own houses, as when placed in the hospital. In this place it was remarked, that of twenty women who were attacked, scarcely one escaped.

The character of the disease, as represented, resembles in every particular, the puerperal fever of Great Britain and of this country, as quoted by Clarke, in Essays, p. 104.

the air; and least of all so, when it happens in healthy seasons, from accidental causes." Obser. on Childbed Fevers. p. 101. Mr. Hey and others declare the same thing.

In this country, this disease very rarely presents itself as an epidemic; the only record of this kind that offers itself to me at this moment, is that of Dr. Jackson. He says, it prevailed "both in Northumberland and Sunbury, in this state, (Pennsylvania,) in the fall of 1817, and in the spring of 1818." And though treated with both vigour and ability, about one-half died. Eclectic Repertory, vol. viii. p. 202.

Dr. Jackson makes the following curious and novel observations: "Having observed that the neighbouring midwives were successful in every instance, and also being strongly prepossessed with the doctrine of typhus, I was ready to impute their good fortune to their customary copious use of wine and spirits; and the practice of Dr. Wood, at Pennsborough, twenty-seven miles up the river, (the Susquehannah,) served to strengthen me in this opinion. We had conversed on this subject, and shortly after he too had a fatal case, which he considered as ending in typhus: he then gave his puerperal women large quantities of brandy and paregoric elixir, and had the satisfaction of seeing them all do well. My next patient, therefore, was allowed a gill of brandy in the twenty-four hours. She was the first that escaped the disease; but she escaped with a subsequent mammary abscess, which I imputed to this Brunonian, and to me abhorrent practice. My next patient took bark as a prophylactic, and escaped all complaints; but we soon returned to our former antiphlogistic regimen and mode of practice, with the hope that the warm weather had banished the latent cause of this unhappy disease." P. 219.

This statement is remarkable for several of its particulars: 1st, that the success of the "neighbouring midwives" was uniform; 2d, that in the practice of Dr. Wood, "all his patients did well;" 3d, that two patients of Dr. Jackson did well; one treated by brandy, and the other by bark. Now, these facts decidedly leave the impression, that the stimulating plans of the midwives and physicians, were successful as prophylactics; yet these plans were abandoned for the antiphlo-

gistic, which we have reason to suppose, was equally successful with the others, since no mention is made of its failure.

From these statements, it would seem to follow, that there was no choice between these opposite plans of treatment, as each was equally successful; or that none of the women, on whom the trials were made, would have had the disease, had no particular treatment been followed. This statement shows us also, the difficulty of ascertaining the prophylactic power of any plan that may be adopted; since, coincidences may be mistaken for the effects of applications which had no agency whatever in the results. For, it is scarcely to be believed, that these opposite schemes should have been equally uniform in their results; yet we are obliged to admit it, if we grant any power whatever to the several plans detailed.

It is true, Dr. Jackson appears to think, that the patient to whom he allowed the brandy, escaped the puerperal fever, in consequence of its use, though at the expense of a mammary abscess. In this case, it is very far from conclusive, that the fever was prevented by the brandy; since it was long ago known, that those women who had mammary abscesses, uniformly escaped the disease. Dr. Denman says "it is remarkable, that not one instance has been observed of any woman who had an abscess in the breast, being attacked with the fever." Francis' ed. p. 574. Dr. Leake remarks the same thing. In the case, then, related by Dr. Jackson, the mammary abscess may have been the prophylactic, instead of the brandy.

So far as we know, this disease has never appeared as an epidemic in this city; though sporadic cases have been more frequent at one time than at another. It has always, however, been a disease of great danger, and is sure to excite great alarm whenever it may occur. It does not appear to attack the poor more frequently than the females in the higher ranks of life; for when it occurs, one class seems to be as liable to it as another; if we can call any thing happening as rarely as this disease does with us, a liability.

Yet, notwithstanding the infrequency of this disease in this place, it does not seem to invalidate the observation of Dr. Denman, that "it destroys the greater part of the women who die in childbed;" for when deaths occur in the puerperal state,

this disease has its full share of them. But deaths in childbed are comparatively of rare occurrence in this country, when contrasted with their frequency in Europe. This is partly owing to our not having a class of people, that exactly corresponds with the class called "the poor" in Europe; and among whom this disease commits dreadful ravages, and especially at the times it becomes epidemic.

In Great Britain, it occurs perhaps more frequently as an epidemic than on the Continent; the cause of this we cannot pretend to explain; but such appears to be the fact. Mr. Hey and others describe this disease as an epidemic of frequent occurrence, and as one that visits one district after another, without any apparent cause. Thus he tells us, that "for some years past the puerperal fever has prevailed epidemically in different parts of Yorkshire." Again, that "it appeared first at Barnsley, twenty miles south of Leeds, where it was prevalent and fatal. It began there early in the year 1808, nearly two years before it became general in Leeds." P. 15.

Again, "about two years before the fever which I am about to describe, made its appearance, a puerperal fever was epidemic in this town, (Leeds) which was similar in its nature to that now under consideration; but it was more partial in its extent, afflicting only one district of the town, and being confined chiefly to the poor." P. 15. He farther states, that there was a perpetuation of this disease "from November 1809 to about Christmas 1812." P. 16.

These facts prove to us incontestibly, the frequency and the extent of the disease (in *England* at least,) when compared with this country; and the account given by Mr. Hey, is but one of many of the histories of this epidemic, which has occurred in Great Britain. See Dr. Gordon,* Dr. Joseph Clarke,† Dr. John Clarke, &c.‡

* See Dr. Gordon's account of puerperal fever, when it appeared as an epidemic in Aberdeen, in Scotland.

† See Dr. Joseph Clarke's account, as it appeared in Dublin in 1760. Duncan's. Medical Comment. for 1790. It again appeared in Dublin in 1767.

‡ See Dr. John Clarke's account of the low fever of childbed, in 1787 and 1788. Mr. White's account of it at Manchester in 1761. Treatise on management of lying-in women, p. 165. Dr. Leake's account for 1770, as it appeared in the

We are however not to be understood to mean, that fevers do not occur in childbed in this country; we only declare, that this particular fever, is one that we may rarely see. The milk fever, the ephemeral fever, called the "weed," are frequently met with; for here, as well as elsewhere, improprieties during the few first days of confinement will be committed, and the patient be subjected, in consequence, to the fevers just mentioned.* Besides, we have every now and then inflammation of the womb, which sometimes passes for puerperal fever.

In the account we shall give of this disease, we shall confine ourselves to that inflammation of the peritonæum, that succeeds delivery. For we are of opinion that this will embrace, "the low malignant fever of lying-in women," as detailed by Dr. Clarke, as well as the disease described by Hulme, Kirkland, Leake, Denman, Gordon, Armstrong, Hey, &c. It is true, that several of these include in their accounts, what they term an inflammation of the uterus; as Hey and Denman; yet the simple inflammation of the uterus is a very different disease from puerperal fever; so much so, in our opinion, that they should never be confounded; and for this reason we have given them a separate consideration.

## Sect. II. *Period of Attack.*

The puerperal fever generally attacks after the first forty-eight hours; sometimes however, rather earlier, and sometimes later, but rarely after the fifth day; but as a general rule, it is found, that the earlier after delivery, the more dangerous it becomes. In this Gordon, Denman, Hey, &c. all agree; and Dr. Clarke, whose opportunities of observation were great in the low fever of childbed of 1780, says, "the danger seems to be greater in proportion as the accession is sooner after labour." Essays, p. 132.

It would appear from the testimony of all the writers on

Westminster Hospital. Prac. Obs. p. 241. Mr. White's account as it appeared in Edinburgh in 1773. Tenon's account as it appeared in Paris from 1774 to 1781.

* We consider the milk fever certainly, and the "weed" most probably, of artificial origin; for we believe we are correct in saying, where the nursing has been properly conducted, they never appear, or if they do, it is certainly very rarely.

puerperal fever, that delivery has no direct agency in the production of this fever. Thus Dr. Armstrong, p. 2, assures us, "it does not seem to depend upon the difficulty of labour, for in most of the women in whom it occurred, parturition was remarkably easy, and the placenta was cast off after a proper interval, and without more than usual pain. Nor was the lochial discharge, before the attack, in any way apparently affected."

Mr. Hey says, p. 21, "it is somewhat remarkable, that I have scarcely known an instance, in my own practice, of this disease coming on after a preternatural labour. I do not mean to imply, that such cases were more exempt from it than others, but so it happened; and the fact shows, that it was independent of any thing untoward in the labour. It has, on the contrary, most frequently occurred, within the compass of my experience, after the most easy and natural labours."

But Dr. Clarke seems inclined to a contrary opinion, though not exactly satisfied with his own sentiments. He observes, "for some reason or other, there seems to be a great aptitude in the peritonæum to be inflamed in women after delivery, so that causes applied to the body, which generally have a tendency to excite inflammation of internal parts, seem to be peculiarly directed, in their operation, to this part, during the time of childbed. Hence this disease (the inflammation of the peritonæum,) is very frequent, and has been also called puerperal fever."

"It has been conceived, that this predisposition might depend upon some change in the state of these parts, or of the cavity of the abdomen succeeding to the act of labour, or the contraction of the uterus. Yet it seems not to be conformable to the wisdom of nature, to construct parts so that the circumstances to which they must necessarily be exposed in a state of health, should either prove a predisponent, or an immediate cause of disease. Moreover, the alteration of the state of the cavity of the abdomen, is so frequent an occurrence, and this complaint is comparatively so uncommon, that it is hardly credible that so many should escape, and so few be liable to its influence."

"In some cases, the pressure made by the child's head, in entering the pelvis, against the peritonæum, either covering the

cervix uteri,* or the bladder, may predispose to, if it does not actually produce the disease; and I believe it is often an occasional cause. It may be said, that this also would more frequently produce the disease, than we find in fact that it does. But on the other hand, it should be remembered, that it is only in cases where the head is comparatively large, that so great a degree of pressure can happen, as to occasion the disease. Where the head is small, in proportion to the upper aperture of the pelvis, or is of the usual size, any violent degree of pressure can hardly take place, which is the reason why the disease does not occur after every labour." Essays, p. 81.

Now this theory of Dr. Clarke, is contradicted by almost every other writer; for they all declare, that the mere act of parturition has no agency in producing the disease; and Dr. Denman declares, that "women are certainly not attacked so often with this fever after difficult labours." Again, were this a cause, it should be an ever acting one; yet in this country, the disease is scarcely known, though the females of it have their share of children, whose heads are of full size, and which exert as strong a pressure upon the upper aperture of the pelvis, and consequently, compress the peritonæum as certainly and as powerfully, as in England, or other portions of Europe. Dr. Armstrong says, "it did not seem to depend upon difficulty of labour; for in most of the women in whom it occurred, parturition was remarkably easy." P. 2.

We might readily multiply authorities to prove this curious fact; and from its importance, it should challenge the attention of the physician to an investigation of the cause of it; for we are not altogether satisfied with the explanation that Dr. Denman gives of this singular exemption; namely, "because of the particular care with which they are then managed." Were this the cause alone, it would be easy to arrest the progress, or at least to mitigate the violence of this malady, by the same attentions being bestowed upon those who have easy labours, and to which the attention of every practitioner would naturally be directed, while the disease was ravaging as an epidemic.

* Dr. Clarke has committed a little mistake in his anatomy; the cervix uteri is not covered by the peritonæum: it is only the body and fundus, that derive a coat from this membrane.

Indeed, it would seem, that the public had some right to expect a practical illustration of the suggestion from the author of it; and we truly regret, that he had not turned his attention to it.

It is true, there appears to be some foundation for this opinion, from the practice of several, if a certain medical treatment comprises that peculiar care bestowed upon women who have had laborious labours, alluded to by Dr. Denman; for Dr. Gordon informs us, that when the puerperal fever raged as an epidemic at Aberdeen, a bolus composed of calomel and jalap given in the morning, the day after delivery, either prevented the disease entirely, or answered the good purpose of anticipating the cure before the attack. Treatise on Puerperal Fever, p. 100.

This must certainly have been a most consoling fact to the physician, and a most important discovery to the afflicted, or those liable to be afflicted, since, a sure prophylactic was at hand, or a remedy in waiting, which was capable of disarming this terrible malady of its dangers. The only matter of surprise is, that after this discovery, we should have heard any more of the dangers, or the occurrence of puerperal fever; for if the value of the remedy had been really as great, as the eulogium passed upon it declared it to be, we ought not.

Mr. Hey furnishes us with his experience of the use of this remedy; he says, "in *every case of accouchement*, it was my practice to give a purgative on the day succeeding the delivery; which if it *did not prevent the disease*, afforded *some advantage* in its cure." P. 154. Now, as Mr. Hey has not given us the proportions of success of this plan, we can only conjecture, that neither its prophylactic, nor its sanative powers, could have been very great; since, he constantly was acquiring patients, and some of which he lost.* Nor does it appear from the history of his cases, that those who got well were indebted to the anticipating purgative alone, as blood-letting and farther purging were constantly had recourse to.

From all we can learn from the testimony of Dr. Gordon himself, and from Mr. Hey, who followed his practice, it does

* Indeed, Mr. Hey informs us, immediately after, p. 155, that "some of the worst cases in his practice, occurred after an excessive operation of the purgative."

not appear, that the plan under consideration, deserves the sweeping encomium bestowed upon it by its inventor; that it was highly proper and very useful, we have every disposition to believe; but that it ever *prevented the disease*, we very much doubt.* Indeed, it would be extremely difficult to ascertain when it did prevent; for the fact amounts but to this negative; that, some of the women who took it, escaped the disease; but this is no proof, that the calomel and jalap prevented it; for it is not fair to presume, that every newly delivered woman would certainly have the disease.

Besides, were this power of preventing the onset, or relieving the force, granted to the calomel and jalap, it still leaves the fact of women, who had laborious labours, being less liable to this disease, unexplained; since, agreeably to the practice of both Dr. Gordon and Mr. Hey, every newly delivered woman was treated alike, as regards the exhibition of the purgative; yet, those who had easy labours were more certainly liable to puerperal fever, than those who had difficult times.

From all this it would appear, that the subject is still open for inquiry; and we would earnestly recommend it to those, whose practice will furnish them with opportunities, to inquire into the fact, and endeavour to discover the cause, why a tedious and protracted labour, should be any way instrumental in diminishing the liability to puerperal fever. For we may well ask, how it is that long suffering, and very certainly lesion of some kind, and to various extents, should diminish the predisposition of this disease, or abate the force of the exciting causes!

Will the active inflammation of the proper substance of the uterus, and of the vagina, which follow almost necessarily as a consequence, interrupt the tendency to peritonæal inflammation? Is this rendered probable, by other facts relative to this disease, which are certainly no *less* singular, namely, that "not one instance has been observed, of any woman, who had an ab-

* Mr. Hunter long since taught us, that we may cure a disease, but that we cannot destroy predisposition. The anticipating purging even cannot always be proper, if carried to any thing like excess. We see this illustrated in the practice of Mr. Hey, just alluded to; for the powerful operation of a cathartic may be, and doubtless is, sometimes, the exciting cause of the disease.

scess in the breast, being attacked with this fever; nor of any who, in consequence of their labour, had such an affection of the bladder, as to occasion a suppression of urine?"* Denman. Introd. Francis's Ed. p. 574.

But notwithstanding that the powers of a mercurial purgative have been in our opinion rather overrated, it is every way certain that it has been highly useful; we should, therefore, from both facts and analogy, recommend the adoption of the plan first suggested by Dr. Gordon, of purging briskly at the end of the first eighteen or twenty hours, or earlier, after delivery, whenever there was a tendency in puerperal fever to become epidemic, or where sporadic cases were more than ordinarily frequent.

## Sect. III. *Seat of the Disease, and its proximate Cause.*

Post mortem examinations have satisfactorily shown puerperal fever to consist in peritonæal inflammation. This inflammation does not confine itself to any one portion of this membrane. The mesentery, omentum, the liver, the mesicolon; in a word, every portion of the abdominal contents may be the seat of this inflammation; nay even the pleura and lungs have been found involved in it.

Dr. Clarke says, "sometimes one or both sides of the thorax will be found containing a quantity of fluid of the same kind with that which has been described, (the fluid found in the abdomen) and a solid part floating in it, and attaching itself to the surfaces of the pleura. In the pericardium too I have found a large quantity of water, with some floating pieces, (of coagulating lymph apparently) in it." Essays. p. 137.

Before death, it is not uncommon for this inflammation to

* We do not mean, that these facts should be taken for more than they are worth; for we are aware, that different explanations may be given of them; for, of the first it may be said, that the woman who lives free from the disease long enough to have milk secreted, and an abscess to form, most probably had no predisposition to the disease, and would have escaped the fever, without the abscess; and, that the abscess was only an evidence of this want of disposition, and not of its being prophylactic. Of the other, it may be said, that the freedom from this fever, should be referred to the tedious and painful labour, of which the suppression of urine was a consequence; and therefore, that this symptom should not be considered as having any agency in procuring the exemption.

terminate in effusion; hence the immense quantity which is sometimes found within the abdomen; and the peculiarity of the inflammation of the lining of this cavity, since no other serous membrane pours out an equal quantity in the same time.

Mr. Cruikshank informs us that he has "taken away often forty or sixty pints of water, which had accumulated in the cavity of the abdomen, in the few days the peritonæal inflammation had lasted, during the usual species of childbed fever." On the absorbents. p. 116.

Dr. Clarke says "the first thing which, in the greater number of instances (of dissection) presents itself, is a collection of fluid in the general cavity of the abdomen, sometimes very large in quantity, inasmuch as I have often absorbed, by means of a sponge, several quarts of it." Essays. p. 135.

When effusion is extensive, the existence of a previous inflammation is less evident; this has led some to conclude, that this effusion was not the effect of active inflammation; but rather the result of a certain disposition of the vessels of the parts affected, essentially different from an inflammatory action.

It is easy to refine too much; and nowise difficult for a sturdy polemic, to deny the force of the most obvious facts. What but the resolution of inflammation yields such a quantity of fluid as is found after puerperal fever? what but inflammation giving out coagulable lymph, will account for the interstices of the intestines being filled up; their surfaces covered; and their various convolutions connected in masses? what but an inflammation, and that of the most active kind, will give rise to such an acceleration of pulse; such immoderate heat; such intense pain; such exquisite soreness, as almost constantly combine in the puerperal fever? In a word, we must repeat, what other condition of the blood-vessels, than inflammation, induces them to give out so suddenly, and so excessively, their fluids? Besides, inflammation of the peritonæum from other causes, is known to terminate in large effusions within the abdominal cavity; rupture of the uterus, if the woman should not die too soon, is always, we believe, accompanied by a large effusion.

Mr. Cruikshank tells us, "if an inflammation arise in a cavi-

ty, it may terminate in a number of ways; one by an increased secretion of the fluid of the surfaces. A man receives a blow on the testicle; inflammation takes place, and the consequence is frequently a hydrocele, or dropsy of the tunica vaginalis. A child's brain inflames, and this inflammation ends at last in hydrocephalus. Pleurisy frequently terminates in hydrothorax." On the absorbing vessels. p. 116.

Now it is a fact, very well ascertained, indeed we had almost said not disputed, that when the vessels of an inflamed surface proceed to effusion, there is an immediate reduction of that inflammation; nay, sometimes, a complete removal of it; so much so is this the case, occasionally, that disappointment has followed the search for it, where there previously existed every evidence but ocular demonstration.

Had Dr. Clarke been sufficiently acquainted with this fact, or permitted it to have its full weight, he would scarcely have consented to have agitated the following questions.

I. " Does the fever in a puerperal woman, dispose the peritonæum to effuse the fluid, which, being of a coagulable nature, forms a coat on different surfaces?"

II. " Does an inflammation of a small part, dispose the whole of the peritonæum to throw out the coagulating fluid?"

III. " Does the inflammation precede or follow the effusion? If the latter, is the inflammation excited by a stimulating quality of the matter itself? or lastly, are the fever, the inflammation, and the effusion of fluid, entirely independent of each other, as to cause and effect, and are they only parts of one whole, which is a disease sui generis?" p. 157.

If the first question mean, as we presume it does, that the fever in question may so act upon the peritonæum as to force it to effusion without any intermediate condition, as inflammation, we would answer it in the negative, and for the following reasons:

1st. Because, we know of no instance of an effused fluid resembling the one found in the cavity of the abdomen, without the intervention of some other condition of the parts concerned; nor of any other fluid, to the same extent, in the same space of time. In cases of large collections of water in cavities, as in ascites, &c., it is always very gradual; and seems

to be rather owing to the defect of absorption, than to an increase of deposition; though in some instances there is strong reason to believe it the result of a previous inflammatory action.

2d. Because, we know, when serous effusions take place in other portions of the body, that they are always preceded by inflammation; as in hydrothorax, hydrocele, hydrocephalus, &c., and when they take place upon the surface of the body, as from blisters, burns, or scalds, we know that inflammation existed before the effusion; nor do we ever see it but the result of highly excited vessels.

3d. Because, in all instances of the resolution of inflammation by effusion, a serous fluid is thrown out; and when thrown out, the inflamed surface which yielded it is always relieved from the excitement; either in part, or altogether.

II. The second question we would answer also in the negative; and for reasons that might be in part collected from the answers to the first; for, 1st, if the inflammation of a portion of the peritonæum, could excite portions to effusion which are not inflamed, it would of course be admitting, that effusion can take place without inflammation, or that a sound part can perform the functions of a diseased one; a position we must entirely deny. 2d. Were this admitted, it would be supposing, that an inflamed surface, and one which is not inflamed, would yield the same fluid, which is contrary to all experience.

III. To the third query and consequences, we would say, that inflammation always precedes effusion; that this inflammation we believe to be of a peculiar kind; that the fever is but the result of the local irritation, occasioned by this inflammation, and for the reasons which follow.

1. Because, a sense of soreness and tenderness, is always experienced in some one portion of the abdominal cavity, before the fever is well formed; and in the accounts we have of this fever, as it appeared in the Hotel-Dieu, we are told, that "after the escape of the waters, the uterus became dry, rigid, painful, and swelled, and that the lochia did not flow as usual."

2. Because, the excitement of the arterial system, keeps pace with the inflammation of the uterus and its coverings.

3. Because, fevers from other causes have no tendency to

produce peritonæal inflammation; as milk fever, the weed, or even erysipelas; consequently, that there must be a disposition in the peritonæum, to take on inflammation after delivery.*

4. Because, whatever excites inflammation in the peritonæum, by local irritation, as tapping, sometimes; rupture of the uterus; inflammation of the proper substance of the uterus; when it involves this membrane, &c., but not until then; extraneous substances passing from the stomach and bowels into the cavity of the abdomen; punctures or wounds in this cavity, give the same phenomena; proving beyond doubt, that when this membrane is indisputably the seat of inflammation, the system at large sympathizes in the same manner as in puerperal fever.

From these facts, and others developed by dissection, we have no hesitation to declare, that puerperal fever is an inflammation of the peritonæum; and that there is something peculiar in the nature of the inflammation; or in other words, that there is something peculiar in the mode of action of the vessels of the peritonæum when inflamed: this seems to be proved by,

1. The nature of the effused fluid being different from other fluids yielded by inflamed surfaces,† though these surfaces may be covered by serous membranes. This fact is proved by the analysis of this fluid by Dr. George Pearson, to whom Dr. Clarke submitted some of the fluid for examination.

2. By this inflammation always terminating in effusion or suppuration before death; and never, or but very rarely, in gangrene, so far as dissections have yet discovered.‡ Dr. Clarke

* We may include, with much propriety, under the head of *delivery*, those instances of abortion, which have been followed by puerperal fever. Dr. Hull says, "it sometimes attacks women who have suffered an abortion, or who have been prematurely delivered, as well as those who have gone their full time of utero-gestation." Treatise on Phlegm. Dolens. p. 228.

Mr. Hey also informs us, that he met with two cases of puerperal fever after abortion, p. 27.

† Dr. Robert, of Marseilles, however, declares, that his analyses of the abdominal fluid of puerperal fever, yielded the same product as the fluid yielded by the pleura. Med. Chirurg. Journ. Vol. iv. p. 423.

‡ Dr. Fordyce intimates, from the character of the symptoms, and the analogy of the circumstances, that we might *suspect gangrene sometimes;* but there is no mention that this has ever taken place. He says, "that the suppuration is very different in its effects, from the suppuration which takes place in other inflamma-

says, p. 135, that "the inside of the uterus, or of the intestines, has not been found inflamed in any of those whom I have had an opportunity of examining after death; much less have I found any signs *of gangrene, or mortification.*" These are curious facts as regards the peculiarity of this disease; and they are particularly valuable as coming from so veracious and candid a man as Dr. Clarke; and the more especially, as the disease which killed the patients he examined, was "the low fever of childbed," and had a strong tendency to "putridity," as his practice would seem to declare, and as on one occasion he avows. P. 115.

For he expressly says, that "all the medicines which have been employed with a view to the diminution of an inflammation, have, in the course of my experience, failed in curing the disease. It became therefore next an object, to try whether such as have a tendency to support the strength and diminish the irritability, would be attended by better success."

"As soon, then, as any very considerably increased frequency of the pulse is discovered, I believe that it is right to begin immediately with exhibiting the Peruvian bark very freely, and in as large quantities as the stomach will bear," &c. p. 162. Now, the mode of treatment here pointed out, declares the tendency to the typhoid (or putrid) state, if you please, yet there was neither mortification nor gangrene discoverable in any portion of the cavity of the abdomen. Yet, the phlegmonous, the

tions: for the pain goes off suddenly, and even the soreness sometimes, but the tumefaction continues; the pulse becomes more frequent; the strength is more depressed, and the patient is cut off in from six to twenty-four hours afterwards; so that *from the symptoms* it might *be supposed*, that gangrene had taken place in these cases." Hull. p. 234.

And Dr. Leake says, in Case VIII. p. 197. "On opening the body, the inferior lateral portion of the omentum was found much inflamed; but the greater portion was destroyed by suppuration. Case IX. The greater part of the omentum was suppurated; the remaining portion much inflamed, &c. Case XIII. Great part of the omentum was destroyed, and converted into matter; what remained had become *gangrenous*;" this is the only mention made of gangrene by Dr. Leake, and the part being in this condition, must have been the result of previous inflammation, but which had not relieved itself by effusion, and thus died. For he makes no mention of a fluid in the abdomen, but declares, that that portion of the omentum which is inserted round the great curvature of the stomach, was considerably inflamed.

erythematous, and erysipelatous inflammations, when violent, will each terminate sometimes in gangrene or sphacelus.

Dr. Clarke has endeavoured to prove, that the inflammation of the peritonæum of a puerperal woman, and "the low fever of childbed," are essentially different diseases. But he has not been successful in this attempt, as may readily be proved, by comparing the symptoms he details as belonging to each, as well as the port mortem appearances, making allowances for seasons, locations, epidemic constitution of the air, and consequently the *type* which these will impose upon certain parts of the character of the disease.*

In both of the diseases which he describes, (Essays, Sect. III. p. 81, and Sect. VI. p. 102,) the peritonætic inflammation, and the puerperal fever, attack at the same period after delivery; they are both preceded, sometimes by rigor, and sometimes not. Both have a soreness, tenderness, and distention of the abdomen; in both, the pulse is accelerated in a remarkable degree, very soon after the tenderness of the abdomen is experienced. In both, the secretion of the milk is interrupted, if it has not been secreted; or if began to be formed, it is immediately suspended. In both, does the woman discover indifference to her offspring; in both, is the state of stomach, the appearance of the tongue, the condition of the brain, the feel of

* "It is very well known, that during the strong exertions of labour, every woman suffers a kind of temporary fever; or, in other words, the action of the heart and arteries is very considerably accelerated. Now if this should happen to a woman under the influence of the causes adverted to above; (namely, the epidemic constitution of the air, &c.) and if under these circumstances, any occasional cause of fever should occur, such as exposure to cold, or infection, the disease thence arising will be *most susceptible of that type*, to which the system has the greatest aptitude." p. 152. And to show his entire belief in the power of the air, he says, the epidemic disposition of the season must likewise always be taken into the account; otherwise, under these circumstances, (of predisposition) "the same disease would always arise, if the same occasional causes were applied, which is not the case." p. 151. He farther adds, p. 152, "now the nature of the epidemic constitution, which had prevailed at the time when this disease was prevalent at Paris in 1746, and in London in 1787, and 1788; was a disposition to diseases of debility; with such a predisposition, if any diseased state, especially fever, should appear in a parturient woman, it would almost certainly put on that character which the preceding history of this disease fully justifies." Now it is evident, that in such cases the nature of the disease is not changed, it is only the *character of the type* that is affected.

the skin, &c. the same; or at least, they are without a marked difference in any respect. In both, does the pulse increase in rapidity, as the soreness and distention of the abdomen increase: and both have the same attending symptoms, and the same period for their fatal terminations. Both have the same kind of effusions.

The difference which a post mortem examination gives, is indeed very trifling; in the inflammation of the peritonæum, "the appearances, upon examining the bodies of women who have died of the disease, have been those of inflammation of this membrane, covering the different viscera. Upon the whole, that of the neck of the uterus and bladder, will be found more generally inflamed than of other parts; nevertheless, there is no part on which inflammation is not sometimes found. The surface of the stomach, liver, spleen, omentum, great and small intestines, uterus, the internal peritonæal lining of the muscles of the abdomen, will in their turns, or altogether, be found to partake of the disease; and as far as my experience leads me to judge, no part more than another."*

"A very large quantity of a fluid is generally collected in the cavity of the abdomen, resembling serum mixed with pus; but it differs from both of them in this respect, that it is not homogeneous in its texture, but intermixed with portions of a solid matter, resembling pieces of the same solid matter as is found on the surfaces of the peritonæum, the nature of which will be more particularly taken notice of hereafter." P. 88.

Of the examinations he made of those who died of "the low fever of childbed," he says, "the first thing which presents itself, is a collection of *fluid in the general cavity of the abdomen*, sometimes very large in quantity; insomuch, that I have often absorbed with a sponge, several quarts of it. It is of the *same nature with that which I have described in a former section*, (namely the above,) as far as can be ascertained by its sensible qualities. There is something very remarkable in the smell of

* Walter is said to have dissected more than five thousand women who had died in childbed. He constantly found, in those who died of puerperal fever, the peritonæum, throughout its extent, smeared with a pus-like substance; but never found the mucous or muscular structure implicated. Med. Chirur. Journ. vol. iv. p. 420.

this fluid, which is peculiar to itself, and distinguishes it from any other fluid which I have ever met with in the human body, either in health or in disease.* Where it is in large quantity, all the surfaces of all the viscera, and of the peritonæum generally, will be found covered with a crust formed of a solid part of this matter, resembling coagulating lymph. Its particles cohere but slightly; so that by a little agitation, it will mix with the fluid matter. The parts lying under this coat or crust, *are not always inflamed.*† If there be any interstices between the intestines, or the other viscera of the cavity of the abdomen, they are frequently filled with large masses of the same, making an accurate cast of such interstices."

"The quantity of fluid extravasated, and of the solid part floating in it, or incrusted, *is prodigious sometimes, when the disease has been of short duration, not exceeding two or three days.* They seem also, as far as I am able to judge, *to bear no proportion to the degree of inflammation, or the extent of inflamed surface;* since we often find *a large quantity of both, where the redness of any surface has been very inconsiderable, and by no means general.* In most instances, there has been some slight degree of inflammation in some part of the cavity of the abdomen; but it has not been confined invariably to any particular part."

"Sometimes the peritonæal surface of the intestines, sometimes of the liver, and sometimes the investing membrane lining the muscles, have been found partially inflamed; but I have scarcely ever seen any extensive degree of inflammation in any case, and in some I could hardly say that there was any." P. 135.‡

* Is not this circumstance absolutely conclusive of the identity of the two diseases? does not this peculiar smell prove the sameness of the inflammation which yields them? and do not the various seats of the inflammation establish their kindred nature? For Dr. Clarke informs us, it is not confined, in either case, to any one particular part.

† This observation only amounts to this, that after effusion has taken place, inflammation is not always found; but this happens from a cause familiar to every practitioner; namely, that when inflamed vessels effuse their serum, they become relieved by the cause which produced it.

‡ "We have, indeed, been told, that, in the dissections of some who are said to have died of this disease, (puerperal fever) no appearances of inflammation have

Now, the only difference we can discover in the histories of the dissection of the two diseases, is, that the neck of the uterus and bladder are *generally* more inflamed than other portions of the peritonæal surface; in every other respect, they are so faithfully alike, as to challenge a charge of difference. It is true, that Dr. Clarke, and perhaps others who may have embraced his opinions, might insist that there are other very remarkable differences; but we cannot view them in this light; since the apparent discrepancies can easily be accounted for, without the necessity of supposing them as unrelated to each other.

We will first notice, however, the coincidences of appearances; and then attempt to account for the seeming differences.

1st. In both cases, the extravasated fluid, agreeably to Dr. Clarke's own statement, are the same; as he says, "it is of the same nature" in both instances. Now, let us ask, is it probable that dissimilar diseases of the peritonæal surface shall produce fluids alike in every respect, as far as can be determined by their sensible or chemical qualities? and especially, as Dr. Clarke observes, that "there is something very remarkable in the smell of this fluid, which distinguishes it from every other fluid." Does not this fact satisfactorily prove, that, if an inflammation of the peritonæum, yields a fluid of particular qualities or properties, within the abdominal cavity, and a fluid of precisely the same kind is found in the abdomens of those who die of "the low fever of childbed," that the same action must have yielded both? We think, the force of this conclusion is irresistible.

2d. In the inflammation of the peritonæum, Dr. Clarke says, the surfaces of all the viscera in their turn, or altogether, may be inflamed; he says, that precisely the same thing happens, but not to the same extent, in "the low childbed fever:"

been discovered; but I should suspect, that, in such cases, some important appearances had been overlooked, or that errors had been committed as to the nature of the disease, and probably in its treatment." Denman, Introd. to Mid. Francis's ed. p. 583.

"Whatever be the cause of puerperal fever, the cause of death is the same in all its varieties, viz. abdominal inflammation." Gordon, p. 117.

it is then the degree of inflammation, agreeably to this, and not the absence of it, in the latter instance, that constitutes the only difference of the two cases; for we think we have rendered it probable, from the nature of the fluids found in the abdominal cavity, that in both instances, they are the result of a similar inflammation. Having cursorily remarked upon the coincidences of the fevers, we shall attempt to account for their seeming discrepancies.

I. Dr. Clarke tells us, that a coat, most probably of coagulating lymph, covers the whole, or a part, of the abdominal contents; but, the parts under this coat, or crust, *are not always inflamed;* whereas, in the fever from peritonæal inflammation, this condition is obvious, especially about the neck of the uterus and bladder; and no crust is noticed.

This, at first sight, might lead some to suppose, that a very material difference existed between the two diseases; and especially if we were not aware, that a number of causes may make a difference in the intensity of any disease; but especially in one so liable to become epidemic, as puerperal fever. For the sporadic cases of all such diseases as may become epidemic, are milder; and, consequently, more manageable, than when they become epidemic.* If this be so, it can only happen from the sporadic cases acquiring the intensity, which the epidemic constitution of the air gives any particular epidemical disease. Thus, Dr. Leake says, that puerperal fever "will always be found most fatal when most epidemical; that is, during a distemperature of the air." Treatise on Childbed Fevers, p. 73. Mr. Hey says, "I am persuaded that this circumstance (the influence of the air,) is deserving of the greatest attention; and that whoever attempts to cure an epidemic puerperal fever, by such means as are commonly sufficient for the sporadic cases, will find himself greatly disappointed in the result." P. 13.

It is to be remarked, that this difference between a sporadic

* This fact has ever been notorious in our yellow fevers. The histories of this disease, as it appeared in its several visitations in Philadelphia, show, that the anticipating cases, if they may be so termed, were comparatively mild; and that the malignancy increased in proportion to the continuance of the disease, even to its final extinction by frost.

and epidemic disease, is not confined to the puerperal fever; for it is incident to all the diseases, as we have said, which may become epidemical. This has frequently been experienced in the yellow fever, the dysentery, and the remittent and intermittent fevers of this country.

It is therefore probable, nay, we believe, certain, that the sporadic puerperal fever, might furnish the description Dr. Clarke has given of the peritonæal inflammation, and the epidemical puerperal might afford the appearances recorded of "the low fever of childbed," and yet be one and the same disease.

But without resorting to the suggestions just made, which may be looked upon, by some, as gratuitous, we will mention a fact familiar to every body who may have paid attention to epidemics, which is, that the reigning disease may differ very essentially in type, at the different periods of its visitations. Thus, no two yellow fevers, as epidemics, were precisely alike in this city. The fever of 1793, was very different from that of 1798; and that of 1797 different from either, as regarded the conditions of the system; and consequently, they made it necessary to change our therapeutic views. Yet, in all post mortem examinations, they were found to resemble each other in so many important points, as to leave no doubts, as to the identity of the disease.

Besides, an epidemical constitution of the air may show its influence on more than one disease at the same time; and this fact gives the strongest evidence of a distemperature of the air. Thus Dr. Gordon informs us, that erysipelas, and the puerperal fever, "began in Aberdeen at the same time; and afterwards kept pace together; they both arrived at their *acmé* together, and they both ceased at the same time." Treatise on Puerperal Fever, p. 50.

Dr. Clarke says, "inflammatory diseases had been extremely infrequent; or, if they occurred at all, they were principally of the erysipelatous kind. Eruptive diseases, particularly those which are attended with great depression of strength, had attacked great numbers of patients. The ulcerous sore throat, with or without the scarlatina, had been very general, both in London, and also in the country at a distance from the capital.

Most of the fevers had been of the low, nervous, and malignant kind, approaching to that type which has been by some called putrid." P. 115.

"About the same period also, in *some situations* in the country, especially in low and marshy places, the generality of patients under inoculation had recovered with great difficulty. Abscesses formed in the axillæ; large ulcers and sloughs took place, both there and at the place of insertion of the matter." P. 116.

Again, "the stimulus of her labour, (the woman whose case he is relating) brought on a degree of fever, which *degenerated in consequence of the nature of the then prevailing epidemic constitution, into a low type.*" P. 150.

Yet, with all this evidence before him, Dr. Clarke insisted on the slight difference which he observed between the sporadic puerperal fever, (for such were the cases of peritonæal inflammation which he describes,) and "the low fever of childbed," which was a puerperal fever in an epidemic form, to be different diseases; and seriously admonishes the young practitioner not to mistake the one for the other!

Every body familiar with the diversified influence of an epidemic constitution of the air, knows the variety of type it will force the same disease to assume, at the different periods of its visitations. Some, who have not been attentive to the influence of the cause just mentioned, and who neither recognise its existence, nor acknowledge its power, have been led into serious, and we had nearly said, absurd errors, on the subject of puerperal fever. Thus Dr. Kirkland supposes, that the *genuine puerperal fever* is never epidemic; at least he says, "that the puerperal fever which has been observed in hospitals, is owing to some causes peculiar to hospitals;" and that when it occurs in such places, "it should be considered as an adventitious disease, happening to women in childbed." Treatise, p. 73.

When we consider the circumstances under which females are placed, even in the best regulated hospitals, we are nowise surprised that puerperal fever should be more common, and more fatal, in them, than in patients in private life. That there may be, and most probably are, causes in hospitals, which pretty

constantly operate in such manner as to give a peculiar type to a disease similar to that which an epidemic constitution of the air might effect, we have no hesitation to believe; since, in such situations, the disease is not only more common, but is sometimes exclusively confined to them. But in granting this, it does not do away the possibility of its prevaling as an epidemic elsewhere.

Indeed, the history of this disease as an epidemic, abundantly proves, that the situations remote from hospitals, or even from cities, have been visited by this fatal malady.* On this head Mr. Hey says, that, "it must be allowed, that the puerperal fever has occurred as an epidemic, most frequently in hospitals; but if any proof were wanting that it may be epidemical, independently of any cause peculiar to hospitals, that proof is abundantly supplied by the instances of this fever which have occurred at Aberdeen and Leeds; where it was confined to no situation, rank, or circumstances; affecting alike the rich and the poor, the young and the old, the inhabitants of the town and of the country." P. 12.

Besides, we are quite at a loss to comprehend the meaning of Dr. Kirkland's appellation, "the genuine puerperal fever," if a distinction be intended by it; for a fever happening to a lying-in woman, must be a genuine puerperal fever, if the peritonæum be inflamed; or it must be some other variety of fever, if it be not inflamed; therefore, a puerperal fever, must be a genuine puerperal fever, or it is no puerperal fever whatever. A spurious puerperal fever cannot exist; for unless the peritonæum be involved in inflammation, there is no propriety in the title; and if it be, it cannot be other than genuine.

But to return; Dr. Clarke says, that "the parts under the crust or coat," (of coagulable lymph) "are not always inflamed;" this must certainly be understood to declare, that they generally are; and if they generally are, the appearance of inflammation must produce a stronger resemblance to the peritonæal inflammation, than he appears to have been willing to admit. Not that we consider this circumstance essential to

* We have noticed above, the prevalence of puerperal fever, as an epidemic, in Northumberland (in this State) and its neighbourhood; situations very remote from either hospitals, or towns of any considerable size.

the establishment of our position, that the peritonæal inflammation of childbed women, and "the low fever of childbed," are one and the same disease.

For, had Dr. Clarke told us, he had never found "the parts under the crust or coat inflamed," it would not have permitted us to doubt for a moment the identity of the affections, for the reasons stated above; and that this, and every other species of inflammation, may throw out, even large quantities of a serous fluid, under certain states of its continuance; but when it does, the inflammation which gave rise to the effusion, becomes relieved, either altogether, or in part, as this effusion may be more or less extensive, or as the inflammation may have been more or less exalted. These effects are familiar to every body, and present themselves to us almost daily, in the consequences of burns, scalds, and blisters.

II. We are led to suppose, that Dr. Clarke infers a difference in the two diseases under consideration, from the immense quantity of fluid found in the cavities of the abdomen of those who have died of the "low fever of childbed," and which "bears no proportion to the degree of inflammation, or the extent of inflamed surface," and the extent of the inflammation, and the smaller quantity of fluid found in the abdomens of those who died from peritoneal inflammation.

Now, in our estimation, this should prove the most entire identity of the two diseases; instead of showing their discrepancy. For in the one instance there was a stronger disposition to effusion, arising from the peculiarity of the inflammation, but which peculiarity, was the result of an epidemic influence; and the reduction of this inflammation kept pace with the profuseness of the effusion. In the other instance, the same circumstances obtained precisely; that is, the abatement of inflammation was in the exact proportion to the effusion; hence, more inflammation, and less effusion, was discoverable in one case, than in the other; because, in this case, there was less disposition to effusion.

Physicians and surgeons have ever entertained their own notions as regards the type of every epidemic with which we are acquainted; and their mode of treatment must consequently be predicated upon such opinions. Thus, in the yellow fever

of 1793, some physicians looked upon it as a "putrid fever," and accordingly treated it with bark, wine, and other stimuli; while others considered it slightly inflammatory in the commencement, but typhoid in its progress; these bled a few ounces on the first or second day; purged gently; and then used bark, wine, carbonate of ammonia, &c. Others looked upon it as a fever of high inflammatory character; to subdue which, extensive, and sometimes repeated bleedings, profuse purging, and a strict antiphlogistic plan was pursued. Now, it cannot be supposed, that all these opinions were right; yet each attempted to support the propriety of his practice, by detailing such phenomena and effects, as were most likely to have this effect. Hence resort was had to dissections, and each found a justification of his practice, as he supposed, in the post mortem appearances. But after a while, it was discovered, that the first plan was entirely without success; that the second had some, but it was very limited; while the third was attended by the most ample.

Just so has it been with puerperal fever; for, the rapidity of its march, and the strong tendency of the body after death to putrefaction, have led to the belief, that it could be no other than a putrid, or typhoid fever; and the want of success in curing it, by the remedies proper for such diseases, was not attributed to the improper nature of the remedies employed, but to the indomitable nature of the disease. Therefore wrong pathological views led them, either to a feeble or inefficient practice, or to one decidedly wrong.

Dr. Clarke, intent upon advancing the interest of his profession, and indefatigable in the duties which a large share of business constantly imposed upon him, attempted to remove the obscurities which seemed always to await this formidable disease, by making the various affections of the puerperal state, conform to a certain classification. With this in view, he divides the derangements of the uterine system,* and the peritonæum, into the following classes:

1st. Into the inflammation of the uterus and ovaria.

2d. The inflammation of the peritonæum.

* By the uterine system, we would wish to be understood only such portion of it, as is within the abdominal cavity, or such parts as have a peritonæal covering.

3d. Cases of inflammation of the uterus, ovaria, and Fallopian tubes, or of the peritonæum, connected with an inflammatory state of the system.

5th. The low fever of childbed, &c.

The Doctor was solicitous, that these several affections should not be confounded; to prevent which, he urges his admonition in the following words; "before I close this part of my subject, I must beg leave to caution those of my readers, whose experience may have been short, to be very careful in distinguishing these diseases from cases of fever consequent to labour, occurring in debilitated constitutions, in large towns, and in hospitals, more particularly where there is any disposition to epidemic complaints, which have a low tendency." P. 92.

But, notwithstanding the apparent propriety of these divisions, and the earnestness of his cautions, he has not, in the smallest degree, facilitated "those whose experience may have been short," (and we may add, those whose experience has been long) to distinguish, with any profitable accuracy, the different conditions he has described. Nor is this to be wondered at; as he has, in the very threshold of his inquiry, created confusion by neglecting a most important part of his subject; namely, informing us, in what, or from what condition of the system, this fever proceeds. In neglecting this, he has run into very obvious and serious error, if almost every other writer upon the subject be right, "that puerperal fever is an inflammation of the peritonæum."

If this be admitted, and we do not know how it can be disputed, it will be seen at once, that all his distinctions are truly without differences. For, in his first division, he declares the uterus and ovaria to be involved; now it is obvious, in this case, that the ovaria cannot be inflamed to the exclusion (for we will omit the condition of the abdominal portion of the uterus) of their peritonæal covering; consequently, this first division must mean "puerperal fever," if this fever consists of an inflammation of the peritonæum, as we have already, and we believe properly, insisted on.

His second division, à fortiori, must be considered as puerperal fever; since its distinctive mark consists in an "inflammation of the peritonæum." We have already noticed, p. 381,

Dr. Clarke's attempt to institute a distinction between this condition of the abdomen, and the "low fever of childbed;" we shall, therefore, not repeat what we have said there.

His third division is still more remarkable; because it would insinuate, that an inflammation of the peritonæum which covers the uterus, ovaria, and Fallopian tubes, would be different from an inflammation of other portions of this membrane; and because he considers that the inflammation of these parts, should be distinguished from inflammation of other portions of the peritonæum, which we hold to be impossible. And were it possible, no kind of practical good could result from the discrimination.

His fourth, appears to be in opposition to his own facts, or even reasonings. In this, he has attempted to prove that "the low fever of childbed," is not a peritonæal inflammation.—We have already noticed this effort, p. 384.

From what we have said, we think we may safely draw the following conclusions: first, that the distinctions attempted to be made, of an essential difference in the nature of the disease from the location of the inflammation within the abdomen, is without foundation. For it does not appear from all we learn from others, that the inflammation of puerperal fever is ever confined strictly to any one portion of the peritonæum; and agreeably to Dr. Clarke's own statement, "the surface of the stomach, liver, spleen, omentum, great and small intestines, uterus, the internal lining of the muscles of the abdomen, will in their turn, or altogether, be found to partake of the disease; and, as far as my experience leads me to judge, *no part more than another.*" See page 382.

We must look upon the peritonæum as a unit; and that, when inflamed in any one part, the same general symptoms will arise; and that the whole of it is now liable, from this cause, to be involved in the same condition as that part; hence, if the inflammation commence at any given point, it may travel over the whole, or a great portion of its surface.

A want of attention to this circumstance, has led all the writers,* so far as we recollect, into the error of considering the

* Dr. Armstrong might have been looked upon as an exception, as he mentions "simple hysteritis," did he not immediately after appear to lose sight of

inflammation of the peritonæal covering of the uterus, as a distinct disease from puerperal fever, by calling it an inflammation of the uterus. In this, there is a great want of precision; for the inflammation of the uterus, properly so called, is a very distinct disease from peritonæal inflammation. (See Inflammation of the Uterus.)

Dr. Denman very properly observes, "there is undoubtedly much difficulty in forming a just idea of a very complicated disease; and in proportion to the difficulty, every attempt to make accurate distinctions, is deserving of commendation." To this we most willingly assent. But he adds immediately after, "but, however symptoms may vary from affections of particular parts, or in particular constitutions, there is but one essential nature of the disease; and if we have a true notion of this, we have less reason to be solicitous about the cause, or the determination of the part originally or principally affected. For a similar treatment may be enjoined, with equal propriety, for an inflammation of the uterus, omentum, peritonæum, or intestines, or perhaps any of the contents of the abdomen; whether the disease remain local, or a fever be produced by its influence being extended to the constitution in general." Introd. to Mid. Francis's ed. p. 565.

Yet is Dr. Denman himself betrayed into a want of precision in the very next sentence; for he observes, that "the inflammation of the uterus is far less dangerous than an equal degree of inflammation of any of the viscera of the abdomen, especially in the state of childbed; because the uterus readily admits of a return of the lochial discharge, which always affords relief, and sometimes cures the disease."

Here we are at a loss to understand, whether, by an inflammation of the uterus, it is intended to include its coverings, or to strictly confine the inflammation to the substance of the uterus, without its covering being involved. We are, however, inclined to believe he meant the whole mass of this organ, from what immediately follows; "because the uterus readily

the distinction, by following Dr. Denman and Dr. Baillie; especially the latter, who speaks of "the inflammation of the uterus and its appendages," under the head of inflammation of the uterus. Morbid Anatomy. P. 362. See also text below.

admits of a return of the lochial discharge, which always affords relief, and sometimes cures the disease." Ib. We shall merely remark upon this last passage, en passant, that Dr. Denman has evidently mistaken an effect for a cause. For in inflammations of the uterus, the lochia do not return until this condition is relieved; and if the inflammation be relieved by any cause, so as to permit the lochial discharges to return, it is evident that the reduction of the inflammation is the cause of the return of the lochia, and that the disease is subsiding, but not a proof that the lochial discharge is the cause of the diminution of the inflammation; for this discharge would not take place, unless preceded by this reduction of inflammation, though it may ultimately contribute to this end by its continuance.

Dr. Armstrong, however, quotes the above passages differently; he makes Dr. Denman to say, "when *simple hysteritis* takes place," &c. But this reading of Dr. Armstrong is entirely gratuitous; for there is no mention made of the simple inflammation of the uterus, by Dr. Denman; and this is the very fault we complain of. Nor does Dr. Baillie discriminate any better; for, in speaking of the inflammation of the uterus, he says, "the inflammation is sometimes confined to the uterus itself, (evidently meaning it as a whole,) or its appendages;" and, that he means to distinguish this organ from its neighbouring parts, is indisputable; for he adds, "but the peritonæum in the neighbourhood is most commonly affected, and frequently over its whole extent." That is, (as we understand it,) when the uterus is inflamed, the neighbouring peritonæum is also most commonly inflamed; consequently, if this be so, it is a genuine puerperal fever, and not a simple inflammation of the uterus.

It would, in our opinion, be always best, when post mortem examinations are related, in which the fundus of the uterus is found inflamed, to say, that the peritonæum covering the uterus, was found "inflamed;" instead of saying, "the uterus was inflamed:" for this may not have been the case, strictly speaking. See chapter on Inflammation of the Uterus.

And, secondly, we may conclude, that Dr. Clarke has failed to establish any other difference between "peritonæal inflam-

mation," and the cause of the "low fever of childbed," than that which is frequently observed to exist between "sporadic and epidemic puerperal fever." We have already said enough respecting epidemic influence, to convince any one of the extent of its agency upon this and many other diseases.

## Sect. IV.—*Symptoms.*

In comparing the histories of the symptoms of this disease, as detailed by a number of authors, with what we ourselves have seen, we think, taking the whole of the description together, that drawn up by Dr. Denman is the best; because it appears to be most faithful. It seems to be the result of very extensive observation, and combines, within a very moderate space, all that is essential to discriminate the disease in its commencement; and to easily recognise it in its advancement and terminations. For this reason, we will detail the symptoms and characters of this disease in his own terms. We are the more disposed to do this, because our experience, though sufficiently ample to convince us of the fidelity of his account of the disease, has not been so ample as to enable us to make any important additions.

"The time when women are chiefly subject to this fever, is uncertain. There are not wanting instances, in which it has been evidently forming before delivery, or during labour, or at any intermediate period for several weeks afterward; and the sooner from the time after delivery the patient is attacked, if in an equal degree, far greater is the attendant danger. But the most frequent time of its appearing, is on the third or fourth day after delivery,* when the patient is seized with a shivering fit, from the violence and duration of which, we may generally estimate the danger of the succeeding disease.† In

* Authors differ a little as to the period at which the disease may attack after delivery. Hey says about forty-eight hours; Armstrong from twenty-four to thirty hours; Clarke on the second, third, and even the eighth day; Leake on the evening of the second day, or the morning of the third; &c.

† Rigors are not always the announcers of this disease. Hull, Hey, Armstrong, Leake, &c., agree it is generally preceded by shivering; but that they are by no means essential to its formation. Clarke says it rarely happened. Mr. Hey says, that "some of the worst cases were unattended by rigor; and in others, equally severe, there was no more than a slight chilliness." P. 28.

some cases, however, there has been no cold or shivering fit, or none which was observable; and in others, the shivering fit in the state of childbed, has not been followed with those symptoms which were to be apprehended."*

"Before the shivering fit, the patients have been much debilitated,† and have complained of wandering pains in the abdomen, which very soon became fixed in the hypogastric region, where a swelling or fulness, with exquisite tenderness, soon ensued.‡ As the disease advances, the whole abdomen becomes affected and tumefied, sometimes nearly to its size before delivery, the woman herself being sensible of, and describing its progress. She also feels great pain in the back, hips, and sometimes in one or both legs, and other parts affected in uterine complaints."

"She scarcely can lie in any other position than on her back, or on one side, with her body incurvated; and if the disease be confined to the uterus, the seat of the pain seems to be changed when she alters her position."§

* Dr. Denman has not discriminated with his usual accuracy in this instance; a mere shivering, or rather trembling after delivery, is no very uncommon occurrence; but this agitation is not accompanied by the *sensation of cold*, though it goes under the name of *a chill or shivering*, by those who are unacquainted with the phenomena of fever. It is, therefore, represented to the physician as such; and he is rejoiced to find it is not followed by reaction: hence it is said, a chill has not been followed by fever.

† We presume Dr. Denman means, by their being much debilitated, a sudden loss of strength, which is by no means uncommon, previously to the attacks of severe and dangerous fevers; this is remarkably the case in those attacked by yellow fever. It cannot mean, they were "much debilitated" by the fatigue of labour, for he and many others declare, that the contingencies of labour do not appear to have any agency in the production of the disease.

‡ We would wish to direct the attention of the reader to this circumstance; a circumstance in which all appear to agree; and which seems to settle the point, agitated by Dr. Clarke and others, namely, whether the fever was the consequence of a local irritation, such as inflammation of the peritonæum; or whether the inflammation was the consequence of the fever; for it is here declared, pain, &c. existed before the rigor.

§ Dr. Denman unquestionably means by the "uterus," the peritonæal covering of this organ and its appendages. But this mode of expressing the condition of this part, must unavoidably create confusion, as we have taken occasion to remark in another place; as this viscus is liable to become inflamed, independently of its peritonæal coat, and which is very different, and a much less dangerous disease. Mr. Hey is also faulty in this respect; for he says, "but all the varieties, so far as

"There is either a vomiting of a green or yellow bitter matter, or a nausea or loathing of the stomach, with an offensive taste in the mouth.* An instantaneous change both in the quantity and appearance of the lochia takes place; and sometimes, though rarely, they are wholly suppressed.† The milk, if secreted, recedes or is diminished, and the taste, with the appearance, is much altered."‡

"The urine is voided often, with pain, and in small quantities, and is remarkably turbid. A tenesmus or frequent stools come on, and from the general disturbance it is often manifest,

I can judge from my experience and reading, may be reduced to two denominations, the sporadic and the epidemic puerperal fever; in which I include *inflammation of the uterus and peritonæum*. Dr. Armstrong runs into the same error.

* Dr. Clarke supposes that many of the local symptoms arise from an inflammation of that portion of the peritonæum which may invest the particular organ or part; "such as constant sickness, and vomiting of bilious matter, when the stomach is attacked." P. 84.

† All the writers on the subject of puerperal fever, agree in the uniformity of these symptoms. All declare the change which takes place in the lochia, immediately after the disease is formed; if we except Leake, who says it was not affected either in quality or in quantity, a presumption, he says, that the uterus was not affected; and all agree, that it constitutes one of the most decided symptoms in this complaint. By what agency is this change affected? Does it not prove that the uterus, both in its substance and covering, is always implicated in this disease? or does it prove there is a prevailing sympathy between the inflamed peritonæum and the surface which yields the lochia? Is the first rendered probable, by the lochia being deranged when the substance of the uterus is known to be affected, in the same manner as when the peritonæum is inflamed? Mr. Hey however says, it is sometimes not affected, p. 23. Are we to pronounce in such cases that the uterus is uninjured? or if not uninjured, what part has escaped?

‡ The want of secretion of the milk, if the disease occurs before the breasts are prepared for it; and its cessation, if it has been secreted, immediately after the formation of puerperal fever, is one of the most uniform, as well as one of the most remarkable symptoms, attending this disease: and it would seem to prove one of two things; first, that the inflamed peritonæum has a control over this secretion; a sympathy only manifest at this particular time; or second, that that condition of the uterus by which the mammæ are influenced to the secretion of milk, is changed, by the presence of inflammation, either in its covering, or substance, or both: but most probably from its peritonæal covering being affected, as in simple hysteritis, the breasts are never so much affected, and sometimes, not at all.

that all the contents of the pelvis are at once affected by the disease.

"The tongue becomes dry, though sometimes it remains moist, and is covered with a thick brown fur; but as the disease advances, its appearance varies, and in some dangerous cases it has been little changed.* The patient immediately entertains the strongest apprehensions of her danger, and usually labours under vast anxiety, her countenance bearing indubitable marks of great suffering both in body and mind."

"The progress of this disease is sometimes extremely rapid, especially in unfavourable seasons, and in hot climates. Instances have occurred, in which women have died within twenty-four hours of the first attack; and I have seen a few, who never grew warm after the rigor, which then resembled a convulsion. In some, death has followed quite unexpectedly, either from inattention, or from the scarcely perceptible but insidious progress of the disease, the indications not having been at all proportionate to the danger."

"In other cases, the shivering fit is succeeded by heat, thirst, and other symptoms, according to the course observed in other fevers; but the pain which originated in the abdomen, joined with these, is to be esteemed the pathognomonic or chief sign of the disease. It seems necessary to enumerate all the symptoms, which commonly, though not exclusively, attend this fever, and not in any individual patient; yet cases will occur in practice, in which there will be much variation, depending on the degree of disease, the parts affected, the constitution of the patient, and the period after delivery when the fever makes its appearance."

"The pulse has almost invariably, in this disease, an unusual quickness from the beginning. It has often that strength and

* Mr. Hey, in speaking of the Leeds puerperal fever, says, "the tongue was never incrusted with the brown dry fur of typhus, except the disease was of long continuance, or had been improperly treated. It was generally moist and soft; and though it was not unfrequently covered with a thick white or brownish fur, yet it was often but little altered from its natural appearance, to the last, even in bad cases. P. 32. Dr. Armstrong says, "the tongue was much paler than usual, and appeared as if it had been recently rubbed or dusted with a very fine whitish powder; in some instances the tongue was tolerably clean and moist about the edges." P. 2.

vibration observed in the disorders of the most inflammatory kind, in robust constitutions; and yet is sometimes exceedingly feeble and quick, beyond what might be expected from the concurring circumstances. The latter is to be reckoned among the most dangerous signs, proving, perhaps, increased irritability, with great violence of disease, and that the powers of the system are unable to struggle with it, or scarcely to bear the operation of the medicines which might be necessary for its relief."

"There is much variation in the subsequent stages, but there is scarcely a worse omen than a very weak and accelerated pulse, even though the other symptoms may seem to be abated. But the mere quickness of the pulse, if not attended with other perilous signs of inflammation or fever, is not to be considered as indicating danger; experience having shown that very irritable patients have sometimes an unusually quick pulse, unaccompanied with any other alarming symptom."

"The signs of inflammation, joined with those of extreme irritability, continue for a few days, when those of putridity appear; sooner perhaps in this than in most other diseases, which are originally of the truly inflammatory kind.* The

* This circumstance is familiar to all who have witnessed the most inflammatory of all fevers, namely, the yellow fever. This disease runs its course sometimes with such a rapidity, that the stages, from the highest inflammation, to that of gangrene, can scarcely be observed; and bidding defiance very often, to remedies of every kind. Indeed, we may remark it to be the common course with all the diseases of very high excitement when not under the control of medical applications, to terminate in the manner just noticed of puerperal fever. It was this rapid course, with puerperal fever especially, which gave rise to the conflicting accounts we have of its nature; (its termination in gangrene, or in "putridity," as it is called) and which regulated, with too many, the mode of treatment in the commencement of the disease. The apprehensions suggested by its peculiar termination, made physicians spare, or rather dread, the employment of the only remedies capable of preventing such an issue. Thus both Dr. Gordon and Mr. Hey, (indeed we might enumerate others,) after they used with liberal hand, blood-letting and purging, rarely lost a patient. Dr. Gordon did not lose a patient out of thirty that were treated by ample blood-letting and liberal purging. And Mr. Hey seems to have been successful in equal proportion. The great secret in treating such diseases as yellow fever and puerperal fever, (at least under ordinary circumstances) consists in preventing the death of the blood vessels from over excitement, by free and repeated bleeding, &c. Mr. Hunter explains this by saying, "debility begins very early, because the inflammation itself is interfering immediately with the actions of life."

teeth very early collect a brown adhesive sordes, and all kinds of food and drink are nauseated, except such as are agreeable from their coldness or sharpness."

"A singultus attends; every return of which affects the abdomen in the most painful manner. Petechiæ or vibices are often found in the unwholesome situations, and in some constitutions of the air, at a very early period of the disease, and there are frequently miliary eruptions; but the latter seem to be rather a consequence of the method of treatment, than of the disease, for they do not afford that relief which sometimes follows their appearance in true eruptive fevers."

"The bowels are in general very much disturbed, and in some cases a looseness takes place immediately upon the accession, in others, in three or four days after, or not till the last stage of the disease; but it very seldom fails to attend, nor can it be removed without the greatest difficulty, as well as danger, before the disease is terminated. The stools, before the close, often come away involuntarily, being always preceded by an increase of pain; and every evacuation gives a momentary relief. They are uncommonly fœtid, of a green or dark brown colour, and working like yeast. It is also remarkable, that after the long continuation of the looseness, when the patient has taken little or no solid nourishment, large and hard lumps of excrement will be sometimes discharged, which one might suspect to have been confined in the bowels a long time before delivery. With regard, however, to this symptom, it is very necessary to observe, that in delicate constitutions, great disturbances of the bowels are frequently occasioned by mere irritation, which are soon removed by the well-timed exhibition and repetition of some cordial opiate."

"There is a peculiarity in this fever, which I believe has not been hitherto observed or mentioned. It is an erysipelatous tumour, of a dusky red colour, on the knuckles, wrists, elbows, knees, or ankles, about the size of a shilling, and sometimes larger. This is almost universally a mortal sign, and on the inspection of those who have died with this appearance, the disease has been found to have affected the uterus principally, or its appendages."

When this fever commences soon after delivery, and con-

tinues its progress with violence for a few days, our hopes of a favourable event will often be disappointed, and the impending danger may usually be foretold by the uninterrupted progress of the symptoms, or by returns of the rigor. A looseness immediately succeeding the attack, though in one sense it may indicate the degree of disease, always contributes to its abatement, and sometimes proves critical; as does likewise a spontaneous vomiting, sometimes even towards the last change, when all hopes of recovery were abandoned."

"The profuse sweat, which follows the shivering fit, has very often been completely critical. In some there has been a translation of the disease to the extremities, where the part has inflamed, and a large abscess has been formed; a similar abscess has also in some cases been formed on one side of the abdomen, which has been healed by the most simple treatment."

"Fresh eruptions of the lochia are always a favourable symptom, and are to be reckoned among the most certain signs of amendment. A subsidence of the abdomen after copious stools, and with a moist skin, is a fortunate alteration for the patient; but that circumstance without evacuations, and a dry skin, threaten the utmost danger." Introd. Mid. Francis's Ed. p. 568, et seq.

Dr. Clarke, p. 121, and other writers, have noticed a symptom, to which we have also borne witness, of a remarkable kind, and which, so far as we have observed, has always been a fatal one; namely, the indifference of the mother to the child, and sometimes even refusing to suckle it. From whence does this indifference proceed? or why should it be a symptom of so much danger?

Dr. Clarke, p. 123, accounts for this state of the mind, in an ingenious and plausible manner, by observing, "it is probable that the secretion of the milk in the gland, and the desire of suckling, may be in some way connected with each other, and the existence of the desire may depend upon the presence of the secretion, in like manner as the power of secretion in the testicles produces the passion for propagation; and the passion in its turn affects the disposition for secretion." But to what circumstance shall we attribute this total extinction of sympathy between parts so constantly in the habit of exercising it?

Is it owing to any condition of the uterus itself? or is it owing to peritonæal inflammation simply? or does it require the ovaria to be involved? Is this last conjecture strengthened, by the fact, that the breasts become flaccid and waste away, when these organs are severely diseased, wasted, or extirpated?

The disease we have been describing, has so many well marked characters, that it cannot be well confounded with any other affection; and we believe, that we may safely rely upon the following symptoms for its diagnosis:

1st. Pain or tenderness in the hypogastric region, occurring after delivery, from the first few hours to several days.*

2d. Swelling or tension, in that portion of the abdomen, where the pain or tenderness is felt.

3d. By these symptoms almost always being followed by a chill or rigor, of longer or shorter duration, or greater or less force.

4th. By this being followed by great reaction, terminating for the most part in a profuse sweat; without this sweat moderating the fever, or other symptoms.†

* Mr. Hey says, that the pain experienced by the woman soon after delivery, "was a very deceitful symptom; and, when it was not preceded by rigor, occasioned great embarrassment, by the irregular manner of its attack; and the consequent difficulty of distinguishing it from after pains." P. 30.

We believe, that the following marks will, with much certainty, distinguish the pain of peritonæal inflammation, from that of "after pains."

1. After pains are always alternate, and regularly have three periods—a period of increase, acmé, and decline; they always observe regular intervals, be these longer or shorter.

2. The pain, when occasioned by after pains, is never so acute; and is confined to the lower part of the hypogastric region.

3. There is always more or less discharge of the lochia, during the contraction, and this without a change in its appearance.

4. The mammæ are not interrupted in their offices, if the pain proceed purely from uterine contraction.

5. If the hand be laid upon the abdomen, during the pain, the uterus will be found very hard at one moment, and softer the next.

6. The pulse will never be so much accelerated, as when the peritonæum is the seat of the disease; but both these pains may be united; and when that is the case, the pain arising from the contractions of the uterus, offer no indication, as it is then of minor importance.

† Dr. Denman, as noticed above, says, this sweat has in many instances proved critical.

5th. By this fever being accompanied by an accelerated pulse; rarely less than one hundred and twenty, and oftentimes as many as one hundred and fifty strokes in the minute.

6th. By the absence of milk in the breasts; either because it has not been secreted, or because the secretion has been interrupted.

7th. By a diminution, alteration, or suspension of the lochial discharge.*

If a woman, within a short period after delivery, be attacked with the above symptoms, we may, we think, with much safety, pronounce her to be labouring under peritonæal inflammation, or puerperal fever. In this enumeration of symptoms, we have confined ourselves to the mention of such only as may be considered as almost exclusively pathognomonic.

There are many other symptoms, besides those enumerated, that attend this disease; and perhaps each individual case may be attended by some one peculiar circumstance, which does not obtain in others, but which may be dependent upon some peculiarity of constitution, or accidental cause, for its existence. It is, therefore, impossible to anticipate every symptom which may arise in any solitary instance. The symptoms, as detailed by Dr. Denman, we believe, comprise every thing essential in

* We have elsewhere remarked, that Dr. Leake says, "the lochia, from first to last, were not obstructed." P. 52.

Dr. Leake's account, is of an epidemic puerperal fever, which attacked the patients of the "Westminster lying-in hospital," and the disease, as it appeared there, was of a very remarkable character, in several important points; and differed from every other, of which we have read any account.

1. There was very little pain in the abdomen.
2. Very much less frequency of pulse.
3. The uterus, almost invariably, sound.
4. Little change in the powers or functions of the mammæ.
5. No change in the lochial discharges.
6. The omentum being the chief seat of disease, or found "melted down."
7. An unusual degree of headach.

From Dr. Leake's account, it is evident that the epidemical constitution of the air, had imposed a very mild character on this disease—its inflammation appeared to be of the phlegmonous kind, from the quantity of suppurated fluid found upon dissection, and from the common expression of the "omentum being melted down," &c., and it is farther evident, we think, that had he carried his bleedings, &c. farther, he would have cured all his patients.

the history of this fever, from its formation to its termination. And we trust, from what has just been laid down, that this disease cannot well be mistaken for any other. We shall now proceed to the

## Sect. V.—*Prognosis.*

There is, perhaps, no disease, in which the physician of experience feels greater reluctance to pronounce upon the issue, than the puerperal fever. This unwillingness proceeds from several causes, each of which suggests the propriety of caution in making his decision.

First, from its very frequent tendency to a fatal result, even under the most prompt, proper, and vigorous treatment.

Second, from the rapidity of its march, it gives but small opportunity, oftentimes, for the operation of remedies, even when they are applied early.

Third, from the impossibility, very often, of repairing the ravages a few hours neglect has occasioned, however faithfully and properly the remedies may be employed, and

Fourth, from the oftentimes treacherous nature of the disease, which will sometimes suddenly terminate in death, when circumstances apparently promised recovery.

These reasons should warn the young practitioner to be extremely guarded in his prognosis, lest disappointment follow improperly raised hopes; or recovery take place, when he had caused hope to be abandoned. We may particularly caution him against that deceitful amendment, recognised by most writers on this subject, which takes place sometimes as early as the first twenty-four hours, or as late perhaps as the third day. Here the abatement of pain, the diminution of the soreness of the belly, the subsiding of the abdominal swelling,* the less frequency of pulse, seem but the prelude to a condition, from which no human exertion, or power of remedy, seem capable of saving the unhappy patient.

Yet the symptoms now mentioned are precisely those, when they are not followed by the prostration of all the powers of

* "When the abdomen subsides, without being preceded by copious stools; and with a dry skin, it threatens the utmost danger." Denman.

the system, that we should build our hopes of amendment upon; consequently, it will require much caution not to be betrayed into error.

However promptly the disease may have been met, and this by the most suitable remedies, the disease will sometimes progress with alarming rapidity. The pain and swelling will so augment, as to leave the woman no choice of position; for she can only find a trifling mitigation of her sufferings while on her back, with her legs drawn up, that the abdominal muscles may be relaxed. The pulse increases in frequency, but diminishes in force. The respiration becomes difficult; the tongue is now dry and brown, or not altered, and the face and extremities are bedewed with a cold, clammy sweat. The face becomes pale, or partially flushed; the countenance haggard, wild, and expressive of the greatest distress. Delirium, vomiting,* involuntary discharges of both the fæces and urine, and death.

But before the scene is finally closed, the woman seems to be relieved of a part of her sufferings, by a change taking place in some of the most urgent and painful of her symptoms. Distention is diminished, or even sometimes entirely removed—the swelling of the abdomen subsides; and pain ceases with more or less suddenness.

The absence of milk in the breasts, and especially if this be attended with an entire indifference to the child, must be looked upon as almost certainly fatal. If joined to these, there be little expression of suffering, a very quick pulse, and considerable swelling; and if the attack has been very early after delivery, the case must be looked upon as almost hopeless: so uniformly is danger increased by the earliness of the attack, that it is noticed, we believe, by every writer upon the subject; therefore, this circumstance should always be kept in view, when an opinion is about to be formed.

* We have seen more than one instance of puerperal fever terminating in "black vomit," similar to that observed in "yellow fever;" we have also seen the same appearances after rupture of the uterus. Dr. Gordon informs us, that "when these were symptoms of mortification, what the patient vomited was black, and had a strong resemblance to coffee grounds." P. 10. Dr. Armstrong considers as a highly dangerous symptom, "when there are frequent vomitings of a coffee coloured fluid." P. 31. Yet it would seem, that gangrene, or mortification, have not been observed in any of the dissections we have read of.

The extent of swelling, seems to be of more consequence, than the degree of soreness, or of pain; and when it is excessive, and becomes tympanitic, it is extremely dangerous, if not always fatal. Dr. Clarke says, "it has not occurred in my sphere of observation, to see any recover, in whom the swelling of the belly has been in any very great degree." P. 133. Also,

That "those who have the disease at later periods after delivery, are not attacked with the same violence; the depression of strength is not so great, the tumefaction of the abdomen is less extensive, and the chance of recovery is consequently better." P. 133.

Dr. Armstrong observes, that "an excess of sensibility is always to be dreaded; for I have had opportunities of remarking, that those patients seldom recover, who are tremblingly alive to every surrounding impression. It is well known, that unmarried women do not recover so well as married ones; the mental irritation, necessarily attendant upon their situation, considerably increasing the febrile excitement, and rendering them extremely restless." P. 26. Dr. Clarke has remarked the same thing.

"Costiveness is always an unfavourable circumstance," Dr. Armstrong says, "increasing, in no inconsiderable degree, the difficulty of cure. While an open state of the bowels before delivery, tends to mitigate the severity of an early attack, and a diarrhœa coming on afterwards, carries off the disease." P. 30. Dr. Denman says, as already noticed, that a diarrhœa may be critical, and carry off the disease. P. 568.

The signs which may be looked upon as favourable, are,

1st. A diminution of frequency of the pulse, with an increase of its volume.

2d. A reduction of the swelling of the abdomen, and abatement of pain, provided the first is gradual, and the latter not sudden, and accompanied by condition first.

3d. Changing posture without suffering inconvenience, provided jactitation is not mistaken for it.

4th. A return of milk to the breasts, attended by solicitude for the child.

5th. A restoration of the lochial discharge, provided it

has been suppressed, together with a change to a healthful appearance.

6th. The tongue becoming moist; losing its white appearance, and cleaning at the edges; or, if it has been brown and dry, becoming whitish and moist, accompanied by condition first.

7th. If the urine becomes more abundant, and deposites a lateritious sediment.

8th. If the skin becomes cooler; and moist throughout its whole extent; especially if attended by conditions first, second, third, fourth, and fifth.

9th. "A subsidence of the abdomen after copious stools, and with a moist skin, is a fortunate alteration for the patient." Denman.

10th. "If the pulse can be kept under one hundred and twenty in the minute, for the first twelve days, the patient will generally do well; but if the pulse keep very quick, after the abdominal symptoms have entirely disappeared, affections of the chest,* and of the glandular system, or deep seated suppurations, may be dreaded."† Armstrong, p. 32.

## Sect. VI.—*Of the contagious Nature of Puerperal Fever.*‡

Had not the belief that puerperal fever is a contagious disease, a great influence upon the minds of females who are pregnant, or who are in the puerperal state, and consequently may very much influence their happiness, we should not have touched upon this subject, believing as we do, that the opinion is altogether without foundation, at least in this country.

* "If any disease hath taken its immediate origin, as it were, out of the puerperal fever, and been combined with it, it hath been the peripneumony. I have met with several instances of this kind." Hulme, p. 15.

† "Some of those who survived, recovered slowly, and were affected with wandering pains, and paralytic numbness of the limbs, like that of chronic rheumatism. Some had critical abscesses in the muscular parts of the body, which were a long time coming to suppuration, and when broke, discharged a sanious ichor." Leake, vol. ii. p. 56.

‡ "By contagion, is understood effluvia, arising directly or indirectly from the human body under particular diseases, and capable of exciting the same disease in other persons, to whom it may be applied." Hull, p. 247.

In Europe, and especially in Great Britain, the belief that this disease, with a number of others, is contagious, is almost universal; while in this country, it amounts to a fear, and not a conviction, that they may be so. The disease in question, scarlatina, erysipelas, &c. &c., are, in Europe, and especially in Great Britain, looked upon to possess the power of propagating themselves by some specific quality of their own.

We shall not attempt any formal refutation of the doctrine of contagion, by urging arguments on both sides of the question; we shall merely select the opinions of such as had ample opportunities to decide the question, and whose conclusions are adverse to the opinion, "that puerperal fever is contagious."

Dr. Hulme, whose experience was ample, and who has written an excellent work upon this disease, says, that "the puerperal fever is not an infectious disease, any more than the iliac passion, a pleurisy, a *nephritis*, or an inflammation in any other part of the body." Treatise on Puerperal Fever, p. 164.

Dr. Hull, whose opportunities were equal perhaps to any who have written upon this subject, says, "as far as my observation goes, peritonitis puerperalis is not infectious. I have never seen a case, wherein I had reason to suppose, that the effluvia, arising from the patient, produced puerperal fever, or typhus, or any other disease in another person, either directly or indirectly. The disease in question frequently arises, where there is not the least foundation for a suspicion that infection has been applied." P. 248.

Mr. Hey appears strongly inclined to the opinion that puerperal fever is not contagious; but seems afraid to decide absolutely upon the question.

In this country, under no circumstance that puerperal fever has hitherto appeared, does it afford the slightest ground for the belief that it is contagious. In this city, so far as we know, it has always shown itself as a sporadic disease; and in this form, it has never been looked upon as contagious, except by Dr. Armstrong. He says, "the peritonitic fever, when completely formed, is in kind, though not in degree, as contagious as the epidemic:" in this sentiment he stands alone; not even supported by those, who believe in the contagious power of

the epidemic. In Northumberland, in this state, (see p. 367,) where it was epidemic, there was no evidence that it was contagious. Dr. Leake says decidedly, the sporadic puerperal fever is not infectious; and is only so, when epidemic, under particular circumstances, vol. ii. p. 140.

Now, it would be very extraordinary to declare, for it would obtain no belief, that sporadic small pox, measles, or hooping cough, were not contagious; for we must ask, what is the difference between the sporadic form or quality of a disease, and the epidemic form or quality of a disease; except, that the latter has *its type* affected by some occult influence in the air, which gives rise, at the same time, to the epidemic form of the disease?

## Sect. VII.—*Treatment.*

We have now to consider the most important part of our subject; namely, the treatment. In all highly dangerous and rapid diseases, much diversity of opinion will necessarily exist, as to the real character of such diseases; and, perhaps, in none does it prevail to greater extent than in the one under consideration. We have adverted to this discrepancy of views, (p. 370 and 410,) and the variety of treatment which arises from it; and in no instance, can a want of concurrence in what is necessary and proper to be done, be more unfortunate than in puerperal fever. For, it is a disease of such rapidity, violence, and destructiveness, that the initial step is almost sure to decide the fate of the patient; and truly verifies the French proverb, "c'est le premier pas qui coute."

This being true, of how much consequence is it, that no error in pathology should lead to error in practice; or, in other words, how highly important to the interests of humanity, and to the welfare and happiness of society is it, that the character and tendency of this formidable disease should be entirely and satisfactorily ascertained!

Most of the errors committed on this head, have arisen from a want of the necessary discrimination between the stages of puerperal fevers; and to an ignorance that the peculiarity of the subsequent ones are entirely dependent upon, or only the

necessary and inevitable consequences of the first stage.* Few have so far shut their eyes against the facts revealed by dissections, as not to admit that its first stage is that of high inflammation. But, as this inflammation rapidly runs its course; and is succeeded either by a gangrenous tendency, and an effusion of large quantities of serum in the cavity of the abdomen; and as the body, quickly after death, manifests a strong disposition to decomposition, it was thought by many, that the disease, from its commencement, had a strong septic tendency; and remedies were employed to guard against the consequences, rather than for the removal of the cause; namely, the first and inflammatory stage.†

To prove this, let the treatment and the result of the plans of Denman, Gordon, Hey, Armstrong, and even Leake, be contrasted with the mistaken practice of Clarke, and some others. In the practice of the first of these gentlemen, recoveries were common; in that of the latter, very few escaped. Dr. Clarke informs us, that three out of four died, p. 132. The patients under his care were treated, from the beginning, with large doses of bark, and such other remedies "as have a tendency to support the strength, and diminish the irritability."

It may be said, that, in the epidemic described by Dr. Clarke, there was but little evidence of inflammation, and much of "putridity;" but this should not be too hastily as-

* Dr. Armstrong, Facts and Observations, &c. p. 60, says, "the first stage" of puerperal fever, "is marked by highly inflammatory, the second, by highly typhoid characters, and it has always appeared to me, that the tendency to putridity in the latter, was proportionate to the degree of inflammation in the former."

Dr. Denman says, "when the fever has remained for a very few days, the putrid symptoms, which are usually according to the *degree of the preceding inflammation*, advance very rapidly." We repeat these observations, because of their unquestionable truth, and practical value.

† "I cannot help suspecting," says Dr. Armstrong, "that some distinguished authors, having formed their opinion from the appearance of the disease, and the ill effects of venesection, at this period, (the gangrenous,) have thus been persuaded that debility is the principal thing to be counteracted from the beginning, and during the whole course of the fever. Be this at it may, the stimulant treatment is at once the most delusive and dangerous which can be adopted; and it is much to be lamented, that it has the weight and authority of some eminent names." Facts and Observations, p. 63.

sumed, as we have attempted to prove, at p. 376. Nor can an inference be drawn in favour of his pathological views, from the success of his practice. The public are much indebted to Dr. Denman, for the candid renunciation of his errors upon this subject. In the early part of his practice, he entertained great doubts of the propriety of blood-letting in puerperal fever: he thought it weakened the patient, without lessening the disease; and for a long time, he informs us, he did not take away blood in any quantity.

The influence of this highly cultivated, and respectable practitioner, was so great, as to give tone to public opinion; his mode of practice, and his views, were extensively adopted by the British practitioners; and they became almost the standard for the treatment of puerperal fever. Fortunately for the fate of hundreds, a more extended experience, and more correct notions of the nature of the disease, led him to renounce, with much magnanimity, the errors of his early life. Therefore, so soon as he was convinced of the insufficiency, or inefficacy of his plan, he gave it up, with a candour which all must admire, however few may imitate it. He tells us, in the last edition of his works, as edited by Dr. Francis, p. 576,

That "I am now convinced, by manifold experience, that my reasoning was fallacious, and my fears groundless; and that what I had considered as proofs of insufficiency or impropriety of bleeding, in the true inflammatory puerperal fever, ought in reality to have been attributed to the neglect of performing it in an effectual manner, at the very beginning of the disease. In short, if the first stage be permitted to pass unheeded, bleeding will then certainly be injurious, the opportunity having been lost; and the physician called in afterwards, however great his talents may be, will too often have the mortification of being the spectator of mischief which he cannot then remedy, and an event which he can only deplore."

We are told, that it is of the utmost consequence to the cure of this disease, that we distinguish between the true inflammatory, and the putrid puerperal fever. This would be most true and important, did such a difference really exist as is here intimated; but the distinction attempted, has been based, we believe, upon the violence of the complaint, at different times,

and under different circumstances, rather than upon any essential difference in the absolute nature of the diseases. See note *, to p. 383.

Thus, the sporadic puerperal fever is more easily subdued, and will bear bleeding even at a later period, than the epidemic puerperal fever; because the former is less rapid in its course, owing to the accompanying inflammation being less exalted; and not to the latter being of a putrid character: for when this state exists, we must repeat, it is owing to the inflammation being so transcendent, that the parts cannot sustain its force but for a short time; and if not speedily relieved, must die.

And though the system, under such circumstances, cannot bear perhaps the abstraction of blood, yet it cannot support the action of stimuli. We are persuaded, there are few errors in practice greater than that, which is founded on the belief, that when a *disease will not bear with profit, depletion, that it then absolutely requires the opposite treatment;* and we are also persuaded, it has been the death of thousands.

The supposed tendency to typhus, in fevers of every description, when the patient has become weak, and especially if the tongue has become brown or dry, has led unhappily to the use of tonic and stimulating remedies, in the practice of almost every body; but were the results of such treatment faithfully recorded, we are convinced there would be but little evidence in its favour—indeed, so confident are we on this subject, that we never fail to consider the *cures* of such a state of fever by this method, but as *escapes*.

Let us illustrate the position we are assuming, by taking part of cases IX. p. 89, and XXVII. p. 206, as related by Mr. Hey. On the tenth day of this patient's disease, it is said, "she had had no sleep in the night, and was very restless, with some degree of delirium. We found her incessantly talking, but could procure no answer from her, to any question that was proposed. She refused all medicine. Pulse one hundred and twenty."

"In the course of the day, the abdomen became tumid, from flatus confined in the bowels; the tumefaction was unattended

by pain or soreness, and entirely subsided as soon as evacuations were procured by an injection."

"Ten, P. M. She was in all respects worse. Her urine came away involuntarily; she had some rattling in her breathing, and appeared to be sinking. Pulse one hundred and thirty-two. *Thirty drops spt. æther. sulph. were ordered to be given now and then, as a grateful cordial.*"

"29th, (eleventh of illness) we were agreeably surprised to find our patient much better. During the night, she had been able to retain her urine, and had made a large quantity with proper intervals. She was quite sensible, and more composed; and had regained the power of putting out her tongue, which before she had lost. Pulse one hundred and six, and the tongue continued clear. Ordered to take, at regular intervals, a *draught of infus. rosæ, made with decoct. cinchonæ, and to have occasionally Madeira wine.*"

"These favourable symptoms did not long continue. In the evening the pulse got up to one hundred and twenty, and the heat had increased."

"From this time the patient became gradually weaker, her pulse was accelerated more and more, and her urine was again discharged involuntarily. She lived two days in a state of great anxiety and increasing restlessness, and died on Sunday night, the 1st of July," that is, on the 15th day of the disease.

On this case, so far as we have related, we shall offer a few remarks: On the 11th day of this patient's illness, she was found to be surprisingly improved; all the favourable circumstances, which usually announce the decline, or almost absence of disease, were present. She was able to retain her urine, and which she made abundantly and properly, after its having passed from her involuntarily; she was sensible, after having been incoherent and stupid; her tongue became clean, and her pulse was reduced from a hundred and thirty-two to a hundred and six. She had regained the power of putting out her tongue, "which before she had lost."

The day previously to this amendment, she was extremely ill, as above stated; she was then ordered the spt. æther. sulph. in small, but repeated quantities. Now, is it not evident, that the amendment of this patient was owing to her not being

stimulated, or only by the æther; a stimulus, perhaps, in point of power, exactly suited to the condition of the system? And had the physicians been contented to "let well alone," it is probable, she would have recovered. But, over anxious for their patient, they must prescribe several stimuli at once; namely, bark, wine, &c., and thus undo in a moment all they had so happily achieved by their moderation; for Mr. Hey informs us, that "these favourable symptoms did not continue long." In this case, the system was evidently over stimulated, and the patient succumbed.

It may be said, that these favourable appearances now and then take place, yet disappoint the hopes they had created—this may be the case in the early stage of the disease; see p. 413, but when these changes take place so late as the 11th day, we should be disposed to look upon them as forerunning a return to health; and if properly cherished, would have terminated in it; especially, as the pulse was so much reduced in frequency, as to be at a hundred and six in the minute.

Case XXVII., united on the 8th and 9th days, as many bad symptoms as are generally recorded upon such occasions; that is, "the pulse became more frequent, and the patient appeared more sunk. The abdomen remained much tumefied, but manifested but little sensibility upon pressure. She still complained chiefly of the pain in her head."

On the 10th day, "I accompanied the surgeon in the evening, to visit this patient. She appeared very low, and her pulse was frequent and feeble. Her tongue was *dry and brown, and her teeth were incrusted with sordes.* Her head was yet affected with pain, but she made but little complaint of her body. It was however enlarged, and though not very tender, was insensible to pressure. The symptoms of active inflammation having given place to those of a typhoid character, the purgatives had been omitted, and the evacuations had consequently decreased. I recommended such a repetition of the purgative as might procure an evacuation about once in four hours, and a continuation of the saline mixture in a state of effervescence. The strength of the patient was supported by a light, but a nutritious diet, such as broths, jellies, chocolate, and milk."

"This plan was regularly pursued for four days, and the patient was then convalescent."

This case is full of valuable instruction in the treatment of this disease, and indeed of every other, where there is what is termed a "tendency to typhus." It must be observed, that on the tenth day of the disease, there was what Mr. Hey himself considered a "typhoid character;" the tongue was dry and brown, and there was great weakness. Yet notwithstanding these evidences, he did not, as in the former case, goad the system to dissolution, by bark, wine, and other stimuli; on the contrary, he gave the system an opportunity of righting itself, by the abstraction of offensive matters from the bowels: and though he says he had omitted the purgatives, he yet "contrived to have a stool once in four hours."

Now, will any dreader of *typhus* permit his patient to have six stools per diem, or give the neutral mixture by way of *cordial?* Certainly he will not—he will put bark, wine, ammonia, &c., &c., in immediate requisition; and be rewarded for his anxiety and exertions, by the loss of his patient. There is not the smallest doubt upon my mind, that Mr. Hey would have lost the patient last mentioned, as certainly as he did the other, had he had recourse to the same remedies.*

It is truly a matter of surprise, that Dr. Leake did not profit more by his experience in the fever of the "Westminster lying-in Hospital;" and by the freer use of the lancet, have saved most probably more patients, than his account of cases now exhibits. We have thought proper to make a scale of these cases; to show, that the disease he had to encounter was comparatively a mild one, and would most probably have yielded in almost every instance to a more liberal plan of depletion. Dr. Leake had certainly a correct notion of the nature of the disease; as his dissections displayed to him in every instance, the ravages of previous inflammation. Why his hand was with-

* We are not informed, however, by Mr. Hey, of the motives which induced him not to employ the common routine of stimuli for his patient; but this is of no consequence as regards the event; and as it establishes the principle insisted on; namely, that though the patient may not bear the loss of blood; or sustain other evacuations to the extent that they had previously been employed, yet, that they will bear them in a certain degree; and that they will sink under the action of stimuli.

held from the lancet, it is impossible to say: since he examined the result of his own practice, he must have perceived, that the only instances of recovery, (at least of those he has recorded) were those in which bleeding and purging, to a greater or less extent, were employed; and not a single instance of recovery when it was not employed. We have the histories of eighteen cases; the terminations of which were as follow, viz.

Cases I. II. VII. VIII.* IX. XII. XV. XVI., were bled and purged, and recovered.

IV. Bled ʒviij. on or about the seventh day—died.
V. Bled ʒvj. on the third day - - died.
XI. Bled ʒvij on the third day - - died.
VI. VIII. X. XIII. XIV. XVII. XVIII.† not bled; died.

This little schedule speaks volumes, as to the comparative modes of treatment. Out of the eleven cases which were bled, eight recovered; and of the three who died, it may be truly said, the bleeding could not be expected to have been successful—it was employed sparingly, and late. Case IV, was seen by Dr. Hunter in private practice; and he thought, from the nature of the symptoms, it would be giving a chance, to extract blood on the seventh or eighth day. This circumstance shows the comparative mildness of this disease, as it then appeared; and Dr. Leake informs us, p. 57, that "when the disease proved mortal, the patient generally died on the tenth or eleventh day of the attack; consequently, it should be looked upon as one of a mild type.

In the epidemic so well described, and so successfully treated at Leeds by Mr. Hey, the success was still greater, though the disease was of much more malignity. For we are informed by Mr. Hey, that "it was by no means uncommon for the fever at Leeds, to finish its course in forty-eight hours; and in many cases, it proved fatal in a much shorter time." P. 165. Yet, the success following the plan pursued by Mr. Hey, was greater than that which attended Dr. Leake, in a very much

* It may be proper to notice, that case VIII. is not case VIII. in Dr. Leake's series; it is included under the history of case VII.

† This case, like case VIII. mentioned above, is also recorded, in the history of case VII. See Treatise on Childbed Fever, vol. ii.

more mild disease; because his practice was bolder, more uniform, and better adapted to the nature of the complaint.

Mr. Hey states, that "of fourteen patients treated without bleeding, only three recovered." P. 165. And farther, that after "I had determined to use bleeding in addition to purging, of thirty-three patients whom we (he and his father) attended, only three died; the last twenty-six having recovered in uninterrupted succession;" to this, he adds in a note, "copious bleeding was used in all these cases except one, which was rather slight, and was cured by purging alone." P. 168.

At Sunderland, where the disease was perhaps rather less malignant than at Leeds, Dr. Armstrong says, "those patients who were copiously bled and purged, and vomited successively, were usually convalescent on the fourth or fifth day, and from that time regained their health and strength rapidly." P. 73.

He says, "of forty-three distinctly marked cases of puerperal fever," "that only five cases out of the whole number terminated fatally." "The thirty-eight successful cases, were all treated by copious depletions of one kind or other, and in twenty-nine of them, calomel was exhibited in doses of a scruple, or half drachm, at the beginning, and occasionally repeated in the course of the distemper." P. 70.

Dr. Gordon, whose method of treating puerperal fever, consists in large bleeding early in the disease, and plentiful purging, with the interposition of opiates, informs us, that in a fair trial of his method in fifty cases, only five died. And farther, that all the five died, before he had discovered, by the dissection of his fourth case, the true method of treating the disease; and that of thirty patients treated in this way, not one died.

It is evident, from all that can be collected from the history of puerperal fever; and all that is revealed by numerous dissections, that this disease consists of an inflammation of some one portion of the peritonæum, and is not necessarily confined to any one viscus. This inflammation may be more or less extensive; it may be more or less violent; and it may run its course with greater or less rapidity as its type may chance to be. But, be it in its extent unlimited or confined; be its mildness or violence what it may; be its course rapid or slow, it neverthe-

less consists of inflammation of a very important and influential structure of the human body; and requires for its extinction, extensive blood-lettings; sometimes less than at others, but always frequent and powerful purging, with a most strict antiphlogistic regimen. This being premised, we shall go on to say a few words on each of the most usual remedial agents, as employed by the best instructed, and most experienced practitioners in this complaint.

### 1. *Bleeding.*

This remedy was first extensively employed by Dr. Gordon, for the cure of the epidemic puerperal fever, which appeared at Aberdeen in the year 1789, and continued in that place, with more or less violence, until 1792. Soon after the appearance of this disease, he discovered that early and large bleeding, with very liberal purging, was almost sure to cure this complaint; but that the first remedy could not be advantageously used after a certain period of time had elapsed; consequently, its efficacy was confined to that stage of the disease, which consists in an active inflammation. If bleeding was performed after this active state had passed, it was either ineffectual, or injurious; and on this account it is proper, in a pathological, as well as in a therapeutical view, that we should ascertain the causes, which render a different plan of treatment necessary, as the disease progresses; for this purpose, we shall divide its progress into three stages, each of which requires a certain modification of treatment.

#### *a—Stage First.*

Dr. Armstrong makes but two stages of puerperal fever; but in our opinion, a third is essential to the well understanding of the disease. We are certain, that an intermediate state, or stage, takes place in puerperal fever, between the cessation of the inflammatory stage, and the period of effusion; and may be termed the "gangrenous stage,*" since it is at a time in which

* We are by no means satisfied with the term here employed, to express the state of the parts at this period of the disease; we use it, then, with a full conviction it does not express the idea which we would wish to convey. It is a condition which approaches death, but it is not death; because parts sometimes reco-

the vessels have not absolutely lost their life, though they are on the very verge of it. It is at this period, that blood-letting can do no good, and stimulants must destroy. We shall have occasion to describe this stage more fully hereafter.

The third stage is that, at which effusion takes place, and at which all remedies are, as a general rule, unavailing.

Dr. Armstrong describes the first, in the following manner:

The first stage is variable, as to its duration;* sometimes terminating in a little more than twenty, and sometimes continuing as long as seventy hours, but always being shorter in the epidemical, than in the peritonitic fever."†

It will be seen at once, from the histories already given of this disease, that the duration of this stage must vary, not only as the disease may be sporadic, but also even when epidemic, owing to the type, which occult causes may impose upon it. In a practical point of view, therefore, the limitation must not be rigidly observed by any certain number of hours which may elapse. This stage then consists, strictly speaking, in the duration of the active state of inflammation; and this will vary, as just observed, by the contingencies of season, constitution, age, epidemical influence, &c. In the epidemic described by Dr. Leake, this stage continued, in a number of instances, much longer than the greatest limit proposed by Dr. Armstrong; for in a

ver from it. If properly managed, that is, not over stimulated, the powers of the system may be such, as to recover the part from the condition in which an over action had placed it.

* It must be borne in mind, that Dr. Armstrong is deducing his stages from a particular epidemic; and consequently, that the duration of them will only apply with strictness to that especial puerperal fever; or rather, as the puerperal fever exhibited itself at that time and place.

† By the "peritonitic fever," we presume Dr. A. means the sporadic puerperal fever; as every body seems to agree, that the latter is less violent in its symptoms, and less rapid in its course, than when this disease prevails as an epidemic. If this be not his meaning, we are certainly at a loss for it; since he has in the initial paragraph of his preface declared, that, "under the common term puerperal fever, are comprehended, both the ordinary peritonæal inflammation, and "the low malignant fever of lying-in women," as these are considered as modifications of the same disease." Preface, p. 1.

case in which Dr. Hunter was consulted, (case iv.) he advised bleeding on the eighth day.*

It would be of great importance to the treatment of this disease, were there certain, or infallible signs, by which this stage should be characterized. But unfortunately, none such exist, with which we are acquainted; at least with that degree of certainty, as would remove all doubt. Under such circumstances, we are obliged to rely upon symptoms, though pretty strongly marked, yet must not be considered as unerring.

The pulse, which, in most other inflammations, so faithfully directs us, here deserts us; at least, we cannot judge of it in puerperal fever, as in pleurisy, or common fevers; as this disease imposes a character upon it, which, with our present notions, would greatly mislead us.

Mr. Hey says, "the state of the pulse affords little information, either as to the propriety of bleeding, or the quantity of blood proper to be taken away; and if we are deterred either by the apparent weakness of the patient, by the feebleness and frequency of the pulse, or *by any other symptom*, from bleeding copiously, we shall generally fail to cure the disease." P. 161.

This statement clearly shows, that neither Mr. Hey, nor those who have preceded him, were in possession of any sign by which they could, with absolute certainty, determine the existence and force of the first stage of this disease. The pulse, the common and generally certain guide in other febrile affections, we are warned not to regard, for it will deceive us; on what then are we to rely? Mr. Hey says, "if the disease is clearly ascertained, no other consideration is of much importance." P. 161. This assertion is not made with Mr. Hey's

* We may also refer with advantage, as regards the treatment of this disease, to Mr. Hey's 27th case. In this case, he bled with much advantage, for the first time, on the fifth day; repeated it on the evening of that day, and on the day following; yet Dr. Armstrong says, "he never dared to recommend blood-letting, when the disease had continued longer than thirty hours." P.76. This declaration of Dr Armstrong, is an additional proof of how much importance it would be to have other marks, than the number of hours which may elapse, to judge of the continuance, or cessation, of the first stage of puerperal fever; for it must be recollected, as before observed, that the fever at Leeds was rather more malignant than that of Aberdeen.

usual caution and discrimination; for puerperal fever, is still puerperal fever throughout its stages; yet Mr. Hey is particular in other places, that the treatment of one stage should not be pursued in another.

We are willing to admit, that "the state of the pulse affords little information," in our present state of knowledge; but we cannot be persuaded, but that every active morbid condition of the system, has a modifying influence upon the heart and arteries; and which could be detected, were our powers of discrimination equal to the necessity and usefulness of such knowledge. In the disease in question, a disease of such deadly and rapid tendency, the importance of the structure which is its seat, the decided control it has over some of the powers or actions of the heart and arteries, would lead us almost necessarily to conclude, that the mode of action of these important viscera, is peculiar, and every way highly characteristic, in puerperal fever, did we but possess the *tact* to detect it.

We would, therefore, earnestly caution both the old and the young practitioner, against being betrayed into that indifference about the state and character of the pulse, that the assertion of Mr. Hey would almost certainly lead to; and, on the contrary, would decidedly recommend to them the study of the pulse, and other signs in puerperal fever, with a hope that the secret characters of peritonæal inflammation, in its various grades, may be detected; and thus confer upon society a never ending benefit.

For, that there are *characters of pulse* in puerperal fever, (we must repeat,) we are persuaded; and, that they are susceptible of development, we as confidently believe; but to detect them with a certainty that may be useful, will perhaps require much experience and patient application, together with a most nice and discriminating touch. This faculty, (the touch,) like all our other faculties, may be much improved by well directed discipline; its powers should, therefore, be carefully cultivated by the physician, who is desirous of extending the benefits of his profession to his fellow creatures. For it is but by repeated trials and careful observation, that the faculty of discrimination can exist in an accurate and in an exalted degree; and

when it does not exist in such a degree, it cannot subserve the purposes here insisted on.

Farther, the touch, like the other faculties, exists in various degrees of perfection, as an original condition of it; consequently, it is not, in every instance, susceptible of the same cultivation; but in all is capable of much improvement; or at least with very few exceptions. We should, therefore, earnestly recommend the attempt. As illustrative of this point, and some others connected with the pulse, we think we cannot do better, than to employ the language of Mr. Hunter upon this subject.

"The pulse is often as strong a sign of the state of the constitution, as any other action that takes place in it, though it is not so always; but, as the pulse has but one circumstance attending it that we can really measure, all the others being referrible to the sensation or feeling of the person who is the judge of it, the true state of the pulse is not easily ascertained. The knowledge of the soft, the hard, and the thrill, are such as can only be acquired with accuracy by the habit of feeling pulses in these different states, and by many is not to be attained; for simple sensation in the minds of any two men is seldom alike."

"The late Dr. Hunter was a striking instance of this; for, though he was extremely accurate in most things, he could never feel that nice distinction in the pulse that many others did, and was ready to suspect more nicety of discrimination than can really be found. Frequency of pulsation in a given time, is measurable by instruments; smartness or quickness in the stroke, with a pause, is measurable by the touch; but the nicer peculiarities in the pulse, are only sensations in the mind. I think I have been certain of the pulse having a disagreeable jar in it, when others did not perceive it; when they were only sensible of its frequency and strength: and it is, perhaps, this jar, that is the specific distinction between constitutional disease or irritation and health. Frequency of pulsation may often arise from stimulus, but the stroke will then be soft; yet softness is not to be depended on as a mark of health, it is often a sign of dissolution; but then there must

be other attending symptoms." Treatise on the Blood. Am. ed. p. 265.

From what has been said, it is evident that the touch is more or less perfect in its condition, as an original sense; and that it is capable of much improvement in its powers of discrimination; and from what follows, it will be found there is much to learn of the various conditions of the pulse, as depending upon the nature, seat, and force of disease; and that the opinion, that the state of the heart and arteries, if duly distinguished, may lead to the knowledge of the condition, or state of morbid action, in any particular structure of the body, is not altogether chimerical. To prove this, we shall continue our quotation from that high authority, Mr. Hunter.

"In the consideration of the peculiarities of the pulse, it is always necessary to observe, that there are two powers always acting to produce them, the heart and the arteries; that one part of the pulse belongs to the heart alone, another to the arteries alone, and a third is a compound of both. But the action of the heart and arteries do not always correspond; the heart may be in a state of irritation, and act quickly in its systole, while the arteries may be acting slowly; for the heart must be considered as local, while the vessels must be considered universal, or even constitutional. The stroke, which is the pulse, with the number of them that are made in a given time, whence the pulse is commonly called quick or slow, their regularity or irregularity, as to time, and the quickness of the stroke itself, belongs to the heart. The quickness of the heart's action often takes place, though the pulsations are not frequent, which gives a kind of rest or halt to the artery or pulse, especially if the pulse be not frequent. The hardness, the vibratory thrill, the slowness of the systole, with the fulness and smallness of the pulse, belong to the arteries. As the pulse arises from the solids, or the machine, *its state will be of course according to the nature of the machine at the time, and is, therefore, capable of being, in either of these states, natural and diseased.*"

"In most diseases of the constitution, whether originating from it, or arising in consequence of diseases of parts, where the constitution becomes affected by sympathy, the pulse is altered from a natural to a diseased state, the degree of which

will be regulated by those affections. *This alteration is commonly so constant, and so regularly of the nature of the disease,* that it is one of the first modes of intelligence we have recourse to, in our inquiries into its nature; but alone it is not always a certain guide."

"The varieties which the pulse admits of, are several. It is increased in its number of strokes, or it is diminished. It is regular, or it is irregular, as to time in its stroke; it is quick in its stroke, or distole, and slow in its systole. It is hard in its diastole, and it vibrates in its diastole."

"In most cases, probably where the constitution is in a state of irritation, the pulse will be quick and frequent in its number of strokes in a given time, and the artery will become hard, from a constant, or spasmodic contraction of its muscular coats, so as to give the feel of hardness to the touch, besides which the diastole of the artery is not regularly uniform and smooth, but proceeds by a vast number of stops and interruptions, which are so quick as to give the feel of a vibration, or what we would express by a thrill." Ib.

These quotations are sufficient to prove, that the condition of the artery in disease, as regards its volume, its firmness, its softness, its frequency, or its peculiarities of action, very much depends upon the nature of the disease which imposes the alteration; and that the diseased action itself, will be influenced by the particular structure or structures, which is the seat of it. If this be true, and we can see no reasonable doubt of it, it would seem to follow, that the peritonæum, in a state of inflammation, will give to the heart and arteries a character of action which exclusively belongs to that condition of this membrane; and that the actions of the artery will of course vary, with the varying condition of the part or parts inflamed.

As regards ourselves, we profess to have much reliance upon the pulse in all acute affections of the body; and almost always make it the guide of our prescriptions; yet we confess we have less dependence upon it in puerperal fever, than in any other disease with which we are acquainted. Not, perhaps, because it is unfaithful in its reports of the condition of the system, but because, we fear we do not exactly understand them. The study of the pulse, therefore, in puerperal fever, is

almost a new one; and we most earnestly recommend it to those, who may almost constantly have the charge of females, with a firm conviction, that they will be amply repaid for their labours. But to return.

We would ask, what is the evidence, that the first stage has ran its course? This is an important question; and one, from our present data, that cannot, we fear, be answered satisfactorily. Hitherto this condition of the disease has been inferred, rather than ascertained. It has been inferred, from the little advantage in some cases, and the marked injury in others, of blood-letting; and this probably is the amount of information upon the subject; hence, perhaps, the rule for withholding the lancet in certain epidemical puerperal fevers, being regulated by hours; for it would seem, that in each individual epidemic of this nature, there is a period, cæteris paribus, at which the first stage runs its course, and this period has been signified by hours; because, when the disease had continued beyond this time, and blood-letting resorted to, it either proved unavailing, or mischievous; consequently, the first stage was supposed to be past.

Thus Dr. Gordon would not promise success from bleeding, if the disease had continued from twelve to twenty hours; because this was probably the average period for the first stage, in the Aberdeen epidemic; and Dr. Armstrong says, he has "never dared to recommend it when the disease had continued longer than thirty hours," (p. 76,) because in the Sunderland epidemic, this may have been the period for the change, from the first to the second stage, &c.

It is true, that Dr. Armstrong has attempted the character of the first stage, by detailing certain symptoms, and has perhaps succeeded better than any one else, in defining and limiting its bounds; nevertheless, he must not be considered as having been altogether successful. It is however a praiseworthy attempt; and he is entitled to the thanks of the profession, for the lucid manner in which he has treated the subject.

"In the first stage," he says, "after the rigors have ceased, the pulse is hardly ever less than one hundred and twenty, and sometimes, though as far as I have observed, very seldom, as

high as one hundred and forty in a minute; the blood does not seem to flow in a soft, easy, and natural current, but comes against the finger with a kind of vibratory motion, and more than ordinary pressure is commonly required to stop its course along the artery, which feels rather hard and tense. The skin is dry, and hotter than natural, the patient complains of great pain and soreness of the abdomen, breathes nearly forty times in the minute, vomits mucus and bile, is generally bound in the belly, has a white dry tongue, considerable thirst, and labours under all the restlessness and irritation of fever." P. 59.

This description looks as if it were every way competent to the purposes for which it is designed; yet there is not a symptom well defined, as it appears, that may not accompany the second stage, if we except, perhaps, "rigor," which must be looked upon, when it takes place, as the initial symptom of the constitutional affection, and is of short duration.*

The pulse is said to be from one hundred and twenty to one hundred and forty strokes in a minute; so it happens in some instances of the second stage; and Dr. Gordon says, he has bled in some cases with good effect, when the pulse has been one hundred and sixty; therefore, if bleeding with advantage, be the proof of the presence of the first stage, the second cannot be characterized by a pulse of one hundred and forty; since one hundred and sixty have been witnessed during the first stage. In Mr. Hey's case 3d, the pulse is recorded to be at between one hundred and thirty and one hundred and forty on the fifth day; and at a time, when all hope was abandoned; and it was but one hundred and forty-four (a number considerably within the range, at which Dr. Gordon says he has bled profitably) a short time before death. Mr. Hey's case 5th, terminated fatally in thirty-five hours; and its commencement "was accompanied with a full strong pulse." In his 6th case, the pulse was one hundred and thirty in the last stage. We might furnish many more cases of similar import; but these are sufficient to prove, that the number of pulsations of

* Dr. Armstrong, however, includes chills in his second stage; to have made these characteristic, he should have added, that these chills are not followed immediately, by a sense of increased heat.

the artery in a given time, will neither mark the first stage, nor characterize the second.

We should place much more reliance on that peculiarity of the pulse, which Dr. Armstrong describes; "where the blood does not seem to flow in a soft, easy, natural current," &c.; if it were found to be a constant symptom, and to be detected with certainty by even close attention; as it seems to countenance the opinion hinted above, that the inflammatory stage most probably is accompanied by a distinctive arterial action, however evanescent it may be in duration, or however difficult of detection.

The state of the skin is very much less characteristic than even the pulse; for in the first stage it is frequently moist, nay wet, and in the second, it is both hot and dry. The pain and soreness of the abdomen often continues through the whole disease; and though never absent from the first stage, it is nevertheless constantly present in the second. The breathing is not more decisive; vomiting is less frequent in the first than in the second stage. The tongue affords us no criterion; it remains sometimes as described above, until death closes the scene. Thirst is sometimes insatiable in the last stage; and the restlessness and irritation from fever attends sometimes to the last moment.

We should, however, place some reliance upon the character of the pain and soreness, mentioned as belonging to the first stage; it is generally of an acute, pungent kind; more easily excited by pressure at one portion of the abdomen than at another; and very frequently confined to the hypogastrum; some swelling perhaps, from the very commencement; sure to augment as the disease gains ground; gives to the hand, the sensation of more or less solidity; but is never excessive, during this stage; is obedient to the influence of remedies, by diminishing in size and sensibility; provided, the remedies exert a control over the disease, generally. The patient is sometimes disposed, and sometimes does, turn upon her side; though obviously inclined to maintain her position, for the most part, upon her back; because the abdominal muscles, by being relaxed, moderates pain.

It would appear, then, that the first, or inflammatory stage

of puerperal fever, the stage in which bleeding has been so eminently successful, has no *discovered character* by which it may be distinguished from the second, in which this operation is forbidden, after the lapse of a few hours. This circumstance we must regard as unfortunate, but perhaps not without remedy; for we must still insist, that there cannot be such a departure from the usual economy of the system, as to make puerperal fever the only exception. We must be borne with, therefore, if we still persist in recommending to physicians, a more exclusive devotion and study, to the several stages of this disease, that their now hidden characters may be developed.

The rules which are to govern the loss of blood in this complaint, are therefore necessarily reduced to rather uncertain, and narrow limits; and are more dependent upon contingencies, than fixed principles. These rules are comprised in the following directions:—

I. Bleed as early in the disease as possible.

II. Bleed at that time, as much as the system will well bear.

III. Repeat, pro re nata.

I. Every practitioner is aware of the difficulty, which almost constantly attends the execution of the first direction; this arises from several causes; but neither of which is absolutely insurmountable. First, to the first symptoms of the disease being frequently mistaken for the common occurrences of childbed—if chill attend, as is most common, or if fever ensue without it, it is commonly attributed to the "coming of the milk," or that ephemeral, called "the weed;" or to some slight exposure, or unforeseen negligence. Second, to the desire on the part of the nurse to be thought competent to any little indisposition incident to this period of childbed. Third, to the consequence of this belief of the nurse; losing thereby much time in witnessing the effects of her own remedies. Fourth, to the fear of censure attaching to the nurse for any indisposition by which her patient may be attacked; therefore withholding early information. Fifth, to an ignorance of the nature and fatal tendency of the disease. Sixth, if pain commence early, to it being mistaken for after pains.

For the reasons just assigned, it will, in very many cases, be out of the physician's power, to heal the disease as early, or as

vigorously, as its ferocity demands; therefore, he should prevent, as far as possible, the operation of the above causes, whenever the necessity may exist, by following the plan adopted by Mr. Hey, during the prevalence of the puerperal fever at Leeds. He requested to be sent for "without delay, on the accession of shivering, or unusual pain." But he adds, "notwithstanding my urgent request, I was seldom called until some hours after the attack." P. 76. This declaration diminishes our hopes of early applications, it is true; but the plan should be tried, as it is the only one we can adopt for the purpose proposed.

We have already mentioned the latest periods, in the opinions of several of the best authorities on this subject, at which it would be useful or proper to bleed; we also attempted to show, that these directions were founded upon experience, or rather experiment, upon different occasions; that, though there were discrepancies in appearance in these statements, yet there were none in reality; as the conclusions were drawn from individual experience, in each of the epidemics, of which they gave the histories; and consequently, that neither the short periods of Armstrong and Gordon, nor the more extended ones of Denman and Hey, should be taken for absolute guides.

Therefore, in every instance of puerperal fever, especially if epidemic, as well as in the sporadic cases, there may be a difference of period at which it might be proper to bleed; and that this period should be discovered as early as possible; and its utmost limits ascertained with as much precision as it is capable of. For by this means, we may extend the benefits of this operation beyond what might at first be expected, as well as be prevented from doing mischief by it, if too late employed.

As regards, then, the period after the attack at which we are to draw blood, it is a concurrent opinion, the earlier, most decidedly the better; as respects the one, at which this would no longer be useful, we have but very uncertain marks; therefore, much must be left to the experience and judgment of the practitioner who may have the care of the case.

II. Having ascertained the propriety of blood-letting in the early period of the disease, the questions next in importance are, first, what quantity must be drawn; and second, must this be repeated? and when, or under what circumstances?

All the writers who have treated this disease with adequate boldness, prescribe the loss of a given quantity of blood; thus Gordon, Hey, and Armstrong, limit it from twenty to thirty ounces; believing that less will not answer, and more is not generally required.* In this country, we are not in the habit of regulating our bleedings by ounces in severe illnesses; we almost altogether determine the quantity by effects; and we are disposed to believe this to be the safer, and the more efficient plan. For it is not to be supposed that every constitution will be affected precisely alike; nor that the disease, in every constitution, will yield to exactly the same force of remedies. In one instance, perhaps a less quantity than twenty or thirty ounces might be sufficient, while another might require a much larger quantity; therefore, in the one instance, more blood is drawn than is absolutely necessary, (though we confess it to be erring on the safe side) and in the other, which is much more material, an inadequate quantity is necessarily relied upon.

As regards our own practice in such cases, we have always abstracted as much as the system would well bear; that is, until the pulse was changed, pain abated, fever diminished, and there was a disposition to syncope. These alterations would take place sometimes from the loss of a smaller, and sometimes a larger, quantity of blood; but until they did, we could not flatter ourselves we had *strangled* the disease; and this we always attempted, did it require only twenty ounces, or did it demand, forty.

In constitutions wont to faint from the loss of a small quantity of blood, we cannot always get at one bleeding the neces-

* Dr. Armstrong says, "the quantity of blood drawn at once in puerperal fever, should seldom be less than twenty-four, and perhaps never more than thirty ounces." P. 76.

Dr. Gordon says, "I have limited the quantity of blood necessary to be taken away, and fixed the time when taking away that quantity will cure." Thus, I found that twenty-four ounces of blood, taken away at one bleeding, within six or eight hours after the attack of the disease, together with a single purgative, never failed, at once, to cure the puerperal fever." P. 84. On this, Mr. Hey makes the following remarks; "though I have found great advantage from the rules laid down by Dr. Gordon; yet it is incumbent upon me to say, that they were not always infallible, either as to the quantity of blood which was necessary for the cure, or the time within which it should be taken." P. 156.

sary quantity; the operation is therefore to be repeated so soon as the system reacts with decided force; unless all the expected relief is obtained, by what has already been done. We do not wait for the lapse of any certain number of hours; for we are persuaded, in doing so we permit the disease to gain ground: we should therefore draw it as quickly as the state of reaction will permit, if the symptoms continue.

Dr. Armstrong says, "if the patient, as sometimes happens, faint under the first operation, when only four or five ounces of blood have been taken away, unless there be an abatement of all the urgent symptoms, another vein ought to be opened, after the lapse of one or two hours, and about twenty ounces taken in a full stream." P. 78.

We would ask, why we should "wait an hour or two" in this case, before we repeat the bleeding? the answer may be, because there is "an abatement of all the urgent symptoms;" this we admit will almost certainly be the case, during the temporary prostration of the system, but not longer, in some instances; as there is commonly a renewal of all the more violent symptoms, the moment reaction is re-established; therefore the period of reaction should be the rule. For, in some remarkable cases, this state of fainting may continue beyond the period prescribed, when it would be highly injudicious to repeat the bleeding; while in others, reaction may take place in a few minutes; in such a case, it would be losing precious time, to wait "an hour or two" for the second bleeding, or we might draw blood at an improper time. Besides, the rule we have laid down is void of all ambiguity.

III. The necessity for farther bleeding must be determined by the existence and urgency of the original symptoms; such as fever, with accelerated pulse; vomiting; heat; and pain without much swelling. Indeed, so far as our experience will warrant the deduction, the state of the abdominal swelling, and the degree of acute pain without much distention of the abdomen, are much more certain marks than any other we are acquainted with, of the continuance of active inflammation, or the first stage; and that it is much safer to rely upon them than upon the pulse; because, the various conditions of the latter, are but very ill understood. So far these circumstances have direct-

ed us, and we may add, successfully. We have already declared, however, that our experience has not been extensive.*

Our rule hitherto has been, when the first bleeding, which, as we have observed, we always make a very liberal one, if called to the disease early, does not abate the severity of the symptoms in three or four hours, to repeat it without hesitation; but not to the extent of the first, as evidences of its influence manifest themselves before an equal quantity is drawn. Nor do we limit it to this single repetition; for, if the disease be not abated in severity, we know of no other general remedy that has the slightest control over it. And we are persuaded, that the farther abstraction of blood is necessary, either from the arm, or locally by leeches. It is, however, to be understood, that purging is to be immediately commenced after the first bleeding, and persevered in, as we shall direct more particularly presently.

Mr. Hey's rule is, "if the pain and soreness of the abdomen are not removed, or very materially alleviated, *in six hours*, the bleeding ought to be repeated; nor should a considerable degree of faintness, or even deliquium, make us suppose that further bleeding is either unsafe or unnecessary. In short, I know not from any experience of my own, that scarcely any other limit should be put to the quantity of blood, than the removal, or considerable diminution of the pain; provided all that is requisite be drawn within twelve hours of the first evacuation." P. 161.

We think the plan just mentioned, a very good one; though we should prefer making the interval rather shorter, provided the symptoms continue to be urgent; for we are well persuaded nothing is gained by delay, unless there be an abatement of the symptoms; and we believe that this should be the rule upon most occasions. The temporary amendment procured by the bleeding, must not be mistaken for such a reduction of the disease as to render the repetition unnecessary; for, if there be a renewal of all the distressing symptoms, the disease must be considered as being still in full force, though the ra-

* The reader will readily understand the reason of this, by what has already been said on the appearance of this disease in this city.

pidity of its march may be a little abated by what has already been done.

We must object to an entire conformity with Mr. Hey's proviso, namely, that "all the blood designed to be drawn, should be within twelve hours of the first evacuation;" for we are persuaded we have seen bleeding do much good after a much longer period, where the force of the disease has been abated by the preceding evacuations. For it is but reasonable to suppose, even in the puerperal fever, which runs its course rapidly, that the tendency to disorganization will be diminished by proper remedies; therefore, a greater latitude, as regards hours, we think, may be permitted, provided the symptoms do not display the same intensity, yet evidently remain unsubdued.

Dr. Armstrong discovers still greater apprehension of repeating the bleeding. He says, "the quantity of blood drawn at once in puerperal fever, should seldom be less than twenty-four ounces; but a repetition of venesection, ought, if possible, to be avoided, though occasionally it may be absolutely necessary; and when this is the case, there should be as short an interval as possible between the first and second bleeding." P. 76. Why this direction should be guarded by the condition, "absolutely necessary," we cannot say, as we presume, in such cases, when employed, it is always absolutely necessary.

We are very desirous, on practical points, not to mislead, by attaching too much importance to any mode or plan we may have adopted for the cure of a disease, when, in our own opinion, that plan has not been sufficiently tested by experience. On this account, we feel that we are not in possession of any certain marks, by which we can distinguish the two early stages of this disease from each other, better than those who have preceded us. We can, therefore, only give a detail of such circumstances as have hitherto directed us in the treatment of the disease in question, and have led us to suppose we were generally correct.

We believe, that puerperal fever consists in a most active inflammation of the peritonæum; and that this inflammation, if left to itself, or if aggravated by improper treatment, will

run its first stage with great rapidity. That its second stage consists in the termination of the previous inflammatory stage, in that state known by the term gangrene; which always is of short duration; for it either retraces its steps to inflammation or resolution, or terminates in profuse effusions within the cavity of the abdomen. That the only chance of recovery, arises from the immediate extinction of the inflammation; and that, when this is not effected, death will almost inevitably ensue; for, unless the inflammatory stage can be cured, the attempts for the relief of the others, is altogether contingent; as all experience, or with extremely rare exceptions, is much against favourable results from any mode of treatment hitherto pursued.

We have thought it safe and necessary to bleed in puerperal fever, as long as the pulse possessed any firmness; the abdomen great tenderness and acuteness of feeling, or severe occasional pain; provided the distention was not great; and while the mammæ secreted milk, or they retained a certain degree of fulness; and especially, if the woman exhibited the feelings of a mother towards her child. We have not always chosen to draw the blood by the lancet; we have sometimes preferred the employment of leeches, and the quantity drawn by them to be regulated by ounces, and not by the number of leeches.

We desist from abstracting blood in any way, when we believe our second stage is about to take place, or has actually occurred; this stage, Dr. Armstrong has very well characterized in the general; we shall therefore repeat it, and make such observations as we think the case requires.

"In the second stage, the pulse is never under one hundred and forty, and frequently rises above one hundred and sixty in the minute, while it is always exceedingly variable, weak, and compressible; the tenderness of the belly is usually much diminished, and the fulness increased; cold partial perspirations first break out about the face, neck, and extremities; the centre of the body, particularly the surface of the abdomen, remaining dry, and of a pungent heat, for some time afterwards. The patient rarely shivers much, but has repeated chills; vomits dark, grumous matter; seldom breathes less

than sixty times in a minute; has generally a loose belly, a brown, black, or reddish parched tongue; unquenchable thirst, tremulous hands, lightness and swimming in the head, confusion of thought, or delirium; and several hours before death, a remarkably relaxed, cold, damp skin." P. 59.

In this account, Dr. Armstrong has confounded the "gangrenous stage" with the "stage of effusion;" some of the symptoms belonging to one, are blended with those belonging to the other, which, for the sake of precision, should be separated, as the stages are not equally desperate; for the gangrenous may admit of remedy, or at least it is not absolutely fatal. It is, however, a stage necessarily replete with danger, though it may not always eventuate in death, unless goaded to it by a mistaken theory, or a false pathology. It is the stage in which bleeding can never be proper; and the one in which stimulants must be forbidden. It is the one in which we must always rely upon the powers of the system; and, consequently, from which we must not look for many recoveries, though we may have a right to expect, now and then, an escape.

We will presently attempt to separate the symptoms, which, in our opinion, mark these two stages.

### *a.—Of Purging.*

It is indispensable in every case of puerperal fever, that the bowels should be not only amply depleted, by active cathartics, but that the operation of purging should be kept up during the whole course of the disease; but particularly in the first and most active stage. Some, as Gordon and Hey, commenced by giving cathartics a few hours after delivery. Of the efficacy of this plan as a preventive, Gordon speaks in the highest and most confident terms; terms which we believe, and as we have had already occasion to observe, neither this, nor any other remedy can deserve. In this praise of purging as a preventive, he has not been borne out by Mr. Hey.

Yet we are every way willing to admit, though it is not equal to the prevention of the disease, it is nevertheless highly beneficial; as the operation of the cathartics, exhibited thus early, come sooner to the aid of the bleeding, which is to be as soon performed, as the nature of things will permit. Indeed the

advantage of this plan may be inferred, from what Dr. Armstrong says of the influence of the remedy. He says, "it forcibly struck him, that when purgative medicines failed to procure stools in the first instance, the disorder gained so much power, in the time lost in their repetition, as to become uncontroulable." P. 64.

Mr. Hey is rather averse to giving a very active dose of medicine before the disease is formed, as it sometimes produces hypercatharsis, and does not ensure immunity to the disease. He says, in reference to Dr. Gordon's plan, "I was the more reluctant to exhibit so large a dose (as recommended by Gordon) before the necessity for it was apparent; because I did not feel such confidence in its efficacy, as that author ascribes to it; since some of the worst cases in my practice, occurred after an excessive operation of the purgative." P. 154.

But notwithstanding a cathartic may not prove prophylactic; or that it may sometimes operate with unnecessary severity, yet we would recommend, in every instance of delivery, during the prevalence of a puerperal epidemic, that a cathartic of moderate, but decided power, should be given; and for this purpose we believe, there is nothing better than equal parts of calomel and jalap, in the following manner.

℞ Calom. ppt. } āā gr. x.
Pulv. Jalap. }
Syr. Commun. q. s. M. f. pil. iij.

One of these to be taken twelve or fourteen hours after delivery, when the woman is robust; and repeated every two hours, until they operate freely.

But after the disease is formed, and the patient has been bled to a sufficient amount, a purge should be immediately exhibited; and this should be of the most speedy kind. No plan succeeds better in fevers of high grade, than giving a few grains of calomel, say eight or ten grains at once, and followed in an hour by the following:—

℞ Magnes. alb. ust. } āā ℥iij.
Sulph. magnes. }
M. div. in. iij.

One of these to be given every hour, mixed in a wine glass-

full of lemonade, or sweetened water, until they operate sufficiently.

These purgatives will be sure to move the bowels with great activity; and the continuance of the operation may be secured by occasional doses of the same medicines, and in the quantity above prescribed. Or by the use of the Seidlitz powders. Should, however, the bowels be tardy, either accidentally or constitutionally, the operation of the medicine may be hastened by a stimulating injection, made of a pint of water and a large table spoonful of common salt.

We must not permit a fear of weakening the patient too much, prevail against our better judgment, and the experience of some of the best practitioners. The friends of the patient, are sometimes clamorous against a treatment as active as the disease requires; but we must turn a deaf ear to all attempts at interference with a plan, which, to be successful in such a disease, must be executed with vigour and perseverance.

It is the opinion of Gordon and Hey, that the purging should not be interrupted during the whole course of the disease; Mr. Hey says, he entirely coincides with Dr. Gordon in the opinion, that "the purging is to be early excited, and to be continued without intermission, until there be a complete termination of the disease." P. 163. This account of his method, however, Mr. Hey finds it difficult to reconcile with another part of his practice; in which he recommends the nightly use of opium. In this country, we should look upon this last plan of Dr. Gordon, as discrepant, especially in the more active and early stage of the disease.

Mr. Hey declares, he "frequently tried opiates in the epidemic (of which he speaks,) but he thinks never with advantage." P. 164. Dr. Armstrong says, "when the inflammatory symptoms were subdued, small opiate draughts or enemata were very useful in allaying the irritation of the system, and inducing quiet sleep, but they were always prejudicial in the commencement of the fever." P. 68. As far as our own experience will warrant an opinion, opium in the commencement was always hurtful, and in the more advanced stages of the disease, was of doubtful efficacy. It has been occasionally employed by us, where the disease was accompanied by uterine

efforts, or after pains; it was useful however, quoad hoc; but we would not say it did not rather retard, than promote the cure of general disease.

It is very certain, however, that it should be given with great caution, and a sparing hand; especially, where the bowels have not been very amply purged, or where it is a point of consequence, not to interrupt their motions. We say opium should be given with a sparing hand; for such is the excitability of the system generally, in this disease, that a dose very much below the common one should be given, if we expect it to do other than mischief. For, we are persuaded, we have seen irreparable injury done in several instances, by the too liberal exhibition of this drug. But to return,

Mr. Hey is a little ambiguous in one of his statements, and which it may be proper to notice, as it contains a kind of contradiction, which we are sorry to see from his pen. He says, "purging, however, is proper, in every stage of the disease, unless gangrene has actually taken place; and should be excited when bleeding has become inadmissible." P. 167. Now, we would ask, what is the condition of the inflamed parts, when bleeding shall become inadmissible? Is it not either a strong tendency to, or the absolute state of gangrene? We have no doubt upon this point ourselves, as may be collected from what we have said of the "gangrenous stage" of this disease. Mr. Hey then adds, "for even if some degree of effusion should be *suspected*, the morbid fluid may be absorbed; and nothing is more likely to promote its absorption, and to carry it off through the medium of the circulation, than a discharge from the intestines." P. 167. Yet he peremptorily forbids purging, when gangrene has taken place. This may be considered, however, by some, of very little importance, at this period of the disease; but we are unwilling to look upon any direction of Mr. Hey in this light; for we are of opinion, that his treatise is the best practical work, that has yet met the public eye.

Dr. Armstrong's favourite cathartic, is calomel in large doses; for such we must regard scruple and half drachm doses. He however justifies this quantity by saying, "to a person in health, or but slightly indisposed, such an extraordinary dose as thirty grains of calomel, would be followed by unpleasant

and violent effects, but when the constitution labours under a febrile disorder of the infectious or inflammatory kind, calomel, given to a large amount, is not succeeded by disagreeable, but beneficial effects." P. 71.

We are not easily alarmed, in this country, by the exhibition of large doses of calomel; for it is, in many places, given with a most daring hand. In our western and southern states, we have understood, that much larger and repeated doses have been given; and we add, upon the authority of our informants, with much advantage. In one case, we were informed by the parents of the child, which was in our view a very healthy one, that in an attack of croup, which proceeded to great extremity, while going down the Mississippi, a dose of a hundred grains was given with immediate advantage to the child: nor did this enormous dose produce any remarkable cathartic effects, though the child was but a few months old.

It was not, therefore, because Dr. Armstrong familiarly employed the doses of calomel just mentioned, that makes us remark upon his practice; it is what very quickly follows, in an observation he makes, in defence of the use of this drug: he there states, "it is, however, merely as an aperient, that I consider it serviceable in any acute disease, and I have been led to prefer it to every other, only because it is more certain and effectual in its operation." P. 72. It is really a matter of surprise, that Dr. A. should consider calomel only as an aperient in acute diseases; to us, who are in the habit of viewing its powers, in all febrile diseases especially, as very much beyond that of a mere aperient, the idea is altogether irreconcilable. Nor does Dr. A. make out his case with any success, that it is merely an aperient, when he adds, that he was led to prefer it to every other, only because *it is more certain and effectual in its operation;* when he immediately after adds, "though I have always endeavoured *to quicken its action*, by combining with it other purgatives."

In our hands, and we believe in almost every body's beside, calomel has had a very different action upon the bowels, than as an aperient; for if we do not mistake, it constantly presents to us in its operation, decided evidence of its having stimulated in a particular manner the whole mucous surface of the in-

testines, as well as exhibited evidences of influence upon all the chylopoietic viscera; and that it almost constantly procures evacuations decidedly different, at least in their sensible properties, from any other purgative whatever. And farther, that we have been in the habit always of believing, it was this specific influence which it so constantly exerts upon the intestinal tube, that has given it the preference in certain diseases, to every other remedy of the class to which it belongs. And did it not possess the qualities we have just ascribed to it, and only act as an effectual aperient, it would long since have been rejected from the materia medica as a cathartic, and for the following reasons:

First, because it is almost always slow; and many times uncertain in its effects; frequently proving emetic in a powerful degree, without necessarily becoming cathartic.

Second, Because we cannot ensure its efficacy upon the bowels, by augmenting its dose, as can almost always be done with every other cathartic; a small dose sometimes proving violent in its effects; at another, a large one failing to operate. Witness the hundred grains dose just mentioned.

Third, Because, when it fails as a cathartic, it very often affects the salivary glands, always to the great annoyance, and sometimes to the injury of the patient who has taken it.

In our estimation, therefore, these objections would very much outweigh the good qualities of this article, were they confined to the narrow bounds allowed it by Dr. Armstrong; or had it not some valuable or compensating properties for its bad ones, every body would consent that calomel should be banished from the list of cathartics.

We therefore, for the sake of the qualities which we think peculiar to the calomel, retain it, and constantly employ it, in preference to every other purge, in almost every acute disease. But, like Dr. Armstrong, we guard against its tardiness, by combining with it more active substances; but they are added merely for their *cathartic* effects, while the calomel is looked up to, for a *specific* operation; or we hasten it through the bowels, by such substances as possess more activity, by exhibiting them some time after the calomel has had possession of them, there-

by securing the peculiar action of the calomel, as well as the wished for cathartic effects of the other.

Besides, there is an advantage in calomel, when vomiting attends this fever, which no other purgative possesses; it may always, from the smallness of its bulk, be made to sit upon the stomach; whereas, every other perhaps would be rejected with violence. Should the bleeding not have settled the irritation of stomach, and the bowels not have been freely opened, we may give grain doses of calomel every half hour, or hour, with manifest advantage. Or should they have been even freely opened, and it should be, as it almost always is, desirable to keep them so, especially, when the stomach rejects, or loaths every thing, calomel is the only medicine that can be retained, which will have a cathartic operation. In such cases, therefore, it should be given with a frequency, and in a quantity, that will best secure its effects.

The only thing against the use of calomel, is its effects upon the salivary glands; but this is by no means so constant or certain, as to enter into a comparison with its other advantages; for it is now well known, that this drug rarely produces salivation in fevers of high action, and of rapid termination. And were it even much more uniform in its tendency to the mouth, it should not be withheld on this account, as its advantages in overcoming fevers of the high grade of puerperal fever, is superior to every other remedy of the kind, yet known.

We believe that the Croton oil, would be a valuable purgative in this disease, as it unites great certainty of effect, with great ease of administration. It might occasionally be depended upon alone, when prompt and copious evacuations are desirable; or it may be used as the auxiliary of calomel. We are much in the habit of giving this oil, especially to children who are difficult to move, or who are very reluctant to take medicine, as the quantity required is small, and may be put up in the form of pills, or of mixture. We think it more certain in its operation than almost any other purgative; and we think it less offensive to the stomach than the neutral salts or castor oil; and much less griping than senna.

We have been led to believe, that this medicine is very drastic in its operation, and tormenting to the stomach and bowels:

we have never witnessed such effects. On the contrary, we have repeatedly given four or five drops to a child of two or three years old, without procuring more than the necessary number of stools.

Perhaps the best mode of using the Croton oil is in pills; each pill made to contain a drop, and one given at hour intervals. Mr. Frederick Brown, one of our most respectable apothecaries, informs me, that it is easily made into pills by combining it with a small quantity of dry Castile, or other hard soap. It is commonly united with the crumbs of bread; but the method is objectionable, as they crumble as soon as they become dry.

### *b.—Of Emetics.*

In favour of emetics in puerperal fever, agreeably to a plan suggested by M. Doulcet, there is the most extraordinary testimony ever presented to the public. In 1782, the king of France directed "the Royal Medical Society of Paris," to make a report upon the memoir of this gentleman, containing "a new method of treating puerperal fever." This report declares, that "puerperal fever had made its appearance more frequently than ever in the Hotel Dieu of Paris, since the year 1774; and that it had always proved fatal to every person it attacked. They further report, that, in four months, during which this epidemic disease raged with great fury, near two hundred women were saved to society by Doulcet's new method of treatment." Clarke's Essays, p. 106.

M. Doulcet's method of cure "consists in taking the advantage of the moment of attack, and giving, without losing an instant of time, fifteen grains of ipecacuanha, in two doses, at the distance of an hour and a half from each other, and repeating them again the next day, in the same manner, whether the violence of the symptoms be abated or not; and if the disease should continue much the same, they are repeated again the third, and even the fourth day, according as the case may require. In the intervals between the doses, the effect of the ipecacuanha is kept up by a potion composed of two ounces of oil of sweet almonds, one ounce of syrup of marsh mallows, and two grains of Rermes mineral. The common drink is lin-

seed tea, or an infusion of Scorzenera root, edulcorated with syrup of althæa; and towards the seventh or eighth day of the disease, the patient takes a mild purgative, which is repeated three or four times, according to the exigency of the case. The efficacy of this method of cure consists wholly in its early application, namely, in the moment when the disease first commences; and though experience has since taught us, that the loss of a few hours is not always irreparable, yet it seldom happens, that ipecacuanha has the same complete success, when the first moment of attack is lost." Whitehead's translation of Doulcet's method, &c., as quoted by Hull; Treatise on Phleg. Dol. p. 267.

The simplicity of M. Doulcet's plan has much to recommend it, and if its efficacy had been equal in other places, and in other epidemics of puerperal fever, as it was in that of the Hotel Dieu, it would be irresistible. But unfortunately for the interests of humanity, the success of this plan has been very much confined to the hands of its inventor. In the early part of our practice, we adopted this plan in two or three instances, but it failed altogether, neither of the patients surviving the fifth day. And Dr. Clarke says, "a repetition of vomits on the plan suggested by M. Doulcet, has been attended with obvious disadvantage. The agitation of vomiting, by the necessary pressure made on the contents of the cavity during their operation, has always aggravated the pain, and tends farther to exhaust the powers of the woman, already sufficiently reduced." Essays, p. 161.

This accords precisely with what was observed in the use of emetics, in the few cases in which we exhibited them. And this consequence can always be deduced, when vomiting is an attendant on puerperal fever; we have never known either the spontaneous or provoked puking produce a favourable change in the disease, though we have occasionally witnessed temporary relief, when bile or other offensive substances have occupied the stomach.

It may be asked how it happened, that emetics in the hands of M. Doulcet should have been invariably successful, and fail so constantly in the hands of others. This question, it would be difficult perhaps to answer satisfactorily; but we may suggest,

that it might have depended altogether upon some peculiarity of the epidemic itself, of which we have no knowledge. It was certainly of less rapid course than those of Aberdeen or Leeds; for the seventh or eighth day is mentioned, as if it were a common period to arrive; and also, that they found by experience that the loss of a few hours was not irreparable; the very reverse of the two epidemics just named. It seems to have borne a strong resemblance to that, which attacked the "Westminster Lying-in Hospital," and of which we have an account by Dr. Leake.

The occasional use of emetics is recommended by Dr. Denman; and he seems convinced of their utility; yet it would seem that the benefit procured by them, was but temporary, and entirely dependent upon the condition of the stomach. For he says, "if a sickness, loathing of stomach, or offensive taste in the mouth, attend the commencement of the disease, this medicine (his antimonial powder) fails to occasion vomiting, and the patient, with a countenance strongly expressive of the benefit she has received, will attest the advantage of the method pursued." But it must be remarked, that Dr. D. in no instance, relies upon this method exclusively; for he says, "at the same time that we avail ourselves of the advantage of the antimonial powder, we must not neglect the use of those means which contribute to procure immediate ease or relief to the patient." Introd. p. 581.

From what has just been said, we must not be led into the belief that the nausea and bad taste in the mouth are always indicative of the oppressed state of the stomach, and that this condition would be relieved by puking; for we must in such cases be careful to distinguish between the sickness, occasional vomiting, and disgust, which may arise from something offensive in the stomach, and the vomiting, &c., which is really a symptom of the disease. The first rarely occurs but in the very commencement of the disease, while the other only appears from one to several days after.

The vomiting, which really belongs to the disease, is but rarely accompanied by the discharge of crudities from the stomach; it merely procures the discharge of mucus, and the drinks taken down a short time before. This vomiting arises,

either from the stomach sympathizing with the inflamed peritonæum at a distance from it, or from its own covering being the seat of it, both of which, when this happens, constitute a part of the disease, and of course can only be aggravated, and not relieved, by the use of emetics.

Dr. Armstrong is decidedly in favour of emetics; he says, "in addition to bleeding and purging, Mr. Gregson was induced, from an accidental circumstance, to prescribe antimonial emetics, and on repeated trials, fully proved them to be excellent auxiliaries, never using them however, till the patient had been freely bled or purged; and this is certainly the best way of administering them in puerperal fever. Three very severe cases which I attended, were treated by blood-letting, purging, and vomiting, successively employed in less than twelve hours, and the united influence of these remedies was certainly very striking, a complete change having been brought about in the circulatory system, and almost every symptom of inflammation and fever entirely subdued." P. 68. Mr. Gregson, in his communication to Dr. Armstrong, says, "my attention was particularly turned to the usefulness of emetics, from an accidental occurrence in a case, in which purgative medicines had been given to a considerable extent, without completely relieving the pain and tenderness of the abdomen; which, however, were soon removed by free vomiting, occasioned by a large dose of calomel and jalap. And from that period I have repeatedly used antimonials, with the intention of exciting nausea or vomiting, when bleeding and purging, or when purging alone, had been premised." P. 113. Yet it appears to us, from all we can learn, that emetics appear to be of doubtful efficacy as principal remedies, and limited in their usefulness as auxiliaries.

### *c.—Blisters.*

Considerable diversity of opinion exists as regards the application of blisters in puerperal fever. Dr. Clarke thinks them inconvenient, and of very doubtful efficacy, if not injurious. Dr. Armstrong is of opinion they may be useful, if applied before the second stage commences; but confesses that since he had bled and purged so freely, that he had rarely

found it necessary to employ them. Mr. Hey considers them inconvenient; and that they will seldom be necessary; but has thought them useful if applied before the last stage. See Chap. on Inflammation of the Uterus.

Our own opinion is, that they are less useful in this inflammation, than in any other; we have used them formerly; but have abandoned them altogether of late years, because, they are always extremely inconvenient, where the patient is to be so frequently disturbed by the operation of purgative medicine; and never, as far as we have seen, decidedly useful. If they are employed, it should be after the first or second liberal bleeding, and after the bowels have been well purged.

### *d.—Fomentations.*

Many are in the habit of employing warm fomentations to the abdomen; Mr. Hey recommends them, as soothing, and as free from mischief. We have for many years ceased to employ them, for the following reasons; first, they are oppressive from their weight, and offensive from the vapour which arises from them; second, they expose the woman to injury from her bed becoming wet, against which no care can guard; third, they oppress from their heat, and appear always to increase the frequency of the pulse; fourth, we have never seen them of the smallest benefit.

### *e.—Spirit of Turpentine.*

Were we to pass this substance without notice, it might be looked upon as an important omission. The character it has obtained in the opinions of some, would seem to render it necessary we should say something respecting its merits; but we are sorry to add, that we can say nothing in favour of its powers. We have known it tried, and we have tried it ourselves, but with us it has uniformly failed, nor can we obtain a more favourable report of its efficacy from others.

We confess ourselves however to labour under prejudices, or rather apprehensions of its utility, in the beginning of the disease; and thus to be the substitute for bleeding, &c. as recommended by Dr. Brenan. To us who are not familiar with

its use, or acquainted from experience with either the proper moment for its employment, or the proper quantity to be exhibited under varying circumstances, it appears, at present at least, a doubtful remedy; yet we would not wish to be understood, by this declaration, as doubting the veracity, or impugning the motives of those, who have borne unqualified testimony of its control over this disease.

To us, who want experience in this remedy for this disease, it appears to be only proper at the termination of the first stage, in the gangrenous; here it may be proper; but here we have forbidden stimulants. But is this substance to be ranked under the same head with wine, brandy, opium, volatile alkali, &c.? We think not—for it appears to be a stimulus of peculiar powers, as we see in Burns, &c. Were we to suggest then a trial of the sp. tereb., it would be at the period just designated, and in combination with castor oil; thereby forming one of the most certain and peculiar cathartics we know. It might deserve a trial at this period.

### 2. *The Gangrenous Stage.**

We believe, that from the moment that the pulse increases in frequency, beyond from one hundred and twenty to one hundred and forty, the system is verging towards the second, or gangrenous stage. At this time the pulse not only increases in frequency, but also abates in force, and even perhaps in volume. Hiccup now takes place with more or less force and cer-

* "Gangrene may be considered as a partial death; the death of one part of the body, while the other parts retain their natural powers." Sir Astley Cooper's Lectures, Am. Ed. p. 98.

The state of a part here described, is not precisely what we would wish to be understood, when we describe "the gangrenous state of puerperal fever;" therefore, we would wish to employ precisely the definition, which Galen gave of gangrene; that state or condition, "when a part, from violent inflammation, is *not absolutely dead*, but is *about to die*." Huger. Inq. dis. on Gangrene and Mortification, p. 6.

In this state of a part, the previous action, or inflammation, exceeded the powers of the part to sustain that action; and consequently, there existed a great disproportion between the action, and the power. Now, it must be evident in such a case, that the only relief that can be expected, is from a reduction of the action to the state of the power, as we shall state more fully presently.

tainty. The mammæ lose their milk entirely, and become more flaccid. Vomiting of the drinks, almost as soon as swallowed. The tenderness of the abdomen is diminished, and the character of the pain changes from the acute to the obtuse; the swelling is increased in the belly, and an approach to tympanitis may be perceived by striking against its sides. The urine is extremely high coloured, offensive in smell, and very scanty in quantity. If there be lochia, they are offensive, and very dark coloured. A lividity commences on the cheeks and lips. The mouth is dark coloured, and parched; the tongue is dry, rough, and requires several efforts to thrust it beyond the teeth; it is either not retracted until the patient is bidden to do so, or is withdrawn very slowly and reluctantly. The teeth are covered with a mahogany coloured scruff, and the gums nearly livid. The skin is dry and husky. The respiration hurried, and rather laborious; but not so frequent as the last stage, but much more so than the first.

A tendency to delirium, or manifest forgetfulness of the immediately preceding events. A total indifference to her child, and the surrounding circumstances. Complains but very little; and when interrogated answers vaguely, or contradictorily. The pulse is now rapid, and rather indistinct; and the wrists colder than the other portions of the arms. This stage is very evanescent; rarely continuing more, perhaps, than twelve hours; it may, however, be protracted by proper remedies, or it may be shortened by improper ones.

It is this stage, which gives the name of typhus to the disease; it is at this time, that the nature of the remedies are changed by most practitioners; and it is at this period, that this change seals the fate of the patient.

The management of this stage, should be reduced to one of great simplicity, and inertness; by withholding all stimuli, but continuing the depletion from the bowels.* Diarrhœa some-

* Maintaining the depletion from the bowels, is in strict conformity to the theory adopted in this complaint—for the augmented secretion from the internal surface of the bowels, acts like a topical depletion, by employing the vessels concerned in the disease; or rather, by diminishing the quantity of their contents, and thus permitting them to contract. By their contracting, they acquire an increase of power, and at the same time, suffer a diminution of action; because, one of the

times comes on at this stage; and sometimes it proves critical, if it be not arrested upon false principles, by astringents. The system sometimes rights itself, when not opposed by officiousness, or overweening anxiety; or overturned by stimulation. Has any one seen a recovery from this stage, when bark, wine, opium, ammonia, &c. have been employed? We believe few can answer this question in the affirmative. Even under the management of the judicious Hey, we have reason to believe in one or two instances, he but hastened the fate of his patients. See cases IX. XXVII. Dr. Armstrong, though he does not appear to recognise the exact condition of the system at this period, was nevertheless perfectly aware of the injurious tendency of cordials, or of stimulants.

The views of Mr. Hunter on the subject of inflammation and its consequences, are truly valuable, and every way in point, as regards our present subject. He says, "I consider inflammation as an increased action of that power which a part naturally possesses; and in healthy inflammations at least, it is probably attended with an increase of power; but in inflammations which terminate in mortification, there is no increase of power; but on the contrary, a diminution of it. This, when joined to an increased action, becomes a cause of mortification, by destroying the balance which ought to subsist between the action and the power of every part. If this account of mortification, arising from no specific nature, be just, we shall find it no difficult matter to establish a rational mode of cure; but before we do this, let us take a view of the treatment which has hitherto been recommended, and see how far it agrees with our theory. It is plain, from the common practice, that the weakness has been attended to; but it is plain, that the increased action has been overlooked; and therefore, the whole aim has been to increase the action, in order to remove the weakness."

"The Peruvian bark, confectio cardiaca, serpentaria, &c. have been given in as large quantities, as the case appeared to

unnatural stimuli is in part withdrawn; namely, that of distention. Mr. Hunter says, "that many circumstances in life, as also many applications to parts, will call forth the contraction of the vessels; we are, therefore, to apply such means; and whatever will do this without irritation, will so far counteract the effect." Treatise on the Blood, Am. Ed. p. 279.

require, or the constitution could bear; by which means an artificial or temporary appearance of strength has been produced, while it was only an increased action. Cordials, and wine, upon the principle on which they have been given, are rationally administered; but there are strong reasons for not recommending them, arising from the general effect which they possess, of increasing the action, without giving real strength. The powers of the body are, by this treatment, sunk afterwards in the same proportion as they had been raised, by which nothing can be gained, but a great deal may be lost; for in all cases, if the powers are allowed to sink below a certain point, they are irrecoverable." Introd. to Treatise on the Blood, p. xx.

Dr. Armstrong farther says, p. 63, "the stimulant treatment, (in his second stage,) is at once the most delusive and dangerous which can be adopted, and it is much to be lamented, that it has the weight and authority of some eminent names." Again, p. 81, he observes, that "the system is uncommonly susceptible of stimulants, such as strong wine and cordials, in the second stage, and if freely administered, they generally destroy the patient, whose remaining powers are best supported by milk, nourishing broths, and the like."

He also appears well acquainted with the propriety, nay, the necessity of continuing the discharges from the bowels. He says, "speaking from my own personal observation, I do not know the period of the disease in which cathartics can be omitted, without considerable hazard; they are indispensable in the first stage, and I have seen them occasionally succeed, when the disorder seemed advanced into the second." P. 80.*

Mr. Hey says, "if these means (evacuants,) fail to cure the disease, from being employed either too late, or in an improper manner, grateful cordials may be given in its latter stages, to alleviate the distressing feelings of the patient; but cordials,

* It must, however, be understood, that purging must not be carried on to the same extent, as in the more active stage of the disease; for if carried too far, it may irritate the bowels too severely, and thus increase the debility. Hr. Hey's plan, of an evacuation every few hours, is perhaps rather excessive; we should prefer a less, to a greater number, and for the reasons before stated; a lesser number would seem every way sufficient, for the removal of offensive matters in the intestines, besides occasioning a sufficient increase of serous secretion.

or tonics, can afford no other advantage." P. 166. As we cannot limit the powers of the system, under any state of disease, however desperate that disease may be, is it not improper, from any motive of humanity, to give that which cannot relieve, but may injure, by interrupting the powers of the system, in an attempt at restoration? In the stage we are now considering, the patient's safety depends upon "doing" (almost) "nothing." Light vegetable jellies, acidulated by the sulphuric acid; gum Arabic in solution, acidulated; rennet whey; cream of rice. Strong coffee is often very grateful, and sits well upon the stomach, and may be administered freely; especially if vomiting be troublesome. We cannot agree with Dr. Armstrong and Mr. Hey, in the use of broths, or any other animal substance; for in our opinion, they should always be excluded from the room of the puerperal patient. In the early stage, they are too stimulating; and in the second, too soon become decomposed in the bowels, and add to the existing mischief. Drinks may be given freely, and may be made to convey sufficient nourishment; but they must have in them no stimulating ingredient whatever. Saline draughts in a state of effervescence, Mr. Hey says, are refreshing; they may, therefore, be given; the sweet spirit of nitre, also makes an agreeable beverage.

Under some of the most unfavourable conditions of the system in this disease, there has been occasional recoveries; such are the cases of Dr. Gordon, after effusion, and others perhaps, whose exact histories we are not acquainted with. The restorative powers of the system are great, and are frequently exerted most successfully, under circumstances where no reasoning upon the subject, could for a moment justify a hope; thus, the woman has recovered after rupture of the uterus, &c. But in all these cases, nature was freed as much as possible, from as many of the retarding causes as it well could be, and left to manage the injury in her own way. So, in the disease under consideration, we should, perhaps, have many more instances of recovery, were nature left undisturbed to the exercise of her powers.

The system sometimes recovers itself, from this gangrenous state of fever, by means of its own, when not stimulated to unnecessary, or rather to deadly exertion, but which can neither

be calculated on, nor imitated. Thus, we have seen recoveries from yellow fever, after black vomit, and hemorrhagies from almost every part of the body; but in all these instances, little was done towards *aiding nature;* she was permitted to do her own work, in her own way.

Yet there are instances, in which the system can be much assisted in her exertions, even in desperate cases, where the indications for this purpose are obvious, and of easy execution, as the following case will prove:

A young man, of strong constitution, was attacked with a bilious remittent fever, which, after fourteen days, took on the form of typhus, as it was called; and for which, bark, wine, and blisters were administered. On the seventeenth day of the disease, I was called to visit him. I found the patient with a quick, irregular, and tense pulse; and the sores occasioned by the blisters, were quite livid. The bark and wine were omitted; the patient was bled, purged, and all applications to the blistered parts were forbidden. The following day he was better; but his pulse continuing tense; he was again bled, and purged with calomel and jalap. He continued to mend; the livid look of the blistered parts was converted into one of high inflammation. He was bled once more; the fever left him in a few days after; the sores healed kindly, and he was soon perfectly well. Here, from a state of most violent action, by removing the irritating cause, and lowering the system, the actions of the parts retrograded, first to that of active inflammation, and eventually to that degree of it only, that was necessary to restore the parts.

### 3. *Stage of Effusion.*

This stage is one of almost entire hopelessness; the wretched patient must, in great measure, be abandoned to her fate, as regards medical treatment; but, if comfort of any kind can be afforded her, it may be given with as liberal a hand as her demands require. Stimulants, cordials, opiates, may be administered without reserve or apprehension; for the disease has spent upon her the full force of its powers: for, in this instance, we do not know what can injure, or what can benefit

the case; in this stage then, we may depart from the rule laid down in the second.

There is something remarkable in the tendencies of this peculiar and fatal disease; first, to gangrene; (in our acceptation of the word. See p. 447,) and from gangrene, to extensive effusion. It is this strong disposition to effusion, that prevents this disease ending in sphacelus; and well accounts for Dr. Clarke not finding "the parts in a state of gangrene" (sphacelus.)

The effusion is not only sometimes excessive, (see p. 376,) but must be looked upon as almost necessarily fatal.* This effort of the over exerted vessels, is marked by the following symptoms.

Pulse fluttering, and scarcely to be numbered; the belly enormously swelled, and tympanitic; cold sweats bedew the whole body, or confined to the face and extremities. The skin on the hands sometimes looks shrivelled, as if they had been immersed in warm water for a long time; repeated chilliness, without reaction; vomiting, or rather gulping up, a dark brown, or coffee coloured fluid; involuntary stools, and sometimes a profuse discharge from the uterus, of a bloody sanies, or black grume. Delirium, or perfect collectedness; the tongue frequently moist, and an attempt is sometimes made at cleaning; (sometimes) convulsions; death.

## Sect. VIII.—*General Directions and Rules.*

It is of the utmost consequence to the woman labouring under puerperal fever, that her nurse or attendant should be faithful in the discharge of her duties; that she have sufficient understanding to comprehend the directions of the physician; enough good sense and fidelity to put them in practice; resolution to withstand the wayward and improper demands of her patient, should she make any; and courage enough to bear up

* "The mischief which takes place in the cavity of the abdomen, whether by extravasation, suppuration, or gangrene, renders the disease incurable; except, in the two former cases, by some extraordinary efforts of nature, of which Dr. Gordon has related three instances, where the confined fluid made its way by a direct outlet; in two at the umbilicus, and in the third by the urethra." Hey, p. 166.

against the encroachments of friends, and the preposterous recommendations of visiters.

Every direction of the physician should be most promptly put in practice by the nurse, or other attendants; and that this may be done to the letter, they should be impressed again and again upon the minds of those who may have charge of the sick, and delivered circumstantially, without ambiguity, or the possibility of misapprehension. Nothing should be left to construction; the directions must be so peremptory and clear, as to prevent the possibility of subterfuge. To ensure all this in the best manner possible, the physician should ascertain at each visit, whether his orders have been strictly complied with; and if they have not, let him not pass over the neglect once, or it will surely be repeated.

As this disease rapidly advances to a fatal termination, when unchecked; as nothing can give this check, but the most prompt application of remedies; as on the extent and force of these remedies, does their success mainly depend, especially on the proper quantity of blood to be drawn, the physician should perform this operation himself, or be present when it is performed, that he may be satisfied that his intentions are properly fulfilled. The blood should be carefully preserved, that its qualities may be determined; and thus serve as a guide, in some measure, for the subsequent use of the lancet.

But, let us caution the young practitioner against being deterred from a repetition of this operation, because the blood may not manifest the common signs of inflammation, if the symptoms continue urgent; because, the general symptoms of the disease will be a better guide, than the individual one of the blood.

When the blood has been abstracted, let him order his purgative medicines to be immediately given, after the manner he shall see proper to direct; let him prescribe minutely the regimen of his patient, which should be most strictly antiphlogistic; and let it be exactly understood, what we mean by antiphlogistic regimen. This will refer to a variety of particulars; we shall, therefore, consider them in detail.

First. The air of the room should be frequently changed by a well conducted and careful ventilation; its temperature should

never exceed sixty degrees; but it may sometimes be lower, when a lower can be commanded. Its purity should be preserved, by removing all offensive substances from the room as quickly as possible, when they are tangible; but, if they emanate from the patient herself, the cause should be diminished or destroyed, whenever practicable. The lochia, (when not arrested,) are sometimes very offensive; when this is the case, the vulva should be washed several times a day with warm water; the cloths often changed; and one constantly wet with the pyroligneous acid, should be kept near the parts: or, if this cannot be commanded, caustic lime should be placed under the bed clothes, and in various parts of the room.

No curtains, or other obstructions to the passage of the air, should be permitted to surround the bed; and the doors and windows, if at proper seasons, or in a proper state of atmosphere, should be frequently or constantly open. The air should not be contaminated by unnecessary breaths; company, noise, and light, should be excluded. The air should not be loaded with unpleasant vapours or smokes, under the pretext of purifying it; for every kind of combustion is injurious.

Second. The diet should be made to conform most strictly to the indications to be fulfilled; namely, the reduction of the quantity of blood; food, therefore, containing much nourishment, or any stimulus, should be carefully withheld; it should be restricted to toast water, thin barley water, molasses and water, thin rennet whey, balm tea, or lemonade.

Every shape and form of animal substance should be peremptorily forbidden—no chicken water, or beef tea should approach the lips of any fever patient; and none more particularly should be forbidden it, than the one labouring under the puerperal. We are persuaded much mischief is created, or perpetuated, by a want of attention to this circumstance; and it was not without surprise, indeed we might say astonishment, that we saw enumerated in the list of antiphlogistic articles in the treatises of Hey and Armstrong, "chicken water," than which few things, in our opinion, can be more improper.

Third. The bed, bed clothes, body linen, and every other article which may surround the woman, should be changed, aired, and washed, (as their natures may require,) as often as possible;

or as may be compatible with the circumstances of the patient, or as a due regard, not to expose her to unnecessary fatigue, will permit.

Fourth. That as the abdomen is always very tender, and oftentimes very much swoln, the weight of the bed clothes should be taken from it, by placing a spider, made of sections of a large hoop, tied together in their centres, at right angles with each other, and so placed as so suspend the clothes, and thus protect the abdomen from their pressure. And as we know from experience, that the wetting of the abdominal surface frequently, by passing a sponge over it, imbued with some volatile fluid, as camphorated spirit, alcohol, or spirit of turpentine, is not only most grateful, but we have reason to believe has been also most useful, the patient should be indulged in it.

Fifth. The greatest care, and the most delicate management should be observed, in administering diet, drinks, or medicine to the patient; or in attending to the effects of the latter; and that she be not made to suffer unnecessary fatigue, by frequent rising for these purposes, we would recommend the use of the "sick cup" for the two first; a spoon for the second, and a bed pan for the last; knowing it to be of the utmost consequence to husband her strength, and prevent all needless hurry of the circulation.

Sixth. To permit the child to be placed every now and then to the breast, that, by its gentle and appropriate stimulation, it may invite the secretion of the milk, if it has not been formed, or to retain it, if it has been secreted; provided this be managed with sufficient address, not to worry or fatigue the mother. The sympathy between the mammæ and the diseased parts is obvious, by the effect produced on the one, by the situation of the other. We think we have seen this useful.

# CHAPTER XX.

## OF MILK ABSCESS.

It is scarcely necessary to mention, that the female constitution is much disposed to fever after parturition; the various circumstances which attend gestation and labour, which are calculated on the one hand to produce predisposition, and on the other, to excite fever, leaves the system but little opportunity to escape this evil, unless much care be paid, to guard the woman against all exciting causes. But, unfortunately for the interest of this part of the creation, the practice of those who have charge of females at this period, is the very reverse of what is dictated by reason, or is sanctioned by experience; and hence the production of fever, of a higher or lower character.

From the changes which almost invariably take place during pregnancy, and immediately after delivery, it is evident, that it is the design of nature that the mother shall provide nourishment for the child for a period; and for the fulfilment of this design, milk is formed in the breasts as soon after delivery as the necessities of the child require.

The evidence of the capacity of the mammæ for the production of this fluid, consists in their tumefaction; and when this is best performed, it is neither attended with excessive swelling, nor painful distention; nor is the arterial system excited to fever, for the purpose of preparing milk, as is most erroneously supposed by many. But, we have too frequently to witness the very reverse of what would take place under proper management, by the neglect of the most obvious rules of propriety, and the total disregard of the suggestions of nature.

Milk fever is so familiarly spoken of, and so constantly expected, as to be considered a sine qua non to the production of this fluid; hence, it is rarely guarded against by suitable restrictions; and hence, the frequency of the mischief it creates

when too violent, or when unrestrained. It is evident, from this view of the subject, that there must be an error in the premises assumed respecting this function; it is this error which we now wish very briefly to point out, that the consequences may be avoided.

It is in our view an absurdity to suppose, that nature designed the child should be furnished with nourishment at so much expense of health and comfort to the mother. That she should run the risk, not only of ill health herself, but of being deprived of the capacity to fulfil the object for which this secretion was intended; or in other words, the capacity to furnish the means of support to her child, should deprive her of the power of making the provision. For in how many instances, do we see the useful purposes of the breasts destroyed, by inflammation and suppuration?

These considerations make us pronounce the fever, which accompanies the swelling of the breasts previously to the formation and discharge of the milk, a disease of artificial origin; in proof of which, beside what we have endeavoured to establish from reason, it can always, or with very few exceptions, be avoided, by proper observances on the part of the patient herself, and those who may have charge of her. The rules for this purpose are simple, and of easy execution.

First. After delivery, let no stimulating substance be given the patient; as wine, or liquors of any kind; spices, chocolate, &c.

Second. To allow her no animal substance whatever; either in a liquid form, as soup, &c. or in a solid form, by giving the animal substance itself.

Third. To permit her the free use of cool drinks, as toast water, balm tea, water alone, or lemonade.

Fourth. To give, on the morning of the third day, a dose of medicine of sufficient power to procure three or four evacuations.

Fifth. To allow fresh air to pass freely through the room, and around her bed; and not to overheat her body, by an over quantity of bed clothes.

Sixth. But the last direction must be so conducted, as not to endanger her taking cold.

By observing these rules, we know that milk fever may be avoided ninety-nine times out of the hundred. But should these rules not have been observed, the distention of the breasts may be so great as to excite severe pain; and from an over-stretching of the tubuli lactiferi, inflammation may be excited, which may terminate in suppuration.

It must however be acknowledged, that *milk fever* is not the only cause of mammary swelling, and abscesses. There is a peculiar liability to this disease, during the first fifteen or twenty days after delivery; and the causes may be various and obvious, as well as special and hidden. Blows or bruises; bad nipples; exposure to cold, either general or partial; a neglect of discharging the milk in proper time from them; pressure from stays or corsets; metastasis; &c. At other times the breast swells and inflames, without our being able to determine the cause. Some are more liable to this affection than others; and will sometimes have a repetition of it, with almost every child they may have.

Sometimes a chill announces a derangement in the system; soon after which, a pain is felt in one of the breasts, and upon examination a small tumour may generally be discovered in the substance of it; at other times, no such tumour can be felt, but the breast is observed to swell, and be tender when pressed.

From this variety in the early state of this complaint, it is evident, that the seat of inflammation is not always confined to the same tissue of this organ; sometimes it is a portion of the gland which is attacked, and at others it would appear to be the cellular substance alone, that is involved.

When the gland is attacked, it suddenly increases in size; becomes extremely tender to the touch; and gives a great deal of acute pain. The breast sometimes swells to an immense size, especially such as are naturally large, and what is called fleshy. The woman finds no comfort or ease in any posture, and the weight of the breast itself occasions much severe suffering.

Fever is excited in the early formation of the local affection, and will be of different degrees of intensity, as the inflammation of the gland may be extensive, or as the system may be

disposed to febrile action, or as it may be confined to the cellular membrane.

The progress of the disease to suppuration, though always constant, is not always equally rapid; sometimes requiring many weeks before it will discharge itself, or permit an outlet to be made for it. But much will depend upon the seat of the gland itself that may be affected; if it be deep, it will require a longer time, and so on. It may however be observed as a constant rule, that the inflamed gland, is always longer before it suppurates, and than the cellular membrane when it is the seat of the inflammation. It is beside very much more painful; and is attended with higher sympathetic fever, though the breast never becomes so large, as in the other instance.

In the variety of this complaint now to be noticed, the same remote and exciting causes may have operated; though we cannot say why the cellular membrane should have been selected for its seat. It commences by the same general phenomena, except that it is, we believe, always preceded by chill; and the first intimation the woman may have, that it "has fallen on the breast," is a swelling, and tenderness of the part upon pressure. The breast distends rapidly, (for the most part,) equally, and without any "lump" that can be perceived by pressing the part with the fingers.

The whole progress of this variety is vastly more rapid, and were we to judge merely from appearances, more alarming, than in the other, since the swelling is much greater; but the pain is much more moderate. Indeed, we have seen it run on to suppuration, without the slightest pain, except from pressure. This variety passes through the same stages with the other; and pretty much after the same manner, if we except the rapidity of its march. We have seen it pass on to suppuration in the course of a week. The external inflammation is much less intense, and is very rarely attended by œdema. Indeed, we have seen very extensive suppuration, with scarcely any discoloration of the skin. It is also much less amenable to remedies; for it is very rarely made to resolve itself, however early or vigorous the plan may be, that is pursued.

The two varieties may be combined, and it is not very unfrequent that they are; when this takes place, the inflammation

of the gland always appears first, and the cellular membrane afterwards becomes implicated, either from an extension of the original inflammation in the gland, or by taking on this action later; for we have never witnessed the cellular membrane injured, until some time after the gland; nor have we ever seen the gland injured from the inflammation of the cellular membrane.

However, if the progress of the gland to suppuration be slow, or the diseased part be very deep seated, the cellular membrane may remain free for a long time, unless the complaint has been improperly treated by stimulating applications, or by the early use of poultices. In this case, the breast becomes enormously swelled; the epidermis separates from the true skin; a great number of small vesications appear, and the depending part of the breast becomes œdematous, and sometimes even discharges a considerable quantity of serum; indeed, the whole of the skin, covering the inflamed part, appears thickened, and saturated with a fluid, which escapes upon the smallest injury done to the part. This is so conspicuous sometimes, as to disguise the inflamed appearance of the integuments; and if it be pressed by the point of the finger, the impression will remain a long time, though it be not in a depending part.

## Sect. I.—*Treatment.*

There is no inflammation of the phlegmonous kind, that runs on to suppuration with so much certainty, and sometimes with so much rapidity, as that which attacks the mammæ. On this account, there is not a moment to be lost in temporising; an impression must be made, and that quickly, or all our efforts will be unavailing, and the woman too often made to suffer for a long time, an acute and almost never ceasing pain.

Is this failure to procure resolution, a necessary and an unavoidable consequence? or is it, in part, owing to the first period of the inflammation being either neglected, or improperly treated? We have said, that the inflammation of the breast runs on to suppuration with great certainty; by this, we would wish to be understood, that, if let alone, or if ill managed, it will rarely fail to suppurate; therefore, if an at-

tempt be made to counteract this constant tendency, the remedies should be of the most decidedly antiphlogistic kind, and should be applied early.

But our want of success in resolving mammary inflammation, does not exclusively arise from the pertinacity of its course; for there are several other causes, which almost constantly operate with equal certainty.

First. It is almost constantly submitted to the management of the nurse, or subjected to the "infallible cures" of every old woman.

Second. To very inadequate means being advised, and persevered in, until the time for the successful application of the proper remedies is irretrievably lost; or,

Third. To stimulating and heating applications being used, which quickly inflame the skin externally; which unites with the one which has already attacked the breast within; thus making it necessary to contend with two enemies instead of one.

Fourth. To a want of perseverance and conformity to the prescriptions of the physician, after he has seen the breast, because immediate relief may not be experienced, or because some other plan has been advised.

Fifth. To a false delicacy and fear on the part of the patient, lest the part be examined.

The above causes are almost sure to operate against the early use of proper remedies; and it is almost certain to happen, that the physician is not consulted, until so much mischief is done, that he cannot, but in part, repair it. From what we have experienced, when a fair chance has been offered us to oppose this disease, we are of opinion, that it need not suppurate near so often as it does. This should hold out a strong inducement to the woman not to temporise, lest she incur an injury that will not be repaired through life.

It is never too soon to oppose this disease; and if a very early opportunity occur, the woman should be advised so soon as possible to employ the remedies, and follow the plan now to be advised.

*a—Local Applications.*

We have never found any application so successful in the very early stage of this disease, as the frequent application of warm vinegar to the part. Its efficacy appears to us so certain, when sufficiently soon employed, that we need not in many instances look for any other remedy. It is particularly prompt in that condition of the breasts, in which a want of proper drawing leaves them, or where they become suddenly and painfully distended by the sudden secretion of milk, but which cannot be extracted with ease, or in sufficient quantity, either from a defect in the nipples, or in the external, or inferior extremities of the tubuli lactiferi.

These accumulations are always painful, and easily provoked to inflammation, by either the use of improper food, or local applications. It is therefore every way important that this tendency should be arrested in limine. For this purpose the vinegar is most comforting, and almost certain.

It is also highly important in the commencement of both the first and second varieties of mammary abscesses, and should be employed most perseveringly for at least twenty-four hours. If the pain or intumescence be not abated by this time, leeches should be applied in sufficient number to abstract from eight to ten ounces of blood, and their wounds encouraged to bleed by cloths wrung out of warm water, or a soft bread and milk poultice. The poultice is however to be removed so soon as the bleeding ceases, and its place supplied by a piece of linen rag, spread with fresh hog's lard; or a plaster of hog's lard and common flour incorporated, and spread upon a cloth sufficiently large to cover the breast.

These applications are to be continued until the leeches' bites are sufficiently healed to bear again the use of the vinegar, or the reapplication of the leeches. We would use the first, when we are certain the disease is diminished; and the second, if we thought the disease to be gaining ground, or stationary. For it must be recollected, no truce is safe with this inflammation. We would therefore persevere in the leeching, until we cannot hope to prevent suppuration.

When this happens, let it be remembered, we are not to pro-

mote the tendency to suppuration by poulticing, &c., for this only increases the pending mischief, by the formation of a greater quantity of pus, and the consequent destruction of a greater quantity of the substance of the breast, by which its future usefulness may be entirely destroyed. It should therefore be a never failing rule, to treat a mammary inflammation as if it would not suppurate.

From the period in which we look with certainty for the breast to suppurate, to the time at which this takes place, some saturnine application should be employed steadily. We are in the habit of using the following liniment for this purpose, and we think with advantage.

℞. Ol. Olivar. Opt. ℥ij.
Liq. Plumbi sub. acetatis, ʒj.
Æther Vitriol. ʒij.
Tinct, Thebaic. ʒj. M.

A rag to be moistened with this liniment and applied to the part frequently.

Dr. Clarke speaks highly of the following formula, for the same purpose.

℞. Cerussa acetata ʒj.
Acetum. Distil. ℥ij. f. sol. adde,
Sp. vin. rect. ℥j.
Aq. Distil. ℥v. M.

This is to be applied constantly to the breast, cold, by means of a piece of linen. By this plan we prevent the formation of an over quantity of pus; we preserve the integrity of the external covering of part, and we prevent an œdema, almost certainly.

*b.—Regimen.*

In aid of the local applications mentioned above, the patient must be restricted to a *severe antiphlogistic regimen;* no animal substance in any form, should be allowed her; nor any kind of liquor be permitted. She may have tea; weak coffee; milk and water; rennet whey; very thin tapioca; thin sago; arrow root; roast apples; fruits of the season, &c. Her drink, water; toast water; molasses and water; apple water; or thin lemonade.

*c.—Purging, &c.*

Her bowels should be freely purged daily, by any of the neutral salts, magnesia, senna, &c. Should there be much fever, she should lose blood from the arm, again and again, if necessary.

She should be confined to the bed, and made to lie upon her back, to favour the retiring of the blood from the breast. The breast should be very lightly covered, instead of being enveloped in many folds of flannel. The temperature of the air should be very moderate, and her drinks cold.

This regimen, &c., should be persevered in, though suppuration be inevitable; indeed, it should be continued until the matter is discharged, either spontaneously, or by art.

*d.—Puncturing.*

If matter form in spite of our exertions, the breast must be treated as abscess usually is; our general rule is, to let it discharge itself by internal absorption, if the collection be small; but if the quantity be large, and the skin very thin and dark coloured, we always puncture it with a lancet, and take from it but a small quantity of pus at a time. After we have allowed an ounce, or a little more, to flow, we place a piece of lint upon the orifice, and for this time, stop any farther discharge. At the end of three or four hours, we direct the dressings to be removed, and a fresh quantity allowed to escape, and so on, until the whole has passed.

If there be pain at this time, we direct a soft bread and milk poultice; if there be none, we have it dressed with simple cerate. Sometimes the discharge from the wound is arrested by a portion of dead cellular membrane getting into the orifice; and this is particularly the case, in the second variety of this abscess. When this is the case, it should be removed by taking hold of it with the thumb and finger, having a piece of fine rag between. Should this however occasion pain, or blood discharge itself, while making this effort, it must be desisted from; the external portion cut off close to the breast, by a pair of sharp scissors, and the portion in the orifice pushed back by the extremity of a probe, and kept by this means from obstructing the wound, until a sufficient quantity of the pus be extracted. This has to be frequently repeated sometimes.

Some are in the practice of making a large orifice for the discharge of the matter; but this is a reprehensible practice. It is sure to destroy a large portion of the surrounding weakened skin, as well as to occasion a very large and deep wound, in which granulations spring up too rapidly for the part to heal soundly. Fungus is almost sure to arise, and a long, painful, and weakening sore is left; all of which might have been avoided, by pursuing the plan just recommended.

*e.—Caustic.*

It is not unfrequent for milk to pass through the wound when it is near healing; and sometimes this discharge, or that of serum, is long maintained, by a small portion of fungus taking possession of the orifice—this, when removed by the application of the nitrate of silver, permits the wound to heal immediately, unless it be the opening of a sinus of some depth. When superficial, it is often removed by enlarging the orifice by caustic, and then applying pressure; or by exciting inflammation, by injecting in it a solution of corrosive sublimate, in the proportion of a grain to an ounce of water.

*f.—Seton.*

But when a deep seated portion of the gland has suppurated, the wound sometimes will not heal; a deep sinus is formed, which continues to yield pus, in spite of every attempt to close the orifice. For the destruction of this sinus, Mr. Hey recommends cutting down, through the substance of the breast, to its bottom; an operation, confessedly of great severity, and one, which very few would have courage to encounter. Yet, as it is a disease which never cures itself; as it is always attended by more or less induration of the breast; and as it always excites much uneasiness, and not unfrequently great alarm, lest it be the forerunner of cancer, the woman becomes very desirous that something should be done for her relief, and will willingly submit to any moderate degree of pain, or privation, for this purpose.

Fortunately, a much milder operation than that of Mr. Hey's, has been performed for this purpose, with entire suc-

cess, in all the cases in which it has yet been performed. This improvement, is the seton operation of Dr. Physick; to whom the profession is already indebted for so many valuable suggestions in practical surgery.

This operation is performed in the following manner; a probe is passed along the sinus, so far as it will go. If the direction be outward, towards the portion of the breast next to the arm, so much the better: but if not, let the point be carried towards the side it most inclines to. When the probe has passed as far as it can along the sinus, the point is urged laterally, until its point is perceived to press against the skin without; at this point it is to be cut upon, and the probe is forced so far through this little wound, as to enable the operator to seize it, either with his thumb and finger, or with a pair of forceps. The probe is then drawn through, having been previously armed with a portion of braid, soft half inch tape, or a piece of silk riband.

The seton is permitted to remain from three to four weeks, without being disturbed; or until, from the healthy appearance and diminished quantity of the pus, there is reason to believe, the sinus will heal upon the withdrawing of the seton. But, should there be a tendency in the external orifices to close too soon after the seton is removed, or before the sinus is supposed to be healed, they are kept open by a small piece of bougie, or sponge tent, until the healing takes place.

Should the matter become hard around the seton, and obstruct the farther flow of pus, it must be removed by carefully washing it with warm water, or by the application of a soft bread and milk poultice. Dr. Physick assured us, that this plan had succeeded entirely to his satisfaction, in the several trials he had given it; one of which we witnessed ourselves. And he is of opinion, that this operation would always succeed, wherever there is no cancerous tendency in the parts, to prevent the operation from being performed.

### *g.—After Treatment.*

After the healing of this abscess, a considerable hardness remains in the breast, which will require a long time for its absorption; this creates a good deal of uneasiness in the patient,

lest it be a scirrhus. On this point, her fears may be composed; as the tumour which remains, will eventually be taken up by the absorbents, as it is nothing but coagulated lymph; but this may be promoted by keeping the part warmly covered, or by the repeated application of vinegar. If this occur in winter, a piece of rabbit skin may be used, with the furred side next to the breast; if in summer, a piece of fine flannel will answer very well. Or the part may be rubbed twice a day with opodeldoc.

## CHAPTER XXI.

### HYSTERIA.

The nervous system, like the vascular, the muscular, &c., is liable to certain derangements; the symptoms arising from these conditions of the brain and nerves, are familiarly called nervous; but to which, it would be difficult to affix any precise idea, as they are so numerous, and at the same time so varied. This difficulty, we are persuaded, every practitioner has encountered; yet, when familiar from long practice with morbid phenomena, he is enabled to determine the extent of their agency in modifying the diseases of other systems; or can determine very nearly, *in what degree* they may be considered as belonging to the nervous system.

The disease under consideration, may be justly looked upon, as the assemblage of very many symptoms; the nature, and extent of which, must necessarily be much diversified, as the seats of sympathy, in several organs of the body, may be in a

fewer or a greater number; and as these may be more or less important.

The ancients were of opinion, that the affections now under consideration, arose from some derangement, or lesion of the uterus; on which, they bestowed very many gratuitous powers. Indeed, many modern practitioners are still of the opinion, so boldly advanced by their predecessors. Dr. Good* says, "with a morbid condition of this organ, indeed, hysteria is in many instances very closely connected, though it is going too far to say, that it is always dependent upon such condition: for we meet occasionally with instances, in which no possible connexion can be traced between the disease and the organ, and sometimes witness it in males, as decidedly as in females."

That a certain condition of the nerves of the uterus, like any other portion of the body, may give rise to that combination of symptoms termed hysteria; or, from some lesion of other portions of this organ, the nerves of the part so injured may be secondarily affected, there cannot be a doubt; but that every derangement of function, or even lesion of this organ, will produce hysteria, there is the most unquestionable reasons to deny; indeed, it seems, that when the uterus is seriously affected, as in cancer, there is very often an absence of those distressing symptoms, which every body agrees to call nervous.

Many facts seem to confirm this last observation. For when this organ is labouring under an active malady, as inflammation, &c. there is for the most part, nay almost always, an exemption from the symptoms constituting hysteria; there is a particular condition of the nerves of the part required, to give rise to the symptoms called nervous or hysterical.

The seat of hysteria would seem to be in the brain itself, instead of the uterus; but the condition of this organ, which gives rise to the various phenomena of this affection, is by no means ascertained. We know so little of the state of this organ when in health, that we may very readily be deceived by the appearances furnished by post mortem examinations. It is but reasonable to suppose, that each individual has some

* Study of Medicine, vol. iii. p. 352. Am. Ed.

difference, or peculiarity of organization of the brain; since, in no two perhaps, are its functions performed precisely alike, at least, as far as can be determined by any external phenomena. Nor is it probable that we shall ever be much more enlightened upon this subject; since, we know nothing, or but very little, of its condition in absolute health.

Our knowledge of the human brain has been exclusively derived from dissections performed after death; but what alterations may not take place, during the progress of disease, or even during the agonies of death? It is true, we are very often told by those who have inspected this mass after death, "that the brain was found perfectly healthy." But where can a standard of comparison be found, to warrant such a conclusion? Because there was no evident lesion of this organ, does it follow, that it was in a perfectly healthy condition during life? Is there not much reason to doubt this, as we very rarely see instances of death, where this part has performed its functions to the last, without more or less aberration? And we know of very many others, where the seat of disease was certainly in the brain, but which, after death, was declared to be in a state of health.

We are frequently told of altered structure; of inflammation; of too great a density; too great a degree of softness; &c. of this organ; now these facts only go to prove, that in certain conditions of this organ, changes have taken place; but does it follow, that in those instances in which no evident change was found, that this organ was absolutely in a state of perfect health, either as regards action, or organization? All derangements of this organ cannot consist in the alterations above mentioned. There must be many, in which the attempt to develop them by the knife would be in vain.

It is, therefore, not sufficient for the best purposes of pathology, to declare, that the brain was not concerned in the disease, of which the patient may have died, because no trace of derangement presented itself, upon a post mortem examination. Who will pretend to point out by the knife, the difference of condition of the brains of the moping hypochondriac, and the furious madman? between the pitiable idiot, and the man of genius; &c. &c.? Has the cause of idiopathic epilepsy, of te-

tanus, of hydrophobia, ever been unequivocally detected, by any marks left in the brain after death?

It is true, we have been furnished with the observations of the pathologist, and anatomist, upon each of these points; but the appearances described by them, have so often been seen, where neither of these diseases were the cause of death, as to render it extremely doubtful of their agency in the production of them. Besides, we have much reason to believe, that a deranged action of the brain may cause death, without leaving the slightest evidence of it.

No direct proof, perhaps, can be offered, that the brain is the seat of hysteria; for few dissections can have been made with a view to ascertain its condition in this disease, as it very rarely proves mortal; and of these few, none occur to my recollection.* The opinion is founded rather on the causes of this disease, both remote and exciting; upon the phenomena which it presents; and the remedies most successful in relieving the paroxysms, and interrupting their returns; of these, I shall speak in their proper places.

The brain, like almost every other portion of the body, has parts which more readily sympathize with it than others; and these sympathies show themselves variously, not only as regards phenomena, but in very different portions of the system, as the brain may be labouring under one affection, or another. Thus, in passions or emotions of the mind, the liver and stomach are wont to be disturbed; the one, to the more abundant secretion of bile; and the other, to the effort of throwing it off.

* I cannot call to mind any dissection, if I have ever met with one, where the condition of the brain is particularly noticed: though many examinations have been made, of those who have died of "nervous disorders." Upon this subject, Whytt observes, "although it appears from the dissections of those who have died of them, that the stomach and intestines, liver, spleen, *omentum*, mesentery, or uterus, have frequently been found obstructed, scirrhous, or otherwise unsound; yet, as in many other cases of the same disorders, no such morbid appearances have been observed in the body after death; it follows, that these symptoms may frequently proceed from causes, which, eluding our senses, are not to be discovered by dissection. Nay, obstructions, scirrhi, and other disorders of the viscera, observed in those who have died, after suffering long from nervous ailments, seem sometimes to have been the consequences of a long state of bad health, rather than the causes of it." Works, p. 584.

In melancholy, the bowels become torpid; the stomach dyspeptic; &c. In tetanus, the whole muscular system is involved, or only certain portions of it. In hydrophobia, the muscles of deglutition, and sometimes the whole muscular system; &c. &c.*

In hysteria, a peculiar condition of this organ exists; but this peculiarity we can neither name, nor demonstrate; yet in it we see many powerful, nay, awful sympathies called forth, and giving rise to a suit of symptoms, which are by common consent called nervous. There is no part of the human body, that may not have its nerves to sympathize with this condition of the brain; and thus give rise to several phenomena peculiar to the part thus sympathizing; hence, the "*protean shapes*," this disease is said to assume. Thus, if the nerves of the stomach be the principal seat of sympathy, we shall have a train of gastric symptoms presenting themselves; such as eructations; sour belchings; gastrodynia; pyrosis; indigestion; globus hystericus; &c. If the intestines, we may find tympanites; spasm; diarrhœa; costiveness; contractions of the abdominal muscles; &c. If the liver, an inordinate, or a diminished secretion of bile; biliary calculi; pain in the right side; with a sense of fulness and distention; obstructions; &c. If the kidneys, an immoderate flow of pale, or limpid urine; or a very much diminished secretion; and the little yielded, of a very high colour, and sometimes very offensive; severe pain in the parts, resembling the passage of a calculus; bloody urine, &c. If the bladder, incontinence of urine; mucous discharges; retention, &c. If the heart, we shall have palpitations, irregular contractions, &c. If the scalp, a coldness on the top of the head; or a sense of heat on the back part; great tenderness to the touch; clavus hystericus. If the muscular system, violent convulsions, or nervous twitchings, as they are called.

* What renders it more probable, that the brain, or at least the origin of the nerves of this organ, is the seat of that condition, which gives rise to the convulsive motions in hysteria, are the experiments and observations of Dr. Philip, in his inquiry on "the relation between the nervous and sanguiferous systems. He says, "that neither mechanical nor chemical stimuli, applied to the nervous system, excite the muscles of voluntary motion, unless they are applied near the origin of the nerves, and spinal marrow." Phil. Trans. for 1815, p. 444.

Certain parts of the body, sympathize with the brain in hysteria, more constantly and extensively than others; indeed, it seems, that when the brain is in that particular condition which gives rise to the phenomena constituting this disease, that the kidneys, the stomach, the œsophagus, the heart, and the scalp, almost always participate in the affection, and declare its existence. It is not necessary to the detection of hysteria, that all these parts should be simultaneously affected; they may be so in a stronger or weaker force of combination; or they may present themselves separately, and alternately; but whenever all, or even one of them exist, they or it, betray this peculiar condition of the system, and mark out the plan to be pursued for its relief.

It may be justly doubted, whether these symptoms, or even one of them, shows itself at the time the system is labouring under high arterial action; as in fevers of great force, or of malignant tendency; though they are by no means incompatible with a plethoric condition of the system; or with fevers of very moderate force; a circumstance to be noted, as it is of much practical importance.

Hysteria does not really create, or produce the variety of diseases insisted on by Sydenham; the nerves of the different portions of the body, when under the *hysterical impression*, similate a disease to which the part is liable. Thus, a fit of the stone has been similated; but a stone has not been generated; diabetes has been imitated; but a genuine diabetes has not been produced; various affections arising from ossifications of the heart, and large arteries, have been mimicked, but the assumption has been evanescent, &c. &c.

Therefore, as remarked above, when the nerves of certain parts of the body become affected by sympathizing with the brain when disposed to hysteria, the part thus situated, will assume that peculiarity of action, which it seems agreed upon all hands to call nervous; or hysterical, if you please.

Syncope, or a disposition to it, may be considered as a symptom of the hysterical affection; and may be looked upon, if not as one of its most dangerous forms, at least as one of the most frightful. Syncope may be regarded as a universal, but temporary paralysis, of all the muscular portions of the body;

this condition of the system doubtless arises from some peculiar state of the brain. And it would most probably be in vain, even where syncopes had been a habit of the system (if we may so term it,) to recognise the peculiarity of the brain, which gave rise to them, by a post mortem search.

In epilepsy, the whole of the muscular system is for a while violently agitated; while the lymphatic and glandular systems seem to be but little disturbed; yet in hysteria, all these systems are made to participate with this condition of the brain in certain cases; while in others, the glandular alone may be involved. The phenomena presented in hysteria will therefore vary, as it may be the nerves of one, or of another part of the body, that may be affected; as the force of the exciting cause may be more or less powerful; or as the predisposition may be greater, or less.

Hysteria has been called a Proteus by Sydenham; and he declares, this disease "is not more remarkable for its frequency, than for the numerous forms under which it appears; resembling most of the distempers wherewith mankind are affected. For in whatever part of the body it be seated, it immediately produces such symptoms as are peculiar thereto; so that, if the physician be not a person of judgment and penetration, he will be mistaken, and suppose such symptoms to arise from some essential disease of this or that particular part, and not from the hysteric passion." Ep. to Dr. Cole, vol. ii. p. 106.

The account given by Sydenham, has been acceded to, by almost every medical writer; and this history creates a belief that this affection can really produce almost every disease to which the body is liable; hence, the various forms or disguises, under which it is described.

Thus Sydenham declares, the hysteric passion appears under the form of apoplexy; of epilepsy; violent pain in the head; with excessive vomiting, palpitation of the heart; a dry cough; iliac passion; pains resembling a fit of the stone; cholera morbus; swellings of the hands, fauces, shoulders, thighs, and legs; pains in sound teeth; pains in the back; remarkable coldness of the surface of the body; copious discharges of limpid urine; sometimes fœtid urine with acid eructations; disturbance of mind, and lowness of spirits, &c. &c.

All the symptoms, or certainly, a great part of them, by

turns affect the same individual at different periods, as predispositions may exist, or as exciting causes may be applied; and this without any manifest disease in either the vascular, muscular, or lymphatic systems; or several of them may be present, when some one of these systems may be labouring under disease of a mild form. These combinations, however, are rarely present, when the arterial system is powerfully excited, as in fever; nor when the muscular system is much involved, as in general rheumatism, or in tetanus. They frequently combine with affections of the lymphatic system; as in these affections, when moderate, neither the vascular, nor muscular systems are much implicated; but when this system becomes much diseased, as in the last stages of scrofula, they frequently disappear, if they have been present.

The whole history of hysteria shows, that the nerves of certain parts of the body are more liable than others, to that particular state which gives rise to its phenomena; and that this condition of the nervous power, shows itself almost always in certain portions of the system; and thus its existence is readily detected. It would seem to have an election for certain parts; or in other words, certain parts more constantly sympathize with the brain, and thus are more liable, or more easily involved, than others.

It is true, Hoffman locates hysteria in the stomach; nor is this difficult to understand; since, in severe states of this affection, the stomach is very apt to be deranged; but this is but the effect of this certain condition of the brain. For there are very many instances of hysteria, and some of which I have witnessed, where the stomach is in a most perfect state of health; and I have seen cases of great derangement of this organ, where no hysterical symptoms have attended.

Doubtless the stomach, like any other organ of the body, may be a seat of sympathy; in which case, we shall have a variety of gastric symptoms, which will vary in force, as well as in character, according to the state of predisposition, and power of the exciting cause. But when this occurs, the nature of the affection will almost always be betrayed, by the presence of some other symptoms which may be considered as pathognomonic of hysteria; such as palpitation of the heart; a sense of

coldness on the top of the head; an increased flow of urine, &c. But should neither of these symptoms declare itself, we are pretty certain that the gastric affection is of an idiopathic nature, and may very often be justly named dyspeptic.

The same observations will apply, when the derangement shall be in the bowels, or some one of the abdominal viscera; hence, the importance of attending to this distinction, in all affections of these parts; and when this organ is labouring under an active malady, as inflammation, there is for the most part an exemption from the symptoms constituting hysteria; and that for the production of this, a peculiar condition of the nerves of the part, seems to be all that is required.

On the presence of the affections just alluded to, and now about to be more particularly mentioned, we may almost always detect the existence of this condition of portions of the nervous system; and determine the extent of their agency, either in modifying, or giving rise to new phenomena, in the other systems of the body. Thus, palpitation of the heart, large discharges of limpid urine, a ball rising in the throat, a sense of coldness on the top, or back part of the head, with a disposition to cry or laugh, will always point out the peculiar disposition of the nerves concerned in the functions of the various parts just enumerated; and it can be pretty certainly determined by the state of the vascular system, how far they must be considered as the cause, or the effect of existing symptoms.

In a practical point of view, an attention to the above suggestions, is of the utmost consequence—for it is certain, it is not too much to affirm, that in very many instances, that practice cannot be successful which throws out of sight this condition of the nervous system. In every affection of the body, the state of the vascular system should constantly be kept in view; for on this our success will very much depend, when treating affections, in which hysterical phenomena are present; for it will almost certainly point out, whether the nervous or vascular system is most to be attended to, and in what succession.

There are few errors more common in practice, than that of treating *nervous symptoms* independently of the circulatory

system; and hence, the too often want of success, of usually proper remedies, when administered without this regard. The belief that blood-letting, or any other mode of depleting, is injurious in nervous diseases, has very often prevented the influence of the best remedies; and consequently, has caused a disease to be protracted, and obstinate, which would have yielded almost instantly, to the common agents, had their administration been preceded by the loss of a few ounces of blood, or even perhaps by a brisk cathartic.

However ill depletion may agree with nervous constitutions under a want of excitement in the vascular system, it is nevertheless indispensable, when hysterical symptoms are accompanied by an exalted arterial action; and it should therefore always be premised. Whoever expects to be successful in the treatment of nervous patients, without paying attention to the state of the pulse, will find himself constantly disappointed; and the application of such medicines as are known to exert an influence upon the nervous system, will be sure to be unsuccessful, if not mischievous.

Who has not witnessed the want of success of opium, camphor, assafœtida &c., in an hysterical paroxysm, because attention had not been paid to the circulatory system? Yet after the loss of a few ounces of blood, they have been rendered almost immediately efficient. The connexion between the nervous and arterial system, is more intimate than is generally admitted; and to be successful in prescribing for derangements of the former, we must have a scrupulous regard to the state of the latter.

Indeed a case can scarcely occur, in which it would be safe to disregard the state of the circulation altogether in the treatment of nervous affections; for though it may not be labouring under any undue excitement at the moment, yet it may be very easily roused into morbid action, by the undue application of stimuli. And the force of stimuli should always be regulated by the susceptibility of the vascular system, if success is to follow their exhibition—thus, ten or fifteen drops of laudanum, under certain conditions of the system, may sometimes be more successful than three times this quantity in other states of it; and the same observation will apply to all the other re-

medies usually employed in nervous affections; for the success of such remedies will ever depend upon their being administered in due force, to the existing condition of the system.

It is every way certain, that plethora will often give rise to a train of nervous symptoms; now, these cases, if treated from the commencement by stimulants, or antispasmodics, will surely be aggravated in every symptom; while the abstraction of a few ounces of blood, will almost instantly tranquillize the system, and render farther applications perhaps unnecessary. It will be well to illustrate this, by a case.

Mrs. B. aged thirty years; three months pregnant with her fifth child; complained of great palpitation of the heart; lowness of spirits; head felt as if girded by a cord; easily provoked to tears; hands and feet cold, with very frequent discharges of urine; loss of appetite; nausea, and occasionally vomiting; pulse full and tense. She was ordered to lose ten ounces of blood; and to take a dose of rhubarb and magnesia. She was immediately bled; and so effectual was the relief from it, that she did not think it necessary to take the purgative medicine.

Had this case been treated with stimulants, or antispasmodics, there is no doubt, that every symptom would have been aggravated—at all events, they would not have been relieved.

I do not however mean to insinuate, that every case attended with the above enumerated symptoms, would be relieved by the loss of blood; I wish merely to inculcate the necessity of ascertaining the state of the arterial system, before a prescription is made, for what is familiarly termed nervous symptoms; and if this be found too active, to have it reduced before stimulants and antispasmodics are administered. It is also important to be mindful of the state of the circulation, during the use of the active remedies; for, it may happen, nay, it very often does, that during the exhibition of them, the pulse becomes too much excited, and all the nervous symptoms become aggravated.

To relieve this condition, it is but too common a practice, to increase the doses of the stimulants in use; which, instead of having the desired effect, but augments the difficulty. In such cases, the loss of a few ounces of blood; a brisk purge; a

suspension of the remedies; or even sometimes, a reduction of the quantity, will have the happiest result.

In the treatment, therefore, of hysterical, or nervous affections, too much latitude is commonly given to patients; than which, nothing can be more erroneous. It is generally supposed by them, that if a small dose will do good, a large one will do better; or at all events, a quick repetition of them, is every way necessary; they accordingly act upon this principle; and but too often, to their decided injury. For however proper the remedies in use may be, they can only certainly be so, in appropriate doses; if these be exceeded, either no relief will be obtained, or the complaint will be increased. It should, therefore, ever be a rule in practice, even in nervous diseases, to suit the force of the remedy, to the state of the system, as far as this may be practicable.

It will be acknowledged, almost upon all hands, that this important point has been too much neglected; hence, the but too frequent failure of remedies, in the diseases in question.

It seems, that whatever has a tendency to destroy the general tone of the system, especially if this be done gradually, will dispose the body to hysteria; hence, the certain influence of too sedentary a life; over stimulating diet, or medicines, if too long continued; long watching; disappointed hope, or abused affection; grief; terror; prolonged anxiety; &c. Some of these causes will act, by preventing the nervous system acquiring its proper tone; others, by taxing its sensibility too high; and others by exhausting, or too much diminishing its energies; &c. Hence, hysteria is most frequent in females; and at that period, which intervenes between puberty, and the final cessation of the menses.

About the period of puberty, and for a considerable time after, the system is much more affected by the remote causes of hysteria. Before puberty, the system seems less liable to affections, whose remote causes act upon the brain and nerves, than after this state has arrived; for before this period, improper physical education, or other causes, have not generally had time to do their worst, by impairing, or interrupting the force of the muscular system; or by exalting the sensibility of the nervous. And after the menses have ceased, the nervous sys-

tem has less sensibility, if up to that period, it has not been habitually too much excited.

There are, however, exceptions to this rule; I have seen several instances of well developed hysteria, before the menses have made their appearance; and a number after this discharge has ceased. From all I have been able to observe, there is no necessary connexion between any condition whatever of the uterus and hysteria; that is, as genuine cause and effect. I have repeatedly seen hysteria, in its most aggravated forms, attend upon each return of the menses in very young women; but in all such cases, the particular state of the uterus at these periods, served but as an exciting cause to this affection; for hysteria could be excited in these individuals, at other times, than at the menstruous periods, by any cause usually capable of producing it. Besides, I have seen a number of instances of genuine hysterical paroxysms in men; especially, in those who have possessed great social virtues, and readily moved to strong sympathies. I do not reckon as instances, the idiotic blubbering, or the unmeaning laughter, of very old men.

Whytt* considers, as "occasional causes" of hysteria, &c.

1st. Some morbid matter bred in the blood.

2d. The diminution or retention of some accustomed evacuation, as the menses or hemorrhoids.

3d. The want of a sufficient quantity of blood, or of blood of a sufficient density.

As regards the first, there is much reason to doubt whether any absolute cause of disease, ever *formally* exists in the blood; at least, we have no decided evidence of such a condition; the instances produced, purporting to illustrate, or prove this assumption, can be better explained by known laws of the animal system, which do not recognise this condition of the circulating mass.

The matter of gout, as it is called, is very frequently blamed for the production of nervous complaints; but whether any such substance really exists, is much to be doubted; at all events, the proofs offered of it, are very equivocal, and not to be relied on.

* Works, p. 551.

As to the second set of causes, namely "the diminution or retention of some accustomed evacuation," they can only be considered as producing some general affection of the system, with which the nervous system may sympathize; and if the predisposition is to hysteria, hysteria will show itself; if to epilepsy, epilepsy will follow; &c. but in neither of the cases can these causes act, but indirectly—or in other words, they never directly produce that particular condition of the nervous system, which is essential to the existence of hysteria.

The third set of causes may, and, we believe, sometimes do occasion convulsions; and though every hysterical paroxysm is attended with convulsions; yet, every convulsive motion of the body, is not an hysterical paroxysm. When the hysterical predisposition exists, any severe and exhausting discharge, may occasionally produce the hysterical paroxysm; but not always, as the following statement will show.

Mrs.——, from an early period of her life, was subject, from even slight causes, to severe hysterical paroxysms. During her pregnancies, she was often attacked by this affection; and was relieved by the common remedies. In one instance, she had a paroxysm during labour; but it neither deranged the economy of this process, nor required any particular treatment. After the birth of the child, she was attacked with a violent, and exhausting flooding, from which she was relieved only by the most active treatment. She continued very feeble for several months; but during which time she had no hysterical paroxysm; nor did any occur, until she again recovered her usual health.

When a predisposition to hysteria exists, or the disease has been once called into activity, a great variety of causes may excite a paroxysm of greater or less force. An hysterical paroxysm, properly so called, is where the system is thrown into that violent agitation, called "a fit of hysterics." A vast variety of symptoms may from time to time manifest themselves, such as palpitation of the heart; globus hystericus; large flow of limpid urine; rumbling of wind in the bowels; belchings; acid stomach; whimsical appetite; tremblings; cold feet and hands; &c. but these are termed nervous symptoms.

Sometimes the paroxysm comes on very suddenly, and is in

full force in an instant; at others, there will be a number of symptoms which announce the fit to be at hand, such as headach, of a piercing kind; oppression about the præcordia; heaving of the chest; difficulty of breathing; alternate laughing and crying; &c. All these symptoms, however, may exist without being followed by a "fit;" but when they are present, it is always to be apprehended; especially, when crying or laughing be one of them.

Laughing, and crying, are among the most remarkable symptoms of hysteria—they may alternate with each other; or they may exist separately; but whether separate, or combined, they are almost always accompanied by an alienation of mind, which discovers itself, by a rapid, incoherent, or desultory talking; but almost constantly dwelling upon the cause of their indisposition, particularly if the exciting cause has been of the moral kind. At other times, the patient employs herself in singing melancholy, or lugubrious airs. I have seen this last circumstance, produce a wonderful effect upon the attendants of the patient. I knew a lady who sang most sweetly at all times; but when under an hysterical paroxysm, her voice, manner, and the subjects of her songs, were so touching, as to dissolve all those around her into tears.

An "hysterical fit," when violent, is extremely awful; the violent, and varied contortions of the body, would seem to threaten dislocations over the whole body; while the swoln face, the protruding tongue, the starting eyes, the gnashing teeth, the appalling scream; render the whole scene one of great horror. Sometimes the hair is deracinated by handfulls; the chest is beaten by the clenched fist, with threatening violence; while the whole muscular system is endowed with a strength, that bids defiance to all attempts at restraint.

The sphincter ani, like the other muscles of the body, participate in this unnatural state of action; for it is found contracted so firmly sometimes, as to prevent the introduction of the pipe of a small syringe.* The abdominal muscles are violently contracted sometimes during the fit, and especially about its central portion, the navel.

* Cullen.

Dr. Cullen says, and it entirely agrees with our experience, that this disease "more especially affects the females of the most exquisitely sanguine and plethoric habits, and frequently affects those of the most robust and masculine constitutions;" but it is not confined to such; for the nervous and irritable are also liable to this affection. By the nervous and irritable, we understand such constitutions, as are affected, or easily moved, by slight exciting causes. This condition of the system, may be either constitutional or acquired. Improper physical education, will render almost any constitution nervous or irritable, if it be continued sufficiently long; hence, those who indulge in habits of idleness, too high living, lying in bed too much, night watching, &c. &c., are almost sure to possess this peculiarity; or this peculiar condition may exist as an original state of stamina.

Under such circumstances, hysteria will almost certainly be generated, if the exciting causes be applied; and hence it is, that delicate females are more liable to it, than robust women or men; and hence, women of this constitution are almost sure to be affected with nervous tremblings; palpitation of the heart, syncopes, &c.; though otherwise enjoying very good health. In such also, may readily be excited hysterical paroxysms, or convulsions; for either the active passions, or emotions of the mind, as anger, revenge, jealousy, and even surprise; or the passive ones, as fear, grief, or disappointed hope, will oftentimes, in a moment, have this effect.

Disease may produce this state of the nervous system, in constitutions not previously disposed to this condition; hence, we sometimes see hysteria follow recoveries from long protracted illnesses; especially in females. In such cases, there does not appear to be any increase of nervous sensibility; it is rather an altered condition of the nervous system; as it now becomes obnoxious to causes, which would not previously have affected them. Hence, the wonderful effects of certain odours, medicines, or even sounds, at such times of nervous peculiarity.

I have known two or three instances, where the smell of the tube rose, the lily, or the lilac, have been followed by faintness and palpitation of the heart; though previously to the

illness, they had no such tendency.* I have known the very name of rhubarb, and of the Peruvian bark, excite the most violent disgust, and sickness of stomach. I know a gentleman who cannot drink a glass of any of the white wines, though formerly fond of them, in consequence of having frequently been puked with antimonial wine, during a tedious fever. Mr. Boyle, (Usefulness of Experimental Philosophy,) tells us of a gentleman, who could be more violently puked by coffee, than by crocus metallorum, or other strong emetics; and was made sick constantly by its smell, though he formerly drank it without the slightest inconvenience. I knew a lady, after recovery from a protracted typhus, agonized by the sound of distant thunder; she was less affected, when it was near and violent. And Boyle, (Usefulness of Experimental Philosophy,) also relates the case of a lady, who, upon hearing the sound of a bell, or any loud noise, would swoon so deeply as scarcely to be distinguished from death.

Those who have the misfortune to labour under this idiosyncracy of nerve, are peculiarly unfortunate; as they are constantly liable to be affected by causes, which have not the slighest influence on others; and to such, become but too often the object of cruel and ill directed ridicule. Because affections of this kind do not often kill; and because the subject of them very often enjoys otherwise very good health; it is with too much facility supposed, that every evil they experience, is but the imaginings of a distempered brain.

### *Exciting Causes.*

The liability to attacks of hysterical paroxysms, is very various in different individuals; while some have them provoked by the slightest causes, others require that they shall be either powerful, or long continued. Instances have fallen under our observation, where the most trifling alarm, the smallest disap-

* Dr. Whytt details several similar instances from this kind of change in the nervous system; he says, "thus several delicate women, who could easily bear the stronger smell of tobacco, have been thrown into fits by musk, ambergrease, or a pale rose." "The smell of cheese has almost always occasioned the bleeding of the nose in some." (*a*) Works, p. 543.

(*a*) Kaau Boerhaave.

pointment, or the slightest provocation, would almost instantly produce a "fit" of longer or shorter duration, or of greater or less violence. While, on the other hand, we have known them require the most powerful of the exciting causes, to give rise to them.

They all, however, seem to act through the medium of the sensorium commune; at least, this would seem to be the case with genuine hysteria; and may serve to distinguish it from several affections of the system, with which it is almost constantly confounded. Thus, we see syncope from exhaustion; from peculiar odours; from pain; from nausea; &c., confounded with hysteria, with which, perhaps, it has no necessary connexion; though it must be admitted, that the hysterical diathesis, if we may so term it, may give rise to syncope in certain cases.

Whytt* enumerates six different occasional, or exciting causes, "of nervous, hypochondriacal, and hysteric disorders;" for he confounds them under one consideration; they are as follow: viz.

1. Wind,
2. A tough phlegm, } in the stomach and bowels.
3. Worms,
4. Aliments improper in their quantity or quality.
5. Scirrhous or other obstructions in the viscera of the lower belly.
6. Violent affections of the mind.

### 1; 2. *Wind and tough Phlegm in the Stomach and Bowels.*

One of the most common symptoms attendant upon nervous affections, is the elimination of air in the stomach and bowels, when these parts are the seats of sympathy; but this phenomenon does not necessarily attend the hysterical diathesis; for these parts do not always become affected by the prevalent disposition, or diathesis; and when they do not, the extrication of "gas" will not take place.

But should the stomach and bowels be involved in the general diathesis, these parts may suffer great distention from

* Works, p. 570.

flatulency. But in such cases, the "wind in the stomach and bowels," is but the effect of a certain condition of these parts, and consequently cannot be the exciting cause of hysteria, or any other nervous affection. In what this particular condition, which gives rise to the extrication of "gas," consists, it is impossible to say; but that such a disposition exists, is notorious to every body.

It may, perhaps, consist of two conditions of these parts, altogether different from each other; one is said to be occasioned by a relaxed state of these parts; which suffers them to be distended by the air disengaged from the ingesta, during an imperfect digestion; hence, a "windy stomach," almost always attends dyspepsia. The other condition consists, perhaps, in the secretion, or elimination of "gas" from the extremities of the vessels, terminating upon the internal surface of the stomach and intestines.

We believe, that the latter circumstance, obtains most frequently in hysteria; the former, most common to dyspepsia; yet, it is possible, they may interchange. It is now some years, since the belief of the "secretion of air" in various parts of the human subject, was suggested; (by whom, is not at this moment recollected,) and that the stomach and bowels appear to be most obnoxious to it. This secretion, or extrication, takes place under certain circumstances, independently of any permanent loss of tone in these parts; and this with a suddenness, that is sometimes truly astonishing. It has also disappeared with a celerity, that is incredible. The following case, is one of the most remarkable we have met with:

Mrs. ——, aged twenty, was much subject to hysteria of a violent kind, whenever her mind was disagreeably affected. The manner in which this showed itself, was very remarkable, as it seemed to be almost constantly subject to metastasis; that is, after the convulsive action had continued for some time, it would suddenly cease; she would regain possession of her senses, and would talk rationally upon any subject which might present itself. This calm, however, would last but a short time; for she would now be seized with the most violent spasms of the intestines, and of the abdominal muscles, that can well be imagined; the abdominal muscles would be drawn back-

wards with such force, as to make the belly resemble that of a person who was extremely emaciated; when in almost the twinkling of an eye, it would become distended almost to bursting; in this manner, these conditions would alternate with each other, several times in the course of a few minutes; then an interval of perhaps an hour or two, would generally take place; or even longer, if the patient was not disturbed.

There was a strong disposition to sleep, whenever the pain would abate sufficiently to permit it; and this would be enjoyed for a longer or shorter period, as she could be kept more or less quiet. Indeed, the paroxysm would almost certainly go off, if this state of sleep could be preserved; but this was a matter of great difficulty, as the slightest noise would awake her; and the instant she was so aroused, the spasms would return with extreme violence.

The distention of the abdomen was sometimes enormous; full as large as she ever was at the last period of utero-gestation; yet this fulness, would oftentimes be removed, in almost an instant, without our understanding in what manner the distending gas was disposed of. It was certainly not discharged, by either mouth or anus; yet it was certainly dissipated, by some agency or other.*

The spasms of the bowels, and the production of gas, would cease sometimes suddenly; the patient would then become very drowsy, nay, for a while, lethargic; but from which she would generally awake after a longer or shorter time, perfectly well. At other times, when the brain would become more powerfully assailed, she would have the appearance of apoplexy; the breathing would be laborious, and even stertorous; the cheeks and lips livid; convulsive twitchings of the muscles of the face; the skin cold and clammy, and the pulse depressed. Nothing relieved this state of the system, but large blood-lettings; and these never failed, if carried to a sufficient extent—indeed, the only rule we observed in drawing blood, was to continue the abstraction of it, until there was an abatement of these threatening symptoms.

* We do not wish to be understood to say, that it never passed by the mouth; for it certainly did so occasionally—but it was rare; yet when it did, it was in such a torrent, as to suspend respiration so long, as to threaten suffocation.

I do not recollect a single instance of failure, when the blood was freely abstracted; it has occurred, that this operation was repeated; but this was constantly owing to too small a quantity being taken at first. These paroxysms, of cerebral determination, were sometimes more easily relieved than at others; that is, the loss of much less blood, would answer at one time, than at another. The loss of twenty, or five-and-twenty ouncess, would answer sometimes; but it might require forty upon another occasion.

While the affection was confined to the stomach and bowels, nothing could exceed the severity of suffering; nor was it ever controlled by any of the usual remedies for such affections. Immense doses of anodyne, and antispasmodic medicines were given, without the slightest abatement of pain; but an emetic of ipecacuanha, would almost immediately put an end to the spasms.

From the uniform relief procured by emetics, it might be supposed, the symptoms arose from some undigested substance in the stomach; but this was not the case; for the emetic did not bring, in a single instance, the remains of food previously taken—for the discharge would consist of a small quantity of a thin watery substance, of an acid smell. I do not think, in any instance, that the quantity thrown up, would exceed a pint; but no sooner was this discharged, than the patient would be relieved altogether, or have but slight, and distant returns of pain.

In this case, the obvious remedy was an emetic; and this was constantly proposed; but singular to say, that notwithstanding the uniform and sudden relief procured by it; notwithstanding the employment of it was importunately urged in the commencement of the affection, its use was resisted, with a pertinacity, that could only be overcome by a long continued, and severe suffering.

Sometimes, this remedy was resisted, until the disease shifted its ground, by the head becoming the seat of the metastasis; when this took place, blood-letting, as just remarked, was the only remedy. It was not unusual, after bleeding, to find this hysterical paroxysm terminate by a violent gush of tears; or

by obstreperous laughter, and an immense flow of perfectly limpid urine.

It has been remarked, that during the sleepy state of this disease, this patient was easily aroused; indeed, a morbid sensibility of the ear seemed to be always present; a person speaking, even below the ordinary tone of voice; the moving of a chair, however cautiously; the fall of the smallest body upon the floor, which would scarcely be noticed by those around, would arouse her with alarm, and renew the spasms. These would continue sometimes for half an hour, with much severity; they would then either abate, or she become so overpowered by drowsiness, that she would again relapse into sleep, from which she might again be disturbed by the slightest noise. In this way she would continue, alternately sleeping, and suffering, from twenty-four, to eight and forty hours; or until the paroxysms seemed to wear themselves out, or were interrupted by an emetic, or by a large blood-letting. I never knew the spasms to return, after they had been translated from the stomach and bowels, to the brain, and producing the apoplectic condition just mentioned; for under this form, it was always found necessary to bleed; and this never failed to relieve.

But, when merely heavy sleepiness was produced, they would be very frequently renewed, as just stated; unless she could be kept perfectly silent, which was next to an impossibility; owing to the slightness of the noise that would arouse her.

It is very common for the stomach to eructate a great deal of "gas," at the termination of an hysterical paroxysm; from which, the patient finds much relief. In consequence of this, it has been supposed, that "wind," pent in the stomach, was the exciting cause of the hysterical paroxysm, whereas it is only a consequence. For this "wind" from the stomach, takes place sometimes, where there is not a dyspeptic state of the stomach. Dr. Cullen* confesses this, by saying, "persons liable to hysteria, are sometimes affected at the same time with dyspepsia. They are often, however, entirely free from it."

The relief obtained in such cases, is of two kinds; first, the paroxysm terminates (most probably,) by the vessels of the stomach pouring out "gas;" as inflammation is often relieved,

* First lines, vol. ii. p. 256, par. 1519.

by the vessels concerned, pouring out serum. It may also be relieved in some cases, by the vessels freeing themselves of serum, and this perhaps of a particular quality. For Whytt has recognised "a tough phlegm" in the stomach, as just noticed above, as an "occasional cause" of hysteria; we only contend for its presence, and its being the effect of a paroxysm. In the case above related, immediate relief was constantly experienced, if an emetic was given; yet the emetic never did more than to bring off a quantity of fluid mucus, of an acid smell.* The emetics, in these instances, most probably hastened, or aided the vessels to relieve themselves. For certain it is, this fluid could not be the cause, since it was not always evacuated; for an emetic was not always exhibited. And when the brain took up the wrong action, the paroxysm was sure to be terminated by blood-letting.

The second kind of relief was obtained, by the removal of the cause of a painful distention of the stomach; for this organ suffers extremely sometimes, from "wind" confined in it; as we see, when "gas" is extricated from food, over which it has not sufficient control. What the precise nature of the "gas" is, which is eliminated from the extreme, or surface vessels of the stomach, is perhaps at present impossible to say; as we do not know that any experiments have been made to ascertain it.

In the case of the lady above related, when the wind was discharged by the mouth, it would pass in such a continuous stream, as to suspend respiration for a considerable time; and the quantity thus disengaged was so enormous, as to justify us in setting it down at several gallons. We witnessed several instances of the escape of this "gas;" it had no taste to the lady; nor had it smell to the by-standers. In this latter respect, it certainly differed from the air disengaged during the process of an imperfect digestion; for the "gas" belched by

* It seems, that hysteria is not the only disease classed under the nervous, that experiences relief from the discharge of viscid matter. Whytt relates the case of "a girl aged fourteen years, who had been troubled with chorea sancti viti, who was seized with measles. A few days after her recovery, she had a return of her former distemper, which, after it had continued a fortnight with little abatement, notwithstanding the use of several remedies, was entirely removed in a few days, by a natural looseness, by which she voided a great deal of slimy stuff."

dyspeptic patients, smells and tastes, almost always, of the food from which it is liberated.

### 3.—*Worms.*

Worms, in the intestinal canal, will produce, as is well known, a great variety of formidable symptoms, especially in children; such as great appetite, inflations of the abdomen, cough, vomiting, tremors, convulsions, &c.; but such symptoms should not be considered as hysterical. For these events take place almost always before the hysterical diathesis is generated; nor do they perhaps require any particular condition of the system, like hysteria, to have them produced; it is sufficient, that these animals irritate the intestines to a certain extent, to have the above train of symptoms, and sometimes many more, to present themselves.

At a more advanced period of life than childhood, these vermin may prove the exciting cause of an hysterical paroxysm, where this diathesis exists: or they may be even the remote cause of this condition of the system. We have witnessed, in a lady, violent attacks of hysterical "fits," from the presence of a tape worm; which continued pretty regular in their attacks for several years. The following relation of the case may not be unacceptable.

Mrs. ———, the mother of several children, and generally enjoying good health, though of a nervous temperament, was seized, about the beginning of the year 1821, with a variety of *nervous* symptoms; such as palpitations of the heart; globus hystericus; disposition to cry, from very slight, or even no apparent cause; vertigo; ringing in the ears; headach; and large discharges of pale urine. She took a variety of remedies for these affections, by the advice of her mother, and other friends, with temporary advantage. But it was found, that each of these symptoms increased in force, as well as frequency; and from slighter causes than before; and at length a regular hysterical paroxysm, of great violence, was produced.

She was bled, took assafœtida, laudanum, &c. and was, after a few hours, restored to her usual health, which was still pretty good, though evidently on the decline, notwithstanding the

employment of a number of "certain cures" for her complaint. The "fits" were now repeated from time to time; but each succeeding one appeared to acquire an increase of force and duration. Her appetite and strength now failed rapidly; she vomited, almost every morning, a glairy tenacious substance, which was without taste; severe pains in the abdomen, especially on the left side; her rest was much disturbed; almost constant headach, &c.

The "fits" now bore a stronger resemblance to epilepsy than to hysteria; that is, she would be seized, while walking the floor, with only an instant of warning; whereas, formerly, the "convulsion" would be preceded by the usual premonitions of hysteria. There was less struggle during the paroxysm, and some frothing at the mouth; but the duration was much shortened. She would however remain very feeble for several days after each attack; and be assailed by the feelings common to nervous affections.

The progress and changes stated above, occupied a period of about three years; the "fits" now returned every three, four, or five weeks, without any apparent exciting cause; but these periods would be occasionally anticipated, when her mind was affected by any unlooked for occurrence of a disagreeable kind. About this time, she was advised by some friend to try strong salt and water, in pint doses, every morning for nine mornings; for it was now believed she had a tape worm. She did so, most perseveringly, notwithstanding the severe effect it produced on her stomach and bowels; and she was amply rewarded for her resolution, by the discharge of a portion (as was supposed) of a tape worm, seven yards in length. Her health improved very much after this; though occasionally subject to slight hysterical paroxysms; but nothing like so frequent or so severe. She has had but two for the last eighteen months; and these were light. She has since borne a fine healthy child, after an interval of seven years.

### 4.—*Aliments improper in their Quantity or Quality.*

Almost every body has experienced the truth of the old proverb, that "what is one man's meat is another's poison;" and

consequently, it will be ever found difficult to regulate diet, by any prescribed quantity, or any particular quality; for they must be looked upon as relative terms. Nothing can exceed the variety of dispositions (if we may so term it) in the human stomach; it is capricious at times, in the extreme; while at others, it will suffer great abuses, and this for a long time, without resistance, or complaint. Experience alone, in many instances, is the only safe guide, by which the food, in either quantity or quality, can be regulated in nervous and dyspeptic patients.

It is therefore not to surprise us, that directions for the use of food in such constitutions, will often prove unsuccessful, if not improper; hence, nothing is more common, than peculiarities in the digestive process. Indeed the same article, and the usual quantity, will sometimes fail to be digested, though it may generally prove very grateful to the stomach; for should this organ be in a state of sympathy, or of nervous excitement, the most familiar, and commonly acceptable food, may prove the exciting cause of an hysterical paroxysm. For this reason, we should never fail to inquire, whether any thing unusual has been taken into the stomach, when about to prescribe for an hysterical paroxysm.

I knew a lady subject to hysteria, who could tell by her feelings, she was about to have an attack, two or three days before it would take place.* When under this impression, she was obliged to be very careful in the government of her mind, as well as cautious in her diet; for as certainly as the one was unpleasantly excited, or the other neglected, she would have an hysterical paroxysm. While, on the other hand, if she was successful in avoiding mental excitement, and did not overtax her stomach, she would generally avoid the "fit." But it must be remarked, though she avoided a paroxysm, she was sure to be inconvenienced by headach for several days.

* The hysterical paroxysms in this lady, were periodical; the attacks, though severe, were by no means frequent; yet she rarely had an attack, without a warning of two or three days; or in other words, she had occasionally certain feelings, which she knew would terminate in an hysterical "fit," if she did not studiously avoid exciting causes.

### 5. *Scirrhous or other Obstructions in the Stomach, Intestines, &c.*

Whytt* has taken some pains to establish his opinion, that the scirrhous affections of almost any of the abdominal viscera, will occasion nervous, hypochondriacal, and hysterical affections. He has given several histories of cases, with dissections; but neither of them prove the point at issue; for there is no evidence whatever, that the affections developed by the knife, gave rise to the few nervous symptoms detailed in the cases. At all events, there was no hysteria produced; hypochondriasis may have been; since the stomach, in almost every case, was much diseased.

So far as our own observations have extended, we have had no reason to suspect hysteria to be produced by derangements in any of the chylopoietic viscera; they may, and perhaps do augment the paroxysms, by disturbing the general economy of these parts; or they may perpetuate the disposition, by preventing the return of healthy action in the system; but there is strong reason to doubt their being the remote cause of this affection.

We have repeatedly seen great derangements in the liver, spleen, stomach, intestines, and even the uterus itself, where there was the most entire exemption from hysteria. We do not, however, mean to insinuate, that these two conditions may not exist in the same person; we wish merely to deny, that these obstructions are causes of hysteria.

### 6. *Violent Affections of the Mind.*

No one can, for a moment, hesitate to acknowledge the influence of the mind upon the nervous system. Passions and emotions may not only prove the exciting, but they may also serve as the remote causes of hysteria. The experience of almost every body can furnish illustrations of these facts; and medical records abound with remarkable examples of them. They must, therefore, be admitted as such; though we cannot pretend to explain, by what agency or changes it is effected.

* Works, p. 575.

Through the medium of each sense,* hysteria has been produced, if we credit writers upon the subject; nor does it require much credulity to believe them, from what we constantly witness from a part of them.

Thus, hysterical paroxysms have been produced, by seeing others afflicted with it. The most remarkable instance of this kind, is the one related by Kaau Boerhaave,† as having happened at the poor house at Harlem. The disease, in the first place, was excited by the operation of terror upon the sensorium commune; and it was arrested by a terror of a more violent kind, through the same medium. I knew a lady, who would be thrown into an hysterical paroxysm, by the sudden report of a gun. Certain odours, as noticed above, have been known to do the same; at least to produce fainting. I once saw a lady thrown into a severe "fit," by placing her hand accidentally upon the back of a cat, for which animal she had a great aversion.

### *Diagnosis of Hysteria.*

Sydenham, and some others, think the analogy between hysteria in women, and hypochondriasis in men, is so strong, as to consider them to be one and the same complaint; but this is certainly not the case. Hoffman looks upon them as distinct diseases; and Cullen strongly inclines to the same opinion; at least he arranges them under different genera. He places

* With the exception of the sense of taste. I have never met with an instance of hysteria, produced by disgust to the palate.

† Kaau Boerhaave, the nephew of the celebrated Boerhaave, relates an occurrence of a very remarkable kind, as having taken place at the Harlem hospital. A girl was brought into the ward in convulsions of a periodical kind; the convulsion was repeated the next day, which affected several who beheld her, in the same manner: and in a few days more, all were affected, who were in the same ward, whether they were girls or boys. This became so general, as to excite great alarm; every means, which experience had found useful hitherto in such affections, were tried in vain. They at length sent for Boerhaave himself. He directed, that a variety of iron implements should be heated red hot in a furnace in the ward, and be in readiness at the time these convulsions were wont to make their appearance; and ordered, that the first one that was seized with the disease, should be burnt on the arm, with the heated iron, to the bone. This so alarmed the subjects of this affection, that in an instant a stop was put to the complaint.

hypochondriasis in the class of Neuroses, and the order Adynamiæ; and hysteria in the same class, under the order Spasmi.

It is not a little surprising, that Sydenham, one so proverbial for his accuracy, should have confounded these diseases; especially, as their characters are pretty strongly marked. 1st. The subjects of attack, are by no means the same, as far as temperament will constitute a difference: for we have noticed, that hysteria is most common to women, and those of a sanguine and plethoric constitution; whereas, hypochondriasis has more frequently men of a melancholic temperament for its objects. 2d. Hysteria is relieved very often as life advances; whereas, the other is almost always aggravated. 3d. The pathognomonics of hysteria, as Dr. Good very justly observes, such as, "the convulsive struggling paroxysms, the sense of a suffocating ball in the throat, the fickleness of temper, and the copious and limpid urine, have no necessary connexion with hypochondriasis, and are never found in this disease, when strictly simple and idiopathic. While, on the contrary, the sad and sullen countenance, the dejected spirits, and gloomy ideas, that characteristically mark hypochondriasis, have as little necessary connexion with hysteria, and are in direct opposition to its ordinary course." Vol. iii. p. 353. An attention to these marks will serve to discriminate the two diseases perfectly.

### *Treatment.*

Dr. Whytt,* when about to lay down the cure for "nervous disorders," makes use of the following judicious language: "it will be proper to observe, that, as it is generally in the power of medicine to relieve, it is frequently beyond the power of art to eradicate the disorders we now treat of; and, therefore, it may be often of use to intimate this to our patients, especially to such as have fortitude enough to bear those evils, which can neither be wholly prevented, nor fully cured. It is further necessary to acquaint every patient, that, without a long perseverance in a course of medicines, diet, and exercise,

* Works, p. 632.

no great or lasting benefit can be expected. To this purpose is the following passage of Montanus, which equally deserves the attention of such patients as are affected with nervous ailments, and of the physicians who undertake their cure." "In curatione *hujus morbi* (sciz. hypochondriaci) non licet præfinire tempus mensis unius aut anni, sicut in aliis contingat; sed oportet in toto vitæ suæ tempore curationi operam dare, interdum curationi, interdum præservationi, attendendo."

Hysteria is seldom cured so effectually, as that the patient shall have no farther returns of it, should an exciting cause be applied; yet we know, from ample experience, that it can be much mitigated, by proper moral and medical discipline. Too much, we believe, has been taken for granted by medical men, upon the subject of this disease; for it seems to be admitted, and this with by far too much facility, that little or nothing can be done for hysterical patients, beyond the temporary relief of the paroxysm. This indifference upon the subject of hysteria, has prevented sufficient inquiry into the nature and causes of this formidable disease; and the modes of treating it remain very much the same, as they did in the time of Sydenham.

The difficulties experienced in the treatment of this complaint, appear to us to be rather accidental, than essential; and this belief is founded on the following well established facts; namely, first, we now and then see females, who have been subject to it at one period of their lives, exempt from it at another; second, care taken to avoid the exciting causes, will, for many years together, prevent the return of the paroxysms. Now, it would seem, that if this affection can be removed, or even considerably relieved, either by means which we do not exactly understand, by the proper exercise of moral restraints, or by the removal of certain exciting causes, we might be encouraged to hope, that the proper application of means, when the pathology of the disease shall be better understood, might be successful. But if hysteria be always looked upon as one of the opprobria medicorum, it cannot be expected we shall be much better acquainted with its nature, or method of cure.

It is ever proper that the medical man should hold the opinion, that every disease is susceptible of cure; for the belief

will stimulate to investigations, that may frequently result in success; but if he permit himself to believe, that certain diseases are without remedy, exertion will be paralyzed, and inquiry will cease. The lues venerea, intermittents, and doubtless many other diseases, were, at different periods of the world, thought to be incurable, however easy of subjection they may be at the present day.

The following cases will show that this formidable complaint may be subdued by moral and physical causes.

*Case First.*

Mrs. ——, of sanguine temperament, married early in life, and became the mother of a large healthy family. She herself enjoyed uninterrupted good health, until her previous habits were broken up, by her husband, from successful speculations, becoming very rich. She was now under no necessity of *working* for the sake of her family; every thing that money could purchase was at her command. She occupied a large house; employed a number of servants; and performed in a carriage, that which was before done on foot. She fed high, and became really luxurious. But this change of fortune had its penalties; and they were severe ones; she became very corpulent, listless, and extremely nervous. She was frequently assailed by hysterical paroxysms of long and severe duration; she became peevish to all around her; and jealous of her husband. Every action of his life was misinterpreted, though he was one of the best and most moral men in the world; and frequently did her "fits" arise from this overweening anxiety for her husband's conduct.

She continued in this fretful and anxious state for a number of years, and became so debilitated at last, that she could not leave her chamber for months together; and it was thought by her medical attendants she must soon sink under her malady. But at this time, the scene of prosperity was, by one of those changes common to mercantile life, suddenly changed for that of comparative poverty. Her husband gave all his effects to his creditors; and after satisfying them, little remained. The effect of this reverse upon the disease of the lady, was no less sudden than salutary; and that which it was thought would cause

her death, proved her cure. For from this moment, she discharged her servants; gave up her coach; dismissed her physicians; and instantly reinstated herself in her former occupations, and reassumed her former habits, as far as her state of health would at the moment permit.

In consequence of this change of circumstances, her moral energies were roused, and she quickly showed to the world, that her temporary elevation had not unfitted her for a profitable return to her former habits; and by exercising them, she soon regained that health, which had been but too certainly sacrificed at the shrine of wealth; for after the first shock was over, she never had an hysterical paroxysm.

*Case Second.*

A lady, born in a northern climate of Europe, went with her husband, after being the mother of three children, to one of the West India islands. Here her health soon suffered from the climate; she had frequent abortions; by which she was much reduced by the attending hemorrhages. She became very hysterical; and paroxysms would be produced by the slightest causes. Her physicians advised she should be taken to a northern climate; and she arrived in Philadelphia in a most reduced state.

She would not unfrequently have three or four "fits" in a week, for some time after her arrival. She had aborted a few weeks before her arrival, and was still labouring under a coloured discharge from the vagina. The usual tonics were administered with advantage; and she soon acquired an addition of strength; the uterine discharge was arrested, and the hysterical paroxysms were diminished both in force and frequency. The first object in view was the renewal of strength; and the second to prevent, while she continued so feeble, impregnation; as had been the case too often before.

The husband had business in Europe; and we begged him to hasten his departure, or exercise forbearance; for which we candidly gave our reasons. He went; and his wife improved daily under the use of the cold bath, air, exercise, and a strictly regulated diet, both as to quantity and quality. Her strength

improved daily; her appetite increased; her digestion was well performed; and her alvine excretions regular. She would now be weeks together free from hysterical attacks; and by pursuing this plan regularly for fourteen months, she lost them altogether; for she has had no return up to this moment, a period of five years. Her husband returned after an absence of eighteen months, and she has since borne two live born children. In consequence of her improved health in this climate, she has been permitted to remain.

In these cases it is seen, that established hysterical paroxysms, with their attendants, were subdued by changes of a moral and physical kind; and that they hold out encouragement, to treat this affection as one capable of cure. But we must repeat, that success can only be expected, where the patient will most sedulously co-operate with the exertions of the physician.

The treatment of hysteria, will embrace what is proper to be done during the paroxysms, and what may be necessary in the intervals.

### 1. *Of the Paroxysm.*

The management of the paroxysm, is oftentimes one of great difficulty, from the excessive force with which it agitates the body. The whole muscular system is violently exercised; and this to a degree, even in feeble women, that almost exceeds belief. The circulatory system is almost always excited; and a strong determination to the head, is declared by the suffused cheeks, the swoln face, the blood shotten protruding eye, the distended jugulars, the throbbing carotids, and mental alienation.

Notwithstanding these strong evidences of the determination of blood to the head, many practitioners doubt the propriety of blood-letting in hysteria, because they declare it to be a "nervous disease;" and that drawing blood is always injurious in such cases. Such sweeping declarations, must necessarily be very often wrong; and tend too decidedly to retard improvement in the practice of medicine, since they are almost always based upon narrow, or imperfect views of the animal system. They should, therefore, always be received with hesitation, and acted upon with caution. We have remarked

above, that this prejudice against blood-letting, for it deserves no better name, has retarded the cure of many of the affections termed nervous; this apprehension should therefore be laid aside, and more reliance placed upon the state of the circulating system. The pulse should constantly be our guide upon all such occasions; and if this be properly studied and well understood, it will always direct us safely, in the employment or the withholding of the lancet.

The condition of the system during an hysterical paroxysm, is one of high excitement, almost always; nor will this surprise us, when we reflect upon the period of life, the kind of temperament, the nature of the exciting causes, and the importance of the parts principally concerned in the disease. Besides these general reasons, which are of no small force, we shall find one still more powerful in the pulse itself. It will almost always be found rapid, full, and tense, and most unequivocally declaring the necessity of abstracting blood, and this sometimes to a large amount.

We therefore, with very few exceptions, direct the loss of blood, to an extent that shall decidedly diminish the force of the pulse, before we employ any other remedy. Bleeding does not often put an end to the fit immediately; nor is this expected of it: it however prepares the way for other remedies to be successful, which would not be the case without it. Nor is this all; it always, we believe, shortens the "fit;" and certainly, very often prevents its becoming protracted, or ending in mischievous determinations.

After bleeding, we may safely employ other remedies, agreeably to presenting indications, with much more certainty and safety. We should inquire into the nature of the exciting cause; and be much directed by its nature. It may be owing to a passion, or an emotion of the mind; if this be so, sedatives and antispasmodics should be given. They may be administered by the mouth, or by the rectum, as may be most expedient. If the patient can be made to swallow, and it rarely happens that she cannot, if advantage be taken of an interval, laudanum in a full dose should be given, and may be repeated, if required, in half an hour, hour, or more seldom, as necessity may require. It may be combined with a solution

or the tincture of assafœtida, in drachm doses. Cold water may be freely dashed upon the face, or even a stream of it turned upon it.

Dr. Whytt, (Works, p. 693) after enumerating a number of remedies thought to be useful in the paroxysm, winds up with the following declaration: "But there is no remedy which I have found so effectual, in removing hysterical faintings, with convulsions, as the warm *pediluvium*; for, after many other things had been tried to no purpose, I have seen the patients restored to their senses, almost instantly, by putting their feet and legs in water, a little more than blood-warm. And it was remarkable, that upon the discontinuing the *pediluvium* too soon, the faintings and catchings often returned in a less degree, and the pulse became smaller and irregular. In a few cases, where the patients were plethoric, and the convulsions very strong, the *pediluvium* has failed."

Of this remedy, in the convulsive stage of hysteria, we can say nothing from our own experience; but the authority of Dr. Whytt, is sufficient to produce a reliance in it. The only objection we perceive in the use of the *pediluvium*, is the difficulty of its application, at the moment the patient is convulsed—flannels, or a blanket wrung out of hot water, and applied to the legs, might answer. His last observation, on the cause of the failure of this remedy, is worthy of remark; namely, that "where the patients were plethoric, it failed;" this clearly points out the necesssity of that strict attention, we have recommended, to the state of the pulse.

It is recommended by almost all writers, and certainly practised by all by-standers, to hold volatiles, and other stimulating things or substances, to the nostrils, during the "fit."* This is certainly a very doubtful practice, where the system is much

* Dr. Whytt recommends the employment of such substances during the fit; he says, "these medicines, by the strong and sudden impression they make on the very sensible nerves of the nose, not only tend to excite the several organs into action, but to lessen and destroy the disagreeable sensation in that part of the body, which brought on the "fit." Works, p. 692, 693. But a little while after, we find him at variance with himself, by saying, that "warm water is not only the speediest, but the safest cure for hysteric faintings; while strong volatiles, held to the nose, are apt to throw some delicate women into more violent convulsions." P. 693.

excited, and the convulsions violent. It is applying a powerful stimulus to a very sensitive part; a part that very powerfully sympathizes with the brain, and most probably the brain with it, at a time when the abstraction of stimuli is highly desirable. This practice most probably arose from the success of such substances in syncope; but between syncope and an hysterical convulsion, there is not the slightest analogy; in one instance, the muscular, the arterial, and nervous systems, are violently excited; in the other, they are for the time being paralyzed.

At a very early period of our medical practice, the propriety of this plan was doubted; this arose from seeing a person in an hysterical paroxysm, constantly thrown into a convulsion, by the application of the volatile spirit of hartshorn to the nose, while she lay in a state of comparative tranquillity, after an exhausting "fit." In this instance, the volatile was no sooner applied, than the convulsion was renewed; the practice was peremptorily forbidden, and the patient soon "came out of the fit." Since that period, we have never permitted the employment of volatiles in an hysterical paroxysm; and so far we have been perfectly satisfied with the plan.

Should the patient be unable to swallow, we direct the laudanum and assafœtida to be given by "injection," having the bowels previously emptied by one consisting of a pint of warm water, and a large table spoonful of common salt. The anodyne and antispasmodic enema, is to consist of two wine glasses full of lukewarm water, a full drachm of laudanum, and as much tincture of assafœtida; or if the watery solution of the assafœtida be at hand, it may be used instead of the plain water. This injection may be repeated pro re nata, every hour or two, as the exigency may demand.

It is sometimes difficult to administer an enema during the "fit;" for we have remarked that the struggle during this time is severe, and irresistible; besides, there is another difficulty to this process, which arises from the contracted condition of the sphincter ani; but this can always be overcome by perseverance and address, so far as we have yet witnessed: it should not therefore be abandoned too soon, if the patient cannot swallow. See page 482.

Hysterical paroxysms sometimes depend upon something taken into the stomach; as too large a quantity of indigestible food, &c.; when this is ascertained to be the case, an emetic should immediately follow the bleeding, if this has been judged necessary. Sydenham recommended this practice long since; and the experience of almost every body since his time, has confirmed its efficacy. Sometimes severe vomiting attends the paroxysm; when this is the case, it should be encouraged by warm water when practicable, until it appears that the stomach is cleansed. This case, agreeably to Sydenham, requires a larger dose of laudanum, than where no vomiting attends.

If there be much costiveness, besides the injection of salt and water, a strong infusion of senna should be given, in such doses as the patient can be made to swallow, and at such intervals as shall be judged necessary, until it operate freely.

It sometimes becomes necessary to apply blisters to the calves of the legs, or sinapisms to the feet; these are, however, only useful where there is a disposition to coma after the convulsions have ceased.

The paroxysms are of longer or shorter duration; and it is not unusual to find the patient, after a severe "fit," to rouse up, as if little or nothing had happened; when this is the case, the disease is habitual for the most part, and not of much force. At other times, they appear to fall into a profound sleep after each struggle; and if now let alone, they would awake perfectly well. But if anxiety has put in practice the application of volatile substances to the nostrils, it may do mischief, by renewing the convulsions as stated above. Therefore, when this condition occurs, it should not be interrupted by improper officiousness; for this state of tranquillity is the best possible for the patient.

When the patient has warning of an approaching paroxysm, it may frequently be interrupted by a timely dose of laudanum, assafœtida, or Hoffman's anodyne liquor; or what we have frequently found to answer well in such cases, is equal parts of the volatile tincture of Valerian and castor, in drachm doses, mixed in sweetened water; provided much headach does not attend; for if this be the case, the paroxysm can only be put

aside or moderated by a bleeding, followed by a brisk cathartic; a patient of ours, rarely fails to prevent a "fit" by this plan.*

In no disease, perhaps, has so many remedies been employed, as in hysteria; at least, during the paroxysm: almost all the strong smelling plants, oils, gums, and chemical products, have been employed, and lauded; condemned, and laid aside, in their turns. In this, perhaps, we have lost nothing; for had they possessed any remarkable advantages over the assafœtida, almost the only one now employed, they would unquestionably have been retained, as certainly as it has been. Indeed, we are disposed to believe, that they would never have been introduced among the anti-hysterical medicines, but from their strong smell exciting an analogy to the assafœtida, which has ever merited some confidence in hysteria.

Dr. Hamilton, believing the disease to be seated in the stomach and bowels, gives, with his usual freedom, purgative medicines; the good effects of which, on this presumption, he illustrates by several cases. But these cases prove nothing in favour of his pathology; since purging is but a mode of depleting; and one as familiarly employed for affections of the brain, as of the abdominal viscera. In young, robust, and healthy women, and especially in those in whom the disease has not yet assumed a chronic form, we have always found purging highly useful, and never fail to employ some of the most active of the class of purgatives for this purpose; such as senna, calomel and jalap, various combinations of gamboge, scammony, &c.

Hysterical paroxysms may be excited by a variety of causes, and especially those which act directly upon the mind; and

* Patients afflicted with hysteria, frequently experience sensations which warn them that a paroxysm is at hand, and waiting only for an exciting cause to call it into play—under such impressions, relief or prevention is sought in various ways, by different individuals. Some seek cheerful company and amusements; others, active occupation; some let blood; others stimulate, &c.; and all, as is often in their power, after they have become well acquainted with their malady, shun well known exciting causes. A lady, with whom we are well acquainted, and who is well versed with the pathognomonics of hsyteria, will not, while labouring under these sensations, open a letter of any kind addressed to her. They are thrown aside, until she feels she may encounter with impunity any information they may contain.

when these cannot absolutely be removed, the consequences may frequently be diminished, by the repeated use of opium. Those cases in which laughing, crying, a sense of suffocation, palpitation of the heart, and mental alienation, without convulsions, occur, can almost always be restrained by the liberal use of this drug; provided no plethora exist, or after it may have been removed by a bleeding.

The case following will serve, as one of many, as an illustration. Mrs. —— hearing suddenly of the death of a brother, to whom she was much attached, and whom she for some days had hourly expected to see, was instantly seized with such an alienation of mind, as to pervert the kind offices of her best friends into attempts to injure her. She talked incessantly of her brother; cried and laughed by turns; complained she was strangling, and required air; &c. We persuaded her to take a little coffee, in which was mixed thirty-five drops of "black drop;" this was repeated once an hour, for four doses. She now became calm; was conscious of all that had happened, and fell into a sound sleep, which lasted twelve hours. She awoke from this state, perfectly restored.

The best form of exhibiting opium, is in that form of laudanum called the "black drop," or the tinct. thebaic. acetat. In this form, it rarely leaves behind it the unpleasant feelings which the common laudanum does. It is of about double the strength of the common laudanum.

But should this preparation not be at hand, the common laudanum should be mixed with two tea spoonsful of sweetened vinegar, which answers nearly the same purpose. In the use of this medicine, strict attention should be paid to the peculiarities of the system, as regards opium. There are many, who cannot use the smallest quantity when given in one form, yet can bear full doses when exhibited in certain other forms: for instance; we know several, who cannot take the common laudanum in any quantity, yet can use the black drop with freedom, and without the slightest inconvenience; others can take the laudanum, when mixed with a few grains of the carbonate of pot-ash, or of soda; others can only use the solid opium; and some few we have met with, who cannot use the black drop, yet will bear the common laudanum well; &c. &c.

Attention should always be paid to such peculiarities, when they exist; for on them, very often, much will depend. Dr. Whytt gives a remarkable instance of this kind of idiosyncrasy. "A middle aged lady, whom four or five drops of laudanum, taken by the mouth, affected with a violent pain and cramp in her stomach; and sixteen drops, taken in a clyster, though they did not occasion those complaints, made her delirious for twelve hours." Works, p. 645. We have seen several instances, in which the "black drop" invariably gave colic.

This peculiarity, as regards opium, is oftentimes very unfortunate, as it deprives the patient of the use of the only remedy capable of relieving the existing symptoms. We have two patients much subject to cough; neither of whom can bear opium in any form we have been able to invent. One dare not use it even externally. In constitutions thus peculiarly situated, it might be well to follow the suggestions of Whytt upon this subject. He observes, that the lady, (whose case has just been related,) "having afterwards begun with *one drop of laudanum*, gradually raised it to twenty-five drops; nay, she has sometimes taken that quantity thrice a day, without feeling any of its former bad effects;" which would seem to declare, that this unfortunate peculiarity might be overcome by beginning with very small doses, and gradually, and almost insensibly, increasing them.

When the hysterical paroxysm precedes the eruption of the menses, it is generally best relieved by camphor, or camphor and opium conjoined; this may be given in julep, or in powder, as may be most convenient. The following formula, we have found to answer very well.

℞. Gum. camph. ʒij.
Sp. vin. rect. q. s. f. pulv. add.
Pulv. g. Arab. ʒiij.
Tinct. thebaic. acetat. gut. LX.
Sacch. alb. ʒiij.
Aq. font. ℥vj.—M.

Of this, a table spoonful may be taken every hour or two, as the case may be more or less urgent.

In cases where it is known that opium, in almost any shape or quantity, will disagree, it may be omitted, and the simple camphorated julep used in its stead. But it should be well ascertained, that the system does not require lowering by blood-letting, before even the camphor is given: for, should the pulse be too active, much less advantage will be obtained from it; and it will render the exhibition of opium altogether improper.

Local applications are sometimes of advantage in such cases, especially if the feet be cold—pediluvium, as warm as can be well borne, will be found highly serviceable, according to Whytt; and we know, that synapisms to the feet, and warm dry applications to the region of the uterus, are of much benefit.

It is almost the universal practice of the attendants on a person in the "hysterics," to oppose by violence, as far as their strength will permit, every motion of the patient's body. The hands must be unclenched, at all events; and very often, in the performance of this work of supererogation, much injury is sustained by the muscles that flex the hand and fore arm. This violence should be reprobated as highly improper, especially as it is every way calculated to do mischief, and never to do good. The patient may be suffered to grasp the hand of some one, as the spasms approach; but, if the hand be contracted, it should be suffered to remain so, until it relax itself.

All that is useful in such cases, is to make such opposition to the patient's struggles, as will prevent her doing herself mischief, by striking herself too forcibly; or by bruising her limbs against any hard body that may be in the way; or throwing herself from the bed. Again; a solid metal body is thrust into the mouth, such as the handle of an iron, pewter, or silver spoon, to prevent injury being done to the tongue; but all such substances are improper, as they frequently do much injury to the teeth. A piece of cedar, or pine, of sufficient length, and shaped like a wedge, may advantageously be employed.

After the struggling is over, the patient will sometimes be very sick at stomach, or even vomit violently; in such case,

nothing is better than a draught of water, as warm as can well be swallowed; and this may be repeated, whenever the necessity recurs. We should not attempt to force medicines upon the patient, while the stomach is thus disordered.

In a late conversation with my friend Dr. Jackson, I learnt from him, that he had found cold water highly serviceable in hysteria of a certain character; he has kindly furnished me with his views upon this subject, and I shall, I am sure, be rendering an acceptable service, by inserting his letter entire.

MY DEAR SIR,

In your note of last evening, you request me to inform you more particularly of the employment of cold water in hysteria, which I mentioned, in conversation a few days past, I had found a prompt and beneficial remedy, in some cases of that affection. In compliance with your desire, I present you with the following observations, and shall be pleased to find, you should consider them as meriting your attention.

I was first led to the practice, from observing some cases of spasmodic or convulsive movements of the voluntary muscles, in robust men, but having a nervous temperament, and which were excited by a high degree of gastric irritation. In some, the accidents were attributed to drinking cold water, whilst overheated. But irritants of various kinds, as indigestible food, alcoholic liquors, &c. had also been taken; and the symptoms revealed, when attentively examined, an intense irritation of the stomach. In these cases, the convulsive agitation of the muscular system, was unattended with any tendency to coma or stupor; the patients were unable to express, in language, their feelings; they were conscious of every thing doing about them, their attention was wholly rivetted on their sensations; and when relieved, they accused the stomach and head, as the seats of their sufferings. The convulsive movements of the voluntary muscles, were evidently the result of the gastric irritation, forcing the will, and reflected, without its concurrence, into the locomotive apparatus. All concurred in stating, they found it impossible to restrain the violence of their movements. From the view I took of those cases, iced water, or cold pump water sweetened, was given in repeated small draughts; cold

affusions were directed to the head, and when the circulation was excited, and the skin hot, blood-letting was practised, with cold ablutions to the general surface. The relief, from the cold draughts and affusion, was immediate. The convulsive efforts became calm, and the patients expressed, in extravagant terms, the agreeable sensations they experienced from them, and the rapid disappearance of their sufferings. The morbid condition of the system, in the cases alluded to, bears a strong analogy to hysteria, as it is occasionally presented to us.

Having subsequently met with some cases of hysteria, the exciting cause of which was irritation of stomach, produced by improper food, or other irritants, I was led to repeat the same practice. The result was equally prompt and favourable. In all those cases, however, gastric irritation was well characterized; the epigastrium was highly sensible; sentiment of interior heat existed, and thirst.

The following case, which came under my care a few days past, illustrates the state of the system, the morbid phenomena I allude to, and the treatment.

Mrs. W. is about thirty years of age, of short stature, full make, dark complexion. Her husband has been absent on a voyage several weeks, and no intelligence has been received from him. She lives retired, and uses very little exercise. She had been distressed in mind some days—complained of want of appetite and headach—was constipated. She dined on fresh pork; after dinner took a cold bath, which was prolonged an unusual time; coming out of the bath, she drank iced punch made of old Jamaica rum, and, early in the evening, took tea. Immediately after this meal, she was seized with spasms in the stomach, vomited, and became much agitated. The spasms of the stomach recurred at intervals of from five to ten minutes; and during each, there was a tonic spasm of the voluntary muscles, a loss of consciousness of surrounding objects, stifled, suffocated breathing, the eyes watery, and rolled upwards. In the intervals, weeping and great depression of mind. The slightest pressure on the epigastrium gave uneasiness—sensation of heat was experienced in the stomach, and thirst.

At first I gave her hydrant water, none colder being in the

house, sweetened with sugar, to drink. It did not relieve the gastric distress—ice was sent for, and a large piece put in the pitcher of water. She drank small quantities every two minutes. It was highly grateful. A single paroxysm only recurred after the iced water was taken. The head was washed with cold water. In a case where the heat of the skin and head were intense, cloths dipt in cold water, and affusions, were employed.

I mentioned my practice to our friend Dr. La Roche, who put it in operation in a case of hysteric spasms, that came under his care, after he had tried the usual routine of antispasmodics, and which had failed to give relief. The effect was prompt.

The pathology of hysteria has been variously given by different writers. The most correct view, and which is deduced from an attentive examination of its phenomena, refers to the cerebral structure for its seat. The brain is a collection of organs, of nearly similar composition, which preside over the various intellectual and pathetic faculties, and voluntary motion. The medulla oblongata, appears to be the central organ of perception, and volition, and its lower portion and the upper part of the spinal marrow govern the expressions, and respiratory muscles. Irritation of the upper portion of the medulla, occasions spasms, convulsions, &c. of the voluntary muscles; and of the lower portion, irregular and spasmodic contractions of the muscles of respiration, of the voice, and of the face, as expressing the passions. Hence the sense of suffocation, sighing, screaming, crying, laughing, weeping, and the various distortions of the countenance.

Individuals who experience frequent attacks of hysteria, have this portion of the central structure, in a permanent state of irritation, of feeble grade, and which is increased by any sudden and strong impression. An unexpected noise, sight, or intelligence, becomes in them an exciting cause of the hysteric paroxysm. Venereal irritation, sufficiently intense to be transmitted to the brain, is often communicated to its central organ, and excites the symptoms of hysteria. The stomach and uterus are those parts from which this irritation is most commonly transmitted, and is effected through the great sym-

pathetic, which anastomoses with the pneumo-gastric or par vagum, that has its origin in the medulla oblongata.

The varieties observable in hysteria, will depend, 1st, on the intensity and extent of the cerebral irritation; 2d, on the local visceral irritation, by which it is excited; 3d, the organ that is the seat of the primary irritation.

This pathology of hysteria, is founded on the symptoms, the disturbances of functions it presents, and the organs that accomplish those functions.

With respect, yours truly,

SAMUEL JACKSON.

*To Dr. Wm. P. Dewees, June 29th.*

### *To Prevent the Recurrence of Paroxysms.*

There are no affections of the other systems of the body, so liable to recurrence, as those which affect the nervous system. This may be owing, either to the difficulty of restoring the nervous tone when impaired, though not subjected to the continued influence of the exciting causes; or to the great difficulty of securing this system sufficiently long against the operation of these causes, that the nerves may recover their ordinary healthy standard.

The difficulty just suggested, is particularly great in the disease now treated of, owing to the constant liability of the occurrence of the exciting causes; for, almost any intellectual operation, or the exercise of either of the senses, may endanger with relapse, the ill restored nervous system; hence, the difficulty and uncertainty, of a radical cure of hysteria. Besides, the best concerted plan that can be devised, will be too often, and too certainly useless, if it fail to have co-operation on the part of the patient. We have already adverted to this difficulty; and it is repeated, with a view to lessen an expectation of the efficacy of remedies, too commonly indulged in by patients of this class, without their own agency to secure their good effects.

To every patient afflicted with hysteria, it should be inculcated, that much may be done, by the proper and persevering exercise of the moral faculties, and the judicious employment

of the physical powers; and that on these, vastly more depends for a cure, than on the exhibition of medicine; and farther, that without the healthful play of these powers, medicine alone cannot prevent the returning evil, though it may occasionally alleviate a present misery.

It will be seen at once, that part of this plan must be of difficult execution; since, the exciting causes are almost constantly presenting themselves; at least, those of the moral kind; and these seem to require more than human resolution, or human foresight, either to interrupt their operation, or to avoid encountering them. Yet we know much can be done, when reason is properly exercised, or forbearance duly maintained. It should, therefore, always be shown to patients, how much depends upon themselves for a cure, by pointing out the importance of not yielding to sudden impulses, nor indulging in destructive forebodings. By the one, the system is thrown into violent and ungovernable agitation; and by the other, it is rendered so morbidly sensitive, as to be operated on by the slightest causes.

The physical exciting causes, may be avoided with more certainty, or their presence more easily removed, than the moral; yet to be successful in preventing their operation, requires much self-denial, and an entire conviction of the necessity of the sacrifice.

It would be difficult to point out the causes of the diminution of this disease, within the last thirty years, in this city, though the fact is certain, so far at least as we can rely upon our own observations. Have the temperaments most liable to this disease been changed, by either physical or moral causes? Certain it is, that at present, we are rarely called to attend in an hysterical paroxysm, whereas formerly such calls were frequent. Is this change to be considered a real advantage to the female? It might be doubtful, if the observation of Whytt* be true; namely, that "however troublesome and obstinate nervous disorders often may be, they have some advantages attending them; for the weak state of the blood and vascular system, in many of these cases, renders such patients much

* Works, p. 631.

less subject to inflammatory diseases, than those of a stronger constitution." Thus it seems, that hysteria, like gout, may ward off severer blows.

The first general indication in the cure of hysteria, is to alter that peculiar state of the brain and nervous system, which gives rise to the disease, when the exciting causes are applied. This condition may consist in too great a sensibility of the nervous system; or in such a change of their sentient power, as to render them liable to be affected by agents, not ordinarily offensive, nor inordinately stimulating, as already explained above. Now, could this indication always be fulfilled, we could always cure nervous or hysterical diseases.

We have already remarked, that the nerves of almost every part of the body, may, from their sympathy with the brain, become affected with this peculiar condition, which gives rise to hysteria; or at least to nervous symptoms. The intensity of these symptoms, will therefore necessarily depend upon the force with which they may sympathize with the brain, or upon their sensibility, or altered condition from health; hence, the same force of cause will produce very different degrees of effect, in different individuals. In some, symptoms may be limited to palpitation of the heart, globus hystericus, &c. while in others, it may be followed by a severe hysterical paroxysm.

It will follow, therefore, cæteris paribus, that the greater the mobility of the nervous system, the more difficult will it be to effect a cure; and that the remedies to be employed must be either of greater power, or longer continued. The remedies must be addressed to the nervous system, through the medium of the stomach, skin, and mind.

These remedies will consist of tonics, antispasmodics, the cold bath, and agreeable impressions on the mind. The tonics will comprise the various bitters, steel, and food. The bitters may be the Peruvian bark, sulphate of quinine, gentian, orange peel, columba root, quasia; &c. the preparations of iron may be, the carbonate of iron, the sulphate of iron, the muriate of iron, the aromatic tincture of iron, &c. The antispasmodics may be, the castor, assafœtida, Valerian, Hoffman's anodyne liquor, æther, &c. The food, all such as is of easy assimilation; as beef, mutton, poultry, venison, &c.

In using the various substances above enumerated, especial care should be taken, that they are not exhibited in alcoholic menstrua. Much mischief has been produced by not attending to this injunction. Dr. Whytt recommends even large doses of the bark and brandy, to patients labouring under nervous or hysterical affections; and the weight of his character has too certainly perpetuated the practice, both in his own, and in this country; more particularly as he extols the efficacy of the tincture of bark in his own person.

He says, "I have myself taken the above tincture (the tincture of bark) in the morning, for eight months together, and with remarkable advantage. For three or four years before, I had been much troubled with wind in my stomach, a giddiness, and sometimes a faintness. I observed in the morning, soon after taking this medicine, a grateful sensation in my stomach, accompanied with better spirits than I had at any time through the day, or than I ever found from drinking wine, even when I used it freely. I have ordered this tincture to many patients, who have taken it for two or three months successively, and after intermitting it for some time, have begun again. Most have found benefit, and those most who used it longest." P. 635.

Notwithstanding the respectability of the authority, and the high encomiums bestowed upon this preparation of the bark, we must, and do, conscientiously protest against the spirituous form of this, or any other of the bitters. We are certain it is not the best, under any circumstance in which it is desirable or proper to use these drugs; and when employed in the form of tinctures, and especially to the extent Dr. Whytt recommends, it very often leads to the habitual indulgence of alcohol, in some shape or other. We declare this, from repeated and ample observation.

Indeed, it may not be amiss, in this place, to protest against the employment of any of the tinctures which require large doses, when it can be avoided; and especially, the long continuance of them, as is too frequently done in chronic affections. The vehicle, which is commonly brandy, or even alcohol itself, very often contains but little of the effective ingredient; and the patient, to obtain this little, is obliged to swallow so much

ardent spirit, that, either no advantage is obtained, from the use of the principal, or active ingredient, or the patient is injured by the too free use of the vehicle. To females particularly, medicines in this form should not be exhibited; we have known much evil to arise from them.

Modern chemistry has most happily discovered the active principle of the Peruvian bark; and it is now exhibited with great advantage in the form of a sulphate. One grain of this sulphate is supposed to be equal to at least one drachm of the best bark; therefore, when this article is thought to be the eligible one, it can be given in pills or in solution. The solution, it must be remarked, is the more active of the two forms. The bark may be given in watery infusion, or decoction, when the sulphate of quinine cannot be commanded; but these should be made fresh every day; and care taken to employ none other than the best.

The other bitters, should always be given in infusion or in decoction; not alone for the reasons just assigned, but because the principle on which their virtues depend, is perhaps less concentrated than that of the bark; and consequently, the alcoholic solutions of it, would be too feeble for exhibition, with the slightest chance of benefit. In using the bitters, care should be taken not to continue them too long at a time.

Steel, in one shape or other, has been a favourite tonic from time immemorial; Sydenham preferred the filings, and Riverius the sulphate of this substance; while the carbonate is the favourite form of many. The one to which we are the most wedded, is the bitter tincture of iron, and is made as follows:

℞ Limat. Ferri ℥j.
Rad. Gentian. cont. ℥ij.
Cort. Aurant. ℥j.
Suc. e pomis expres. vel Cider ℔ij.
M. and macerate three weeks.

Of this, twenty or thirty drops are given in a little sweetened water, morning, noon, and evening, about fifteen or twenty minutes before eating. This medicine agrees admirably with stomachs disposed to be dyspeptic, and labouring under loss of appetite; it may be gradually augmented if necessary. Should it produce a sensation of weight, or as if the stomach was con-

tracting painfully, the dose should be diminished or desisted from. Steel may be continued almost to any necessary period, without the slightest injury. It will sometimes disagree with the stomach, but this is a rare occurrence; and when it does, it should be instantly abandoned.

It sometimes purges; when this happens, five drops of laudanum should be added to each dose: at other times, it constipates the bowels; this should be obviated by a rhubarb pill, taken every night.

Antispasmodics should only be considered as palliatives in the cure of hysteria; but they often become necessary during the attempt to prevent the recurrence of the convulsive or other paroxysms. When the patient is oppressed by flatulency, troubled with globus hystericus, or palpitation of heart, either of the above named medicines may be advantageously employed; especially, the assafœtida, and the Hoffman's liquor. The assafœtida is best in watery solution, or in tincture. If the former be employed, the following formula may be used.

℞. Gum assafœtid. ʒij.
Aq. fervent. ℥iv.
f. sol.

Of this a table spoonful may be given pro re nata; if the tincture be used, a tea spoonful in a wine glassful of water may be given and repeated as occasion may require. If the Hoffman be preferred, a small tea spoonful may be given in an ounce of sweetened water; taking care, that the sugar and water be prepared before the liquor is poured out, and that it be drank immediately after it is mixed. It will be necessary to avoid a too near approach to a lighted candle when the Hoffman is preparing. Æther may also be given with advantage, under the same restrictions as the Hoffman; but the latter, generally speaking, is the preferable medicine. The other remedies, named as antispasmodics, may be administered with advantage, when the symptoms are not very severe; but they are decidedly less effective than those just proposed.

A very strict attention should be paid to diet in all nervous or hysterical affections; we are sorry to say, that this part of the curative plan is too much neglected by practitioners. It is supposed, that the various articles of diet merit but little con-

sideration, because the system is labouring under no very active or acute disease; hence the patient is generally directed to eat any thing light. This indiscriminate order, is almost constantly abused; for the patient, not willing to be restricted, too readily obeys the direction; though certain, many of the articles of diet, which they are in the habit of taking, are not friendly to the stomach; and they all interpret the word "light" in favour of the articles they like.

It should therefore be distinctly ordered, that no article, which is known to disagree with the stomach or bowels, should be indulged in. Food may disagree in a variety of ways; it may remain a long time before it is digested; it will then occasion eructations, a sense of weight or pain about the stomach, a palpitation of the heart, headach, constipation, diarrhœa, or vomiting. It may turn acid; giving rise to flatulency, burning in the stomach, pain, regurgitations of the contents of the stomach, oppression, distention of the abdomen, &c. It may simply produce costiveness, or provoke diarrhœa; but in whatever manner it may disturb the stomach or bowels, it should be forbidden the patient, and some other article substituted. As a general rule, certain animal substances will be found best; such as beef, mutton, lamb; poultry, as fowls, and turkeys; fish, both scaled and shell, especially the oyster; wild animals, as the deer, rabbit, partridge, pheasant, grouse, &c. Eggs also, when soft boiled, are almost always acceptable to the stomach.

Vegetables should not be too freely indulged in; especially, cabbage, cucumbers, cauliflower, beans, onions, peas, &c. The best are potatoes, well mashed, after being boiled or roasted; rice, turnip, beet, &c. But in directing either of these, (for no two should be eaten at a time) reference should always be had to the experience of the patient.

The drinks of such patients, should be pure water, or toast and water, as a general rule; it may occasionally be necessary to indulge them with something a little stimulating, as weak brandy and water, or good sherry or Madeira wine; but these only at dinner. Tea and coffee should be forbidden, when the stomach is disposed to acidity; and milk, or chocolate, substituted, where these will agree. Good butter may be taken with advantage oftentimes, but bad should be most sedulously avoid-

ed. Hot breads, and cakes of every description, should be prohibited; and suppers most carefully shunned.

Costiveness must be carefully guarded against, by either diet or medicine, or both, if necessary. The substance best calculated for this purpose, as an article of diet, is the bread made from the unbolted wheat flower; this, if regularly persevered in, by making it the substitute for every other kind of bread, will rarely fail to answer this purpose. And as a medicine for this end, the rhubarb, either alone or in combination with aloes, will rarely fail. The best form of the latter that we know of, is as follows:

℞. Gum aloes suc. ℥ss.
Pulv. Rhæi ℥j.
Ol. Caryoph. gut. iv.
Sapo Venet. gr. viij.
Syr. Rhæi q. s.
M. f. pil. xxx.

One of these taken every night, or every other night, as the necessity may be, will rarely fail to answer the purpose effectually.

The cold bath has justly been looked upon as one of the most efficient remedies of the materia medica, in hysterical and nervous affections; its known power in restoring muscular vigour after debilitating illnesses; its efficacy in imparting tone to the nervous system; and its acknowledged control over the vascular system, have ever rendered it a popular, as well as a very certain remedy, in cases of general, and of local debility.

But that it may be productive of its best effects, its use must be regulated by the state of the system, or the condition of certain parts of it. There are few remedies more unequivocally abused than the cold bath, owing to the empirical manner in which it is prescribed: on this account, great caution must be exercised when it is about to be used, that it may not be converted into an evil.

The primary effects of the cold bath, are to produce a sensation, which is familiarly termed a *shock;* the skin becomes pale, and unequal, and hence the term, cutis anserina, from its resemblance to a newly plucked goose. The head experiences a sense of weight; the respiration for a time is suspended, and

then becomes quick, and sometimes even laborious; a severe tightness in the chest, as though it were tightly corded, is frequently experienced, which does not pass off altogether, sometimes, until the secondary stage, or the stage of reaction, takes place.

The stage of reaction almost always takes place very soon after the fluids have been driven from the surface to the more internal parts; and it is one of the proofs of the usefulness of this remedy, and of the propriety of continuing it: for should no reaction follow, this application must be abandoned. On this account, the cold bath must be used with caution; and its effects will be ascertained; for its temperature must be carefully regulated by the powers of the system to produce an after glow upon the surface. It would follow from this, that this remedy may do mischief, if the temperature be neglected, at a time it might have been highly useful, had this important point been duly attended to.

Hot and cold are but relative terms, when applied to the human body; nor will the thermometer always settle the point, where the sensation of one begins, or where the other ends. On this account, it is always best to settle this point by the sensation the application of water may produce upon the skin. This will necessarily vary in different individuals, and in the same individuals under different circumstances. It will, therefore, always be best to commence with a temperature that shall produce but a very slight *shock*, and it can be gradually increased, as the capacity of the system to produce reaction increases.

We are told that the Buxton waters, (England,) are at eighty-two degrees; yet they produce a slight, but a decided *shock;* therefore, it will be well to commence with water at this temperature, and reduce it pro re nata; or as the sensation of cold may be less unpleasant, and the reaction more decided. For if reaction does not take place, no advantage can be derived from cold bathing; and this circumstance very properly forms one of the contra indications of this remedy.

The cold bath must not be used when there exists any visceral obstruction; or where there is any pulmonary affection, or local congestion of the chest.

It may be used daily, if judged necessary, when the system reacts promptly; or every other day, if reaction be less decided; or only twice a week, if it be feeble. But we may be always justified in persevering in the use of the cold bath, if reaction takes place but very moderately, since we almost always have it in our power to regulate the force of depression, by the temperature of the water. There are two modes of employing this remedy; first, by plunging into the water; or secondly, by the water being showered over the body—the latter is generally the preferable mode: it can be done without exposure, and the temperature of the water accurately ascertained.

The best time to use the bath, where the constitution is pretty vigorous, is early in the morning; if it be less robust, about two or three hours after breakfast.

Some are in the habit of going to bed after using the bath; we cannot think this ever necessary, where the bath agrees with the patient; but should the system react with difficulty, or too feebly, it may be useful to employ warmth to the surface in this way. But in cases of this kind, it would be better to abandon the remedy, unless it be certain it was employed at too low a temperature, than to persevere in it, and require artificial means to promote reaction. For we must repeat, that the cold bath can only be useful, where it is followed by a kindly glow upon the surface.

Where the system reacts slowly and feebly, we have seen advantage from drinking a cup of warm camomile tea; indeed, almost any other warm liquid might be employed upon such occasions, together with moderate exercise, by walking briskly over the floor. But in all such instances, immediate attention should be paid to the temperature of the water; it should be increased to at least eighty-two degrees; and should this produce so much collapse, as to render reaction difficult, or very tardy, we believe it would be best to abandon the remedy altogether; or at least, until such change may take place in the constitution, as will enable it to bear water at this temperature. There are constitutions which never profit by the use of the cold bath; we have seen several such. It does not depend upon the absence of muscular power, or upon visceral derangements; but is, like in many other instances of peculiarity, an

idiosyncrasy; the system will not react, but after a long time, and then feebly and transitorily; a languor, and an indisposition to motion, is experienced; the spirits remain depressed for many hours together; the lips remain livid; and the whole countenance is pale, shrunken, and distressed. With such peculiarity, the cold bath must not be used.

With those, whose systems react feebly; or those disposed to take cold upon the continuance of wet applications to any part of the body, the head should always be covered with a cap of oiled silk, during the bathing. Care should be taken to dry the body, after coming out of the bath, as soon as possible; and if the body be well rubbed with a coarse towel, at this time, it will contribute much to its efficacy, as it will hasten, and almost ensure the reaction. Salt may be dissolved in the water with advantage; especially to those whose systems are tardy in reacting, or those who are debilitated, or have any tendency to the lymphatic, or scrofulous diathesis.

The mind should, if possible, be led from the contemplation of the ills of the body; it is the very nature of hysterical and nervous complaints, so to disorder the judgment, that a true estimate cannot be formed of the nature, extent, or the degree of importance, that should attach to any painful or distressing sensation. The idea of danger, is almost constantly connected with every feeling of the body; a trifling inconvenience is readily magnified into a serious evil; and such patients will often declare themselves to be dying, when little or nothing ails them.

Notwithstanding this palpable error in the estimate of their indisposition, it is not always best to declare how little we sometimes think of it. It is the duty of the physician to relieve his patient by the best means in his power; he should, therefore, employ them in such a manner, as will produce the best possible effect; and whether they be administered through the medium of the mind, or by the agency of the stomach, it matters not, provided the greatest advantage be procured.

It should not, therefore, be considered disingenuous in the physician, if he apparently yields a belief to the statements of his patients, or permits them to indulge, to a certain extent, in their delusion; for, by so doing, he oftentimes obtains an ad-

vantage, that could be gained in no other way; by it, he almost always secures their confidence, and sometimes excites their gratitude; for it matters not, as regards the feelings and persuasions of the patient, whether the pain or inconvenience under which she labours, be purely imaginary, or whether it has a real corporeal existence.

The following case in a male, will well illustrate our meaning. In the year 1803, Mr. S. called upon us for advice on his case, which he declared to be an ill cured venereal affection. He was a married man; and, when under the influence of wine, was led to illicit enjoyment. This was his first, and only aberration; he so condemned himself for this act, that he dwelt with intense solicitude upon the probability, that he might have contracted disease. He watched every sensation and appearance of his body, with the most painful anxiety; both of which were so exalted by his imagination, that he fancied he had the venereal disease in its most decided form.

Ashamed to make his situation known to his family physician, he applied to a quack, who confirmed his fears. Mercury was now administered, and a profuse salivation excited; but the symptoms he so carefully cherished, did not change. He became dissatisfied with the quack, and sought another, and another; each in their turn gave him mercury, and so reduced him as to be scarcely able to walk. This discipline continued for about fourteen months; at the end of which time he found his health destroyed, and his litttle property dissipated, to satisfy the rapacity of these merciless pretenders to medicine.

At this period we were consulted: upon a careful investigation of his history, we were perfectly satisfied, that he never had been in the slightest degree injured, and frankly told him so, and to be satisfied that this was the case. He appeared at the moment gratified and happy at our assurance, and went away without a prescription. He however returned in a few days, and declared we must be mistaken; and that he was certainly diseased. Finding this notion to be firmly fixed, we thought it best to meet him upon his own terms; we acknowledged him to be diseased, but that his disease was completely under the control of medicine, provided he would strictly adhere to our instructions. He was delighted with this declara-

tion; and promised the most faithful compliance with any directions we might give.

We had a box of pills prepared for him, composed of bread, coloured with a little rhubarb, and scented with the essential oil of anniseed. One of these was directed to be taken every morning, noon, and night; his diet was prescribed, &c. He returned, much delighted, at the end of a week; he declared the pills had acted like a charm; that his appetite had returned, and was even voracious; that his strength was improved, and that *all his venereal symptoms* were much abated. He now begged to be allowed to increase the doses of the pills; this we peremptorily forbade. He persevered in the plan laid down for him for six weeks, at the end of which time, he confessed himself to be perfectly well, and every way capable of attending to his long neglected business.

Success, in this instance, depended altogether upon yielding in appearance to the perverted judgment of the patient; in the same manner, we have often succeeded with hysterical and nervous patients.

It must however be remarked, that there are two distinct classes of hysterical and nervous patients; the first, must be indulged in their belief that they are seriously diseased; the other, must be convinced, that though they experience many disagreeable feelings, they have not a dangerous tendency. It requires some caution, or investigation, to ascertain to which of these classes any individual patient may belong; especially, if we are not previously acquainted with their opinions on the subject of their indisposition. A little address, and some inquiry from friends, will always prevent one class being mistaken for the other. In each, however, the mind must be beguiled into the belief, that their malady is susceptible of cure.

Cheerful company, agreeable reading, and change of scene,*

* We may effect this in a variety of pleasant manners; riding, walking, and sailing, will offer great resources of this kind; and they should be alternated, or continued, as circumstances may force, or utility suggest. Neither of them should be persevered in so long, as to produce either listlessness or fatigue; some judgment will therefore be required, to render either of them profitable, and this must be left, in a great measure, to the attending physician. Gilchrist speaks

should be among the auxiliary remedies; they should however be so managed, in almost all instances, that the patient shall not be sensible they are prescribed for her. A little management will effect this desirable end, without the object being revealed. No impatience should be discovered, while listening to the extended history of a patient's feelings and sufferings; for nothing is gained, in point of time, in attempting to cut it short; and much is lost if she be led to imagine we are regardless of what she says; we have ever found it best, to devote sufficient time to learn all they can say at once; for the subsequent visits may then be short, since her whole history has been revealed before. After having attentively heard the detail of symptoms, the patient always becomes anxious for a name to be given to her disease: our answer must depend upon which of the two classes the patient belongs. If she belongs to the first, we must beware how we call her complaint hysterical or nervous; if to the second, it often becomes a source of comfort, that we pronounce it nervous; but explaining distinctly, at the same time, that by nervous, you wish to be understood a real affection, but not a dangerous one; for most females are well aware, and willing to allow, that complaints of this kind, are not often serious in their terminations, however permanent and inconvenient they may be in their continuance. Patients of the hysterical and nervous class, should be kept from gossiping old women, and never be permitted to listen to the dismal accounts of the diseases of others.

For every sensation or symptom belonging to another, is instantly transferred to themselves; and they will have as many diseases in turn, as they have heard described to exist in others.

The many disagreeable sensations connected with hysteria, make it desirable, that they should be relieved from time to time by applications suited to such symptoms; and happily for the poor patient, we have the most common, as well as the most distressing of them, under pretty certain control.

These symptoms are, palpitation of the heart; flatulency;

in high terms of sailing; this mode of exercise is too much neglected in this country; but we trust, this will not long remain a reproach; since our steam boats are becoming so numerous, and offering such facilities of conveyance, and such conveniences of regulation, as to tempt the invalid to frequent excursions.

globus hystericus; and oppression about the præcordia. All of these sensations are very much under the command of the same remedies; namely, the antispasmodics already mentioned; such as the assafœtida, Hoffman's anodyne liquor, æther, Valerian, &c. But neither of these should be prescribed at random: it should be carefully ascertained that the system will bear these stimuli, before they are given; accordingly, the pulse should be examined; and if the artery does not betray a plethoric condition of the vascular system, they may be advantageously given. But should the patient be plethoric, the loss of a few ounces of blood will almost ensure the success of the remedies just named; or it may even of itself remove the whole of the unpleasant symptoms, as mentioned above.

THE END.

# EXPLANATION OF THE PLATES.

## PLATE I.

A very distinct view of Carcinoma Uteri, and of the changes which take place in that viscus in consequence of this disease.

A. The carcinomatous tumour seated at the posterior part of the cervix of the uterus.

B. The os uteri much enlarged, which forms one of the principal characters of this disease, especially when the sides of the opening are hard and resisting. A small portion of the vagina is left surrounding the opening.

C. The cavity of the uterus near the cervix.

D. The cavity of the uterus near the fundus.

E. The fundus of the uterus.

The sides of the uterus are kept asunder by two pieces of quill, placed transversely across the preparation.

## PLATE II.

A posterior view of the same preparation.

A. Shows a section of the carcinomatous tumour, a part of which only could be exposed in Plate I.
B. The fundus of the uterus.

As the size of this drawing does not exceed the actual size of the preparation, it is obvious that all the parts of the uterus have undergone some degree of enlargement.

## PLATE III.

This engraving shows a Polypus of the Uterus.

A. The polypus, in which may be perceived a longitudinal depression, made probably by the meatus urinarius. It is attached to the fundus of the uterus by a small neck. The tumour has descended out of the uterus into the vagina, which has been slit open to bring it into view.

B. The vagina; a few rugæ remaining below the tumour. Higher up they are obliterated by the distention of the parts.

C. The fundus of the uterus, by which the preparation is suspended.

D. One of the round ligaments.

E. A part of the left ovarium.

## PLATE IV.

Views of the three different species of Polypi, as described by Levret. See chapter on Polypus.

*Fig.* 1.

A. The body of the uterus.
B. The pedicle of the polypus.
C. C. The uterus.
D. A portion of the peritonæum.
E. The bladder.
F. F. The ovaries.
G. G. The Fallopian tubes.
H. H. The fringed extremities of the Fallopian tubes.
I. I. Portions of the round ligaments.
K. K. Supporters of the preparation.

*Fig.* 2.

A. The polypus.
B. The orifice of the uterus.
C. The uterus, with its appendages.

*Fig.* 3.

This figure represents,
1st. The top of the os tincæ.
2d. The vagina opened all its length.
3d. A small polypus arising from a portion of the internal membrane of the uterus.

## PLATE V.

Fleshy Tubercle of the Uterus.

A. The edge of the tubercle.

B. An incision made from the fundus of the uterus to the cervix, which shows that the sides of the uterus are not thickened.

C. The surface of the tubercle, having several irregularities upon it.

D. The os uteri, having undergone no change: indeed, its appearance, together with that part of the uterus which projects a little into the vagina, may be looked upon as a specimen of a perfectly healthy os uteri.

E. The vagina slit open: the rugæ, and the very irregular manner in which they are disposed, are also very correctly shown.

## PLATE VI.

At the lower part of the plate, there is a rod for passing a ligature round a polypus of the uterus. The handle is made hollow, so as to admit a part of the rod, which is secured by a spring in the handle.

At the upper part of the plate is a wire, by means of which the ligature can be drawn through the canula.

Immediately below this is the canula, furnished with a shield, to prevent the instrument being pushed into the vagina higher than intended by the operator.

In the centre of the plate is a drawing of a hip-bath, the dimensions being given in inches. On the left side of the plate is described the best form of a female syringe.

## PLATE VII.

This plate shows a portion of hydatids of the uterus. The quantity voided by the patient would have filled a gallon measure. The preparation is suspended in the spirit by a portion of organized coagulating lymph, from which the hydatids spring, being connected with it by means of small filaments of the same substance. The cysts vary in size; some of them contain a fluid, whilst others have collapsed in consequence of its escape.

## PLATE VIII.

An ovum, to which is attached a number of hydatids, and which caused its being cast off from the uterus. See chapter on Hydatids.

*a*, *a*, *a*, *a*. The size of the ovum, and as large as the original.

*b*. An incision into its cavity.

*c*, *c*, *c*, *c*, &c. Hydatids of various sizes, occupying the outside of the ovum.

## PLATE IX.

In this plate are two figures of the cauliflower excrescence of the uterus.

*Fig.* 1. Conveys an exceedingly good idea of the disease, as met with in the living body, the surface being studded with a number of little granules heaped upon each other, forming masses of an irregular shape. The lines drawn from letters A. and B. terminate in different parts of the mass. The letter A. in a portion which has a granulated appearance; the letter B. in a small flocculent portion, which, having lost the blood originally contained in it, forms a fine light substance, which floats in the spirit.

*Fig.* 2. Shows the uterus of a patient who died of the cauliflower excrescence. The preparation is suspended by the Fallopian tubes.

A. Points to the loose flocculent substance always found after death in patients who have laboured under the disease. During life, the flocculent substances, being vascular, are filled with blood, and a solid mass is thereby formed; but these small vessels emptying themselves, nothing remains but their coats, which are seen lightly floating in the spirit in which the preparation is placed.

B. Shows a part of the os uteri which remains perfectly healthy. Perhaps this part may be about two-fifths of its whole circumference.

C. C. The ovaria.

D. An incision made through the parietes of the uterus, which are somewhat thickened.

## PLATE X.

A preparation of the corroding ulcer of the os uteri.

A. Shows the ulceration. A piece of quill is placed so as to bring the whole surface into view. It will be observed, that the os uteri is entirely destroyed by the ulcerative process, but there is not the smallest thickening of the circumjacent parts.

B. Shows the vagina in a healthy state.

C. A small cyst in the broad ligaments, containing pus.

## PLATE XI.

Ulcerated carcinoma of the uterus.

This plate, when contrasted with the former, shows the uterus altogether much thickened, the cervix of the uterus especially.

Two lines meet at A.; these diverging, lead to the upper and lower, or rather to the anterior and posterior parts of the cervix uteri. All traces of the os uteri are destroyed.

The points particularly deserving of notice in these plates are, ulceration without thickening in the corroding ulcer, and ulceration with great thickening in carcinoma.

B. The Fallopian tube.

## PLATE XII.

Circular gilt Pessary.

*Fig.* 1. This plate represents the middle sized pessary.
From *a*, *a*. Two inches and four-tenths.
*b*. A central hole, to permit any discharges to pass, three-tenths of an inch in width.
*c*, *c*. An excavation for the neck of the uterus to lie in.

*Fig.* 2. Is a central section of the pessary.
*a*, *a*. Represents the internal cavity of the pessary.
*b*, *b*. Represents the depth of the excavation of *c*, *c*, of *Fig.* 1, five-and-an-half-tenths of an inch deep.
*c*. A section of the central hole, *b*, of *Fig.* 1.

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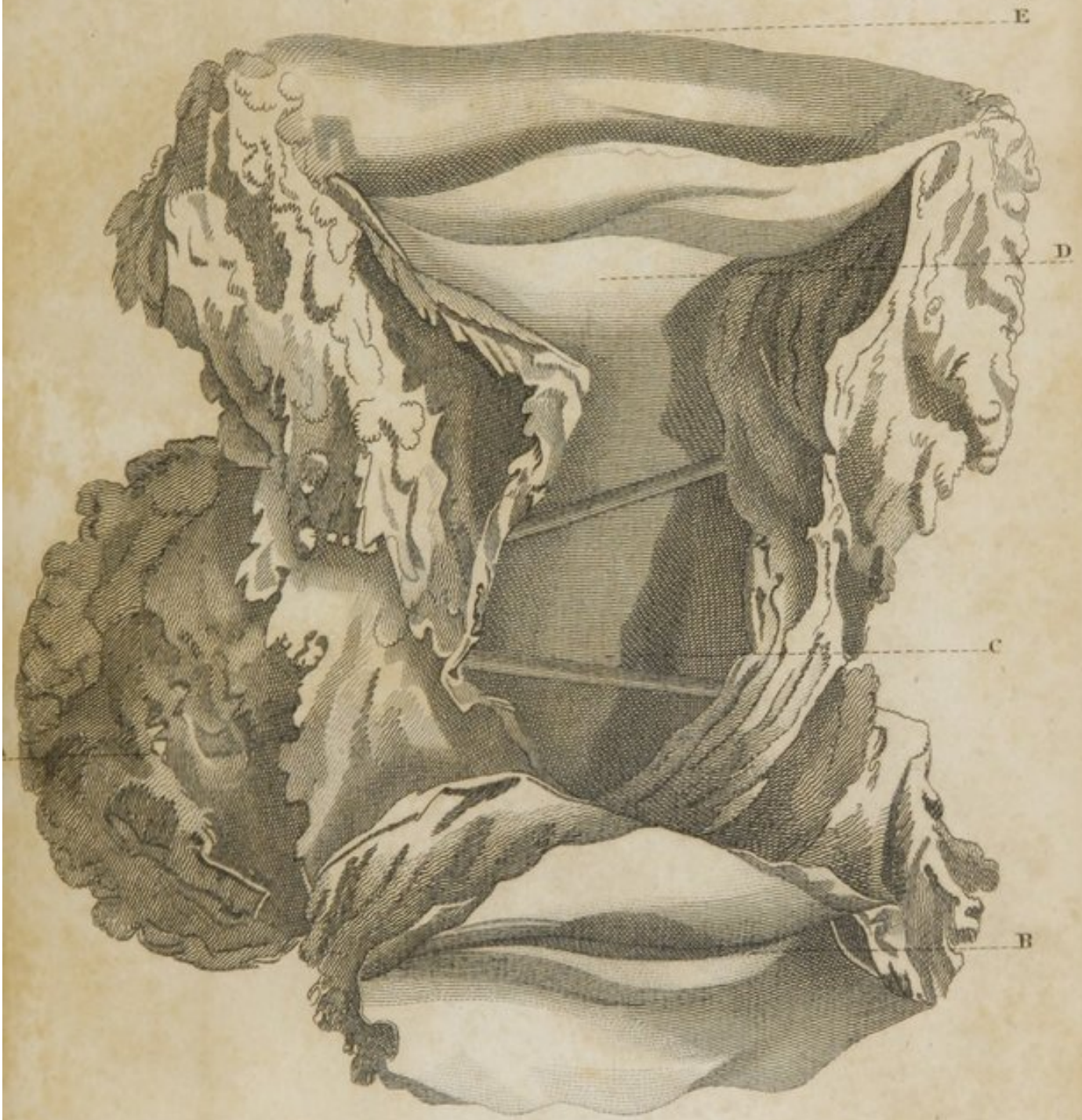
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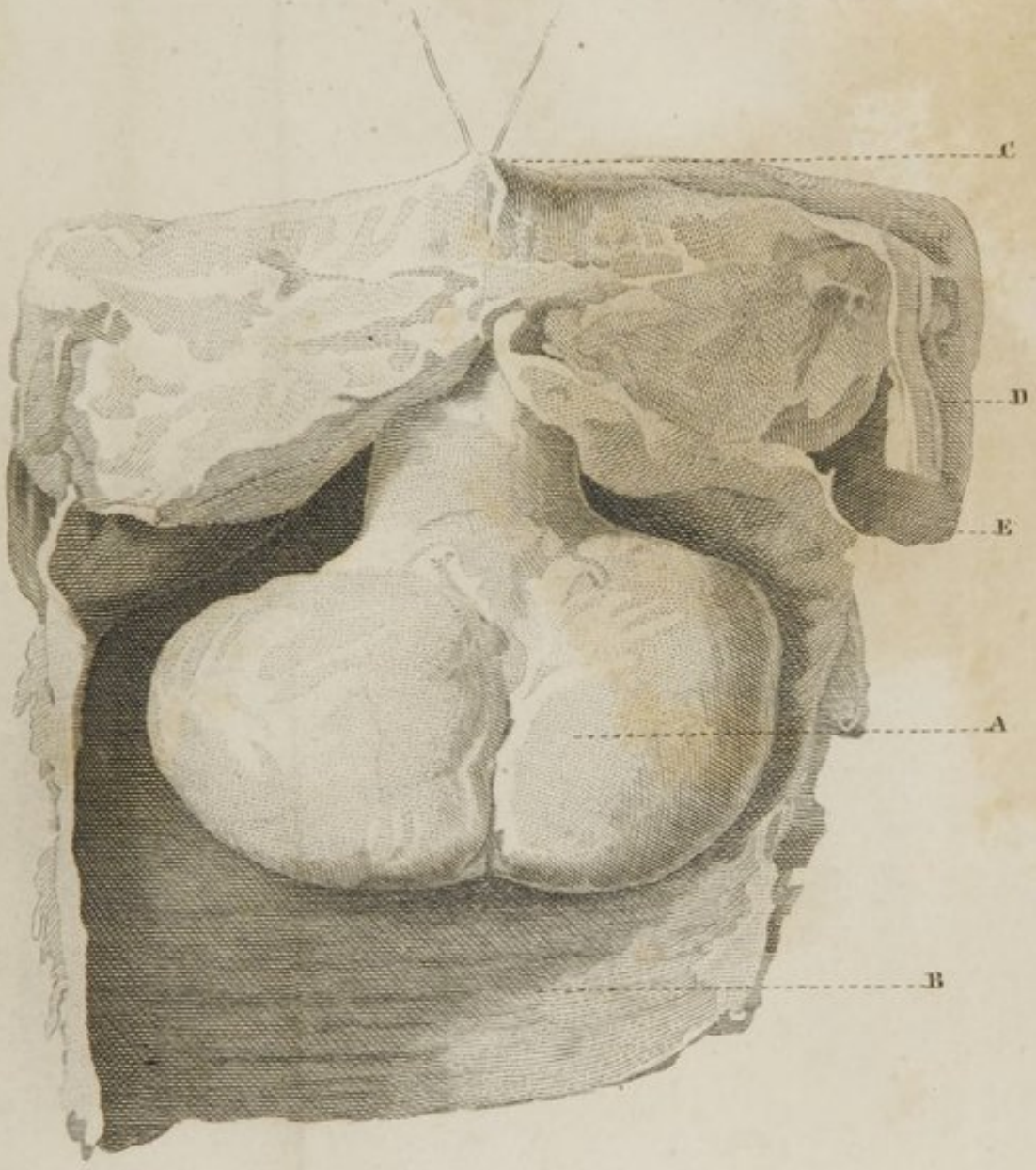
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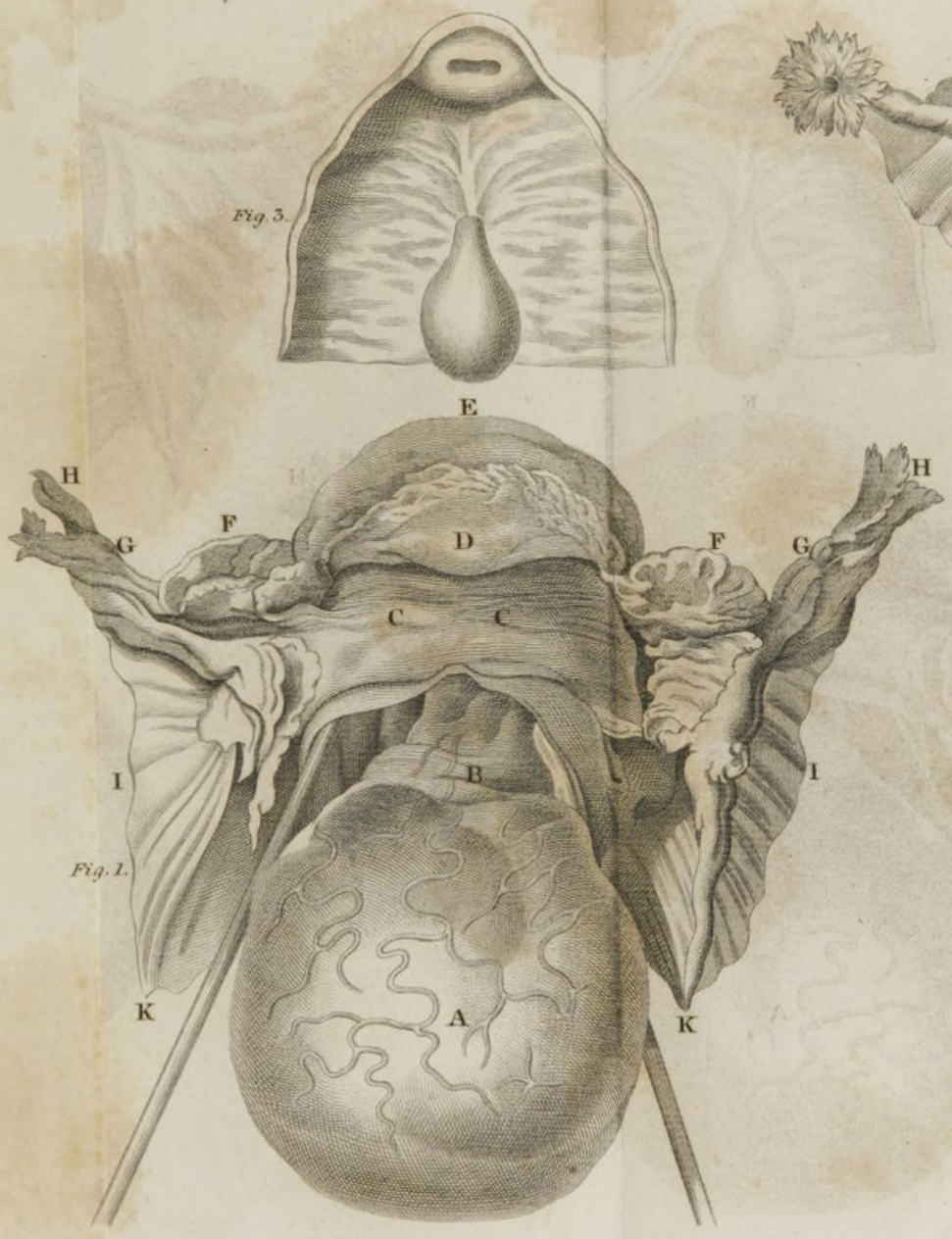



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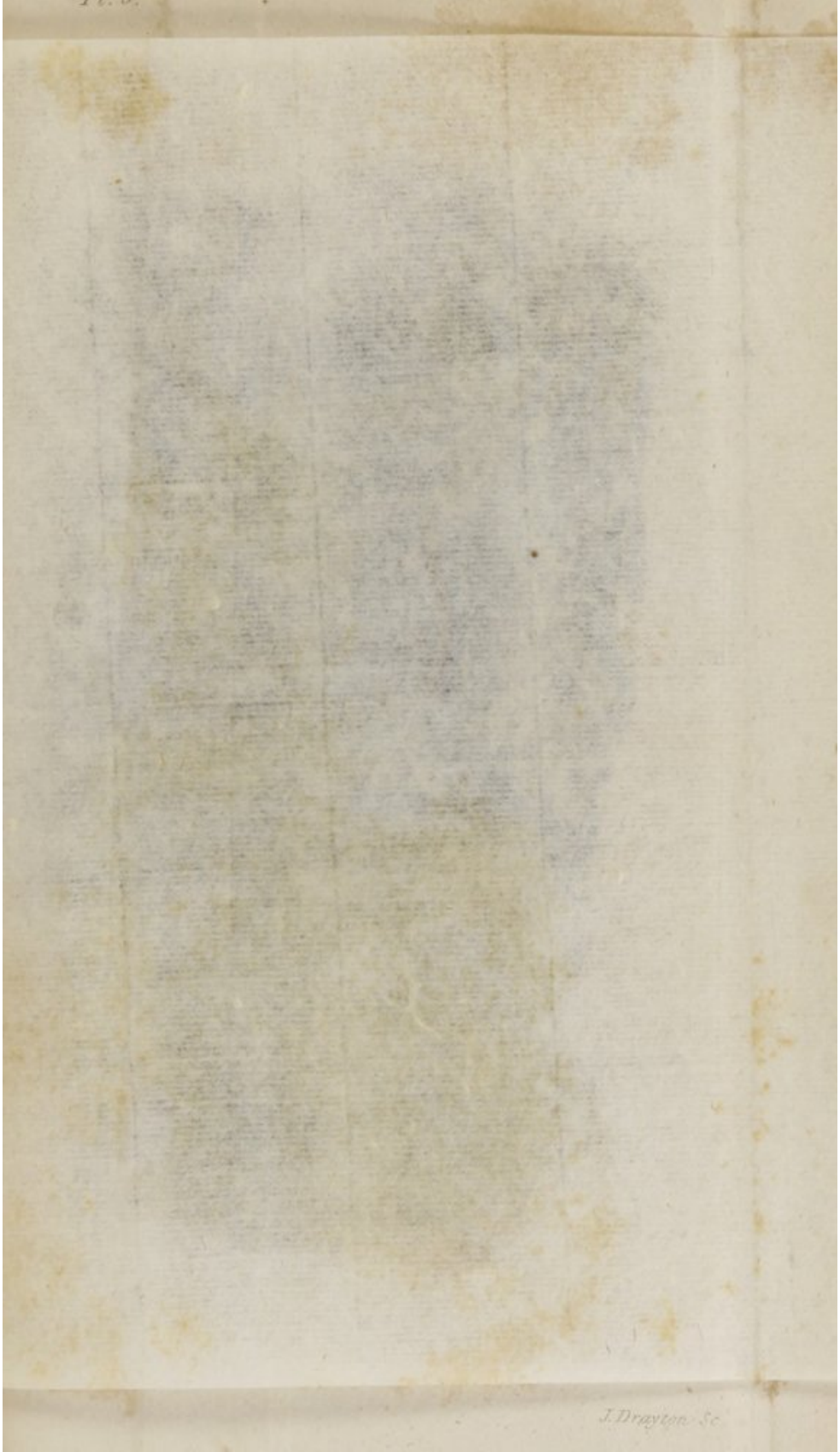
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# Examples of the three Varieties of Uterine Polypi (from Levret.)



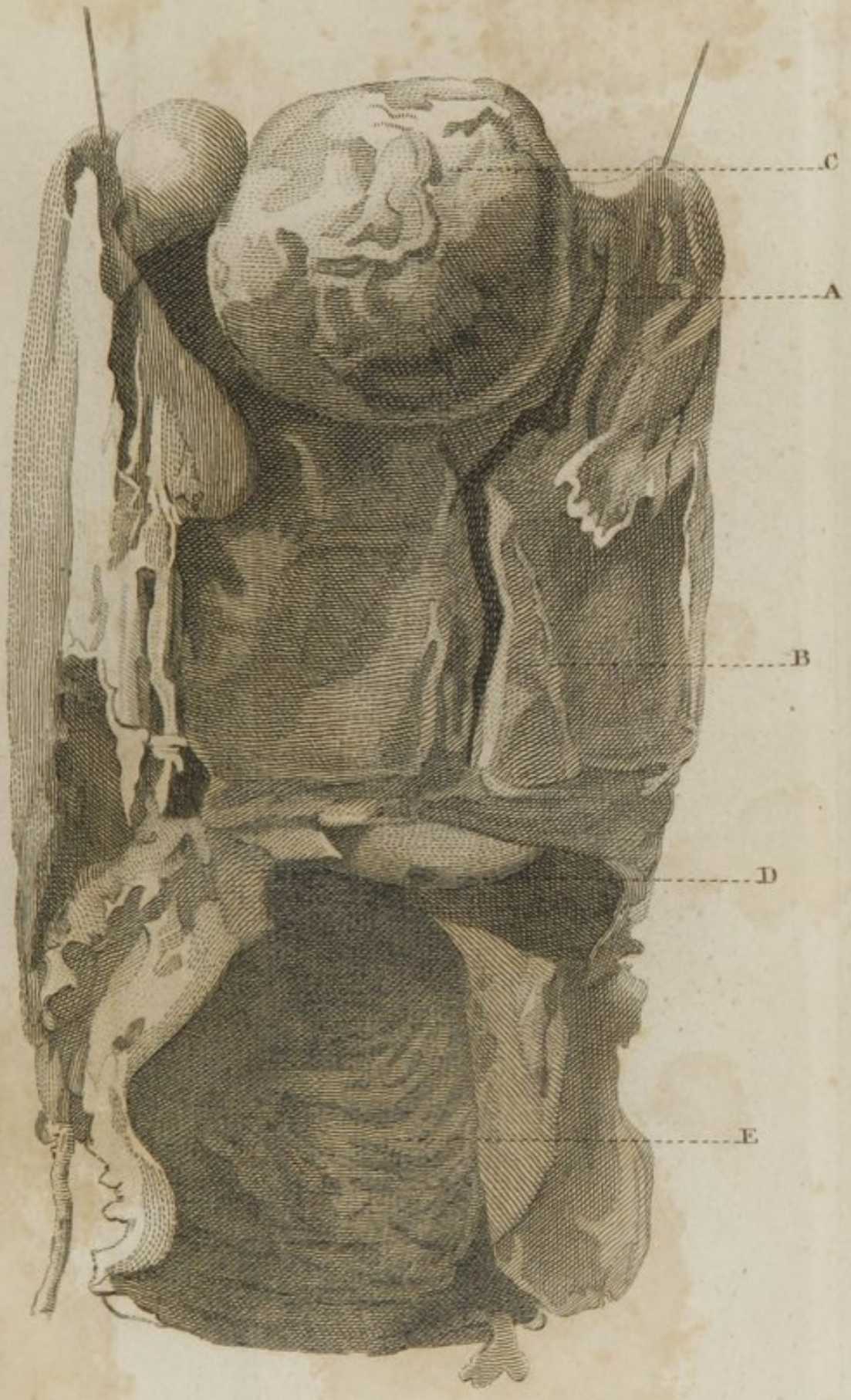




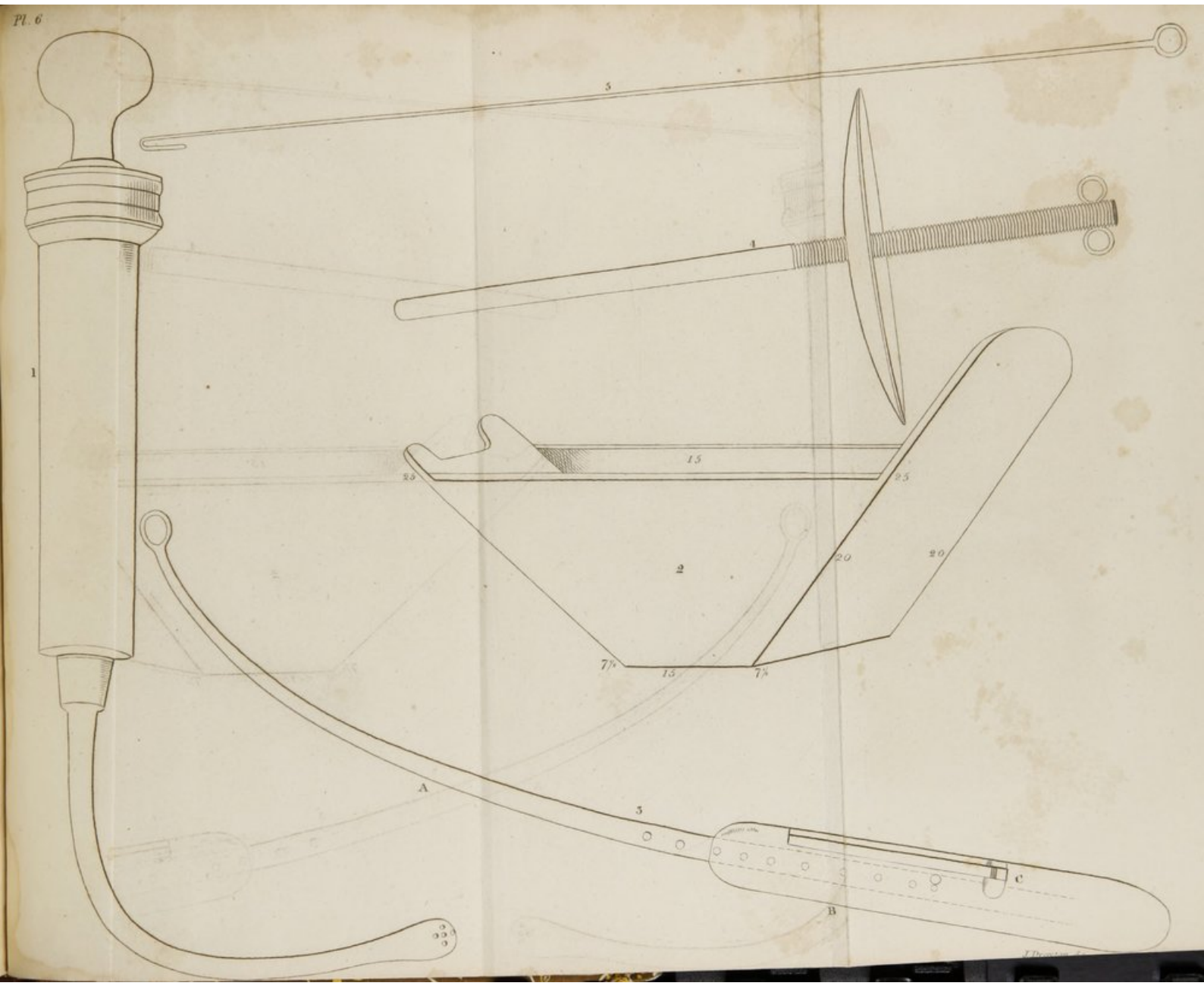
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Pl. 5.




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Pl. 6





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PLATE 7.



Engᵈ by J. Drayton.





PLATE 8.




*a.a.a.a. The size and shape of the Ovum.*

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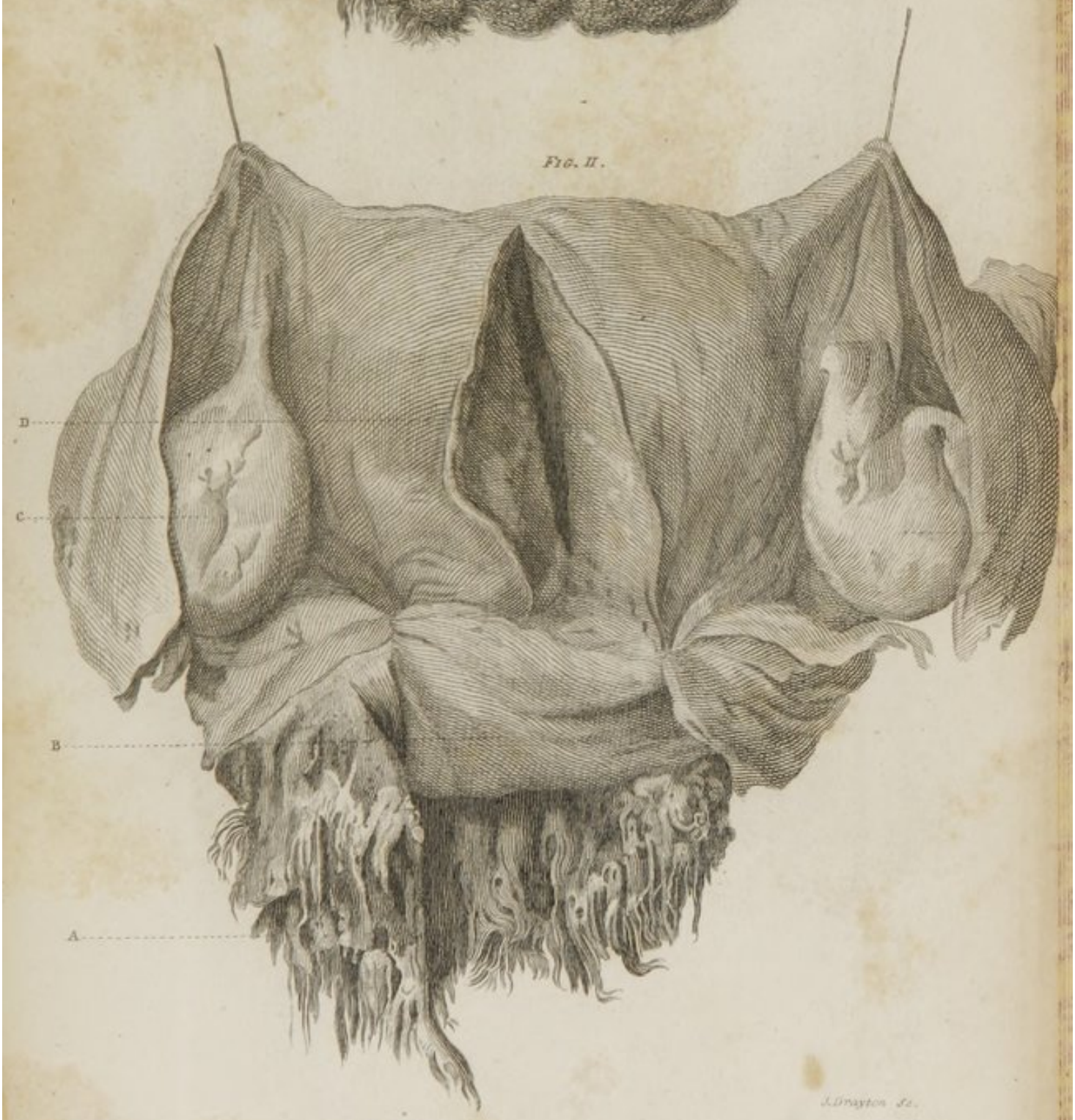




Fig. I.




Fig. II.




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Drawn by J. Stewart Jr.

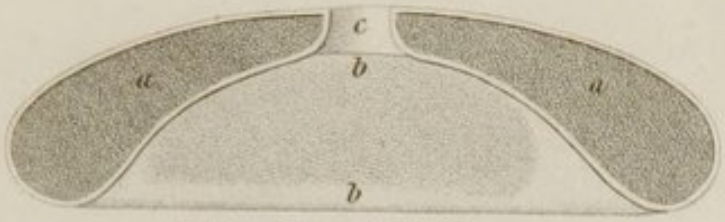
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Drawn by John Stewart Jr.

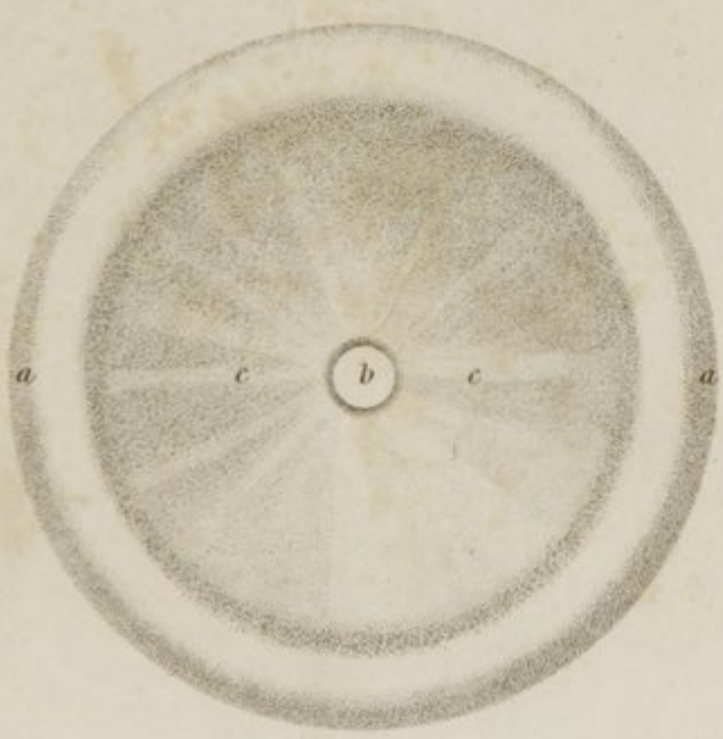
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Fig. 2.



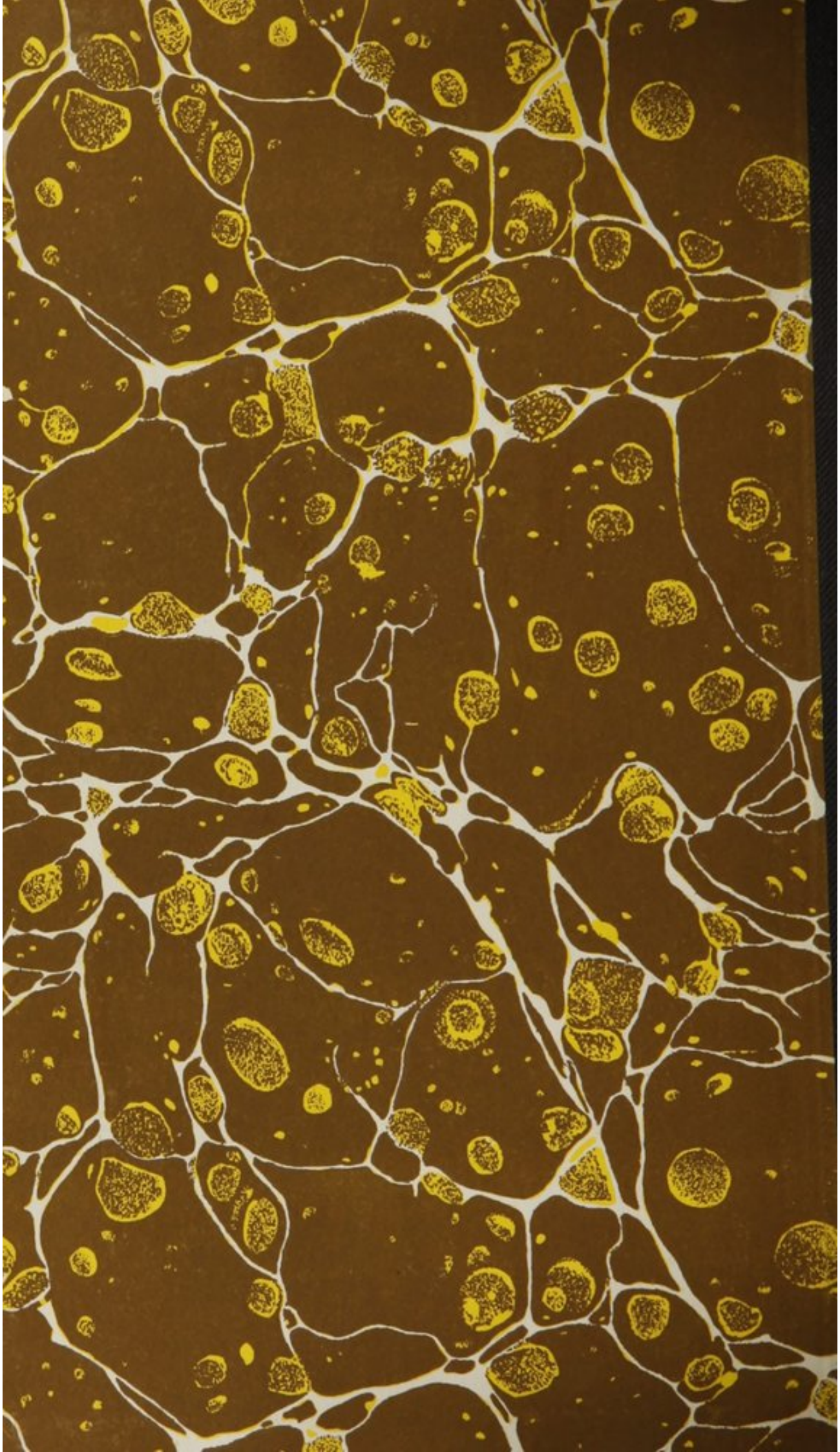

*Section through the Centre.*

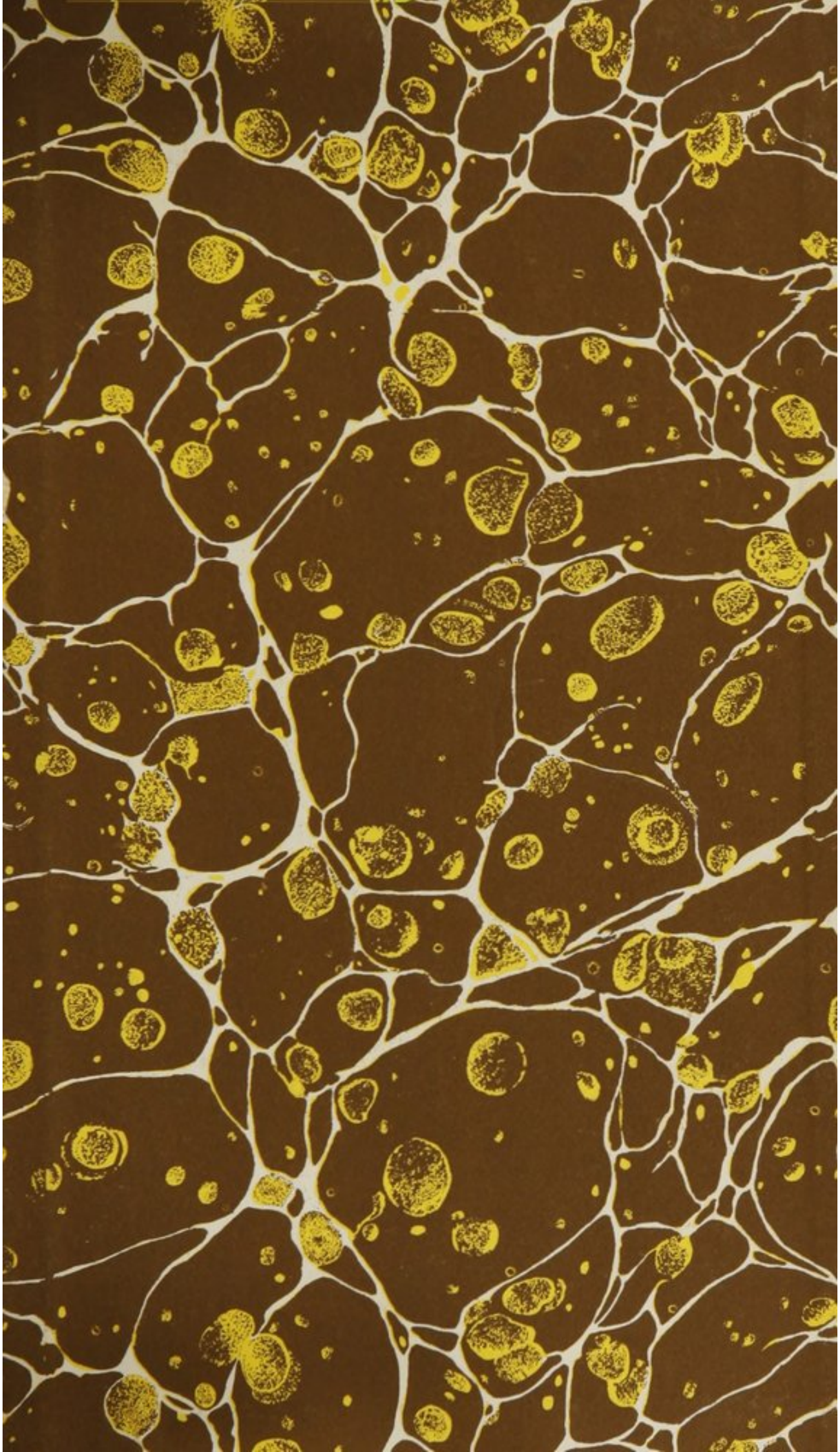
Fig. 1.




*Plan*







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