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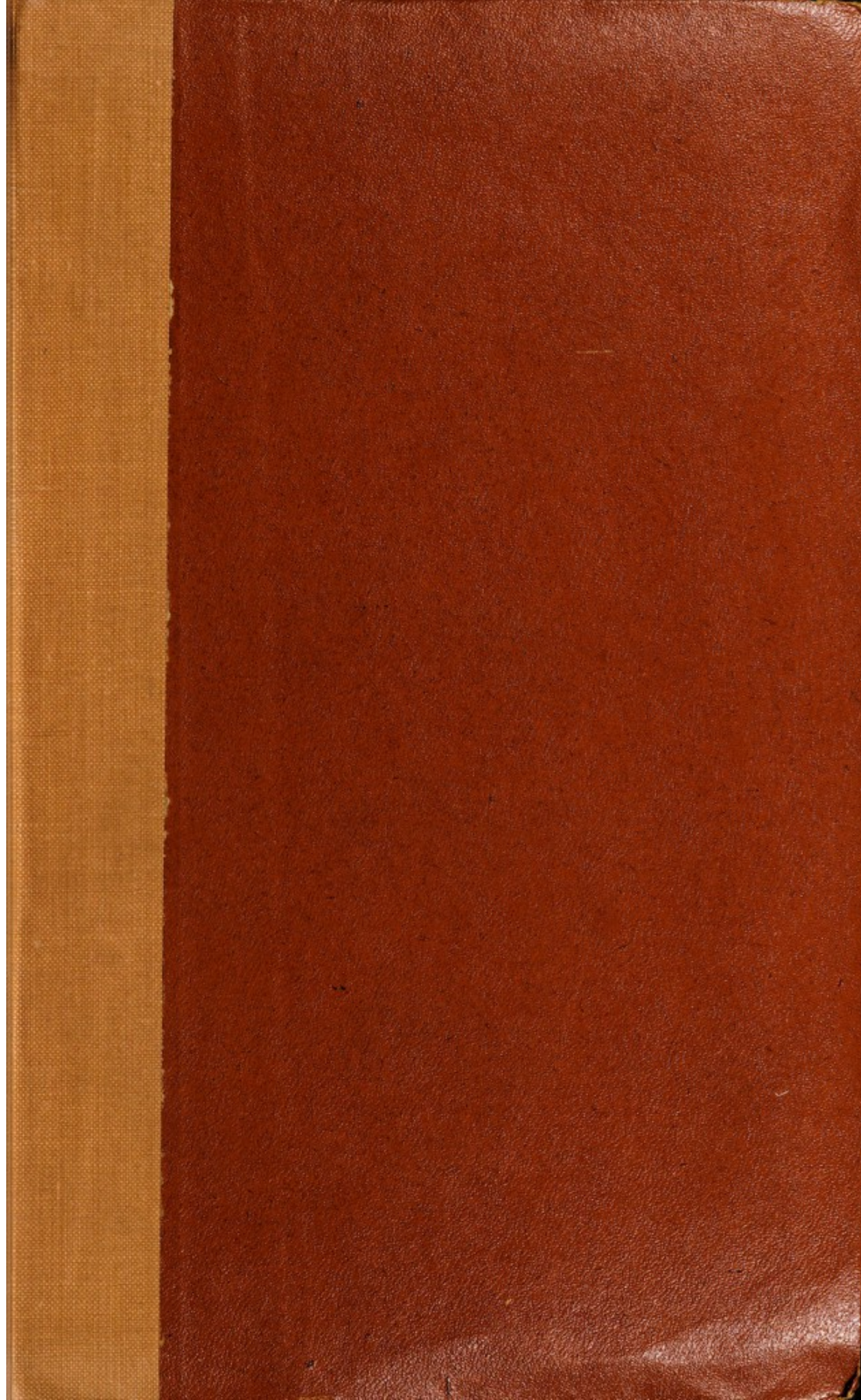
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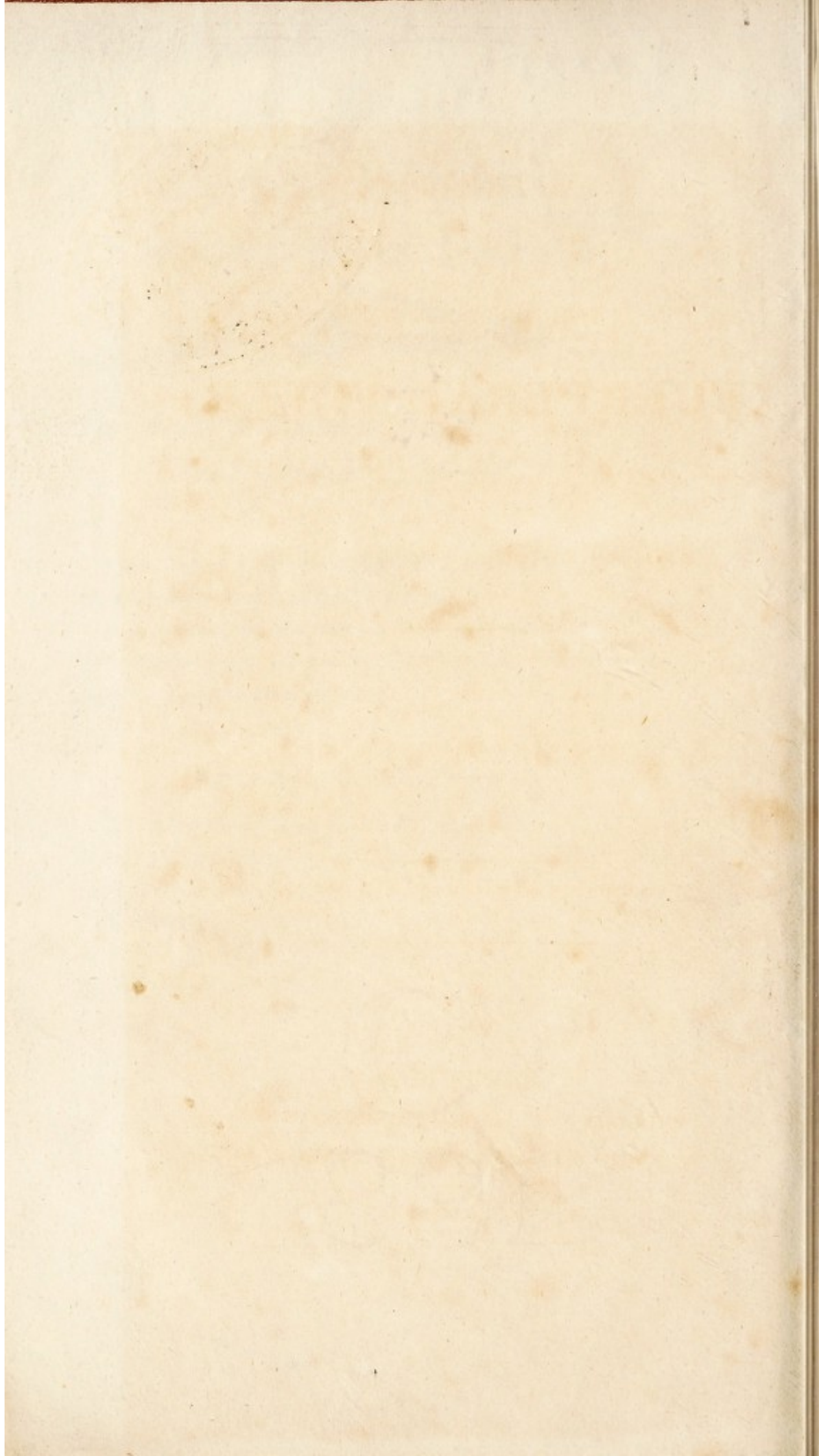
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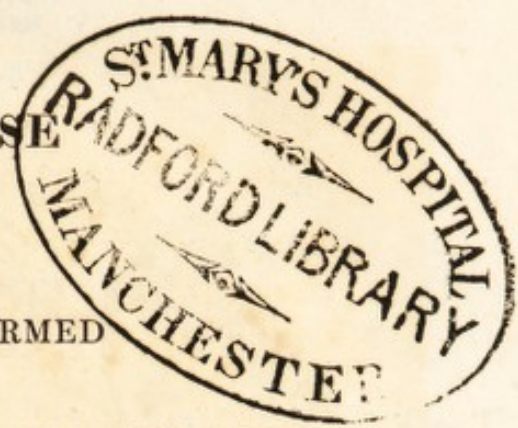
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A TREATISE
ON
THE DISEASE TERMED
PUERPERAL FEVER;

ILLUSTRATED BY

NUMEROUS CASES AND DISSECTIONS.

BY

JOHN MACKINTOSH, M. D.

“ Venia tamen sunt medici nisi si pertinaciam falsa cum opinione
conjungant.” MORGAGNI.

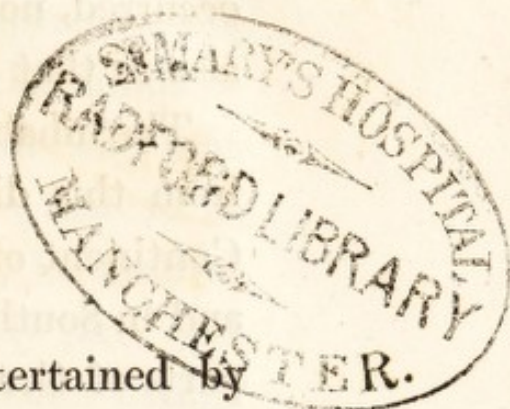
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1822.



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PREFACE.



THE discordant opinions entertained by medical men of the first rank, respecting the nature and cure of Puerperal Fever, and the ravages it has hitherto made in society, have induced me, for many years past, to pay particular attention to its symptoms, progress, and treatment, in its numerous varieties, in different constitutions, and in different climates. Above all, I have availed myself of every opportunity to examine the bodies of those who unhappily fell victims to it, with a view to observe the changes of structure produced by the disease, and to ascertain whether any particular organ was more affected than another; in order to direct my future practice.

I will not hesitate to acknowledge, that many such melancholy opportunities have

occurred, not only in my own practice, but also in that of many of my friends.

The inhabitants of no climate are exempt from this disease. I have seen it on the Continent of Europe, in the West Indies, and in South America, as well as in various parts of Great Britain; and I am well informed that it is not uncommon in India. In all these situations, Puerperal Fever exhibits nearly the same phenomena during the progress of the disease; and the appearances, on examination, after death, never vary, except in degree.

The great fatality which has attended women in child-bed, not only in this city, but generally over the whole of North Britain during the last eighteen months, has been such, as to spread dismay into every domestic circle. But I trust that the speedy and general adoption of the practice recommended in this work, will prevent our hearing again of such distressing mortality.

It is only by a long course of success, and the greatest activity on the part of medical

attendants, that the existing apprehensions can possibly be removed from the minds of pregnant women. It is only in this way, that they can be inspired with hope, instead of horror and despair. They may be assured that this disease is comparatively rare, and although a serious one, it is neither malignant nor pestilential, and certainly not necessarily fatal. I have shewn that the lives of a very large majority have actually been saved, not in my own hands alone, but also in those of Gordon, Hey, and Armstrong. The same happy results will for ever follow the same means, provided they are applied in time, and followed up with the closest attention from the very commencement of the disease. It is to prove this that I have written, as well as to settle the true nature of the complaint, which is still disputed, in the very face of long-recorded facts and common observation ; to reconcile these facts, as handed down to us by different authors, with the proper means of cure, which some of them have described, but, from some unaccounta-

ble reason, have not generally followed; and to shew that the same stumbling-block which then existed, continues to this very day in the practice of Dr Hamilton and Mr Burns, who, in other points, are at once liberal, energetic, and successful practitioners.

I have endeavoured to accomplish this in plain and intelligible language. I feel, however, that I ought to apologize for many literary faults, which I fear will be but too observable. With respect to these I can only say, that I never laid claim to great literary attainments, having been, at the early age of eighteen, launched out into public life to exercise my profession: I have ever since been actively engaged in the cares and anxieties of practice, and have had little time to study the graces of composition;—and I have been so desirous, throughout this work, to make facts occupy as little space as possible, that I fear I have been led too frequently into an abruptness of expression, which may be unpleasant to a reader of taste.

It is not my wish to give offence to any

one ; but justice, and a high sense of the importance of the cause in which I am embarked, equally demand that error and deep-rooted prejudices should receive no quarter ;—and it has therefore been my most decided aim, not to leave either the one or the other an inch of ground to defend.

As this work has greatly exceeded the limits originally intended, I have been induced to suppress a whole Section, containing Considerations upon Contagion in general, and particularly an Inquiry into the Contagious, or Non-contagious Nature of Puerperal Fever. I may be hereafter induced to publish what I have written on this subject ; but I must content myself with observing, that under the various circumstances in which I have seen the disease, nothing has occurred to convince me that it is infectious, any more than a common attack of inflammation of the bowels.

I hope the Members of the Profession will be disposed to admit, that my efforts are sincere and well-intended. They must know,

that the disease is most formidable ; and Heaven knows, that it has been most fatal. Every man ought also to remember, that the sufferers form the most interesting part of society ; and that

“ The very first

Of human life must spring from woman's breast.

Your first small words are taught you by her lips,—

Your first tears quench'd by her—and your last sighs

Too often breathed out in woman's hearing.”

No. 14, HILL STREET, EDINBURGH, }

November 10, 1822. }

ERRATA.

<i>Page</i>	26,	<i>line</i>	11,	<i>for</i>	lochica . . .	<i>read</i>	lochia.
—	64,	—	12,	—	peritonites	—	peritonitis.
—	93,	<i>note</i> ,	3,	—	dolores . . .	—	doloris.
—	97,	<i>line</i>	11,	—	doze. . . .	—	dose.
—	106,	—	4,	—	decendeus .	—	descendens.
—	163,	—	12,	—	Dalaroche	—	Delaroche.
—	214,	—	15,	—	person . . .	—	a person.
—	220,	—	14,	—	turgessence	—	turgescence.
—	233,	—	6,	—	parietis . .	—	parietes.
—	270,	—	10,	—	facts	—	fact.

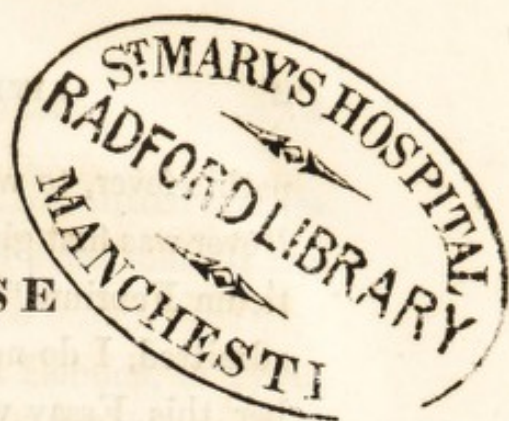
PUERPERAL FEVER

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A TREATISE
ON
THE DISEASE
TERMED
PUERPERAL FEVER.

SECTION I.

The Literary History of the Disease termed Puerperal Fever; including an Account of the uncommon Fatality of the Disease, when it has occasionally appeared as an Epidemic in Hospitals and Cities, as in Paris, London, Edinburgh, &c.; and of the vacillating undecided Practice pursued.

THE medical profession at large agree in opinion that Puerperal Fever has been described by Hippocrates, and from him down to the present period, by different authors, sometimes as inflammation of the uterus—as simple fever arising from suppression of the lochia, either partial or complete; at others, as peritonitis; but more frequently as a peculiar idio-

pathic fever, to which the fatal name of Puerperal Fever was first given by a Dr Strother, in his "Criticum Febrium," about the year 1716. This being admitted, I do not consider it necessary to encumber this Essay with long and high-sounding extracts from the works of the fathers of medicine, which could have no other effect than to give it an appearance of a learned work, and to swell out the pages, which I shall be anxious to compress; particularly, as a very excellent and truly learned history of all that had been written by them can be easily obtained from Dr Hulme's work on this disease, to which I shall often have occasion to refer the reader.

Dr Willis, a physician who practised in London, and who died in 1675, famed for his excellent Treatise on the Brain and Nervous System, was nevertheless considered an unsuccessful practitioner; he also wrote a Treatise on Fevers, and calls the Puerperal of more modern writers, "*Febris Putrida*." Dr Willis honestly acknowledges that his treatment was almost always unsuccessful, which may have given rise to the remark recorded of Charles the Second, "that Willis had robbed him of more subjects than the army of an enemy would have done."

In the History of the Academy of Sciences, it appears that this disease was first taken notice of in

France, in the year 1746, when it committed ravages in the Hotel Dieu of Paris. We are told all the patients it then attacked died.

It appeared as an epidemic in London, in 1760, and following year. The following is the result of the practice in the British Lying-in Hospital :—
“Between the 12th of June and latter end of December, *twenty-four* women died of it.”

“A gentleman,” says Mr White, “whose veracity I can depend on, informs me, that he attended a small private Lying-in Hospital in London, in the latter end of May, June, and beginning of July, 1761 ; during which time the Puerperal Fever was very fatal there. That to the best of his recollection, they lost about twenty patients in the month of June. That during this month, he himself delivered six women, in a short time, in the hospital, of natural births, and they all died. He was so shocked with the loss, that he desired the gentleman who had the care of the hospital to deliver some of those who should next be in labour ; which he did, but they met with no better fate. They buried two women in one coffin, to conceal their bad success.”*

* White's Treatise on the Management of Pregnant and Lying-in Women, p. 165.

It appeared again in London, and in different parts of England, in the year 1768, when it was very fatal; from which time it has been generally known by the name of Puerperal Fever.

It revisited London in the spring of 1770; and the following was the result of the practice in the Westminster New Lying-in Hospital:—Out of sixty-three women delivered, nineteen had the disease; thirteen died.

It visited Aberdeen in the year 1789, and continued, more or less, till 1792; of which we have a very excellent account, published by Dr Gordon of that city, who had seen the disease previously in London; and we are told by him, in the most explicit manner, that out of seventy-seven patients, twenty-eight died—the great mortality prevailing at first, when he bled sparingly; for, out of the first twenty-seven cases he treated, twenty-three died; but in the remaining fifty cases, when he came to adopt a more energetic practice, by bleeding boldly and early, he only lost five.

This city has not escaped its ravages. All who were attacked with it in the Lying-in Wards of the Royal Infirmary, many years ago, died;* and I am

* Home's Clinical Experiments.

sorry to add, that in the Lying-in Hospital, as well as out of it, the practice adopted has not met with much better success.

It has also appeared in Leeds and Sunderand ; and in fact there is not a corner in Britain where this formidable disease has not made many mourners.

The views and opinions of authors and teachers of midwifery respecting Puerperal Fever, might be divided, without impropriety, into three classes :—of

Those who treat it as an inflammatory disease.

Those who consider it as an inflammatory disease, but dread to use the only effectual means of cure. And, lastly,

Those who consider it as a peculiar disease attending child-bed—of a low, typhoid, or malignant form, and treat it accordingly with stimulants ; but I consider it better to adopt a different mode, and to present these varying opinions to the reader according to the periods at which they were promulgated. Before proceeding to accomplish this object, I may make this short remark ; that under all the difference of opinion regarding its nature ; and notwithstanding the variety of character which it puts on, in its march, the appearances, on dissection, never vary ; and these exhibit decided marks of inflammation. This is allowed by all to be a fact.

Dr Astruc, a French physician of high reputation, who practised in Paris about the middle of last century, describes this disease; from the review of what he has written, it could have been no other disease he treated; and it has surprised me much that medical men have since overlooked his observations and directions. He viewed it as an acute inflammatory affection of the uterus, and employed bleeding from the arm, which, he remarks, "must be repeated several times, quickly, as long as the condition of the patient's strength will admit of it, and copiously, especially in the beginning." After stating that it is not possible to fix the number or proportion of the bleedings that may be required, he observes, "But in general they should be repeated in the two first days, six, seven, or eight times;" and that from twenty-eight to thirty-two ounces should be taken away at each of the three or four first bleedings. When we come to consider the treatment of this disease, I shall have occasion to refer to some excellent points of his practice.*

The opinions of Doctors Leake, Hulme, Wil-

* Treatise on the Diseases of Women, by Dr J. Astruc, Royal Professor of Physic at Paris, and consulting Physician to the King, vol. II. p. 21.

liam Hunter, Wallace Johnson, M'Kenzie, Walsh, White of Manchester, and Denman, who saw the different epidemics as they occurred in London from 1760 to 1786, fall next to be considered. All these gentlemen had ample opportunities of seeing the disease; and it is really wonderful to observe the opposite modes of practice they adopted. The only natural conclusion we can now draw from this is, that some of them were wrong. I shall proceed to consider their opinions and practice separately, without touching on the nature of the appearances they found on dissection, a circumstance which falls to be taken notice of in another section.

Dr Leake entertained the opinion that this disease was of a highly inflammatory nature, caused by an affection of the omentum, which "uniformly," he remarks, "produces an inflammation of that part. I think it will strongly enforce the early loss of blood, together with the application of blisters to the sides, or even to the umbilical region, to prevent if possible a morbid affection of the viscera, which, when once begun, is generally found to be fatal in the conclusion."

He, however, entertained a notion that the omentum was melted down; and seems to have participated so much in the feeling of the times with re-

spect to the presence of something putrid or malignant in the disease, that his practice was of the most undecided vacillating kind. He bled, but it was always in small quantities, and as if something malignant was to spring out of it. We therefore shall find his patients getting bark, beef-tea, and other cordials to prevent putridity, when he should have used the lancet. I shall, in the proper place, point out these cases, to shew the errors he committed, and contrast them with others, in which he ventured to bleed more largely, and was successful. Yet he appears to have been more successful than any of his contemporaries; though he lost thirteen out of nineteen patients, attacked in one epidemic season.

In Dr Hulme's work on Puerperal Fever will be found an excellent detail of symptoms, and a learned history of this disease, from the time of Hippocrates down to his own. He entertained similar notions of its pathology as the last mentioned author; although he considered it to be a disease of a highly inflammatory nature, yet he erred as much as it is possible to conceive in the treatment. Bleeding, he states to be necessary only "if the pain of the hypogastric region be accompanied with *violent stitches* in the sides, or even the pit of the stomach, and a pulse that resists the finger pretty strongly."—In

stating the quantity of blood to be drawn, he directs that "the first quantity *should rarely exceed eight ounces*; and in about six or eight hours afterwards, if the pulse still preserve its strength, and the pain continues, the arm should be tied up again, and *a second quantity* drawn from the same orifice."—We find him directing his reader to "*correct the putrescent state of the solids and fluids*," by giving "*red wine and animal soups, and administering injections of fat broth, beef-tea,*" &c. "These," he exclaims, "are the proper helps to moderate the colliquative discharge, and to keep up the strength of the patient. But the most capital point of all yet remains; I mean, to cut off *the purulent fomes*—the chief cause of the disease, (as the dissections seem to indicate) and restore *the tainted omentum and intestines* to somewhat of the perfect state;" for this purpose, "*peruvian bark*" is to be given.

"*Violent pains*," he adds, "*about the abdomen*, coming on soon after delivery, if neglected or trifled with, will frequently prove mortal. But it should always be remembered, that *bleeding*, in the Puerperal Fever, (I speak with submission) is only to be considered as a *secondary relief*."

I shall give one more passage from this author; and I feel persuaded the reader will cease to be

surprised, at least, at Dr Hulme's want of success. In directing the treatment, he states, "If I must err, therefore, in this case, and who amongst us is free from error? let it be rather, I say, in point of *bleeding too little, than of bleeding too much.*"

It will be remarked, that these two authors, Drs Leake and Hulme, lived and published about the same time. The notions they entertained of the inflammatory nature of the disease, are somewhat similar; and they made similar blunders in the treatment. It will be seen hereafter, that their pathological investigations produced the same result. Dr Leake, however, had the soundest views respecting it, but in the most unaccountable way he recommended large bleedings, and practised small; while the other, from the fear of putridity, held bleeding to be a secondary remedy. He was also, it would appear, the most successful. He insinuates that Dr Hulme had availed himself of the opinions and views he had previously expressed in his Public Lectures, and adopted them as his own, without making a suitable acknowledgment; which, if true, cannot be too severely deprecated, nothing being more illiberal in the conduct of one medical man towards another. I fear there are still some so short-sighted as to proclaim a successful mode of practice as of their own invention, which,

in point of fact, had been copied from another, or recommended a century before.

He who writes, particularly on such a formidable disease as this, should, if he wishes not to mislead, state nothing but matter of fact; there should be neither concealment with regard to want of success in his own practice, nor a disposition to exaggerate the unsuccessful practice of others. And it cannot be too strongly, nor too frequently held out to those who teach, or are in the habit of publishing observations, that nothing can be more injurious to humanity, nor, in fact, a greater offence, than to give any thing to the public as a medical fact, which is not, *in all its bearings*, strictly true. It must have been the knowledge of the prevalence of an opposite conduct, which induced the celebrated Dr Cullen to declare, that there were in medicine "more false facts than false theories." Certainly the *latter* error is much less fatal than the former.

The reputation Dr William Hunter acquired as a physician, and teacher of midwifery, are too well known to require any panegyric here. The result of this celebrated man's experience is so extraordinary, from his adopting the very opposite practice to depletion, in the very face, too, of his own observations, and the fatality attending the practice he recommends, that it must plead my ex-

cuse to the reader, for stepping out of the plan laid down, and to lay before him in this place a few lines containing what Dr Hunter saw on dissection.

“ Upon examination, *the uterus, all the viscera, and every other part, are found inflamed ; there is a quantity of purulent matter in the cavity of the abdomen, and the intestines are all glued together.*” We shall cease not only to be surprised, that “ out of thirty-two patients,” he treated in two months, “ only one recovered ;” but we shall absolutely wonder that *one* did survive. He assures us he tried every kind of practice, but at last his practice became fixed—to give, in the first place, a “ good wine-glass full of brandy, as soon as the shivering comes on ; this brings them out of the cold stage, throws them into a hot fit, and, in many cases, made it go off afterwards with a great sweat.”*

Dr Mackenzie, who was a Lecturer on Midwifery of considerable eminence in London, a copy of whose Lectures I have now before me, gives the following description of the disease. He states it “ to proceed from violent affections of the mind,

* Manuscript Lectures delivered in 1781-2.

strong liquors, or obstructed perspiration. The symptoms, at first, are a low creeping pulse, which afterwards becomes exceeding quick—sometimes quick at first, and low afterwards; in some quick, full, and strong; in others quick, low, with shiverings and successions of heat—pains in the belly and breast, a cough, dry skin, and hardness of abdomen. If the fever increases, the abdomen also swells, and becomes tense, and sometimes so very painful, that the woman can scarcely suffer the bed-clothes to touch it," &c. "On the 4th day, the fever becomes quite of the putrid kind." He allows that "bleeding is of signal service in some cases;" but from the observation which immediately precedes the last, it is evident he, in general, did not bleed. "The French," he states, "often bleed within four hours after delivery; but it is a disagreeable operation to the patient. Should she die, we should be blamed, as the friends generally think blood enough to be lost during labour." He then adds, "nevertheless, bleeding, in some cases, is of signal service." He condemns "warm medicines." The disease he found to be "most common in the hot months."

Dr Wallace Johnson, in his System of Midwifery, gives a short account of this disease. "I am well assured," he observes, "by several practi-

tioners in London, that, of patients who were seized on the second or third day after delivery, some died in less than twenty hours after the attack, and others did not outlive forty; and though the progress of their illness was so very rapid, yet it was observed, on opening their bodies after death, that the abdominal viscera were found always inflamed, particularly the intestines, some parts of which adhered together, and likewise to that portion of the peritoneum which lines the abdominal cavity; and though the uterus often appeared inflamed like the rest of the viscera, yet in many it seemed to have suffered least by this fever, and nothing was seen giving the least reason to believe it had been hurt in parturition. In the abdominal cavities of some, there was found a considerable quantity of a bloody serous fluid, and in others, a whitish mucus, gluing them together, and often a fluid similar to pus lying loose in the abdomen."

The two first indications of cure which this author recommends, are excellent. The first is, "a timely diminution of the quantity of blood, as the patient's strength can bear, in order to ease the circulation;" secondly, "to use such other means as are most likely to take off irritation." But his third and last indication shews, that in general his practice was undecided, from the popular feeling

which seems to have prevented all his contemporaries, as well as himself, from drawing proper inferences from the appearances after death, which they all were so well acquainted with. But, to return to his indications, he observes, "thirdly, a counteraction of the tendency which this disease has to putrefaction, by proper antiseptics."

It is scarcely to be wondered at, that a man situated as Dr Wallace Johnson was, should dread to trust entirely to his own opinions, when the experience of all the men of talent around him, was either against him, or, staggered at the fatality of the disease—they had no settled opinion at all. We have seen, by Dr M'Kenzie's statement, that there was a popular feeling in those days against bleeding women in the puerperal state. We shall now look to this author's statement respecting the opinions of his brethren: "When about writing the above, I was, by experience, led to believe that cleanliness, pure air, cool drinks, lenient purges, and *early venæsection*, when the pulse was full, were all essential articles in the cure of this disease. But wishing to know the sentiments of others upon those matters, I asked several of my friends, particularly Sir John Pringle, Doctors Hunter, Lewis, M'Kenzie, and Harvie, who all declined giving any decisive

answer ; some even saying, that they knew nothing satisfactory about the cure. I was therefore obliged to give *only* my own. I say only—for, knowing that the common practice was then against me, I was afraid to write so fully as I wished."

Dr Walsh admits, in round terms, the inflammatory nature of Puerperal Fever. He denies that it is a disease *sui generis*, confined to lying-in women ; yet supposes it to be an unusual form of the common infectious fever—complicated with a more or less extensive inflammation of the peritonæum. He admits, that " a real inflammation of certain contents of the abdomen," exists, " as *constantly shewn by the symptoms during life, and frequently by dissection after death.*" With regard to his theory, however, of this inflammatory action in the abdomen—merely complicating Synochus, which he conceives to be the original disease—he is obliged to confess, that " it is incapable of being reduced to an equal certainty with a mathematical demonstration."

I have only farther to remark, that he is hostile to blood-letting—which is not to be wondered at, considering, that he viewed the disease as complicated with typhus—an opinion having at that time prevailed, that typhus was a disease in which bleeding

invariably increased the putrid tendency. The indications of cure which he recommends, are three in number.

1st, "To promote a determination to the surface, and a more equal distribution of the fluids, thereby to remove also the constriction induced by the fever, *and morbid determination, to the abdominal contents.*"

2d, "To lessen irritation."

3d, "To remove debility present."

The first indication he fulfils by the use of emetics, instead of bleeding.*

Mr White of Manchester, whose name is mentioned as an authority on points of Midwifery, also takes notice of this disease in his treatise on the Complaints of Women.

He seems to suppose that a putrid humour transudes from the uterus, and affects the omentum and intestines; and his chief exertions are directed to remove this morbid matter by cold air, making the patient sit up, if possible, out of bed altogether; and he removes acrid matter from the stomach and intestines, by means of gentle vomits and purges, and the application of cold to the abdomen.

* It may be remarked, that Avicenna, an Arabian physician, recommended emetics in the same disease, 800 years before the time of either Dr Walsh, or Dr Doulcet of Paris.

“In the Puerperal Fever, however,” says Mr White, “which generally sooner or later affords striking symptoms of putrescency, we should be extremely cautious how we do any thing to debilitate the *vis vitæ*, to weaken the circulating powers by unnecessary evacuations, or waste the strength which may be wanted to support the patient under looseness and vomiting.”

“Such is the rapid progress of this *acute* disorder, that if the patient have suffered any unnecessary evacuations in the first period of it, by bleeding or sweating, there is seldom sufficient time to recruit her strength, and a trifling error may be productive of the most fatal consequences.”

The author therefore condemns bleeding *in toto*, in this disease, as he observes, in another place, that “Puerperal women are in a state much inclined to putrescence.”

Dr Denman, whose distinguished name is great authority in every thing connected with all the diseases incident to lying-in women, was one of those who for a long time considered the practice of bleeding in this disease to be injurious.

“I suspected,” says he, “that women in child-bed sustain bleeding worse than in almost any other situation; and from some defect in the remedy, or some error in the application, I often found myself

disappointed in my hopes and expectations, when I relied upon it. It seemed also an observation of importance, that those women who had lost much blood at the time of delivery, were more liable to this disease, and that it was more commonly fatal to them. The consequences also of erring by the too free use of the lancet, seemed more to be dreaded, because they were harder to be repaired than those which might arise from an opposite conduct."

"*But,*" he adds, "*I am now convinced by manifold experience, that my reasoning was fallacious and my fears groundless ; and that what I considered as proofs of the 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.*"*

Dr Denman does not give us any account of the comparative number of his successful cases. We can only infer, that he was for a long time very unsuccessful, which most naturally caused him to change his opinions and practice, as we have seen by the above extracts ; that he saw the real disease, cannot be denied by any person possessing common

* Vide System of Midwifery, page 646.

candour ; but as the judgment and veracity of this great man have been called in question, even in the present day, I shall deem it expedient, (if my limits will permit) to advert to this hereafter, when we come to consider that part of the subject which relates to the appearances observed on dissection.

Dr Gordon (of Aberdeen) gives a very plain, and excellent account of this disease, as it appeared in that city. The result of the practice he adopted is most satisfactory—shewing, that it proceeded upon reasonable inferences, deduced from careful anatomical investigation. He was unsuccessful at first, as has been stated in a former place, when his practice vacillated ; and he declares that “ the time when the third dissection was made, may be reckoned the æra from which we are to date the discovery of the cure of the disease.” Dr Gordon bled *early* and *largely*, and trusted also to strong purgatives. It will appear to every unprejudiced mind, that the disease Dr Gordon describes is the true Puerperal Fever, whether we judge from the medical history, or the appearances discovered on dissection. It may be said with some truth, that the disease was in general of a mild kind, as it would appear that no case required a greater abstraction of blood than twenty-six ounces *in toto*. Now, very few of the cases I have met with yielded to so small a quantity ; but,

on the other hand, some have. Indeed, we often find a disease prevailing as an epidemic at the same time, in different places, bearing in each place different degrees of severity. Besides, diseases are often found to be more acute in one season than in another, while it is still the same affection; and it is really going too great a length, for *any individual*, however high his pretensions may be, to pronounce views and conclusions, drawn, like those of Denman and Gordon, from actual experience, and backed by almost invariable success, as altogether absurd and erroneous, and calculated to mislead, because they do not happen to suit certain *dogmatical opinions*, formed upon *thread-bare theories*, which have invariably proved fallacious when tried in practice. I am compelled to state, that Dr Gordon was highly esteemed as a professional man by his brethren; his work was published in the meridian of his practice; and he gives the names and places of residence of the subjects of all his cases, and his veracity was never before impeached. I shall also make it appear, that a statement is constantly made respecting a general symptom, in the cases detailed by this intelligent author, in the very teeth of the facts recorded in his work to the contrary.

It has been mentioned that this disease visited the North of England. We have an account of

the epidemic which prevailed a few years ago at Leeds and its vicinity, in the neat and excellent work published by Mr Hey, junior, of Leeds, who was led to the practice of depletion by sad experience, after trying in vain every other method of cure. This is one of many victories gained over those, who inculcate theories of putrescency attending this disease ; nay, I consider it to be one of the greatest, because the author now before us was deprived, by the prejudices of surviving friends, of the light which dissection would have thrown upon the pathology of the disease. He had only the symptoms to guide him, and the soundest reasoning on the whole circumstances attending the *eighth*, and previous cases.

He declares, that “for some time after the commencement of this dreadful malady, it proved fatal in *every case* that came within my knowledge ; and though a few recovered under the treatment which my father and I had formerly found successful in Puerperal Fever, yet the success was very small, till the method of cure, hereafter described, was fully adopted.”

Dr Armstrong, whom I consider to be one of the best practical authors of the present day, and who has enriched the science with several valuable publications, has employed his pen in delineating this

formidable disease, as he observed it in, and near Sunderland.

The first case that occurred in that town was in January 1813, which, together with others that happened through the winter, were of so mild a character, that they yielded to brisk purging and a spare regimen. In the spring, however, the disease became more serious, and five patients fell victims to it in rapid succession—being all that died out of forty-three cases which occurred between the 1st of January and the 1st of October, when it ceased.

We are also assured by Dr Armstrong, that Puerperal Fever raged for two years in different parts of Durham and Northumberland, commencing in 1811; and that during its prevalence, a great many women died of it; “this was so much the case in Northumberland, that I was credibly informed every patient perished who was not bled in the beginning.”

Dr Armstrong, in this treatise, says enough to convince us of the propriety of blood-letting. He states his conviction that the diversity of treatment in this disease has arisen from the want of making proper distinctions, between the stage of excitement, and that of collapse, which he has most effectually pointed out. The practice he found most successful, was *early bleeding* and strong purgatives. In

stating the result of his practice, when called in late in the disease, he “ found, that whatever plan was pursued, the event was generally disastrous. Blood-letting invariably sunk the feeble remains of life with great rapidity ; a liberal allowance of wine and cordials, was, if possible, more speedily destructive.”

He observes in another place, that “ it will be found a most fatal delusion to be deterred from early bleeding and purging by the semblance of debility, which only serves as a covering to obscure the destructive progress of the abdominal inflammation.”

In Edinburgh, this disease has appeared as often as in other places, and although the same fatal result has almost invariably attended the practice pursued, and although the same *post mortem* appearances have been observed, yet the disease is still by many supposed to be, of a putrid or typhoid nature, requiring rather the use of stimulants, than depletion, or, in some round-about way connected with erysipelas, which makes them not willing to interfere much with it.

It will be seen, by all that was written in Home's Clinical Experiments, that little was known of the nature, and still less of the cure, of the Puerperal Fever, as it prevailed in the lying-in wards of the Royal Infirmary ; and it is said, that Dr Young, a former professor of midwifery, declared, that he

knew little or nothing about the one or the other. All died who were attacked.

The opinions entertained by our present distinguished Professor, Dr Hamilton, junior, are nearly as follows:—He declares it to be one of the most fatal diseases of child-bed—being almost always fatal in hospitals, and only about one in ten recover in private practice. No remedy or kind of treatment has yet proved successful in this fever, the appearances, on dissection, being exactly similar to the descriptions which are generally given.

The Professor has three indications of cure.

1st, To moderate local inflammation—*By purging, and hot fomentations, renewed every six hours.* He has been pleased to condemn blood-letting, *as signing the death-warrant of the patient.* He had recourse to it, I understand, several times in public, and once in private practice. All the patients he bled died. One patient was cured by digitalis, but he has since seen it fail in many cases. Tobacco enemata are recommended. He mentions one case treated strictly according to the Brownonian system, in which the patient, being afterwards taken to the Infirmary, was tapped, (the disease being mistaken for another) and she eventually recovered. Dr Kellie tapped a patient of Dr Hamilton's, at his request, but without benefit.

2d, Indication is to be fulfilled, by animal mucilages *from the beginning of the disease*—*wine*—*vol. alkali*—*Spiritus ætheris nitrosi*—*Spiritus ammoniæ aromaticus*—*Bark glysters*, &c.

3d, Indication, to palliate symptoms. And I remember, (not long ago) when Dr Hamilton used to tell his pupils, that they must not symptomatize in the treatment of this disease. Dr Hamilton states, that in all his cases, the pain in the abdomen was acute; a fixed pain over the eye-brows, and the natural, and unchanged flow of the lochica, seem to be his peculiar pathognomonic symptoms. All the cases which have been recorded by *others* in different parts of the world, and, of which a majority has been successfully treated, Dr Hamilton declares, not to be *his* Puerperal Fever. One fact is certain, that *almost all the patients affected with this disease, have died under Dr H.'s treatment.*

The following is a brief sketch of the views and opinions entertained by Mr Burns of Glasgow, who has established a fame for himself, which will go down to posterity, *through the medium of several excellent publications*; and I have to regret that the opinions entertained by this gentleman, as well as by Dr Hamilton, respecting the disease under consideration, are so widely different from what I conceive to be the truth. The task of confuting

these *old established* authorities would appear to be almost hopeless—it may appear to others ungracious ; and it is so unpleasant to my own feelings, that I would give up the work in despair, were I not urged on by a strong sense of duty to the public, and supported *by facts*, which it will be impossible to controvert, *by theories*, however ingenious. The opinions of these eminent men on this subject are before the profession, and as they appear to me to be erroneous, and calculated to mislead others in practice, I have entered the field of discussion, with *far different feelings* to those of personal animosity, or petty jealousy, both of which, are at once injurious to the public, and to the advancement of science ; as well as discreditable to the individual who is so weak as to display them.

Mr Burns declares, “ that the disease is most frequent and dangerous in hospitals—less malignant, though still very dangerous in private practice ; it has never, to his knowledge, prevailed as an epidemic in Glasgow, nor has he ever been able to trace the infection from one woman to another. He thinks the disease depends on *inflammation* of the *peritonæum*, conjoined with some *debilitating poison*—probably, in most cases more or less contagious. He confesses he can more easily tell what remedies have failed, than what have done good. His experience

would lead him to say, that the distinction between this, and simple peritonitis is, in point of practice, that in the latter we can scarcely bleed too much ; in the former, the lancet can only be used early with any prospect of advantage. He recommends purgations—afterwards he begins the use of bark, as liberally as the stomach will bear it. He thinks opiates useful ; disapproves of emetics and antimonials. Fomentations and anodyne embrocations he sometimes found to abate pain. Blisters, although extolled by some, he thinks injurious, as they excite irritation. The strength is to be supported by light nourishment, and ultimately by a moderate proportion of wine and other cordials—condemns the employment of digitalis.—“ *Upon the whole,*” he adds, “ *we support the strength, and regulate the state of the alvine discharge*—preventing accumulation of morbid feces on the one hand, and restraining immoderate evacuation on the other.”

SECTION II.

The Medical History of the Disease termed Puerperal Fever, containing an Analytical Review of the Symptoms. Analogy between its History and the Phenomena of Peritonæal Inflammation occurring in the non-puerperal state. Also, with some other Congestive and Inflammatory Affections of the Viscera in the Thoracic and Abdominal Cavities ; particularly, with some Varieties of Dysentery, Intermittent, and Yellow Fever—Cholera Morbus—and the Disease termed Berreberri.

I HAVE frequently had reason to think that this disease was formed before delivery, from the excessive quickness and violence with which the symptoms developed themselves. Sometimes, we have decided premonitory symptoms, which will enable an attentive observer to cut short the disease. In other instances, the disease gains secret strength, under cover of the insidious nature of the attack, deceiving the medical attendant and nurse by a pe-

cular state of the nervous system, which diminishes sensibility, in consequence of which the patient makes little or no complaint. In some cases, the symptoms go through a regular course. In fact, there are in this, as well as in all diseases, many varieties, depending upon circumstances of season, habit of body, and state of the mind at the time of attack, as well as of original peculiarities of constitution. All writers agree in opinion, that this disease appears to have little to do with the nature of the labour. Observation would, however, seem to establish, that it occurs more frequently after an easy, than after a difficult and tedious labour; which I conceive to be a deception, arising out of the immense majority of labours being easy and natural, and that women take more care of themselves after greater suffering.

There are two great and striking varieties of this disease, which, by the symptoms of the one, running into those of the other, have tended more to blind the judgment of professional men, and lead them into false conclusions, than any other circumstance whatever.

The first variety I shall shortly explain and illustrate, before entering into the analysis of the symptoms, as they occur in the other, or more frequent form of the disease.

In the first variety, there is a manifest oppression

of the vital powers, commencing generally with a rigour, more or less severe—coldness of the surface, particularly of the extremities—paleness of the countenance, expression of anxiety in the features—a soft compressible pulse; which in some cases has a full beat; at others it is contracted—respiration sometimes laborious, at others amounting only to a slight difficulty. Pain in some part of the abdomen is complained of, for the most part over its whole surface, in some cases confined to the epigastric, or hypochondriac regions. In this state of the system it is sub-acute; increased, however, upon strong pressure—or, excessively acute, the patient dreading the slightest touch. The patient is quite sensible, although she speaks little; aware of her awful condition—she desponds. In some cases, diarrhœa precedes, or soon follows, these symptoms; and she dies, sometimes in six, sometimes in twenty-four hours, in spite of the exhibition of brandy, which it is so much the custom to rely on. This, it must be confessed, is a rare case; it does now and then however, occur, and after it has existed an hour or two, no treatment will prove effectual. Prevention here, is the grand point, and a good attentive practitioner can almost always see, where the disease is to be expected.

It is not in the mere act of child-birth that the as-

sistance of a physician accoucheur is most valuable; a vast majority of births are easy and natural, and I have known women bear their children easily, under circumstances and in situations where it was not to be expected.* A practitioner often has it in his power to prevent mischief, by being above the officious tricks, which the ignorant, and sometimes the unprincipled, have recourse to, for the purpose of increasing their importance, or shewing *an appearance* of dexterity, without any consideration of the risk to which the poor woman is thereby subjected. He must never grumble, nor lose temper at receiving a summons, even in the middle of the night, from a woman recently delivered; he may go, it is true, nine times out of ten, solely from the whim or fright of his patient, or her friends; but he ought to rejoice when he finds that his visit might have been avoided. I cannot help remarking, that *too much* is in general left to the nurse, by the accoucheur, who will often walk in without taking a peep at his patient, inquire at the nurse, if "all's right," and take his leave without giving her time to answer. Now,

* It happened within my knowledge that a lady, the wife of an officer, was safely delivered of a son on the top of a baggage-waggon, during an action; in which she was captured by the enemy, and retaken, under a heavy fire, in very cold weather; notwithstanding which, both mother and child did well.

this may do well enough for a time, but the period will arrive, sooner or later, when a valuable life will be sacrificed to such unthinking conduct. When visiting in a lying-in room, for the first four days at least, he requires to have his wits about him, and is, I conceive, culpable, if he takes the *ipse dixit* of any nurse, however old or experienced. When he knows that women are now and then liable to a complaint so severe, he ought to make his visits more frequent than it is the custom to do, and never to leave the bedside without feeling the pulse, and passing his hand over the abdomen, to ascertain whether pain exists. To return, however, to the subject of this peculiar and alarming variety of Puerperal Fever. It first came under my notice at Woolwich, in 1808. The unfortunate person was the wife of a soldier in the Royal Artillery, and was attended by a friend of mine, Mr Hicks. Her case was one of the worst; she shivered about eight hours after delivery, and continued to sink, having pain in the epigastric region, and tumefaction of the abdomen, with diarrhoea; coldness over the whole surface of the body preceded her death, which followed in a few hours.

On opening the body, there was great tumefaction, from flatus, the uterus was ill contracted, but it contained no coagula; and I may here re-

mark, that there had been no previous hæmorrhage. There were two or three dark-coloured patches on the intestines, and the veins of the different viscera of the abdomen were so distended with blood, as to force the idea on our minds, that the blood of the whole body was concentrated in them. The liver was larger than usual, and darker coloured. The contents of the thorax were of a healthy appearance. The head was not examined. I will confess this case was quite unaccountable to me, at the time ; we expected to find blood effused from a ruptured vessel ; or a ruptured uterus. It consequently made a deep impression on my mind, and created the first interest I ever experienced for lying-in women. Soon after this, I proceeded to the West Indies, where I had several opportunities of witnessing appearances nearly of the same kind. To these, I shall have occasion to refer hereafter. The reader, who is acquainted with this subject, will readily observe the similarity which this variety of the disease bears to that which Dr Armstrong describes as " the congestive form of fever in child-bed."

The other variety of this disease, the general symptoms of which I shall now proceed to consider, are less alarming, it is true, but not less fatal, if neglected or overlooked for six hours ; and the fact should be impressed deeply on the mind of every

physician, that cases of both kinds occur, when there is no epidemic abroad.

The attack comes on suddenly, from the first to the fifth day after delivery, the sooner the worse, and *vice versa*. It is ushered in with one or more rigors, or cold shiverings; at one time severe and long continued; at another, slight and short in duration; in some instances there is no marked rigor, or sense of cold, which is, however, rare. This state is preceded or immediately followed by flushes of heat, pain, and increased action of the vascular system: this is usually termed re-action; or, the stage of excitement.

The pain is fixed in some part of the abdomen, usually the hypogastric region, or at one or other side, where we shall find the uterine tumour, if we are called to the patient in an early state of the disease, (because, *perhaps*, the peritoneum, covering the uterus and the ovaria, is in general the first part affected;) the pain being sometimes slight at first, quickly becomes excruciating, so that the patient is soon unable to turn herself in bed—she lies upon her back, dreading the slightest touch; the weight of the bed-clothes, in some cases, becomes unsupportable. I think Dr Hamilton takes notice, that in all his cases the pain was very acute. From being for a short time confined to one spot, the pain

extends over the whole cavity of the abdomen ; or merely changes its place. In no case should the practitioner be satisfied with the woman's own account of this symptom ; he should convince his mind fully, by pressing his hand over the abdomen ; of course he will do so with proper delicacy and gentleness—if there is any pain, pressure increases it to such a degree, that if her countenance is watched at the time, it cannot well be concealed. Young gentlemen must not think this a needless trouble. It is unaccountable how people sometimes deceive themselves, and try to impose on the medical attendants, from a dread, that should they complain, the use of the lancet, or the exhibition of a disagreeable medicine will follow. It must be confessed, that the pain is sometimes so slight, that the patient can bear a common degree of pressure well ; in which case it may occasionally be passed over, even by an attentive and experienced practitioner. It frequently happens towards the end of this disease, that the pain suddenly ceases, and from the relief experienced by the patient, she indulges herself in the vain hope of perfect recovery. This calm, however, can never mislead a practitioner of any standing in his profession.

There is more or less tumefaction of the abdomen, (even before any effusion takes place,) which in ge-

neral proceeds from a tympanitic affection of the bowels. Some suppose this to be a symptom peculiar to the disease—which is quite an error, as it occurs not only in every inflammatory affection of the stomach and bowels, but in every slight tendency to such a state. Diarrhœa diminishes this tympanitic affection.

The pain attending this complaint is to be distinguished from cholic, by the relief experienced from pressure in the latter, and the disappearance of the pain after a good evacuation by stool, or the discharge of flatus. It is too apt to be confounded with afterpains, a mistake to which many owe their death; and it is only by patient investigation that the difference can sometimes be decided. Afterpains come on periodically. The pain in this disease is generally constant. Now and then afterpains are so constant, however, that we cannot distinguish any intermission, and, if severe, they will create a temporary excitement, which may deceive; but an error on that side can never do mischief. I agree perfectly with the sentiment expressed by Dr Hulme, who says, “I never hear a child-bed woman complain of a pain and tenderness of the abdomen, but I look upon her disorder with as much anxiety, as if I knew her actually labouring under an inflammation of the bowels.”

As I am on the subject of the diagnosis, it may be

observed, that this variety of the disease can never be mistaken, after it is formed, for the ephamera, or weed, as it is commonly called, which I hope to be able to show is a species of the Puerperal Fever. Ephamera is in general a slight, and as the name imports, a very temporary affection, but should not, on that account, be neglected. Great and fatal congestions are known to take place from slight causes; and it is hard to say, when a puerperal woman shivers, whether this slight disease, or puerperal fever, is to follow.

It would be scarcely necessary to point out the difference between this disease and Milk Fever, but for the instruction of those, who have no experience in the complaints of women. The diagnosis is quite easy. In the milk fever, there is an increasing hardness and throbbing of the breasts; whereas in Puerperal Fever, the disease generally comes on before the secretion of milk begins. If it has taken place, the milk generally recedes, and the breasts become quite flaccid. One fatal case, however, occurred in my practice, where the breasts continued hard till within a few hours of death.

The pulse, which is so good an index in some other affections, when taken in conjunction with other symptoms, is not to be depended on in Puerperal Fever, even after the physician has had great experience in treating it.

One thing I have invariably remarked in the

most acute cases ; that, where the most extensive marks of inflammation were discovered in the abdominal cavity after death—the sooner in the course of the disease had the pulse sunk and become feeble. I need scarcely say, that the same circumstance takes place in inflammatory affections of the viscera, under ordinary circumstances, even in the other sex.

In the excellent work on the diseases of India, by my old and highly valued friend Dr Ballingall, the following remark is made respecting the pulse : —“ My experience here leads me to observe, that in many of the bowel complaints prevalent in India, the state of the pulse gives us but an imperfect idea of the extent of the disease, and is by no means a safe criterion to be guided by in forming a prognosis.”

The ingenious Dr Abercrombie, from great experience in inflammatory affections of the bowels, has also adopted the following important practical conclusion:—“ Extensive and highly dangerous inflammation may be going on with every variety in the pulse. It may be frequent and small, it may be frequent and full, or it may be little above the natural standard, through the whole course of the disease.*

* Vol. XVI. Edinburgh Medical and Surgical Journal.

Generally the pulse beats from 110 to 130 in a minute—sometimes full, at others weak and contracted. It frequently changes in the space of an hour from the former to the latter, when, unless energetic measures are quickly adopted, nothing can save the life of the patient. This circumstance, connected with another, has misled many eminent men in conducting the treatment of this disease, who, by reason of their other unavoidable engagements, cannot see the poor sufferer so often as is necessary. They also, from the same reason, and not from any want of humanity, can rarely see the patient till the disease has existed ten or twelve hours, by which time it has generally taken such hold of the constitution, and created such destruction, that bleeding then will do no good, and better success will not attend stimulants, even brandy itself; and the only way in which the physician thinks he can deceive the friends, is by assuring them, as the *midwives did of old*,* that the complaint is *putrid* and *malignant*.

* Dr Astruc, in giving the History of Child-bed Fevers, and after describing Milk Fever, goes on to state, that “the other is an inflammatory fever, very acute, &c. &c. *The midwives*, who are aware of the danger and suspect the cause, never fail to say it is a *malignant fever*.”—ASTRUC'S *Treatise*, Vol. III. p. 251.

This sort of professional trick, not only takes away from the true dignity of a physician, but destroys the usefulness of others, by impressing on the minds of lying-in women the idea, that the dangers they run, instead of being from inflammatory affections, have their origin in something *low* and *putrid*; in consequence of which they do not submit without much entreaty, and after fatal delay, to bleeding. Whereas, if they knew the fact, that it was from common inflammation they were in danger; they would hail the application of the proper means with *joy* and *hope*, without which, any remedy will be deprived of the best part of its efficacy.

But to return to the subject. In several cases the pulse has continued to range from 100 to 110, for a week after all danger had gone by; and Dr William Campbell has informed me, that in one instance it continued as high for a much longer period.

As the disease gains ground, the pulse goes on to increase in velocity, becomes weak and thready, and at last ceases to be felt at the wrist, for several hours before death.

Some individuals assert, that the pulse *invariably* beats from 120 to 150 in this disease. It certainly does so (in general), as the complaint gains ground. This is a mistake, which I believe has

arisen, in consequence of the gentlemen not having been called in, sufficiently early, to know any thing about the state of the pulse at the beginning. And it is abundantly absurd in any one *to draw conclusions and publish them*, upon the experience derived from *a solitary case*, in order to invalidate the testimony of men, like Gordon, Hey, and Armstrong !

The tongue is generally moist and of a white colour, very slightly loaded. As the disease goes on, it becomes dry and hard in the centre—in several cases, I have seen it *very red*.

Thirst is frequently urgent from the first, even in cases where the tongue remains moist. This symptom increases when diarrhœa supervenes. In some severe cases which I have seen, the patients seldom wished to drink anything. Nausea and vomiting sometimes appear early, and I have reason, from experience, to dread these symptoms. Efforts to vomit greatly aggravate the sufferings of the patient, and prevent any medicine from being retained a moment in the stomach ; so that it is impossible to clear out the *primæ viæ* sufficiently soon to be of use. I have invariably remarked, that whenever the pain was in the epigastric region, vomiting was more severe and constant. At first, the matter vomited has a yellow or greenish appearance, or consists only of the

liquids taken into the stomach ; but in the last stage of the disease, the vomiting is incessant, and consists of a dark-coloured matter, like coffee-grounds ; resembling in every appearance the black vomiting, so common in yellow fever ; and in one dissection of mine, there was an immense quantity of this fluid, the stomach and all the small intestines being filled with it. Dr Kellie had a case, in which, on dissection, above a gallon of the same dark-coloured fluid was found.

There are frequent remissions in this complaint ; the patient seems to be doing well for several hours, so as to flatter, not only the woman herself, and her friends, but even the medical attendants, into the hope that she will recover. During this interval the disease seems to acquire fresh activity. A remission is often remarked just before the black vomiting appears.

Respiration is affected from the beginning, it would appear, not so much from any thing wrong in the thorax at that period, as from the increase of pain produced by the motion of the diaphragm, pressing upon the abdominal viscera. This induces the patient to employ the other muscles to a greater extent than in ordinary respiration, which is almost entirely carried on by the diaphragm. As the disease advances, the breathing becomes very labo-

rious ; and a short hard cough attends the complaint, sometimes throughout ; and a sense of heat is often complained of in the chest.

Women are so much in the habit of neglecting their bowels, that we cease to wonder when we find them very much confined at the period of lying-in. When medical men have it in their power to give advice respecting this point, I am sure they do all they can to convince the patient of the necessity of attending to it. Costiveness causes many complaints, and aggravates all. In a fatal case, which I was called to see, the woman acknowledged, that she had had no stool for seven days ; and this was, in her case, I conceive, the principal cause of the disease. I have known several others, in which relapses were produced by inattention to the bowels ; and I shall insert the history of a case, in another place, in illustration of this.

The stools are generally dark-coloured, and extremely fetid ; sometimes as dark as possible—at others light-coloured, having a good deal of the appearance of yeast ; and the quantity has sometimes surprised me, after I thought I had got the intestinal canal perfectly cleared out.

In some cases the stools are dark-coloured, fetid, and scanty, with an appearance of mucus or slime in them ; in others, they are watery.

Diarrhœa is considered, by writers on this sub-

ject, a favourable symptom. Perhaps it is so, if not allowed to go further than to unload the bowels. In several cases that fell under my observation, the diarrhœa appeared to rekindle the inflammatory action, after it had been repeatedly subdued by the lancet and by leeching. This will be particularly remarked in the case of Mrs Finlay. In one of the last fatal cases, diarrhœa came on as a primary symptom, continued to the last, and certainly greatly aggravated the woman's sufferings. Although I am not prepared to say that diarrhœa is a bad symptom, in the face of high authority to the contrary ; yet I think it is worthy of much interesting attention ; because, we know it to be a discharge frequently produced by irritation, which afterwards, by going too far, keeps its first cause alive, to the manifest injury of the patient. It has always appeared to me, that physicians expect too much benefit from diarrhœa in this disease.

The state of the skin varies also a good deal. Sometimes, it is hot and dry ; but at others, it is neither in the one extreme, nor the other. There are generally partial sweats. When the stage of collapse comes on, the heat of the surface sinks, and cold clammy sweats break out, particularly over the face and extremities.

Pain in the forehead, immediately over the eyes,

is considered, by some individuals, to be a pathognomonic symptom. I have met with it in several cases, but I have as frequently remarked the same symptom in many other acute disorders; and have seen several fatal cases of Puerperal Fever, where no pain in any part of the head was remarked,—so that I feel inclined to attribute this symptom to circumstances entirely accidental.

I have seen the functions of the brain a good deal embarrassed in some cases, which were treated as if putrid, by strong stimulants; the free use of the lancet has rarely failed in relieving this symptom. The mental faculties *usually* remain sound to the last. One unfortunate woman, (whose child I have at present the charge of,) within an hour of her death, the pulse having already ceased to beat at the wrist, and whose extremities were quite cold, called the people of the house round her, and assisted in singing the 23d Psalm from memory. Another woman raised herself in the bed upon her elbow, to search for a key, within two hours of her death.

Early delirium is almost always a bad symptom. With respect to surrounding objects, women are generally altogether indifferent; even to the care of their little infants; this indifference, however, will be found to attend every *acute* disorder to which lying-in women are subject.

Despondency is too frequent a symptom in this

complaint to be silently passed over. It exists in every case I have seen, and is strongly expressed in the features.

The poor sufferers are strangers to sleep till the disease is subdued ; or if they do fall into a slumber, it is only for a few minutes, when they awake in agitation, quite unrefreshed, only to suffer an increase of misery and distress.

Having shortly taken notice of the state of the breasts, and the secretion of milk, in another place, when pointing out the difference between this disease, and Milk Fever, I need not revert to it again, unless it be for the purpose of stating, that I do not think it is the practice to put infants early enough to the breast. The benefit of this to the infants themselves is very great, as it prevents in some measure their being stuffed with unnatural food ; and to the mother the advantage would be still greater, not only by preparing the nipple for the office it has to perform ; but, by excitement, tend to produce an early determination of blood to the breasts ; which is a reasonable and scientific, (although a simple way) of preventing a determination of blood to the cavity of the abdomen.

I am quite sure this disease is more violent and fatal, in cases where the infants have died, or where they were given out to nurse.

Some practitioners assert, that nursing has a great share in producing the complaint ; but I cannot see upon what ground the opinion can rest.*

Dr Leake,† from the idea that nursing would act as a preventative, recommended all his patients, during the epidemic season, to suckle their children for three weeks or a month at least.

In one case, *in particular*, I found decided advantage from putting the infant frequently to the breast during the course of the disease, although for several days it did not procure much nourishment in that way. The act tended to keep the mother's fond hopes alive, and produced now and then a scanty flow of milk, even before the disease was finally got under.

It may, without impropriety, I conceive, be taken notice of in this place, that those who are *unmarried* have less chance of recovery in this disease than married women. I have already mentioned one case, where the breasts remained distended till within a few hours of death. This woman had been unfortunate, her child was given to another to nurse ; and I do not think I am going an unwarrantable length in supposing, that she would have had a much

* Mr Hay seems to inculcate this opinion.

† Treatise, p. 154.

better chance of recovery, had nature not been denied this outlet.

In another woman of the same class, the secretion of milk appeared after large bleedings, and the symptoms became for a time mitigated. The breasts were ordered to be drawn ; but from the prejudice of the attendants, which medical men often have to contend with, but cannot always control, this was neglected. In a few hours the bad symptoms returned, and the patient eventually died. Independently of the cause above stated, however, this unfortunate class of women have less chance of recovery in this disease, not only from a bad state of body acquired by previous depraved and irregular habits ; but their minds *must* be weighed down, when they are actually on a sick-bed, not knowing but the next hour may be their last. At all events, they must suffer depression, by the operation of the mixed feelings of shame and remorse, which can never be separated from guilt ; and mental inquietude is well known to act unfavourably to those labouring under disease.

The urine, like all the other secretions, is diminished, in some cases suppressed ; frequently there is dysuria, which greatly aggravates the other sufferings. In one fatal case, I was frequently obliged to relieve this symptom by the catheter.

When the urine does flow, it is said to be turbid and in small quantity. To this appearance, I confess, I have paid little attention.

Lochial Discharge.—The lochia is a healthy discharge, by which, together with the action of the absorbent system, and the muscular contractions of the uterus, that organ is enabled to return to its natural state and size after delivery; while the discharge itself is to be considered as a drain, by which plethora is moderated; and is one of the means for preserving the proper balance of the system after parturition.

I presume no one will deny, at least, that the lochia is a healthy secretion, whether for the purpose above mentioned or not. Now we know that the healthy secretions are either diminished, or completely suppressed, whenever inflammatory action is going on in the neighbourhood of the secreting organs. Familiar examples of this fact occur daily within the observation of every practitioner. We should therefore expect, that the healthy secretion of a viscus, so important as the uterus is in the animal economy, will, in general, be either changed in quantity or quality, or entirely suppressed, when such ravages take place in the close neighbourhood of the uterus itself, as will be seen in the history of

the dissections. In few cases, therefore, will the lochia be found to flow, as in the healthy state of the system; and in as few, entirely suppressed. There is no secreting organ in the body more liable to be affected, even by trivial causes, than the uterus. I have known a very slight and very temporary agitation of mind not only suppress the lochial, but the menstrual discharge; and I sometimes see so little appearance of the lochia, particularly among hard-working women, after delivery, that I have long since ceased to be alarmed, from observing that the women so affected did as well as others.

Dr Hamilton considers the unchanged and natural flow of the lochia, as a peculiar pathognomonic symptom of Puerperal Fever. Knowing this to be the Doctor's opinion, I have for several years past paid minute attention to this particular point; and although it does now and then occur, it is very far from being so general, as to be taken into account when we are forming our diagnosis. If we do so, it will, in a great majority of cases, be at the expense of life. I disclaim entertaining the slightest doubt, that in the cases which fell under Dr Hamilton's observation, the lochia flowed in a natural manner—I have only to object to the conclusions he has been pleased to draw from it, which are

alike injurious to suffering humanity, and to an improving science.

Let us pass on, to see what other eminent men say on this point.

Dr William Hunter, who, besides being an excellent accoucheur, was a most accurate observer, assures us, that the disease was so violent, "*that every process of nature was set aside.*" Every one admits he saw the Puerperal Fever, and, God knows, it was attended with great fatality. Dr Hamilton, I believe, allows that Dr Hulme saw the disease, and gave the best possible description of it. Dr Hulme says, "*The lochia, or usual discharge after delivery, commonly lose their florid complexion, and diminish in quantity; but if the disease goes off soon, the natural flow generally returns.*" The great Denman declares, that "*an instantaneous change, both in the quantity and appearance of the lochia, takes place, and sometimes, though rarely, they are suppressed.*" Walsh observes, that "as to the lochial discharge, so far as I could judge, it was at the beginning rather diminished, and in some wholly suppressed."

Dr Hamilton has for many years, I believe, been in the habit of insinuating, that Dr Gordon of Aberdeen, and Dr Armstrong, have mentioned,

that in their cases the lochia were suppressed. I have not the least doubt that this is quite an inadvertency, or a mistake ; but it is calculated to mislead young men, and has actually deceived many, and caused them really to believe that those gentlemen had not met with the same disease which Dr Hamilton describes. It goes further, and induces them to condemn the only means which these physicians found equal to the cure of Puerperal Fever. Fatal error !

Let us attend to Dr Gordon's statement :—"The lochia commonly *continued to flow as usual, though in some the discharge was diminished, yet in few or none was it wholly suppressed.*"

At the 29th page of Dr Armstrong's work on Puerperal Fever, the following remark will be found :—"In touching upon the diagnosis, it may not be irrelevant to remark, that in the epidemic which has been delineated, the *state of the lochia was various*. In by far the greater number of cases which took place at Sunderland, they were gradually diminished or suppressed, *after* the full development of the fever ; but, in those cases which occurred to Mr Wilson of Alnwick, the lochia were at no period either diminished or suppressed ; while, in the examples which Mr Stevenson of the same place encountered, they were mostly dimi-

nished or suppressed. Again, in the patients which Mr Wolfe of Chester-le-street attended, this discharge was sometimes obstructed, and at other times not deficient in quantity; and were it necessary, I could quote some of the best authors to prove, that the lochia are affected in some cases, and not in others."

Whenever they are affected, this author very justly observes, "this diminution or suppression can be clearly traced as an effect, and therefore ought never to be confounded as a cause of the disease."

Dr Hamilton has also brought forward Mr Hey of Leeds, as one of those who wrote on this disease, but seldom saw it. His statement with respect to Mr Hey, is as follows: "Mr Hey of Leeds confounded this disease with inflammation of the uterus, and *suppression of the lochia*."

Now, Mr Hey's words are as follows:—"The lochia were variously affected; sometimes they suffered no alteration; at others, they were diminished or suppressed, but would often appear afresh during the continuance of the disease."

Mr Burns asserts, "that the lochial discharge is diminished, and has a bad smell, or is changed in appearance, or gradually ceases."

It would be needless to go on quoting authorities on this point; perhaps the reader may think

I have occupied too much of his time in the discussion, but it is too important to pass it by without full investigation. It is the only remaining *prop* which I conceive is left to Dr Hamilton to support his pathology. If this can be removed, he will *surely* be forced to abandon it.

If the stimulating plan of practice, as recommended by Dr Hamilton, was found to be even *as successful* as that of bleeding, I might justly be accused of disputing a point of no moment, as it could lead to no good practical result; but the very opposite of this is the fact, and facts are stubborn arguments. Hear Dr Hamilton's confession.—In hospitals it is *almost always fatal*, and in private practice, a cure of one in ten cases is only to be reckoned on.

From what I have seen of this disease, and of others equally severe, which bear a strict analogy with it; and from all that has been written on the subject, as well as from the success of the practice adopted by those with whom I have been led to agree; I think I am justified in asserting, that four-fifths of the patients in a well-regulated hospital ought to be cured; and in private practice, I feel convinced, that at least two-thirds should be restored to their families, notwithstanding the prejudices which are known to prevail among lying-in

women and nurses, and the want of that proper degree of authority which a physician ought to possess over his patient. That I may not be accused of boasting, I shall be under the necessity of shortly repeating, in this place, the success which has attended the mode of treatment recommended by others, and which I have found so efficacious. Dr Gordon lost *twenty-three out of twenty-seven patients*, when he adopted a vacillating practice, agreeably to the feelings and prejudices of the times; but after he began to use early and large bleedings, out of *fifty* cases he only lost *five*.

Mr Hey of Leeds saved *only three out of thirteen cases*, before he began to use the proper means; but afterwards, when he bled *freely and early*, he *only lost two out of thirty-six patients*.

Dr Armstrong assures us he only *lost five* out of *forty-three cases*.

My own sentiments accord so well with those I see stated by this last-mentioned author, and his language is so easy and beautiful, that I feel persuaded the reader will readily excuse my concluding this discussion by the following extract from his work:—

“From separate copies of his lectures, it appears that Dr Hamilton, junior, the distinguished Professor of Midwifery in Edinburgh, maintains, that the lochial discharge is not suppressed in cases of true Puerperal

Fever; and partly upon this assumption, he attempts to distinguish it from other affections of child-bed, which resemble it most. But I have shown, in the Puerperal Fever which prevailed epidemically in the North of England, that the lochia were *sometimes suppressed*, and *sometimes not at all deficient*; and the same was the case in the diseases which Dr Gordon and Mr Hey have described, not to mention other instances which might be adduced, to prove the variable state of this discharge in the Puerperal Fever. The distinction, therefore, which Dr Hamilton has endeavoured to establish, must fall to the ground, since, so far from being supported, it is directly opposed by a host of facts. From these remarks, it will not be presumed that I mean to arraign this deservedly eminent individual for the open expression of his opinion; but being confident, that this opinion is alike *fallacious* and *dangerous*, I feel it my duty to protest against it, as the high authority from whence it proceeds may have powerful influence over those ignorant of the subject."

The reader is, no doubt, well aware how difficult it would be to state every variety of symptom in this disease.—To class them together in any thing like a systematic manner, would either be to confuse, or lead into error, those yet ignorant of the subject. I

merely wish to convey a general idea of the symptoms, as they have occasionally fallen under my observation. He will now be prepared to follow me into the comparison which I mean to draw, in order to prove the similarity of the phenomena of the disease termed Puerperal Fever ; not only to those of *Puerperal Peritonitis*, but of *Peritonitis in the non-puerperal state*.

In order to complete the first object, I shall endeavour, as briefly as possible, to lay before the reader a sketch of the symptoms and appearances on dissection observed in each, from Mr Burns' work, that I may avoid the imputation of having worked them up in a particular manner to suit my own purpose ; and I have no doubt that every one will be satisfied, that what he terms Puerperal Fever, differs *only in degree* (if it differs at all,) from what he terms Puerperal Peritonitis. He dwells longer on the particular symptoms of the former, than on those of the latter, which gives them a more important appearance, but without being able to convey a satisfactory reason for it.

I shall then proceed to compare Puerperal Fever with the symptoms and appearances observed in peritonitis in the non-puerperal state, as described by Dr Abercrombie, who is justly considered a great authority.

*Sketch of the Symptoms of Puerperal Fever, extracted from Burns, p. 431.**

Puerperal Fever begins sometimes in an insidious manner, without shivering. In other cases, there is more or less shivering perceived.

Oppression, nausea, or retching. Pain in the head, particularly over the eye-brows. Little sleep, much confusion, sometimes delirium.

Pain in the belly; at first slight. It soon increases. In some instances the abdomen becomes so tender, that even the weight of the bed-clothes is productive of distress.

There is a general fulness of the belly from the first, which sometimes makes the patient as large as before delivery.

Breathing becomes very much oppressed. The respiration is always more or less affected.

Sketch of the Symptoms of Peritonitis after Parturition, from the same author, p. 427.

Preceded or accompanied by shivering. Sometimes the disease comes on insidiously.

Frequent vomiting.

* * * * *

Unrefreshing slumbers.

Sometimes delirium mite.

Pain is felt in the belly, sometimes neither acute, nor altogether constant; sometimes the pain is so acute that the weight of the bed-clothes can scarcely be endured. It is sometimes universal, at others confined to one spot.

Abdomen very soon becomes swelled and tense, and soon becomes as large as before delivery.

Respiration becomes difficult.

* I have, in these Sketches, taken considerable liberty with the author's arrangement in the detail of the symptoms, that the reader may at once be enabled to see the contrast, by glancing from the one to the other.

The face is sometimes flushed; but, in general, the countenance is pale and ghastly. Features indicate great anxiety and debility.

Bilious vomiting sometimes comes on early. Sometimes nothing will stay on the stomach. At last, the fluid thrown up is of a dark colour, and frequently foetid.

There is great dejection of mind, languor, with general debility of the muscular fibres, and the patient lies on her back listless, and makes no complaint. Skin not very hot, but clammy and relaxed. Tongue pale, or white at first, afterwards becoming foul.

Sometimes there is a cough.

Pulse, even at first, very frequent, fuller than in peritoneal inflammation, but it soon becomes feeble.

Thirst not always great.

Bowels are often at first bound, but afterwards become loose, dark, foetid, and frothy; urine dark-coloured.

In bad cases, death is marked in the countenance.

Sickness and vomiting sometimes begin early.

The patient feels much pain when she turns.

Sometimes a cough comes on, which aggravates the distress.

Pulse is frequent, small, and sharp; in the last stage the pulse becomes very frequent and irregular.

Patient is thirsty.

The bowels are either costive, or the patient purges bilious or dark-coloured faeces.

Lochia diminished, changed in appearance, or they gradually cease. Secretion of milk stops, and the patient enquires seldom about the child.

Appearances observed by Mr Burnson on dissection, after Puerperal Fever.—P. 432.

“There is found in the abdomen a considerable quantity of fluid, similar to that met with in peritonites. The omentum and peritoneum are inflamed, but perhaps very slightly, and gangrene is unusual. The swelling is neither proportioned to the inflammation nor effusion, nor in every instance dependent on these, but on that inflation of the bowels which results from the relaxation of the fibres of the bowels, which is so common in the puerperal state, particularly in puerperal disease.* The uterus is not more affected than the intestines. In some cases, the thoracic viscera are inflamed.”

Milk and lochia are obstructed.

Appearances observed by the same author on dissection, after peritoneal inflammation, after parturition.—P. 428.

“The peritoneum is found in a high state of inflammation, but it is rare to find it mortified. A considerable effusion of serous fluid mixed with curdy substance, is found in the belly.”

* This is quite a mistake on the part of Mr Burns. The tympanitic state of the bowels is common enough in many of the inflammatory affections of the viscera, unconnected with parturition. At all events, I can affirm, it is no proof of the presence of any thing low or typhoid in the case, which I

The pathognomonic symptoms, by which Mr Burns thinks he can discover the difference between Puerperal Fever and Peritonites, are the following :

“ In the former, abdominal pain is not the most prominent symptom ; there is more despondency, debility, and headache, less heat of the skin, less thirst, and less flushing of the face. In peritoneal inflammation, the pain in the belly usually increases rapidly after it begins, and the swelling increases along with it. Pressure gives very great pain—the fever is inflammatory.”

We shall be convinced of the fallacy of these symptoms, by a perusal of the conclusions drawn by Dr Abercrombie, in the volume of the Edinburgh Medical and Surgical Journal already referred to. I have been long well convinced of the truth of these by my own experience ; I shall, however, in the first place, subjoin a few observations from some of the greatest authors of the last age, on this subject.

“ *Sed quod ad dolorem attinet,*” says Morgagni, “ *aliæ nostræ Epistolæ, sine illo fuisse intestinorum inflammationem commemorant.*”—*Epist. XXXV. Art. 20.*

think is meant to be insinuated by Mr Burns. In support of this, I appeal to all writers on the subject, particularly to Morgagni, *Epist. XXVIII. Art. 2. et cætera* ; and to the invaluable papers on the Pathology of the Intestinal Canal, by Dr Abercrombie, in the 16th volume of the Edinburgh Medical and Surgical Journal.

In proof of this, he refers to the history of a case, which he records in *Epist. XXIX. Art. 10*, when pain in the belly was not marked during the life of the patient, and yet the following appearances presented themselves on dissection: "*Abdomine ducto, omnis intestinorum substantia invenitur a ventriculo usque ad Recti finem dirâ inflammatione occupata, ut ne minima quidem eorum pars illaesa relinqueretur.*"

Rosa, who is mentioned as a celebrated man by Morgagni, observes, "*Universum intestinorum systema fuisse inflammatione corruptum ac sideratum reperiens; et tamen in toto morbi decursu ne minimam quidem pulsûs intensionem aut motus febriles observari potuisse.*"—*Act. N. C. Tom. 8. obs. 47.*

The illustrious Van Swieten, in treating on this subject also observes,—"*Saluberrimum in praxi medica monitum posuit Simsonus, ne decipiantur Medici credentes, nullam inflammationem adesse, si febris absit. Cum saepe fixos dolores intestinorum et ventriculi inflammatio producat, licet nulla febris observetur pulsu explorato.*"—*Comment. in Boerh. Aph. § 371.*

The great pathologist, Morgagni himself, in noticing these opinions, says: "*Viden', ut vir gravissimus hoc contingere sæpe, dicat? ut saluberrimum*

in praxi medica id monitum esse, non dubitet. Nempe id erat quod anno ipse 1703 ; omissum ab iis, quos hic intelligo, medicis fuisse mirabar, qui ut singulorum morborum, sic etiam inflammationis intestinorum signa docuissent. Sic igitur quod ad febrim."—Epist. XXXV. Art. 22.

To practitioners I need scarcely add more to show, how erroneous Mr Burns' attempted distinctions are in practice ; but to those who are only acquiring a knowledge of medicine, I feel bound to state, that not one of them is well founded.

In Peritonites, even in the non-puerperal state, exactly the same symptoms are to be observed which we find accompanying Puerperal Fever ; and in mild cases of the latter, the treatment usually employed in the former will be quite equal to its cure. In general, however, Puerperal Fever being an aggravated form of the other, is worse to cure ; not for the reason which some have assigned, that it is putrid, low, or malignant ; but because it is accompanied with a greater degree of congestion of blood in the abdomen ; the continually increasing determination of that fluid to the uterine region for the previous nine months, having enlarged the caliber of the blood vessels to such a degree, as to enable them to contain, perhaps, double the usual quantity.

“*Inflammation confined to the Peritoneal Coat.*”
—“The title,” says Dr Abercrombie, “which I have placed at the top of this section, I merely propose as expressing the opinion which I have been led to form in regard to the nature of the insidious and dangerous disease, which I mean to describe. It differs so remarkably from the disease, which is usually described under the name of Enteritis, as fully to merit a distinct investigation.”

“The disease begins with pain in some part of the abdomen, varying very much in its seat, its degree, and its general characters. It is sometimes nearly general over the abdomen, and sometimes confined to a particular part, as one side of the abdomen, or very frequently to the lower part, immediately above the pubes. It is increased by pressure, and, in some cases, it is little complained of, except when pressure is applied, being rather acute tenderness than actual pain. In other cases, there is acute pain, which comes on in paroxysms, very violent while it continues, so as probably to occasion screaming; but going off completely after a short time, leaving only the tenderness on pressure, which is sometimes in such a degree, that the weight of the bed-clothes gives uneasiness. Yet, notwithstanding this tenderness, the patient may be, during considerable intervals, free from any acute pain, when he lies perfectly still; but it is excited by various

exertions, as coughing, sneezing, a full inspiration, and by any motion of the body."

"According to the seat of the disease, various neighbouring organs are affected. When it is in the lower part of the abdomen, it is generally accompanied by frequent painful desire to pass urine, and an acute pain extending along the urethra. Sometimes the secretion of urine is greatly diminished, or nearly suspended. There may be, along with this, such frequent desire to pass it, as leads to the suspicion of retention; but the catheter being employed in such cases, the bladder is found empty. When the disease is in the upper part of the abdomen, there is frequently vomiting, and sometimes a peculiar convulsive eructation, or belching of wind, which continues, without intermission, for a considerable time. But vomiting is not a regular symptom, and seems only to occur when the disease is in the upper part of the canal. Sometimes we observe hiccup, and quick short breathing, probably connected with an affection of the diaphragm. The pain sometimes suddenly shifts its place, as from the region of the stomach to that of the bladder, or from one side of the abdomen to the other. In some of these cases, it leaves its former seat; in others, both continue to be affected at once."

"The pulse is frequently little affected, especially in the early stages. It may be from 80 to 90, or

96, but is sometimes scarcely above the natural standard. The state of the bowels varies considerably, but a leading peculiarity of the disease is, that they are not obstructed. Sometimes there are frequent calls to stool, with scanty, slimy discharges; sometimes a more copious diarrhoea, with much pain and straining; but very often, perhaps most commonly, the bowels are in a natural state, being readily moved by very mild medicines. These evacuations, however, produce no relief; on the contrary, the patient generally complains of violent pain during the operation of the mildest purgative, and after the operation is over, all the symptoms are found to be increased."

"Such are the general characters of this affection. It differs from enteritis, in the bowels being natural or loose, the pulse being little affected; the pain often occurring in paroxysms, so as to be mistaken for a spasmodic or flatulent affection; and in the absence of vomiting, except in certain cases, formerly referred to. These peculiarities are chiefly observed in the early stages; as the disease advances, they usually become less remarkable; the pulse rises, the pain becomes more fixed and permanent, the belly becomes tympanitic, and at a certain period, obstruction takes place, and the case passes into all the usual symptoms of enteritis. It may, however, be fatal without this change, the bowels

continuing regular, and the pulse from 80 to 90, until a very short time before death."

The disease, as will be seen from the cases, may be fatal in three days. *On dissection, we find uniformly effusion of coagulable lymph, in some cases very extensive, and frequently effusion of a turbid or puriform fluid, sometimes in considerable quantity.* Gangrene is rare, and, as far as my observation extends, never occurs as the prominent appearance; it being, when it does occur, slight and partial, and always accompanied by extensive deposition of coagulable lymph. I have stated my conjectures in regard to the nature of this disease. I conceive it to be inflammation, confined to the peritoneal coat, and that in consequence of this, the muscular action of the canal is not impeded. It may continue a considerable time, and, perhaps, be fatal in this state, or it may spread to the muscular coat, and give rise to the usual symptoms of enteritis.

* * * * *

Examples of the leading Varieties of Inflammation of the Intestinal Canal, as published by Dr Abercrombie, in the 16th volume of the Edinburgh Medical and Surgical Journal.

CASE I. A woman, thirty, a servant, unmarried,

after being feverish for a day or two, was seized on the 8th December, 1817, with a diarrhœa, accompanied by considerable pain. On the 9th the diarrhœa continued; the pain was severe, and was increased by pressure. Pulse 90. Took some purgative medicine, which was vomited, and at night was bled to $\bar{3}$ xii. I saw her for the first time on the 10th, when I found her sinking. Pulse very frequent and feeble, features contracted, a good deal of pain, some vomiting, belly tympanitic. Died at night.

Dissection.—There were most extensive marks of peritoneal inflammation, nearly the whole surface of the intestinal canal being covered by a coating of coagulable lymph, which extended also over the convex surface of the liver, and over the whole surface of the spleen. It was in the greatest quantity about the right side of the colon.

* * * *

CASE IV.—A girl, aged fifteen, on Sunday, 2d March, 1817, was at church in her usual health; in the evening complained of some pain of the abdomen. 3d,—Had pain of the belly, and some vomiting; took castor oil, which operated copiously. 4th,—Pain continued, with some vomiting, but not urgent, and the complaint excited no alarm: bowels open: was seen by a medical man, who found her pulse 116, and very small, and the belly

painful on pressure. 5th,—Belly tense and tympanitic; symptoms not relieved: was bled without benefit: sunk rapidly, and died at night. I did not see this case during the life of the patient. I was present at the examination of the body.

Dissection.—On opening the abdomen, the whole of the small intestines presented one smooth uniform surface, being firmly glued together, and the interstices filled up by an immense deposition of coagulable lymph, which was quite soft and recent; the mass also adhered to the parietes of the abdomen. There was a similar deposition, though in smaller quantity, on the surface of the great intestine, and was traced nearly to the extremity of the rectum; it also appeared on the surface of the liver. The omentum was inflamed and dark-coloured, and there were considerable marks of inflammation on the peritoneum, lining the parietes of the abdomen.

* * * *

CASE X.—A gentleman, aged about twenty, (10th December, 1817, late at night,) was found writhing and screaming, from violent pain in the abdomen, every part of which was tender to the touch; great pain and difficulty in making water; frequent vomiting; pulse 96, soft and rather weak; had felt pain for several days, but it increased on the evening of the 9th, with vomiting; took laxative

medicine in the morning of the 10th, which operated freely three or four times, but since these evacuations the pain was much increased. Was largely bled, and took a moderate opiate.

11th,—Much relieved; no vomiting; pain much abated; pulse 90, and of good strength. Bleeding was repeated; a mild *enema*.

In the course of the day had some violent paroxysms of pain, and vomited twice; belly bore pressure better, except at one spot at the lower part of the right side, where it was acutely tender; urine passed more easily; pulse at night, 96: bowels moved; evacuation thin and feculent. Bleeding was repeated at night; cold applications to the abdomen; blister; mild *enema*.

12th,—Pulse 90; no stool; less pain, but much tenderness of abdomen; very little vomiting; no tumefaction of abdomen. Two small bleedings, no more being borne; large blister; various laxatives.

13th,—Pulse increasing in frequency, and becoming feeble; abdomen enlarged at the lower part, as if the bladder were distended, but by the catheter it was found to be empty; abdomen still tender; no stool; urine very scanty, and passed with much pain. Tobacco injections and various purgatives were employed.

14th,—Pulse 120 ; no stool ; no urine ; belly tympanitic ; lay through the day in a state of great exhaustion, with much vomiting, and died at night.

Dissection.—Extensive inflammation of the ileum ; the inflamed parts extensively glued together, and pressed down into the pelvis by the distension of the parts above, which were inflamed also, but with less exudation ; no gangrene ; bladder inflamed and collapsed ; omentum inflamed ; about 1lb. of puriform fluid in the cavity of the peritoneum.

An officer in a regiment of infantry, stationed in England in the year 1817, was seized, on the 6th September, with frequent griping pains, which he himself termed spasms in his bowels, accompanied by diarrhoea ; he vomited also a quantity of discoloured bile. He was much troubled with flatus, from the discharge of which he expressed great relief. Pills of calomel and colocynth, neutral salts, castor oil, and a variety of other purgatives, were given, alternated with doses of opium, Dover's powder, and the use of the warm bath. On the 11th, he described the pains in the abdomen as more continued, and confined particularly to the epigastric and umbilical regions ; tender to the touch ; a constant bearing down, and inclination to strain over the close stool ; the irritability of stomach so far

subsided, as to enable him to retain repeated doses of a purgative mixture, in the course of the day. Two purgative injections were thrown up, but returned immediately, without producing any effect. It was not thought proper *to use the lancet*, in consequence of *previous debility*, contracted by a three weeks' confinement from a severe attack of Remittent Fever, which left him considerably reduced and emaciated; *his pulse* was *soft* and *compressible*, not exceeding 94 *beats* in the minute. A large blister was applied to the abdomen. Next day, the 12th, an alarming change was observed; great irritability of stomach had recurred; pulse increased in frequency, small and thready; countenance ghastly; extremities cold; he vomited a lumbricus during the day, and continued to sink; the pulse decreased in frequency and strength; his extremities grew colder, and assumed a livid appearance; he had cold sweats and hurried respiration, and expired at half-past seven in the evening, complaining of acute pain till within half an hour of his death.

Dissection.—The abdomen was much tumefied; on laying it open, the omentum was thickened and inflamed; some purulent matter effused between it and the peritoneum, and its inner surface adhering to the convolutions of the small intestines; stomach

and duodenum sound, but the convolutions of the cœcum and ileum much inflamed and adhering. A stricture, (apparently of long standing,) from thickening and incipient schirrosity of the coats of the intestine, was found at the valve of the colon, which seemed to have been the original and principal seat of the disease: the cœcum much inflamed, livid, ulcerated internally, and in one point mortified, so as to rupture in handling, and permit the escape of a quantity of bilious feculent matter.

The subject of the above case was a gentleman who had been for years complaining; so that the physician who attended him, and who kindly permitted me to make any use of the case, assured me he considered his symptoms so slight as to require little treatment, till the 12th, when the alarming change took place. Although there was an old organic diseased state of the intestines at one part, which may have given rise to the inflammatory action, yet it was the inflammation which caused his death; and my friend entertains no doubt that timely bleeding would have prolonged his life. The case appears to me to be well worth inserting, to show to what extent disease may go in the bowels, without affecting the pulse. We have also traces of active inflammation going on in one part of the intestinal tube, after mortification had taken place

in others. In consequence of this, the pain was acute till within half an hour of death.

Morgagni takes notice of the pain continuing after mortification had taken place in a great portion of the intestines, by inflammation spreading in other places, in order to show his readers that they must not always expect remission of pain, after mortification has ensued even to a great extent.*

We have, in the case above detailed, positive proof of several stages of disease going on in the intestines at the same instant—active inflammation, adhesions, ulceration, mortification, and effusion.

Dr Armstrong is the only modern writer in whose works I have met with any thing like a good description of the first variety of this disease, as I first observed it at Woolwich in 1808, and afterwards had several opportunities of seeing and comparing with the appearances on dissection, of a similar variety of Yellow Fever in the West Indies, where the disease termed Puerperal Fever is known to prevail.† It is only to be regretted that this ingenious author has brought it forward in his work as “a peculiar

* Epist. XXXV. Art. 23.

† Chisholm's Manual on Tropical Climates.—P. 102.

affection of child-bed,"* which may lead those, not so well acquainted with the subject, to suppose, that it is not a variety of Puerperal Fever, but a disease *sui generis*.

As it is my wish that the reader should have it in his power to compare the symptoms of this variety, with those which accompany other congestive complaints, not only in the abdominal, but in the thoracic cavities, I shall take the liberty to extract the description given of it by this practical author, being in strict compliance with my original plan, to avail myself of any other person's delineation of a disease, rather than my own.

"This peculiar affection of child-bed," Dr Armstrong observes, "is ushered in, either by sensations of chillness, or by paleness and oppression, without such sensations; but in both cases the vital powers are so prostrate, that no regular re-action takes place, as in common fevers; so that the surface remains cool throughout, or there are merely short, partial, and irregular flushes of heat."

* * * * *

"From the first, more complaint is made of exhaustion than of any thing else; and there is such a striking depression in the countenance, as to ex-

* Armstrong on Puerperal Fever.—P. 182.

cite serious alarm. The face, lips, and whole surface, are paler than natural, and the pulse is always weak, if not irregular. Sometimes there is a limited pain in the abdomen ; sometimes not, and the same may be asserted of the head and chest ; but the breathing is mostly impeded and oppressed, and one of the earliest and most marked symptoms is prostration of the appetite."

* * * * *

" In such cases, dissection does not reveal, so far as my examinations have extended, any of the usual remains of inflammation, that is to say, there are no adhesions, no effusion of coagulable lymph, no formation of pus, nor internal gangrene from arterial fulness ; and the only morbid appearances have been an unusual accumulation of blood in some part of the venous system, without any of those vermilion tints of the capillary arteries, which denote the previous existence of inflammation. From symptoms and dissections, then, this form of puerperal disease would appear to belong to what I have elsewhere denominated the congestive variety of fever ; but as I have only met with an instance of it now and then in the child-bed state, my observations are hardly sufficient for the ascertainment of its true pathology. The first shock seems to be communicated to the nervous system, a reduction of the ani-

mal heat immediately follows; the blood consequently retires into the deeper seated veins, and thence is, perhaps, at first returned superabundantly upon the heart, which is so remarkably oppressed in its action as to render it highly probable, that the accumulation of blood about the right ventricle and large vessels, finally retards the flow of venous blood from the other viscera. In the most violent modifications of this disease, if a vein be opened, little or no blood will issue from the puncture."

* * * * *

" This kind of Puerperal disease is probably rare, compared with the others, as I have seen only a few cases of it myself, and, with the exception of two friends, have not known any practitioner who has seen many."

* * * * *

" Perhaps it may be said, by those who are influenced rather by names than by things, that this must be the low child-bed fever, described so well by the late Dr John Clarke : but, in this disease, there is no re-action ; and therefore fever, in the ordinary acceptation of that word, is absent ; whereas, in the affection which Dr John Clarke has described, the re-action was early, and perfectly developed. Besides, the whole progress of the symptoms in the low child-bed fever, and the dissections after

death, clearly showed, that it was decidedly an inflammatory affection, the intenseness of which was the cause of the apparent oppression ; but, in the disease in question, a state the very reverse of inflammation, ushers in and accompanies the disease, for, so far from pyrexia being present, there is a deficiency of the animal heat."

* * * * *

" As this diminished energy, then, of the nervous system, this preternatural reduction of animal heat, and this engorged state of the internal veins, cannot continue to exist beyond a certain time, without the greatest danger, or without destruction to the patient, it is the business of the practitioner to create re-action, which, as it cannot be naturally, must be artificially brought about, because it is the cause of this peculiar state."

* * * * *

" Upon the whole, the pathology and treatment of all affections connected with venous congestion, have received the least attention, and are, therefore, the most open to improvement ; and my chief object, in noticing this peculiar disease of child-bed, was to confess my imperfect knowledge of its nature and cure, that others might hereafter be led to undertake their more complete illustration. And if I have spoken confidently of those child-bed dis-

eases, which, being attended with universal excitement, and topical disorder, have been comprised under the general term puerperal fever, that confidence rests on an ample body of evidence; yet the treatment, even of these diseases, is so far from being perfectly accomplished, that all which has been written on the subject, ought only to be made the ground for advancing towards higher attainments, and more certain results."

My mind has long been so much impressed with the vast importance of internal congestion, that I may have frequently been led into an *extreme* on the subject. I have often heard sudden deaths accounted for in a foolish and most unsatisfactory manner, as by spasms, or gout of the heart, lungs, or the stomach; or that aneurism or sudden bursting of an internal vessel had carried off the patients; when I had reason to consider *congestion* as the more probable cause. In almost all the instances I allude to, there had been repeated threatenings before the fatal paroxysm.

I am sorry to say I have occasionally met with a good deal of opposition to the examination of bodies, and in two or three cases where I supposed death to have been produced by this cause; not only from that natural but mistaken feeling in the minds of

near relatives, which, in many instances, cannot be overcome; but also from the carelessness of the medical men, who, from the consideration of the disagreeable nature of the operation, waive it altogether, or think it quite unnecessary. It must be confessed to be extremely disagreeable, nay, disgusting; and certainly requires a little zeal to overcome it. A physician, however, who does not avail himself of every opportunity of this kind, will be found to be little better than a *charlatan* in practice. It is scarcely to be believed, that the people in the inferior walks of life, in this city, among whom, fifteen years ago, the strongest prejudices existed against this step, have their minds now so well regulated, that, in almost every instance, they are found to be reasonable, and ready to sacrifice their feelings of love and attachment, (which are quite as strong as those we every day discover among the higher classes,) from the conviction that it may prove beneficial to others. The public may be assured, that these examinations are conducted by medical men with the greatest degree of delicacy and decorum; that their object is to improve the science which they practise, and not to satisfy idle curiosity. Above all, if individuals were to permit the necessary examinations in their

own houses, the sepulchres of the dead would rarely be violated.

I shall now proceed to lay before the reader several cases of congestive disease, not only to enable him to comprehend the meaning I affix to the term—which is more clearly conveyed to the mind in that way than by definition,—but also that he may see the analogy which this form of disease bears to the congestive state of Puerperal Fever; and that he may compare both with certain varieties of Dysentery, Yellow Fever, Cholera Morbus, and the disease known in India by the name of Beriberri. By this means, I hope, he will be led to agree with the practical conclusions which are to be deduced in the following section of the work.

In the summer of 1811, I was called suddenly to see a soldier. He was about forty years of age, six feet two inches high, and well made. His habits were represented to have been of the best possible description, and was never known to be in a state of intoxication: had hitherto enjoyed perfect health. He was seized, in the morning, when preparing his dress for parade, after taking a draught of cold water, with a frightful pain in the chest, in the region of the heart, extending down the arms. His countenance in a moment became ghastly; there was

great prostration of strength ; he was unable to stand. These symptoms might have lasted about ten minutes before I saw him. Without any previous knowledge of this man, of his habits, or constitution, (as he belonged to another service,) my first object, after having had him laid in a horizontal posture, was to make inquiries concerning these points.

The pain was not now so severe ; his surface was perfectly blanched ; extremities cold ; pulse at the wrist scarcely to be felt ; breathing laborious. While I was employed in superintending the application of heat, and was preparing his arm to open a vein, he gave a gasp, exclaimed, " O God !" and expired.

On examining the body next day, nothing was to be observed but that the liver, spleen, and kidneys, had a darker hue than usual ; and the deep-seated veins were turgid, particularly the mesenteric : the heart distended with coagula, and the lungs were of a dark colour. The vessels in the surface of the brain rather turgid, which might have been caused, however, by the depending position of the head, both a little before, and after death.

In the spring of this year, (1822,) a gentleman, immediately on coming out of a warm church into a cold atmosphere, first upon a Friday, and again

upon the following Sunday, while walking quickly homewards, was seized with a sudden pain in the chest, rather to the left of the sternum, which seemed to affect his wrists and fore-arms at the same time. On both these occasions, after reaching home, and sitting down, the disagreeable feeling subsided, and he took no farther notice of it. I saw him accidentally on the latter occasion, and did not think seriously of it, referring the complaint to a slight rheumatic affection. This gentleman had for some time found it necessary to take a good deal of exercise, from certain occasional feelings of fulness in his head, supposed to be the consequence of indigestion; but being of the highest literary acquirements, he used now and then to indulge himself by sitting too closely in his study, which he did for three successive days, immediately after the last of these slight attacks. On Wednesday morning he got up at seven o'clock, feeling in perfect health, and in his usual tranquil state of mind. He was suddenly seized, while reading in his study, with a severe pain in his chest, arms, and wrists, together with a sense of chilness, and great anxiety. He, without knowing well how, walked up stairs to his bedroom, and got seated in an easy-chair. The pain now became excessive; he groaned deeply, stretching out his arms, as if for the purpose of expanding

the chest. The family having discovered him in this state, immediately sent for me. When I arrived, not more than eight minutes could have elapsed from the beginning of the attack. The pain was confined to the chest, in situation as already described, affecting the wrists, and extending up the fore-arms to the elbow-joints simultaneously ; it came on in paroxysms, was never quite away, but quickly increased to agony, continued a little, and then declined for the space of ten seconds, and increased again. Features pale and shrunk ; expression of countenance anxious and ghastly ; the whole surface of the body was cold, particularly the extremities ; great prostration of strength ; pulse from 45 to 48 beats in the minute, not irregular, and easily compressible, having withal a feeling of fullness. Respiration was laborious, and seemed to be almost suspended during a paroxysm. The recollection of the former case immediately occurred to me. A warm bath could not be instantly had, but preparations were ordered to be made for one. The patient was laid in the horizontal posture, on his back ; his feet and legs instantly put into very hot water. Bottles filled with boiling water were placed round him, and replaced by others as they became cool ; external frictions were employed at same time. By these means the heat of the body was increased

a little, which enabled me to open a vein in the arm ; at first, it merely produced a trickling of blood, which at length flowed more freely, and about seven ounces were abstracted, with great relief, his pulse being now 50. Dr Alison arrived as I was preparing to bleed again, being urged by the patient himself, from the relief he had experienced, to hasten the operation. The paroxysms were still severe, and seemed to be again increasing. The surface was yet below the natural standard, and pale ; pulse 54, certainly much stronger. The other arm was tied up, and about ten ounces abstracted. This was followed by immediate relief. The pulse quickly mounted up to 60. The application of warm water to the feet, and of hot bottles to every part of the body to which they could be applied, was renewed. An embrocation of four parts of aqua ammoniæ to one of oleum olivarum, was rubbed upon the chest, on the region of the heart, which excited a slight redness ; but afterwards, although a piece of flannel was soaked with the same stimulant, and often applied, no farther redness appeared, nor vesication, notwithstanding a strong blister was put on in a few hours afterwards. At 11, Mr Allan saw him, when his pulse was 64, and heat natural. He was placed in a hot bath, and remained in it for fifteen minutes, till a profuse perspiration appeared on his

forehead. He had a slight fainting fit on being taken out. The pain was now, comparatively, nothing. There were intervals of five, ten, and fifteen minutes between the paroxysms, during which he had no complaint. As his tongue was quite clean, and as there was no uneasiness about the stomach, or abdomen, no purgatives were yet administered. At night, the pain increased, and he was again bled to the amount of seventeen or eighteen ounces, from two orifices. This produced complete relief. The pulse afterwards began to creep above the natural standard, which was 73; rose in the course of next day to 80, 90, and at last to 100. We found his bowels obstinate for a considerable time; but by strong means they were brought into a proper state; and he underwent a gentle course of mercury, on account of a sense of fulness in the abdomen.

At the first view of this case, the symptoms of Angina Pectoris will occur to the reader, as being very similar; and I must own, that the first impression I had of it was most unfavourable. Two months have now elapsed, and there has been no return of the symptoms. He is able to walk pretty quickly for three or four miles, without feeling any pain or uneasiness. I have purposely accompanied him a considerable distance up Corstorphine Hill,

and the only complaint he made, was weakness of limbs. It is therefore very likely, that these violent symptoms were partly produced by sedentary occupation for several days previous to the attack, and by the sudden vicissitudes of weather causing an irregular determination of blood; I have no doubt that congestion of that fluid had taken place, more or less, in all the cavities of the body, but particularly in the chest. Thus we see how slight a cause can give rise to the most dangerous consequences. It appears to me, that had medical aid not been at hand, the case would quickly have proved fatal; or, if we had depended on stimulants; or bled, without having had an eye to the restoration of animal heat, the same melancholy result would have taken place.

I am indebted to my friend Dr Scott for the interesting history of the following case of severe congestion, which, notwithstanding the bold and judicious treatment employed, terminated in acute hepatitis.

Dr M., about thirty years of age, of a full habit of body, had suffered severely from fever in the East Indies, where he had resided for five or six years. He had returned to England about a year and a half, and had since enjoyed a tolerable state of health. A week previous to the present at-

tack, he had been troubled with a dull feeling of uneasiness, and weight in his right side and shoulder. There was no fever, no alteration of the pulse, but he complained of a feeling of languor and loss of appetite ; the sensation in the side was such, that he believed he could from it point out the exact form of the liver, and the situation it occupied.

He applied a blister to the side, and took some calomel and other purgative medicines without much benefit. On the seventh day, whether from feeling himself better, or from a hope that exercise might be beneficial to him, I know not, but he had taken a long walk. Next morning I was summoned to him very hastily, about 5 ; he believed himself to be expiring. The countenance was of a livid paleness, shrunk and haggard—the features contracted, and indicative of great anxiety. The pulse was hardly to be felt at the wrists, it was quick and extremely small, the skin was cold and pale, respiration hurried and imperfect. He complained of an intense feeling of anxiety about the heart, great oppression at the præcordia, a difficulty or almost impossibility of breathing, from a cessation, as he said, of the action of the diaphragm. He had had an agitated and almost restless night, and awoke with these symptoms in the morning. Some wine and laudanum were almost immediately given ; the

precise quantity I do not recollect, but that of the latter was pretty considerable. In the hurry and alarm of the moment, I confess I believed his case to be almost hopeless; but after a little reflection on the previous symptoms, and the rapid accession of the present attack, bleeding instantly suggested itself to me. A vein was opened, and about eighteen ounces of blood taken away. The pulse became fuller under the finger, and in a short time the distressing symptoms were much relieved; the respiration became freer, and the circulation seemed to be re-established in its former channels. In about an hour and a half he had a return of the same symptoms that had characterized the first attack of the complaint—the pulse exceedingly small, but with something of a wiry feel—the respiration embarrassed, and the skin cold. Fifteen ounces of blood were drawn with evident relief. In a short time he began to complain of intense thirst; the pulse expanded, the face flushed, and the skin became hot and red. During the day he complained of pain in the right side and shoulder—in the night the bleeding was repeated, to about fourteen ounces. The cups previously filled, exhibited the buffy coat. Next morning he was seen by Dr Gregory, who approved of the treatment, and wished the bleeding to be repeated should the symptoms indicate it.

During that night it was had recourse to twice, and each time with evident relief. At each attack there were appearances of sinking, similar to those which had ushered in the complaint, but slighter in degree. When these entirely disappeared, the pain in the side increased in severity—the attack of hepatitis which ensued, was the most severe I have ever known to terminate in recovery. A large blister was applied to the side, calomel and salts, &c. were employed, but he remained for about eight days in a very precarious state. The convalescence was very tedious, and indeed he has never recovered even a tolerable share of health.

The subject of congestion, we shall find, was not overlooked by Morgagni, and others of the old writers, although they did not call it by that name. We are not, however, to be influenced by names, when we have facts themselves before us. In various cases of sudden death, in affections of the bowels, recorded by Morgagni, it is quite evident that the immediate cause of death was congestion of blood, from irregular determination. Neither he nor the other physicians of his day attributed the fatal termination, in these cases, to the usual effects of inflammation; neither did they attribute it to a *low, putrid*, nor a *typhoid* diathesis, nor to a *poor-ness of blood*, as is now sometimes the fashion. They

saw dark-coloured spots on the surface of the intestines, and on the peritoneum, which lines the general cavity of the abdomen, without any of the usual products of inflammation, as adhesion, and exudation of coagulable lymph; which led Morgagni to suppose, that inflammation of the bowels might sometimes take place without fever, and sphacelus without inflammation.*

Inflammation rarely runs its course in less than three or four days, and most frequently not before five or six. I have observed one or two cases where a more speedy death was produced, (the appearances of inflammation after death being very slight,) and in which I was led to believe that the fatal event was to be ascribed rather to the severity of the pain than to inflammation. In the course of practice, I have met with several individuals, who, from an original peculiarity of constitution, suffered the most agonizing pain from the application of blisters; and from the torture I have myself experienced from a scald, and from a blister, I am inclined to believe that such intense pain in certain individuals,

* Vide Fernelius de Abdit. rerum Caus. Lib. II. c. 15. Hoffmanni Dissertat de morb. hep. ex anatom. deduct. § 19. Morgagni, Epist. XXXV. Art. 19.

if long continued, would cause death. The celebrated Boerhaave must have met with many instances of sudden death in affections of the bowels, which he attributed to the effects of pain, as may be seen from the following observation: "If there is very great pain" in the intestines, "the most robust man is destroyed in a single hour."*

A case may be stated, to show, in the most decided manner, that pain, when excited on the surface of the body, operates on the vascular system. In the barbarous custom of flogging men in the public service of Great Britain,—*a practice which is alike disgraceful to the individuals who carry it into execution, and to the character of the nation by which it is permitted.*†—

* After stating that men quickly die of inflammation and excoriation of the intestines, Boerhaave adds, "et summa dolores sit vehementia, intra unicum horam hominem validissimum interimit," which, it would appear, he accounts for by the extensive and minute nervous papillæ distributed over the inner surface of the intestines, rendering them exquisitely sensible.—*Prælect. ad Inst.* § 91.

† I have found, from long experience, that the only tendency it has, is to make *savages* of our officers, *good* soldiers *bad*, and *bad* men, *worse*. I defy any one to bring forward an instance of a British soldier whose conduct has been improved by this degrading mode of punishment. It is well known to produce a contrary effect, by debasing the mind, and rendering it

The culprit being tied to a triangle, his arms and legs extended, and his back bare, he is generally flogged upon the shoulder-blades, with nine pieces of whip-cord, each piece having nine knots, and fixed to a strong wooden handle of, from twelve to eighteen inches in length. The pain excited by the first fifty lashes is intense. The nervous system of some individuals, indeed, is so obtuse and insensible, that I have seen several who were enabled to bear it without uttering a complaint, and even without shewing any signs of suffering. Others, again, feel it to such a degree as to faint, or to become quite languid, the face being pale, and the extremities cold ; which evidently shows that internal congestion takes place. From the effects of this congestion, I have known many who suffered bad health for a long time, and one or two who ultimately died.

After the person is stripped, it is almost always easy to say, from the appearance of the skin, whether

more hardened, and altogether reckless. I have known it practised with a refinement of cruelty, even so late as 1816, by the caprice of individuals. This was accomplished by the extreme slowness with which it was inflicted, half a minute being allowed to elapse between every lash. Blacksmiths, as possessing greater strength of arm, are frequently obliged to inflict this punishment.

he will bear the punishment well or not. It seems to be entirely independent of personal courage.*

To return, however, to the subject. I think it is in my power to prove, from the works of Morgagni himself, that *congestion*, from irregular determination of blood, was the cause of death in several of the cases, which appear to have puzzled not only himself, but Valsalva, and other eminent men of his time,—and induced him to draw the two conclusions above mentioned. And I trust to be able to show, in a satisfactory manner, that dark-coloured patches, on the surface of the intestines, are not *always* to be considered as arising from mortification.

Morgagni uses the word *convulsion*, (as well as other older physicians,) when he means to express the phenomena of congestion as having taken place.

* I have heard, from most respectable authority, of a surgeon in the navy, who was attached to a ship of war when flogging was too much in use; who, being convinced that this punishment was worse than death itself, remonstrated, but in vain, against the practice. At last he was resolved to try the effects of it on his own person. He accordingly sent for the boatswain, whom he instructed to hit him as hard as he would any culprit. He stripped, and, in the presence of several officers, received twenty-four lashes with great firmness, but declared that the pain he experienced was so excessive, that he knew of no crime that should be met with such a punishment.

The language he employs, conveys to my mind this state in its most complete sense. Speaking, in one article, of the reproach usually cast by most people upon a physician, if a speedy death succeeds an important remedy, such as bleeding; he adds, in the next, that "the convulsion may not return, and yet it may have produced quickly, and unexpectedly, such a diseased state of the intestines, by the blood being intercepted in the constricted vessels; during which state, blood cannot with propriety be abstracted."* He does not here use the term *convulsion*, as implying a previous commotion or contortion of the body, in which sense the word is now used, which will be made evident by referring to the history of the cases he records. The first is that of Lælius Læli, which is also important, as it displays the dreadful effects which are sometimes produced on the body by grief, as well as other violent emotions of the mind, by causing irregular determination of blood, and congestion; to which I shall have occasion to refer when I come to take notice of the subject of contagion.

* "Potest enim convulsio, ut non redeat; eam tamen, intercepto in constrictis vasculis sanguine, intestinis noxam cito, et præter opinionem intulisse, qua præsentē, sanguis mitti nequeat sine culpa." *Epist. XXXV. Art. 5.*

“ Lælius Læli, a student of medicine, fond of solitude, and naturally very irritable. He was in perfect health, and without any previous cause, except that he knew his father was dying, and hourly expected the melancholy tidings of his death; was suddenly attacked in the night, in the middle of November 1705, with a violent pain in the umbilical region, which shifted from place to place, but keeping within that region. His cries awoke the person with whom he lodged, who, by the direction of a neighbouring physician, gave him a doze of *Philoneum Romanum*. This was thrown up, as he had already a vomiting of porraceous (porraceæ) bile, which afterwards became of a greenish colour, and at last black. Valsalva saw him about ten hours from the attack, who instantly formed a most unfavourable opinion of the case, from the appearance of the patient's countenance, a tense abdomen, which was painful to the touch, a low, compressed (or constricted) pulse, (*pulsu humili et quasi ligato,*) which could hardly be felt, turbid urine of a reddish brown colour. Valsalva, on seeing so much mischief done in so short a time, and from comparing this case with others which had fallen under his notice, pronounced that *he would die within twenty-four hours*. He ordered, as a placebo, ol. amygd. to be given, and the abdomen

to be rubbed with camphor made into a liniment with oil of violets. Two senior physicians were consulted, who gave it as their opinion, *that he was oppressed with a convulsion*, (*convulsione opprimi*;) and that therefore blood should be let from the foot, and that a large cupping instrument should be applied to the abdomen. Valsalva thought it was too late, but modestly gave up his opinion. A vein was twice opened. No blood came from the first orifice, and though some sprung from the second, it immediately lost its jet. The limb was immediately tied up; the pulse could never after be perceived. A slight delirium supervened, respiration became difficult, and he died on the following night, as Valsalva had predicted.

“*Dissection.*—When Valsalva put his hand on the abdomen, he perceived that there was an effusion within the cavity; accordingly, a pound and a half of fluid blood was found; and some blood was effused in the bronchiæ. There was a strong smell in the abdomen. A great portion of the intestines were *red* here and there, especially those highest up, and the ilium had already begun to become *livid*. The peritoneum was marked in some places with *black* spots, particularly where it invests the diaphragm. Where it covered the stomach it was unequal with tubercles rather than with spots, (the

stomach being healthy in its internal surface.) These tubercles, though they at first had the appearance of glands, were, in fact, (for I saw some of them after Valsalva himself pointed them out,) nothing but a *stagnating blood*, or rather the beginning of a gangrene."

Morgagni asked Valsalva a very natural question, *why he had neither prescribed bleeding himself, nor approved of it when recommended by the other physicians?* The latter replied, that observation had taught him that blood-letting did not always succeed well in inflammations of the bowels; and that he had often remarked, that patients, of themselves, became suddenly so exceedingly bad in this disease, even when such a change was not expected, "that," added he, "I am afraid to use a remedy of that kind, lest the blame should be laid on the remedy, when it ought to be put on the very nature of the disease."*

"When you have read this," says Morgagni to his readers, "you will naturally exclaim, *what then?* if a person is *oppressed with too much good blood*: if his constitution is strong, and if he is attacked

* "Ut quocunque uti remedio verear ejusmodi in quod ea culpa conferri possit, quæ in morbi naturam est conferenda." Epist. XXXV. Art. 3.

with a violent pain in his intestines, must we, upon Valsalva's authority, *abstain from letting blood*? What else would this be, but to permit an inflammation to go on which you could prevent? What! if the pain is caused by a *convulsion*, shall we not endeavour to counteract this by bleeding? nay, shall we suffer *the vessels to be more dangerously contracted*, inasmuch as they are *fuller*? Gently, I pray you; who says that Valsalva would not have taken blood from such a man as you describe? For it is *one thing* to open a vein *before* an inflammation is formed, or even when it is just commencing, especially in such a constitution, and *another* to do so after the inflammation is actually formed, when the strength has failed, and the patient is in a critical situation. Or, to use the words of Celsus, to run the risk of appearing to have killed him, who had sunk under his own fate.*

After stating that the course of inflammation of the bowels is very speedy, "for short, indeed, is the opportunity of relief," Morgagni returns to the case of Lælius, and properly asserts that there had been this opportunity in it, during the first hours of the

* Id. *ibid.*

disease, when the *Philoneum Romanum** was rashly, and to no purpose, recommended. This opportunity was gone when Valsalva saw him, and still farther when the senior physicians were called. After seeming to approve of the prognosis which Valsalva had given, he takes notice of the opinion of the other physicians, that the patient was *oppressed with a convulsion*, which they thought was *still movable*. “It is, therefore,” says he, “not to be denied that *convulsion* forms a great part of this disorder, in proportion as the pain is more severe, whether *it* causes the *convulsion*, or is caused by *it*, and as it hastens on the fatal termination.” A little farther on, he says, “But often also, in a violent pain of the intestines, more manifest indications of *convulsions* appear than even in the case of Lælius.” Now, we have seen that he was suddenly attacked with violent pain in the abdomen; his cries awoke the landlord; he had vomiting, first of a greenish bile, which at last became black. Ten hours elapsed before Valsalva saw him. The face had a most unpromising appearance—abdomen tense—painful to the touch—a low constricted pulse,

* *Philoneum Romanum* was a cordial much used by the ancients, containing a great number of ingredients, and among others, opium and wine.

which could hardly be felt. He therefore said, that Lælius could not live twenty-four hours. The two senior physicians were of opinion, that he "was oppressed with a convulsion," and prescribed bleeding. Had Lælius been afflicted with convulsions, as we now use the word, from the minute manner in which the case is detailed, such a circumstance would have been mentioned. The sense in which Morgagni uses the expression, clearly alludes to the vessels of the abdomen being filled with blood, and constricted so as to confine it there, and render it immovable. To shew in a stronger light the nature and severity of these *convulsions*, as he terms the above-mentioned symptoms, Morgagni says he remembers the case of an unmarried woman, who, it appears, was subject to cholic pains, without any symptoms of fever, which were completely relieved by glysters, and the physician took his leave. The women who attended this patient, instead of giving her the usual enema, (which they were in the habit of doing every other evening,) introduced a suppository of honey, after which she was instantly seized with pain in ano.* Next morning no pulse was to be felt; there was withal so great a constriction of the anus, that a

* The author knows several individuals who suffer severe pains in the bowels after eating, even moderately, of honey.

glyster could not be injected. She died next day, at noon. He gives the following case, to shew how difficult it is to overcome these convulsions, (*convulsivis affectibus*;) and that, even when they have been overcome for a short time, they may return with more violence.

“There was an old monk, at Bologna, who was suddenly seized with a pain in his belly without any obvious cause, except, perhaps, from *cold* and *fatigue*. The pain was so violent, that he could not stand in any one place, and he was forced to cry out. Oil of almonds and glysters were given, and blood drawn from the foot, but without relief. He died within twelve hours. I do not write these things against blood-letting, which, if used in time, is a very powerful remedy; but to put you in mind of what may soon happen in complaints of this kind, even after bleeding has been made use of *when very violent convulsions prevail*,” (*ubi prævaleant convulsiones violentissimæ*.)

A little farther on, Morgagni observes, “You have seen how soon the intestines had not only contracted an inflammation, but also a lividness, in the case of Lælius. *No part*, perhaps, *more easily* and *sooner* degenerates into a *gangrene*, and becomes *black*, than the *intestines*, without the physicians’ suspecting any thing of the kind.” He then relates

two cases to illustrate this statement ; the first upon the authority of Valsalva, and the last upon that of Sandri.

“ A man was for some months seized, every day, five or six hours after eating, with pains in the belly, as if dogs were tearing him. He had at the same time dysenteric symptoms, and became emaciated. He was suddenly seized with slight apoplexy, which in a day or two remitted, when his hands recovered some power of motion, and his senses were less oppressed. He died on the fifth day.

“ *Dissection.*—Every thing appeared sound except the brain and intestinum ilium ; in the ventricle of the former was a large quantity of serum ; there were seven or eight annular spaces of the ilium of a dark hue. Concerning this black appearance, his reasoning is as follows :—‘ What I would principally have you to attend to here, is, how easily and speedily all these spaces contracted a black colour. But it may be said that the apoplexy had increased the inertia of the *fibres* of the intestines, and prevented them from dispatching the blood with so much celerity through those spaces. I grant it ; but a gangrene does not usually seize upon other diseased parts so soon when an apoplexy comes on ; and certainly there was no apoplexy in the following case of Sandri.’

“N. Cupellini, labouring under a cholic affection, was sitting on a chair and drinking an emulsion, when suddenly he called to his servant, who was near, ‘*to take the cup,*’ which he at the same time held out in his hand; and while speaking, he sunk backwards and instantly expired. No diseased appearance was found when the body was examined on dissection, but an inflammation of the colon which inclined to blackness.”

He next relates the case of a beggar, who drank plentifully of wine, *when he could get it*. Even on the last day of his life, when he returned home, he complained of being unwell. He partook of bread and wine, and soon after complained of pains in his belly. He died about midnight. His body was opened next day; when the abdomen, which was lax, (that is, not distended,) was cut into. A very great part of the small intestines descended to a considerable depth into the pelvis, so as to reach between the bladder and the rectum. He suspected this to have been the original formation; at all events, it was not recent. The small intestines were in several places very narrow, and, at the same time, of a brown colour; others were red, even the smallest vessels being so much distended by the detention of the blood, (“*a remorante sanguine,*”) that they almost seemed as if filled with red wax. The same

appearance was observed in several places of the large intestines, but particularly at the beginning of the colon. The edge of the liver was blackish ; spleen larger than usual. The aorta decedens, as it passed through the abdomen, was not free from little points of ossification, and the vena cava was filled with much fluid and black blood.

There are other facts related by Morgagni, which might also be quoted, but I conceive that I have already distinctly shewn, that he, and the physicians of his day, were aware of the state which we now call *congestion*.

I shall proceed to inquire whether dark-coloured spots may not exist in the intestines, altogether independent of a previous state of inflammation ; and whether these appearances are not frequently caused by congestion.

In the cases related above, from Morgagni and others, there was not, in fact, sufficient time for the blackened parts to have gone through the previous state of inflammation ; and we have no way of accounting for these, unless we agree with this author, that *sphacelus* may take place *without inflammation*. This opinion, he says, he adopts from great authority,—that of Fernelius, who states, that he once saw the extremity of the foot spacciated after a violent pain, without any conspicuous

redness; so that the patient was at length carried off without fever, or any very violent symptoms.* F. Hoffman also, upon considering several similar observations which he had himself made, draws the following conclusion: "Wherefore, there is no reason to doubt but the same circumstances may happen internally in the viscera also, without a previous inflammation."† In the cases alluded to, it will be remarked that no mention is made of exudation of coagulable lymph, or effusion of serum. In that of Lælius, fluid blood, to the amount of a pound and a half, was effused. I have met with this appearance when no rupture of a blood-vessel could be discovered, and conceived that it was produced by a transudation from the loaded vessels of the peritoneum. With respect to the exudation of lymph, and effusion of serum into the cavity of the abdomen, I cannot bring to my recollection a single case, from a great number I have seen, in which inflammation of the bowels had terminated fatally, (and more particularly when there were appearances of mortification,) without one or other, or both. In the West Indies, I have two or three times seen

* Fernelius de Abdit. rerum Caus. Lib. II. C. 15.

† Hoffmani, Dissert. de Morb. hep. Anat. Deduct. § 19.

black spots, not only in the intestines, but in the lungs, when sudden death was produced by drinking a quantity of cold water, when the body was much heated by exercise, where there was no previous disease. Dr Chisholm, in his late publication, has taken notice of this affection, which he has denominated "fatal gastric syncope."* He must have met with nearly the same appearances, as he states that the instantaneous production of *gangrene in the viscera* is caused by the sudden abstraction of heat.

Morgagni mentions some interesting facts, among the *post mortem* appearances in individuals who were hanged. He proves that the lividness of the face is owing to congestion of blood in its veins, which, in a young woman, became pale, after blood, which was still fluid, was abstracted from the jugulars. In a highwayman, who had suffered the sentence of the law in the same way, nothing was observed, except that the lungs appeared red from inflammation. The lungs of another man who was hanged, were marked with blackish spots.†

Bartolin saw, in a person who had suffered death

* Vide Manual, P. 84.

† Epist. XIX. Art. 4. 5. 8.

in the same manner, the lungs not only large, variegated, and blue, with a redness interspersed like marble, but also the external vessels were distended with frothy blood.*

Littre is represented to have seen the lungs tense, and the pleura universally distended, by the fulness of the blood vessels, in a woman who was suffocated by two miscreants.†

Morgagni examined the body of a man, four hours after death, who was hanged in the year 1706. The intestinum ilium was, *for a considerable space, of a livid redness*, and contained worms. He assures his readers that this man had complained of no previous inconvenience of his bowels.

“When, therefore,” Morgagni remarks, “we see, in opening dead bodies, any portion of the intestines tinged with a colour of that kind, we must not have immediate recourse to inflammation or gangrene, to explain it; and assert that it had been affected with these disorders in the living body.”

At a late meeting of the Medico-Chirurgical Society of Edinburgh, Dr Kellie communicated the

* Vide Sepulchretum, Sect. II. Observ. 23. 24.

† Hist. de l'Acad. Roy. des Sci. 1704.

‡ Epist. XIX. Art. 17.

history of two interesting dissections, which he was called upon to perform on two persons who were found dead in the vicinity of Leith, on the morning after a very severe storm. From the whole circumstances it would appear, that they died from long-continued exposure to cold. The veins of the intestines of both bodies were turgid with blood, shewing the most beautiful and minute ramifications, or, in other words, congestion.*

Dr Abercrombie has detailed a most interesting

* Since writing the above, and after the work was in the press, a friend put the 4th vol. of the Transactions of the Lond. Med.-Chir. Society into my hands, which contains a most interesting and valuable paper of Dr Yellowly's, entitled "Observations on the Vascular Appearances in the Human Stomach, which is frequently mistaken for Inflammation of that Organ," from which I extract the following passages, upon which I regret that my limits do not permit me to comment.

CASE 1st, (Of a man who had suffered the last sentence of the law.)—"The whole of the abdominal viscera were loaded, as if by minute injection, with dark-coloured blood. Here and there, however, there were florid vessels which were distinctly traceable into dark-coloured ones."

CASE 3d, (Of a man under similar circumstances.)—"The whole of the intestinal canal was minutely injected with blood, which was for the most part of a dark crimson, or purple, but here and there of a florid hue."

"It would appear," says Dr Yellowly, "that there is a process capable of being exercised in the artery itself, which carries on the blood to the capillaries, or to the veins, after the further supply of fresh blood from the heart is stopped; and that

case, bearing so much upon the point now under discussion, that I shall avail myself of it, to shew, that the intestines may have a *dark livid colour*, without that disorganization, known by the terms *mortification* or *sphacelus*.

On the 4th of March, 1813, a young lady complained of pain in the lower belly, increased by pressure; pulse 126; some vomiting; was bled largely twice; laxative medicines produced one stool—the pain and fever continuing. 5th, No relief; pulse 120; appropriate remedies were administered without effect. 6th, No stool; much pain; great paleness and sinking; pulse 120; various purgatives, &c. were persevered in. 7th, Discharged some green slimy matter, after injection; pain as before; pulse 120; countenance depressed and pale.

From this time the pain began to subside, and the pulse to come down gradually. On the 11th,

there is thus a species of accumulation produced in the veins, which is adequate to the production of the phenomena in question.”—P. 395.

“I am likewise inclined to think, that vascularity of, and extravasion into, the villous coat of the stomach, as well as external vascularity of the intestines, particularly when these appearances are dark-coloured, have been occasionally described as inflammation or gangrene, even by Morgagni and Lieuteaud, two of the highest authorities in Pathology.”—P. 409.

it fell to the natural standard. On the 12th, the bowels were fully moved four or five times. From the commencement of her illness, she had been affected with a pain in the left ear, and about the 7th, began to complain of violent headache. This increased gradually, and on the 22d she died of an affection of the brain. From the 12th to the 22d, the bowels continued to discharge their functions in the healthy manner.

Dissection.—The *caput coli*, and about *eighteen inches* of the lower end of the ilium, were of a *dark livid colour*, but not altered in their structure. Intestines were in other respects healthy.

I think it proper to notice a different species of irregular determination of the blood, several cases of which are related by Mr Chevalier, a surgeon of eminence in London, in the 1st vol. of the Transactions of the Medico-Chirurgical Society. He supposes that the blood was detained in the capillaries. In the first case, the heart was found empty and flaccid, every other part of the body being healthy. In the second, besides the heart being found entirely empty, the vena cava was also empty, to the distance of several inches from the auricle. The third case he mentions is, I think, of a very doubtful nature. A lady was delivered of twins,

and Mr C. had the relation of the case from an accoucheur who attended her, who, it is confessed, deferred the extraction of the placenta too long. After the birth of the second child, she appeared a good deal exhausted; recovered a little, but about two hours afterwards grew suddenly faint, breathed hard, and died in about an hour, the placenta being still in utero. Were I compelled to give an opinion, I should say that this lady died from hæmorrhage. More injudicious practice could not well have been employed. A woman after being delivered—*of twins especially*—is never safe till the placenta is extracted, and the uterus completely contracted. In the history of the dissection, we are told that the uterus contained the placenta, with a small quantity of blood, but he does not mention whether it adhered to the uterus or not. But the great proof of her having lost too much blood, is to be found in the following statement: “All the cavities of the heart were in a state of relaxation, and completely destitute of blood. There was no blood in the vena cava near the heart, and the emptiness of its ascending branch extended as low as the iliac veins.”

Mr C. gives a case from Morgagni, which he thinks “very much corresponds” with this.

“It was of a woman, who, during her pregnancy, had some presentiment that she should not survive

her labour, although she had already been the mother of several children. She was delivered of a daughter ; but the placenta did not come away. An hour afterwards, she was suddenly seized with dejection of spirits, coldness, and loss of pulse, and died in an hour and a half from the attack. On dissection, the heart was exceedingly flaccid, scarcely any blood was found in the auricles or right ventricle, and none at all in the left." The state of the adjoining blood-vessels is not noticed.

On the perusal of this statement, it occurred to me that I had read the case in the original, and that there was something omitted in the quotation. Accordingly, on referring to it, I find that Morgagni distinctly states, that an hour after delivery her husband had revealed a disagreeable circumstance to her. She was instantly seized with an anxiety of mind ; her pulse sunk, and her body became cold. The placenta was retained. In an hour and a half she expired. The body was opened twenty-four hours afterwards. The stomach and intestines were exceedingly distended with flatus. The uterus was of a great size. " It not only occupied the whole of the pelvis by its round bulk, but even exceeded that dimension." The vessels under the skin of the thighs near the pudenda were filled with blood. "*We saw a very large mass of concreted blood, which*

was discharged through the orifice of the vagina. The vessels of the ligaments of the uterus were distended with blood." "That a great quantity of blood," says Morgagni, "had flowed from the uterus, I would not deny ; but," he adds, "whether to so great a quantity as to kill the woman, may be doubted."*

To these are added the history of two cases which occurred to Mr C.'s friend, Mr Charles Wood, of Edgeware Road.

The 1st, was a gentleman who was attacked at midnight with an uneasy sensation in the thorax, difficult respiration, and a sense of extreme lassitude. Five hours afterwards, Mr Wood found him with a pulse hardly perceptible, beating 29 in a minute, although the vessels of the skin and tunica conjunctiva, were loaded with blood. He got abundance of stimulants, and stimulating frictions, and recovered the following day.

In the 2d case, the patient was suddenly seized with similar symptoms, only in a milder degree. He also got stimulants and recovered.

Mr Chevalier thinks the affinity of all these cases distinctly marked by the suffused appearance of the countenance, "which," he says, "evidently shews the

* Epist. XLVIII. Art. 44, 45.

detention of the blood in the extreme vessels." He has not, however, shewn that there was any suffusion of the countenance, in the cases which he dissected, which had all the appearance of common syncope. (I exclude, of course, the cases of speedy death after delivery.) That the cases, as detailed by Mr Wood, had not the same characters, I shall confidently leave to the reader to decide.

I have no doubt, however, that it will be found more judicious, in such cases as Mr Wood's, (if Mr Chevalier's pathology is correct,) to dash cold water on the surface of the body, instead of giving stimulants.

I have now to shew the phenomena of Intermittent and Yellow Fever, and to make a few cursory remarks on the pathology and cure of each.

The former affection is always ushered in with a rigor and cold stage, during which the pulse sinks; there is great prostration of strength, the surface is cold and pale, the teeth chatter, breathing becomes laborious, sense of tightness about the præcordia, and in some cases delirium. During this stage there is the greatest desire to drink warm fluids, and the application of heat produces ease. After continuing from a few minutes to a few hours, reaction takes place, the hot stage commences, there is great sense

of burning heat, restlessness, thirst, headach, and frequently delirium. The duration of these symptoms varies. They ultimately give way to perspiration, which is generally profuse. This is termed the sweating stage. It is quite reasonable to inquire what takes place in the cold stage. No one who has witnessed the phenomena will deny, that the blood leaves the surface of the body, and is congested in the deeper-seated vessels. The best proof that can be offered of this, is the blanched appearance, and coldness of the surface ; together with the organic diseases which intermittent fevers are known to produce in a short time. The mischief occasioned by one or two attacks, is sometimes so great as to produce sudden death ; and on dissection, a diseased state of both liver and spleen is observed.* At others, dysenteric symptoms supervene, and carry off the patient. Slighter degrees of mischief will happen in other cases ; but you will seldom see a person who has suffered repeated attacks of this disease, where the ground-work of much future distress has not been laid.

* "It has sometimes unfortunately happened, that the disease has been so insidious, that the second paroxysm, after an imperfect intermission, has completely overwhelmed the patient, and put an end to his existence."—Chisholm's *Manual*, P. 51.

In this disease, the more speedily the patient can be got out of the cold fit the better. This is commonly done by gentle stimulants, warm drinks, and the application of heat. When the hot stage comes on, and is fairly established, bleeding, prudently employed, and diluents, will be found to be the best remedies. The reaction which takes place, as the second step of nature in the disease, is a fine illustration of the course she takes to recover herself from the cold stage, and to prevent the baneful effects of congestion, by an effort to equalize the circulation. This stage of the disease is not to be trifled with; I have known it terminate in hepatitis, inflammation, and ulceration of the mucous membrane of the intestines; or assume the form of the common yellow fever. An hour's neglect is sufficient to destroy the patient, without almost any previous warning. The last and most important change in this disease, and which is anxiously looked for, not only by the patient himself, but also by the physician, is the sweating stage. By the determination of blood to the skin, a profuse perspiration is ultimately induced, and the system is enabled, when it comes on early, sufficiently to relieve the internal congestion, and at the same time the febrile symptoms; the balance of the circulation is thereby completely restored. The patient suffers more or less languor, from which, if the

constitution is sound, the disease slight, and has run its course rapidly, the person recovers in the course of a few hours, and feels tolerably well. At this period, every effort must be made to prevent the return of the disease. It is no doubt rather foreign to my subject to make any remarks on the cure of these intertropical diseases; yet, having been myself a sufferer, I naturally paid much attention to every thing tending to their alleviation. I have never seen any but baneful effects from bark, which is little better than poison. I have seen it tried in dram doses every hour, during the intermissions, and I have also seen it taken to the extent of half an ounce every two hours. The only good it ever appeared to do, was in cases where it purged; but we must not rely upon this accidental circumstance, as it has generally an opposite effect. I admit that bark has virtues; but as the parts containing those virtues bear so small a proportion to the ligneous fibre, and other substances which are united with them, (as has been shewn by the analysis of the French chemists,) the bark in substance becomes pernicious, by overloading the stomach, and thus interfering with the functions of digestion. The preparation from bark recommended by the French, is a great desideratum in practice. The West Indies affords an excellent light bitter, the *Lignum Quassia*, which is given in a watery infusion. Purging,

during the intermissions, is absolutely necessary, and will be found, if conjoined with light nourishing diet, and change of air, sufficient to prevent repeated attacks. I lay the greatest stress upon these three things, because I have repeatedly witnessed their beneficial effects, after the failure of bark, as well as of other remedies. If the bowels should continue to be slow, accompanied with pain, or a sense of fulness in the epigastric and hypochondriac regions, a gentle and careful course of mercury will prove serviceable.

With respect to Yellow Fever, as it is called, there are also two great and striking varieties. I shall describe the first or most fatal kind, that it may be compared with the congestive, or worst form of the puerperal fever; and then go on to consider the other or more general variety.

The patient, without any previous complaint, feels great prostration of strength, becomes giddy, and falls down insensible; his face is ghastly, extremities and surface cold, covered with a clammy cold sweat. Pulse scarcely to be felt at the wrist. If the patient is sensible, he complains of pain in the head, chest, or abdomen, and generally in all of these. Respiration is difficult; if not soon relieved, death will inevitably follow in a few hours. On dissection, the most striking marks of congestion

will be found in all the cavities. The vessels of the brain will be turgid, the lungs of a very dark colour, and in the abdomen, the liver and spleen will be found distended, of a darker colour than natural, and the mesenteric, and other deep-seated veins, gorged with blood. Dr Chisholm mentions the case of a gunner, Michael Scott, and states, that "the first paroxysm began at midnight, with all the most violent symptoms at once—a deadly coldness and excessive delirium. These constantly augmenting, he died at the end of two hours." In the case of other two gunners, the disease began in the same manner, was not so rapid, but nevertheless terminated fatally. One of these, George Wiseman, was admitted into the artillery hospital on the 21st of September, and died on the 11th of October. The history of this case is very curious, as the fever that followed the violent symptoms with which the disease was ushered in, was uncommonly mild, and death was at last produced by internal congestion. Dr Chisholm states, that "he always bore a good character, and was never known to commit any excess in drinking, nor to have suffered by sickness, during several years he had served in the West Indies; but he was remarkably robust and fat. The fever, till the 7th of October, appeared as a common remittent, although ushered in in so singular a manner, apparent-

ly attended with little danger. But on the night between the 7th and 8th, he was seized in the manner Scott was. On the 8th and 9th, the same mode of seizure, with imperfect solutions of the fits, took place. The 10th passed without accession of paroxysm, but on the night following, a dreadful fit came on, which put an end to his existence. On the morning of the 11th, a few hours after death, I inspected the body. In cutting through the integuments of the abdomen, I found the adipose membrane at least three quarters of an inch in thickness, and the whole of the cavity lined with a prodigious quantity of fat; the mesentery loaded with it in a very extraordinary manner. All the mesenteric glands were much enlarged, and several, which I cut open, were filled with pus. The whole of the intestinal canal was sound, the spleen much enlarged, the pancreas so likewise, and both extremely tender. The liver was uncommonly enlarged, and its substance almost of the consistency of grumous blood, with its investing membrane curiously diversified with a variety of colours.”*

Those who die in the cold stage of an intermittent, or in the yellow fever before reaction takes place, fall victims, I apprehend, to congestion. The symp-

* Manual, p. 37.

toms in a corresponding variety of puerperal fever, being the same, or nearly the same, I think it is not going too far to suppose, as the termination is also quickly fatal, that it may be brought about by the same means, particularly as we have seen how slight an apparent cause may produce irregular determination of blood. We stand much in need of information on this subject, it is true, and this can only be obtained by an actual examination of the bodies of puerperal women, to which there are generally strong objections made by the husbands. But let more energetic appeals be made, and they will yield to the calls of a more enlightened humanity, by laying open the field of discovery, and thus becoming the means of procuring relief to thousands of their fellow-creatures.

The only case I have met with in this country was that at Woolwich, in 1808. In the instances which fell under my notice in the West Indies, a shivering came on suddenly a few hours after delivery, when there was no previous debility or hæmorrhage; pain, or rather oppression and uneasiness, in the abdomen, which, however, might have been passed over had there not been other symptoms which created alarm, such as paleness, ghastliness, and anxiety of countenance, general coldness, laborious breathing, and an almost imperceptible pulse.

Death soon followed, and the examination afterwards shewed the same results as I have described in the woman at Woolwich ; and not differing, except in degree, from the corresponding cases of the congestive diseases of the climate. Those who are disposed to cavil, will, I have no doubt, assert, that the women so affected died in the cold stage of intermittent or yellow fever. Dr Armstrong distinctly states, that " the only morbid appearances" he has been able to discover in the few cases in this affection of child-bed which occurred to him, " have been an unusual accumulation of blood in some part of the venous system, without any of those vermilion tints of the capillary arteries which denote the previous existence of inflammation."

I am informed that many cases of this variety of puerperal fever have occurred in this city, at various periods, and it is deeply to be regretted that we have not had a hint of the appearances which were observed in the abdomen after death.

In the more common variety of yellow fever, after a sense of coldness, differing in degree from a decided cold stage, as described in the other case, to a slight chilness. Reaction ensues—there is a sense of heat which soon becomes intense—pulse exceedingly quick, hard, and small—severe headach, particularly in the forehead—uneasiness and sense of burn-

ing in the præcordia—intense thirst—pain in the abdomen, sometimes general, at other times confined to the right side, or just above the pubes. Respiration short and quick—nausea—retching, or vomiting. The matter first thrown up is evidently bilious, and at last black, from which the name of black vomiting is derived. Diarrhœa is frequently a troublesome symptom from the commencement; towards the end the stools are passed involuntarily, of a black colour, and very fetid; sometimes pleuritic affections supervene. These symptoms go on for twelve, twenty-four, or even thirty-six hours, but rarely so long, when the pulse comes down, perhaps to the natural standard, but it is weak. The surface becomes cold, there is a cold clammy sweat, and if there has been previous delirium, reason is restored for a short time. Sooner or later a comatose state comes on, and the patient dies in that state, or has one or two slight convulsions before the vital spark is extinguished. I have seen a patient so strong as to be able to get out of bed to the close stool and die there. One, in particular, a medical man, got out of bed to collar his physician for having relied on *musk*, when, he said, he should have used more active means. He actually died in making the effort.

Sometimes a sudden remission of all these bad

symptoms takes place once or twice during the course of the disease, and not only the patient, but the medical attendants flatter themselves with the prospect of a cure ; when in a moment these hopes are blasted by the appearance of a deadly symptom.

Dr Chisholm, in treating of this "malignant pestilential fever," wisely remarks, "In no disease I have ever met with, is the physician more liable to be deceived ; for after every symptom indicating danger has been apparently removed, the skin has become cool, the pulse seemingly natural, and the stomach so retentive as to receive and retain a large quantity of bark ; when convulsions have suddenly seized the patient, and in less than half an hour deprived him of life ; or delirium and cold clammy sweats have superseded these favourable appearances, and forerun dissolution."*

Dissection reveals some of the following appearances : The vessels of the brain are very turgid, and on cutting into its substance, an unusual number of red points appear. There is not only effusion between the investing membranes, but into the ventricles. In the chest we have sometimes marks of inflammation ; but this is not so generally the case, as in the other two great cavities. There is some-

* Manual, p. 176.

times effusion of a turbid fluid, the lungs are generally of a darker colour than usual, and sometimes there is a decidedly increased vascularity of the pleura; the lungs have in other cases a lively red hue. In the abdomen, the omentum is inflamed, and adheres to the intestines, which are, for the most part, tympanized and also inflamed—sometimes having the appearance of mortification, in one or two places. The stomach and a great portion of the guts are filled with a black fluid, resembling that vomited before death.

The blood-vessels of the intestines are in general uncommonly turgid. One or both kidneys are affected, and are sometimes soft and enlarged—the bladder inflamed and thickened—the liver, generally enlarged, and of a dark colour. Sometimes the spleen has this appearance also; at others, the peritoneal covering of these organs is highly inflamed, having contracted adhesions to the surrounding parts. In the general cavity there is effusion of serum, generally of a bloody colour, with flocculi diffused through it, or a matter resembling pus; and in some protracted cases, decided appearances are seen of coagulable lymph, gluing the intestines together.

In the West Indies, it is well known that sudden variations of temperature, at certain seasons, are very frequent; the thermometer indicating a dif-

ference of 20 degrees or upwards. The slightest change of temperature in a warm climate, is more sensibly felt by the human body, than very considerable changes in cold countries. This produces disease, by quickly checking perspiration, and by too great an abstraction of heat from the surface, causing irregular determinations of blood; when the wind blows from the north, it feels excessively chilly after sun-set. When this is the case, diseases of the most severe kind prevail, and women of all colours, in child-bed, are subject to puerperal fever.* I am convinced it may be prevented by care, both before and after delivery; but, in the West Indies, when it is once fairly formed, I fear it will defy even the boasted effects of turpentine, upon which so many rely in this country, and which has lately been so strongly recommended to our West Indian practitioners by Dr Chisholm.†

The analogy between this variety of the yellow

* This is a disease, (puerperal fever,) by no means unfrequent within the tropics. In the West Indies, I have often had to lament the little benefit derived, or rather the inutility of the modes of treatment of puerperal fever practised in that country. Dr Chisholm's *Manual*, p. 102.

† I shall, therefore, enter into some detail of the treatment with oil of turpentine, and I trust, by extending the knowledge of it to the western intertropical regions, I shall have the happiness of diffusing a real blessing to its inhabitants. Id. *ibid*.

fever, and that of puerperal, is equally strong, whether we consider the insidious nature of both diseases, the symptoms, the frequent remissions during their course, which are so apt to excite false hopes; the intractable nature of either, if the proper time for remedies is passed over or neglected, especially blood-letting, or if the latter is not followed up with that boldness and decision suitable to the formidable disease which it is intended to remove.* For it must be remembered, that the remedies found most efficacious in yellow fever, namely, copious blood-letting and purging, employed early, are the only means by which puerperal fever has been successfully treated in this country. It is worthy of remark, too, that exactly similar views have been entertained concerning the pathology of both; one party holding out that each was a pure example of inflammatory disease, and, when treated as such, was deprived of much of its fatality. But a

* Dr Kellie, of this place, who is allowed to be a most accomplished and scientific physician, observed, in a conversation I had once the honour to hold with him on the subject, that although he was only acquainted with yellow fever historically, yet, having read a great deal on the subject, he knew no disease which bore a stronger resemblance to puerperal fever—whether we looked at the insidious manner of attack or the symptoms, and in nothing more than in the treacherous remissions which so frequently take place in each, and the black vomiting.

long period elapsed before they could convince their opponents of this, with respect to yellow fever ; many of them carrying their prejudices to the grave.— They in vain brought forward, not only the most decided proofs of inflammatory action on dissection, but what an unprejudiced person would have thought still more convincing, the superior success attending their mode of treatment. The other party generally admitted the inflammatory nature of yellow fever, as they could not altogether shut their eyes to the appearances which they themselves saw on dissection. But they replied, that the disease which occurred in their practice, was putrid and malignant, and, in some unaccountable manner, connected with typhus, which even Dr Chisholm goes the monstrous length of attempting to prove, to have been conveyed on board *the good ship* Hankey, in a latent and quiescent state, and continued so till it developed itself, as soon as it came in contact with yellow fever, when he supposes they had entered into a compact to destroy the human race.* The

* Dr Chisholm states, that “ a fever, originally typhus, the infection of which, there were solid grounds of believing, was received prior to their departure from England, by the persons, and clothes and bedding, of many of the adventurers who were embarked, and who persisted in the attempt to colonize the island of *Bulam*, on the coast of Africa, was introduced into the

same absurd pathological notions respecting Puerperal Fever, as well as other inflammatory diseases

island of Granada, in February, 1793, by the *Hankey*, one of the ships employed in that attempt. This fever possessed the peculiarity I have mentioned, of having the symptoms of yellow remittent fever, superinduced to those of *typhus*."—P. 168.

This venerable author goes an unwarrantable length to establish this "importation," or "grafting," as in another place he terms it, of Typhus on the diseases of the West Indies; for we find he becomes rather angry in taking notice of the work of Mons. Jonnés, who proves that the yellow fever existed among the aboriginal Indians of St Domingo, before the expedition which Columbus commanded arrived in that island in 1494, and from whom Mons. Jonnés insists that the Spaniards caught the infection of yellow fever, which has since appeared from time to time, not only in the West Indies, but also in different parts of Europe. But Dr C. thinks, that the innocent natives of St Domingo would have continued to live with impunity, in the midst of their unhealthy marshes, had not European Typhus, imported by the Spaniards, a cause unknown to them before, united with "these exhalations" to destroy them, as well as their cruel invaders!—See *Manual*, P. 171.

I have given this note merely with a view of shewing the young reader how far the mind, even of an old man, will wander from the path of science, to inculcate a favourite theory, or establish a favourite practice. I entertain the highest respect for, and admiration of, the assiduity and labours of Dr C.; and his work is valuable, as far as regards the facts he describes; but I cannot help stating, that the reasoning which he generally employs, is calculated to mislead the young practitioner, by imposing on his unexperienced mind the most absurd, and almost exploded pathology, of Tropical diseases,—which, if he acts upon, will undoubtedly bring to the grave all, or almost all, who fall within the circle of his practice.

in this country, will, in future ages, reflect disgrace upon some of the great medical authorities of the present day. It was the fashion, not long ago, to conceal bad practice in very severe cases of Pneumonia, in which the powers of the system rapidly gave way to the ravages of inflammatory action in the chest, by adding to it the appellation "*Typhoides*." This piece of quackery, however, could not long answer the intended purpose, for dissection soon revealed the true nature of the disease; the lancet was more promptly and largely employed; the patients were watched more narrowly; and comparative success crowned the exertions of those who adopted the true pathology, by considering the early sinking as arising from oppression, and not exhaustion.

In pure enteritis, the same term *Typhoid* has in many instances got attached, and nowhere so strongly and openly as in Dr Chisholm's Manual.* After stating, in the most able manner, certain facts relating to the disease—"that it is a disease of frequent occurrence," "a most dangerous disease, the inflammation having always a tendency to terminate in gangrene," he adds, "the danger is aug-

* Page 81.

mented by the peculiar nature of the inflammation ; for whilst it is singularly violent and intense, it must ever be impressed on the young practitioner's mind, that it possesses much more of the *Typhoid* than pure phlogistic diathesis. This observation is of the highest importance in the treatment of enteritis. The suitable means of cure must be employed with the utmost assiduity." A mass of contradiction follows, which no one would have expected to see passed over with impunity, in a new publication at this period. "The great," adds Dr C., "I may say the only means of cure, are bleeding, mercurial purgatives, mercurial ptyalism, and counter irritation. If the views with which these remedies are employed, are accomplished, the cure is effected ; if they are not, death necessarily follows, in most instances."

I would not be disposed to quarrel with either the mercurial purgatives, or ptyalism, although the irritation produced in the nervous, and increased action of the vascular system, by mercury, would prevent any judicious practitioner from using that powerful remedy, until circumstances marking visceral obstructions, (which sometimes are the consequence of this disease,) occurred ; provided they were not depended upon, to the neglect of the only means which can cure enteritis—blood-letting.

But it will be found that this author, in the next paragraph, taking notice of bleeding, says, "But in the use of this powerful remedy, a caution, which much experience has taught me, must not be neglected: it is, that the *inflammation* in enteritis, *however intense and urgent* in its appearance and attack, being really of a *typhoid nature*, *mercurial ptyalism*, when early excited, will effect its resolution more safely and perfectly *than* bleeding. *This*, therefore, should be considered the more *essential* remedy, and *bleeding* as an *auxiliary*, in promoting the capacity of the system to be acted on by the mercury." A little farther on, he assumes, if possible, a still more decided strain against bleeding. "Or," he observes, "should the vain hope be entertained of subduing it (enteritis) by bleeding alone, without mercury, for the very remedy then increases the evil tenfold."

The reader will observe a striking similarity between the pathology and treatment of enteritis, recommended to our notice by the same author, and the pathology and treatment of the disease termed Puerperal Fever, in the works of Hulme, Walsh, Burns, and in the lectures and practice of Hunter, Mackenzie, and Hamilton. In both diseases they admit the symptoms and appearance on dissection, to be the products of inflammation; and in both,

they have recourse to their ally, *Typhus*, as the only means by which they are enabled to explain the cause of the mortality attending the disease when treated by them.

Now, let us suppose it to be proved, beyond a doubt, that enteritis, or any other inflammatory disease, is added to typhus, or that they are in some way or another conjoined—What practice will be found to be the most successful? Could we expect to cure the typhoid affection by bark, and brandy, or mercury, in the hope that the inflammatory action would subside, while the system was under their influence? Whenever these are trusted to, I can assure the reader that death will be the consequence. Experience justifies this remark. With respect to Puerperal Fever, the most melancholy proofs have been given of the same results, in the Section containing the Literary History of the disease. It is true, that many have been bled to death, in every inflammatory disease that can be mentioned, and I have no doubt that this has happened often enough in Puerperal Fever. Surely, however, that can never be adduced as a fault in the remedy, which ought to be attributed to an error in the application. If the unexperienced reader will take the trouble to consult every authority on the subject of inflammation, he will find, that greater mischief has been done from

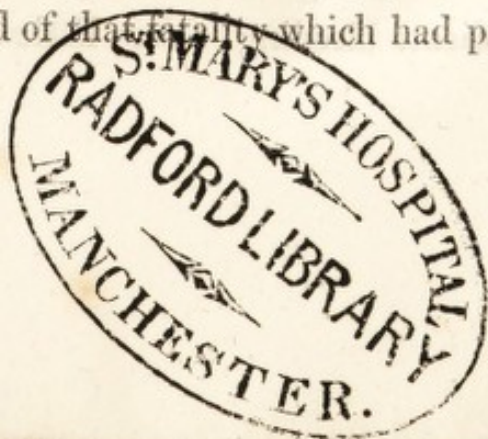
the want of using the lancet, than from an imprudent or rash use of it.

But to return to the subject of Yellow Fever. It is my intention to record my opinion, not only concerning the pathology, but also the contradictory, and in many instances injudicious and vacillating treatment pursued in that disease. The farther the reader is carried in this investigation, he will feel the less surprise at the hostility which exists against bleeding in Puerperal Fever, and the prejudices entertained concerning its nature. It is only of late years, I may say, that the lancet has been fairly tried in the endemic fever of the West Indies. Of its utility I can speak from experience, with the greatest confidence, provided it is employed *early* and *copiously*, and *repeated*, according to circumstances, at *sufficiently short intervals*. These are the great secrets in the treatment of all acute diseases.

If the first symptoms pass unobserved, or are neglected, the disease, if it is severe, will run its course and terminate in death, in spite of any remedy that can be employed. The malignant pestilential fever, as it has been absurdly called, is, I conceive, merely an aggravated form of the yellow remittent fever; *not* from its union with, or ingraftment on typhus, but from its being accompanied with *more extensive*

local congestions, which are more difficult to remove, and cannot be cured unless by the most determined and judicious practice, at the very onset of the disease. Now, as *congestion* is a circumstance we almost universally observe in the dissections of patients who have fallen victims to the yellow fever, and as *typhus* is a thing we positively cannot discover, common reason surely points out the proper pathology. Even in the cases that do recover, we find equally strong grounds for believing that congestion had taken place to a considerable extent, particularly in the liver and spleen, by the enlargements and obstructions that are found to exist in these and other viscera.

Our distinguished countryman, Dr Jackson, whose name is not to be mentioned without the highest veneration and respect, has been toiling gratuitously in Spain, in the cause of science and of humanity, where the yellow fever, or a disease nearly resembling it, has destroyed the lives of thousands. It appears, by the account given in his excellent work, that the Spanish physicians, who did not bleed, were highly unsuccessful; and that, when the same disease was treated by himself and others, agreeably to the plan now, I hope, almost universally followed by British practitioners in the colonies, it was deprived of that fatality which had pre-



viously attended it. In this country, not many years have gone by since the words *typhus* and *putrid* paralyzed the heads and hands of the very wisest of our physicians, when they approached the bedside of a patient labouring under the common forms of pyrexia, just as the same words, in addition to "*Bulam*," and the bare hinting at the good ship *Hankey*, terrified, and will continue to terrify, the more timid of our colonial practitioners, if they pay much attention to Dr Chisholm's late work, who still inculcates the same doctrines, after a twenty years' absence from that country. After the short sketch I have given of his practice in enteritis, and the pathological opinions he entertains concerning it, as well as yellow fever, I have to add, that his dissections shewed violent inflammatory action. The reader will not be surprised, therefore, that in treating of the propriety, or rather impropriety, of bleeding in yellow fever, we should find the following statements:—"It has been the usual practice, at the beginning of malignant and pestilential fevers, to draw *some* blood, before other means are used. In the present instance, the *ardent heat* of the surface, the *oppressed hard pulse*, the pain in the side, the oppression at the præcordia, the headach, and the *throbbing at the temples*, seemed strongly to indicate bleeding. Very little experience, however,

was sufficient to shew the impropriety of it; and, instructed by repeated examples of its hurtful effects, I very early laid aside all thoughts of lessening the inflammatory state by means of it. Although the blood drawn, in the cases wherein this remedy was employed, was remarkably florid, and always threw up an inflammatory crust, of greater or less thickness; and though the pains seemed to undergo a temporary mitigation, yet the consequence, at the expiration of a few hours, was always fatal. I was the *more surprised* at this event, because the patients were *remarkably robust, florid, and generally in the vigour of life.*—P. 205.

But, when the Doctor comes to consider the utility of mercury—"The more violent cases," he observes, "of this disease, demand a treatment, in which the most vigorous and prompt decision, the boldest perseverance in the adopted plan, and the closest attention, become absolutely necessary. In these cases, the *inflammatory* stage was much more manifest, and the tendency to *local congestion* more decided; but *bleeding*, except at the very onset, was, if possible, a more dangerous remedy. I had recourse, therefore, under these difficult and distressing circumstances, to a remedy, which, on several former occasions, of violently rapid *inflammatory congestion*, had proved the best."—Id.

The morbid appearances of the bodies he opened, encouraged him to use this appropriate remedy.

“ These,” (the appearances,) he adds, “ demonstrated the existence of *local inflammatory congestion in the head and liver.*”

On a reference to the five dissections which Dr Chisholm records, (p. 185,) he states, that “ three of the five laboured under the worst symptoms of the disease ;” and I deem it really important to lay a slight sketch of them before the reader, in this place.

CASE 1st.—The intestines were much inflated, inflamed, and sphacelated, particularly the duodenum, &c. The lungs were highly inflamed, and of a livery texture and hue.

2d.—The viscera were generally in the same state, all the blood-vessels of the intestines were uncommonly turgid, right kidney mortified, coats of bladder much thickened.

3d and 4th.—The principal morbid appearances the same as in the 1st and 2d.—“ These were the only subjects in which I examined the brain. To what I have already said of the dissection of these bodies, I have only to add, that the viscera of the abdomen and thorax were precisely in the same state as the others ; the one, a new arrival, ‘ was remarkably florid, robust, and lively.’ In the brain of this

young man, the quantity of blood was surprisingly great, for, exclusive of what was lost in opening the cranium, fully 2 lbs. were collected. In the left ventricle the quantity of water was also considerable, but there was none in the right. The 4th ventricle contained a larger quantity than ordinary, and the plexus choroides was almost obliterated."

5th.—A young man of the artillery, just arrived, died in twenty hours. The appearances of the viscera were precisely the same. The fever in this case, after a copious diaphoresis, abated. His stomach was remarkably retentive, which enabled him to take at least 2 $\frac{3}{4}$. of bark in a very short time. "As he was preparing to take a doze of this medicine, he felt a little uneasiness of stomach," (and no wonder,) "which induced him to defer it; but on laying himself down he expired without a struggle."

To this statement Dr C. adds—"Several bodies of the soldiers of the 45th regiment, then (1793) in garrison at Granada, were examined by the medical officers of the regiment, and in all, the same appearances were remarked." I have only to acquaint the reader, that the "*appropriate remedy*" this author so strongly recommends, in the present day, is *mercury*; and no one, I am persuaded, will feel surprised that Dr C. should have found the yellow fever so malignant, pestilential, and fatal. I fondly

hope, that the exposition I have thought it necessary to make, will be a means of deterring young gentlemen going to the West Indies, from adopting his opinions and following his practice too hastily. They may benefit themselves by making use of the very strong and valuable facts he has given in his Manual, but let me entreat them to stop there. They will find it more easy to keep free from prejudices than to eradicate them. Dissections, carefully conducted, will soon lead them into the right path.

Dr Jackson, who is equally venerable, and certainly a much better authority than Dr Chisholm on yellow fever, bled to the extent of 4 or 5 lbs. with success; and I could add the testimony of hundreds, in addition to what I have myself observed, of the happy results of bleeding, *in comparison* with any other plan of treatment.

I have been a witness to the greatest absurdities, committed even with regard to the use of the cold affusion, the application of which is most injurious, when there is internal inflammation, or congestion. When the skin is hot and dry, spunging the body with vinegar, or lime juice and water, will be found not only agreeable, but advantageous to the patient. But to see patients, in all stages, dashed over with buckets of water, it is neither surprising that bad results, and even instant death should follow, of which I remember

one instance ; nor, that a useful practice should fall into disrepute from misapplication. It is the same with respect to bleeding. I recollect one man, and a very useful and amusing personage he was, possessing several qualifications, not usually to be met with in the same individual. He was an excellent *tailor*, a tolerable *fiddler*, and at the same time a very good *soldier*. He was bled in the last stage of a yellow fever, there not being a single indication for the practice, and he was, moreover, in a fair way of recovery. The senior surgeon ordered me to open a vein, and abstract as much blood as he could bear : feeling conscious that death must follow, in a respectful manner I objected, and at last positively refused. My friend Mr Simpson was then ordered, and I was threatened with being put under arrest, which the fatal termination of the case only prevented. His opinion was the same as mine, and he refused also. The poor fellow was bled, however, and he actually died before the bandage was removed from his arm.

Purging is absolutely necessary in the treatment of this disease, and I have reason to believe, that if more attention were paid to the state of the bowels in the West Indies, and if men were encouraged to apply at the hospital for laxative medicines, fe-

vers would not only be less common, but also less fatal, in our army and navy.* The natives are so well aware of this, that they pay the greatest attention to it, and follow a very simple plan. They swallow two or three whole pods of small red pepper, such as are termed chillies in this country, in a glass of water or wine. These go through the intestinal tube quickly, and are passed whole. In an over-dose they purge most violently.

The warm bath will frequently be found an excellent auxiliary in the last stage of the disease. It is also surprising what benefit is derived from blisters and stimulants, while the animal heat is supported by means of bottles filled with hot water, applied to

* General Sir George Beckwith was Commander of the Forces on my arrival in the West Indies, in 1808, a gentleman distinguished for humanity, and every good quality which can give lustre to rank. He never failed to visit the hospitals every week, even during the time that disease was making great ravages. To every man he had always something exceedingly kind and cheering to say, and used to ask if there was any thing he wanted. He was also in the habit of turning round to the Surgeon to inquire if there was any thing he could provide from his own table, which the hospital regulations did not allow. This excellent officer, when I was introduced to him on my arrival, told me, that he had been long in the country, and was himself a very good doctor. "You will soon find," said he, "that to keep the bowels always open is a *fundamental* system in this climate."

different parts of the body. I have been for many years in the habit of giving large doses of opium in inflammatory diseases, and have always found it an excellent auxiliary to bleeding; but I never prescribe a grain, until, by large abstractions of blood, I have pretty nearly subdued the disease, and until I positively know that the bowels have been freely purged; a *large* opiate at such a period, acts, not only upon the nervous system, by allaying pain and irritation, but is also a powerful sedative, often producing a favourable diversion to the surface when every other means had failed. In the hands of an indolent practitioner it is often productive of the worst consequences, because he will be found to trust to it, when he should have bled. In the yellow fever, I have used this drug with much benefit.

Dysentery.—The symptoms of this disease are too well known to require description in a work like the present. I have in another place shewn that it may supervene to intermittent fever; in which case, I consider it as a means sometimes employed by nature to unload herself of the congestion which takes place. The received pathology of dysentery I believe to be, that it is an inflammation of the villous coat of the intestines, more or less exten-

sive, which may of itself destroy the patient ; or by spreading into the adjoining textures, and producing gangrene, when the muscular coat is involved ; or by effusion and adhesion, when it reaches the peritoneal covering. In general, we find all these three states, in opening the bodies of dysenteric subjects ; the two latter appearances having come on insidiously during the last two or three days of life. I have seen chronic dysentery suddenly terminate in this manner.

To Dr Ballingall, whom I have mentioned in another part of the work, I am indebted for the perusal of a great many cases of dysentery which fell under his notice in India. The accuracy of his observations will not be doubted. This gentleman went to India with a great share of anatomical knowledge, which is the grand foundation of medical science, and his assiduity, perseverance, and success, gained for him a reputation, such as is not now to be acquired in the public service of this country, unless it is well merited. In India he pursued his pathological inquiries, in defiance of those highly disgusting circumstances which always attend anatomical investigations in a hot climate, and which I know requires no *ordinary* degree of professional enthusiasm to overcome. From the interesting history this author gives of the dissections of those who

died of dysentery, I have extracted the following passage :—

“ An *effusion of serum*, sometimes mixed with *coagulable lymph*, is found accumulated in this cavity, (the abdomen.) The omentum is generally shrunk, firmer than usual, and feeling doughy with slight adhesions to the convolutions of the intestines.”

“ The small intestines are often perfectly sound, sometimes exhibiting slight *inflammatory patches*, particularly towards the lower part of the ilium, and to these *patches, the omentum is occasionally found adhering*. These adhesions are, to all appearance, the result of a secondary inflammatory action, supervening shortly before the death of the patient. The great intestines again, the principal seat of disease, show the strongest marks of inflammation in all its stages ; some portions exhibiting externally a slight inflammatory redness, while others are marked by the highest degree of lividity.”

It has for a long time been the practice in the West Indies, to use the lancet in this disease, and to complete the cure by means of mercurial preparations, given with a view to alter the action of the secreting vessels. But in the East Indies, until very lately, the greatest horror prevailed, even in the minds of medical men, against abstracting blood, and every thing was trusted to mercury. Dr Bal-

lingall was one of the first, who was led to adopt a different and more successful mode of practice, from careful and repeated examination of the bodies of the too numerous victims to the diseases of that climate. I shall avail myself of his own observations respecting blood-letting, in this, as well as in other diseases.

“Of the objections,” says he, “existing in India, to an active system of depletion in the treatment of disease, and of the amount of fortitude necessary to overcome these objections, no one can form an accurate estimate, until he has seen how far they are countenanced by the bloodless aspect, the emaciated figure, and languid movement of many of the older residents in that country. An extreme aversion to the use of the lancet is a trait remarkably conspicuous in the older Indian physicians.” And after bestowing very high praises on that respectable class of men, he continues—“If their opinion of the general inutility of blood-letting is to be successfully confuted, it must be by patient investigation, and a detail of experience, as laborious as that which has led to its adoption. To this fund of experience I can contribute but little. I may, however, safely assert, that neither *in fever, nor in any other disease*, have I ever had occasion to regret the employment of blood-letting, while,” he adds, with a laudable

candour, "I have frequently had to blame myself for its omission."

The cases and dissections in the Appendix to the work, will fully bear the Doctor out in his remarks, and must, long ere now, have produced the best effects on Indian practice. I shall only add, in conclusion, that I have lately had before me the faithful histories of several hundred cases of dysentery, and of other diseases, with a vast number of dissections, and I have often experienced the deepest regret on seeing so many demands made for the lancet, by the symptoms, which were not attended to, at the expense of life. This leads me to reprehend the conduct of a numerous class of medical men, who, when they are intrusted with the management of an acute case, are every thing that could be wished for, in point of judgment, and the closest attention, but who grow careless whenever the disease becomes chronic, or tedious. I feel convinced I have been able to account satisfactorily for this, in many medical men, by attributing it to their never having suffered from disease themselves. It has certainly no connection with selfish motives of gain, otherwise they would run into the other extreme. I have taken it upon me to make these animadversions on such conduct, as it injures not only the profession, but also the public at large, by forcing many to put

themselves into the hands of *unprincipled quacks*, whom they would never think of employing, did they not meet with neglect from regular practitioners.

Cholera Morbus, as it has occurred of late in India, also affords us a most convincing illustration of congestion. It resembles, in many points of view, the worst variety of puerperal fever, which Dr Armstrong has denominated the congestive form of fever in child-bed, and which I have attempted to describe and illustrate. I have read a good deal upon this subject, and have had many conversations with personal friends who have witnessed the destruction it has occasioned in India. Among others, a most correct and intelligent individual, Dr Badenach, now surgeon to the 15th regiment, whose pathological opinions are nearly as follows:—That there is congestion of blood in the veins of the abdominal viscera, (bearing a strong resemblance to that which is found to have taken place in those of the head in the Coup de Soleil,) by which the balance of the circulation is destroyed. The vomiting and purging, this gentleman supposes to be an effort of nature to unload herself. On dissection, he found the stomach of a scarlet colour—the blood-vessels of the intestines and omentum loaded with blood. In one instance the vena cava was distended to a

very great size. Either the spleen or the liver, or both, are amazingly gorged with blood. In some cases, the vessels in the head have displayed signs of accumulation. The disease attacks suddenly, and destroys the patient in a few hours.

This account perfectly corresponds with the opinion of another intelligent friend, Mr Menzies, who served with the 21st Dragoons in India, and is now in the Company's service.

The most concise, and, I may say, the best printed account of this formidable disease, is to be found in the Inaugural Dissertation of Dr James Kellie, Surgeon in the Madras army, published here in 1820. He seems to be of opinion that this dreadful malady is contagious. The following is a sketch of the symptoms, as described by him :—

“ It is generally ushered in with languor, lassitude, prostration of strength, anxiety and great dejection of mind, and a sense of cold. In this stage of the disease, the pulse becomes weak, and the skin cool ; then follow diarrhœa, vomiting of an aqueous and subalbid matter ; urgent thirst, and spasms, chiefly in the abdomen and calves. The pulse is scarcely to be perceived ; and breathing, with frequent sighing, is difficult. All the symptoms now become worse. Spasms more and more urgent, and accompanied with very great pain. The pulse is

not to be felt, heat leaves the body, and the skin is covered with cold sweat; the eyes turned up in their sockets, sometimes appearing red and suffused with blood; the head, as if bent down with its own weight, rests upon the breast or shoulder, and the hands hang motionless. The body is sometimes convulsed, and at others lies incapable of motion. Vomiting usually ceases altogether about the termination of the disease, but stools are passed involuntarily. At last, the patient falls into coma, from which he can hardly be awakened; when roused, he again immediately falls into it, and lies moribund.

“Through the whole course of the disease, the urine, which is worthy of remark, is very sparingly secreted. The matter which is discharged from the stomach, and at stool, have the same appearance. The tongue is pale, and generally moist; restlessness after the beginning of the disease; sometimes, though rarely, delirium occurs.

“Such,” says Dr Kellie, “are the symptoms which I have observed in this fatal disease. They vary in degree, however, in different cases, nor do they all appear in every case. Sometimes the vomiting is more severe, sometimes diarrhoea, and sometimes neither the one nor the other is observable. In some cases, the whole body is convulsed; in others, scarcely any spasms at all. Sometimes all the symptoms

occur at one and the same moment, so that neither their times nor durations can be noted. At others, anxiety and dejection of mind, and prostration of strength, (while the motion of the heart and arteries is at the same time diminished,) afford the only indications of the disease. At last the patient, sometimes without almost any warning, is carried off in a moment. Nothing, therefore, can be asserted of the duration of the disease. It is finished, however, in most cases, in the space of forty-eight hours ; but very often the fatal termination happens in less than six."

Method of Cure.—"The causes of this disease, in whatever way they effect it, do at all events produce the greatest debility. The vital strength fails, or becomes irregular ; all the functions are imperfectly performed ; the heart itself becomes languid, its motion slow, and after a few hours it altogether ceases to beat.

"The method of cure, then, which reason points out, and which experience teaches, is, to restrain and allay the irregular actions, to repair the injured functions, and by every possible means to support the decayed strength, and to excite that which is dormant ; but *above all, as soon as possible to ease the heart itself*, which is struggling with the disease. For these symptoms, the fittest remedies are, anti-

spasmodic medicines, stimulants, external and internal, and *a general abstraction of blood*. In a disease, however, where the attack is so severe, and the event so fatal, it is not easy, nor is it necessary, to apply singly the remedies best fitted for each indication. Whatever, then, is found useful, must be applied as soon as possible ; for it is proper to look at things themselves, rather than their times. For this reason, *blood must be let without delay*, than which *nothing* contributes more to stir up the action of the heart. For by this remedy alone, the heart, and its larger vessels, *oppressed with blood*, and struggling with the disease, are set free ; the vital strength is instantly renewed ; and the pulse, which before was scarcely perceptible, becomes full and strong ; and, at the same time, the inflammation and congestion of blood are stopped. Nor is this the only good it does ; for the strength being renewed, other remedies may be used with more benefit ; such as opium, submuriate of mercury, the warm bath, &c. &c.”

Dissection.—“ The blood-vessels of the brain are generally found *turgid* with blood, and in some instances an unusual quantity of serum is found effused in the ventricles. In the thorax, the lungs appear to be *overloaded* with blood, and the heart itself seems distended with coagula. In the abdo-

men, *both the veins of the omentum and mesentery are turgid with blood.* The intestines are outwardly red, and inwardly they are covered with a thick sub-albid mucus: the stomach has often a similar appearance; and its internal coat sometimes shews red spots. Constrictions also, both of the pylorus and intestines, are to be seen in some few instances. The only other appearance worthy of remark mentioned by Dr K., is, that “the bladder is in almost all cases empty, very much condensed, having more the appearance of a virgin uterus than a bladder.”

The disease described by my friend Mr Marshall, Surgeon to the Forces, under the name of Berri-berri, in a work* containing much valuable information, seems to be a disease accompanied with great congestion, and speedily terminates in death. The following case and dissection will be sufficient to shew this:—

“On the 20th of November, 1817, Joseph Pitt was brought to hospital at Kandy, about 7 A.M. His whole body was swollen. The face, in particular, was bloated and leucophlegmatic. His respiration was extremely laborious. His skin was cold, parti-

* Notes on the Medical Topography of the Interior of Ceylon.

cularly that of his extremities. The pulsation at the wrist weak and irregular. He was unable to give an account of his sufferings, although they were evidently very great. His countenance was anxious, and he could not remain for a few minutes at a time in one posture. It was stated by his comrades, that they found him in bed about an hour before they brought him to hospital, nearly in the state above described. They likewise stated, that he had been indisposed during the preceding day, but not, in their opinion, so much as to require medical assistance. About an hour after admission, he expired.

Dissection.—"The skin and muscular parts were almost colourless; four ounces of serum were found in the pericardium. The heart was soft and flabby. The right auricle and ventricle contained coagulated blood. The liver, examined *in situ*, appeared large, and very dark-coloured; while removing it from the body, a considerable quantity of blackish blood flowed from its large blood-vessels. By this means the organ was reduced in size, and assumed nearly the natural colour.* The venous trunks,

* In inflammation of the liver, when it is enlarged in size, and of a deep purple colour, Dr Baillie proposes the following query: May not the purple colour arise from the accumulation of blood in the *vena portarum*?—Baillie's *Morbid Anat.* P. 140.

particularly those of the mesentery, were gorged with blood of a very dark colour. No marks of pre-existing disease were discovered in the remaining viscera."

Dr Christie states, that in a few of the cases which occurred to him, there was no swelling externally observable, as in the case above quoted, but they were nevertheless fatal; and that in those which occurred in 1821, there was also little external swelling, and in some it was not at all perceptible; so that this symptom must have been connected with some accidental cause, or peculiarity of constitution, and not a pathognomonic symptom of the disease.

I beg to subjoin the following valuable remarks from the work of Mr Marshall, quoted above, p. 207.

"These facts are interesting, first, by shewing the insidious approaches of the disease in some cases; on account of the mildness of the symptoms, the true nature of the disease may be overlooked: secondly, in consequence of the success which has followed venesection, in the three cases that were affected with oppressive breathing. Hitherto a very different plan of treatment has been followed in this disease. The practice which chiefly prevailed, was, to stimulate the system by the exhibition of spirits and cordials of various kinds."

SECTION III.

Containing an Account of the Opinions entertained of the Pathology of Puerperal Fever. The Author's Opinion, derived from an Analysis of the Symptoms, and other circumstances, exposed in the preceding Sections; confirmed by all the Appearances observed in the Dissections, of which, accounts have been given by different writers. History of Dissections. Cases in illustration.

THE history of the pathological opinions entertained respecting the disease termed Puerperal Fever, which falls now to be considered, might perhaps have been omitted, as the subject has been already hinted at in various places. But in a work like the present, it is necessary to bring each point of importance separately before the reader, in a condensed form, the better to enable him to draw his own conclusions.

Hippocrates, and most of the ancients, looked upon this disease as an inflammatory affection of the uterus. Astruc writes under the same impression.

Leake and Hulme, as I have already shewn, entertained almost similar notions respecting the disease, conceiving it to be an inflammation of the omentum and intestines.

Both of these gentlemen, however, acted under the persuasion that it was of a very putrid nature, *particularly the latter*. They supposed that the coagulable lymph, found floating around, and sometimes joining the intestines together, proceeded from the melting down, or decaying, of the omentum; an opinion evidently borrowed from Morgagni.* With respect to Dr Hulme's particular notions as to the causes and nature of this disease, I may state, that he describes the immediate one to be "*an inflammation of the intestines and omentum.*" He appeals to dissections for the truth of this opinion. The theory of the disease which he maintains, is as follows: "The teguments of the abdomen, which before delivery seem greatly distended, are now relaxed, and by degrees recover nearly their former state. The intestines and

* In giving the history of the dissection of a man, who seems to have died of inflammation in the abdomen and thorax, produced by organic disease, he says, "the belly was completely distended with fetid water of a yellowish green colour, in which a quantity of matter was floating, like purulent mucilage, *which I believe consisted of portions of the omentum.* The same fluid was seen in the thorax.—Epist. XXXVIII. Art. 30.

omentum being freed from this incumbrance, the circulation becomes more equal through their whole surface; the vessels of those parts on which the uterus lay, *are immediately filled with blood*; but being weakened by such long-continued pressure, they have lost their elastic power, and can scarcely propel forwards their contained fluids," &c. He then proceeds to draw his conclusions in these words:—
"By these means the vessels become completely filled with blood, and are ripe for inflammation; and if the injury done to the intestines and omentum by those causes, be so great as to produce an actual inflammation, then will arise the puerperal fever."

This author adds, in another place,—*"It (the puerperal fever) seems to be no less than a general inflammation of the omentum, intestines, and lungs, and sometimes also of the stomach, commencing nearly at the same time, and disposed to run quickly into a state of gangrene."*

Cruikshanks, I believe to have been the first, who clearly pointed out the seat of the inflammation to be in the peritoneal surfaces.

From the statements of Wallace Johnson, as well as from those made by some of the gentlemen themselves, it appears that neither Sir John Pringle, nor Drs Hunter, Lewis, Mackenzie, nor Harvie, had any settled opinions on this subject. By the prac-

tical recommendations of Hunter and Mackenzie, it is quite evident that their notions (if they had any) were erroneous. Indeed, we have the direct avowal of the former, that his practice was almost invariably unsuccessful.

White (of Manchester) supposed the disease to be primarily seated in the uterus, through which he believes a *putrid humour to transude*, by which the omentum and intestines become affected.

Walsh admits, (as I have stated in another place,) the inflammatory nature of the disease, and that inflammation affects certain contents of the abdomen; but as he supposes this to be connected with *typhus*, he objects to the usual and only effectual means for subduing inflammation.

Burns and Hamilton entertain opinions so nearly resembling Walsh's, that I do not deem it necessary to dwell upon them further than to remark, that the connection which they have thought proper to force, between puerperal fever and typhus, or the idea of a poorness of blood, appears to me to have arisen, not so much from the rapidity with which the disease runs its course, and from the early symptoms of debility which come on, as from the want of success which has attended their practice.

Gordon of Aberdeen is one of those, who, (with Peauteau, as well as Young, Home, and Hamilton

of Edinburgh,) supports the pathology of puerperal fever being connected with erysipelas ; but, as this opinion did not lead him to adopt a bad practice, it is scarcely worth while to notice it, further than to state the fact. I may add, however, that he drew this conclusion principally from two circumstances : 1st, The great extent of the inflammation in, and the rapid progress of, Puerperal Fever ; 2d, That there is a very frequent crisis of the disease, by an external erysipelas. Several cases of this kind occurred in Dr Gordon's practice. With respect to the first, we have decided proofs, that erysipelatous inflammation is confined to the skin, and never does attack serous membranes like the peritoneum. The second, I consider as an excellent illustration of the truly inflammatory diathesis, which prevails in the system during the course of the disease.

In all the subjects Dr Gordon dissected, the right ovary was diseased, and the left sound ; which must, I conceive, have been a matter of mere accident. In more than half the cases I have seen, both the ovaria were either evidently enlarged and indurated, or otherwise so changed as not to appear in a healthy condition, or coated over with coagulable lymph ; in many cases, it adhered so closely, as to convince me that it had been thrown out by inflammatory action of the part to which it adhered ; but in others

the ovaria were merely covered with it, from having floated in the effusion of a pus-like matter, which filled, or almost filled, the cavity of the pelvis. I can see no reason why the peritoneal coat of the ovaria should not be originally affected with inflammation, as well as any other part of that membrane.

Denman, Hey, and Armstrong, on the contrary, have viewed the disease purely as an inflammation of the peritoneum, as it occurs in men, and unconnected with putridity or typhus.

With respect to the opinions of the continental writers, I may shortly state, that those of Dalaroche nearly coincide with Leake and Hulme. Levret, Puzos, and others, attribute the disease to a metastasis of milk. The proof that it is not so, however, is, that the disease is more fatal the earlier it attacks, and before any milk is secreted. Tissot, like White, conceives it to be a putrid fever; Petit and his followers, a nervous fever.

Many authors, both ancient and modern, as well in this country, as on the continent, have considered this affection as proceeding from a suppression of the lochia. But it has been satisfactorily proved, that that discharge is at one time suppressed, at another only diminished, and that it sometimes flows as usual. Its suppression, therefore, must be considered as a consequence, not as a cause of the disease.

A German, John Gottlieb Walter, in his treatise *De Morbis Peritonæi*, concludes, from a great number of facts, that the puerperal fever is as much an inflammatory affection of the peritoneal membrane, lining the abdomen and its contents; as pleurisy is of the pleura, lining the cavity of the thorax and its contents. And he compares the effusions in each cavity, which he states to be similar.

The French generally regard with much derision, the pathological notions entertained upon it by some of our physicians.

Gardien* (like Meygrier, and most of the French authors) commences his observations on this disease, by entering a strong protest against the name of Puerperal Fever, as altogether incorrect, and inapplicable. This objection has been urged for a considerable time past by English writers; and I have certainly felt it to be both inapt and highly injurious. I will not venture, however, to change a name which has obtained so universally, and which has been so long in use; nor would this now be of any practical utility, if physicians could be brought to right notions respecting its pathology. Gardien substitutes the term *puerperal peritonitis*, as pointing out the nature and seat of the disease, together with the cir-

* Gardien, Vol. III.

cumstances under which it occurs. "In adding the word *puerperal* to *peritonitis*, I wish," says he, "to shew, that though the puerperal fever be simply an inflammation of the peritoneum, we cannot separate from its history, the condition of the womb, and the general system of a female after delivery. But," he adds, "I do not, on this account, look upon this puerperal peritonitis as forming a particular species."

I have not the presumption to suppose that I possess sufficient authority to enable me, by argument, to alter the opinions, and far less the practice of my opponents. Happily for mankind, a considerable number of celebrated men have already embraced, on this subject, sentiments nearly similar to my own; and I do most sincerely hope, that no physician, of repute, will be found in any of the great capitals of Paris, London, or Dublin, who will publish or teach the same pathological opinions, which have not only been published and taught, but which are still maintained by Burns, and Hamilton, who are decidedly (if Dr Kellie is excepted) the most experienced, and in fact the greatest authorities in this country, in every thing which relates to the obstetric art.

Were we to allow ourselves to be guided by ingenious arguments, I am well aware that these gentlemen possess skill and acumen sufficient to defeat the object I have in view. But my plan has been,

through this work, to avoid theory and argument, where I cannot make a direct appeal to facts. By these, when well authenticated, I have resolved to abide—not only in support of what has been written on this subject by Denman, Gordon, Hey, and Armstrong, but in what I am myself about to submit to the consideration of the profession at large.

Many medical men in this city differ from Dr Hamilton, in the pathology and treatment of this disease, but no one has hitherto attempted a public refutation of his opinions. This can be best explained by those who are convinced of their fallacy. As for myself, I entertain too high a feeling of respect for the good sense and good taste of Dr Hamilton, to allow me for one moment to suppose, that he will be displeased with the present attempt. Science is improving step by step; and Dr Hamilton himself is very properly in the habit of pointing out to his pupils, the alterations and improvements he has made in practice, to that pursued by Dr Young, and his own father, his predecessors.

If it shall be proved, that I have myself been led to draw unwarrantable conclusions, I have only to say, that I shall bow, with a ready deference, to the individual who shall point out a pathology, leading to a more successful practice. Having no theory to propose which is not directly deduced from, and sup-

ported by, facts, I can do so with a better grace, than those more ingenious men, who, overlooking facts altogether, or twisting them in an unphilosophical manner, give birth to speculations, which they ever after think themselves bound in honour to defend.

Without sound views of pathology, the practice of a physician will be vacillating, uncertain, and unsuccessful, and highly unsatisfactory to himself. There are, it must be confessed, many complaints, the true nature of which has hitherto eluded the research of the most ingenious men. I may instance tetanus and hydrophobia. One evident and satisfactory reason for this, is, that the changes of structure produced, are in many cases so minute, as to escape any means we have yet in our power to discover them. But in the disease now under consideration, it will be seen that there is not the same apology.

The pathological opinions I have been led to form, are derived from the analysis of the symptoms, and the undisputed facts, that puerperal fever is less dangerous, the later the attack is in coming on after delivery, as well as, that it is found to be a milder disease after abortion ; as well as from the analogies the disease bears to different congestive and inflammatory diseases, and from other circumstances enumerated in the preceding Sections of this work. These

have been for many years to me, points, if I may be allowed to say so, of attentive inquiry, and have also been the subject of frequent conversations among a numerous circle of professional friends in various quarters; many of whom may here recognize views, which they entertained, perhaps, prior to myself. Were I conscious of any thing of the kind, however, I can assure them it would be a pleasant duty to me to perform an act of justice.

I agree with the sentiment so well expressed by Gardien, that, in the consideration of this disease, *it is impossible to separate its history from the condition of the female after parturition*. That it is not a disease *sui generis*, I think, is sufficiently proved by the facts hitherto detailed; and it appears equally evident from these, that the disease is nothing more than an inflammatory affection of the peritoneum lining the cavity of the abdomen, and which covers its contents; commencing, it is most probable, in some portion of that membrane which covers the uterus, tubes, and ovaria, accompanied with a greater or less degree of congestion of the blood, which is sometimes so great, as to kill the patient before reaction takes place. This tendency to congestion is greatly increased by the state of a woman immediately, or soon after delivery. It is simply this state that renders, and, that ever will render

this disease so formidable, in all quarters of the globe—in Greece, as well as in other parts of the continent—in Britain, as well as in its foreign possessions—in South and North America. In many of these situations, except the first and the last, I have watched the progress of, and examined the changes of structure produced, by this disease, in the bodies of those who fell victims to it. I can aver, that I have seen above one hundred cases, and about thirty dissections ; and I am enabled to state, that although the symptoms do vary in degree and duration, the appearances on dissection are almost always perfectly similar. I do not, by this, mean to impress a belief on the mind of the reader, that this or that part of the peritoneum is more diseased than another. All that I wish to convey, is, that the appearances do not vary more than in peritoneal inflammation, in men, or in women in the non-puerperal state. It is, therefore, this peculiar state of a woman's system, after child-birth, that is now to be investigated.

It is many years since I was led to conclude that there were *two evident reasons, at least*, why this disease should be more fatal in the puerperal, than in the non-puerperal state ; and although it has become the prevailing fashion—for there is fashion in medicine as well as in other matters—to attribute all

diseases to certain changes in the vascular system ; yet, I do not hesitate to say, that this fatality in the disease before us, is owing nearly as much to a derangement in the nervous, as in the vascular system. It is not likely, that the wise author of our nature would have provided so extensive and minute a nervous arrangement, as we know to exist in the animal frame, to remain in a state of quiescence and inaction during disease. But, we are not left to doubt on the subject. The knowledge we possess of the functions of the human body, imperfect as physiology is, shows, that the healthy action of the vascular system, in any given part, cannot survive the destruction of the nervous system. On the other hand, if the circulation of the blood is interrupted in any particular part, the same result will follow, the death of such part. Is it not injudicious, then, to separate functions which have been created by Infinite Wisdom, to be inseparably dependant on each other? It appears to me that many eminent men have been seduced into such unphilosophical opinions, with respect to inflammatory complaints, from seeing so much mischief done in so short a time, by congestions, adhesions, effusions, &c. But it is surely an unenlightened and narrow-minded philosophy, which leads to the conclusion, that the nervous system had no part to act in the production,

and continuation of the action, from which such marks of disease arose. I regret that I must defer the farther prosecution of this subject, as the work would otherwise swell to a size that might limit its utility; it has, indeed, already increased to nearly double the volume originally contemplated.

In considering the state of the vascular system in a recently-delivered woman, we must have recourse to the changes which take place with conception, and which continue to go on during gravidity till the full time, before we can understand what takes place afterwards. I consider it as an established fact, that, from the moment, or soon after conception takes place, an increased action of the vascular system comes on, and that a necessary determination of blood to the uterine region commences. Menstruation is suspended, which increases the general tendency to plethora. In the early months, we find nature struggling to counteract, to a certain extent, this new determination, and this recently-acquired plethora, by a constant nausea and sickness, which not only diverts the blood to the surface of the body, but also prevents an increase in the quantity of that fluid, little food being allowed to remain on the stomach. The physician often finds it necessary to give his assistance to one side or other; which, unless he does timeously and judiciously,

the balance of the circulation will be entirely upset, and the only way by which nature can relieve herself, is either by diarrhœa, or a spontaneous discharge of blood from some part of the body, or by miscarriage. This general plethora exists, more or less, up to the full time, and the determination to the uterine region goes on gradually increasing to the same period ; partly, to supply the means of growth to the uterus and its appendages, and partly, to support the change, which it is believed, takes place on the blood of the fœtus in the placenta. In consequence of this, the quantity of blood transmitted through the abdominal aorta, becomes very great : the blood-vessels of the viscera receive more than the usual quantity ; but this is prevented to a considerable degree, by the equal pressure afforded to them, as the circulation increases, by the increasing size of the womb itself.

The uterus is supplied with blood by the spermatics and hypogastrics, which greatly increase in size.* The veins accompanying the course of the arteries, have the same name, and are still more enlarged in size than the arteries ; their immense

* “ The arteries, both hypogastrics and spermatics, are very much enlarged.”—*Anatom. Description of the Human Gravid Uterus*, by William Hunter, M. D. p. 16.

size has induced many anatomists to call them sinuses.* These, as well as the veins in the cavity of the abdomen, are without valves; they are more distended in the gravid, than in the ordinary state of the system; and, I apprehend, that the blood will find increasing difficulty in returning to the heart from the uterine region. This will explain many of the anomalous symptoms which occur during gestation, and the relief generally afforded by blood-letting; and will bear me out in the assertion, that the calibre of these vessels is increased, to perhaps double their natural size.

There is also a peculiar change in the nervous system during utero-gestation, which shews itself so early as the first weeks of pregnancy, and goes on augmenting till the period of its termination. This has been very aptly styled, the increased susceptibility of impression of the nervous system. This morbid change, if I may say so, chiefly displays itself in the temper; and, by slighter causes, producing more violent irritation, both of mind and body, than in the unimpregnated state.

At the termination of nine months, labour generally comes on. Pains, slight at first, are felt in the

* "The veins of the uterus would appear to be still more enlarged in proportion than the arteries."—*Anatom. Description of the Human Gravid Uterus*, by William Hunter, M. D. p. 16.

back and loins, which increase, and extend to the anterior part of the belly. These pains are produced by the efforts of the uterus to contract itself. It is by these contractions of the uterus, assisted by the action of the diaphragm and the abdominal muscles, that the ultimate expulsion of the foetus is accomplished in ordinary cases. During labour, a state resembling fever is produced, which is generally relieved by perspiration, more or less profuse. To prevent mischief, the physician is frequently obliged to direct the abstraction of ten, twelve, or twenty ounces of blood from the arm. The placenta is afterwards expelled, and the safety of the woman now depends upon the perfect and regular contraction of the uterus. This shuts up the mouths of the open vessels, which are of necessity ruptured when the mass is finally separated from its adhesion to the uterus. During a natural labour, there is, at first, a discharge of a glary mucus, sometimes tinged with blood. At the very time of the birth of the child, or immediately after it, a quantity of blood gushes out, partly fluid, and partly in the state of coagula, which soon ceases upon the contraction of the uterus. The quantity of blood generally lost, I am inclined to believe, from attentive observation, is seldom less than twelve ounces, and rarely exceeds two pounds. There are cases, in-

deed, where the loss has been terrific; but the real amount can never with any certainty be estimated.

When this process is completed, the abdomen should be supported with a broad binder—a soft napkin applied to the external parts; and the woman should be kept quiet.

It is the common practice to give a stimulant immediately after the extraction of the placenta, but it should never be allowed, unless where it is absolutely demanded to rouse the powers of life, when they are sinking too low. If we administer ardent spirits, or even wine, without an existing necessity, we may assure ourselves, that we are counteracting *more than one* of the important operations of nature: on the one hand, by increasing the momentum of the blood, and on the other, by increasing nervous irritability.

The sudden and important changes produced on the animal economy after delivery, is well calculated for the display of that provident and benevolent wisdom with which our frame hath been created. The increased supply of blood to the uterus, is now no longer wanted. A total and sudden check to a determination, continued for so long a period, would be always attended with danger. The quantity of that fluid is therefore wisely diminished in the whole system, by the hæmorrhage that follows the birth

of the child. The uterus still remains of considerable size, and can be felt above the brim of the pelvis. It is, therefore, still capable of circulating a sufficient quantity of blood to prevent injury, by suddenly throwing that portion upon the rest of the system, which it does not require. Nature herself unloads the uterine vessels by a discharge, which will be observed on the cloth, termed the *lochia*, or vulgarly *the cleansings*; and there are constant short efforts made by the uterus, for a day or two, well known by the name of after-pains, which not only tend to reduce its size, but also to expel any blood that may from time to time be contained in its cavity. The next step which nature takes, at once to obviate general plethora, and to compensate for the long-continued determination of blood to the uterus, is, to induce a determination of this fluid in an opposite direction—the breasts feel stiff, enlarged, and painful—the secretion of milk commences, which not only permanently relieves the system from oppression and plethora, but is intended, also, as the source from which the infant is for a time to derive its nourishment. This secretion takes place sometimes before delivery, but the elaboration does not usually commence till from twenty-four to sixty hours after it.

The nervous system is now, if possible, in a more irritable condition than before delivery. The least

noise causes the greatest disturbance in the circulation ; and fright, despondency, and horror, are known to have produced the most fatal consequences. The woman is, therefore, to be kept as quiet as possible. She ought not to have any thing to do, for some days, at least, with family affairs ; and any disagreeable news should be concealed from her.*

* Morgagni mentions a case, where a very slight cause indeed produced a speedy death : A woman was safely delivered of a daughter, instead of a son, which she had hoped for. The females concealed this circumstance from her ; but upon being revealed to her by her husband, she was seized with such an anxiety of mind, that her pulse sunk and her body became cold, and within an hour and a half from that period she died.—Epist. XLVIII. Art. 44.

The lady of a professional friend, delivered by Dr Rambotham, of a still-born child, was so much grieved about that melancholy circumstance, and suffered so much anxiety while the Doctor and her husband were making efforts to restore animation, that she complained of sudden faintness. There was no loss of blood to account for this, and the pulse was not much affected. She expired about three hours after delivery. The body was not inspected.—See Observations, P. 209.

A melancholy catastrophe has carried desolation into the family of the Marshal Prince d'Eckmuhl. His eldest daughter, who last year married M. Vigier, jun., was happily delivered of a son, eight days ago. Her health was in a very favourable state, and there was every reason to hope her prompt recovery. On Sunday, the 19th instant, her young sister swallowed a pin, which, after long and painful efforts, was extracted. In the meantime, an imprudent person ran, with a countenance betray-

In the meantime, absorption of the parts which had been added to the uterus during gestation commences; the lochial discharge generally continues for fourteen days, less or more; and I should conceive, that, upon the whole, (not including the first great discharge, of course,) from 12 to 20 oz. are collected on the cloths during that time.

An attentive view of these phenomena, will, I conceive, not only enable us to account, in the most satisfactory manner, for all the circumstances attending the disease termed Puerperal Fever, but, we shall have cause to wonder that it should so seldom attack women in child-bed. And when we consider the plethoric state of the system of a woman with child—the determination of blood so long continued to the abdominal region, which is suddenly checked after the birth of the child—the susceptibility of the nervous system to receive external impressions—and the sudden removal of the pressure which the large uterus produced on all the parts within the abdomen,—we shall, at a single glance, perceive how

ing great terror, and informed Madam Vigier of the disaster, which caused so sudden and violent a revulsion of nature, that in two hours, notwithstanding every professional aid, she expired. She had not attained the age of 18.—Extracted from the *Moniteur*, August, 1821.

causes, such as the application of cold, too early sitting up, irregularity in diet, imprudent use of stimuli, or anxiety, grief, and horror, or even very slight affections of the mind, in an irritable system, in which the balance of the circulation is not yet confirmed, may upset it altogether, by causing an irregular determination of blood, which will very naturally be directed to the vessels most ready to receive it.* The uterus being now so far contracted, cannot receive all the blood at the moment sent to it. A quantity therefore rushes into the cœliac and mesenteric arteries; the face, as well as the whole surface of the body, appears bloodless; a smaller quantity of blood is sent to the lungs to undergo the necessary oxygenation; less heat is consequently evolved; there is dyspnœa; the temperature of the

* Rod. à Castro seems to have been well aware, that irregular determinations of blood were sometimes the cause of this disease, as well as general plethora, from the caution he directs to be used, "that the blood may return to the mammæ." He also observes, "that blood-letting may be of great benefit, when the cause of the disease is an over-abundant quantity, or if the blood runs to another place, which may be discovered by the pain which it excites, and by the other symptoms.

And in another place he distinctly states, that the "internal causes" of this disease, are a thickness and too great abundance of blood, which produces *obstructions to the circulation* of the blood, and *constrictions in its course*.—Lib. IV. P. 473.

body sinks below the natural standard ; the heart itself, either from the tardy return of blood, or from the supply it does receive, not having undergone the natural change in the lungs—or from both causes united—acts so feebly as not to have sufficient power to force on the blood to finish its circulation. A venous congestion in the abdomen is the consequence, and the patient sometimes dies suddenly, or she lives from six to twelve hours, or from that to forty-eight, as the severity of these circumstances is greater or less, or according to the strength of her constitution. In this case, there are none of the characteristic marks of fever. In another case, which is by far the most frequent, this state of congestion is very slight. Reaction soon follows the cold fit, exactly in the same way as happens after the first stage of an intermittent fever ; and in the course of time—from one or two hours, to twelve or twenty-four—nature relieves herself by the same means as in ague. The balance of the system is restored by a determination to the skin, profuse perspiration being thereby produced. This affection is, from the shortness of its duration, called *ephemera*, or *weed*. These I consider two extremes of the same case. But there is an intermediate state, in which the congestion is less severe than in the first, and more so than

in the last instance. The rigor is more or less felt ; reaction follows, more or less acutely ; nature fails in relieving herself by perspiration. She has then recourse to the only other means left—increased action of the vessels themselves, or in other words, inflammation ensues. Now, I apprehend that this intermediate state, forms the disease we are considering under the name (however improperly applied) of Puerperal Fever.

This irregular determination frequently takes place soon after the expulsion of the placenta, and before the uterus is permanently contracted. By this means, that organ is again greatly distended, blood being poured out of the mouths of the ruptured vessels, at the part to which the placenta was attached ; and unless the accoucheur is at hand, and is aware of what is going on, instant death takes place. This discharge of blood into the uterus sometimes commences several hours after delivery, and goes on so gradually and insidiously, that a considerable time elapses before the attendants take alarm. When it is ultimately discovered, the peril is extreme. The uterus will be found amazingly distended with coagula, without much appearance of flooding externally. All writers on midwifery take notice of such cases ; but it is nowhere more truly or more clearly described than in Dr Ramsbotham's *Observations*, to which

I beg to refer the reader, as a work containing much useful practical information. In the chapter in which he treats of the subject of internal hæmorrhage, will be found a delicate and highly interesting allusion to the lamentable case of the Princess Charlotte. The very proper manner in which he mentions the celebrated accoucheur who attended, does equal honour to his head and his heart. "*For eminent he was,*" says this author, "*and well acquainted with his profession, notwithstanding the calumnious imputations cast upon his memory.*"

I cannot let the present opportunity pass, without remarking how deeply the public ought to hold every man in abhorrence, who makes it his business to go about vilifying and detracting from the professional character of others, especially after the occurrence of a melancholy catastrophe, like that alluded to above. The chief end in view must be to raise the character of the individual himself, at the expense of another's reputation ; which, as was seen in the unfortunate case of Sir Richard Croft, is dearer to a man of honourable feelings than life itself. It should be known from one end of the world to the other, that it was *these vile calumnies*, added to *the grief* he experienced for the loss of his Royal patient, that urged on his melancholy fate.

There is something so little, nay, so very base,

in this practice, that it is much to be wondered at, that the public are so easily deceived, and that popular feeling is not instantly roused against it. I have only to add, that such individuals will be found to be *mightily alive to self-interest*, when a *fatal case* occurs in *their own* practice; which, they may rest assured, will occur, sooner or later, particularly if they have the misfortune to be over-employed, and consequently too much hurried in business.

Whether the views above stated are well founded or not, surely an attentive observation of the symptoms, the analogies, and of all the facts hitherto displayed in this work, will convince the reader of the fallaciousness of the pathology of those who describe Puerperal Fever as connected with a low, putrid, or typhoid state of the system. Besides, typhus in child-bed is rare; and when it does occur, we are told by Dr Hamilton himself, that it is a much milder disease than in the non-puerperal state. I trust it will soon be universally admitted, that women, both during pregnancy and in child-bed, are most in danger from complaints of an inflammatory nature, and that they bear bleeding better than in any other state; and, when blood is drawn, instead of being in a dissolved putrid state, it is found to contain more fibrin and albumen, which almost invariably manifests itself in a thick buffy coat.

If a woman has been starved, or has lived on bad food during pregnancy, or has lost a great quantity of blood by hæmorrhage, a different state of the system will no doubt prevail. But this should not prevent the use of the lancet, if, in the progress of the case, pneumonia, or any other inflammatory affection, should supervene. I have successfully bled patients after the eighth day of the infectious fever, which prevailed, a few years ago, among the poorer class in this country, when they were actually suffering under lowness and debility, because the inflammatory affection would otherwise have destroyed them.

Dr Walsh, who, as I have already stated, supposed, that puerperal fever was an inflammatory affection of the contents of the abdomen, added to typhus, (on which account he strongly opposed bleeding,) makes the following statement:—"It is not now necessary to prove, that extensive inflammation is capable of accompanying *diseases of debility*, as with respect to the common fever. Sir John Pringle and others have proved it; and during the ordinary epidemic, even of this season, every extensive practitioner must have observed, that it is chiefly by such a complication supervening, that this fever proves directly fatal, and that that kind of inflammation, which arises under these circumstances, is

of all others the most dangerous, and the quickest in its progress through its different stages. To these observations I shall farther take the liberty to add one, in illustration of an assertion made above, to wit, that the disease is not wholly confined to lying-in women; and affirm, that a *peritonitis* frequently supervenes to a previous *typhus*, even in the male sex; so that it is by no means uncommon, with those who are conversant in dissections, to observe, that the appearances, after death, in persons carried off in this way, are perfectly similar to those described as occurring from the puerperal fever. A very remarkable, though not a very solitary, instance of this kind occurred to me about twelve months ago, in the dissection of the son of an artificer, in the neighbourhood of Lincoln's-Inn Fields."*

I never saw a case of typhus fever in the whole course of my practice,—which has been pretty extensive among all classes, and in various climates,—in which there was not a state of excitement, at which period bleeding, prudently employed, will almost always succeed in cutting short the disease, or tend greatly to mitigate the after symptoms. If a practitioner is called to a patient labouring under a low and apparently putrid fever, and inquires in-

* *Practical Observations on the Puerperal Fever*, by Philip Pitt Walsh, M. D. p. 16.

to the previous history, he will invariably be told, that there were at first symptoms of *high* fever. When the excitement is gone by, then indeed bleeding will do harm, and should never be had recourse to, unless for the purpose of relieving local inflammation ; when cupping, or the application of leeches, will be perhaps safer practice.

It has, I humbly conceive, been satisfactorily established, that the phenomena of the first, or completely congestive variety of the puerperal fever, bear a striking analogy to other congestive diseases, namely, intermittent fever, when it proves quickly fatal—a variety of yellow fever—cholera morbus, as it prevails in India—and the disease termed *berri-berri*.

It has also been established, that the symptoms of the other, or more common variety of the puerperal fever, are nearly the same as in peritonitis, when it occurs in the non-puerperal state and some forms of dysentery. That it is more severe and intractable, and perhaps more fatal, I attribute in some measure to the tendency to plethora in the system of a recently-delivered woman, but, more particularly, to increased susceptibility of the nervous system, and the unconfirmed state of the circulation at the time, by which the balance is apt to be disturbed, and is sometimes entirely lost by the influence of the slightest cause ; and, therefore, congestion of the blood, to a greater or less extent, accompanies the disease.

This state of congestion is known to accompany and to aggravate yellow fever, and, I think, accounts for the fatality of that, as well as many other inflammatory diseases.

I shall now endeavour to confirm these views, respecting the last-mentioned variety of puerperal fever, by laying before the reader a condensed history of the appearances observed in the dissection of individuals who have died of puerperal fever, making choice, as far as I can, of the recorded statements of those, from whom I have ventured to differ in opinion; and to these I shall subjoin an account of several cases and dissections which fell under my own notice.

Dr William Hunter informs us, that, on dissection, he found "the uterus, all the other viscera, and every other part, inflamed, and a quantity of purulent matter in the cavity of the abdomen, and the intestines all glued together."

Walsh gives no regular detail of the *post mortem* appearances; but he states that there is seen "a more or less extensive inflammation of the peritoneum." In another place he observes, that there is "a real inflammation of certain contents of the abdomen, as constantly shewn by the symptoms during life, and frequently by dissection after death." In another place he admits, that the peculiar kind of inflammation which accompanies this disease, is one "attend-

ed by the formation of pus, the morbid exudation of coagulable lymph, and the consequent agglutination of neighbouring parts."

Burns says, "that on dissection there is found in the abdomen a considerable quantity of fluid, similar to that met with in *peritonitis*. The omentum and intestines are inflamed, but perhaps very slightly, and gangrene is unusual. The uterus is not more affected than the intestines. In some cases the thoracic viscera are inflamed."

Dr Hamilton describes the appearances on dissection to be more uniform in different cases of this disease, than the morbid phenomena during the life of the patient. "On opening the abdomen, a quantity of fetid gas escapes—if diarrhoea has preceded death, the abdomen is found more flattened; if not, distended—a gallon of coffee-coloured matter has been found in the stomach. The omentum is found inflamed and gangrenous, and the intestines are inflamed on their surface—a quantity of fluid like serum is found in the abdomen, with white flaky substances floating in it, and attached to the intestines taking on their form."

John Gottlieb Walter, the German author, shows, that in puerperal fever, the external coat of the intestinal canal, of the uterus, of the tubes and ovaria, the omentum and mesentery, which are a continuation of the peritoneum; the internal surface of the

abdomen and pelvis, which are covered with peritoneum, are alone affected—they are inflamed and covered with a kind of purulent matter; and the effusion he compares to that, which takes place in the thorax in consequence of pleurisy. He states, he has opened *five thousand five hundred subjects*, who have died of peritonitis, and he declares, he has always found the greatest resemblance between the appearances in the two diseases.

Richerand, as Alibert informs us, has always found the most perfect resemblance between the appearances in puerperal fever, with those *in men* who die of peritonitis, in consequence of surgical operations.

Gardien states, “ If we compare the appearances described by authors, as occurring after puerperal fever, with those observed after acute peritonitis, we shall find in both cases, serous or purulent collections in the abdomen, varying in colour and consistence, mixed with shreds and membranes—whitish flakes, which are simply coagulated albumen in different degrees of consistence—in both cases, if the inflammation has passed into the state of gangrene, the pus is fetid and greyish. There is then *the most perfect resemblance*,” says Monsieur Gardien, “ *between puerperal fever and peritonitis, since during life the symptoms are the same, and after death dissection affords us the same results.*”

Dr Dease of Dublin makes the following observations, in a little treatise published by him in 1783. "Operations for the stone, and punctures *in perinaeo*, in order to relieve retentions of urine, are often attended with a fever, and, making allowance for the difference of sexes, &c. with all the other symptoms of puerperal fever; and on dissection we often find the *omentum* and *intestines* to have a more *inflamed* and *gangrenous* appearance than the bladder; and the same purulent *wheyish kind* of *fluid* is always found extravasated in the cavity of the abdomen. At the very time I was employed on this subject, I cut a boy for the stone, and the great similarity of the symptoms that succeeded the operation to those of puerperal fever, struck me exceedingly."

That this gentleman was opposed to the proper practice, however, will be observed by the following short extract from his work, p. 117:—"I never saw a case that required, or indeed would admit of bleeding without injury."

Outlines of a case, the dissection of which I had an opportunity of seeing in the country, during the course of last winter.

The wife of a country labourer was safely delivered after an easy time; the apartment was very much exposed, a great portion of roof being off, and

the weather was cold and rainy. She had severe shiverings on the third day, with slight pain in abdomen—it was some time before she was visited by a medical gentleman, who bled her largely several times, ordered purgatives, fomentations, and injections, and she was so much better on the fourth and fifth days after the attack, that he did not think it necessary to repeat his visits—directions were left to send for him in case of relapse. Nothing more was heard of her till the day before her death, which happened on the fourteenth day after delivery, when she was found *in articulo mortis*, the abdomen much tumefied. The pain had been so slight, that the friends had taken no alarm till within twelve hours of her death.

Dissection.—When the body was laid on the table, the abdomen was much tumefied, and resisted pressure; on making the incision into it, a quantity of fetid gas, carrying a fluid along with it, came out with considerable force and noise.

The omentum bore the strongest marks of inflammation, and in several places was dark-coloured; it was spread over the other viscera, and fixed by recent inflammatory adhesions between the pubes and subjacent parts; on reflecting the omentum, it was found to adhere to the viscera, which were tympanized, being here and there of a deep reddish brown co-

lour; at other places the blood-vessels were very turgid. The intestines were glued to each other by coagulable lymph, which lay among their folds like pieces of firm adipose substance. There was an effusion of about two quarts of serum, tinged with blood, and mixed with flocculi. The uterus lay above the bones of the pelvis, and had several patches of coagulable lymph on its surface. The ovaria were involved also in the same manner. The convex surface of the liver was completely and thickly covered with a coating of coagulable lymph, which was so firm and organized that it could be peeled off like a cuticle, leaving a raw-looking surface beneath.* In the thorax, the lungs were sound—the heart appeared natural. There was an effusion of serum, tinged with blood, into the general cavity of the pleura.†

* The same appearance was described by Dr Leake in the dissection of Mary Evans, his thirteenth case, who was not bled from her being of a very “delicate, irritable habit, and lax fibres. The liver,” says he, “was also unaffected, *except its peritoneal coat, which, being dissolved by the inflammation, lay on its surface in a tender gelatinous state.*”—Page 234.

† In conducting the examination of this body, Mr Savery, the gentleman who dissected, slightly pricked his finger, which he instantly and carefully cleaned—he made very light of it, as the same thing had often occurred to him before without any bad consequences. In an hour or less, he felt unwell, had rigors, accompanied with considerable prostration of strength. Mr Lizars bled him largely; the injured part became inflamed, ultimately suppurated, and an opening was made to let out the

The following are extracts from three, out of six cases and dissections recorded by Hulme, and the same number by Gordon ; in order to enable the reader to compare them with the other cases and dissections in this work, not only of puerperal fever, but also with those of acute diseases, not at all connected with parturition ; I beg it may be remembered by the young reader, that Hulme supported the putrid and low pathology, and objected to the practice of blood-letting ; and it is admitted he saw the *real* disease :—

The subject of this dissection had been safely delivered of her first child ; her labour “ was easy and safe.” The disease began on the second or third day after delivery, with a *violent pain and tenderness all over the abdomen*, accompanied with a fever, and severe shooting pains across the pit of the stomach and sides, cough and difficulty of breathing ; at first the belly was costive, but afterwards loose, and the stools were somewhat black and fetid—abdomen a good deal swelled, pulse at first 140, and weak, but before death it reached 160. “ She died

matter. He was a considerable time so unwell as to be unable to resume his studies.

in great agonies, on the eleventh day after delivery," which was either the seventh or eighth from the commencement of the disease.

Dissection.—"The abdomen was much tumefied. Upon penetrating into its cavity, there rushed out a quantity of fetid air, and a liquor, of the same odour, mixed with a matter like pus. The *omentum* was found in a *gangrenous* state and thin, having lost the greater part of its fat. The mortification had particularly seized the inferior portion of the omentum, which was dragged down towards the left side, so as to reach into the pelvis, and by the distension of the inflated intestines underneath, was pressed close in that part against the os pubis. The stomach and intestines were greatly distended with air, particularly the former—the cœcum was also much inflated, but contained little else than air; the few excrements that were in it, were thin and of a dark colour. In the stomach, was found a quantity of a thick blackish fluid. The *vessels* on the surface of the *intestines* and stomach, were, in different places, *distended* with blood. The *intestines* slightly adhered to each other as if pasted together, and small parcels of fatty substance, of the same kind as those mentioned before, stuck fast in various places, betwixt their several convolutions, and in some measure glued them together," &c.

From the fourth dissection, related by Dr Hulme, the subject of which died on the sixteenth or seventeenth day after being attacked by the disease, the following extract is made :—

Dissection.—"The abdomen was not tumefied, but quite shrunk. The viscera being exposed to view, the whole *omentum* appeared in a *gangrenous state*. The lower part reached down into the pelvis, and was entirely mortified, and had a most offensive smell. Its under surface lay upon *the uterus*, its upper stuck, as if glued, against that part of the abdomen near which the *musculi pyramidales* take their origin. It had *tinctured the external surface* of the *uterus*, with a variety of *dark brown spots*, so as to make it appear variegated or marbled, and had infected the peritoneum and muscular flesh at the place above the pubes just now mentioned. It had also made an impression of the same nature upon *the ovaria and fallopian tubes*. The *omentum* likewise adhered closely, through the whole compass of the abdomen, to the *peritoneum* above, and the *intestines* below, as if pasted to them. A general inflammation had spread itself over the coats of the intestines, in various parts, and in some places they seemed to be changed to a dusky colour. The substance of the uterus, notwithstanding the discolouration in its surface, upon dissection appeared

altogether firm and sound. There was no fetid water or any other fluid found within the cavity of the abdomen, except a very small quantity, which moistened the bottom of the pelvis. The intestines and omentum, and all the other parts within the abdomen, were remarkably dry, much more so than in any other body which I have seen opened, affected by this disease. Yet the parts diseased, in this subject, were contaminated with such a gangrenous stench, as scarcely to be endured."

Extracts from case 5th :—

"A woman, thirty-three years of age, was safely delivered, had an easy labour, this being her seventh or eighth child ; the disease began on the third day. *There was a violent pain and acute soreness all over the abdomen*, accompanied with a fever ; severe pains also shot across the *region of the stomach and down through the sides*. A perpetual pain affected the head—she had, too, a difficulty in breathing, and a frequent cough. The tongue was dry, and had a brown streak down the middle. She had a *purgings from the first*, which continued till death, and before that period a vomiting succeeded. She did not survive the seventh day after delivery, (the fourth day of the disease) and expired in great agony."

Dissection.—"The abdomen was swelled—upon laying open its cavity, the *omentum* appeared very

much inflamed, and somewhat gangrened. All its fatty substance was nearly destroyed, seemingly by suppuration, and little remained of that viscus except a thin membranous web, with pretty large vessels, branching over it, distended with black blood. In some places this thin web was worn, as it were, quite through, being found perforated with holes. A yellow fetid liquor, mixed with pus, and minute pieces of a fatty substance, were found in the cavity of the abdomen and pelvis, but mostly in the latter. The stomach and intestines were greatly inflated, and had their capillaries here and there distended with blood; the latter slightly adhered to each other, and had the same sort of fatty substance pasted in divers places, betwixt their convolutions, which have been described above. The lungs were found in an inflamed state."

On the 19th August, 1790, Dr Gordon was called, in the afternoon, to a woman, (Case 1st) who shivered at six o'clock in the morning, thirty-six hours after delivery. He found her in a most dangerous situation. She complained of an acute pain in the lower part of the abdomen; very great degree of fever—pulse 140. "I had no difficulty," says Dr Gordon, "in ascertaining the disease, having had previous opportunities of seeing it both in Lon-

don and Aberdeen." Ten ounces of blood were taken; fomentations, glyster, diluting drinks, anodyne diaphoretic draught at night—cooling laxative in the morning. Next day, the laxative had the desired effect. Blood drawn had a thick buffy coat. Lochia suppressed. Pulse decreased in velocity. No abatement of the other symptoms; pain and tension remaining as before.

21st, She passed a very good night; pulse 136, profuse sweat, succeeded by a diarrhoea in the afternoon. Patient now complained of very great pain; swelling of abdomen increasing.

22d, The disease was making rapid progress. Diarrhoea found not to have proved critical; strength sinking. Gave up all hope, and prescribed an opiate to soothe.

23d, Found the storm lulled into a calm. Every one, but Dr Gordon, was transported with joy; but he suspected gangrene had commenced. Accordingly, she died in a few hours.

Permission was not obtained to open the body.

On the 24th September, 1790, Dr Gordon was called to Isabella Allan, (Case 2d) aged thirty-six. She had a violent rigor twenty-four hours after delivery, succeeded by acute pain in lower part of the belly, especially in right side, attended with a

great fever. These symptoms existed thirty hours before Dr Gordon saw her, and before he came, tumefaction of the abdomen had appeared. Sickness and vomiting of bile of a green colour. *Lochia suppressed*; pulse 148. Bled and purged; fomentations to abdomen, and an anodyne at night.

25th, To appearance much better; pulse 124; pain abated; sweating profusely. In the evening, she had severe and long-continued rigors, followed by considerable reaction; pungent pain and tension of abdomen. Blister to abdomen, and purge.

Next day, found none of his orders had been obeyed; all symptoms worse; pulse 160. She died on the 27th.

Dissection.—Peritoneum, and its productions, the omentum, mesentery, and mesocolon, in a state of inflammation; omentum suppurated; small intestines very much inflamed; part of the colon inflamed, and running into gangrene; right ovary suppurated. A large quantity of pus and extravasated serum in the cavity of abdomen, measuring two English pints. Peritoneal coat of the uterus inflamed, and the organ itself not so contracted and compact as it should have been; but, on cutting into its substance, it was found to be of a natural appearance.

Janet Anderson, (Case 3d) aged twenty-five, had an easy labour. Twenty-four hours afterwards, the attack commenced with a very long and violent rigor. The cold stage was over before Dr Gordon saw this patient. Pulse 128, and hard; an hour elapsed before she was bled, in which period the pulse rose to 140. Blood was drawn till she fainted; a purgative. Next day, complained much of her belly; had had a pretty good night; pulse 140. *Lochia continued to flow in moderate quantity.* Dr Gordon states, that he was afraid to bleed again, from the feeble state of the pulse; she went on, from bad to worse, and died on the fourth day.

Dissection.—Omentum somewhat more of a red colour than natural. All the intestines inflamed, and distended with air, particularly the colon. Right ovarium almost totally destroyed by inflammation. About half a pint of pus and serum in the abdomen. Uterus lying above the brim of the pelvis, more enlarged and distended than it ought to have been, but sound in its substance.

Dr Gordon states, that many of his patients vomited a matter resembling the grounds of coffee.

The wife of a soldier of the name of Smith, of the Sappers and Miners, a tall, healthy-looking woman, aged twenty-four, but said she had never been

quite well since the day of her marriage, four years before, supposed herself to be four or five weeks gone with child. She consulted me in 1816, in France, having miscarried several times during the first weeks, and from now feeling the approach of the same symptoms. She complained of pain of the abdomen generally, but particularly low down, increased on pressure; occasional vomiting, and no sleep for many nights; no appetite; pulse about 100, full and hard; bowels rather slow. I bled her four times in the course of two days, taking, at each bleeding, from twenty to twenty-five ounces. The bowels were opened by castor oil and enemata, repeated every few hours; fomentations, warm bath, and small opiates. The same symptoms returned at every monthly period till the eighth, at which times I was obliged to bleed till the symptoms were mitigated; but, after the third, more decided relief was obtained by large opiates after the bleedings,—two grains of solid opium, or eighty drops of the tincture. On the whole, she lost, during pregnancy, twelve pounds of blood. When labour came on, I was out of the way, and she was attended by the French accoucheur of the village. She had an easy time, and appeared to do well for thirty hours, when, owing to exposure in a damp apartment in very bad weather, she had a shivering, attended with great

pain in the abdomen, increased on pressure,—slight tumefaction—face pale—expression anxious—pulse 130, neither full nor hard. She had applied fomentations, and had got a glyster from a French nurse, before my arrival, which was four hours after the shivering. Lochia natural. She expected so much relief from bleeding, that she earnestly urged it. A vein was opened, and blood allowed to flow till the pain was diminished, and she fainted. Thirty ounces were abstracted. She was then allowed to rest for two hours, when a purgative medicine was administered, which, in an hour after, was to be followed up by an enema. She had very slight pain during the next two hours, and was evidently improved; pain and tumefaction diminished; the pulse remaining much the same. An opiate was given. In the evening, from the recurrence of pain and tenderness, it was found necessary to take more blood. Eighteen ounces were abstracted with relief, and she passed a tolerable night. Next day, she complained of increase of pain, which sixteen ounces of blood relieved. Powders, containing five grains of pulv. antimonialis and calomel, were ordered every third hour,—a blister to the abdomen. She passed an uneasy night from the blister, but no pain in the abdomen; copious stools. From this time she went on to recover. On the fourth day the secre-

tion of milk commenced. She made afterwards a very good nurse, and in the course of two months was in perfect health.

This case I think is worth recording, not only to shew the plethoric state of the system which took place during pregnancy, and the quantity of blood which it was necessary to abstract, in order to preserve the balance of the circulation, and prevent miscarriage,—though, at first, I have reason to believe, that inflammation existed in the peritoneum; but that all this did not save her from the attack of puerperal fever, upon the application of cold after delivery. And I have little doubt she would have fallen a victim to this horrid affection, if the attack had commenced twelve hours, instead of thirty, after delivery; or if twelve hours had been permitted to elapse before the application of the remedies, as is but too often the case.

A Frenchwoman, who lived with one of our soldiers, after an easy labour, had a severe rigor, followed by pain in abdomen, increased on pressure; heat of skin, prostration of strength, headach, and thirst. I saw her in twelve hours after the accession of these symptoms, which were greatly aggravated by the delay; pulse 130. Lochia diminished, but not suppressed. Twenty ounces of blood were im-

mediately taken, but without relief; syncope prevented a greater quantity from flowing. Fomentations and purgatives ordered, and enemata every four hours. In a few hours the strength of the pulse was considerably restored; and, as the pain continued, blood to the extent of thirty ounces was taken, which she bore well, with considerable relief. The same afternoon another quantity, of sixteen ounces, was taken, when syncope was again induced. Purgatives had operated, and the appearance was more favourable. Next day, had still a little pain when she moved, or when pressure was applied; pulse 120, soft and easily compressible. Thirty leeches applied to the abdomen, which afforded relief, and the tumefaction had now almost subsided. Next day I found her complaining of having passed an uncomfortable night, from an itching in her chest, back, and shoulder. Her pulse was fuller and stronger than I expected; and, upon looking at the parts, I found the most beautiful specimen of the affection termed *Herpes Zoster* by Bateman. It appeared in the form of a broad belt over the right shoulder. Each pustule was large and distinct. From this time she had little or no pain in the abdomen, which was, however, entirely removed by a blister. The secretion of milk appeared on the fourth or fifth day afterwards, and she was able to go abroad in three weeks.

Another young Frenchwoman, about the same time, and under similar circumstances, was seized, after an easy labour, with severe rigors, pain in abdomen, increased on pressure; quick pulse, vomiting. I did not see her till she was *in articulo mortis*, and she died soon afterwards.

Dissection.—Abdomen tumefied, the omentum inflamed, and adhering to the viscera it covered, which were tympanized, and inflamed. The mesenteric veins distended with blood; the peritoneal lining of the abdomen also vascular; uterus well contracted, although its surface was inflamed; yet, on cutting into it, the substance was sound. The ovaria, as well as many parts of the intestines, were covered with small masses of coagulable lymph, and there were about two quarts of serum, containing flocculi, which, deep in the pelvis, resembled pus. Thorax and head not examined.

In the spring of the year 1810, I was called to a woman in the colony of Berbice, who had been safely delivered, after an easy labour, 48 hours before I saw her. A few hours after the separation of the placenta, she had a severe rigor, which was followed by reaction, and she was relieved by a profuse perspiration. About the termination of twelve hours, she

had another weed, which was accompanied with a more severe rigor, and pain in the abdomen; but the whole disappeared upon the recurrence of diaphoresis. Next day, when sitting up changing her linen, she had rigors again, accompanied by severe pain in the abdomen, which soon became tumefied, and exquisitely sensible to the touch. I was sent for after some delay in consequence of the continuance of the pain, and other alarming features which the case displayed. She was *in articulo mortis*, but quite sensible; cold extremities, hiccough, black vomiting, and every symptom of approaching dissolution; and she expired in great pain in a few hours. The body was examined four hours after death.

Dissection.—Abdomen much swelled; on cutting into its cavity, there was a great quantity of serum, mixed with coagulable lymph, which ran down upon the floor. Omentum highly vascular, here and there of a livid colour; it was found to adhere, when reflected upwards, to several portions of the small intestines, which, together with the other divisions of that canal, were inflamed, in many places having a silvery-looking aspect. There were about a dozen of large pieces of lymph, like fat in a half-melted state, laying among the folds of the intestines. Uterus well contracted; no unusual appearance of that organ, but that its peritoneal coat,

and that of the tubes and ovaria, had an appearance as if coated slightly over with lymph. The mesenteric veins were distended with dark-coloured blood. Liver was enlarged, and, when cut into, had a darker appearance than natural. Thorax and head not examined.

Case of Mrs Finlay, aged 30, residing in a court near the bottom of Leith Wynd.

Was delivered of a boy, (her first child,) on *Friday, 23d November*. Did well, the pulse at natural standard, till *Sunday, 25th*. She was then observed to be restless, and generally uneasy; pulse 110, without any unusual fulness or hardness; tongue clean; heat of skin little increased, but moist. I was requested to see her by Dr Campbell, whose patient she originally was; and as puerperal fever was at this time epidemic, it was resolved that she should be frequently visited. In the meantime, the bowels were to be emptied by castor oil and enema. Rest and quietness enjoined; and her husband instructed to send for assistance, should she shiver, or have any pain in the abdomen.

She went on improving, and on *Tuesday afternoon, (the 27th,)* the pulse was found to be below

100 ; bowels easy ; seemed to be free from all complaint. Was told not to get up, or to use the least exertion.

Notwithstanding these salutary cautions, she got out of bed at nine o'clock that evening, and walked up and down the room. *At ten, she had severe rigors*, attended with pain in abdomen, low down at first, but which soon extended over the whole cavity, accompanied with headach. Dr Campbell was not apprised of this change, till he called by mere accident, *on Wednesday (28th,)* on his way to lecture *at three o'clock*. *At four*, I saw her with him. She complained of pain over the whole abdomen, more tender at the lower part, and to each side ; uterus distinctly felt a little below the umbilicus. She lay on her back unable to move, and tossed her head from side to side ; when particularly asked, she said she had headach ; tongue parched in the centre, moist round its edges ; thirst ; skin hot, harsh to the touch. Lochia rather diminished, but by no means suppressed. Milk receded ; breasts flaccid ; abdomen tumefied. Twenty ounces of blood drawn, (when she fainted,) affording relief. Castor oil, and an enema, containing half an ounce of sulphas magnesiae, in a pint of water, every two hours. Fomentations to abdomen.

Eight p. m.—Pain found to have recurred. Bled

again *ad deliquium*, which took place when twelve ounces were abstracted. Pulse very quick, weak, and irregular. Blood taken at former visit presented a thick, strong, buffy coat. In addition to the former orders, one of the following powders to be given every third hour : \mathcal{R} hydrargyri sub muriat. et oxid. antimon. cum phosph. calcis ana gr. iij. ft. pulv. Gruel, tea, or toast and water, for common drink.

Thursday (29th.)—Felt relieved a considerable part of the night after the bleeding ; no sleep. In the morning pain again increased. It is now severe over the whole belly, aggravated on pressure, principally in the region of the uterus. Pain over the eyebrows ; tongue moist and slightly loaded ; skin hot, inclined to be moist ; pulse 125. Dr Campbell called by himself, and took away seven ounces of blood ; he was prevented from abstracting more by her fainting. *At noon*, 24 leeches were applied to the belly, which bled well, by means of hot fomentations in the first instance, and afterwards by the application of a warm poultice. Several scanty fetid stools. In *the afternoon* there were more copious fetid stools, of a clay colour, and yeasty appearance. Pain, although relieved, still felt on pressure, and when she coughed ; but could turn herself in bed. Twenty-four leeches again applied, followed by relief, *till six p. m.*, when the pain recurred to a violent degree. At

eight, it was relieved by a profuse perspiration. Fomentations and injections, (both into the rectum and vagina,) to be continued together with the powders. Pulse 120. For the last two or three visits, she seemed quite indifferent about her child, which, however, was occasionally put to the breast to suck. *At ten*, the same evening, the husband of this patient conducted himself in a very rude manner towards me; gave reason to suspect that our previous orders had not been carried into effect; and said he would allow no more experiments to be tried upon his wife.

Friday (the 30th.)—No sleep during the night; pain increased in the abdomen, particularly when pressed upon. Great anxiety marked in the countenance; headach; listlessness; had several watery motions by stool. All these symptoms had increased *by ten a. m.* The pain again extended over the whole cavity; very little lochial discharge. The husband seeing his wife worse, was convinced of his folly, and expressed regret. Twenty-four leeches to abdomen, and an enema given every third hour by one of the assistants. *At six p. m.*, pain considerably relieved; leeches bled well; pulse 120, of middling strength. *At ten*, although the pain had not increased, yet, as she could not cough without feeling it, or bear much pressure—pulse being about

126, and rather firm—the abdomen at the same time a little tense, Mr Lizars, who saw her with me, agreed in the propriety of again using the lancet. Twenty-two ounces of blood were taken, and she fainted. The uterine tumour still to be perceived a little above the pubes. *At midnight*, the skin being hot, a little pain in the abdomen, countenance anxious, and pulse wavering, I administered, in the presence of several gentlemen, 15 drops of the sedative solution of opium, explaining the effects which I expected to result from it, being general relaxation, perspiration, diminution of pain, and general irritability. In five minutes she seemed to lay perfectly quiet; in ten, when asked, replied that she had no uneasiness whatever; and in a quarter of an hour, there was a profuse perspiration. She fell into a sound sleep for the first time.

Saturday, Dec. 1.—Had four hours' sound sleep during the night. There was a little pain, when pressure was applied to the abdomen; pulse 112, soft and regular; skin moist; tongue clean round the edges, but still hard and dry in the centre; thirst not so urgent; tumefaction subsided. *At noon*, pain increased, and she complained of general uneasiness. An injection of warm gruel, with a tea-spoonful of the sedative solution of opium, was thrown into the rectum, from which she felt relief. The enema

was retained, the pulse fell to 96, and as there was nausea, and vomiting of a matter like the gruel which was given by injection, a purgative enema was thrown up, which not operating, another, containing a little soap dissolved in warm water, was given. *In half an hour*, copious stools followed, continuing every ten minutes till the evening, accompanied with increase of pain and tenderness of the abdomen, which was removed by a draught containing 15 drops of the solution. Another draught was left, containing 10 drops, to be used if necessary. The powders of calomel and antimony to be discontinued.

Sunday, Dec. 2.—Slept tolerably well part of the night; took the second dose towards morning, in consequence of several stools, attended, or rather preceded, by pain. The pain being entirely confined to the umbilical region, slightly increased on pressure. Tongue less parched in the centre; pulse 112, rather weak. *At noon*, a troublesome diarrhoea came on, which continued during the afternoon, accompanied with great pain. The matter discharged by stool had the appearance of mucous secretion from the inner surface of the intestines; pulse 130, sharp and weak. *At eight p. m.* these symptoms continuing, a draught containing 20 drops of the sedative solution of opium, which produced relief from pain;

general relaxation, perspiration, and inclination to sleep.

Monday, Dec. 3.—Slept a little during the first part of the night. The diarrhœa continuing; pain relieved for a short time after each evacuation, but soon returned. There is now fixed pain round the umbilicus, increased on pressure; very listless and uneasy; fomentations producing no relief. One dozen leeches applied over the seat of pain, with temporary relief. *At eight in the evening*, pulse 128, small and hard; skin hot and dry; considerable uneasiness over the whole abdomen. Sickness at stomach, respiration aggravating the pain. Sixty leeches were put on, around the umbilicus, which bled remarkably well; *and in two hours*, the pain being not entirely subdued, a draught, with 15 drops of the sedative solution of opium, was given, which not producing a decisive effect, in an hour, 30 drops were thrown into the rectum, in a little gruel, and retained, which in a short time altogether relieved the pain. Skin moist; she began to slumber; pulse 116, soft. Directions were for the first time given to change her linen.

Tuesday, Dec. 4.—A comfortable night; several stools without pain; cheerfulness of countenance was observed for the first time; pulse 120, of tolerable strength; tongue less parched, but it had deep fis-

tures in it ; says she has some appetite. From this time till the 8th, she went on gradually improving ; the pulse varying from 110 to 128 ; having slight attacks of pain in different parts of the belly, which the opiate constantly relieved.

On the 8th, she had no pain or uneasiness ; was found nursing her baby, and her breasts contained a little milk. Her pulse continued for fourteen or fifteen days from 100 to 120, notwithstanding which, she daily gained a little strength ; and at the termination of a month, was able to walk a distance of more than a mile, to pay me a visit, and return thanks. Her child looked healthy, and she had an abundant flow of milk.

2d CASE.—*Mrs Cunningham, the wife of person employed in the distillery, residing in a corner house of Cowfeeder Row—Aged 25.*

Was safely delivered of her first child, (a boy,) at ten o'clock, A. M., on *Friday, 30th Nov. 1821*. She had rather a tedious time, but it was effected by the natural efforts.

Complained of a cold shivering soon after delivery. Flannel cloths, wrung out of very hot water, were applied to the abdomen with relief.

Saturday, 1st December.—Found in a comfortable state ; had had a good night ; pulse 77, and of natural strength ; lochia flowing abundantly ; an ounce and half of epsom salts taken in the morning, not having produced any effect, another quantity of half an ounce was repeated at four, which produced several evacuations that evening.

Monday, ten a. m., 3d Dec.—Had a good night, but now complains of general soreness ; could refer pain to no particular place ; pulse 83 ; no secretion of milk observed ; lochia natural. In two hours after this visit, she had a shivering fit, rather preceded than followed by severe pain in abdomen. She was seen immediately by Dr Campbell, and bled to the extent of $\bar{3}$ xx., when she fainted. The bleeding did not subdue the pain entirely, but it reduced the hardness and velocity of the pulse, which beat at 120. Great thirst ; fomentations to abdomen ordered to be kept constantly applied, as hot as she could bear them ; a purgative enema to be administered every second hour, and the following powder every third hour : \mathcal{R} sub muriatis hydrargyri, gr. iii. oxidi antimonii c. phosph. calcis, gr. v. fiat pulvis.

Four p. m.—Pain in abdomen still severe upon pressure ; uterus distinctly felt ; uneasiness complained of over the whole cavity, but more so over the region of the uterus ; restlessness ; countenance

pale, anxiously expressive; breathing hurried. Blood drawn shows a buffy coat, with a very firm crassamentum. Pulse 110, small and hard to the touch. Lochia diminished in quantity. Bleeding repeated to $\bar{3}$ xvi. with considerable relief.

Eight p. m.—Pain greatly increased during the last two hours; dreads the slightest touch; dyspnœa aggravated; pulse 100, contracted and hard. Forty leeches applied to abdomen; enemata and powders still continued.

Ten p. m.—Considerable relief afforded by leeches—bled freely; blood still oozing into a soft warm poultice which was applied for the purpose over the whole abdomen; had several dark-coloured fetid stools; pulse 106, and easily compressible; tongue moist, a little white fur; skin rather under natural temperature, and moist. Bottles filled with hot water applied to the legs and feet, which gave great relief.

Tuesday, ten a. m., Dec. 4.—Had no refreshing sleep; little or no pain in abdomen during the night; countenance less anxious; on applying pressure over the abdomen, it seems to cause a little pain; thirst urgent; stools scanty; heat of skin augmented; pulse 114, rather firm. Thirty leeches ordered to abdomen; an ounce of castor oil to be given; powders continued, together with the enemata; and in-

jections of warm water thrown into vagina every second hour, to be retained as long as possible.

Four p. m.—Leeches bled freely, which relieved the pain ; castor oil produced nausea and vomiting, which aggravated all the symptoms, particularly the pain ; restless ; anxiety of countenance returned ; pulse between 114 and 120, of a contracted wiry feel ; three small cups of blood (containing about $\frac{3}{4}$ x.) were drawn, without much, if any relief ; not thought safe to take a greater quantity, from the compressible state of the pulse, and the dread of her sinking. Injections repeated, and powders continued.

Six p. m.—Pulse frequent, but felt otherwise relieved ; a quantity of feces discharged with the enemata. The two first cups of blood drawn had buffy coat ; the last none ; coagula small.

Eight p. m.—Pain rather increased ; pulse 106, feeble. A draught with ten drops of the liquor opii sedativus gave great relief in less than ten minutes. It was ordered to be repeated in two hours if necessary.

Wednesday, ten a. m., 5th Dec.—Had some comfortable sleep during the first part of the night, during which her skin was moist ; but towards morning felt the pain gradually increased. Several wa-

tery alvine evacuations were passed without producing any relief. At present the pain of abdomen is more general, and so acute that the least pressure causes loud complaints. The uterus not to be felt as formerly. Pulse too quick to be distinctly numbered, but it was sharp. Sixty leeches applied; and other remedies ordered to be continued.

Eight p. m.—We found the symptoms greatly mitigated; a good deal of blood drawn by the leeches, and still oozing into the poultice; several stools during the day; pulse very quick and feeble at wrist; action of the heart also feeble; a little dyspnœa.

Ten p. m.—Pulse the same; said she had no pain even when pressure was applied, excepting from the leech-bites; no inclination to sleep; a draught of ten drops of the solutio opii sedativa was given, which had the desired effect; as the heat of the body was again rather below the natural standard, hot bricks and bottles were placed at her sides, and near her legs and feet; powders discontinued.

Thursday, Dec. 6.—Slept for several hours; felt less pain, and what she did experience she ascribed to leech-bites, and upon the whole appeared more lively and better; pulse more distinct, but not to be accurately numbered; breathing easily.

Four p. m.—Symptoms somewhat aggravated;

no stool during the day or last night. The injections, by some misunderstanding, had been neglected; ordered to be resumed instantly.

Six p. m.—Complains much of pain in region of the liver; no stool; x grains of calomel ordered, and a strong cathartic enema; fomentations to abdomen.

Ten p. m.—Had a dose of salts since last visit, to aid the operation of calomel; injections regularly repeated; pain increasing over the whole abdomen, extending to the region of the stomach; pulse indistinct; heat of body supported by hot bricks and bottles.

Midnight.—No abatement of pain; several injections had been returned, without any admixture of feces; vomited a quantity of very dark greenish matter; breathing laborious; an opiate enema given.

Friday, 7th.—Had three hours' comfortable sleep, after which the pain returned for a little, then disappeared; great exhaustion; stertorous breathing; pulse scarcely perceptible. The symptoms went on from bad to worse, and she died at half past twelve at night.

Throughout the course of the disease, she was allowed gruel in small quantities, frequently repeated; and when the pulse became easily compressible,

weak beef-tea and arrow-root, to support the powers of life ; no wine till the last day.

Dissection—Took place eleven hours after death. Abdomen tumefied ; on cutting through the parietes, the muscles had a healthy florid colour ; the great depth of the leech-bites remarked.

Above a quart (nearly three pints) of fluid effused into the abdomen, resembling bloody serum, with large flakes of coagulable lymph floating among the intestines, and smaller portions mixed in the fluid ; part of the intestines looked healthy, particularly one portion of the ascending colon ; the rest had the appearance of an inflammatory blush ; there was no turgescence of vessels observed. The liver and gall bladder had in several places a coating of coagulable lymph, which could be rubbed off ; but it adhered so closely to the peritoneal coat of these parts, as to warrant the conclusion that it had been there secreted. The uterus lay rather larger than we expected to find it—a little above the brim of the pelvis ; but its colour was natural, as well as its structure : not so the appendages ; the broad ligaments were very vascular, the ovaria much enlarged, particularly the left, both were covered with coagulable lymph ; on cutting into their substance, there was an appearance of ulceration and suppuration. The

intestines were tympanised. The lungs and heart looked healthy ; but there was an effusion in the thorax of a bloody-looking fluid, with minute flocculi floating in it.

*Case of the wife of a labouring man, named Ormond, who resided at the top of a stair in Fowlis's Close, High-street—aged 30, very stout and plethoric, had not been used to a town life.**

Was delivered of a fine boy on Thursday, December 6, 1821, after an easy labour. There was a rent at the lower part of the vagina, owing to rigidity of parts. Did well the two following days—her bowels had been opened by castor oil, the pulse beat about 80, and of good strength. *On Sunday* the 9th, she had slight shiverings, accompanied or immediately followed by pain in the lower part of the abdomen, which was full and rather tense ; when I saw her with Dr Campbell, at *half past three*,

* An outline of this case has been given by Dr Campbell, in a late number of the Edinburgh Medical and Surgical Journal, but I deem it important to give a detail of it here.

p. m. (two hours after the rigors,) the uterus felt enlarged, a little under and to the left of umbilicus, where the pain was most severe on pressure. Complained of pain in her forehead; skin soft; tongue white and moist; pulse 114, and full; lochia abundant. Bled from the arm by a very large orifice to the amount of 36 ounces, when the pulse was reduced and began to flutter. Warm fomentations to abdomen, and one of the following powders every third hour:

R Sub muriat. hyd. et pulv. antimonialis. ana. gr. v. ft. pulvis. An enema every second hour.

Six p. m.—For some time after the bleeding, there was little pain in abdomen; had several rigors since; blood taken had no buffy coat. Abdomen now softer; little or no tumefaction; uterus distinctly felt a hand-breadth below umbilicus; complains of pain on pressure; headach gone. Pulse 112, full, but not to such a degree as before the bleeding; had taken two powders. Blood was again let from the same orifice to 36 ounces, it was allowed to flow till the pulse was reduced to 75, and began to flutter; inclination to syncope, yawning, and other symptoms of debility; little or no pain on pressure. Powders, enemata, and fomentations to be continued.

Eight p. m.—Blood taken at six presented a healthy appearance, no buffy coat. Pain felt on pres-

sure ; one stool, which was not seen ; yawning and other symptoms of debility still continue.

Ten p. m.—Symptoms the same as at last visit, with this exception, that the pulse is firmer, beats 80, but still soft and compressible.

Monday, 10th.—Little sleep during the night, much disturbed by startings. Had two very copious offensive alvine evacuations, of a dark colour ; abdomen less tense ; slight pain on pressure, which, however, was not increased by coughing, and but slightly so by turning from side to side. Pulse 114, rather too firm ; complains of severe pain in forehead ; lochia diminished in quantity.

Noon.—Symptoms being the same, sixty leeches to be applied to abdomen.

Two p. m.—Fifty-two of the leeches had fastened, they did their duty well, and a great quantity of blood was abstracted by means of warm fomentations ; bleeding still going on in a soft poultice applied for the purpose. Pain greatly diminished in abdomen ; headach relieved, of which, however, she still complains, and has one hand continually on her forehead. Injections returned without any admixture of feces. Powders, &c. to be continued.

Eight p. m.—Although the abdominal pain is considerably diminished, still there is a good deal experienced on pressure ; headach also troublesome,

pulse beating firmly at 118. Mr Lizars, who accompanied me at this visit, agreed in the necessity of abstracting more blood in a general way from the system. Accordingly a vein was opened, and 26 ounces produced syncope, pulse fluttered, and came down to 80; pain both of head and abdomen disappeared. We left her with a moist skin.

Tuesday, 11th.—Says she could have slept but for the pain of head, which she describes as being very acute. Pain of abdomen inconsiderable, unless when a great deal of pressure is applied; pulse 114, tongue white, a little heat of skin. Bowels opened once, and a dark-coloured fetid stool was shown. Eight leeches ordered to be put on her temples; one half ounce of epsom salts to be taken every hour, with a view of procuring several stools. Blood taken last night had a thick buffy coat, of a strong texture.

Four p. m.—Pain of head relieved by the leeches, which bled well; but catarrhal symptoms supervening, a troublesome short cough greatly distressed her head. One scanty stool having been brought away by the salts, two ounces more directed to be given in three divided doses; and in two hours a strong purgative enema to be administered. In the event of two or three alvine evacuations being procured between this and six o'clock, a draught with

fifteen drops of the solution of opium was left to be given. At this visit, said she felt her teeth and gums a little uneasy, which evidently arose from the calomel. She has taken thirty-five grains, with an equal quantity of antimonial powder. To be discontinued.

Eight p. m.—Having had several copious evacuations by stool, with a good deal of feces, the draught was given as directed—says she felt the cough relieved in about ten minutes; has had no headach since. Skin soft, tongue moist, pulse 96, no pain in abdomen. Twenty drops of the solution left, to be given at ten o'clock, with a view of procuring sleep.

Wednesday, 12th.—Took the draught, and passed a good night. Skin cool, pulse 98, soft and regular, tongue white, headach returned, but in a much slighter degree; no pain in abdomen, catarrhal symptoms relieved, had three stools since last night's visit. Salts to be continued, to keep up a discharge from the bowels.

Thursday, 13th.—Had five stools during the course of yesterday afternoon and last night, headach returned, greatly aggravated by a frequent short cough, wheezing, and a difficulty in drawing a breath, which, however, when made to do to the fullest ex-

tent, produces no pain. Pulse 92, soft and regular ; no pain in abdomen ; uterus distinctly to be felt in the same situation as formerly described ; lochia in small quantity ; a little appetite.

From this period she improved in health and strength, till about two o'clock on the morning of the 20th December, when she again had severe rigors, quickly followed by acute pain over the whole surface of the abdomen, increased upon the slightest touch. Finding herself getting worse in an hour, her husband went for the assistant who had charge of the case, who found her so ill that he would not bleed her till my arrival (*at 4 a. m.*) when the pulse beat 144, hard and compressed, but by no means a strong pulse. The pain having suffered no abatement, a vein was opened, and blood allowed to flow till syncope was induced ; 36 ounces were abstracted, when the pain became less and less severe. Castor oil was given, to be followed by a weak solution of salts, and an enema every second hour ; fomentations to the abdomen. She could state no cause for this relapse, excepting the sudden change of weather, which, from being mild, became cold and snowy ; the night itself was a very severe one. From this time she went on doing well, having a slight mental affection for twelve hours ; and in the course of a few days she was found going about the house.

Case of Elizabeth Mace, aged 22, unmarried.

I was called on Sunday the 3d February, 1822, to see this young woman, residing in a low, damp apartment near the Chapel of Ease, in the house of a person named Fraser, a dyer. She was labouring under an attack of puerperal fever.

Her delivery of a large male child had taken place on the *preceding Wednesday*, after a tedious labour, owing to the large size of the head and rigidity of external parts; she did well for the first fifty hours, when secretion of milk began, accompanied by sharp symptomatic fever; as she had determined not to nurse, her sufferings were a good deal aggravated by the distention of the mammæ. On Friday night, (fifty-four hours after delivery,) by her own account being very thirsty and feverish from the milk, and having in vain used every exertion to awaken some of the family to give her drink, she got out of bed to seek it, and fainting in the attempt, lay on the floor for a long time; on regaining her bed, she had not strength left to get under the clothes, and remained uncovered till the morning. She acknowledged before her death, that she felt severe pain at the time she was exposed, which she concealed from the attendants, in the hope that it would be only of

temporary duration. During the whole of *Saturday* she had constant diarrhœa and vomiting, the pain becoming more and more severe, and the latter symptom she succeeded, unfortunately, in concealing from those around her, till a late hour that night, when a medical gentleman detected it, and found that the slightest pressure on any part of the abdomen produced excruciating pain. The pulse beat 110 in the minute, was full; heat of skin moderate; tongue rather moist than otherwise, not loaded; thirst urgent; headach severe; lochia nearly suppressed, but up to that time, that discharge was described as not being diminished in quantity. Blood was immediately taken from the arm till syncope was induced, (but I could not learn what quantity was drawn,) by which all the symptoms were mitigated. Solution of salts ordered every second hour, and an enema every alternate hour.

Sunday 3d, seven a. m.—She was again visited by the same gentleman, when he found all the bad symptoms greatly aggravated; there was pain from the pit of the stomach to the pubes; diarrhœa and vomiting constant; pulse was between 80 and 90.

At eleven a. m.—My first visit was made; I found her reaching; the quantity discharged was so small, that it was received on a handkerchief of a dark colour, which prevented our observing its hue. She was

laying on her back, unable to move from pain, which was particularly acute in the epigastric region, and so great over the whole abdomen, that even the slightest touch on any part of it made her scream ; there was considerable tumefaction ; headach severe ; heat of skin not much above the natural standard ; tongue moist, except a small portion in the centre, and slightly white ; thirst urgent ; any thing taken into the stomach instantly rejected ; lochia nearly suppressed ; breasts distended and hard ; great anxiety of countenance ; face pale ; features sharp ; respiration laborious ; pulse under 90, sharp and contracted ; one hundred leeches ordered to be applied to the abdomen, which was fomented with warm cloths for an hour, till the leeches were procured.

At one p. m.—Found all the leeches in full operation, some being nearly full ; pain greatly mitigated ; considerable pressure could be borne at the lower part of abdomen, and around the umbilicus, but higher up towards the region of the stomach, she dreaded the touch of a finger ; the pulse beat 100, and was fuller ; the vomiting ceased ; in ten minutes she became very cheerful ; took a little gruel, which she retained ; the pulse continued to expand, and beat 110 ; fearful of her sinking from the loss of so much blood as would flow from one hundred orifices, salt was sprinkled over the leeches, and they

all gave up their hold; the blood they contained was collected in a plate, and appeared to be about 18 ounces. The pain now everywhere relieved, even when pressure was applied, excepting in region of stomach; no vomiting nor diarrhœa; a large warm oatmeal poultice was applied over the abdomen to encourage the bleeding; a gentleman was left to watch the symptoms, who knew how to meet any thing that might occur.

At half past two.—A good deal of blood had oozed into the poultice; pulse fluttering, and easily compressible, at 108; described her satisfaction at the sudden change which she had experienced, and was able to turn on her side without any additional uneasiness; the pain in the region of stomach still slightly continued; heat of skin natural; no unusual thirst.

At four.—Pain in region of stomach so much increased, that she called out with much painful anxiety to be bled again, while she could bear considerable pressure on any other part of the abdomen, without experiencing any uneasiness; vomiting returned, with diarrhœa; thirst so urgent that she could not avoid drinking, although it was instantly rejected with great aggravation of pain; pulse distinct at wrist; extremities of the natural heat; no clammy perspiration. Soon after this the pulse grew indis-

tinct at wrist, and she became unable to articulate ; her teeth were clenched, and she appeared to be sinking, possessing, however, her faculties. Thirty drops of spirit. ammon. aromatic. was mixed with a little water, which she swallowed, by sucking through a reed, placed in her mouth at an opening left by a decayed grinder. Warm bricks and bottles were applied to different parts of her body. The attendants being anxious for the exhibition of wine, a table-spoonful was given in the same way, diluted with three times the quantity of warm water. This she instantly rejected with great pain, and a dark-coloured matter like coffee-grounds, which one of the gentlemen observed, but which I felt inclined to believe was the port wine a little changed ; however, we afterwards understood from the attendants, that she had vomited a dark-coloured matter since the morning.

At half past six.—She was found quite cheerful ; countenance animated ; the pulse distinct at the wrist ; the pain nearly subsided ; vomiting not so frequent. A mustard poultice was applied to the region of the stomach, and soon became uneasy. After a short time, however, the inflammation which had been excited, disappeared ; so did the pain.

At eight p. m.—Able to turn herself from side to side without pain ; tormented with incessant vo-

miting of the dark-coloured matter ; thirst urgent ; appears sinking ; heat of the skin below natural standard ; bottles filled with warm water, and bricks heated, were renewed to different parts of the body ; beef-tea ordered.

From this time I remained with her all night, fearful to leave a general order for stimulants, in case of misapplication. In consequence of the comfortable heat applied, and the beef-tea, a little of which she now and then retained on her stomach, I was not without hopes that she might recover ; for two or three hours her pulse became distinct ; the vomiting ceased ; the secretion of urine became so troublesome, that she requested me to draw it off, as it occasioned her great pain, which I did—about 10 oz. came away by the catheter ; she was afterwards quite easy. At this time I had an opportunity of observing that the lochia still flowed ; the respiration was easy ; a proper degree of heat in every part of the body, excepting the head and face ; and the breasts were distended.

At 3 o'clock in the morning, after several hours' quietness, the uneasiness in the pit of the stomach returned, accompanied by nausea, and she vomited large quantities of the dark-coloured matter ; the pulse sunk ; stimulants were given, but nothing was retained for an instant. She retained her senses to the last, and joined in religious devotion a few mi-

nutes before her death, which took place at a quarter before seven on Monday morning.

Dissection.—A considerable quantity of dark-coloured matter was issuing from the mouth and nose; the abdomen was tympanised; upon cutting through the parietis, we observed the great depth to which the leech-bites extended, and the florid and healthy colour of the muscles, notwithstanding the large quantity of blood she had so lately lost; when the knife went through the peritoneum, a quantity of air, carrying with it some of the effused matter, exploded with considerable force; omentum sound; stomach distended with air, and also contained, together with the small intestines, a great quantity of the dark-coloured fluid, like coffee-grounds; the stomach bore extensive marks of inflammatory action on its surfaces, to such a degree, that the finger could without any difficulty be pushed through it. The small intestines had appearances of inflammation in three different parts; the rest were sound. There was an effusion of about an English pint of serum, with a large quantity of coagulable lymph floating in it, just as we had seen in other cases. The uterus was softer than usual, and had several red patches on both its anterior and posterior surfaces, with a slight coating at those places of coagulable lymph; the fundus uteri reached a little above the brim of the pel-

vis, and was very little larger than natural. Ovaria had an appearance as if suppuration had taken place; the right one being diminished in size. The fallopian tubes, particularly at their fimbriated extremities, were more vascular, and of a brighter red colour, than in any of the other dissections I had seen; coated with lymph. The uterus, vagina, and external parts, were then carefully dissected out, in which nothing unusual was discovered, excepting a rent, at the lower part of the vagina, to a considerable depth into the fibres of the levator ani. The viscera of the thorax were healthy; the pericardium contained rather more than the usual quantity of fluid; the heart was plump, and of the natural colour; there was a small quantity of effusion in the chest, of the same appearance as that found in the other cavity.

This woman deceived the medical gentleman who called me in, with the view of preventing his giving a bad opinion of her case to the people with whom she lodged, who knew her parents, to whom they threatened to write, if she should get worse. In consequence of this I was deceived also; and when I ordered on 100 leeches, it was under the impression that the disease had not had above 14 hours the start of me, and that I had an unbroken constitution to deal with; instead of which, she had been

labouring under the affection for above thirty hours ; and I conceive I am justified in thinking, that almost all the mischief discovered in the abdomen after death, had been done before I saw her at all. However, the relief afforded was very great ; and it is quite evident, that the appearances displayed on dissection, were the effects of inflammation, not of depletion.

A woman, (name unknown,) aged 19, unmarried, residing in mean lodgings in the front land of Milne's Court, Lawn-market.

Was safely delivered of her first child *on Tuesday morning, the 5th February, without any assistance whatever.* She sat up that evening at the fire-side, and drank about a third of a bottle of port wine ; she had no sleep ; several rigors came on at *three a. m.*, followed by instant severe pain in the lower part of the abdomen, aggravated by pressure. Medical assistance was not procured till *eight o'clock*, when 26 ounces of blood were taken from the arm. Syncope was induced ; pain relieved. A solution of salts was ordered, together with fomentations and enemata every second hour ; four hours elapsed before any of these directions were carried into effect

by the attendants. At noon, the pain returned ; sixty leeches were applied to the abdomen, and the bleeding encouraged by the application of a soft warm poultice. *At two p. m.* symptoms mitigated ; pulse at the wrist 128, and feeble.

Before delivery, there was an overflow of milk ; but from the commencement of the attack the secretion was arrested, and the breasts became flaccid ; the lochia were also suppressed. She was so peevish, that it was with great difficulty she submitted to any remedy, and that after great delay.

In the evening the pulse was more distinct, and beat 134. The pain in the abdomen severe, spreading to the epigastric region, accompanied by frequent vomiting. Forty fresh leeches were applied ; the wounds bled freely, which was encouraged in the usual way ; pain entirely subsided till towards morning, when it returned. *At seven o'clock a. m.* became tolerably easy ; had some delirium during the night, and passed her stools involuntarily.

Eleven a. m.—Symptoms apparently mitigated ; pulse perceptible at the wrist, beating 128. During the visit, she vomited a dark-coloured matter like coffee-grounds. During the day she continued to sink, distressed with severe pain in the epigastric region, accompanied by vomiting the same matter.

Six p. m.—Feet cold ; pulse not to be distin-

guished ; expressed a desire for some whisky, which was granted in a diluted state ; pain so severe, that an enema, with 20 drops of solut. opii sedativa was ordered, to mitigate it, which had the desired effect in a few minutes, and she fell into sleep ; warm bottles applied to the feet ; another dose was left for her ; fomentations to the abdomen ; beef-tea, and a little spirits and water, if required, to support strength during the night. Left her with no expectation of seeing her alive in the morning.

Friday, 8th.—She was visited at midnight, when the pulse was distinct. She had the second dose of the solut. opii by the mouth, which she vomited, along with the dark-coloured matter, like coffee-grounds ; after which, she soon fell asleep for two hours and a half ; during this a copious perspiration came on, and she continued to sleep till between six and seven this morning. Between seven and eight o'clock, was affected with singultus ; appears now much better ; pulse distinct at the wrist, and beats 120 ; less anxiety of countenance, and no difficulty of breathing ; had taken about two wine glasses of spirits during the night, diluted with water. At noon, a good deal of heat of skin was perceptible ; the pulse being rather sharp, although weak ; and she complained of a good deal of pain

in abdomen. Sickness and vomiting came on occasionally ; but the dark-coloured matter much diminished in quantity.

Four p. m.—Fifty leeches bled freely, which was encouraged by a soft warm poultice ; pulse not to be distinguished at wrist ; general strength appeared good, being able to turn herself, and anxious to be allowed to sit up ; says she has no pain or uneasiness ; inclined to talk. A dose of 15 drops of *solutio opii sedativa*, given in two tea-spoonfuls of whisky and warm water.

Eight p. m.—Continues quite free from pain, and can turn at pleasure ; says she has had slight attacks of headach, and of nausea ; has been talking incessantly, and evidently labours under mental aberration ; skin cool ; tongue cleaner, but dry ; pulse 140, and feeble ; secretion of milk in the *mammæ* ; great care ordered to be taken of her during the night ; a little beef-tea to be given at short intervals ; no more spirits and water.

9th.—Found her very much worse ; delirium had been violent all night ; and we found that her mind had been very much agitated the night before, concerning a box of letters which was carried away. The attendants can scarcely keep her in bed. No pulse at wrist ; action of the heart feeble ; extremi-

ties cold ; she answered questions quite distinctly, and raised herself in bed to look for a key at one o'clock ; at three she died.

Dissection.—When placed upon the table, she appeared to have been little reduced ; a quantity of the dark-coloured fluid was running out of her mouth and nose ; abdomen tumefied, and there was a large phlegmonous tumour in the left labium, which contained a good deal of purulent matter, and seemed so extensive during the dissection, as to appear to be connected with the cavity of the pelvis ; but as the chamber was excessively small and badly lighted, we could not be certain of this. There were slight marks of inflammation, and a very large quantity of serum, with portions of coagulable lymph floating in it, and among the intestines. I never saw a larger effusion, and in the pelvis, it had much of the appearance of pus. The uterus lay loose in the pelvis, a portion being situated above the brim ; it appeared natural. The ovaria were covered with coagulable lymph. There was effusion in the thorax,

Sketch of a case, to shew the necessity of paying attention to the state of the bowels after an attack of this disease :—

A woman of the name of Lidster, residing on the

Castle Hill, young, and of a spare habit of body, was delivered of her second child under favourable circumstances, on Monday, 26th November. *At one o'clock* in the morning of the 28th, she had severe shivering, and acute pain in abdomen. At five o'clock she was seen by Dr Campbell, and bled to the extent of 25 ounces. Purgatives and blisters were exhibited, and fomentations applied to the abdomen, which was much tumefied. On the 29th, the symptoms were mitigated; pulse, which the day before had been 130, came down to 118, and to-day beat 112. In addition to the other treatment, which was continued, she had powders with equal parts of calomel, and pulvis antimonialis, every three hours. She went on doing well for eight days, and was considered out of danger; when, by neglecting the state of the bowels for a whole day, she had rigors on 5th December, with severe pain in abdomen; and the pulse, which for two days had been 84, soft and regular, got up to 110. Besides purgatives, injections, and fomentations, it was found necessary, after waiting till the evening, to take away 18 ounces of blood before the pain was subdued; in the course of the day she had had several full evacuations by stool, of hard, dark-coloured feces. She ultimately got well.

Case of the wife of a blacksmith, at the Abbey Hill, after abortion.

The subject of this case aborted at the fourth month, on 24th November. She had a good deal of pain in the abdomen on the 28th, which was considered as after-pains; it increased, however, so much on the 30th, that her friends had recourse to medical advice, when she was found to labour under severe pain of abdomen, increased by the very slightest touch, to such a degree, as to make her scream; she had headach, and thirst; bowels had not been neglected; expression of countenance ghastly, and she was listless; abdomen greatly tumefied; lay upon her back, unable, from pain, to move; pulse 120, and rather full. She had lost about twelve ounces of blood from the arm before I saw her. Fifteen ounces were now abstracted at a new orifice, when she fainted; fomentations to be continued; an enema every second hour; and a powder, with four grains of calomel, and antimonial powder, every third hour.

At seven p. m.—Pain not being much relieved, and the pulse weak, a most unfavourable prognosis was formed; forty leeches ordered to abdomen, which did their duty well.

At ten p. m.—Bleeding from the leeches still

going on in a soft warm poultice, which was applied to encourage it ; pain greatly relieved ; pulse 96 ; and the remedies to be continued.

December 1st — Had no sleep ; still a little pain felt on pressure ; several loose stools ; pulse from 96 to 100, and of good strength ; twenty drops of the sedative solution of opium at bed-time.

December 2d.—Rested well ; very little pain on pressure ; continues all the remedies. From this period she did well.

Case after Abortion at the sixth month.—*Mrs Robertson, residing in Cowfeeder Row, aged 38 ; married, and has five children.*

Aborted at the sixth month, on *Thursday the 7th February* ; the foetus came by the breech ; was a good deal troubled with after-pains ; lochia, bowels, and pulse, continued natural till Friday night, when she had rigors, and slight pain in the abdomen. The pain subsided upon the application of heat ; pulse above 100. On *Saturday* she again had rigors, followed by severe pain over the surface of the abdomen, to such a degree that the slightest pressure gave great pain ; thirst urgent ; tongue white and moist ; bowels free ; lochia diminished in quantity ; pulse 120. She was bled in the evening to 26 oz. with great relief ; a dose of ol. ricini. was prescribed,

an enema domesticum ordered every two hours, and fomentations to the abdomen.

At seven a.m. Sunday.—The pain over the whole abdomen came on again during the night; the slightest pressure could not be endured, from the ensiform cartilage to pubes; obliged to lay in one posture on her back; respiration difficult; pulse small, beating from 115 to 120; lochia nearly suppressed.

At noon, I first saw this patient; her symptoms were the same as above described, only aggravated in degree. On inquiry, found that no injection had been administered by the attendants; upon the whole, I saw but very little chance of her recovery. Another bleeding was ordered, the blood to be allowed to flow till syncope was induced; 30 oz. were abstracted, which she bore well; suffering a good deal mitigated, but having still pain on pressure, 50 leeches were applied; the bleeding being afterwards encouraged by soft warm poultices, a considerable quantity flowed from the wounds. A gentleman was left to watch symptoms, with directions to use the lancet again, should the pain recur in the slightest degree; and he was requested to see the enemata properly and regularly administered.

Eight p. m.—Complete relief followed the application of the leeches, which continues; is able to turn herself from side to side; bowels have been

opened several times by the injections ; ordered to be repeated during the night.

Monday.—Continues to improve ; no pain on pressure, but she feels a soreness all over the abdomen ; a slight appearance of lochial discharge ; no thirst ; tongue still white ; pulse 98, and regular ; enemata continued. Ordered to take nothing but gruel, or tea and a little bread, for food.

From this time her recovery went on. I visited her in the beginning of March, and found her recovery going on slowly ; she was then only beginning to move about the house ; but eventually got well.

Mr Hey saw two cases of puerperal fever after abortion, the one at three months, the other at six. The former died ; she had no assistance till within twelve hours of her death. The latter was cured by “copious bleeding and purging.”—P. 27.

One fatal case after abortion occurred in this city last winter ; and I am told by a gentleman who was present at the dissection, that the appearances were exactly the same as those described in this work.

I cannot bring this part of the subject to a close, without laying before the reader some additional proofs of the inflammatory nature of puerperal fever, by showing the extent of the inflammatory diathe-

sis which frequently prevails, even after this disease has been almost subdued by active treatment. It has been repeatedly remarked, that as this disease subsided, an inflammatory affection attacked the surface of the body—as in two cases related by Gordon, erysipelatous inflammation in the one, appearing on one of the upper extremities; in the other, attacking the integuments of the abdomen.* In a case related by Dr Armstrong, after bleeding and purging, by which the abdominal inflammation was cured, a decidedly maniacal affection supervened, which gave way upon erysipelatous inflammation attacking the face.† In another of Armstrong's cases, after the disease was nearly dislodged by three large, and two small bleedings, erysipelas appeared on the face, after which she lost another quantity of blood. Two or three days after all this, when the patient was decidedly convalescent, she was attacked with the inflammatory disease, called phlegmasia dolens, which yielded to local bleeding by leeches.‡ The disease has been frequently known to terminate by suppuration. In two of Gordon's,§ and one of Armstrong's cases,||

* Gordon's Treatise, p. 58.

† Armstrong on Puerperal Fever, p. 127.

‡ Id *ibid.* &c. p. 131.

§ Gordon's Treatise, p. 44, &c.

|| Armstrong, *ut supra*, p. 158.

the matter made its escape by a natural outlet at the navel. Dr Kellie had a remarkable case of the same kind. Gordon had another case, where the matter found a way to escape by the urethra. All these patients ultimately recovered. Every writer on this subject mentions instances in which the lungs have been inflamed; and in almost every instance in which the thorax has been examined, a serous effusion was found, resembling that in the abdomen.

Hey details a case of puerperal fever, (which I shall refer to again,) which supervened to two attacks of profuse hæmorrhage. The disease gave way to small bleedings from the arm; but, as it did so, the woman appearing to be much reduced, a new train of symptoms started up—violent pain of head, flushed face, giddiness, and ringing in the ears; pulse strong, at 132; paralysis succeeded, and she died in ten days, of an inflammatory affection of the brain.*

* "In the case (9th) just related," says Mr Hey, "It is observable, that while the inflammation of the abdomen subsisted, the head was free from all complaint; and that as soon as the inflammation was completely removed from the abdomen, to which it never in any degree returned, the head became affected with symptoms of inflammation, accompanied with evident marks of compression of the brain."—P. 90.

Two or three cases have occurred to myself, in which severe catarrhal symptoms supervened ; several, under the same circumstances, in which alarming determinations of blood took place to the head ;* in one, the *herpes zoster* occurred ; and in all, after the puerperal fever had been either altogether, or nearly altogether, subdued by bleeding. I shall now leave it to be determined whether the general diathesis, in these instances, was *inflammatory*, or *low*, *putrid*, and *typhoid*.

On perusing the dissections, we must not be deceived by the general want of redness in the peritoneum, which, in most of the cases I have seen, was perhaps paler than the natural colour. We frequently remark the same appearance in the choroid plexus, (which is a very vascular membrane,) when there is effusion into the ventricles of the brain, after inflammation.† I think I have remarked, in sub-

* Rod. à Castro observes, although there is, in most acute affections of lying-in women, a *great heat* about the heart and the viscera of the abdomen, yet that the drawing off, or production of a revulsion of the humours *to the brain*, is always to be feared ; to prevent which, he bleeds rather at the feet than at the arms, to enable him to draw those humours downwards, instead of upwards.—Lib. X. P. 478.

† Gardien states, that “on opening bodies where death has taken place on the fourth, fifth, or even the sixth day, there is perhaps little redness of the peritoneum, so that one might be

jects carried off by puerperal fever, that the peritoneum was thicker, less strong, and consequently more easily torn, than in the natural state.

It would have been an easy matter for me to have inserted a far greater number of cases and dissections; but, I conceive that the histories already detailed will speak for themselves, and will, I trust, for ever render abortive, those sarcastic allusions made in a certain quarter, respecting the views which I have been induced to adopt, along with others, on this important subject.

I shall conclude this section with a sentiment of Morgagni—" *Venia tamen sunt medici nisi si pertinaciam falsa cum opinione conjungant.*"

tempted to believe that no inflammation of that membrane had existed. The pathological phenomena which have preceded, and which are proper to this disease, prove, however, that it had existed; and if it is not found after death, the reason is, that it was superficial, and has disappeared, as the eruption of measles vanishes at the moment of death. If the patient does not die till after the twelfth, or fifteenth day, we shall find always redness of the peritoneum, and adhesions between the intestines." Monsieur Gardien introduces these remarks principally to shew, that the effusion is of the same nature as in peritonitis.

SECTION IV.

Containing an Account of the Changes of Fashion in Medicine, and of the instability of general practice, arising from a bad Pathology. Author's Treatment of the first Variety of the Disease. Protest against the reliance which is generally placed on Brandy, to the neglect of Warm Bath, Bleeding, frictions of finely powdered and heated Salt. Treatment of the second, or more common Variety. Bleeding used as a Remedy by different Authors in this Disease; its failure shewn by Cases from Leake, Gordon, and Hey, in which it was not boldly nor confidently followed up; its superior Success displayed, from the Practice of the same Authors, in addition to what has been adduced in a former part of the Work. Considerations respecting Hospital Practice in this Disease. The Fatality formerly attending that pursued in the London Lying-in Hospitals, and which still attends that in Edinburgh—proved to depend on erroneous and untenable Notions respecting the Pathology. Author offers to give sufficient pledges to the Public, for the successful Treatment of the Disease in Hospitals. The best au-

thenticated Proofs adduced, that Lying-in Women, even with London Constitutions, bear bleeding well in London Hospitals. Causes of the failure of Bleeding stated to be from its misapplication. When employed after Symptoms of Effusion or Mortification takes place, it is REALLY
“SIGNING THE DEATH-WARRANT OF THE PATIENT.”

IT has been said that the fashion of medicine changes every twenty years ; I think it does so in less time. Within the last sixteen years, I have seen noses, limbs, and even lives lost, by the injudicious use (I might have said abuse) of mercury ; and I have observed exactly the same events happen from its being withheld altogether. It is again getting into use, notwithstanding the thundering denunciations which have issued from the press against it ; and there is scarcely a remedy of which the same may not be said. All these revolutions are owing, not to any fault in the remedies themselves, but to the abuse or misapplication of them. Were we to see a person, for instance, treating a case of pneumonia with digitalis, and depending on its effects, when he should have used the lancet freely, we surely would not attribute the fatal issue of it to any fault in the digitalis, but to the obstinacy, stupidity, or neglect of him who misapplied it. It is really

curious to look into the medical world ; for we shall find one celebrated man attributing all morbid changes in the human body to the motion of the blood ; another solely to nervous irritation ; a third, to inflammation of the mucous membrane of the intestines ; while others ascribe all diseases to the liver, the spine, or the stomach exclusively ; and the practice of each of these individuals is shaped according to his pathological opinions. We need not therefore feel surprised, when we discover the practice of medicine to be so corrupted and empirical. One will be found to direct his whole attention to the abstraction of blood ; another, to placebos, and the whole tribe of nervous medicines, or to ptisans ; others, to purgatives, mercury, applications to the course of the spinal marrow, or tonics. While some depend on muriate of lime, others use, in almost every case, a preparation of iron. When such individuals have gone through their usual round of favourite preparations, they are left without resource, and their patient would be without hope, but that another physician is had recourse to, whose peculiar opinions and practice *happen to suit* the case. If this is a true picture of the profession at large, we shall not be surprised that *genuine accoucheurs* (who are neither reckoned to be so *wise* nor so *manly*) should have been

led to adopt an absurd pathology, and pursue, at all hazards, an uncertain treatment, in some of the diseases which they are called upon to attend. The contemplation of these facts is highly useful, particularly to those still young in the profession, who will readily perceive, that there must be something wrong in the science. Instead of marching on, therefore, in the same track, for the stupid reason, that many wise men before them had done this or that, it will lead them to endeavour, by attention and patient investigation, to strike out new paths for themselves, or, at least, to improve the old ones.

As it appears that there is a strong resemblance between the symptoms, progress, and termination of puerperal fever, and some congestive and inflammatory diseases, particularly peritonitis in the non-puerperal state; and it has been proved that the *post mortem* appearances are exactly the same; analogy would have led us to adopt the only treatment found efficacious in the latter, independent altogether of experience, had it not been owing to certain differences, which the ingenuity of some men made them suppose they had discovered in the pathology, added to the mistaken opinion which prevails, that women in child-bed do not bear bleeding well. The fallacy of which, I trust, has been already fully demonstrated.

Before entering on the general principles of treatment in this disease, I trust I may be allowed to assure my young readers, that there is no complaint to which the human frame is liable, more distressing and embarrassing. In a case of inflammation of any organ, which is attended with severe pain, flushed face, hurried respiration, quick, strong, and full pulse, the most inexperienced person cannot be at a loss ; he will comprehend the nature of the disease at once, and commence his treatment with blood-letting, which, provided he employs, with a very common share of judgment, success will follow. But either in the first variety of puerperal fever ; or in a case in which symptoms of considerable congestion are mingled with those of inflammation, which is more or less the case in the second or more common variety ; when, together with pain in abdomen, sometimes, perhaps, not very acute, we find a quick weak pulse, cold extremities, shrunk and pallid features ; and when the blood has forsaken the surface, and becomes congested in the larger vessels of the body ; it is then, I say, that a physician is perplexed, and not only needs to watch the case with the utmost attention and anxiety, but his practice must be energetic, and founded on a previously acquired knowledge of the pathology of the disease, by patient anatomical

research. It is at such an interesting moment, that the *real physician* is to be distinguished from the *empirical pretender*. If he wants firmness, and a proper degree of confidence in himself, he will not only run the risk of communicating terror to his patient, which cannot be too carefully avoided, from the injurious and debilitating effects such a feeling is known to have produced in a previously healthy person; but, he will be in danger of abandoning the case in despair.* It is at such an awful juncture, that the cool judgment and courage of a feeling man is put to the severest test—when he is surrounded by accumulated misery, and, in short, becomes a spectator to the most appalling scenes of deep family affliction, which now and then unmans the stoutest heart. At such a period, a physician is called upon to devote his best faculties and a large share of time to his patient, who, if she should happen to be poor, has an additional claim to his attention. Among the higher circles, we have generally only to give our orders, and they are strictly enforced by a good monthly nurse; but among the poor, the mere giving of an order will not do—we must enforce it

* I was called to a case of this kind last winter, after the poor woman had been abandoned for twenty-four hours.

by kind and gentle arguments—inquire if the family possess the means of procuring what we think right, and provide a proper person to watch and superintend. Every practitioner ought to devote a certain portion of his time to the poor ; the higher he fortunately happens to be in his profession, the more, within certain limits, should be expected from him. If he is humane and attentive, his apprentices and assistants will be found almost invariably to partake of the same feeling, and he will be in that way relieved of much labour and fatigue. It should never be forgotten, that a medical man has a very heavy weight of responsibility, when he is intrusted with the life of even the youngest and poorest little infant, and that this responsibility is increased a hundred fold, when the life of the head of a family is placed in his hands. There is no calculating the amount of the ultimate effects which inattention on his part may produce.

It is not meant to be insinuated, that we have the dispensation of life and death ; but if, from want of looking into the complaints of our patient with sufficient attention, we have treated a serious disease as a slight one, or have in any other way been guilty of neglect, the day will sooner or later arrive, when we shall have reason to regret it. Great abilities or very shining talents are not distributed to

all alike ; but it is in every one's power to be kind, gentle, and attentive, and to sooth the symptoms which he cannot cure. Medical students must not suppose that this kindness and attention meets with no sufficient reward—they acquire, by such means, early habits of attention, become quick at detecting symptoms before any serious inroad is made into the constitution, by which they lay the foundation of public confidence ; and it is to the public they have to look for employment afterwards, which is seldom obtained without much labour of this kind. Many old medical men will tell them, that they principally owe their fortunes to the good reports made of them by the poor to the rich. I would beseech them to be kind and attentive to those who labour under bodily affliction ; for, unless they strive to cherish this habit while the noble generosity of youth stimulates their conduct, they will for ever be strangers to those feelings of humanity, which will induce them to forego every selfish idea of trouble, and even of the pain, arising from bodily fatigue and mental anxiety. If they should be instrumental in removing an acute pain, or even in soothing it, where a cure cannot be expected, they will enjoy a reward which the cold-blooded and heartless person, who merely goes to see a patient for the sake of hire, cannot appreciate ; the mind of such a per-

son, when at a sickbed-side, is any where but in the place it should be ; he grudges his time, considering every moment lost which is not employed in grasping at wealth. To disturb such a man in the night, is a crying sin which he never can forget, and takes care to tell, that no money can repay. These are bad habits, or rather vices, which are too apt to increase with age, and which require efforts, even on the part of the best-disposed men, to avoid.

I could give many bright examples of humanity and devotedness on the part of medical men in this city,* whose habitual kindness to the sick proceeds from being actually touched with their sorrows ; who, while they will rarely fail to meet with gratitude, are far more successful than they otherwise would be ; at all events, they enjoy a reward, the "*mens sibi conscia recti*," of which no earthly power can deprive them.

Fortunately for society, the first variety of this disease is of rare occurrence ; for, when it does take place, no treatment will have any avail, unless the symptoms are arrested in the very onset. Of course, from my limited experience in this affection, I can

* And not one more so, than the celebrated individual, of whose pathological opinions and practice in this disease I disapprove.

only treat of it by the analogies which it bears to other congestive diseases, and the similarity of the appearances on dissection. In the cases which I have been called to see, the time for remedies had gone by, and I was merely a silent witness to the speedy termination of life. From the success attending bleeding in the other congestive complaints, which I have shewn in a former part of this work, particularly in the cases detailed at pages 83 and 88; and more so from the advantage resulting from it in the cholera morbus of India, I feel inclined to give it the preference to all other remedies; but the patient should be placed in a hot bath of at least 112 degrees of heat, and, if possible, a vein opened while immersed. Or, as a hot bath cannot always be had at a moment's warning, the patient's feet should be put into very hot water, hot bottles or bricks placed round her, and her body rubbed with finely-powdered salt previously heated, or mustard flour. Warm drinks should be given; and I have no objection to a stimulant to rouse the powers of life, to enable us to draw a little blood; for, as in the cholera, if we can get this vital fluid to move, we shall, by care, afterwards be able to save a patient now and then. But I object most decidedly to the frequent exhibition of brandy in this affection, to the neglect of other remedies. If we are too late, or cannot get blood

to flow from a vein, the hot bath and frictions must be chiefly relied upon ; and I should feel inclined, in that case, to apply one hundred leeches, as the speediest way in which we could obtain relief, where there had been no previous debility. Leeches are easily enough managed ; a little salt will make them give up their hold at any time ; and the bleeding from the wounds may be stopped by a solution of caustic in water. It is to be ever kept in mind, in such a case as this, that the internal parts of the system are oppressed with too much blood, and our object is to restore the lost balance of the circulation, by promoting a natural flow to the surface of the body. Women who have been worn out by breeding, are most liable to the severe form of the disease now under consideration ; a fact which strongly corroborates the views I have expressed respecting the pathology. All the instances I have seen, were women who had large families ; and when called to attend a woman so circumstanced, I feel double the anxiety, and not only warn the nurse, and call frequently and make minute examinations at each visit, but also entreat the friends not to delay sending for me at any hour in the night, should the nurse, or they themselves, think it necessary ; and I am happy to say, in consequence of this, that I have never had a case of puerperal fever, in either this or

the other form, but one, where I attended from the first. That solitary instance occurred a short time ago, in the person of a woman who was delivered of a posthumous child, her husband having died a few months before. From the distressed state of her mind, I was on my guard. She had abdominal pain to a slight degree, for twelve hours before she shivered, after which it became very severe; two hours did not elapse before the application of the remedies, and the disease yielded to two large bleedings, quickly repeated.*

* It may not be improper to state, that the circumstance of my being connected with so many cases last winter, arose from my having accidentally called upon Dr W. Campbell, whom I found confined to the house by a slight indisposition. He was so anxious about several poor patients, that I offered to visit them for him; and was subsequently induced to take charge of all the cases of puerperal fever which occurred to him for several months afterwards, previous to which, several cases had terminated fatally, in quick succession. Upon this occasion, I observed in Dr C.'s conduct so much feeling, such unwearied exertions to serve these poor people, (whose wants he occasionally supplied from his own pocket,) and such devoted attachment to his profession, that it was not without the strongest feelings of disgust and indignation I heard him afterwards assailed for ignorance, neglect, and cruelty; and what is worse, I am persuaded, that if these calumnies had been traced to their true sources, they would have been found to originate in quarters from which, in common decency and delicacy, they ought never to have emanated. It is only for the purpose of opposing my testimony thus publicly, to the falsehoods circulated against

The treatment of the other variety of this disease being more important, from its more frequent occurrence, and slower progress, admitting of a greater variety of treatment, this part of the subject will necessarily occupy more time.

Unless a patient in puerperal fever is visited every two hours at the commencement, no treatment will do any good. In this disease, as in yellow fever, the case may have a promising appearance for a short time, and suddenly change to the very worst, in the course of an hour ; so that unless the remedies are applied at once, a happy result need not be looked for. The great success I have experienced in the treatment of this disease, has not arisen from any superior skill, to which I never made any pretensions, but to great attention, making from six to ten visits daily, until the disease subdues, or is subdued. In the cases which occurred last winter, it is well known that I continued to visit them continually, going from one to another, from breakfast-time till five *p. m.* and

this gentleman,* that I have alluded to the subject ; and when it is known that I had no acquaintance with Dr Campbell previous to the period above mentioned, and scarcely any intercourse since, the preceding statement will not be supposed to have derived any strong colouring from motives of private friendship.

from seven, till after midnight. The two assistants whom Dr Campbell gave over to me, were his pupils, Messrs Black and Kinmonth; the former now settled as surgeon at Lanark. These gentlemen, to whom I owe more than I can here well express, scarcely knew what it was to rest during the time the disease was most prevalent. The kindness, attention, and humanity, they displayed, exceeds any description I can give. They saw the patients between six and seven o'clock in the morning, and continued to do so every hour, or at furthest every two hours, till midnight. And I have found them at one o'clock in the morning performing some kind offices about the sick. I trust they will soon meet with that reward, to which their merits so well entitle them.

I distinctly assert, that unless the same attention is, in all cases, paid, little success can be expected from any treatment in this formidable disease, at least in the severe form in which it affected the patients I have generally seen. To visit the patients twice or thrice in the course of the day, is little better than not to see them at all; it is worse, for our presence at these distant periods excites false hopes, which, use whatever methods we will, cannot be realised.

It has been asserted, that the cases I have seen, and which have been treated successfully, were not genuine puerperal fever. But, by whom has this unfounded and impudent assertion been made? By the individuals who allege the same of Denman, Gordon, Hey, and Armstrong,—by the individuals who almost never had a case which terminated in recovery. These surely cannot be looked upon as pure and unprejudiced judges. Their statements would have deserved some credit, if they had fairly tried the same means, paying the same unlimited attendance which I have done, both here and elsewhere. I am in possession of facts connected with the treatment of puerperal fever in this place, which are at once unscientific and disgraceful, and which it would be but a just retaliation to disclose. I rather choose, however, to waive the subject, from feelings which the great body of my readers will not fail to understand and appreciate.

I have now to lay an outline of my plan of treatment before the reader. It must be impressed upon his mind, that nothing will be of use, unless bleeding is practised within the first six hours, and re-

peated every two or three, in such quantity as the nature of the disease requires, and the strength of the constitution will admit. It will never do for a physician to walk in, and order the precise quantity of *sixteen ounces* to be abstracted, and walk out again, leaving the patient in the hands of a person, whose experience, perhaps, is too limited to enable him to judge for himself, or whose youthful appearance is not calculated to enforce respect.—When I find it necessary to abstract blood, some impression is always allowed to be made on the system, or on the disease, before the arm is tied up. If syncope takes place in an early stage of the operation, I desist for an hour or two, and resume it again and again, the moment the state of the pulse indicates the safety of the measure. In some fortunate cases, the histories of which were lost in my travels, I can well remember abstracting between forty and fifty ounces at one bleeding. The only fatal case I remember, in which bleeding was employed within the first six hours, is that of Mrs Cunningham, recorded at page 214. Dr Campbell bled her a very short time after the rigor; and although the most active practice was afterwards pursued, the appearances on dissection displayed the highest degree of inflammation. Whereas, in the case of Mrs

Finlay, bleeding was not employed till eighteen hours after the rigor and pain ; so that at whatever period we are called, unless there are decided marks of mortification or effusion, we should bleed if the strength will permit ; but the longer the disease has existed, the greater, of course, should be our caution in employing this remedy. After the disease has been diminished by general bleeding, or if the patient is weak, we cannot do better than to apply from 30 to 100 leeches. In one case, which I have recorded, 60 leeches were applied on the sixth day of the disease. But, I prefer bleeding with the lancet in the first instance, as it is always necessary to make a sudden impression on the system, which acts, not only by diminishing quickly the quantity of blood in the whole system, but by altering the determination of that fluid. This operates just in the same manner as bleeding at the arm does, in uterine hæmorrhage, hæmoptysis, epistaxis, &c. Much as the doctrine has been sneered at in this country, I have seen decidedly beneficial results from bleeding at the feet, or applying a number of leeches to the lower extremities, in cases of convulsions, particularly in children. I need not add, that when we bleed, a very large orifice should be made in the vein.

Purging, the propriety of which is admitted on all hands, I need not dwell upon further than to say, that it is necessary to keep up a constant discharge, and it is in some cases quite wonderful to see the copious stools that will come away, when the medical attendants have thought it was impossible that any thing could be in the bowels. It ought to be an established rule, to procure a free motion of the bowels within twenty-four hours after delivery. But I do not approve of purges of the drastic kind, such as recommended by Gordon, as I have seen frequent mischief from their use. Large doses of calomel have been recommended and used by a very great authority, Dr Armstrong. The truth is, provided the bowels are well attended to after bleeding, I care not much by what means it is accomplished. As it is the purging, however, and not the mercurial effect, which this physician trusts to, it is well known that such an end is best brought about by a medicine compounded of several drugs. He alludes to the large doses of calomel which are exhibited in warm climates; I can tell him, from experience, that this plan is sometimes pushed to an injurious extent, and I have seen it used when milder purgatives would have been productive of more benefit. It is the irritation in the intestinal tube,

which such large and frequent doses of calomel are known to produce, which I object to. Dr Armstrong, however, counteracts this by the exhibition of opium, (which, by the way, I think he prescribes too early in the disease.) A German gave me a half-drachm dose of calomel, when threatened with a fever in the West Indies. Whether it cured me of the feverish affection or not, I cannot tell; but it produced the most violent irritation in the stomach and intestines, which terminated in a severe attack of acute dysentery, to which I can fairly ascribe a long train of subsequent bad health.

Enemata are very useful in this disease, but I am disposed to admit that we employed them too frequently in the cases which occurred last winter. I have been very successful in the treatment of the inflammatory affections of the bowels for many years past; after abstracting as much blood as circumstances demanded, or as prudence would allow, I have administered, as quickly as possible, injection after injection, of warm water, sometimes containing a small quantity of soap or common salt, by means of a large syringe—the patient being enjoined to retain them as long as possible. This practice almost never failed in producing relief, by a discharge of feces and flatus; this was followed up by a mild

purgative, such as castor oil, or a weak solution of salts.

In future practice in puerperal fever, I shall certainly have recourse to the same plan. One very copious injection of that sort, will do much more good than a trifling small one repeated every two or three hours.

Nature points out a very natural mode of relief by diaphoresis, which should be encouraged early in the disease, and kept up.* Determination of blood to the surface is a powerful auxiliary to bleeding and purging, in all acute disorders, but which can rarely be induced, till bleeding has moderated the violence of the inflammation. There is a cold moisture, in many cases, on the surface from the beginning, which we must not mistake for the proper diaphoresis; the latter is the result of determination of blood to the skin, the other from it.

I have no doubt that Doulcet's plan of emetics of Ipecacuan, which in fact he copied from Avicenna,†

* From these acute diseases, (after lying-in,) women are often freed, by the breaking out of a copious sweat.—Rod. à Castro, *de Morbis Mulierum*. Lib. IV. p. 473.

† See Joh. Varandeu*s de Morbis Mulierum*. Lib. I. cap. 7. Lazar Riverius *Prax Medici*. Lib. XV. cap. 7.

will be found to be very useful, not only by discharging the contents of the stomach, but by producing a determination to the skin. It is quite evident that this plan can have no effect after the disease is formed; benefit can only be expected in cases where it is forming. Doulcet and his followers hold out no more; they decidedly state, that "if the first hours are suffered to elapse, it is seldom attended with complete success."

Doucet recommends eight grains of the powder, which is to be repeated several times, according to the urgency of the symptoms, at short intervals; the action of vomiting to be kept up by an oily mixture, with the addition of two grains of the kermes. The drink to be infusion of linseed. It is worthy of trial, but should never supersede blood-letting.

Fomentations seem to be useful, by soothing the pain and exciting perspiration; but if performed in a negligent manner, they will be productive of mischief, by keeping the woman wet and cold. The ancients used to apply cold fearlessly to the abdomen and external parts, in inflammations in the abdominal cavity.* The practice has been revived of late. It seems reasonable to suppose, that heat

* Gordonius, Fontanonus, a Castro, et Rondeletius.

kept constantly applied to one part of the body, will determine the blood to it. In puerperal fever, the mischief is carried on by the continuance of that determination to the abdominal contents, which the constant heat may increase. This is a point worthy of careful investigation. I shall not be at all surprised to find, that much harm has hitherto been done by this practice.

Formerly, I was in the habit of applying blisters to the abdomen. The knowledge of the facts, that the disease sometimes subsides upon the appearance of an inflammatory affection of the skin, induced me to use blisters in an advanced stage of the disease, with benefit. In the late cases, I was persuaded to forego them, by the assurances given, that they would be of no use ; but I do not think I acted wisely.

I have used injections into the vagina, but cannot say that they produced any decided advantage ; they were first recommended by Astruc, and have been lately extolled in France ; they may be useful if the peritoneum covering the bladder or uterus is affected ; at all events, they tend to cleanliness, and may do good in that way, particularly if the vagina is dry, which, however, has never happened in any of the cases which I have seen.

Digitalis has been employed by Dr Hamilton ; one case did well under its use, but he has not succeeded in another. Dr Davis, an eminent physician in London, I understand, gives digitalis with great success, after *bleeding largely*, and applying *scores of leeches*, and putting a prodigious blister to the abdomen. He prescribes two grains of the best powder every two hours for a whole day, or, until such time as a state of inertia of the whole body is produced, which seems quite incompatible with active inflammatory action.

This information was contained in a communication from a medical gentleman in London, to a friend of mine in this place, a few months ago, who kindly permitted me to make use of it. It appears by this account, that bleeding, both general and topical, is had recourse to in the first instance ; and it is further asserted, that it is highly useful in some cases, when, owing to previous hæmorrhage, bleeding to any useful extent could not be employed. Digitalis, given in the manner above described, speedily reduces the action of the arterial system. The gentleman who makes the communication, assures my friend, that he had himself tried this practice in several instances, with much benefit after free bleeding.

I have only to remark, with respect to digitalis, that in the cases of puerperal fever, where there are not decided marks of congestion, that practice may do very well; but if the inflammatory symptoms are mixed up to any considerable extent with venous congestion, I should be inclined to think digitalis could not operate beneficially. The plan is worthy of further trial, as it does not interfere with blood-letting, and is meant only as an auxiliary to it. I can assure my readers, that the information comes from the most respectable quarter.

It has been already stated, that I have always placed a great deal of dependence on opium, in the cure of inflammatory affections. I used to prescribe one or two grains of solid opium, or from 60 to 100 drops of laudanum, half the previous dose to be repeated every three hours till the full effect was produced. Experience has long ago convinced me, that the apparent want of efficacy of this useful drug, (as well as of many others,) proceeds entirely from its being administered in insufficient doses, and repeated at too long intervals. In inflammatory affections, there is more to be done than the mere abstraction of blood, using purgatives, and calling into our assistance a strict anti-phlogistic regimen. Nervous irritation alone, if long continued, will undoubtedly produce inflammation; but how much

more will it tend, to re-produce inflammatory action recently, or perhaps, not yet entirely subdued. It has been proved by experience, that there exists, after child-birth, an increased state of irritability, to allay which, in puerperal fever, I think of more vital consequence, than in any other diseased state of the system.

The preparation of opium made by Mr Battley, is a most valuable medicine. I have used it in a great many cases, and have seldom been disappointed in my expectations of it. It is a form of opium well calculated to afford relief in inflammatory cases, as it tends to produce general relaxation and perspiration, while it never, in my practice, caused disagreeable after-consequences, such as thirst, headach, and restlessness. I gave it in the cases of puerperal fever last winter with the most decided advantage; and I know from repeated trials, that when given by injection, it operates much more speedily, and with greater certainty and safety, than tobacco. It is sufficient to begin with a dose of fifteen or twenty drops, repeating ten drops every hour, till relief follows. I have given a tea-spoonful repeatedly by injection. The force of the circulation can be commanded after bleeding, more certainly with this preparation in the course of two hours, than I ever could with digitalis, in twenty-four.

If diarrhœa accompanies the disease, we must watch this symptom—if it proceeds from irritation, it must be restrained, while due care must be taken to produce a healthy discharge from the bowels—if from constipation or morbid collection of feces, this must be dislodged. No symptom more quickly depresses the vital powers, than diarrhœa from irritation.* I have always observed that patients are least troubled with it, who are early bled, and I have seen it subside after a large bleeding. It is a dernier resort, which nature frequently takes to throw off the disease, in the absence of proper remedies; and which may be successful, in one or two, out of one hundred cases.

The use of the spirit of turpentine has been greatly extolled by Dr Brenan of Dublin, and others, in this disease. I have not tried its effects, because I have never seen a case in which it would have been

* “From this cause,” says Rod. à Castro, “my dear and excellent wife, Catherine Rodrigues, of pious and happy memory, was, to my great grief, as well as to that of our relations, cut off in the flower of her age. She was snatched away, by being attacked with diarrhœa in the beginning of labour, in consequence of which, from the precontracted debility, the lochia were so completely suppressed, that they could by no means be reproduced.”—ROD. A CASTRO *de Morbis Mulierum*, Lib. quartus, p. 471.

admissible. When it is successfully employed for the cure of *peritonitis* or *enteritis*, then will I give it a trial in this disease. I conceive that time is too precious in puerperal fever, to admit of delay for the application of a doubtful remedy, and wait for its effects. When called in in time, I now employ the lancet with as much certainty of success as can be expected from any known means of cure, in any given disease. The best human efforts will occasionally fail; but to abandon such a plan for any other, would be little better than madness. In ordinary cases, I have frequently seen spirit of turpentine produce great irritation; and in one case of a Sergeant belonging to the Sappers and Miners at Valenciennes, to whom a dose of an ounce of it was given, without my knowledge, by a horse-jockey, for a suppression of urine, such a degree of inflammation instantly ensued, in the rectum and bladder, that an opening took place, allowing a free communication between the one and the other, so that he frequently passed feces by the urethra, and urine by the anus. He lingered out a miserable existence, and ultimately died. On dissection, the opening was distinctly seen by Dr Venables, at the Ordnance Hospital at Anzin.

I have great reason to suspect, that many of the cures believed to have been effected by turpentine,

were cases in which the symptoms arose from costiveness, and from flatus in the stomach and bowels. Such cases are not uncommon after parturition ; and I have seen them very frequently mistaken for puerperal fever, and yield to smart purgatives, and some essence of peppermint. Now, it is precisely in such circumstances that turpentine is successfully given to horses ; and I am certain, that no well-informed veterinary surgeon would venture to rely on the same remedy in a well-marked case of inflammation of the guts. The great objection to the use of turpentine by the mouth, must ever be from the nausea it occasions, and I have never yet been able to get a patient to take it twice. Great benefit sometimes arises from its administration by injection, in cases of distension of the bowels from flatus.

I have, however, still stronger evidence to bring against the use of turpentine in this disease, by a gentleman, who stands, I believe, almost unrivalled in the profession, for experience, zeal, and talents—I mean the celebrated Dr Joseph Clark of Dublin, whose sentiments will be found in a letter addressed to Dr Armstrong of London, and contained in an Appendix to the second edition of Dr Armstrong's work on Puerperal Fever, from which the following extract is made :

“ In addition to the usual routine of practice, nu-

merous trials were made of the rectified oil of turpentine, in doses of from six to eight drachms, sometimes in plain water, sometimes combined with an equal quantity of castor oil; the first few doses were generally agreeable to the patient, and seemed to alleviate pain. By a few repetitions, it became extremely nauseous, and several patients declared 'they would rather die than repeat the dose.' *In more than twenty trials of this kind, not a single patient recovered.*"

With respect to the diet to be allowed in this disease, a strict anti-phlogistic regimen should be in general enjoined; but in some cases I have been obliged to give beef-tea, and sometimes even a little wine, not on account of *putridity, or a poorness of blood*, but, to revive the patient a little, after the bleedings. I have witnessed the most beneficial results from such treatment even in pneumonia, as well as in this disease, so that I conceive there is nothing unreasonable in it. When it is found necessary to have recourse to beef-tea or wine, the former should be tried in the first place, and in the smallest quantities; for there is the greatest danger of over-doing what we wish *barely* to accomplish. Many instances of this kind occur in general practice, and I have seen one in puerperal fever, in which, after the in-

flammation had been subdued by large, as well as by small bleedings, and leeches, three different times, the friends greatly exceeded the directions as to the quantity of wine, to gratify the wishes of the patient herself. In each of the previous attacks, the pain was confined to different situations of the abdomen—in the first, to the hypogastric—in the two following, to the umbilical and right hypochondriac regions. In a quarter of an hour after she got the wine, severe pain came on in the region of the stomach, with constant retching. She was so much reduced, that it was not thought expedient to bleed her again; the black vomiting came on in a few hours, and she died within twelve from this last attack, suffering the greatest agonies till she expired. The drink should be gruel, barley-water, or tea. Beer and all fermented liquors are bad.

I can give the most solemn assurances, that under this mode of practice, varied according to the severity of the disease, and peculiarity of constitution, a larger proportion than two-thirds of my patients have recovered, taking into account even those who were moribund before I was called in, and who died soon afterwards. I have had occasion to show, in another place, how successful the practice of bleeding has been, in the hands of Gordon,

Hey, and Armstrong, which need not be here repeated.

Hippocrates, Galen, and others of the ancients, when they were fairly convinced of the inflammatory nature of a disease, bled, if necessary, to the extent of four or five pounds. Many of them were influenced in choosing the place from whence they drew blood, by the motive of derivation, or revulsion, or in other words, changing the determination of blood from the diseased parts, to an opposite or distant part of the body. Thus, Avicenna, in every pleurisy, without regard to sex, or to the lochial discharge, let blood from the feet. In the treatment of the acute diseases to which women in child-bed are liable, Petrus Salius, and many others, direct large bleedings from the arms, supposing that in this way the derivation is more readily effected. They add, however, another and more powerful reason for taking blood from the arms, in preference to the feet; that the latter method does not so easily and readily evacuate, and draw off the blood from the affected part; in the meantime, the strength decays, and (adopting the humoral pathology to its full extent) they suppose that the offending matter or humour, which is forced into one place, remains there. You will draw off all the blood, say they, before you have cured the

disease—in another point of view, they add, the remedy will be slow, and the delay always dangerous. Others, as Mercatus, whose opinions had great influence, recommend bleeding from the feet in this disease, not only once or twice, but frequently, with a view to produce a sufficient flow of the lochia, or to give sufficient force to the revulsion; but they tell us, if the disorder continues oppressive, we must have recourse to the veins at the arm, even while the lochia are flowing; indeed it would appear that they do not approve of bleeding in the first instance at the arm, principally from the apprehension of its taking away every hope of procuring a determination of blood to the uterus. It will be found, that Rod. à Castro approves of the plan of Mercatus, because a cautious slowness is always to be preferred to rashness. But he draws blood from the feet during the *deceitful remissions*, which are so frequent in this disease.

Rod. à Castro, in treating of the cure of this disease, directs, that when the disease proceeds from thickness of the blood, which is to be discovered by examining the blood itself, remedies must be applied to make it thin, and to soften, open, reduce, and loosen the adjoining parts. When it proceeds from a constriction of the little mouths of the veins, “*ex*

osculorum venarum strictura," which is to be discovered by the dryness of the body, and by the constriction of the other veins, means must be employed to open them, for which purpose he recommends *blood to be let by a wide incision*, and blistering, &c. ; and if from fulness or plethora, the same evacuations.—Lib. IV. p. 474.

Bleeding has been recommended as a remedy in this disease, by different writers. Levrèt, Puzos, and, I believe, Van Sweiten also, attribute all the acute affections of lying-in women to translations of milk—to the head, producing apoplexies—to the lungs, peripneumonies—to the abdomen, inflammations of the viscera. However absurd this theory may now appear to be, it will be found in its consequences much less so than that urged by those who support the low, putrid, and typhoid pathology. It has led to better practice, for we find Levrèt giving a solution of neutral salts, after delivery, as a preventive ; and should the disease form, he had recourse to repeated bleedings, and the whole tribe of anti-phlogistics. Puzos more strongly enforces the propriety of using the lancet ; for he says the bleeding must be repeated "*coup sur coup*."

Astruc's observations on this disease are interesting and judicious, even without considering the time

at which he wrote ; he trusted to nothing but the lancet, and he certainly carried that remedy farther than any one of us in the present day ; for he found it necessary to bleed six, seven, or eight times, in the two first days, and he recommends, that the first three or four bleedings should amount to from twenty-eight to thirty-two ounces. “ The smallness of the pulse,” says Astruc, “ and the coldness of the extremities, should not be any check to the use of bleeding, when it is otherwise strongly indicated. Only there must, in this case, be given some mild cordials, mixed with slight narcotics, to revive on one hand the pulse, and to mitigate, on the other, the acute pain, which supports this state of languor.” He also states, that when “ the pulse becomes weak in the decline of the disease, the mildest cordials are necessary ;” but adds, that “ the greatest circumspection must be had in their use.”

I think it expedient, before concluding this Section, considering the present undecided state of professional opinion respecting the nature and cure of Puerperal Fever, to lay the following Sketch of the practice of Hulme, and a short Review of the cases of Leake, Gordon, and Hey, before the reader, principally to shew the failure of bleeding, from not being boldly and confidently followed up, and the superior

success of that practice, in the same hands, when early and copiously employed.

Hulme, in his work, makes the strongest possible avowals of the inflammatory nature of the disease; avowals which he seems compelled to make, from the actual examinations of the bodies of those who died of it, which will be found to be completely at variance with his theories. "If bleeding," says this author, "be neglected when necessary, it may increase the great tendency which we find to inflammation, not only in the omentum, but in the lungs and other viscera." Notwithstanding this, we find him taking *eight ounces of blood*, because he was, like Hunter, Leake, and almost all the physicians of that day, strongly tinctured with the feelings of the times, that all inflammatory diseases had a low, putrid, and typhoid tendency. He trusted to purgatives, and gave, in an early stage, wine and bark, "to correct the putrescent state of the solids and fluids," to cut off "the purulent fomes," and "to restore the tainted omentum to somewhat of the perfect state."

From this statement, in conjunction with the history of the cases and dissections, which will be found in the proper place, the most ignorant dabbler in physic would not expect to cure this disease by such

means. Hulme gives no statement of the proportions of deaths in his practice ; but, he must have been most unsuccessful, from the figurative description he gives of the intractable nature of the disease, in the following strong and remarkable language :

“The plague,” he observes, “like a fierce and untamed enemy, spreads his hostile banners in open day, and feasts on carnage and destruction, till, glutted with slaughter, he himself sinks down and dies ! But the *Puerperal Fever*, like a secret revengeful foe, stabs in the dark to the very vitals ; and though he kills only one at a time, yet he is privately slaying every day, and never satiated ; thus making up by length of time what the other does by a sudden devastation.”—P. 29.

Dr Leake recommends bleeding in the strongest terms, from the opinion that the disease was of an inflammatory nature ; yet we see, in the detail he himself has given of his cases, that his practice was also of the most undecided kind, and not calculated to cure a disease half so violent as the one under consideration. In his second and third cases, particularly that of Juliana Thomson, who was seized on the fifth day, instead of bleeding, he directed the tartar emetic to be given, and applied a blister to the pained part of the abdomen, and added an injection of beef-tea. “Next day,” he says, “we thought

it advisable to try the bark in decoction ; she nevertheless went on from bad to worse, and died on the thirteenth day, from the attack of pain of side." In case 3d, the patient, with exactly the same symptoms and treatment, died on the ninth day after the attack.

In case 4th, the subject of which was young, previously of a strong and healthy habit, small proportions of emetic tartar were given, with a saline draught, every four hours, which did not produce perspiration, although she was well drenched with barley-water and balm-tea. On the second day, a violent bilious purging came on, which continued for three or four days ; her belly swelled, and she complained of much pain at the bottom of it, and towards the navel. About the sixth day, Dr Hunter was called in, who directed *eight ounces* of blood to be taken away. She afterwards got warm cordial medicines ; was delirious several days before her death ; during the very last days, leeches were applied to the temples, and her strength was supported by nourishment and wine ; " but all without a salutary effect, for on the twelfth day she died."

Case 5th, Mary Evans, had slight rigors on the second day ; they returned on the fourth, but unaccompanied by abdominal pain ; during the following night, however, she was suddenly waked by vio-

lent gripings and tormina, which were spontaneously relieved by nine or ten bilious stools. On the fifth day, "about 12 at noon, she was seized with a great difficulty of breathing, and in the time of perspiration, was affected with intolerable acute pain, which struck down from her breast to her navel." *Six ounces* of blood were taken away; after the bleeding, her pulse became somewhat stronger, and its strokes were more distinct and free; the pain at the navel, and difficulty of breathing, were a little abated, and she passed a tolerably good night, with refreshing slumbers. On the sixth day, a relapse took place, and she died at 4 o'clock on the morning of the seventh day.

On dissection, "about five ounces of curd-like puss, covered the surface of the intestines. About a pint and a half of putrid fluid, like whey, was found in the cavity of the pelvis, mixed with concremented matter," &c. "The small portion of the omentum which remained, was much inflamed, and slightly adhered to the intestines." Among his remarks on this case, the following observations are made: "As this disease is principally seated in the omentum, and uniformly produces an inflammation of that part, I think it will strongly enforce the early loss of blood, together with the application of blisters to the sides, or even to the umbilical region, to

prevent, if possible, a morbid affection of the viscera, which, *when once begun*, is generally found to be fatal in the conclusion." But the reader will not fail to remark, that he does not practise this early loss of blood, even in the next case.

Case 6th.—Shivered, without any evident cause, on the third day, after breakfast; the rigors were very violent. The antimonial powder was given at intervals. Two days after, she had in the morning nine or ten blackish stools, mixed with mucus, extremely offensive, and attended with "great pain." Pulse excessively quick; breathing laboriously; *eight ounces of blood* only were drawn; "she only now took rice water, with *a small portion of brandy in it*. Towards evening, she," nevertheless, "seemed a little better;" pulse not so frequent; "pain and feverish symptoms somewhat abated." Next day, being the third after the attack, she was "hot and restless; partial sweats." On the fourth day, "she was manifestly much worse." Fifth day, she was supported by *a cordial julep when faint, together with light nourishment and wine*. By next day's report, she had all the symptoms of death, and expired next morning at 2 o'clock.

Dr Leake now goes on to state, that one "Phœbe Hill was also violently seized with this disease," and,

contrary to his expectations, recovered. But "she was blooded early and liberally." It is to be regretted that there is no detail of Hill's case, neither the quantity of blood drawn, nor how often repeated. It is quite evident, however, that she had cordials also, for he adds, that otherwise "she was treated much like the former patient, but I did not take minutes of her case."

Dr Leake's practice seemed to be so far improved by the observations he made on these unfortunate cases. In the next two, we find his treatment more active and successful.

Case of Elizabeth Gardner, aged 23.—Was delivered in the hospital on the 11th February, 1770. On the 12th, her pulse was full and frequent; thirst, nausea, and pain in head and breasts.

13th, Dr Leake saw her along with Dr Ford; pulse exceeding quick, fuller, and stronger than usual; thirst excessive; violent headach, and dry skin; *ten ounces of blood* ordered to be taken away.

14th, Symptoms mitigated; 8 oz. of blood taken away, which was not nearly so sizzly as the former.

16th, All the febrile symptoms much increased; she was griped, had nine black stools, the last very fetid, mixed with blood and mucus; she was delirious by turns, very restless, &c. &c.

Next day she was better, and went on continuing to recover till 9th March, when she was discharged.

Ann Williams recovered under the same treatment.

Elizabeth Cousnett, and Ann Sims, were the next attacked. They were not bled, and both died. The account of the dissection of the latter only is given, of which the following is a sketch :

“ The inferior lateral portion of the omentum was found *much inflamed*, its vessels being turgid, and as it were injected with blood, but the greater part was destroyed by a suppuration ; what remained, *adhered* to the small *intestines* ; *they* also *adhered* slightly to each other, where their convolutions came in contact.

“ In the cavity of the pelvis was found above a pint of whey-coloured fluid, with three or four ounces of thick matter, which did not uniformly mix with it, but floated in it like curds in whey.”

Ann Dease, and Rebecca Day, are the next ; they were not bled, and both died.

Harriet Trueman's case also proved fatal. She was twice bled to the small quantity of *seven ounces* at each time. But it will not be said that the bleeding killed her ; quite an opposite conclusion will be drawn from the account of the dissection ; for, “ the

greater part of the omentum was" found "*suppurated*, and converted into *a thick matter*, the remaining portion being *much inflamed* and slightly *adhering to the folds of the intestines*."

"The cavity of abdomen and pelvis contained about three pints of putrid serum, together with clots of concremented pus, and small pieces of coagulated blood. In the thorax, on raising the sternum, two ounces, or more, of matter was lodged upon the mediastinum, and the thorax contained a small quantity of the same kind of whey-coloured fluid as that found in the abdomen."

Mary Evans, aged 32, was attacked on the third day after delivery; "but," Dr Leake observes, "as this patient was of a delicate irritable habit, and lax fibres, I did not think it proper to direct bleeding, particularly as her skin was moist, and her pulse quick and very weak." It, however, appears by the details, that she got "*beef-tea*, and a small quantity of *white wine and light nourishment by turns*;" and she died on the seventh day of the disease.

"On opening the body, *the most evident marks of inflammation appeared*, particularly in the abdomen." After stating that what remained of the omentum was gangrenous, the rest being, as he supposed, melted down into the matter which appeared like pus, floating in whey; *the intestines were inflamed*,

particularly at their convolutions ; and “ the liver was also unaffected, *except* its peritoneal coat, which, *being dissolved by the inflammation*, lay on its surface in a tender gelatinous state.”

I am sure it will be remarked, not only that many of these cases were slight, but that the practice pursued was of the worst possible description, vacillating to the greatest degree. It must not therefore be said, that this author tried bleeding and failed ; because, the very contrary is the fact. Let the above cases be compared with those which I have detailed, and which fell under my own observation, and it will be seen that they are slight indeed.

Dr Gordon, as has been already stated, lost an immense proportion before he began to bleed early and largely ; but only five out of fifty, after he adopted the proper practice.

When he was called within six or eight hours after the attack, he was often able to put an immediate stop to it by bleeding and purging, even when the pulse was at 140 strokes in the minute ; but when called after the lapse of 24 hours, he found the disease was no longer in the power of art. The same observation has been made a thousand times, respecting, not only peritonitis in the non-puerperal state, but also pneumonia, and, in fact, of inflam-

mation attacking any vital part. The disease, as it occurred in the practice of this author, appears to me to have been mild. The practice adopted, as detailed in the histories of the four fatal cases he records at length, affords sufficient evidence of this. He seems to have been quite satisfied with the abstraction of 16 ounces of blood in all these cases; his visits were too seldom, by which means the little impression made by his bleeding and other practice was not followed up till the disease had acquired new strength by the delay. The appearances observed on dissection will support me in the statement; and it will be observed that Dr Gordon, with a praiseworthy candour, admits his error at page 40. He calculates, from the success which resulted from rather a bolder practice, that only one in ten ought to die of this disease. "There is no disease," says he, "in which less is done by nature, or more may be done by art. When I took away ten or twelve ounces of blood from my patient, she always died; but when I had courage to take away twenty-four ounces, at one bleeding, in the beginning of the disease, the patient never failed to recover. But twenty, or twenty-four ounces, which I have limited as the requisite quantities, will not be thought too large a bleeding by such practitioners as have been accustomed to see the large quantities of blood which pregnant

women lose with safety, in cases of flooding. In such cases, I have seen women lose from two to upwards of four pounds of blood, in the space of a few hours, and yet these patients had good recoveries," &c.

In alluding to the event of the disease, in the hands of those who treated it with wine and cordials, without either bleeding or purging, he states, "all the women died, who were attended by such practitioners."

Mr Hey of Leeds assures us, that every case that fell within his notice, proved fatal, till he adopted more energetic practice. After he began to place his dependance on bleeding, he only lost two out of 36 patients. It has been mentioned in a former place, that this author was not permitted to examine the bodies of those who died, so that he had nothing to guide him but his own excellent judgment and just reasoning, on a number of fatal cases; a sketch of which, together with the inert practice he then pursued, I shall now lay before the reader.

Case 1st.—In this instance the disease was very slight at first; remitted after purgatives and opiates; returned in a few days; she was not bled; and the patient died on the 10th day.

Case 2d.—The subject of this case was seized so late as the fifth day; symptoms were greatly re-

lieved by purgatives. The disease returned however; she was not bled, and died on the 4th day.

Case 3d.—In this case, the rigors came on forty-eight hours after delivery. Mr Hey saw her five hours afterwards; she got salts; late in the evening he learnt, that she had become worse soon after his visit in the morning; the abdomen also became tumefied. After several stools from the salts, she got an anodyne draught at night, and soon became quite easy; had frequent slumbers till four in the morning, from which time she had sound sleep till seven o'clock. She awoke at that hour with pain in abdomen.

2d day—The swelling of abdomen had not increased, but pressure gave pain, even to the scrobiculis cordis; pulse 160; salts repeated, and warm fomentations ordered. Evening—The soreness of abdomen found to be much diminished, by seven or eight stools; pulse 142; opiate and fomentations to be repeated.

3d day—Much better in every respect in the morning; pulse 100; countenance good; a few hours after this a relapse took place, and Mr Hey saw her again at two *p. m.*; she had had slight rigors after the return of pain; pulse 160; salts repeated; in the evening she was better.

4th day—Had passed a restless night, with oc-

casional pain ; vomiting ; pulse 130 ; she went on to get worse, and died on the evening of the fifth day of the disease.

Case 4th.—The subject of this case was a robust woman, who was attacked by the disease about 38 hours after delivery ; she had been directed to take salts as a means of prevention. Mr Hey saw her about three hours after the attack ; the pain was more severe than in any of the former cases, and was accompanied with a *full strong* pulse ; she got a purging draught, and an injection ; after a consultation, *ten leeches* were applied to the abdomen, and afterwards a blister. At 3 *p. m.* the pulse began to lose its strength, debility became manifest, and the distension of the abdomen advanced rapidly ; vomiting supervened ; and she died in 35 hours from the first seizure.

Case 5th.—Awoke with pain in abdomen, and a sense of chillness, 26 hours after delivery, which was safe and natural. She was seen four hours after the attack by Mr Hey, senior, who found a fullness of abdomen, and gentle pressure with the hand created exquisite sensibility ; pulse 120 ; a purging glyster ordered. Soon after this nausea came on ; at mid-day, pulse 130 ; 3 *p. m.* tumefaction of abdomen and frequency of pulse increased ; a decoction of bark, with a proportion of carbonate of am-

monia, was given. In the evening she was found to be worse, and died at half past ten.

Case 6th.—Shivered 49 hours after an easy delivery, accompanied with some abdominal pain. Mr Hey saw her eight hours afterwards; pulse 120; abdomen very tender, but not enlarged; skin cool; face pallid; nausea. Castor oil and a purging glyster ordered. A physician was called in to assist in this case as well as in the last. At 5 *p. m.* enlargement of abdomen now evident. The physician prescribed \mathfrak{z} ss. of bark, in substance, every second hour, with a dose of camphor julap. At 8 *p. m.* she was rather worse. 2d day, she was still worse; vomiting; pulse 130; and she died within 48 hours of the attack.

Case 7th I shall omit, as I think its nature rather doubtful; the body was not examined. It was fatal, however, under much the same treatment.

Case 8th.—It appears that this case was of the mildest possible nature, bearing more of the character of ephemera, than of puerperal fever. She continued ill from the morning of the 14th February, till the 22d; whereas, had she been bled even moderately at the first, the attack must have been cut short. The cure was conducted by purgatives, and her bowels seem to have been in very bad order previously. She was some time in recovering her health.

In justice to Mr Hey, I must insert his reasons for not having bled any of these patients.

1st, "Some of the latest writers on the subject had considered the Puerperal Fever as a species of low fever, or as having a strong tendency to the typhoid type ; on which supposition, large evacuations would be thought highly dangerous."

2d, "The same opinion seemed to prevail with medical practitioners, at the period of which I am speaking."

3d, "A sudden and early depression of strength was remarked, as a peculiar characteristic of the disease, even in robust subjects, whose pulse was full and strong at the commencement."

And, lastly, "A circumstance occurred, which, if taken singly, ought not to have had much weight, yet, when considered in conjunction with other reasons, certainly had some influence on my practice ; viz.—That at the first appearance of the epidemic, a lady, supposed to labour under the disease, who lost twelve or fourteen ounces of blood from the arm, died within 36 hours after delivery, and 14 after the bleeding, without any relief."

Case 9th.—This is the case I have alluded to in a former part of this work, in which, after the abdominal pain was subdued, an inflammatory affection of the brain ensued ; and all this, after profuse

uterine hæmorrhage, and two small bleedings, of seven ounces each, from the arm. She ultimately died of the affection of the brain. I never read a more interesting and instructing case. It affords a good proof of the difficult task a man has to perform, in throwing off old prejudices, to arrive at proper and rational conclusions respecting disease. Had this case been unconnected with parturition, Mr Hey would no doubt have used the lancet freely, and saved his patient; but the dread of something *putrid* or *typhoid*, which he had been taught to expect as a consequence of lying-in, fettered his judgment for the time. "Whatever other conclusions," says this intelligent author, "may be drawn from this case, the entire removal of the abdominal affection, and the appearance of the blood, both tended to confirm me in the propriety of bleeding in the disease under consideration."

Accordingly, in the next case, we find Mr Hey himself again.

Case 10th.—Mrs S. was safely delivered; a good deal of hæmorrhage followed. In thirty hours afterwards the attack of puerperal fever came on, and although the case does not appear to have been either so decided, or formidable, as many of the former ones, the author makes the following excellent remarks: "As night was approaching, I feared to

wait till the symptoms became more urgent; and therefore, notwithstanding *my reluctance to copious bleeding was not quite overcome*, I immediately took from the arm a large basinful (about twenty ounces) of blood, and directed the continuance of the purgative. The pain was diminished while the blood was flowing, and on the following morning it was nearly gone." This patient recovered without farther complaint.

The last fatal case which I shall here take notice of, recorded by this author, is that marked Case XIII. P. 106.

"Mrs — was brought to bed on the 12th September, 1810, about eight o'clock in the morning. In the afternoon of the 14th, she was seized, in the usual manner, with the puerperal fever; but my father was not called to her until six hours after the attack. He immediately took away from the arm 26 ounces of blood, and prescribed a purging bolus. The bleeding afforded great relief.

"He was called up in the night to visit her, about six hours after the bleeding, in consequence of an increase of pain. He was very desirous to repeat the venesection, but no entreaties could prevail with the patient to suffer it. He was therefore obliged to rely on purging alone, which proved inadequate to overcome the violence of the disorder—other re-

medies, such as salines, anti-emetics, blisters, &c. were tried in vain. The complaint proceeded with the usual symptoms, which it is needless to repeat, and the patient died on the third day from its commencement."

After this period, Mr Hey went boldly and confidently to work—he bled early, copiously, and repeatedly, and his efforts were crowned with success.

I think I have now adduced as good a chain of testimony as can well be linked together, to display the superior success of bleeding in this disease. I have also shewn one cause, at least, of its failure, from not being boldly and confidently followed up, when it was employed. I have also brought forward facts to show the invariable want of success which has attended the practice of those who do not bleed in this disease,—thus establishing the position I have taken up in several ways. In bringing forward the unsuccessful cases recorded by Gordon and Hey, in the manner I have done, I beg distinctly to be understood, that I have not the most distant intention of casting an odium on the practice they then pursued, which in truth they do not deserve—my object being, not only to show the soundness of judgment displayed by these authors, in throwing aside early prejudices, and adopting the practice of depletion so soon,

and in following it up so resolutely, particularly as Mr Hey did ; but also to defend them from imputations cast either upon their veracity or judgment, by Dr Hamilton and others.

With respect to the fatality which formerly attended this disease in the London hospitals, as well as in other great cities, and which, I am sorry to say, still attends it in the lying-in hospital, as well as in the private practice of some individuals in this city, I conceive I have explained, in a most satisfactory manner, to have arisen from erroneous and untenable notions respecting the pathology of the disease, leading to the *most destructive* and *hopeless* course of practice, which in London the physicians have at last abandoned. We have the best possible evidence, that the disease occurs as frequently as it used to do, in the hospitals of that metropolis, but from the change which has taken place in the treatment, it is deprived of its fatality. In fact, it is clearly proved to be the same disease, requiring the same means more actively, early, and closely pursued for its subduction.*

* It would appear, in what has been called the Hospital Puerperal Fever, which authors have deemed the most typhoid and malignant form of the disease, that as active a treatment is demanded as in any other modification.—ARMSTRONG on *Puerperal Fever*, p. 124.

I will candidly confess, that I have not seen one case in hospital practice ; yet, from what I have seen of the disease *in worse situations*, I shall have no kind of objection to treat it in hospitals, and give sufficient pledges to the public, that eight out of ten shall be cured, provided the plan found so successful by myself, and others, in various situations, and by Mr Alcock, Drs Gooch, Ramsbotham, Davis, and Armstrong, in different hospitals in London, is allowed to be pursued. I make this decided offer, not from enmity or jealousy towards Dr Hamilton, or the unmanly wish which I hear some have already attributed to me, (*who, no doubt, measure the conduct of others by their own,*) of endeavouring to lower that eminent individual in the eyes of the public. I know no such unworthy feeling ; and perhaps no one would more sincerely regret his loss than myself. I have other, and far more powerful motives—Dr Hamilton's almost invariable want of success in the treatment of this disease ; his inveterate hostility to the only practice which has hitherto been found successful in the hands of others ; his denial that they have seen the true disease ; the strong and unwarrantable language he makes use of against bleeding, "*that it signs the death-warrant of the patient ;*" the influence of Dr Hamilton's opinions

over public practice.* No one individual ever had such influence. He possesses the best, and, certainly, the most successful style of teaching, that ever has been adopted in this University, which, no doubt, partly arises from the limited nature of his subject; he possesses too, a power of ingenuity, which I never saw surpassed, of selecting passages to cast ridicule upon the very authors themselves, who dare to disagree with him in opinion; and, above all, he sends out hordes of young practitioners annually into the world, deeply imbued with his principles. If my readers will just permit themselves to reflect for one moment on the extent of the destruction to human life which must follow, if each of these young men has to wade through blood, as Denman, Gordon, Hey, and I myself have done, (besides hundreds, I might say thousands, of other practitioners) before we came to adopt a more successful line of practice, whether that practice is founded upon a better pathology or not, it is quite unimportant to inquire. I say, if each of the young gentlemen who leaves the University of Edinburgh has to do this, and if, at the same time, it is taken into consideration, that although many will, by sad experience, be led to adopt

* I have heard it demanded again and again in distant countries, and in various places in England as well as in Scotland. "What is Dr Hamilton's practice in this disease?"

a good practice ; yet, so great is the power of early-acquired prejudices on the human mind, that some will never abandon views which they have acquired at college. If all this is remembered, then will the genuine motives which have induced me to come forward, be fairly understood and appreciated.

I shall conclude this Section, by bringing forward facts to prove, that lying-in women in hospitals, will be found to bear bleeding, as well at least as others in private practice.

In a *well-regulated* hospital, a physician can, or ought, always to be able to command ventilation, cleanliness, perfect quiet, good nursing, and suitable food, which must ever render disease more manageable in those highly useful public institutions, than in any other situation whatever ; and he can see his patients more frequently, and with less fatigue, than if they resided at the distance of a mile from each other. I feel inclined to go farther, and to declare my belief, that in hospitals this disease should never be allowed to be fully formed.

I should therefore say, were I disposed to reason *à priori*, that women would have a better chance of recovery in hospitals than in private practice ; but I can do more, by adducing the facts themselves. Formerly, in the London hospitals all the patients died, but the improvements since made in the pathology

of the disease, has led to quite an opposite treatment, and a very great majority now recover. Therefore, the event, which *was* ascribed to malignity and putridity, is *now* more justly attributed to bad practice. There is no doubt, that if the same practice, which was adopted by Hunter, Leake, and Hulme, and which is still recommended and pursued by Burns and Hamilton, was again had recourse to, the same results would follow. It is not the disease, then, that differs, but the means to cure it.

Armstrong's work contains the most undeniable proofs that lying-in women, even with London constitutions, bear bleeding well in London hospitals, which the following sketch will prove and illustrate :—

Elizabeth Serjeant, in October 1818, bore a bleeding well, *of thirty ounces*, and recovered.*

Martha Besant lost within four ounces *of seven pounds* of blood, by four large and two small bleedings, in the course of the disease, and recovered.

A woman, marked by the initials A. R., was bled *twice*, to the extent of *twenty-four ounces* at each operation—again to *twelve ounces*, and a fourth time, *ad deliquium*, the quantity not stated. Besides this,

* Armstrong's Treatise.—Second edition, p. 125.

† Id. *ibid.* p. 128.

twenty-four leeches were applied—again twenty; and a third application of twenty took place—in all, according to Dr Armstrong's calculation, she lost “upwards of *eighty ounces of blood* in the course of four days.” She died, it is true; but the appearances described in the dissection will shew that her death was owing to inflammatory action, and not to depletion.

Dissection.—“About nine ounces of serous effusion was found in the abdomen, and a few bands of lymph united the hypogastric convolutions of the intestines. The bowels were empty and contracted, except that the commencing colon was distended with gas; a patch of purple congestion was discoverable here and there on the peritoneal and villous coats of the intestines. The portion of the peritoneum which invests the uterus, was inflamed, especially near the lateral vessels,* and the exterior and interior of the bladder was of a similar pink colour.”†

* I have seen so many dissections of pregnant women, who died of other diseases, and not of inflammation, whose uteri tubes and ovaria presented an appearance of redness and vascularity even in patches, that I do not now consider such as positive marks of previous inflammation, unless coated with an exudation of coagulable lymph.

† Armstrong's Treatise.—Second edition, p. 135.

Lydia Jutt bore the loss of *fifty ounces* of blood in three operations, during the course of puerperal fever, and recovered.*

Sarah Rock, in the course of 14 hours, was bled *thrice*, each time *ad deliquium*, and she lost in that time, about *fifty ounces* of blood. A fourth bleeding was performed five days afterwards, "to remove," says this admirably judicious physician, "a headach and general excitement, which probably threatened a relapse of the original disease ; at least I have seen such an excitement, when allowed to pass on, reproduce all the symptoms of abdominal inflammation at last, though at its onset it was unconnected with inflammation."† "From these facts, then," adds the same author, "it appears that even in London, where child-bed fevers are said to be more fatal than in the country, only one case in ten has terminated mortally."‡

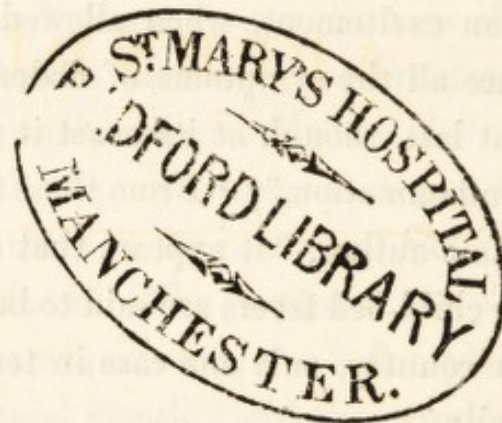
The chief causes, then, of the failure of bleeding in Puerperal Fever, as in other inflammatory diseases, arise, from not being used sufficiently early and copiously ; or from being carried into execution

* Armstrong, p. 143.

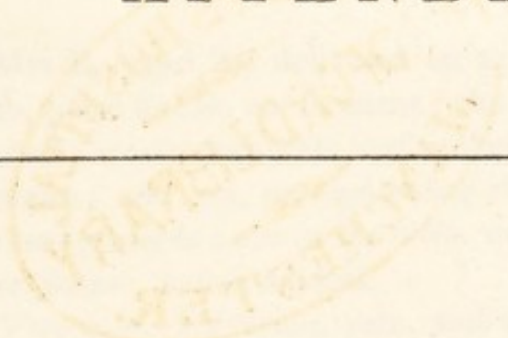
† Id. *ibid.* p. 148.

‡ Id. *ibid.* p. 148.

at too late a period of the disease,—in which circumstances it is useless, sometimes hurtful ; and really “ SIGNING THE DEATH-WARRANT OF THE PATIENT,” if employed after symptoms of effusion or mortification appear.



APPENDIX.



APPENDIX

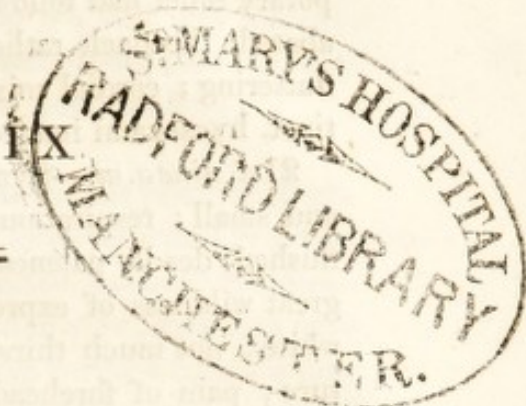
APPENDIX

No. I.

Extract of a Case of Puerperal Fever. By J. Moir, Surgeon, Edinburgh; from the Edinburgh Medical and Surgical Journal for October, 1822, p. 534; with Remarks thereon.

Mrs R., aged 28, delivered on the 19th June; on the 20th, pulse feeble, not frequent; she looked fatigued or oppressed; uterus somewhat harder than usual, not pained on pressure; and yet, *on tightening the bandage, she complained of slight pain in the belly, which apparently arose from flatus*; lochia natural.

Two p. m. Shivering, pain, and tumefaction of the abdomen; dull heavy pain in the forehead; countenance pale, expressive of the greatest anxiety; breathing short and frequent, but not laborious; skin hot; pulse 120, weak and easily compressible; depression of spirits great; averse to answering questions; abdomen *greatly* swelled; she complained much when an endeavour was made to tighten the bandage; chief seat of uneasiness was in the uterus and right iliac region; pain could be tolerated when she lay still, but the least movement, or pressure on the part, rendered it excruciating; glyster procured *two full, costive, and fetid stools*; exhaustion so great, that it was necessary to give a small quantity of wine before and after the glyster; a cordial mixture. (*This took place at two o'clock p. m.*)



“At ten p. m. she was again visited.”—Considerable temporary relief had followed the stools; pain in abdomen not abated; headach rather increased; pulse 130, small and fluttering; cordial mixture to be continued; one drachm tinct. hyoscyami immediately; an enema if pain increased.

21st, nine a. m.—Symptoms aggravated; pulse 140, equal and small; respiration short and hurried; cheeks a little flushed, deadly paleness over the rest of the face; eyes had great wildness of expression, suffused with tears; tongue white; not much thirst; skin above the natural temperature; pain of forehead the same; abdomen considerably swelled; had a very restless night; enema produced a little relief; three stools; no pain in the thorax; lochia natural; castor oil; cordial mixture.

Four p. m.—*Manifest relief followed three alvine evacuations, accompanied with the discharge of a considerable quantity of flatus*; state of pulse and other symptoms were not altered, while debility appeared to be increased; two glasses full of wine; panada; cordial mixture.

Eleven p. m.—Alarming symptoms aggravated, although *pain and swelling of the abdomen were considerably lessened*; pulse 150, feeble; debility of body, and dejection of mind, greatly increased; no secretion of milk; lochial discharge of a pale colour, seemed natural; no appetite; had, besides the wine and panada, a little beef-tea; cordial mixture, and twenty-five drops of laudanum, and a drachm of tincture of hyoscyamus.

22d.—All the symptoms more favourable; slept in the first part of the night; free perspiration towards morning; pain of forehead and of abdomen greatly relieved; swelling diminished; less depression of spirits, though bodily debility continued; pulse 130, stronger; tongue clean at edges; lochia continue; cordial medicine suspended; a moderate dose of castor oil; three glasses of wine ordered in course of the day, with panada, and a small quantity of beef-tea; anodyne at bed-time.

24th.—Had a good night ; tumefaction subsided ; no pain even on pressure ; pulse reduced to 80, still very feeble ; lochia natural ; secretion of milk commencing ; for the first time, asked to see her child ; is now quite well.

The task is most unpleasant to canvas the practice of another in any particular case. I feel most reluctant to do so in the present instance ; but I conceive I should not complete the object I have all along had in view, were I to pass this case over in silence, after having perused it in a Journal, which has given it a publicity, and an appearance of authority, it would never otherwise have acquired. I entertain no hostility towards Mr Moir—I have no personal feelings of enmity to gratify—I have no bias but towards truth—my only wish is to expose the real nature of the case for the benefit of society ; and in defence of the doctrines and practice inculcated in the preceding work.

Mr Moir states, that he “ was at first doubtful of the true nature of Mrs R.’s indisposition ; but the shivering, the pain and tumefaction of the abdomen, the pain over the forehead, the anxiety and pallidness of countenance, the uneasy breathing, the feebleness and progressive frequency of the pulse, there being no secretion of milk, and continuance of the lochial discharge, unequivocally shew that this disease was the malignant Puerperal Fever described by Hulme, Doublet, and other respectable authors.” With every deference to the opinion of Mr Moir, I think I shall be able to shew, by his own statement, and the result of the case, that not one of the symptoms he has enumerated, or all taken together, are pathognomonic of the malignant Puerperal Fever. It is stated in the history of this extraordinary case, that it was thought necessary to pursue *two* indications of cure, viz. “ to allay the irritation of the intestinal canal, and to support the strength.” In Puerperal Fever, in general, there is not any appearance of “ irritation in the intes-

tinal canal;" at all events, at the commencement, unless there is diarrhœa. Now, a contrary state of the bowels prevailed in Mr Moir's case; for an "ordinary glyster was immediately administered, by which *two full, costive, and fetid* evacuations, were produced." If, after he saw this state of the bowels, he had given a dose of calomel and jalap, or castor oil, followed up by a glyster in two hours, and a good opiate at bed-time, instead of an inert cordial mixture, I maintain, both from the nature and result of the case, that he would have cured his patient that very night, and saved himself all further trouble; as it was, considerable relief had for a time followed the evacuations from the bowels. On the following day, he tells us, that all the symptoms were "much aggravated"—pulse 140, &c. She got an enema during the night, and a little relief *again followed* three stools. Now, for the first time, Mr Moir prescribed a dose of castor oil, and it was found in seven hours afterwards, "that *manifest relief* had been experienced from *three alvine evacuations*, accompanied with the *discharge of a considerable quantity of flatus*;" and with this the lady fortunately got rid of her disease, but not of her doctor. There was considerable debility; and she, perhaps properly enough, got two glasses full of wine, with panada. This was at four *p. m.*, and, at eleven o'clock at night, we are told, "the alarming symptoms appeared aggravated." It is worth while to stop for the purpose of inquiring what those alarming symptoms were. "The pain and swelling of the abdomen," (as might be reasonably expected after such a number of stools, and the discharge of so great a quantity of flatus,) "were considerably lessened." These are considered, by all *respectable practitioners*, as the best possible omens in Puerperal Fever. But "the pulse beat 150, and was so feeble, that the slightest pressure of the finger on the radial artery rendered its pulsation imperceptible; the debility of body and dejection of mind had greatly increased, and there was no secretion of

milk ; the lochial discharge, which was of a pale colour, seemed natural ; there was no appetite for food, nor any desire for nourishment of any kind." On a very superficial examination of these symptoms, the reader will, I am persuaded, observe, that the state of the pulse was the only thing which could have alarmed any one. The celerity of the pulse is, in this case, however, easily accounted for, by increased nervous irritability, added to the quantity of wine and beef-tea which the patient had taken in the course of the day. As to the other symptoms, no one need wonder for a moment that she had debility of body and dejection of mind, as almost every lying-in woman who has pain in the abdomen, after the well-known mortality which has attended women in childbed in this city, will feel highly alarmed for her own safety and naturally dejected—dejection will certainly account for debility of body. When she was in this state, Mr Moir most judiciously gave her a large opiate, which produced sleep, and she perspired freely towards morning ; from which time she went on recovering. With respect to a reflection made by Mr Moir concerning the state of the pulse, " I can truly affirm," says he, " that, in the course of twenty-three years practice, I had never previously met with any instance in either sex, or at any age, where such debility of pulse accompanied local pain,"—(I suppose he means in the abdomen,) " aggravated by pressure." I have only to remark, then, that Mr Moir cannot have had much experience in inflammatory diseases, in which it is a very common circumstance, and a very alarming one, to find a weak small pulse, which will expand after full bleeding.

Among other pathognomonic symptoms which Mr Moir conceives this lady had, there was " no secretion of milk." May I take the liberty to inquire in how many cases has Mr Moir seen the secretion of milk established in twenty-four hours after delivery ?

I must now return to consider a symptom, which occur-

red in this case, on the very day after delivery, and go on to shew its intimate connexion with the cause of her cure, namely, *the number of stools, and discharge of flatus.*

On the morning of the 20th, (the day after Mrs R.'s delivery,) it is stated, that "the uterus felt somewhat harder than usual, but was not pained upon pressure; yet, on *tightening the bandage*, she complained of slight pain in the belly, *which seemed to arise from flatus in the stomach and bowels.*" Did Mr Moir, as was certainly his duty, take proper steps to get rid of this flatus? Or was he ignorant of the violent symptoms which over-distension of the stomach and bowels from flatus sometimes occasion? Or that great nervous irritability from flatulence produces symptoms, even in the other sex, which actually frighten the most experienced physicians to such a degree, as to make them pronounce the most unfavourable prognosis? In order that Mr Moir may not be longer ignorant of this, I beg to refer him to a case in Cooke's *Morgagni*, Vol. I. p. 505. Had I discovered, on tightening a binder, that the woman complained of pain in the belly, however slight, whether I was convinced it arose *from flatus* or not, I should certainly have rather loosened it; but Mr Moir did otherwise, not only on that occasion, but when he was called immediately after the accession of the severe symptoms. "The abdomen," says he, "was greatly swelled; and she complained *much* when an endeavour was made *to tighten* the bandage; and, on *two several attempts* at doing so, she vomited a little phlegm, and felt faintish." Did Mr Moir himself ever find relief from "letting out a reef" at the waist-band of his breeches, after a hearty meal, or when suffering from flatulence? If he had, he never would have attempted to tighten a bandage upon the stomach of any human creature, who was suffering "*pain from flatus in the stomach and bowels.*"

"Some circumstances," adds Mr Moir, "which it is unnecessary to detail, had, however, led me to form a decided opinion on this subject; and every year's experience had

induced me to believe, that the cases recorded by Dr Gordon of Aberdeen, Dr Armstrong of Sunderland, (London,) and Mr Hey of Leeds, &c., which they supposed to be instances of Puerperal Fever, and which yielded under their care to the very free use of the lancet, were cases of a different disease." Now, whatever the circumstances are, which Mr Moir thinks it unnecessary to detail, they are best known to himself. I shall not at present question his motives, but, I may take the liberty to inquire *upon what grounds* he attempts, with a sweep of his pen, and in a single paragraph, to put such deservedly great names as those of Gordon, Armstrong, and Hey, under his feet. Is it upon the experience derived from this *single case of flatulence*, which he chooses to call Puerperal Fever?—Is it upon the experience it is said he gained, from a single peep at a woman, labouring under an attack of Puerperal Fever last winter; whose case, it is said, he gave up as hopeless; and whose life Dr William Campbell actually saved, by this very practice which he derides?

"It must strike every practical man," he says, "that the general description which these gentlemen have given of the symptoms of the epidemic which they attended, is positively and circumstantially contradicted by the individual patients which they have added by way of illustration. In all of the cases in which these gentlemen succeeded, the pulse beat from 120 to 140, and the lochial discharge was suppressed at the very commencement of the disease. Symptoms," he is pleased to add, "which I do not hesitate to affirm, *no intelligent practitioner of respectability* ever met with in a real case of malignant Puerperal Fever." With respect to Dr Gordon's *statements* of the lochia, Mr Moir's *statement is substantially contradicted* by that author's remark, that in his cases "The lochial discharge commonly continued to flow as usual, though in some the discharge was diminished, yet in few or none was it wholly suppressed." The same statements are made by Hey and

Armstrong respecting the lochia, which can be in a moment seen, by referring to pages 53 and 54 of this treatise. So much for the accuracy of observation of Mr Moir—I would almost say—wilful misrepresentation.

His affirmation, that no intelligent practitioner of respectability ever met with a real case of malignant Puerperal Fever, in which the pulse beat from 120 to 140, is a pitiful attempt to impose upon the ignorant or inexperienced. It is mightily unfortunate for him, however, and for his credit as an observer, with the *three-and-twenty years* of experience upon his head, that in this miraculous case of his own, the pulse, when he felt it soon after the attack, beat 120—the same night he reports it to have been 130—next morning at nine, it was 140. I apprehend I need not make any further comment on this case, except it be to ask Mr Moir four simple questions.

1st, If he thought Mrs R. so ill, why was he absent from her bedside from two o'clock *p. m.* on the day of the attack, till ten at night; and from that time till nine next morning; and so on through the course of her disease?

2dly, If he thought Mrs R. so ill, particularly as he *insinuates* that she moved in the better ranks of life, why, in the name of every thing that is good, did he not call in additional (I dare not say superior) advice?

3dly, And, above all, why did he not consult Mr B., a most respectable surgeon, who was every day in Mrs R.'s house, and who never had the slightest idea that Mrs R. had a bad symptom, until he saw the case in the Journal?

4thly, Has Mr Moir had any experience in the treatment of Puerperal Fever, *since* the publication of the preceding case? If the disease has in *any instance* proved *fatal* in *his* hands, it is to be hoped that its history, with an account of the appearances discovered on dissection, will appear in the same respectable Journal—as it is only fair, that the *antidote* should be conveyed to the profession through the same channel as the *poison*.

No. II.

THE following case of Puerperal Fever having occurred in my practice since this work was committed to the press, I take the liberty to trespass still further on the patience of my readers, by adding the history of it in an Appendix.

The case will be found to be highly interesting, not only from having occurred after such an immense loss of blood by hæmorrhage, but from the boldness of the means used during the cure—50 ounces of blood having been abstracted, and 50 leeches applied, within the short space of three hours; and so much confidence had been acquired from experience, of the propriety of the adopted means, that it will be observed we purposely kept the patient in a state, the nearest approaching to syncope, for three days; notwithstanding which, she relapsed on the fourth day, and ultimately recovered. For the first seven days, the only food she was allowed consisted of gruel given in small quantities, frequently repeated. I beg to express the obligations I am under to Mr M'Donald, for the support I received from his advice in this instance. Although I have been many years in the habit of bleeding *ad deliquium*, yet, in this case, I should not have been bold enough (had it not been at Mr M'Donald's request,) to raise her to the erect posture for the purpose.

Mrs —, a healthy woman, of short stature, aged 24—was delivered, on the evening of the 3d September, 1822, of her first child, (a boy,) after a tedious labour, owing to deficiency of uterine action from the beginning; from which cause it became at last necessary to accomplish the delivery with the forceps. The infant shewed no sign of life for a

considerable time, but was ultimately saved. The uterus was felt contracted before the child was separated. The mother experienced great anxiety for its fate, during the period the efforts were making for its recovery. Afterwards, when I returned to the bedside to attend to the placenta, a continued stream of blood was running over the bedside; a hand was instantly introduced in utero, the placenta found partly detached, the uterus itself being quite relaxed; the portion of the placenta which still adhered, was not easily separated, until the efforts made with the hand for that purpose produced strong contractions of the uterus, which forced the remaining contents out, together with a large quantity of coagula. The flooding ceased, and the woman seemed in perfect safety. In the course of half an hour, however, I was led, by hearing my patient give several deep sighs, to put my hand on the abdomen, when I found the uterus quite relaxed, occupying a large space; at this moment, blood ran again in a full stream over the bedside. The nurse was directed to press firmly with both hands on the uterus, while I proceeded to pass my hand again internally. Syncope to a dreadful degree ensued, and the uterus was several minutes before it shewed the least disposition to contract. Cold was applied, in the most cautious way, by means of towels wrung out of cold water, and the strength supported. A quart basin full of blood was collected, as it ran over the bedside, during the last attack; besides a quantity of coagula, the loss on the bed-clothes, which, together with the quantity which flowed at the first hæmorrhage, I cannot compute at less than from three to four lbs. The patient was also bled during the first stage of labour, to the extent of \bar{z} xxii.

In 24 hours (exactly) after delivery, she was seized with Puerperal Fever, well marked; and what is very remarkable after so great a loss of blood, the lochia flowed, and continued to flow uninterruptedly, during the whole course of

the disease. The disease came on insidiously, without any perceptible rigor ; she had passed the night well, notwithstanding which, her pulse at the morning visit beat 120, but was neither strong nor full. I saw her three times in the course of the day, before dinner, and although her bowels were open, and she had no pain in the abdomen, which I fully ascertained by undoing the binder, and pressing over the whole parietes ; yet I was induced to warn the attendants to lose no time in sending for me, should any thing unusual occur. Two hours after the last visit, she felt uneasy when she turned herself in bed ; the abdomen soon became painful to the touch, and in a little time more, the pain was very acute. The husband ran to my house, and not finding me, he went successively to seek a number of practitioners without success, till he found Mr Macdonald of the Royal Infirmary, whom I soon after joined at the patient's bedside. Neither of us entertained the least doubt of the disease. We gave the most unfavourable prognosis. The breathing was quick and anxious ; the pain forced her to lay on her back ; she could not bear the slightest touch at the lower part of the abdomen ; the pain principally affected the right iliac region, and towards the umbilicus. The fundus uteri was found to reach as high up as the umbilicus.

The pain had existed an hour and half ; tongue white, but not loaded ; pulse 125. A vein was opened without loss of time, and about thirty-four ounces of blood abstracted with relief, but without inducing complete syncope, although she was raised up in bed with that view ; fifty leeches were instantly applied. A brisk dose of calomel, antimonial powder, and jalap, was given, to be followed up by an ounce of castor oil in two hours.

At half past eleven p. m.—Pain much diminished, but still felt on pressure, or when she turned in bed. Pulse about 130, and of good strength ; another vein was opened, and about

sixteen ounces abstracted, when she was purposely raised to the half erect posture, till she complained of ringing in her ears and almost immediately fainted; she soon recovered so far as to speak, when she declared she had no pain, even when pressure was made; another purgative powder. We left her at midnight, with directions to send for me, if every thing did not go on well.

Saturday, 5th.—I visited her between *six* and *seven a. m.* She had had a quiet night, without much sleep; complains of great weakness; ringing in her ears; nausea; constant efforts to vomit, without bringing up any thing; thirst; countenance blanched; bears considerable pressure, without much uneasiness, but still has a little; can turn from side to side without any pain; pulse 132; has taken two powders; no stool; an enema, with decoction of senna, salts, and castor oil, immediately.

Ten a. m.—Symptoms much the same as at last visit; had an hour's sound sleep since; injection brought away copious dark-coloured liquid stools; pulse 132. As there is still a little pain on pressure, it was thought safe to apply forty leeches to the abdomen; an injection of tepid water to be thrown up the passages, and a powder containing five grains of calomel, and ten of jalap, to be given every three hours.

Seven p. m.—Complains of great fatigue, lassitude, and ringing in her ears; has taken two powders, which produced three fetid stools; all the leeches fastened; they bled well; the discharge was encouraged by a warm poultice; skin feels comfortable; tongue white, but not loaded; thirst urgent; no pain in any part of abdomen; pulse 148; respiration easy; lochia abundant. Another injection into the passages; ten drops of liquor opii to be given every hour, for three hours, to procure sleep.

Sunday, 6th.—Slept well; took only two doses of the liquor opii; had five stools since last night's visit; no pain;

bears pressure, and can turn from side to side; still complains of ringing in her ears, and feels ready to faint when she attempts to lift her head from the pillow; pulse 150.

Evening.—Continues the same; three stools in the course of the day; thirst continues; the liquor opii to be repeated to-night, in doses of fifteen drops, to procure rest.

Monday, 7th.—Had a good night; complains still of ringing in the ears; thirst; no pain; pulse 145.

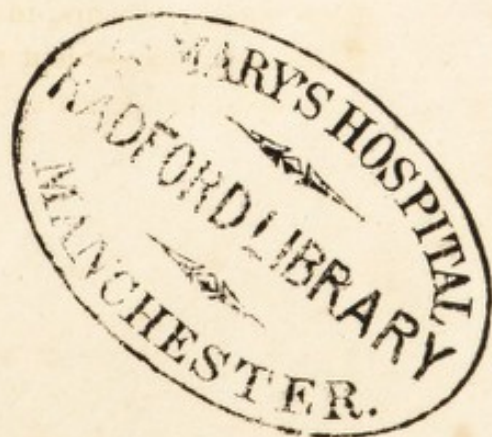
Evening.—The same in every respect; opiate to be repeated.

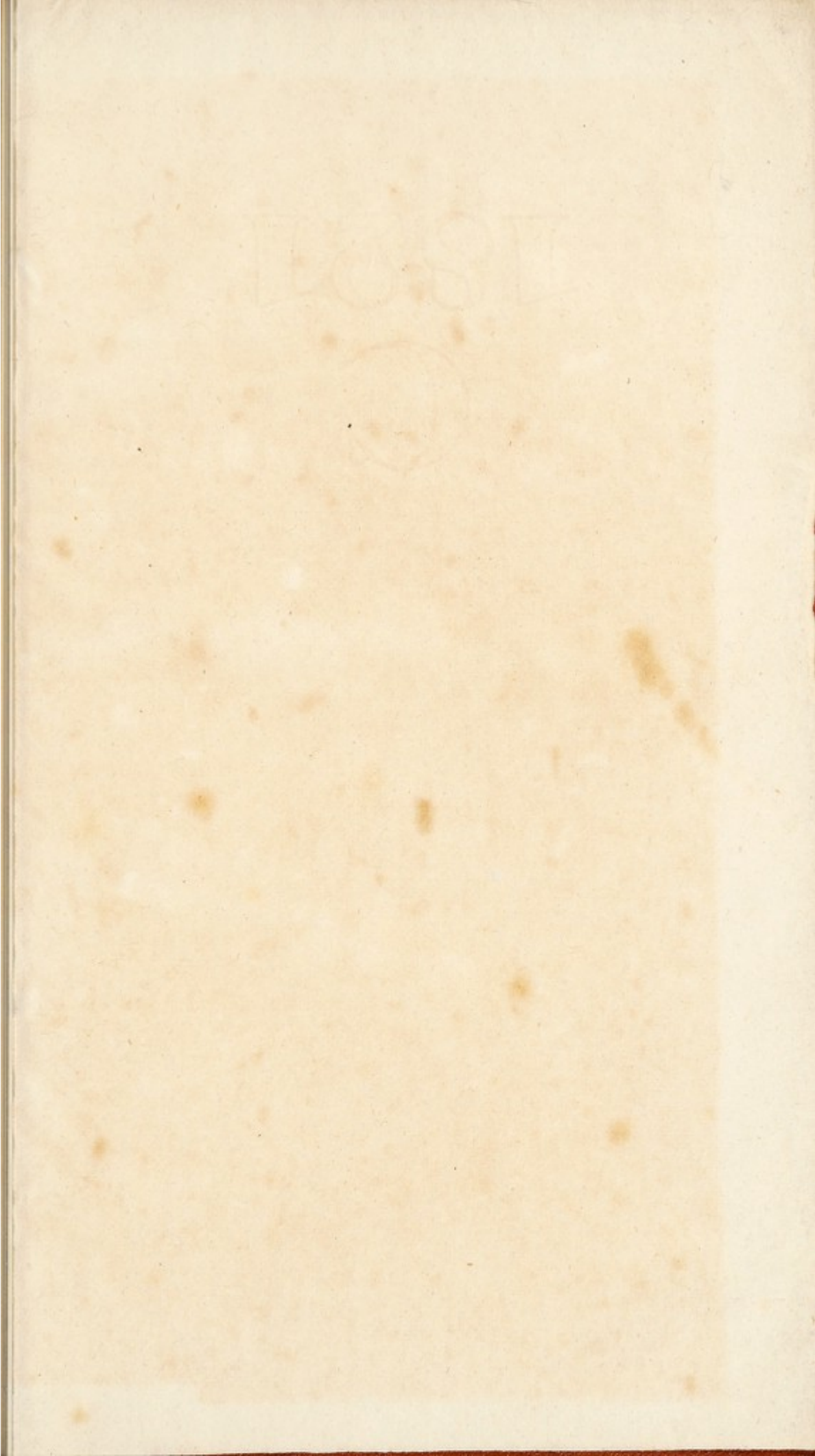
Tuesday, 8th.—Still complains of ringing in her ears, but feels her strength somewhat recruited; no stool since yesterday morning; a purgative powder as before; and an enema in two hours afterwards, if necessary; pulse 132.

Three p. m.—I was sent for in consequence of pain in the abdomen coming on suddenly, and increasing in severity. She could not bear the slightest touch in the right iliac region without screaming; and she complained of soreness when any part of the parietes was pressed upon; pulse 140; the enema had not been exhibited; it was ordered to be given immediately, and forty leeches to be applied without delay. In two hours afterwards she passed several stools. The leeches bled well. The pain soon ceased, and from that time she went on recovering. The pulse kept ranging from 120 to 130 for six days. The breasts became tense on the seventh day, and she was able to nurse her child. At the termination of three weeks the pulse was found to beat 110 in the minute; but she sleeps well; her appetite is good; bowels regular; and she is daily gaining strength.

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