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AN

ACCOUNT

OF SOME OF THE

MOST IMPORTANT DISEASES

PECULIAR TO

WOMEN.

BY

ROBERT GOOCH, M.D.

FROM THE SECOND LONDON EDITION.

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THIS VOLUME

IS AFFECTIONATELY INSCRIBED BY ITS AUTHOR

TO

WILLIAM BABINGTON, M.D., F.R.S.

AND FELLOW OF THE COLLEGE OF PHYSICIANS;

FOR SIXTEEN YEARS HIS CONSTANT FRIEND,

AND ON TOO MANY OCCASIONS

HIS MUCH VALUED PHYSICIAN;

A MAN, WHO, TO THE CULTIVATION OF MODERN SCIENCES, ADDS

THE SIMPLICITY OF ANCIENT MANNERS;

WHOSE EMINENT REPUTATION, AND RARE BENEVOLENCE OF HEART,

HAVE LONG SHED A GRATEFUL LUSTRE OVER A PROFESSION

WHICH LOOKS UP TO HIM WITH

A MINGLED FEELING OF

RESPECT, CONFIDENCE, AND REGARD.

PREFACE.

I WAS formerly Physician to the two Lying-in Hospitals of Westminster and London, and Lecturer on Midwifery at St. Bartholomew's Hospital, and I have for many years been extensively employed in the practice of Obstetric Medicine; thus I have had the best opportunities of acquiring a practical knowledge of this branch of our profession, and the strongest motives for collecting and arranging it into a shape suitable for communication. I do not say this in a tone of exultation, for I have little reason; on the contrary, the thought of the opportunities I have enjoyed is always accompanied with the painful reflection, how imperfectly I have used them: this has depended partly on not knowing their full value when I first came into possession of them, but chiefly on a long course of ill health; and I write this preface principally to persuade those who come after me, to turn their great

opportunities to a good account. If I knew a young man placed in such a station, in whose eminence, founded on his professional utility, I felt interest, I would say to him, remember that your station is one which can be enjoyed only by a very few; do not consider it as one of lucrative conspicuousness, but as a trust which Providence has confided to you, and which you will neglect unless you do your utmost to improve your branch of medicine. He who has the care of a Lying-in Hospital, is a Lecturer on Midwifery, and is resorted to by the public as an obstetrical Physician, has opportunities of acquiring knowledge in, and extending the bounds of, obstetric medicine, which no other physician, surgeon, or general practitioner can possess, whatever may be his talents. Your task will go on prosperously, the sooner you have ceased to read, and begun to observe and think: do not, however, attempt to dispense with reading, but dispatch it as speedily as is consistent with accuracy. Keep a note-book, read the most esteemed original writers on the most important subjects of your art, and while reading them note down briefly those points which you wish to remember, so as to have no occasion ever to look into the book again; provided you get the points of the work, the more briefly you do it the better; if you are skilful at this, you will find that a page will hold a pamphlet; and that twenty pages will often hold a bulky volume; if you read German, read Richter's Bibliothek Chi-

rurgische, for he is the greatest master of the art of condensed analysis. Thus your manuscript volume will become a Bibliotheca of your branch of medicine, and you will never afterwards have occasion to consult the books themselves. There are some writers whom it would be wrong to abandon thus; master-minds, whom we return to again and again, not merely for the knowledge which they contain, but to observe how their minds worked, and the older we grow the fonder we become of them; such, in England, are Harvey on Physiology, and Sydenham on Medicine; but few such minds appear in any branch of knowledge; and with most of them, when you have squeezed out the juice, you may safely throw away the rind. Having thus made yourself acquainted with what was known by the most experienced writers on the most important subjects of your art, you are prepared to undertake the more difficult task of observing and reflecting for yourself: watch cases attentively, and take notes of their important particulars; not of every case, but only of the most important; and not lengthy notes, containing a diffuse description of unimportant trifles, which from the time which they occcupy will soon cease to be written, and if written, are sure never to be read; but a short description of the leading circumstances, with an equally short mention of the reflections which they suggest. Make yourselves perfect in the art of examining dead bodies: accustom your hand to open them, and your eye to

detect with accuracy morbid appearances. In putting down this important part of a case, come at once to the essential morbid appearances; have a head for parts examined which were found healthy: thus you will despatch these in one line, unlike some who take up three-fourths of their report with the description of parts in which no morbid appearances were found. Five years industriously spent in the way which I have advised, *provided you have a mind adapted to investigation*, will make you more competent to advise and act in the difficulties and diseases of your branch of the profession than most persons you come in contact with, and than many a man far older than yourself; and after ten years so employed you will find yourself in possession of materials in a state fit to be produced, of various degrees of value; some of them, 'little articles of intellectual 'traffic with your neighbours, and some things 'worthy to be deposited among the general stores 'of human knowledge.'* As you grow older, you will gradually fabricate with greater facility materials of greater value, and thus you will go on improving till you arrive at that age when the mind, satiated by action, longs for repose. But from this 'idea of the good Physitian and his rewarde,' I must drop several fathoms down to speak of my own humble volume.

When I came to see diseases on a large scale, I

* Mr. Abernethy's first Lecture at the College of Surgeons.

was naturally led to compare what I saw of them in nature with the way in which they are represented in books; to contrast the country which I was myself exploring with the best maps of it. In so doing it appeared to me that these maps were very defective in their representation, even of the most important places; some being laid down imperfectly, others inaccurately, some both the one and the other, and other important districts not laid down at all. Of many of the most important subjects, there is no account whatever, excepting what is to be found in compendiums and systems, and here they are delineated so briefly, and often so obscurely and inaccurately, that it is utterly impossible for the young practitioner to acquire a clear and competent knowledge of them; such a one as instruction might supply him with antecedent to experience. Take any one of the great questions in obstetrical medicine and surgery, and turn to the account given of it in these sources of information; and I defy the student, however attentively and thoughtfully he may read, to carry away with him any but partial and confused notions. At least the most important subjects deserve to be represented on a larger scale, with copiousness, precision, and that selection of materials—that separation of the wheat from the chaff, which none but an experienced writer is equal to, and which no compiler can effect. Accounts of every difficulty in labour, and every disease of women, in the unimpregnated, the pregnant, and the puerperal states, and every disease of infancy and childhood; ac-

counts of all these subjects on such a scale, would be more than any man could write, and I might almost add, read; but the great questions at any rate ought to be thus delineated. Dr. C. M. Clarke has supplied the deficiency, in one class of the diseases of the unimpregnated state; hence I have not touched on any of these excepting only polypus of the uterus; and I should not even on that, if I had not some additions to make of practical importance, especially the account of polypus of the neck or lip of the uterus, in which the usual diagnostic sign, the stalk being encircled by the orifice of the uterus, is no guide, and when trusted to, leads the practitioner into error, as I have repeatedly witnessed; when this polypus grows with a very thick neck it sometimes puzzles the most experienced practitioners. But what Dr. C. M. Clarke has done for one class of diseases, requires to be done for others; or what would be better, for the select or most important subjects throughout obstetric medicine. Such accounts I have attempted to give of the peritoneal fevers of lying-in women, of the disorders of the mind in lying-in women, of the mode of distinguishing pregnancy from the diseases which resemble it, of polypus of the uterus; the account of the irritable uterus, I consider as a new map of a district which had not been laid down before, and like all new maps, an imperfect one. The other papers have a more partial object. When an author at-

tempts to execute his own view of a subject, he is the last person in the world to judge whether he has succeeded or failed; when he has finished his task it is impossible for him to see it from the same point of view, and in the same light, as the public will; and as he himself would if he could forget its thoughts and phrases, and read it with a fresh and impartial mind. He may show it to a judicious and well-informed friend; but this is a poor thermometer of public opinion: the only one is publication, and to this I must trust the fate of my volume.

As my plan was in most cases to give a full account of each subject, and to include in it everything which I thought interesting or important about it, I have necessarily had to include many particulars already well known; but even these I have not related from books, but from my own personal experience; even in the most common-place parts I claim to be more than a compiler. The chapter on the art of distinguishing pregnancy from the diseases which resemble it, does not contain any point which was not already known, yet I know no books from which I could have compiled it unless I had had ample experience in cases of doubtful pregnancy: the materials are drawn from my own observation, arranged and cemented by my own reflection: this is a very different process to compilation. If the object of the student is to learn only what has been *said* on a subject, the pursuit of knowledge

is an easy task; but if his object is to learn what is *true* on a subject, the pursuit of knowledge is the task of a life.

If the profession should approve of this volume, and Providence should prolong my life, I may probably (as I possess materials) attempt similar accounts of other Diseases of Women and Children.

CONTENTS.

CHAPTER I.

The Peritoneal Fevers of Lying-in Women. Part I. *page* 17
Ditto . . . . . Part II. 48

CHAPTER II.

The Disorders of the Mind in Lying-in Women . . 105
Thoughts on Insanity as an object of Moral Science . 161

CHAPTER III.

The Mode of Distinguishing Pregnancy from the Diseases which resemble it 179

CHAPTER IV.

Polypus of the Uterus 222
Of Polypus of the Uterus, attended by unusual circumstances 255
Of Excrescences from the Uterus which are liable to be mistaken for Polypus 263

CHAPTER V.

Of the Irritable Uterus 272

CHAPTER VI.

A Peculiar form of Hæmorrhage from the Uterus . 300

CHAPTER VII.

Of some Symptoms in Children erroneously attributed to Congestion of the Brain 309

CHAPTER I.

THE PERITONEAL FEVERS OF LYING-IN WOMEN.

PART I.

The most fatal disease to which lying-in women are subject is known under the names of Puerperal or Child-bed Fever, Puerperal Peritonitis. Its essential symptoms are pain and tenderness over the abdomen, with a rapid pulse*. It begins a few days after delivery, with pain of the abdomen, shivering succeeded by heat, and a quick pulse. As the disease advances, the milk becomes suppressed, the belly tumid, and the breathing short; when it terminates fatally, it does so commonly about the fifth day, but often in less than half that time. On opening the abdomen, morbid appearances are not uniform, but the most common and remark-

* 'Dr. Lowder adopted a very good method to form an accurate definition of this disease. He read all the different authors of character who had written on the subject, and noted down all those pathognomonic symptoms which they agreed were necessary to constitute the disease, and, on comparing these with his own experience, he found them to be very few—fever, intense pain of the head, and intense pain of the abdomen.'—(Lowder, MS. Lectures.)

able are a copious effusion of lymph and serum on the surface and in the cavity of the peritoneum. Thus it is a fever essentially complicated, with an affection of the peritoneum. A better name than Puerperal Fever, or Puerperal Peritonitis, would be that which I have placed at the head of this paper—'Peritoneal Fever'—for it would express the fact, that an affection of the peritoneum is an essential accompaniment of the disease, without defining what that affection is, because it is not uniform.

A remarkable circumstance about this disease is, that it is much more prevalent in some seasons than in others. In populous towns and cities it occasionally appears at any time, but the cases are few in number, mild in degree, and, if detected early, and treated properly, generally recover. Sometimes, however, it becomes extraordinarily prevalent. In a lying-in hospital, in which there is commonly so little illness that the office of physician is almost a sinecure, cases of this disease sometimes become so numerous, that the physician finds it impossible to do his duty without visiting the hospital at least twice a day. In populous places so many cases occur, and so many of them are fatal, that the practitioner of midwifery goes about his tasks with unusual anxiety; and even in a thinly peopled country, where the death of a lying-in woman is almost an unheard-of event, fatal cases have occurred in rapid succession, spreading terror among the pregnant women of the neighbourhood.

Another remarkable circumstance about this disease, is, that, when it is most prevalent, it is most dangerous. Each case is much more difficult of cure than when it occurs seldomer. The practitioner finds that, although the group of symptoms resembles what he was formerly accustomed to, he has now to deal with a disease far more obstinate and successful, and his usual remedies are not so destructive as formerly; he loses case after case in spite of his best efforts. When it has been thus raging for a considerable time, it at length subsides; the cases become less frequent and less severe; the practitioner finds his treatment becoming more successful, partly because experience has taught him to detect it earlier and to treat it better, but probably also because the disease has itself become milder.

There is still another remarkable circumstance in the prevalent or epidemic form of this disease. It is not uncommon for the greater number of cases to occur in the practice of one man, whilst the other practitioners of the neighbourhood, who are not more skilful or more busy, meet with few or none. A practitioner opened the body of a woman who had died of puerperal fever, and continued to wear the same clothes. A lady whom he delivered a few days afterwards, was attacked with and died of a similar disease; two more of his lying-in patients, in rapid succession, met with the same fate; struck by the thought that he might have carried the contagion in his clothes, he instantly changed them, and met with no more

cases of the kind. A woman in the country, who was employed as washerwoman and nurse, washed the linen of one who had died of puerperal fever; the next lying-in patient she nursed died of the same disease: a third nursed by her met with the same fate, till the neighbourhood, getting afraid of her, ceased to employ her. The disease has occurred in some wards of a hospital, the others being free from it; but after ventilating, cleansing, and painting these wards, they became as healthy as the others. Facts such as these have long led to the suspicion that the disease might be communicated from one lying-in woman to another in the clothes of the practitioner or nurse, or the furniture of a tainted chamber.

From the little I have already said about the symptoms of this disease, and the morbid appearances discovered after death, it is clear that it essentially consists in fever, with an inflamed state of the peritoneum; but fever may vary, not only in degree, but in kind, or (as it is commonly called) type; and inflammation may vary, not only in degree, but also in kind or type. Hence, in investigating the nature of this disease, one of the first questions is, whether it is strictly uniform, differing only in degree in different cases, and requiring only different degrees of the same treatment; or whether it differs so much in kind or type, that the mode of treatment which is necessary in some cases, is destructive in other. The latter is the conclusion to which we must inevitably come, at first sight, in tracing the history of this disease in

the works of those who have written about it. This I propose to do through the last half century, not for the useless purpose of raking up old and obsolete opinions, but because it is unsafe to draw inferences, except from a wider survey of facts than the experience of a single individual, or of a single epidemic, affords.

Puerperal fever was prevalent in Derbyshire, and the adjacent countries, between 1765 and 1775, and was described by Dr. Butter of Derby. His opinion was, that bleeding ought never to be used in this disease, unless when complicated with inflammation, and even in these cases bleedings of three ounces were sufficient; that the best remedy was ten grains of rhubarb, and ten grains of cordial confection every day, till the stools became natural; and that this mode of treatment never failed. He gives several cases, all of which recovered.

In 1787, that is about ten years after Dr. Butter wrote, a puerperal fever was prevalent and fatal in London, and was described by the late Dr. John Clarke. It generally began on the second or third day after delivery, and terminated fatally in a week—sometimes as early as thirty-six hours. Its essential symptoms were pain and tenderness of the belly, with a rapid pulse. As the disease advanced, the milk became suppressed, the belly large, the breathing short, the pulse quick and weak. The appearances on dissection were those of inflammation in some parts of the viscera of the abdomen, but this was never extensive, and some-

times there was none. The effusions of inflammation, however, were very abundant; they often amounted to several pints, and appeared to be pus and lymph mixed with serum. The surfaces of the viscera were coated with lymph, but the peritoneum underneath was not red. The interstices between the viscera were filled with masses of lymph, which formed a cast of their shape. Of the patients attacked with this disease, more than two-thirds died: bleeding was injurious; leeches to the abdomen were useless; emetics were hurtful; bark and cordials, though indicated by debility, were inefficacious. *Dr. Clarke suspected that the disease might be occasioned by the purge which is always given to lying-in women on the second day after delivery; but glysters were not more successful.*

Now compare the accounts which Dr. Butter and Dr. Clarke have given of the results of their practice. The former seems to have lost none of his patients, and found a daily dose of rhubarb and cordial confection a never failing remedy; the other lost more than two-thirds of his patients, and nothing seems to have done any good. What can explain this contrariety of statement? A perusal of their pamphlets at once solves the mystery; they are talking about two different diseases. That described by Dr. Clarke was a genuine puerperal fever, accompanied by an affection of peritoneum, which occasioned the effusion of lymph and serum; that described by Dr. Butter is quite different. Its ordinary duration was from ten days to five or six weeks. Whoever is familiar with

the tremendous disease which I am considering, and knows that the patient is either dead or safe at the end of a week at longest, will instantly perceive that a disease so protracted cannot be the same; and a perusal of Dr. Butter's cases leaves no doubt on the subject. It was a slow remitting fever, not attended by any affection of the peritoneum. Its chief symptoms were sleepless nights, great depression of spirits, a quick pulse, one or two exacerbations of fever every day, and a very disorderly state of the alimentary canal. I have repeatedly seen it, but never as an epidemic, and though it lasts a long time, I believe it never kills. Dr. Butter imagined that this fever, which he never failed to cure, was the same disease which he describes as so fatal in London.

But the contrary statements of physicians do not always admit of so easy a solution. Dr. William Hunter, and Richter, the professor of medicine and surgery in Gottingen, were two of the most useful minds that ever appeared in our profession. They were men of great talents and knowledge, singularly adapted for natural investigations, and remarkable for clearness of intellect, and correctness of judgment. If any men could, such men might be trusted for giving accurate reports of a disease. Yet compare the accounts which these distinguished men have left of their experience in puerperal fever. Dr. William Hunter used to say in his lectures—'Of those attacked by this disease, treat them in what manner you will, at least three out of four will die. Upon

'examining the bodies, the uterus, the viscera, 'and every other part of the abdomen, are found 'to be inflamed. There is a quantity of purulent 'matter in the cavity of the abdomen, and the in- 'testines are all glued together. We tried vari- 'ous methods, (bleeding, refrigerants, stimulants, 'mithridate,) but every thing failed.' Richter, speaking of the child-bed fever, says, 'I have of- 'ten seen the child-bed fever, and always treated 'it successfully. I have also seen cases, both near 'and at a distance, in which the fever was treat- 'ed differently from what I am accustomed to treat 'it, and the patients died. I therefore think that 'I have a right to offer my opinion about the 'nature and treatment of this fever.'

One would at first sight suppose that Richter had committed some error like that of Dr. Butter; but the following remarks must remove this suspicion. 'It is plain,' says he, 'that it is not every 'fever which attacks a lying-in woman which is 'to be called child-bed fever. Its principal symp- 'toms are debility; swelling of the abdomen, 'colic-like pains; pains in the abdomen, on exter- 'nal pressure; pain of the head, especially in the 'forehead. The disease is commonly fatal in a 'few days. On dissection, the viscera of the ab- 'domen are found inflamed, suppurating, gangren- 'ous. The means for preventing the disease, or, 'if it has already begun, for curing it, are timely 'evacuations by purgatives.'*

* Medicinishe und Chirurgische Bemerkungen von D. A. G. Richter, b. ii. s. 60.

There can be no doubt that Hunter and Richter both meant, thus far at least, the same disease—that it was the child-bed fever which is attended by inflammation of the peritoneum, and which, if not cured, kills in a few days. But what shall we say to their very opposite experience? the one, whatever he did, lost three patients out of four, the other, by the gentlest aperients, never failed to cure the disease. Richter, at the time he wrote this statement, must have been sixty years of age. The inexperience of youth, therefore, will not explain it, and it is explicable only on the supposition, either that, old as he was, he had never seen the epidemic puerperal fever, or that, if he had, the epidemics which he had seen were singularly mild.

The reader will feel curious to know the mode of treatment which in Richter's hands was so successful. On the first symptoms of child-bed fever, he gave a purge two days successively, each enough to operate three times. On the following days smaller doses were given, enough to operate once, or at most twice, and this plan was continued till all symptoms had ceased.

Dr. Lowder, who, about thirty years ago, lectured on midwifery, at the medical school of Guy's and St. Thomas's Hospitals, and who was esteemed by the best judges of those times as an excellent practical physician, gave the following account of this disease: That the pathognomonic symptoms were pain of the abdomon, pain of the head and fever; that it terminated fatally in a

space of time between forty-eight hours and one week; that the appearances on dissection were redness of the peritoneum, adhesion of the intestines, effusion of serum, mingled with pus and lymph. He thought that the inflammation was erysipelatous and the fever typhoid. When the inflammatory symptoms were distinct, he permitted a few ounces of blood to be drawn, but if the symptoms were typhoid, bleeding was positively injurious—he mentioned it as the assertion of many medical men, that all the patients who were bled died. Whenever the fever was typhoid, he recommended bark, and mentioned two cases, apparently hopeless, which recovered by taking daily a gallon of the decoction.

Among the London physicians, Dr. Denman was the chief believer in the inflammatory nature of puerperal fever, and in the safety and absolute necessity of bleeding, provided it was used early and actively. There can be no doubt he meant that puerperal fever of which peritoneal inflammation is an essential part; and if I understand him rightly, he believed, that whenever the peritoneum was affected in that way which terminates in the effusion of serum and lymph, it was always with that form of inflammation, which bears, and requires bleeding. His mode of treating the disease seems to have been this: First, at the commencement of the disease, by a full bleeding from the arm, and if the effect of it was beneficial, by another bleeding after a few hours; if the constitution of the patient was feeble, he preferred

cupping, or leeches to the abdomen. Next, by an emetic of ipecacuanha or tartarized antimony, so as to procure full vomiting, and after this had subsided, if the disease was not extinguished, the emetic was to be repeated. These emetics, generally, produced not only vomiting, but sweating and purging; if not, sulphate of magnesia dissolved in thin gruel was given every few hours, till it procured several stools. Having succeeded in procuring these evacuations, he gave a full opiate. The rest of the treatment consisted in a saline aperient every morning and an opiate every night.

Puerperal fever was epidemic in Aberdeen more than two years, between 1789 and 1792, and was described by Dr. Gordon, a physician of that place. He states, that the essential remedy was blood-letting, employed early and freely; that when he took ten or twelve ounces away, the patient generally died, but *when he took twenty-four ounces away at once, and during the first six hours of the disease, the patient commonly recovered.* 'If 'practitioners,' said he, "allow themselves to be 'guided by the pulse, they will run into a fatal 'error, because the pulse is more frequently weak 'and feeble, than strong and full, even at the be-'ginning of the disease, yet I bled notwithstanding 'with great success. The pulse, instead of being 'thereby weakened, became more full and strong 'than before.' 'This disease seized such women 'only as were visited or delivered by a practition-'er, or taken care of by a nurse who had previ-

' ously attended patients affected with the disease.' His treatment consisted in a very early and very large bleeding, a bolus of three grains of calomel and two scruples of jalap, followed by a daily purgative, and a nightly opiate. Of the patients whom he attended, twenty-eight died out of seventy-seven; and although his practice, when it had fair play, was much more successful, he yet confesses the loss of some.*

From the foregoing account of the experience and opinions of different physicians, who had opportunities of observing puerperal fever, what inferences are we to draw? Supposing that each observed accurately the disease which he witnessed, and that no mistake was made in the formation of his opinion, the inevitable conclusion is this:—that puerperal fever, by which I always mean that fever which is accompanied by an inflammatory state of

* Sprengel, in his History of Medicine, gives the following account of this work. ' The history which Alexander Gordon has ' given of an epidemic puerperal fever, which he considered as ' inflammatory, and which nevertheless he treated with drastic ' purgatives, such as jalap and sweet mercury, *without resort-* ' *ing to bleeding.*'—Histoire de la Médicine, par Kurt Sprengel, tom. vi. p. 343. If this is a specimen of the accuracy of this history, it will diminish the confidence with which we should consult this very learned and otherwise useful publication. The more, however, I look into compilations, and trace them to their sources, the more I suspect compilers find that, if they were very scrupulous about accuracy, they would never get on in their work. It is but fair to state, that I have used the French copy translated by A. J. L. Jourdan, who is very alert at exposing the ' erreurs grossieres' of his rival translator, M. Geiger. I hope that this is an ' erreur grossiere' of Sprengel.

the peritoneum, is not one uniform disease, but may occur under different forms,—that sometimes it is so mild as to be curable by the gentlest aperients, and at other times it is very obstinate and fatal. That in this latter form it sometimes consists of acute inflammation of the peritoneum with inflammatory fever which bears, and is curable only by early and active depletion, sometimes of inflammation and fever of a low type, in which depletion is useless, and even pernicious.

Whilst these different opinions were formed, and promulgated in England some zealous and able physicians on the continent thought they had discovered a successful mode of treating this hitherto intractable disease.

In 1782, the Royal Medical Society of Paris, being ordered by the French government, made a report on the mode of treating puerperal fever, which had been employed with unfailing success by M. Doulcet, one of the physicians to the Hotel Dieu. There can be no doubt that this disease was the genuine puerperal fever; it began about three days after delivery, was attended by pain and distention of the abdomen, and a quick, small, contracted pulse; the milk was suppressed. After two days the pain diminished, or disappeared altogether; there came on a cold viscid sweat, a weak tremulous pulse, delirium, and death took place on the third or fourth day. The abdomen contained two or three pints of fluid like unclarified whey, with flakes like curd over the surface of the intestines. After losing a vast number of patients, M.

Doulcet happening to be in the hospital at the moment when a woman was seised with the disease attended by sickness, he ordered fifteen grains of ipecacuanha to be divided into two doses, one to be given directly, and the other an hour and a half afterwards. It produced vomiting and purging, and the latter was kept up by a potion made with two ounces of oil of almonds, one ounce of syrup of marsh mallows, and two grains of Kermes' mineral. In what doses, and with what frequency this was given is not stated; was it a potion for one day, or one dose? The same remedies were used the next, and every day until the symptoms of the disease had subsided; the woman recovered, and the same treatment was employed in every subsequent case. From losing every patient, he now lost none. During four months nearly two hundred were cured; five or six refused to take the medicine, and all these died. *The success of the remedy depended on its being given at the moment of attack;* the loss of a few hours, however, was not always irreparable. When this account arrived in England, it produced, as may easily be supposed, a strong sensation, and the practice was tried by various physicians with different results. Dr. Walsh said it was infallible; Dr. Denman that it was eminently useful; Dr. Lowder that it disappointed him; Dr. John Clarke that it was injurious; and it soon fell into disuse. Was it ever fairly tried in this country? that is, not after the disease had established itself for several hours, but at the moment of attack, and

with the potion of almond oil and Kermes' mineral.*

Dr. Böer of Vienna was for a long time physician to the large lying-in institution and rector of the midwifery school in that city, and was much distinguished for his practical acuteness. Many years ago he thought he had discovered an almost infallible remedy for puerperal fever. Of this discovery he gives the following account. I might abridge it, but the reader will prefer his own interesting narrative.

'I once lost in one day two lying-in women 'from puerperal fever; the one I attended alone, 'the other in consultation with the ordinary house 'physician.—At the same time I had also in the 'practical school (of midwifery) two lying-in wo- 'men ill with the same disease. The next day one

* Kermes' mineral, or the poudre des Chartreux, was made by boiling four pounds of antimony, one pound of the solution of fixed nitre per deliquium, and three pounds of rain water for two hours, and then filtering the boiling liquor through paper. This, on standing, deposited a yellow powder; the liquor was poured off, and the powder washed and dried. 'This precipi- 'tated sulphur,' says Quincy, 'is really, as I am convinced 'from facts which have fallen within my own observations, the 'most certain and powerful antimonial medicine that can be 'given with safety. It has been recommended in fevers, but 'the use of medicines of this class is not yet enough authoriz- 'ed by experience to render such a practice elegible. The 'doses given have been from one grain to four, but it is best to 'begin first with the smallest dose, especially with young per- 'sons, as the force of its operations varies greatly in different 'constitutions.'

'of them died, and in the other death was ap-
'proaching. It was the seventh or eighth day of
'her disease: the belly was very prominent, tense,
'and so painful, that she could hardly bear the
'bed-clothes; every thing passed away from her
'unconsciously. She had an excessively quick
'pulse, starting of the tendons, and wandered in
'her talk; her breathing was difficult and broken,
'and her countenance fallen: the milk in the
'breasts had gradually disappeared, and almost
'from the beginning of the disease no lochia were
'to be seen. With the death of these three lying-
'in women, to which I already in anticipation ad-
'ded the fourth, I was so depressed in spirits, that
'in the evening I sought for consolation in the
'society of two intimate friends; but I could not
'divest myself of the fatality of these diseases.
'Among other thoughts it occurred to me to try
'a hitherto unemployed preparation of antimony,
'which I was assured in many kinds of fever had
'manifested an uncommon efficacy. In this case,
'thought I, there is nothing to be lost in the at-
'tempt. I went home, provided myself with a
'dose of it, and reached, about ten o'clock in the
'evening, the chamber of the dying woman. I
'found her worse than she was six or seven hours
'before; but as one of the students, and two of
'the female practitioners were waiting at the bed
'side, I was obliged to take care not to be seen
'giving a dying woman a remedy out of my pock-
'et. I gave it, therefore, unseen to the midwife,
'who gave it to the patient, instead of one of the

'common camphor powders, mixed with tea. I 'then wished the poor creature an eternal good 'night.

'When I went next morning, my first question 'was, when did the patient die? Die? answered 'the midwife. Early in the morning she begged 'half a cup of coffee. She sat up in bed, and 'would not rest till the nurse combed out her hair. 'I thought her delirious. When we came to the 'patient's bed, we found her sitting up. She 'seized me by the hand, and thanked me. I knew 'not at the moment whether what I saw was an 'improvement, or only a delusive lighting up 'from the insensibility of a fatal gangrene; but it 'was a real amendment. She had in the night a 'profuse sweat, and passed much urine, after which 'she said she felt as if she had imbibed a new life. 'The pain and distention of the belly were gone; 'the pulse beat more freely and slower; the 'breathing was calm, the tongue naturally moist, 'the diarrhœa had almost ceased, and the lochia 'began again to appear. In short, all the symptoms 'seemed gone by magic. She longed for a little 'wine and water, which was given her. After 'four days, during which she passed a great quan- 'tity of uncommonly thick and turbid urine, with 'a mucous sediment, she became free from fever, 'and after eight or nine days she left the hospi- 'tal.

'Although this unexpected recovery rejoiced 'me much, I was far from ascribing it to the 'medicine. I rather looked on the whole happy

'revolution as the effect of a natural crisis. It 'was not long before another lying-in women, 'notwithstanding all the means used, was in the 'same extreme circumstances. I gave her the 'same medicine with the same consequences, only 'the improvement was not so sudden. The pa- 'tient had a profuse sweat, and passed urine 'which looked more like a dissolved bilious stool 'than urine. In five or six days she was perfectly 'restored. * * * * * *

'After twelve or fourteen such desperate cases, 'in which it always effected a cure in one and the 'same way, and after I had tried the common 'antimonial preparations without any good effect, 'and often with distinct injury, I began against 'my will to place especial confidence in it. After 'I was convinced of the efficacy of this medicine, 'in cases where the disease had reached its high- 'est degree, I proceeded to order it at the begin- 'ning of the disease. From that time, in our 'practice, the puerperal fever was never fatal; it 'never even reached a dangerous stage, for the 'medicine as certainly obviated the disease as it 'cured it when it was already formed.'

For the truth of the foregoing statement, Dr. Böer appeals to those who accompanied him at the bed sides of these patients. 'When,' he remarks, 'on the one hand I consider the prepara- 'tion and the component parts of this antimonial 'remedy, and on the other the symptoms and na- 'ture of the disease in which it effected a cure, I 'can no longer reconcile myself with the common

'idea of the healing power of medicines. I am 'firmly of opinion, that either the succession of 'symptoms from which we conclude the presence 'of a disease are not sufficiently determined, and 'the true nature of most diseases is still hidden, 'or that certain substances must produce in our 'bodies an entirely different effect to what we 'commonly believe.'*

The sequel of this narrative is very disappointing. Dr. Böer never explained what his antimonial preparation was. I have been told he would give it to any medical man with directions how to use it; but that the mode of its preparation was a secret which he never divulged. The above account was published in the year 1790; in 1806, he published a systematic account of the different forms of the puerperal fever which he had seen, in which he states that his subsequent experience had only corrobated his former estimate of the efficacy of the puerperal powder; but the only passage which throws any light on the preparation of this medicine is one in which he praises 'the mild 'calx of antimony, or other preparation of this 'medicine, more powerfully sudorific.'† Böer thought highly of M. Doulcet's mode of treatment, and it is not at all improbable that Kermes mineral, which formed a part of that plan, was the antimonial preparation which constituted his puerperal powder.

* Dr. L. J. Böer's Abhandlungen und versuche. Beobachtungen uber das Kindbettfieber. b. i. s. 116.

† Böer's Traktat vom Puerperalfieber. s. 91.

I have hitherto been describing the experience and opinions of practitioners of the last age, all of whom, I believe, are now dead. I come now to my own time—to the experience and opinions of my contemporaries, who are still alive, about a disease which I, as well as themselves, have had ample opportunities of seeing both in private families and in lying-in hospitals. In entering on this part of my subject I shall of course cease to be the mere chronicler, and become almost unconsciously the critic of opinions. It is now many years ago since the opinions were published, which I am about to examine. If an author was to examine his own writings, composed fifteen years ago, on a subject on which his mind, instead of being stationary, had been every year acquiring new knowledge which had suggested new thoughts, he would of course find many things to alter, and it is probable that what I shall have to say in the shape of criticism on these works, is nothing more than what would occur to the authors themselves, if they were employed in examining them anew.

About the year 1813, puerperal fever was very prevalent for two years in the Counties of Durham and Northumberland, and for one year in Sunderland and the neighbouring district; and an account of it was published by Dr. Armstrong, who was at that time practising at Sunderland. Out of forty-three cases in that town, forty occurred in the practice of one surgeon and his assistant, and he mentions several other instances of the disease occurring only among the patients of particular practi-

tioners. In the cases which he saw, the pulse was seldom less than 120 in a minute, and mostly rather full, tense, and vibrating, or very small, sharp or wiry. He describes the disease, however, as occurring under two forms,—'one accompanied with 'the symptoms of simple peritonitis, the other 'marked by a less evidently declared inflammation 'of the abdomen, was connected with a more over-'powering and oppressive fever.' In this latter form he thinks that what seemed actual debility was only a greater degree of oppression from more intense inflammation. 'A great many wo-'men died of this disease, and I was credibly in-'formed,' says he, 'every patient perished who 'was not bled in the beginning.' When we compare this remark with the opposite remark in Dr. Lowder's time, that every woman who was blooded died, what shall we think of human experience? In some cases he describes the symptoms of inflammation within the abdomen as being scarcely or not at all complained of by the patient; there was 'oppressive languor, diminished sensibility of 'the nervous system, great frequency of the pulse, 'quickened respiration, flatulence of the stomach;' the patients made little or no complaint of pain in the abdomen, but when pressure was applied to it they shrunk. In some cases even this symptom was absent; pressure on the belly induced no change on the countenance, yet dissection discovered traces of inflammation both in the brain and abdomen.

Dr. Armstrong divides the disease into two sta-

ges; the first that of excitement, the last that of collapse. In the first, bleeding and purging are the essential remedies; but when the stage of excitement is over, and that of collapse has begun, these same remedies are useless and pernicious. Physicians, by not being consulted till the stage of collapse, have concluded that the disease would never bear depletion; that it was one of debility, and required bark and cordials. Hence it is of vital importance to distinguish the stage of excitement from that of collapse, that these remedies may be employed only in the former. The stage of excitement lasts from about twenty to seventy hours; the pulse is about 120, and vibrating; in some cases, however, it is much quicker, soft, and compressible: there is great apparent debility, but it is only apparent, and so far from being an objection to depletion, is a more urgent reason for it. It is important to distinguish this state of depression from collapse. In the stage of collapse the pulse becomes very small, weak and quick, (from 140 to 160,) the breathing quick, the heat of the body diminished, the abdomen large. Dr. Armstrong thinks that the elder physicians used bloodletting unsuccessfully, not only because they employed it too late, but too sparingly. He thinks that its success depends on being used very early, and very actively. His own practice was to bleed from the arm to syncope, then to give a scruple of calomel in mucilage, and two ounces of a solution of sulphate of magnesia in infusion of senna every hour till they operated. The rest of the treatment

consisted in low diet, purgatives, and after the inflammatory symptoms had been subdued small opiates by the stomach or rectum. Sometimes one full bleeding was sufficient, sometimes it required to be repeated after a few hours; in all cases the blood was buff-coloured; sometimes a scruple of calomel was insufficient to produce speedy and free purging, and the dose was increased to half a drachm. In a very few cases the gums became sore, and these recovered with unusual celerity. Out of forty-three cases five only died. Dr. Armstrong found that the combined action of bleeding and purging was necessary to subdue the disease; '*copious bleeding immediately succeeded by copious purging on the onset.*'

About a year after the publication of Dr. Armstrong's account of the epidemic at Sunderland, Mr. Hey, of Leeds, son of the celebrated surgeon of that name, published an account of puerperal fever which had prevailed in that town and neighbourhood several years before that at Sunderland. It began in 1809. I need not describe the symptoms which I have so often repeated, and shall only notice a few of the most important; the pulse at the beginning was sometimes strong and full, but more frequently it was weak, or speedily became so; there soon appeared great debility and sinking; when blood was drawn from the arm the crassamentum was covered with a 'thick coat of size, and was very firm.' The elder Mr. Hey had long been in the habit of treating those cases of puerperal fever which occasionally occurred by first an active purgative, and occasionally a bleed-

ing, and during the remainder of the disease a saline purgative every morning, enough to operate four or five times, and an opiate every night; but this treatment was totally inadequate to the intractable form of the disease which they had now to combat; for sometime every case they met with terminated fatally. Out of fourteen cases, only three recovered. This plan being so unsuccessful, physicians were consulted about the subsequent cases, and apparently at their suggestion bark was tried in decoction or powder, and in very frequent doses, but this plan was as little, or even less successful. Remarking that in proportion as he receded from the antiphlogistic treatment his success diminished, and that the remedies which did most good were purges, he was inclined to return to the former with more activity, and this inclination was strengthened by reading the pamphlet of Dr. Gordon of Aberdeen, whose plan he adopted chiefly with this difference, that he often carried bleeding much further than Dr. Gordon, and omitted the nightly opiates which Dr. Gordon had used. His plan therefore now consisted in early and active bleeding and purging. The first full bleeding was often followed a few hours afterwards by a second, and sometimes even a third. A bolus of three grains of calomel, and twenty-five grains of jalap, was given immediately, and this was followed by a solution of salts in an infusion of senna, repeated till they operated freely; the purging was kept up till the symptoms were quite subdued: the result of this compared with the result of his former practice was striking—he

had formerly saved only three out of fourteen; he now lost only three out of thirty-three.

As the advocates for bleeding contend that it is quite useless, unless employed early and actively, the reader will naturally ask how early and how actively? As an answer to this question, I have thought it useful to make a table of Mr. Hey's successful cases, showing how many hours the disease had lasted before bleeding was employed, how many ounces of blood were taken away, and whether the recovery was speedy or protracted. The reader will observe, and it is an instructive fact, that in most of the cases, remedies were used within a very few hours of the attack, (sometimes only four, or even two had elapsed,) and the recovery was speedy; but in that in which nearly two days had elapsed before the remedies were employed, the recovery was very protracted.

Number of hours from the attack.	Pulse.	Ounces of Blood taken.	Mode of recovery.
4	140	20	Speedy.
12	138	30	Speedy.
2	130	30	Speedy.
24, but coming on slowly all that time . . .	. .	14	Speedy.
About 4 . . .	120	36	Speedy.
4	. .	37	Speedy.
4	134	70	Long weak.
13	112	48	Speedy.
Day or two . .	. .	36	Protracted.
8	. .	39	Speedy.
6	. .	52	Speedy.
Coming on slowly several hours	. .	53	Speedy.
17	. .	24	Speedy.

The Treatises of Dr. Armstrong and Mr. Hey produced a strong impression on the minds of medical men in this country. It convinced them that the puerperal fever which was then, and had been for several years, infesting various parts of the island, was an acute inflammation of the peritoneum, and that bleeding and purging, employed very early and very actively, was the only mode of treatment which was capable of arresting it: but the impression did not stop here; it produced a general conviction, that the present was a fair representative of all former and all future puerperal fevers; that bleeding and purging were its essential remedies in all places and seasons; that they had failed only because they had been used too late and too sparingly, and would succeed if they were used early and actively. In short that a light had been thrown on the nature of puerperal fever, which explained the failures of physicians in times past, and would ensure them success in times to come. Of these conclusions, as far as they relate to the disease which the writers had been witnessing and treating, I have no doubt: but as far as they relate to past and future epidemics, it may be useful to examine the reasoning which led to these conclusions, and how far they have been corroborated by subsequent experience.

I have no doubt, from the symptoms and progress of the disease which Mr. Hey witnessed at Leeds, and Dr. Armstrong at Sunderland, that it was a genuine puerperal fever; that is, fever accompanied by an affection of the peritoneum,

although the proof by dissection was wanting in both.* I applaud the zeal and ability with which they investigated its nature, and conducted its treatment; but a question of great difficulty and importance still remains, namely, whether the puerperal fever accompanied by an affection of the peritoneum, and often epidemic, does not assume different types in different seasons, being sometimes acutely inflammatory, and bearing and requiring early active depletion; at others, characterized by debility, or what has been called action without power, in which depletion, however early and actively employed, is useless and pernicious.

There are only two sources which can afford materials for solving this question. 1st, A comparison of the records of past epidemics with our experience of the present, in order to see whether they are sufficiently similar to warrant the conclusion that they are curable by similar modes of treatment. 2dly, To apply the mode of treatment which has been so successful in the epidemic which we have witnessed to the treatment of future epidemic puerperal fevers. Of these two sources of information, is it not obvious that the former affords only probable or conjectural evidence, and that the latter only affords conclusive proof? At the time when Dr. Armstrong and Mr. Hey pub-

* 'It is to be regretted that no examination could be obtained, as morbid dissection might perhaps have thrown some additional light on the nature of the disease.'—*Armstrong on Puerperal Fever*, p. 10. Mr. Hey also makes a similar complaint.

lished their Treatises, and when they and the medical profession entertained such sanguine hopes, they were in possession only of the former source of information; and they appear to me to have laid far too much stress upon it, and permitted it to lead them to far too positive conclusions. The two circumstances which seem to have contributed chiefly to this opinion were, the similarity between the symptoms of past epidemics and the symptoms of that which they themselves had witnessed, and the vestiges of inflammation discovered on dissection. Dr. Armstrong remarks, that 'there is perhaps no disease more uniform 'than puerperal fever in the symptoms and morbid 'derangements which it induces,' and he quotes Dr. Hulme in favour of the 'immutability of the 'puerperal fever.'

In the leading circumstances of the disease there is certainly great uniformity; it almost always commences a few days after delivery, is marked by pain and tenderness of the belly, and a rapid pulse; if not cured, terminates fatally within a week, and, after death, commonly leaves the depositions and effusions of inflammation. Thus far it is very uniform, but no further. To say nothing of its causes, there are at least three things requisite to form the history of a disease:— 1st. Its symptoms. 2d. The effects produced by remedies. 3d. The morbid appearances discovered after death. In the history of puerperal fever there is, even in the first and third of these particulars, considerable difference: this is apparent

even in the experience of Dr. Armstrong himself, who describes the local inflammatory symptoms as being sometimes very distinct, sometimes very indistinct, and sometimes absent altogether, the patients not only complaining of no pain in the abdomen, but bearing pressure without the slightest shrinking. Compare, too, the symptoms of the disease as described by Dr. Gordon, of Aberdeen, and those described by Dr. Clarke, of London. In the appearances discovered after death, there is also this great difference in different epidemics, that sometimes there are the effusions of inflammation, with extensive redness of the peritoneum, at other times the peritoneum is quite pale; in the sequel it will appear that there is a still greater difference in the appearances after death. But if from the symptoms and morbid appearances we pass to the second particular in the history of the disease, namely, the effects of remedies, (which form not only an essential, but the most important part of this history, for the two others are of no value but as they throw light on this,) there is perhaps no disease of which the histories have been so opposite. Richter could almost always cure it. Dr. William Hunter and Dr. Clarke could scarcely ever cure it. In Dr. Lowder's time it was observed that every woman who was blooded died. In Dr. Armstrong's time it was observed that every woman who was not blooded died.

Throughout the whole chapter on the pathology of the disease, Dr. Armstrong writes as if he thought that the symptoms during life, and the ap-

pearances discovered after death, were infallible guides to the nature and the treatment of the disease. Thus he remarks, that if a practitioner were to see a woman soon after delivery suffering pain in the abdomen, a quick pulse, and the other signs of fever, and after death were to find no other morbid appearance than extensive traces of inflammation in the abdomen, he would at once conclude that the disease was active inflammation, and would in future treat it as such; and, alluding to those writers who have considered the low epidemic fever of child-bed as a different disease from peritoneal inflammation, he says, 'it becomes a matter of great practical consequence whether symptoms and dissections justify such a distinction.' It appears to me that symptoms and dissections cannot settle the question, and that Dr. Armstrong lays more stress on the argument than it will bear. Supposing many cases of a disease, which bore in general a striking resemblance to one another in the symptoms and the appearance on dissection; this would naturally suggest as a strong probability that they would all be affected in the same way by the same remedies: but suppose that on applying these remedies to all these cases, with the same activity, at the same stage of the disease, and as far as can be made out, under the same circumstances, they produced different effects on different cases, some being relieved and recovering, others being made worse and dying; this would be more conclusive evidence of a difference between these cases, than the symptoms and morbid appearances were of

their identity. The effects of remedies on a disease, if accurately observed, form the most important part of its history; they are like chemical tests, frequently detecting important differences in objects which previously appeared exactly similar. How many diseases are there in which the symptoms are inadequate guides: in cases apparently syphilitic and apparently similar, some as soon as mercury affects the mouth, begin to mend, and rapidly recover; in others, the ulcers begin to spread; and so imperfect are the appearances as guides, that I have known the first surgeons in the profession giving opposite opinions about the same case, and a nose lost from taking the opinion of the majority. The local pains and constitutional disturbance which occur in feeble and bloodless persons, and which are aggravated by bleeding and other evacuants, strikingly resemble the local pains and constitutional disturbance which occur in vigorous and plethoric persons, and which the lancet and other evacuants relieve and ultimately cure; yet how many years is it before the young practitioner learns that there are cases apparently so similar yet really so different, and how to distinguish them,—and how many practitioners are there who never learn it at all! Symptoms and dissections can never do more than suggest probabilities about the nature of a disease and the effects of a remedy on it. A trial of the remedies themselves is the only conclusive proof. Sydenham was so aware of this, that he says, 'Epi-
'demic diseases may seem alike to the unwary,

'because in some sort they do agree to outward 'appearance;' adding this confession, 'when a 'new species of fever arose, I was doubtful how 'to proceed, and notwithstanding the utmost cau- 'tion, could scarce ever preserve one or two of 'the first patients from danger,' so far from infallible were symptoms as guides.

These are the remarks which have occurred to me in examining *the reasoning* which led to the belief that puerperal fever is always an acute peritonitis: the next question is, how far this belief has been corroborated by subsequent experience? I proceed to relate my own.

THE PERITONEAL FEVERS OF LYING-IN WOMEN.

PART II.

I WAS appointed physician to the Westminster Lying-in Hospital in the year 1812, and as the elder physician, Dr. Thynne, was aged and infirm, the whole task devolved upon me for several years, to attend both the in and the out-patients in their difficult labours, and their illnesses. In the latter, I could resort to the experience and skill of Dr. Maton, who then held, and still holds, the office of consulting physician to the hospital. My situation gave me ample opportunities of observing the dis-

eases of lying-in women among the poor of London and its neighbouhood.

I had not been physician to the hospital long before I remarked how much more healthy it was at one time than at another; sometimes, for many months, there was no sickness among the patients; as soon as the labour was over they were well; they required nothing but an opiate for their after-pains, and a few doses of aperient medicine, and the medical part of my office was almost a sinecure. At other times, cases of illness were perpetually occurring; as soon as one was over another began; often I had several at the same time under my care; this would go on for several months, and then cease, leaving the hospital healthy for a long time.

The cases which were so numerous in these unhealthy seasons had the common symptoms and course of puerperal fever. They began a few days after delivery; the leading symptoms were diffused pain and tenderness, with some swelling of the abdomen, a quick pulse which was generally at first full and vibrating. Sometimes it was small, but still it was hard and incompressible; the skin was hot, though not so hot as in other fevers; the tongue was white and moist, the milk was suppressed. As the disease advanced, the belly became less painful, but more swelled, and the breathing short; towards the end, the pulse was very frequent and tremulous, and the skin covered with a clammy sweat; even in this state the tongue continued moist and the mind clear, and

death took place generally about the fifth day. On opening the abdomen, which was often as large as before delivery, the intestines were found distended with air, the peritoneum was red in various parts, its surface was covered with a coat of lymph, the intestines adhered to one another, and the omentum to the intestines; coagulable lymph was deposited on various surfaces, especially in the depressions between the convolutions of the bowels and on the omentum, on both which parts it often lay in large masses; the cavity of the peritoneum contained several pints of a turbid fluid, apparently serum mixed with lymph. In the uterus the morbid appearances were generally confined to its peritoneal covering, which was coated with lymph, on removing which the membrane itself was found unnaturally red; but in some cases the disease had penetrated deeper into the uterus, the substance of which was sometimes infiltrated with pus, and sometimes contained small abscesses about the size of a nut; the inner surface of the uterus, especially at the fundus, often appeared black and ragged, as if gangrenous. The enlargement of the abdomen depended entirely on air in the intestines; when there was no air there was no enlargement, even though the peritoneum contained several pints of fluid. The first time I noticed this was in the body of a young woman who had died with all the symptoms of puerperal fever, excepting the tumid belly. When the body was lifted from the bed on to the board on which it was to be opened, the belly instead of being tu-

mid was sunk and hollow, and we began to think that her case had been mistaken; but on opening the abdomen we found several pints of turbid fluid.

The disease generally began very suddenly. After being quite well, feeling no sense of illness, or at least making no complaint, the patient was seized at once with chilliness, or shivering, and pain in the belly, and the pulse rose to 120 or 130; but sometimes the attack was more gradual. For many hours, or even for a day or two, there were pain and tenderness in one part of the abdomen, then in another, with long intervals, in which there was no pain anywhere; and during all this time the pulse would remain quiet, or not quicker than 80 or 90. In short the disease would have an incipient stage, but this was not a common occurrence.

I soon found I had to deal with a very fatal disease. When I saw the patients after it had been going on two or three days, or even longer, (which was no unusual circumstance among the *out* patients,) I seldom or never saved them; the sunk countenance, the small weak pulse of 140 or 160, the tympanitic belly, the short breathing, and sometimes the clammy sweat, all indicated a fatal disease, past the reach of depletion, even if it had ever been fit for it; and cordials appeared to promise the only chance of recovery, but they were seldom or never successful: wine mixed with gruel, or egg for diet, and diffusible stimulants for medicines, were almost signals of a fatal termination. I was soon satisfied that the disease was

incurable in this stage. Within the hospital I used to see it earlier, sometimes within a few hours of its commencement, although even here this was not always the case; for we had not yet learnt how soon the curable stage passed over, and how vitally important it was to begin the treatment at the very beginning of the disease. Besides this, the patients of a lying-in hospital are slow to confess themselves ill; they look upon pain of the belly as nothing but after-pains, and dread the active remedies which a confession of illness brings upon them; even after the confession the nurses are often dilatory in communicating it, and thus many hours used often to pass before I was called to the case, notwithstanding the activity, intelligence, and rare humanity of Mrs. Wright, the matron. There was another frequent cause of delay. In a very large proportion of cases, the disease began in the night; the patient would go to bed complaining of nothing, and be waked in the night or at day-break by pain in the belly, and chillness, but the night-nurse thought it unnecessary to disturb anybody, and I lived two miles from the hospital. Whenever puerperal fever is prevalent in a hospital or neighbourhood, effectual means ought to be taken to obviate these causes of delay.

When I saw the patient very soon after the attack, I found a different group of symptoms to what I had witnessed in the latter stage; the pulse was not so quick, about 120 or 130; it was generally full and vibrating, or if small, it was

hard and incompressible; the skin was hot, the belly was slightly full and tense, and very painful and tender, so that the patient could neither bear to have it pressed nor to turn from one side to the other in bed. These symptoms, especially the character of the pulse, looked like an inflammatory disease, for which the remedy was depletion; the appearances discovered on dissection corroborated this notion; remedies of an opposite kind had been tried unsuccessfully. Dr. Denman's and Dr. Gordon's account of the subject afforded encouragement for the trial of depletion, and I was still further encouraged by the experience of Dr. Maton. We therefore resorted to general and local bleeding, and purging; the blood drawn from the arm formed a crassamentum which cupped and buffed in the greatest degree; the patients expressed relief from this treatment; it was soon clear that bleeding and purging did more good than any remedies we had tried, and our success in the treatment of this disease was decidedly increased. We were just in this state of opinion and practice, when the publication of Dr. Armstrong's Treatise rendered us more bold in the use of our remedies, and induced us to employ depletion with more activity.

I now found that, provided I saw the patient within a few hours of the attack, I could generally arrest the disease. The mode of treatment was as follows. A vein was opened in the arm, with a wide orifice, so that the blood flowed in a full stream, and it was allowed to flow till the patient

felt faint; the arm was then tied up, and her head was raised so as to encourage the faintness for many minutes. As soon as the faintness had subsided, she took from ten to twenty grains of calomel in a tea-spoonful of arrow-root, and afterwards half an ounce of sulphate of magnesia dissolved in beef-tea or thin gruel, every other hour, until several copious evacuations were procured from the bowels; when the patient had thoroughly recovered from her faintness, from ten to twenty leeches were applied to the painful and tender parts of the abdomen; when the leeches had fallen off, a bag long and broad enough to cover the whole abdomen, was stuffed with hot poultice which was spread so as to form a cushion nearly an inch thick; this was laid hot over the whole abdomen, and renewed so often as to keep up heat and moisture. If the patient complained of the weight of the poultice, the bag was stuffed with scalded bran. We found this application of infinite value, not only as a means of encouraging the bleeding of the leech bites, but also as a perpetual fomentation.

In the treatment of acute inflammation in the vital organs, the customary practice is to consider local bleeding as a milder means of effecting the same object as general bleeding, and to postpone it till the stage for the latter is over. To me it appears that they are calculated to effect two different objects, both of which are necessary at the beginning of the treatment; the one to reduce the violence of the general circulation, the other to

empty the distended capillaries of the part. As long as the pulse is quick, full, and hard, it is in vain to take blood from the affected part: if we could completely empty its gorged capillary vessels, they would be instantly gorged again, whilst the heart and large arteries are injecting them with so much violence. On the other hand, after having reduced the force of the general circulation, the capillary vessels of the part often remain preternaturally injected: this I conclude from the fact, that the patient is often not relieved till local blood-letting has been used, and then is relieved immediately. Hence, as soon as the patient has recovered from the faintness occasioned by bleeding from the arm, leeches ought to be applied without delay.

I waited till the purgatives had operated fully, that I might know what impression the combined operation of general and local blood-letting and purging had produced on the disease, before deliberating about the employment of a second blood-letting. The common effect of these remedies was this: as long as the faintness lasted in the slightest degree, the pulse remained soft, and often slower, and the pain was much less, or ceased altogether; but an hour or two after the bleeding, when the circulation had recovered, the pain returned more or less, and the pulse regained much of its hardness or incompressibility. This state continued till the leeches had bled freely, and the purgatives had acted repeatedly and copiously. The state in

which the patient was found after this, determined me whether or not to employ a second bleeding.

My two chief guides were the state of the abdomen and that of the pulse. If the abdomen was still painful and tender, and the pulse retained any of its hardness or incompressibility, or if the pulse was not so small and weak as to forbid a general bleeding, a vein was again opened in the arm, and the blood allowed to flow till it produced faintness. which was encouraged as after the first bleeding: on the contrary, if the pulse was small and weak, if the pain was gone and only soreness remained, I preferred a repetition of the leeches. Mere soreness without pain, and with a feeble state of the general circulation, is more surely relieved by local than by general blood-letting; and the best mode of employing it is by relays of leeches; as soon as the orifices of one set have done bleeding, to apply a fresh set, till the soreness and tenderness are gone. The rest of the treatment consisted in purging during the day by calomel and salts, the constant application of the bag of poultice or bran and leeches to the abdomen till all the tenderness was gone.

The active treatment, that which will determine the fate of the patient, should be begun and ended during the first day; when employed later, it is under great disadvantages, and with very diminished chances of success. When I consider the extent of the membrane which is affected, and the rapidity with which the effusions of inflammation are sometimes poured out, so far from wondering

that the curable stage passes over so soon, it is to me a subject of wonder that the disease should ever be cured after it has lasted twelve hours. The more I have seen, read, and thought of this formidable disease, the more strongly am I impressed with the belief, that whatever may be the proper mode of treatment, it is not fairly tried unless employed in the early hours of the disease.

I think it useless to trouble the reader with a number of cases, which would greatly lengthen this paper, without any adequate advantage; but I will relate a few instances as specimens of the disease, and the way in which I used to treat it, during several seasons in which it was prevalent, between the years 1812 and 1820.

I.

A healthy young woman, an in-patient of the Westminster Lying-in Hospital, April 1815, was quite easy and well on the second day after her delivery, but late in the evening of that day she was seized with rigor, and pain and tenderness of the abdomen. After the rigor had subsided, the pain and tenderness of the abdomen became more severe, and she had a full vibrating pulse of 120. She took eight grains of calomel, a scruple of jalap, and a quarter of a grain of tartar emetic; a vein was opened in her arm, and she was bled to syncope. During this state the pain nearly ceased, and the pulse fell to 88. I saw her about two hours afterwards; she was dozing, continued easier, and the pulse was feeble; but it had more than reco-

vered its quickness, for it was 130. As she had vomited the calomel, jalap and antimony, she took ten grains of calomel alone, and she was directed to take three drachms of sulphate of magnesia every other hour, till she was well purged. I saw her the next morning, at nine o'clock: she had had little sleep, the medicine had operated copiously three times, but the pulse was 124 and firm, and the pain as violent as before the bleeding. She was now bled again till she became faint; twenty-four ounces had been required for this object the first time, fifteen ounces were sufficient now. She again experienced great diminution of the pain, yet three hours afterwards it had returned, and the pulse was 124. She now took a dose of calomel and jalap, leeches were applied to the abdomen, and she was to take the sulphate of magnesia if necessary; the purgatives acted plentifully seven times, the pain and tenderness of the belly rapidly diminished, and she was the next day much better, but the pulse was still quick, being 120. She now took sudorific doses of antimony, and purgative doses of salts; the next day the pain and tenderness were almost gone; she continued the antimony and salts for two days longer, and recovered, but remained feeble for some time.

II.

A single woman, on the third day after the birth of her first child, was attacked about two in the morning with a severe shivering, which lasted a quarter of an hour, and was followed by heat, per-

spiration, and pain of the abdomen, with great tenderness. I saw her early the next morning; the pain and tenderness continued, the lochia had ceased, the pulse was at 120, not vibrating, but firm. I had her bled till she fainted; the faintness was encouraged, and lasted whilst I remained with her, during which the pulse was slow, feeble, and occasionally ceased; she took castor oil every four hours till it operated plentifully; I was prevented seeing her again all that day. The next morning the pain and tenderness, though much less, were not gone, the pulse was 124, and not weak. She was now placed in the upright posture, and bled again to fainting. As soon as she recovered she took fifteen grains of calomel, and was directed to take half an ounce of sulphate of magnesia every other hour till it operated copiously. The following day the abdomen was quite free from pain and tendernes, she could turn in bed, and bear pressure without uneasiness; her pulse was 104, and soft, and her bowels had been plentifully moved. The saline purgatives were continued two days longer, when having no complaint she was considered convalescent, but continued on low diet several days.

III.

A general practitioner took me one evening to see his daughter, who had been delivered three days of her first child, and was just seized with symptoms of puerperal fever. He had had several cases of the disease among his own patients, and

had lost two, so that when the malady attacked his own daughter, he was greatly terrified; the emotions of his heart had deprived him of the use of his head, and he was as helpless as a child, although he was a sensible and experienced man. We arrived at the house at eight o'clock in the evening, she had been shivering, but this had gone off, and she was now rather hot. The pain had begun in the left groin, then extended to the præcordia, and now was diffused over almost the whole abdomen. She could not turn in bed without pain, and could not bear pressure. Her pulse was 136 in a minute, and small; it felt soft, yet, on compressing it firmly, it struggled under the finger. She was a pale, delicate-looking young woman, subject to nervous complaints in her ordinary health, and apparently a bad subject for bleeding; but I was assured she was quite well, with a pulse under 80 only four hours ago, and I had lately seen several fatal cases in which the loss of time and the inactivity of the treatment had been much regretted. I therefore directed several tea-cups to be brought, and determined to bleed her till she fainted. This required more blood than I expected from the appearance of my patient. Towards the end of the fifth cup I felt her pulse, on which I had kept my finger while the blood was flowing, begin to falter, and in an instant she fainted. Her pillow was removed, and her head laid low till she began to revive, then it was raised till she felt faint again, and depressed again when she fainted away. I remained with

her about half an hour after the closure of the vein. She felt no pain, and her pulse had fallen to 88; the blood had that indigo hue which portends buffing. It was agreed that as soon as she had completely recovered from her faintness, she was to take ten grains of calomel, and ten of compound powder of tragacanth, in a tea-spoonful of gruel, and four hours afterwards half an ounce of sulphate of magnesia, which was to be repeated every other hour until it operated freely; the abdomen was to be kept constantly covered by a bag of scalded bran. I saw her the next morning at twelve o'clock; during the night she had had a return of pain, with soreness of the abdomen, and the pulse had risen in frequency, but since the bowels had begun to operate, these symptoms had been abating, and when I saw her at noon I was quite easy about her. She had no pain excepting a minute or two before the bowels were moved. She could turn in bed, and bear pressure on the belly without suffering, and her pulse was 96. She continued the sulphate of magnesia and the bag of scalded bran during the remainder of the day, and at night took twenty drops of laudanum in a saline draught, and when I saw her the following day she was so completely convalescent, that I left her under the care of her father, and the gentleman who had attended her.

I have repeatedly found myself, and seen others at a loss, when blood-letting having been carried as far as I dared, and reduced the general circulation to the lowest ebb, sufficient pain and tender-

ness were left to make me anxious about the patient, and have found a full opiate and a warm poultice over the abdomen remove these symptoms.

IV.

A general practitioner came to me late one night, (1820,) begging me to go with him to a patient, who was in great danger from peritoneal inflammation after lying-in; the question about which he hesitated was whether to bleed her again or not. This was the third day of the disease. She had been blooded three times to fainting, thirty leeches had been applied to the abdomen, and she had been well purged with large doses of calomel, followed by sulphate of magnesia, in infusion of senna. I found her bleached as white as the pillow on which she lay, her pulse was 130, feeble, and tremulous; she still complained of soreness in the abdomen, so that she flinched from pressure, and could not turn in bed. I should have thought it a hopeless case, but the abdomen was not tympanitic, she breathed calmly, and her face was not anxious. I advised the practitioner not to bleed her, but to cover the abdomen with a bag filled with scalded bran, and to give her twenty minims of the liq. opii sedativus immediately, and repeat it four hours afterwards. We saw her at ten the next morning; she had taken three doses of the opium, had slept soundly, had lost her pain and tenderness, and the pulse had fallen below 100. She continued the opiates every six hours for two

days longer and recovered, though she was for a long time pale and weak.

These cases will be sufficient to show the form of disease which was very prevalent in the hospital and in London, at several periods between the years 1812 and 1820, the mode in which I treated it, and the result. The practice was so decided, that if it had not been very right, it must have been very wrong; if it had not been adapted to the cure of the disease, it would have been positively and manifestly injurious, as I am well assured by subsequent experience.

There was one circumstance in which the result of this practice was very different in different cases, even in those which ultimately ended in recovery, and that was the state in which the patient was left when all pain and tenderness were gone; in some the patient was left with a calm pulse, and the recovery was speedy; in others the patient was left with a very rapid pulse, which kept me in anxiety for several days. Sometimes this quick pulse gradually subsided, and the patient slowly recovered her health; in others, after a day or two of this doubtful state, she became rapidly worse, and died, and on opening the body, the usual morbid appearances were found in the peritoneum. These different results might be commonly anticipated by distention of the abdomen and quick breathing; but not always, for some cases in which there was no distention terminated fatally.

Such was my practice when I saw the disease early, and this practice was commonly successful;

but it was not always that I could treat it so decidedly and satisfactorily to my own mind. From various causes, quite distinct from the greater malignity of the disease, a physician treats it with much less chance of success in a lying-in hospital than in the lying-in chambers of educated and opulent people; the latter take the alarm at the first moment of attack, and directions are commonly strictly attended to; the patients too are generally in good health at the time of their delivery; but those of a lying-in hospital fall ill under very disadvantageous circumstances: they come in often in broken health, with habits of intemperance which ill fit them for low diet and active depletion: when they fall ill they often keep it secret many hours, and the vigilance of an excise officer would not prevent the friends who visit them from smuggling in spirit. There is another cause: the hospital is chiefly intended for the reception of married women, but there are two wards for single women pregnant for the first time. These are persons who have been seduced, but are not hardened in vice; they often suffer bitterly in mind during the dreary months of their pregnancy, and if they fall ill after delivery it is under the long influence of depressing passions; thus it is an old remark of those who have had much experience in lying-in hospitals, that the single women are peculiarly liable to fatal disease after delivery.

The large doses of calomel which we were in the habit of giving as purgatives, sometimes pro-

duced soreness of the gums. All the patients in whom this occurred recovered; there might be, but I do not remember an exception. In one of these cases I met the late Dr. John Clarke, the only occasion on which I ever saw him. The patient was the wife of a butler in a family which he attended, and when they heard that she was in danger, they expressed a wish that he should see her. I met him at the hospital; the patient in the next bed had been attacked by the same disease, and he examined then both carefully, recognized the disease as the genuine puerperal fever, advised me to give bark and ammonia to the patient whom he came to see, remarking that she would never go out of the hospital alive. As she was under the care of Dr. Maton as well as myself, I did not feel justified in changing the treatment so completely, but a slight soreness of the gums, which she had on that day, became the next day a complete salivation, and she left the hospital convalescent a fortnight afterwards.

I do not remember, and I have no notes of any cases within the hospital in which I gave the oil of turpentine, as recommended by Dr. Brenan, of Dublin; but I gave it to four out-patients, and the result did not encourage me to give it to any more. In these cases the disease was so far advanced that I had no hope from bleeding. Two drachms of oil of turpentine were given in a little gruel every four hours, for three doses, and with the last dose half an ounce of castor oil. Every one of these patients complained that it occasioned an

increased burning pain in their bowels; they were freely purged by the medicine, but they all died. As an external rubefacient it was sometimes used in the hospital with considerable benefit. In one case, in which bleeding had been carried as far as we dare, without subduing the symptoms, and we thought very ill of the case, a piece of flannel was soaked in hot oil of turpentine, and spread over the whole abdomen. It had been on about twenty minutes, and I was just leaving the hospital when my attention was arrested by a clamorous voice from the ward in which the patient lay. On going in with the matron, we found her vociferating most furiously that the turpentine had killed her. It had indeed produced extensive redness over the whole abdomen, but a few hours afterwards, when the superficial pain produced by the turpentine had subsided enough to enable us to inquire about the deeper pain and tenderness of the disease, we found them gone. She had been smartly purged, and the pulse had fallen below one hundred. I need scarcely add that she recovered.

Thus the conclusion to which I came was, that the puerperal fever which prevailed on several occasions between 1812 and 1820, was a fever attended by acute inflammation of the peritoneum, that the inflammatory stage was often very short, soon terminating in great and irremediable effusion into the peritoneum, that the disease was curable only in the inflammatory stage by active bleeding and purging, and that although it was impossible

to draw the line, and say when the inflammatory stage terminated in that of effusion, because it differed in length in different cases, yet that it was often incredibly short, and that the treatment had not a fair chance of success, unless begun during the early hours of the disease. Thus my experience agreed in all the principal points with that which had been so forcibly stated to the public by Dr. Armstrong and Mr. Hey.

For some years I supposed that the group of symptoms which indicate puerperal fever, always indicated the same disease, differing only in degree, so that if a woman a few days after delivery had diffused pain and tenderness over the abdomen, with a rapid pulse, she must necesarily have a peritoneal fever, for which the only remedy was early and active depletion. This, I know, was the common opinion of the profession, and may be the common opinion now, although some practitioners may have arrived at a different conclusion. The first case which led me to suspect that there were exceptions to this rule, and afforded me some light on this difficult and important subject, was the following:

V.

The patient was a lady, twenty-six years of age, habitually thin, and long subject to occasional pains in the pelvis, which she called spasms of the womb, and which she relieved by opiates. She also frequently fell into a state of debility from which she was always restored by steel medicines, or

chalybeate waters. This lady was delivered of her third child, after a short, easy, and natural labour. On the second morning after her delivery being perfectly easy, and complaining of nothing, she took a purgative as is usual of salts and senna. It operated plentifully several times; then the stools became frequent and watery with severe griping, and gradually the abdomen became painful and tender all over; the pain was without intermission, and the tenderness so great, that she could not bear the slightest pressure; nevertheless her skin was cool, and her pulse continued soft and not more than 80. This case occurred at a time when it was the prevailing notion in the profession, that puerperal fever was invariably acute inflammation of the peritoneum, for which early, full and repeated bleedings form the essential remedy, and I found it very difficult to prevent this treatment being adopted in this case. The medical attendant of the family visited her several times a day, insisting that the pain arose from inflammation of the peritoneum, and urging the necessity of bleeding. I succeeded, however, in preventing this measure; the abdomen was kept constantly covered by a bag of scalded bran; she took ten grains of compound powder of ipecacuanha, every four hours; the pain soon diminished, and at length subsided; the tenderness remained longer, but ceased on the second day, leaving her quite free from any symptom of disease. A few days afterwards, the bowels being confined and mild aperients not acting, she took another dose of salts and senna, which operated as

the former, producing another attack of pain and tenderness of the abdomen, which was speedily relieved by fomentations and opium.

In this case there was not much danger of going wrong; the slow soft pulse was a sufficient guide. Without stirring the question, whether the irritation excited by the purgative had excited the symptoms which I have described, the case taught me that a lying-in-woman might have a diffused and permanent pain over the abdomen with tenderness, which neither I nor the family apothecary could distinguish from the pain and tenderness of peritoneal inflammation, which nevertheless did not depend on inflammation; at least it was unaccompanied by quickness of pulse, and it was cured without depletion, by fomentations and opium. All this was new to me, and interested me much; but I had not been brooding over it long, before I met with the following still more remarkable case.

VI.

I was called up at day-break, and taken into the country to a surgeon's wife, who had been delivered a few days, and who was represented to be in great danger from peritoneal inflammation, so that she had already been seen by two medical men beside her husband. When I arrived I collected the following particulars. In her ordinary health she was pale and subject to fits, either hysterical or epileptic; she had been confined four days, and her present symptoms had lasted rather more than one; they were permanent pain all over the ab-

domen, tenderness, and soreness, so that turning in bed was distressing to her; she had had no rigors nor chilliness; her pulse was 116, perfectly soft, and rather languid. One of the medical gentlemen, who had seen her at four o'clock that morning, had taken from the arm two cups of blood; but although it had flowed in a full stream, the surface of the crassamentum was flat and red, and the bleeding had afforded her no relief. I ordered the abdomen to be covered by a linen bag stuffed with hot bread and water poultice, and I gave her twenty minims of laudanum; the poultice was to be renewed often enough to keep up heat; she was to continue the laudanum in doses of ten minims every four hours, and take nothing for diet but thin hot gruel. I breakfasted in the house; before leaving it, I went up to her chamber, and found that her abdomen was easier, her skin moist, and her pulse had fallen to 100. The next day, I received a note from her husband, to tell me that the pain and tenderness of the abdomen were quite gone and that her pulse had fallen to 90. She now left off her opiates, but continued her fomentations, took a mild aperient, and recovered without any further interruption.

In this case there was more danger of going wrong than in the former: for the pulse was quick, and there was that group of symptoms which, when they attack a woman a few days after delivery, are generally supposed to indicate inflammation of the peritoneum. This was the opinion not only of the husband of the patient, who was too much alarmed

to judge coolly, but of the other practitioners, both experienced men. I was guided here by the previous and habitual constitution of the patient, by the perfect softness of the pulse, by the uninflamed appearance of the blood, and by the bleeding having afforded no relief. This case led me a step further than the former; it taught me, that a lying-in woman might have diffused and permanent pain and tenderness of the belly, with a rapid pulse, from a state which does not require bleeding, and is not relieved by it, but which is speedily relieved by fomentations and opiates.

VII.

I went a considerable distance from London, to a lady who had just been delivered, and who was represented to be in great danger. When I arrived, I found two medical men in the house, who informed me that the patient had been delivered that morning, but soon afterwards had had a hæmorrhage so violent, that they thought at one time she was dead, but the hæmorrhage had ceased, and they began to have hopes of her recovery. They then led me to her chamber, where I found a lady about thirty years of age, without the slightest colour in her face or lips, speaking only in a whisper, with a pulse like a thread, and a cold skin, still so faint as to require the frequent use of brandy. The hæmorrhage had ceased, and I felt the uterus in the hypogastrium small and firm. There was therefore only one object, and that an urgent one, to revive and support the ebbing pow-

ers of life. I remained with her the rest of the day and the night, during which she was supplied with small cups of hot gruel containing brandy; and at shorter intervals, whenever she felt faint, she took a tea-spoonful of pure brandy, or a piece of bread soaked in it. The faintness gradually ceased, the skin became warm, the pulse more distinct. The cordials were therefore withdrawn, and when I left her the following morning, it was agreed that she should take no other diet than milk with toast and gruel. I heard no more of her for three days, when, on the fourth day after her delivery, I received a letter by the post, informing me that she was going on well, and that her pulse was at 80. I had not received this letter above two hours, when an express arrived at my door desiring me to hurry to her as fast as possible. When I arrived I found the same medical men in the house, who told me that she had that morning been suddenly attacked with a severe rigor, and violent pain in the abdomen; that when the rigor went off the skin became hot, and the pulse rapid; that the belly was painful, and very tender. They lost no time, but opened a vein in the arm, and took away, they told me, thirty ounces of blood, on which she became very faint, and still continued so. When I went up to her chamber, I found her with sharp features, cold and clammy on her forehead and cheeks, with a pulse scarcely to be felt; the blood was not buffed. She died before I left the house. The body was not opened, but I could not help comparing this case with those which I have

previously related, and conjecturing, that if, instead of blood-letting, opium and fomentations had been used, the result might have been more fortunate.

Thus far my knowledge of these was confined to the symptoms during life, and to the influence of remedies; but it was not long before I had an opportunity of ascertaining the appearances on examination after death.

VIII.

A practitioner sent for me to see a patient, of whom he gave me the following account: she was habitually delicate, and subject to hysteria. After an easy labour of her eighth child, her after-pains had been long and severe, but her pulse was not quick. At six in the evening of the second day it was soft, and under 80. At four o'clock the next morning, the practitioner was called out of his bed, and found her complaining of great pain and tenderness over the whole abdomen. She had been vomiting; her pulse was quick, but small and weak, and her skin temperate. He immediately bled her, letting the blood flow till she fainted. He next gave her five grains of calomel, and soon afterwards a dose of salts and senna, but the latter was vomited. Two hours after the first bleeding, the pain not having been relieved, he bled her again to fainting. Twelve leeches were applied to the abdomen, and a pill was given her containing three grains of opium. Having received this account, I went into the

chamber of the patient. Her face was ghastly; it was difficult to keep her out of a fainting fit; her skin was cold and clammy, and her pulse so quick, small, and fluttering, it could not be counted. I took off the leeches, and endeavoured to revive her by warmth and cordials, but she died in the evening, about six hours after my visit, and about thirty from the beginning of pain. The body was opened next day. The peritoneum was healthy, but pale: there were between one and two ounces of colourless serum in its cavity; the abdominal viscera were all healthy but pale; the uterus was contracted in the ordinary degree.

I feel no doubt, that if, instead of bleeding, the belly had been covered with a perpetual fomentation, and an opiate had been given every four hours, this patient would in a few hours have been quite well.

Of the four last cases, three occurred at a time when there was no prevailing disease in the Lying-in Hospital, and, as far as I knew, none in London or its neighbourhood; but the second occurred in a neighbourhood where I was told puerperal fever was very prevalent, and two women were lying dead of it when I was there. Within a week after I had seen this case, I was sent for to the same place to see another case of a similar description, which I treated by opium successfully.

These cases opened to me a new view of the subject; they taught me that a lying-in woman might have permanent pain and tenderness of the abdomen, with a rapid pulse, independant of acute

inflammation of the peritoneum, or any other part; that these symptoms may depend on a state which blood-letting does not relieve, and which if this remedy is carried as far as it requires to be carried in peritonitis, may terminate fatally; and that the most effectual remedies are opiates and fomentations. Most of the patients who were the subjects of these attacks were women who in their ordinary health were delicate and sensitive; the attack sometimes seemed to originate in violent after-pains, gradually passing into permanent pain and tenderness, resembling inflammation; or in the painful operation of an active purgative; but it could sometimes be traced to no satisfactory cause; the patient had had a common labour, and had experienced no unusual cause of debility or irritation. The pulse in all these cases although quick, was soft and feeble: this together with the previous constitution of the patient were my chief guides; when I could trace it to any irritating cause, such as a griping purge, and when blood had been already drawn without relief, and without being buffed, I saw my way still clearer. When I doubted, I applied leeches to the abdomen.

The cases which I have related, and others similar to them, were speedily and completely relieved by the remedies which I have mentioned. There seemed to be nothing dangerous in this form of disease, provided the nature of it was not mistaken, and improper remedies not used; yet it so strikingly resembled peritoneal inflamma-

tion, that it was invariably taken for it by the practitioners who witnessed it, all of whom possessed at least that average quantity of sense and knowledge on which the public must extensively depend. These cases though sufficiently numerous to attract my notice, and produce a strong impression on my mind, were nevertheless only occasional occurrences. I had never seen them in numbers at the same time; they occurred at comparatively long intervals, and at times when there was no prevalent disease among lying-in women; they resembled sporadic diseases both in the rarity of their occurrence, and in the facility with which they were cured. At the hospital I saw two or three cases, in which after the ordinary symptoms of puerperal fever had terminated fatally, and the body was opened, the usual morbid appearances were not found; nothing appeared but a moderate quantity of fluid slightly stained with blood. I thought something, but not much of these. When cases occur at long intervals, the effect of one fades in the mind before that of another is made, so that they do not mingle, and produce a distinct impression; but when they come in clusters at the same time, they rouse the thinking powers of the mind; one case casts a strong light upon the other, and the result is the formation of decided opinions.

In the winter of the year 1824, puerperal fever was prevalent and fatal in London and its neighbourhood. I had resigned my office at the Westminster Lying-in Hospital, and did not know, or

do not remember, what was going on there; but I saw this disease repeatedly in consultation, and heard of it among my medical friends. Several instances occurred of its prevalence among the patients of particular practitioners, whilst others who were equally busy, met with few or none. One instance of this kind was very remarkable: a general practitioner in large midwifery practice, lost so many patients from puerperal fever, that he determined to deliver no more for some time, but that his partner should attend in his place. This plan was pursued for one month, during which not a case of the disease occurred in their practice. The elder practitioner being then sufficiently recovered, returned to his practice, but the first patient he attended was attacked by the disease and died. A physician, who met him in consultation soon afterwards about a case of a different kind, and who knew nothing of his misfortune, asked him whether puerperal fever was at all prevalent in his neighbourhood, on which he burst into tears, and related the above circumstances.

Among the cases which I saw this season in consultation, four occurred in one month in the practice of one medical man, and all of them terminated fatally.

IX.

The first case occurred in a lady, who had been delivered of her first child, after a long and severe labour, not from deformity of bones, but from rigidity of the soft parts and the bulk of the child;

it occupied nearly three days. When visited the day after delivery, she was found complaining of considerable pain in the abdomen, great tenderness, oppression at the præcordia, and difficult breathing. The pulse was rapid, but the most remarkable symptom was immense distention of the abdomen, which separated the recti muscles to the distance of two hands breadth, and protruded between them the anterior wall of the abdomen tc a considerable elevation. The projection was returned into the abdomen, and supported by straps of adhesive plaster. The feebleness of the pulse, the exhausted state of the patient, prevented blood from being drawn, but a gentle purge was given. After this had operated, the pain being worse, twenty drops of laudanum were given, and repeated every two hours for several doses, but she sunk rapidly, and died on the third day after delivery. The body was opened the next day. The intestines were found enormously distended with air, but in the peritoneum there was neither redness, adhesion, nor effusion of any kind.

X.

The second case occurred after a common labour of the fourth child. An opiate was ordered for the after-pains, and the patient was quite well when visited on the second day. On the evening of the third she was found to have a diffused pain and tenderness of the belly, with a pulse of 140, and not weak. The symptoms had not lasted six hours, the bowels had been emptied by a purga-

tive, fourteen ounces of blood were taken away immediately, and two grains of calomel, with five of compound powder of ipecacuanha, were given every four hours. A few hours afterwards, the pain and tenderness continuing, ten ounces more of blood were taken away, by which she was much relieved. The next day she was not so well, the belly was distended and uneasy, the pulse was quick and weak, and the aspect of the patient very unpromising. A blister was applied, and the calomel was continued, but she sunk rapidly and died, little more than two days from the commencement of symptoms. The body was opened the next day, but there was neither redness, nor adhesion of the peritoneum, nor effusion of any kind into its cavity.

XI.

In the third case, the symptoms began thirty-six hours after delivery. The remedies employed were a bleeding of twelve ounces, an emetic, a purgative, and the opium and calomel, with a view of affecting the constitution as soon as possible with mercury, but the rapidity of the disease baffled all these remedies, and the patient died on the third day. The body was opened the following day, and no vestiges of inflammation were found in the peritoneum.

XII.

In the last case the patient was delivered after a labour attended by no unusual circumstances.

She was seen in the evening of the second day, when she appeared quite well, complained of nothing, and had a slow pulse. She continued well till seven the next morning, when she was seized with pain and tenderness of the belly, but it was not swelled. I saw her at ten o'clock, that is, three hours from the commencement of the attack. Her pallid and weakly appearance, the feebleness of her pulse, the total absence of those symptoms in which I had formerly been so successful with the lancet, and its unfavourable effects in the cases in which I had seen it employed this season, made me unwilling to employ it. But the patient's husband was anxious that some leeches should be applied; because a few years before she had recovered from what appeared to him a similar illness, under the care of a very eminent physician, from the use of leeches; and the aspect of the case was so decidedly unpromising, that we were unwilling to deprive him of this consolation. Twelve, therefore, were applied to the abdomen, without loss of time, and twelve more subsequently.

On the evening of the second day of her illness, when I went into her bed-chamber, I found her medical attendant at the bed-side with a decanter of wine, of which he was giving her a spoonful. She was free from pain, calm and clear-headed, but she was pale, faint, breathless, cold, and had little pulse. Excepting only restlessness, she looked exactly like a woman dying from hæmorrhage. The cordials revived her for a few hours, but she died the next morning at four o'clock. The last lying-

in patient whom her nurse had attended had died of a similar disease, equally rapid in its course.

I do not relate these cases to prove the inefficiency of full and early depletion, for in two it was not used, and in the others not carried to an extent which would satisfy the advocates for this practice. The treatment was chiefly conducted by one of the best practitioners I have ever known, but who had already lost confidence in the lancet in the epidemic then prevalent; but I produce them on account of the appearances on dissection, which indicate a disease very different to that which occasions a copious effusion of lymph and serum into the peritoneum.

Most of the cases I saw this season were the patients of others, and I visited them only occasionally; the task of watching and superintending the treatment of course devolving on the ordinary attendant. But I will relate one case which I saw from beginning to end, and which bore a striking resemblance to the others.

XIII.

The patient was a lady, whom I had attended in several confinements, but who was this time to lie in at a short distance from town, under the care of the neighbouring surgeon. She was a plump, pale, relaxed woman, with a languid circulation, and subject to nervous attacks. She had a weak stomach, was often troubled by flatulence, at which times dry friction with the hand along the spine would produce the expulsion of a prodigious torrent of

air from the mouth with an extraordinary noise; this was her state in her ordinary health. Her labour was very quick; when visited on the second evening she was quite well; the following morning, being still well, she took the usual purgative of salts and senna; it operated violently and painfully, and this was followed by diffused pain and tenderness of the abdomen with a rapid pulse. She could neither turn in bed nor bear pressure on the abdomen, but her skin was not hot, and her pulse not hard. This was the state in which I saw her about eight hours from the commencement of pain. I gave her twenty minims of Battley's laudanum, to be repeated every two hours for three doses; and I ordered the abdomen to be covered with a bag of scalded bran. I saw her in the evening at eight o'clock; the pain of the abdomen was easier, but the pulse was rapid; she could not bear to turn, or to be pressed upon; the belly was larger than in the morning, and the breathing hurried. I now explained to her husband the danger of her condition, and said that if he wished for a consultation, in justice to the patient and to the physician, it ought to be now, not later; about two hours afterwards we succeeded in procuring the attendance of an eminent and able physician. The chief question was about blood-letting; the aspect of the case was very unfavourable, and I believe the consideration that, if it terminated fatally, more regret would be felt at the neglect of blood-letting than at the employment of it, in the prevalent state of medical opinion on the subject, deter-

mined us to use it. As it was now, if ever, that blood-letting was to be useful, we determined to carry it to faintness. The gentleman who blooded her did not practise midwifery, and had no experience of such cases; but when he felt the pulse before bleeding, he remarked that though quick (it was nearly 130) it was soft. The blood spouted from the arm during the filling of the first two cups, and the fifth cup was more than half full before she felt faint; twelve leeches were next applied to the belly, and these were succeeded by the bag of scalded bran; she took a full opiate that night, and the following morning two drachms of sulphate of magnesia every four hours. When we met however the following day, she was much worse; her belly was tumid, her breathing short, her pulse quick and tremulous, and her mind rambled. An attempt was now made to support her with cordial diet, but she became rapidly worse, and died in the middle of the next night, less than forty-eight hours from the comencement of her symptoms. The body was not opened.

In all these cases the striking circumstances were the rapidity of the disease, which was shorter than three days, and the absence of morbid appearances in the peritoneum after death, although during life the whole surface of the abdomen had been painful and tender, and the pulse had been rapid as in puerperal fever. Death came on like faintness; the patients got weaker and weaker, hour by hour, and then died.

Whilst this form of disease has been going on

in London and its neighbourhood, it has not been unknown in other parts of the island. In Dr. Farre's Journal of Morbid Anatomy,* Mr. Dalrymple, of Norwich, has described a marked case of this kind.

XIV.

The patient forty-two hours after a very quick labour, was seized with shivering, succeeded by heat, a hard pulse of 130, great pain and tenderness of the abdomen, with some swelling. She was seen *five hours* from the attack, and eighteen ounces of blood were taken from the arm; a calomel purge was given, followed by a mixture of salts and senna. Six hours afterwards she was visited again; her pulse was now quick but weaker, and her abdomen more tumid, and exquisitely tender. Twenty-four leeches were applied to the lower part of the abdomen; an ample blister to the upper, aad fifty drops of the sedative solution of opium were given at a dose. In the evening the pain was less violent, but the tenderness undiminished. Mercurials, with saline aperients and hyoscyamus, were given, but the next morning she was found sinking. At noon the collapse was general, and she seemed unconscious of what was going on around her in the chamber. At five in the afternoon she died, only forty-five hours from the commencement of the disease. On opening the body, no increased vascularity of the perito-

* No. I. page 38.

neum, no adhesion of its contiguous surfaces, no abundant effusion of lymph and serum were found; the only morbid appearances were slight redness along the Fallopian tubes, and about two ounces of turbid serum in the cavity of the peritoneum. Within seven weeks seven similiar cases had occurred to different practitioners in the neighbourhood of Norwich, and all died within fifty hours of the attack. The patient, whose case I have related, was the wife of a farmer, in whose dairy apartment a number of cows after calving had been attacked by a disease similar to puerperal fever, and she had taken great interest in the treatment of the sick animals. This occurred in the winter of 1827 and 1828.

These are the chief facts in the case, related by Mr. Dalrymple: but being anxious to know the leading points in the other seven cases, I wrote to him for them, and the following is the substance of his answer, which I shall throw into the form of a table, in which the reader will see at one view the character of the pulse, the time at which blood-letting was employed, the extent to which it was carried, and the appearance of the blood.

Case	Pulse.	Time of Bleeding	Quantity.	Appearance of Blood.
1	hard	5 hours	8 ounces, 24 leeches	less buffed and cupped than was expected
2	hard	4 hours	52 ounces	buffed and cupped
3	quick but not hard.	very early	18 ounces, & leeches	not cupped
4		7 hours	bled from arm and leeches	neither buffed nor cupped
5	soft		24 ounces	cupped and buffed
6	not hard		18 ounces & leeches	neither buffed nor cupped
7	very quick and feeble		very large	
8	quick and feeble		very large	

In the winter of 1827 and 1828 cases of peritoneal fever were very common among the in and out patients of the Westminster Lying-in Hospital; and a journal was kept, and an account of them published, by Mr. J. A. Hingeston, who was then residing as house-surgeon of the hospital.* These cases were all attended by pain and tender- of the belly, with a rapid pulse; the pain remitted, the skin was moist, and the pulse full and compressible. Most of them were cured, without the lancet, by keeping the abdomen covered with a large thin, hot linseed-meal poultice, and giving ten grains of compound powder of ipecacuanha, repeated till the pain was gone. If the bowels were constipated, a purgative was previously given; if they were not so, the purgative was post-

* See London Medical Gazette, No. XI.

poned till the pain had subsided. In one case, the dry skin and sharp pulse, indicating that the affection of the peritoneum was acutely inflammatory, twenty ounces of blood were drawn from the arm; ten grains of compound powder of ipecacuanha, with two of calomel were given, and calomel alone was repeated every six hours; twelve leeches were applied to the abdomen, and afterwards a linseed-meal poultice. The gums became sore in twenty-four hours, and the patient recovered; but after the bleeding she had frequent faintings for several hours, and 'life was reduced to a low ebb.' A striking contrast this to the way in which bleeding to double this extent was borne in the peritoneal fevers from 1810 to 1820. Mr. Hingeston thinks that these cases, which are cured by opium, are the first stage, a lower degree of that acute inflammation which requires the lancet.

For the following particulars I am indebted to Dr. Ferguson, one of the present physicians to the Westminster Lying-in Hospital.

During the late autumn and winter there has been much sickness for so small a hospital. To say nothing of the out-patients, sixty-two in-patients were admitted between September 11, 1828, and February 20, 1829; of these, twenty-eight (that is, nearly half the number) had peritoneal fever; and of these, seven died, that is, one in four. A large proportion of them were cured at once by ten grains of the compound powder of ipecacuanha, every three or four hours for three

doses, and a hot linseed-meal poultice over the whole belly. Sometimes this treatment removed the pain, but not the soreness; but this was generally removed by the application of leeches. As soon as the symptoms were subdued, the bowels were opened by a mild purge; when these remedies failed the case was a bad one. It may be said by the advocates for blood-letting, that these bad cases might have been saved if they had been blooded and purged early and actively; but in those in which the lancet was used, however early, its effect was discouraging. The patients fainted after losing a few ounces, the blood bore no marks of inflammation, and the remedy was followed by great and immediate exhaustion; even leeches when applied in considerable numbers, and when they bled profusely, in some cases seemed to occasion great exhaustion. But in the cases which I have related from my own experience the lancet was used as early and actively as the warmest advocate for depletion could wish. Case No. 6 was blooded without relief, and was immediately relieved by opiates and fomentations. Cases 7 and 8 were blooded immediately on the attack of pain, the former to thirty ounces at once, the latter twice to faintness, besides leeches, calomel and senna mixture, and they immediately and speedily sunk under the remedies. Of the four cases which occurred to one practioner No. 10 was blooded immediately after the attack in the evening, and the bleeding was repeated the following morning. The case No. 13 began during

the violent operation of a purgative; the patient was blooded to faintness about fourteen hours after the attack, the blood was not buffed, and she never rose out of the exhaustion which followed. In the case related by Mr. Dalrymple the patient was blooded freely five hours from the attack, and the effect was similar.

In Dr. Farre's remarks, introductory to his Journal, he states that 'at the east end of London, 'not far from the river, this disease (puerperal 'fever) proved still more fatal during the month of 'March (1825). One surgeon informed the editor 'that he had lost seven, another four, in all of which 'the disease was treated at the instant of its for-'mation by active blood-letting. A physician-'accoucheur, who attended in consultation many 'of these cases, stated to him, that out of thirteen 'cases eleven died; that all which had been bled 'died; and that the only two which recovered 'had not been bled, having been treated by tur-'pentine.'

From a severe illness this winter, which has unfitted me for the active duties of my profession, I have seen little of the peritoneal fevers of this season, but of what I did see the following case seems to me worth relating.

XV.

Mrs. —— had had, after a former lying-in, a loosening of the bones of the pelvis, from which she had suffered long, but had completely recovered, and was in good health and strong on her legs

up to the moment of her present labour. She was delivered on Saturday morning at seven o'clock, and continued quite well till Sunday afternoon at two. She had then a shivering, which lasted about twenty minutes, succeeded by dry heat, a quick pulse and pain all over the abdomen; for this she took a purgative, which operated fifteen times. On Monday afternoon at two o'clock she had another shivering, and continued feverish and restless. Opiates and aperients were given, and during Monday and Tuesday the pain of the abdomen had so nearly subsided that it attracted no notice; still she never felt quite easy in that part. On Tuesday evening she was feverish, restless, and had pain of the head, for which leeches were applied; and afterwards, late at night, six ounces of blood were taken from the arm. At this time she complained of no pain either in the belly or back, and could turn in bed with perfect ease; her symptoms were merely fever, restlessness, and head-ache. Early the next morning (Wednesday) her attendant was called up to her, and found that she had passed the night without sleep, and that new symptoms were added to her former ones; they were pain and tenderness of the abdomen, and still more pain in the sacrum, where the bones of the pelvis had formerly separated. As the pulse was 120, and hard, fourteen ounces of blood were taken from the arm, and I saw her for the first time this day at one o'clock. The pain and tenderness of the abdomen were still so severe, especially in the right iliac region, that she could not breathe with-

out stopping and crying out; and turning from her side to her back was so painful, partly from the tenderness of the belly, and partly from the pain of the sacrum that it occupied a minute or two; the uterus was large, and could not bear pressure; above the umbilicus the abdomen was soft, and without tension: the breasts contained no milk, the lochia were scanty, the pulse, which before the bleeding in the morning had been hard, was soft, and 120; the bowels had been freely purged, and had acted that morning. The treatment agreed upon now was as follows: Twelve leeches were to be applied to the painful part of the abdomen; it was then to be kept constantly covered with a linseed-meal poultice, and when the bites ceased to bleed, fourteen more leeches were applied, succeeded by the poultice. She took twenty minims of the sedative solution of opium immediately; she was to take two grains of calomel every three hours, and five grains of the compound powder of ipecacuanha every six hours, that is with every other dose of the calomel. When we met the next day (Thursday) every symptom was better excepting the pulse; the pain and tenderness of the abdomen were gone, and she could bear firm pressure, and could breath, without inconvenience; the belly was soft and undistended; the uterus was much smaller and the lochia copious. She was in a warm perspiration, and her breasts were full of milk, but her pulse was still at 120. As the bowels had not acted for thirty hours, the compound powder of ipecacuanha was discontinued, and a

dose of salts and senna given; this was at two in the afternoon. At eleven in the evening, when her attendant visited her, she was not so well: she was in no pain, but her cheek was red, she was in a great heat and perspiration, and there was a something about her aspect which he did not like. When I went the next day (Friday) to the consultation, I found the family in alarm, and was told that there had been a great change in the patient for the worse. The pain and tenderness of the abdomen had never returned, but her mind was confused; she was distressed with excessive flatulence, and the abdomen had suddenly become large and tympanitic; yet the pulse was only 116; the purgative had operated copiously, and the gums were sore, and the tongue swelled. I have omitted to say that there was an inflammation about the right wrist which threatened to break. From the state of the mouth the calomel was withdrawn, and a dose of turpentine and castor oil ordered every three hours. In the evening she was still worse, bursting with flatulence, more confused in mind, and with a quicker pulse—128. She had had many little fluid motions, with a vast quantity of wind. The danger seemed so near that we made no appointment for the next day, and I never saw her again. She died that morning at seven o'clock, that is, about fifty hours from the second attack of pain of the belly.

The body was opened the next day by Mr. Stanley. Putrefaction had made rapid progress for the time. The orifice in the vein of the arm, made

four days before, had opened after her death, and discharged about half a pint of blood. On opening the abdomen the intestines were found immensely distended with air; there was no redness of peritoneum, no adhesion of its surfaces. In the lower part of the abdomen there were about three ounces of a bloody transparent fluid. In both ovaries the internal glandular structure was entirely gone, leaving only a hollow empty capsule; in that of the right ovary there was an aperture. The Fallopian tube on both sides contained pus, not at the uterine, but at the fimbriated end. There was no pus in the uterus; this organ was perfectly healthy: its veins were examined, and were undiseased; its inner surface was of a bright pink, more irregular at the part where the placenta generally adheres. The joints of the pelves were next examined; the simphisis pubis moved readily: on cutting into it the cartilages were sound, but the space between them contained a bloody fluid. The sacro-iliac joints were still more affected; the sacrum projected from the ossa innominata half an inch; within the joint was a bloody fluid, mixed with some loose lymph.

In reflecting on the above narrative it is natural and important to ask, what occasioned the fair prospect which presented itself on Thursday, to be on Friday so suddenly overcast? Two things were done; the opium was withdrawn, and a purgative of senna and salts was given. Would it have been better to have merely withdrawn the opium, and left the calomel alone to act as a pur-

gative? or if a purgative had been given, would a different kind, such as aloes, have been less liable to bring on this enormous flatulence of the alimentary canal? Whoever thinks that a copious effusion of serum and lymph is the essential appearance after death in puerperal fever, will of course conclude that this lady did not die of that disease, but of disease in the joints of the pelvis. Let him reflect however, 1st, that a loosening of the joints of the pelvis is common as a chronic disease, but comparatively rare as an acute one which is rapidly fatal; 2d, that the history of the case during life is exactly that of puerperal fever; and 3d, that the scanty effusion of bloody serum, instead of a copious effusion of serum and lymph, is exactly the appearance after death which has been found in the puerperal fever of this and the last few years. I am inclined to believe that it was a case of puerperal fever, made irreparable by being complicated with disease in the sacro-iliac joints; but these are questions which it is easier to put than to answer, and they will be answered by readers more or less confidently, not in proportion to the accuracy and extent of their knowledge, but in proportion to the confidence of their disposition.

The foregoing facts, and many other similar which I could relate, permit me no longer to doubt that there is a form of peritoneal fever in childbed, which, although it has the ordinary symptoms —pain and tenderness of the belly, with a rapid pulse, is very different from the peritoneal fevers which prevailed between 1810 and 1820; differ-

ent in its duration, which is much shorter; in the way in which it is affected by blood-letting; and lastly, in the morbid appearances discovered after death. This form of the disease, like the acute inflammatory form, may occur only occasionally or sporadically, when it is readily and speedily cured by opiates, fomentations, gentle aperients, and sometimes leeches; or it may become prevalent or epidemic, and consequently more malignant; in other words, more fatal and difficult of cure.

The most remarkable circumstance which the experience of the last few years has taught us about peritoneal fevers is, that they may occur in their most malignant and fatal form, and yet leave few or no vestiges in the peritoneum after death. The state of this membrane, indicated by pain and tenderness of the abdomen, with a rapid pulse, appears to be not one uniform state, but one which varies so much in different cases, that a scale might be formed of its several varieties; this scale would begin with little more than a nervous affection often removable by soothing remedies, and when terminating fatally, leaving no morbid appearances discoverable after death. Next above this, a state in which this nervous affection is combined with some degree of congestion, indicated in the cases which recover, by the relief afforded by leeches, and in the cases which die, by slight redness in parts of the peritoneum, and a slight effusion of serum, sometimes colourless, sometimes stained with blood. Above this might be placed

those cases in which there are, in the peritoneum, the effusions of inflammation without its redness, namely, a pale peritoneum and no adhesions, lymph like a thin layer of soft custard, and a copious effusion of serum rendered turbid by soft lymph. Lastly, the vestiges of acute inflammation of the peritoneum, namely, redness of this membrane, adhesion of its contiguous surfaces, a copious effusion of serum, and large masses of lymph.

The experience of the last few years has brought me to this conclusion: that the sanguine hopes which were entertained, a few years ago, that the peritoneal fevers of lying-in women are always of an acute inflammatory type, and always to be cured by early bleeding and purging, as they were not borne out by the reasoning employed, so they have not been confirmed by subsequent experience.

It is useless to look back on the past, unless for the purpose of guiding our conduct in the future. How are we to act, when new epidemics arise among lying-in women, so as to diminished as much as possible their fearful mortality?

The first and most important object—that without which all others will be useless, is to make such arrangements as will ensure to the practitioner a sight of the patient immediately after the attack. I believe that half the mortality which these epidemics occasion depends on delay, on so much time being lost before efficient treatment is

employed, that the curable stage is over before this treatment has begun. Whatever may be the nature of the case or epidemic, and whatever may be the remedies essential to its cure, they have not a fair chance of success unless employed during the first hours of the disease. The arrangements necessary to prevent delay must depend on those who have the immediate charge of lying-in women, namely, the physicians of lying-in hospitals, and in private families, on those who deliver the patients and have the charge of them. These must depend on the more immediate attendants, nurses, commonly a most intractable race; but no pains ought to be spared to make them understand the symptoms which demand attention, and no temptations to induce them to send for the practitioner the instant these symptoms appear. The latter must not, for fear of being troubled by false alarms, shrink from a plan so essential to the life of his patients, to his success, his reputation, and I should think his peace of mind.

During the first day or two of the disease, while active remedies are employed, and the life of the patient is hanging in the balance, the practitioner can hardly do his duty without seeing the patient so often that he almost lives with her, and becomes not only her physician, but her nurse. I shall be told that this is impossible: so much the worse; it is not the less urgently necessary.

The next thing that I would urge on practitioners of midwifery, is, to undertake the treatment of these diseases with the belief that they depend

not on one and the same state, acute inflammation of the peritoneum, demanding one and the same treatment, bleeding, and purging, but that they depend on different states in different cases, and epidemics, which require so much caution and discrimination to distinguish, that the most cautious and discriminating practitioner will sometimes err. They should approach the subject in the spirit of their great master, Sydenham, who, in speaking of epidemic diseases, tells us that 'their difference is 'apparent, not only from their peculiar symptoms, 'but also from the different methods of cure they 'respectively require; that though they seem to 'agree in their external face, and certain symp-'toms in common, they are in reality of very dif-'ferent and dissimilar natures; that the same 'method which cures in the middle of the year 'may possibly prove destructive at the conclusion 'of it; and that, when a new species arose, he was 'doubtful how to proceed, and, notwithstanding 'the utmost caution, could scarce ever preserve 'one or two of his first patients from danger.' There are no diseases to which these remarks are more applicable than the peritoneal fevers of lying-in women.

Lastly, I would urge practitioners of midwifery to make themselves familiarly acquainted with those modes of treatment which appear on competent testimony to have been, at times at least, most successful, so as to have them ready to apply whenever the occasion occurs. In most of the epidemics which I have read of or witnessed,

many cases occurred, and many lives were lost, before the practioners, who were concerned about them, had time to overcome the panic which they produced, to put their knowledge in order, and proceed to the treatment of the disease with clear and methodical views. Much of this would be avoided if they previously made up their minds, out of what remedies their selection ought to be made. In acquiring this knowledge it is not superfluous to say, that it will be of no value unless it is rigidly and scrupulously accurate, consisting of a minute knowledge, not only of the remedies themselves, but of the times for employing them, the extent to which they ought to be carried, and all the circumstances on which their successful employment depends. A want of this strict and minute accuracy is one of the causes why remedies, which have been so successful in some hands, so often fail in others.

The remedies for the efficacy of which there is most evidence are, 1st, bleeding and purging; 2nd, emetic doses of ipecacuanha; 3rd, opiates internally, and poultices externally to the abdomen; 4th, mercury given so as to affect the constitution; 5th, oil of turpentine.

I. There is a class of peritoneal fevers in which the affection of the peritoneum is acute inflammation, and that of the constitution is inflammatory fever, although this inflammatory state often lasts only a few hours. These cases may occur not only occasionally or sporadically, but become prevalent or epidemic. On this point, those who

wrote toward the end of last century were in an error, supposing that whenever the disease was epidemic, it was of a low typhoid type; there can be no doubt, that among the peritoneal fevers of lying-in women there are inflammatory epidemics, but how are we to know that the case or the epidemic is of this kind? by attending to what Sydenham called the 'Constitution of the year,' that is, in plain language, the prevailing state of the human body indicated by its prevailing diseases, and by the modes of treatment which these diseases bear and require; by the character of the pulse during the early hours of the disease, and by the effect of depletion. Thus, when the prevailing diseases are inflammatory, and are best cured by depletion, when the pulse at the beginning of the disease is vibrating, hard, or, although small, is incompressible, when the skin is not only hot, but dry, and when, after the treatment of a few cases, it appears that those have recovered best in which bleeding and purging have been used early and fairly, there is every reason to believe that we have lighted on an inflammatory epidemic, and that depletion is the means on which we must depend for the cure. I have said so much about the necessity of employing it early, and with sufficient activity to extinguish the disease during the first day, that I need not repeat it. Some able practitioners, after the first full blood-letting, have advised the pulse to be closely watched, and as soon as it has recovered its quickness and hardness, to open the vein again, and draw a small quantity of blood,

and so on at short intervals till the pain is gone and the pulse ceases to be hard; this, of course, will not be necessary many times. M. Husson, of the Hôtel Dieu, who is distinguished for his skill in puerperal diseases, after one bleeding of fifteen or twenty ounces, repeats a smaller bleeding of eight or ten ounces once in six hours, during the first day, till the inflammation is subdued.

II. Emetics of ipecacuanha once so successfully employed by M. Doulcet, in the Hôtel Dieu in Paris, have such strong evidence in their favour, that they deserve a fuller trial than they seem ever to have received in this country; the form of the disease in which M. Doulcet employed them, was that which occasions profuse effusion into the peritoneum. The conditions under which they ought to be given are these:—1. they are to be used at the instant of attack; 2. they are to be repeated every day till the symptoms are subdued; 3. in the intervals between the operation of the emetic, a potion is to be given, composed of oil of almonds, syrup of marshmallows, and Kermes' mineral; 4. the diet is to consist of nothing but linseed tea, or something equally bland and unheating. I see no chance of this practice being fairly tried, without entrusting the first emetic to the constant attendants of the lying-in patients, giving them a strict charge to send immediately afterwards to the practitioners. Those who have criticised this mode of treatment have been dissatisfied by the circumstance, that the disease was extinguished so completely in embryo, that it was

impossible to be certain what it was; but this is a feeble objection contrasted with the fact, that every patient so attacked died of the disease before the remedy was employed, but after its employment every patient so attacked, and so treated, recovered.

III. The power of mercury as a remedy for inflammation has been so clearly made out in inflammation of the eye, the liver, and the pericardium, and not only its power, but the inadequacy of blood-letting to overcome inflammation in these organs without the aid of this remedy, that it deserves a fair trial in peritoneal fevers. I have never given it systematically in a number of cases, but what experience I have is in its favour. In the Westminster Lying-in Hospital, when ten or twenty grains of calomel used to be given every day, with purgatives, the gums sometimes were affected, and these patients invariably recovered. During the last winter it was tried in a few cases; when the gums became affected the patients recovered; but in others the disease was more rapid than the remedy, and the patients died without the mercury having affected them. The method of using it is to give two grains of calomel every two hours, until the gums become sore, or without this effect, until there is evidence that the circulation is drawn from the peritoneum to other surfaces, especially the bowels, the kidneys, and the skin; and this is attended by a subsidence of the disease, indicated by a diminution in the frequency of the pulse, a cessation of the pain, and the patient being

able to turn in bed, and bear pressure. During the use of the calomel, opium generally requires to be used at longer intervals, as five or ten grains of the compound powder of ipecacuanha once in four hours. The symptoms which call for its use are severe pain, profuse purging, or a sinking in the general circulation. When the gums are sore, or the disease has yielded, the calomel should not be withdrawn suddenly, but given at longer intervals, or in smaller doses, and so gradually withdrawn. This is the way in which it has been used successfully by Dr. Farre.

IV. There is a class of cases attended by pain and tenderness of the abdomen, with a rapid pulse, which does not require bleeding, which does not bear it to the extent to which it is necessary in the inflammatory peritoneal fevers, and which is speedily and effectually cured by opiates internally, with hot poultices to the belly, aperients, and sometimes leeches. There is reason to believe that this form of the disease is present when the patient in her ordinary health is delicate and nervous—when the pain and tenderness have followed any irritating cause, such as severe after-pains, or a griping purge—when the pulse, although quick, is perfectly soft, and even weak, and this opinion is strengthened if blood has been drawn without relief, and without the signs of inflammation on its surface. The best way of treating these cases is to wash out the large bowels by a very large glyster, to give ten grains of compound powder of ipecacuanha every three hours, till the pain is gone,

to keep the abdomen constantly covered with a warm linseed meal poultice, and after the pain has ceased, if the abdomen continues sore and the pulse quick, to apply leeches, and give a mild purge. When I doubt the nature of the case, I apply leeches at the beginning.

V. Although I have been unsuccessful in the use of turpentine in peritoneal fevers, the testimony of competent witnesses convinces me that there is a class, or perhaps a stage of these fevers, in which oil of turpentine given internally is sometimes highly efficacious, and that cases apparently hopeless have been recovered by it. I would advise the reader to consult those who have been successful with it for the mode of giving it. There are two questions: one about the stage of the disease at which it is proper, the other about the dose, and whether a single or several doses. On these important points I leave the reader to consult those who have used it successfully.

CHAPTER II.

THE DISORDERS OF THE MIND IN LYING-IN WOMEN.

In the year 1819 I wrote a paper on puerperal insanity, which the College of Physicians did me the honour to publish in the sixth volume of their Transactions. Since then ten years have elapsed, during which I have seen more of the disease than I had before; and although in revising my paper at this distance of time, and comparing my subsequent experience with my former statements, I can see no great errors to correct, yet I find some obscurities which require to be explained, some opinions which deserve to be enforced, and much additional information which I think worth communicating. I have, therefore, written almost a new paper on the subject, retaining out of the former only the cases, and those views which I still entertain, and which I am unable to state more explicitly. My object is chiefly to relate my own experience of this disease, to describe what I have seen of its progress, how I have observed it to be affected by remedies, and what I have thought about its nature. If my statements of fact are different from those of other writers, I can only say that I have observed with as much care, and related what I have observed with as much accuracy, as I could. As to my reasonings, they must take their chance.

During that long process, or rather succession of processes in which the sexual organs of the human female are employed in forming, lodging, expelling, and lastly feeding the offspring, there is no time at which the mind may not become disordered; but there are two periods at which this is chiefly liable to occur, the one soon after delivery, when the body is sustaining the effects of labour, the other several months afterwards, when the body is sustaining the effects of nursing.

I have repeatedly seen the commencement of mania and of melancholia in women who were in child-bed, or who had recovered from their delivery, and were nursing. I will give a specimen of each rather than a general description. Such descriptions are commonly formed of a bewildering multiplicity of circumstances which never occurred together in one and the same instance, so that they are pictures which resemble nothing in nature, like the abstract ideas of the old metaphysicians.

A lady, who, I was told, had had a 'brain fever' after her former lying-in, came to London to be attended by me in her next confinement, and took a furnished house in a street near Cavendish-square. She had a short and easy labour, a good supply of milk, nursed her child, and continued to do well for so many days, that her friends concluded all danger was over; nevertheless, from the circumstances of her former confinement, I visited her twice a day, but I detected nothing which indicated the approach of disease; her

pulse was not quick, her nights were disturbed only by occasionally suckling the child, and her manner and appearance were unaltered. On the tenth day after her delivery, the shop of a piano-forte maker in Oxford-street caught fire; this occasioned a great bustle in the neighbourhood; but as her sitting-room did not look into the street, it was kept from her knowledge during the day, but in the evening, while she was standing at her window which looked into a yard at the back of the house, a piece of burning matter fell within her sight; I saw her about two hours afterwards, at nine in the evening; she was not herself; her manner was agitated; on being questioned about her feelings she kept silent for some time, and then answered abruptly; her pulse was quick, and her look and her manner odd and unnatural. I slept in the house. At four o'clock in the morning the nurse waked me, and said that her mistress had had no sleep; that she was sitting up in bed talking to herself, but that instant had expressed a wish to see me. I rose and went to her; there was only a rush-light in a remote part of the chamber; as soon as she saw who I was, she told me to sit down and look at her: I said, 'I do.' 'What do you see?' 'Nothing but 'yourself.' 'Look at my head.' 'I do.' 'Do 'you see nothing particular there?' 'Nothing.' 'Then I was presumptuous. I thought that a 'glorious light came out of my temples, and shone 'about my head. I thought I was the Virgin 'Mary!' It is curious that the immediate cause

of the disturbance was a lighted body, and that the first hallucination was concerned about light. She was put under the care of a nurse accustomed to such patients, and an eminent physician saw her with me. Her pulse was soft and never very quick, and her face pale; nevertheless from a fear of congestion in the brain, her head was shaved, and ten ounces of blood were extracted from the scalp by cupping-glasses, without diminishing in the slightest degree her violence and incoherence; her conjunctiva was yellow, her tongue furred, and her bowels costive; hence she was moderately purged, and about three weeks from the commencement of the illness she returned to her country seat well. She was confined again about fifteen months afterwards, without any recurrence of the disease; about a week before this latter delivery she had the jaundice, of which she was cured by calomel and aloetic purgatives, before she fell in labour. It is practically important to notice, that she had the jaundice at the time of her first confinement, and became maniacal; that she had a slight degree of it during her second confinement, and suffered the same disease; that she was completely jaundiced before her third confinement; that it was removed by purgatives before labour, and that she this time escaped her mental derangement.

In this case the disease appears to have been excited by sudden agitation, and therefore came on suddenly; in other cases in which no such cause occurred, and the disease arose spontaneously,

its approach was more gradual, several or even many days elapsing, during which nothing more was observed than a pulse rather quick, restless nights, and a something quick and peculiar in the patient's manner.

II.

One of my patients, almost from the day of her delivery, was observed to have restless nights, a quick pulse, and an irritable temper, compared with her natural one. She scolded the nurse about the merest trifles: one minute sent for the child to suckle, and the next ordered it angrily to be taken away. She would superintend her housekeeping, though she was entreated not to do it, and sent for the cook up into her chamber several times a day to inquire into the consumption of the family, and to give directions about its regulation. She talked almost incessantly, with disproportionate earnestness; and complained that her husband was not attentive to her: at length she accused him of incredible things, and soon after became so violent as to require confinement. Her passions of mind were all violent, not of a gloomy character. Her friends were kept away from her; she never saw any body but her nurses and her medical attendants; she had a rapid pulse much above 100, but she was not blooded, and she recovered in little more than a month.

I have repeatedly seen the commencement of mental derangement in women who had recovered from their confinement, and had been suckling se-

veral months. Nearly all these cases were instances, not of mania, but of melancholia. They occurred in women who had been debilitated by nursing. The disease at this period has been attributed to weaning; but in all the cases I have seen, the disease has begun before the weaning, and this measure has been resorted to because the patient had neither milk nor strength to fit her for a nurse. There was a peculiarity about the commencement of the disease which I have never or seldom noticed at the commencement of mania. There was an incipient stage in which the mind was wrong, yet right enough to recognize that it was wrong.

III.

A pale, delicate lady, nursing an infant four months old, told me that she scarcely knew what was the matter with her; her sight was so impaired that she could not read; her powers of attention were so much impaired that her household accounts were burthensome to her; that she often rang for the footman, and when he came she had forgotten what she had rang for. She said she had a good husband, sweet children, ample property, every thing to make her happy, yet she felt no interest in life. She added that if this went on thus she should lose her senses. She had lost flesh, and had little milk. After a short time she took it into her head that she had a fatal disease, and I was called out of my bed several nights to see her die. She told me that I was quite mista-

ken about her case; that she was sure she was dying, and that if I would sit down for five minutes I should see her expire. She next began to accuse her friends, especially her husband, whom she charged with infidelity, and an intention to poison her; and it become necessary to separate her from her family, and place her in that state of seclusion and control usually employed under such circumstances. She continued in this state many months, but ultimately recovered, and has had a child since without a recurrence of the disease.

I shall not attempt to give an account of the symptoms and progress of mania and melancholia in women who are lying-in and nursing, partly because the cases which I have related, and shall have occasion to relate in the progress of this paper, will give a more faithful picture of the aspect and symptoms of these diseases than any vague general description, and partly because there is nothing peculiar in them. If a physician was taken into the chamber of a patient whose mind had become disordered from lying-in or nursing, he could not tell by the mere condition of her mind that the disease had originated in these causes. I do not mean to represent the disease as strictly uniform—cases sometimes occur under a peculiar form, but these are not the rule, but the exceptions. Thus I have seen it strikingly similar to that form of disease called delirium tremens, one instance of which I shall have occasion to relate, and in the following case catalepsy occurred in the progress of the disease.

IV.

Mrs. ——— is twenty-nine years of age; she had long been unusually subject to the common forms of hysteria; I have seen her after being strongly excited in conversation, sink down insensible, and a few minutes afterwards recover with choaking and sobbing; her husband tells me that he has often seen her whilst sitting at the dinner table become apparently insensible, with her eyes open, still sitting up, continue in this state several minutes, and then come to herself again, but totally unconscious of what had taken place in the interval. She married nine years ago, has been pregnant many times, but has only borne one living child; every other time she has either miscarried during the early months, or what was more common, the child has died without any obvious cause about the sixth or seventh month, and premature labour has come on a week or two afterwards. A few days after her last delivery, of a dead child, at the seventh month, (a circumstance which was attributed to some domestic agitation,) she was seized with a violent head and face ache which was confined to the left side, and which subsided under the use of hemlock, but she continued to suffer flatulence of stomach, had a quick weak pulse, and was much depressed in spirits: one evening she told her husband that she had never discharged the duties of a wife as she ought to do, and that her death would be a happy release both to him and her: the next morning she made an

unsuccessful attempt to cut her throat. I now saw her in consultation with Dr. Sutherland, she was put under the care of a regular attendant, and was at times so violent that it was necessary to confine her with a waistcoat.

A few days after our first visit we were summoned to observe a remarkable change in her symptoms; the attendants said she was dying, or in a trance; she was lying in bed motionless, and apparently senseless: it had been said that the pupils were dilated and motionless, and some apprehensions of effusion on the brain had been entertained, but on coming to examine them closely, it was found that they readily contracted when the light fell upon them; her eyes were open, but no rising of the chest, no movement of the nostril, no appearance of respiration could be seen; the only signs of life were her warmth and pulse; the latter was, as we had hitherto observed it, weak, and about 120; her fæces and urine were voided in bed.

The trunk of the body was now lifted so as to form rather an obtuse angle with the limbs, (a most uncomfortable posture,) and there left with nothing to support it; there she continued sitting while we were asking questions and conversing, so that many minutes must have passed.

One arm was now raised, then the other, and where they were left, there they remained; it was now a curious sight to see her, sitting up in bed, her eyes open, staring lifelessly, her arms outstretched, yet without any visible sign of anima-

tion; she was very thin and pallid, and looked like a corpse that had been propped up, and had stiffened in this attitude. We now took her out of bed, placed her upright, and endeavoured to rouse her by calling loudly in her ears, but in vain; she stood up, but as inanimate as a statue; the slightest push put her off her balance; no exertion was made to regain it; she would have fallen if I had not caught her.

She went into this state three several times, the first time it lasted fourteen hours, the second time twelve hours, and the third time nine hours, with waking intervals of two days after the first fit, and one day after the second. After this the disease resumed the ordinary form of melancholia, and three months from the time of her delivery she was well enough to resume her domestic duties.*

In giving an opinion about the probable result of any case, there are two questions, the one whether there is any danger to life? the other, if the patient lives, how long is the disease likely to continue, and what chance is there of its becoming permanent and incurable? With regard to the first of these questions, I remember the time when it was the prevalent belief among medical men, not, it is true, those who had paid peculiar attention to the subject, but men of great general eminence,

* Dr. Sutherland, with whom I attended this case, related to me several others similar, but far more extraordinary for the time which they lasted. One was a young lady who continued in this state for several months, and was preserved only by great vigilance and management in feeding her.

that they were diseases which were never fatal. Whilst I was attending the near relation of one of the most eminent and experienced of the provincial practitioners of this island, a letter arrived from him, begging the family to have no fears, that he had seen many such cases during his long life, and never saw one die; and even the late Dr. Baillie, when consulted about a case, remarked, 'that 'the question was not whether she was to get 'well, but when she was to get well.' The latter patient died within a week after this prognosis. There can be no doubt that a very large proportion of cases of disordered mind in lying-in women and nurses ultimately recover, but it is equally certain that some of them die, and there are two modes of calculating the probability of death in any individual case: the one is to ascertain the proportion of deaths to recoveries in as large a number of cases as possible; the other is to endeavour to discover some symptoms, the absence or presence of which indicates safety or danger. As to the former of these modes, it is very difficult to procure trust-worthy information. M. Esquirol, of Paris, has given an account of ninety-two patients in the Saltpetrière who had become deranged whilst lying-in or nursing. Of these, six died, that is, one in fifteen; but this estimate must give the mortality in chronic cases rather than recent ones. Dr. Burrows has published a table of fifty-seven cases, of which ten died; this is a mortality of more than one in six. The best mode of forming an estimate of the mortality o

this disease would be to procure statements from a great number of practitioners extensively employed in the practice of midwifery, of how many cases of puerperal insanity they had met with in their practice, and of these how many had died. This would be the best mode, although none but those who have tried to procure information in this way can have a notion of the difficulty of procuring answers scrupulously accurate. But however accurate the estimate may be, it must afford a very loose prognosis for any particular case. To a question about the probable fate of a patient, it would be a vague answer to say that the mortality is as one in fifteen. It would be more like the opinion of the actuary of an insurance office than of a practical physician. The question would naturally occur, are there no symptoms in this as in other diseases by which to judge whether or no the life of the patient is in danger? Now, on this question, there is a passage in the manuscript copies of Dr. William Hunter's Lectures, so much more valuable than any remark in any printed book upon the subject, that I shall introduce it here.

'Mania,' says Dr. Hunter, 'is not an uncom-
'mon appearance in the course of the month, but
'of that species from which they generally reco-
'ver. *When out of their senses, attended with fever*
'*like paraphrenitis, they will in all probability die,*
'but when without fever it is not fatal, though it
'(i. e. fever) generally takes place before they get
'well. I have had several private patients, and

'have been called in where a great number of 'stimulating medicines and blisters have been ad- 'ministered, but they have gone on as at another 'time, talking nonsense till the disease has gone 'off, and they have become sensible. It is a spe- 'cies of madness they generally recover from, but 'I know of nothing of any singular service in it.'

Making allowance for the loose language of extemporaneous lectures, and allowance also for some inaccuracy in the notes of these lectures, and putting together this statement of Dr. Hunter, with my own experience, I extract from it the following meaning: that there are two forms of puerperal mania, the one attended by fever, or at least the most important part of it, a rapid pulse; the other accompanied by a very moderate disturbance of the circulation; that the latter cases, which are by far the most numerous, recover; that the former generally die. This agrees closely with my own experience. Cases 8, 9, 10, which terminated fatally, were all attended by a very rapid pulse. None of those with a slow, or only moderately excited pulse died. Some which were attended with a quick pulse recovered; but none of these were treated for paraphrenitis.

One evening, several years ago, a surgeon called on me wishing me to return with him many miles into the country, to see his wife, who had become maniacal a few days after delivery. I was at that time attending a lady in her first labour, whom I could not leave, but I offered to go with him if he would wait till the labour was over.

It was going on wearily, there was no prospect of its being over before the morning, and as he was anxious to return home, he took another physician whom I recommended. Before leaving me, however, he said he should like to talk with me about the case. I took down a volume of Dr. Wm. Hunter's manuscript lectures, and showed him the passage which I have quoted above. He said he was sorry to read it, for that his wife's pulse was very rapid. About a week afterwards I heard that she was dead.

There are some other circumstances to be taken into the account of the prognosis: the form of the derangement, and the period at which it occurs. Mania soon after delivery is more dangerous to life, than melancholia beginning several months afterwards. Nights passed in sleep, a pulse slower and firmer, even though the mind continues disordered, promise safety to life. On the contrary, incessant sleeplessness, a quick, weak, fluttering pulse, and all the symptoms of increasing exhaustion, portend a fatal termination even though the condition of mind may be apparently improved. In the cases which I have seen terminate fatally, the patient has died with symptoms of exhaustion, not with those of oppressed brain, excepting only one case.

But supposing the patient to live, how long will the disease last? and what danger is there of its becoming permanent? Experience shows that mania is a less durable disease than melancholia; it is more dangerous to life, but less dangerous to

reason. The best answers to these questions, however, would be a knowledge of the results of a vast number of cases. Unfortunately we have no such documents taken under satisfactory circumstances. The records of hospitals contain an account of cases which have been admitted, only because they were unusually permanent; they are the picked obstinate cases, and can afford no notion of the average duration of the cases of all kinds; the cases of short duration, which last only a few days, or a few weeks, which form a large proportion, are totally lost in the estimate of a lunatic hospital. Of the ninety-two cases mentioned by M. Esquirol, only fifty-five recovered, and six died, leaving thirty-one as the number of incurables, that is one in three. Of those which recovered thirty-eight did so in less than six months. Dr. Haslam says, that of eighty-five admitted into Bedlam only fifty recovered, leaving thirty-five as the number of the incurable; of Dr. Burrows's fifty-seven cases only thirty-five recovered, eleven remained uncured; of the thirty-five which recovered twenty-eight did so in less than six months. I am persuaded, however, that these tables throw little light upon the question, and present a prospect unnecessarily gloomy and discouraging. Of the many patients about whom I have been consulted, I know only two who are still after many years disordered in mind, and of these one had already been so before her marriage.

Before leaving this part of the subject, there is still another question which requires to be thought

of, and that is, whether a patient who has been disordered in mind after one lying-in, is likely to be so after another? I believe the chances are much against it; there is a sufficient possibility of such an event to call for the utmost degree of care not only in the next but all subsequent confinements; but this care being taken, the proportion of cases in which the disease occurs twice is small. I have attended many patients who came to town to be confined because they had been deranged after their former lying-in in the country, and excepting Case No. I. not one of these patients had a return of their disease.

I come now to consider the causes of puerperal insanity, that is, what occasions it to arise; and when arisen, in what it consists mentally and corporeally. Of the cases which I have seen, a large proportion have occurred in patients in whose families disordered mind had already appeared. The patients too were of susceptible dispositions, nervous, remarkable for an unusual degree of that peculiarity of nerve and of mind, which distinguishes the female from the male constitution. In some instances they had been long under the influence of depressing passions, or were suddenly assailed by some cause of mental agitation; but in many, no such circumstances had occurred, they had lately been delivered, or they were nursing, and that was all; scarcely any of them had ever been deranged before, or were ever deranged on any other occasion than on this. There is, therefore, something in the state of the constitution induced

by lying-in or nursing capable of producing the disease in predisposed constitutions. What is this something? In my former paper on this subject, I endeavoured to express it by saying '*that peculiar state of the sexual system, which occurs after delivery.*' This has been noticed as an unsatisfactory explanation, and when I read it now, ten years after it was written, I am willing to confess that it was not sufficiently explicit. What I meant was this, the sexual system in women is a set of organs which are in action only during half the natural life of the individual, and even during this half they are in action only at intervals. During these intervals of action they diffuse an unusual excitement throughout the nervous system; witness the hysteric affections of puberty, the nervous susceptibility which occurs during every menstrual period, the nervous affections of breeding and the nervous susceptibility of lying-in women. I do not mean that these appearances are to be observed in every instance of puberty, menstruation, pregnancy, and child-bed, but that they occur sufficiently often to show that these states are liable to produce these conditions of the nervous system. Dr. Marshall Hall thinks, that the susceptibility of the puerperal state is to be explained by mere exhaustion, and does not at all depend on the influence of any thing specific in the condition of the sexual organs at that time; but would an equal or a greater degree of exhaustion at any other time occasion the disease? this is a question of fact, which I should answer in the negative. I have seen patients who

have been deranged in child-bed, and who had recovered, at a future period much more exhausted by illness, and much more agitated in mind, without the slightest appearance of mental derangement.

Among the causes of this disease, there are two others which require notice—the one a disordered state of the organs of digestion, the other weaning. As to the first, it was very manifest in some cases, in others less so. Mental derangement is said to be often produced by weaning, that is, by the sudden suppression of the secretion of milk. I have no right to deny the experience of others, but my own would never have led me to such a conclusion. Among the fashionable women of this town nothing is so common as not to nurse their children; the milk comes in about one or two days after delivery, and the breasts become as hard as stones, but not a drop is extracted; and sometimes by cold spirit lotions constantly applied to the breasts, sometimes by embrocations of oil and brandy, sometimes by poultices, (according to the whim of the nurse, the patient or the medical attendant,) with gentle aperients, the milk is suppressed in a few days. I must have known this done in more than a hundred instances during the first week after delivery, a time much more liable to disordered mind than a later period, and in not one did it occasion puerperal insanity. In all the cases which I have seen months after delivery, the weaning has been the consequence of the disease, not the disease the consequence of the weaning. The patients had

been reduced in health by nursing, their memories had become enfeebled, their spirits depressed, and their minds ultimately disordered; and they were directed to wean their children because they had neither milk nor strength to enable them to nurse.

But whatever may be the causes which excite these diseases, the most important question still remains to be considered—what is that morbid state of organization on which the disorder of the mind depends? this is the proper object of medical art. We have no power by medicinal agents of relieving a disordered mind, excepting indirectly through the disorder of the body with which it is connected. It is impossible therefore to stir one step in the treatment of the disease without first ascertaining what this disorder is; or if different in different cases, what they are, how to discriminate them, and whether experience shows that one is more common than the other.

There is a strong disposition, not only popular but professional, to attribute raving of the mind to inflammation of the brain. Perhaps it originates in this—that the disorder of the mind with which we are most familiar is drunkenness, which is known to be caused by spirits, and to be cured by temperance. Mania is called brain fever, and the sight of a raving patient instantly suggests the thought of cupping-glasses, iced-caps, low diet, and purgatives. This view of mania is, when it occurs in child-bed, still further corroborated by the popular notions about lying-in women. If a woman

becomes deranged in child-bed, it is said not only that she has a brain fever, but that the milk has flown to her brain, hence the term mania lactea. Dr. Denman says, that in his time it was a prevalent notion among the people, but an obselete one in our profession, and formerly it was usual to attempt relieving the disease by restoring the milk and the lochia. It would be as good pathology to attribute puerperal fever to a suppression of the milk, and as good practice to attempt to cure it by drawing the breasts, fomenting the pelvis, or using any other local means for restoring these secretions.

But experience and reflection lead to very different conclusions; they teach us that a disorder of the mind may be connected with very opposite states of the circulation, sometimes with inflammation or active congestion, for which depletion is the shortest and surest remedy; sometimes with an opposite condition of the circulation, which depletion will only aggravate.

Cerebral excitement does not necessarily depend on inflammation or congestion, nor is depletion, however moderate, necessarily the proper remedy. Cerebral excitement is often aggravated by depletion; and in some cases, as I shall have occasion to relate, absolutely brought on by it. Now the question, what is the morbid state of organization on which puerperal insanity depends, must be determined in the usual way. There is only one safe mode of working the problem, by observing the causes which brought on the disease, the bo-

dily symptoms which accompany it, the way in which it is affected by remedies, and the morbid appearances discovered after death. These points can be learned only by an attentive and thoughtful observation of cases, and will be best communicated by the relation of them.

V.

I went down twice to ———, — miles from London, to see a lady who had become deranged a few days after her delivery: her labour had been attended by an alarming hæmorrhage. She was sitting up in her easy chair, looking first to one side, then to the other, talking incoherently, and would not, or could not, answer questions; but she was not violent, and required only the gentlest restraint. Her face and even lips were colourless, and her pulse small and quick. The circumstances under which the disease had come on, precluded all thought of depletion. Nothing more was done than to prevent constipation by the mildest aperients, to soothe her, and support her with nutriment without stimulants. She slowly regained her health, and with it the faculties of her mind. I give this case chiefly to show that mania may occur in that bloodless state of the body which uterine hæmorrhage so often occasions.

VI.

A lady in good health was delivered after an easy labour of her eighth child, but the placenta adhered, and was separated by the hand. The

after-pains were severe, and long-continued; opiates diminished their violence, but the intervals between them became shorter, till at length, on the second day, she was found to have permanent pain and tenderness in the hypogastrium, with a small sharp pulse of 116: the lochia ceased, and she had a slight shivering. A very eminent physician was now consulted, and it was recognised and treated as a case of inflammation of the uterus. For three days blood-letting general and local were employed with considerable activity, yet on the third evening her state was unsatisfactory. She still complained of uneasiness in the uterus, and could not bear to have it pressed, but she was so much reduced both in strength and pulse, that her physicians feared another bleeding. Another opinion therefore was requested, and the result of this consultation was that she should be blooded again to faintness. The patient's head was placed low; the fifth tea-cup was nearly full before she complained of faintness; the first cups buffed, the latter did not. I slept in the house. When I left her at one in the morning, she was still rather faint. At four o'clock the nurse waked me to say, that her mistress 'was much changed,' and she thought was dying. I found her cold and clammy, with a thread-like pulse, and pale sharp features; her mind too rambled a little. I mixed some wine and hot water, gave it her by spoonsful, and in about an hour, her skin being warmer, and her pulse more distinct, I directed a spoonful to be given every fifteen minutes for another hour, and

then went and laid down again. When her medical attendants mustered at breakfast time, she was so far recovered that they could scarcely believe what I told them of her state during the night. The pain and tenderness of the uterus were gone, and they were much satisfied with the result of the bleeding. In the afternoon, however, a hurried message was sent off for her medical attendants. I arrived first, and found her sitting up in bed talking incessantly and incoherently, and now and then expressing a wish that she could hold her tongue. She was in a profuse warm sweat, and her pulse was much above 140. I again mixed some wine and water (I had better have given her an opiate), but after getting down about a wineglass full of this diluted wine by spoonsful, I found that both her tongue and pulse became slower. Her physicians now one after another arrived. Towards the evening she was much calmer, but obviously not herself in mind. The next morning every one recognised puerperal mania. In this state she continued several weeks, during which it was often necessary to put on the strait waistcoat in order to keep her in bed. In less than a month she was convalescent from her mania, and for a week or two it was supposed that she was out of danger; but now her abdomen began to swell, and she died dropsical in the eleventh week after delivery. The body was not opened. Here was mania depending on what is called cerebral excitement, which leads most practitioners to employ cupping, cold, low diet,

and purging, coming on in a state in which the circulating system was reduced to the lowest ebb.

VII.

I was sent for late one night to see a lady who had been delivered of her first child about a week before. She was constitutionally nervous—her milk had been deficient, and she had had slight fever, for which she had lived unusually low; but nothing had occurred to create the smallest anxiety about her till this evening, when her husband, who had left her as well as usual in the morning, came home and found her incoherent in mind. When I went into the chamber and approached her bed-side, I found her lying with her cheek on the pillow, her eye apparently fixed intently on some object. She paid no attention to the questions that were put to her, and could not be prevailed on to speak whilst I was in the room. She was in a profuse perspiration, which stood in large drops upon her face and forehead—her pulse was 140, small and weak. Whilst I was feeling it, her hand was affected by spasmodic twitches, and she picked at the bed clothes as if endeavouring to take up something which she saw there. What was the cause or nature of these symptoms? it was impossible to look at them without alarm. Was it the last scene of some eventful disease which had been stealing on unsuspectedly, or was it a sudden attack of puerperal mania? Although the mind was incoherent, it did not exactly resemble the ordinary form of that disease; it was

more like delirium tremens. After talking over the subject with two medical men, who were there, it was at length agreed that all active treatment for the removal of supposed inflammation of the brain should be postponed at least for a few hours, and that we should try the effect of opium. Thirty drops of the sedative solution of opium were divided between two draughts—one was to be taken directly, and the other two hours afterwards, if she was not asleep. I went the next morning at nine o'clock, and found the two medical men, who were there the night before; they met me with cheerful countenances, and the agreeable sentence, 'she is quite well.' I then learnt the events of the night. The second draught had put her into a sound sleep, and she awoke in the morning with a calm clear mind, and a pulse of 80. I went up into the chamber with one of the medical gentleman. As soon as she saw us, she began to talk incoherently, and her pulse rose nearly to 100. Suspecting that our presence was doing harm, we retreated into the drawing-room. When her husband came down he told us, that all this agitation had been produced by her perceiving a striking likeness between myself and her dead father, and between my medical companion, who was a florid healthy-looking man, and a dead friend of hers. The agitation, however, subsided as soon as we left the chamber. She had no return of it, and recovered from her confinement without another untoward circumstance. Deple-

tion would easily have converted this into a dangerous, and perhaps a fatal case.

VIII.

Mrs. —— was delivered of her first child after a natural labour, attended, however by rather more than the usual loss of blood. From the first her manner appears to have been excited and unnatural. Her nights became restless, her mind more excited, and about three weeks after her delivery she became maniacal. Her pulse was 140 before any active remedy was employed. She was put upon low diet, leeches were applied to the head, and she was freely purged with calomel and castor oil. The symptoms not abating, and the patient becoming very violent, a cupper was sent for, who took ten ounces of blood from the head by cupping glasses, and the following morning I saw her for the first time. She was sitting up in bed in a strait-waistcoat. Whatever was asked her she did not answer, but repeated it like an echo, 'Have you any head-ache?'—'Have you any head-ache?' 'Put out your tongue'—'Put out your tongue'—she would not say any thing else. Her tongue was moist and pale—her pulse was between 120 and 130, small and weak—her bowels had been lately freely moved—her skin was not hot, her face was very pale—she had had no sleep for many nights. This being the state of things, I thought it a great object to procure repose. She therefore took twenty minims of the sedative solution of opium, and ten min-

ims in a two ounce glyster every six hours. This procured six hours of uninterrupted sleep, and when awake she was more herself. Some symptoms led her attendant to employ another bleeding by ten leeches to the head, which was shaved, and a blister applied to the crown. When I saw her two days after my first visit, she had in the night several hours of sleep, and was so much better in mind, that her friends were surprised when I told them that she was not out of danger. Her face was very pale, and her pulse so quick, small, feeble, and fluttering, that I remarked to her medical attendants that she would not bear the loss of another ounce of blood. It was agreed that she should continue her small opiate glysters, and that care should be taken to supply her with sufficient nutriment; but the next day the symptoms of exhaustion became more alarming, and when one of her medical attendants visited her in the evening, he found her pale, cold, breathing only at long intervals, and with scarcely any pulse —she died that night. The body was opened the next day by two very experienced anatomists. The veins throughout the body were remarkably empty—the heart contained little blood—the lungs and liver were singularly pale. Within the head there was the same deficiency of blood in the veins of the pia mater, and in the sinuses—under the arachnoid membrane was a little serum. On slicing off the hemispheres the bloody points were unusually numerous.

IX.

I had no concern in the treatment of the following case, but being in the house where it was, to see another patient, I was taken by her medical attendants into her chamber, where I found her sitting up in bed in a strait-waistcoat, with a flushed cheek, a dull eye, and occasionally uttering unintelligible words; her pulse was much above 100, but I did not count it, and her attendants remarked that it was getting hard. She did not look at all like a person within six hours of her death, so that I was much surprised to hear that she died that evening after being blooded to faintness, which took place when she had lost about eight ounces. I received the following account of the case from those who attended her.

E. B., twenty-three years of age, was delivered of her first child on the 30th December. On the evening of the day of her delivery she had a rigor, succeeded by heat of skin, and constant pain at the lower part of the abdomen, increased by pressure. The pulse was 130, and weak. An injection was given, a large poultice was applied over the belly, and she took ten grains of the compound powder of ipecacuanha. Her bowels were opened by the injection; she slept well during the night, and the next morning, the 31st, the pain was gone, but the soreness remained. The next day, 1st January, she complained of tightness of the head, her tongue was furred, her skin hot, her pulse 120, and weak; her bowels had been moved several times the day

before. She now took five grains of calomel, her head was shaved, and six leeches were applied. At two o'clock on the same day she was visited again; her eyes were bright, her face was flushed, her skin hot. She spoke indistinctly, and her mind rambled; her pulse, which in the morning was weak, was now thought to be getting hard, and she was ordered to be blooded from the arm till she fainted. Two grains of calomel were ordered to be taken every two hours. She was blooded at three o'clock in the afternoon. As the blood flowed, the pulse became so quick it could not be counted; hence, when she had lost eight ounces, it was stopped, although she did not feel faint. At six o'clock, when the attendant went to give her the calomel, she had scarcely any pulse. At eleven in the evening the pulse could not be felt. She looked deadly pale, the crassamentum of the blood was flat and red, with little serum; her mind wandered, but she knew her mother and relatives, who stood at the bed side. Attempts were made to revive her by cordials, but she sunk rapidly, had a cadaverous smell, a cold skin, and died at four in the morning. The body was examined eleven hours after death. In the abdomen the viscera was healthy, the peritoneum also; the external and internal surface of the uterus, as also its substance, were examined, and found natural. There was about half a pint of reddish fluid in the peritoneum. In the head the sinuses were thought to be rather more loaded than natural, the dura and pia mater rather thicker than usual; there was no unusual

effusion any where. The plexus choroides appeared unusually pale; the substance of the brain was firm, and on slicing it no bloody points appeared.

X.

The following case I have alluded to in my paper in the College Transactions. The patient while in labour of her first child was seized with puerperal convulsions. She was immediately delivered by perforating the head, and was blooded as largely as is customary in this disease. The convulsions ceased, she came to herself again, and seemed for a few days to be doing well; yet her pulse from the first continued quick, and a few days after her delivery she became maniacal. This was the case which I have mentioned in a former part of this paper, and about which Dr. Baillie stated that 'the question was, not whether 'she was to get well, but when she was to get 'well.' She died three days after the attack. The body was carefully examined by a very eminent anatomist, but no vestige of disease was discovered either in the brain or elsewhere.

What inferences are we to draw from the foregoing cases relative to the question for the solution of which I have related them, namely, what is the morbid condition of organization on which puerperal insanity depends? Let the reader reflect on the leading points of these cases. In No. I. the disease occurred in a pale lady, without any heat of skin, or much quickness of pulse, and was

not relieved by the loss of blood. In No. III. it occurred in one whose constitution was drained and enfeebled by nursing. In No. IV. it occurred in a pale woman, habitually hysterical, subject to bear dead children from want of power to afford them life for nine months. In No. V. it occurred in one who had been drained by flooding. In No VI. in one in whom, for urgent reasons, the circulation had been reduced to the lowest ebb consistent with life. In No. VII. in one who had been living very low for a week, with such marked symptoms of the irritation of debility, that at first sight I thought it was the close of some disease that had been overlooked. It was speedily relieved, not by cupping and purging, but by the tranquillizing and sustaining power of opium. In No. VIII. the disease was treated, though with all possible prudence and moderation, as an inflammatory state of the brain, by leeches, cupping, purging, and low diet, yet the patient died, not with symptoms of oppressed brain, but with those of exhaustion; and on examining the body, the whole venus system was found extraordinarily empty of blood. In No. X. the patient fell, as if shot, under the stroke of the lancet, and on examining the head there was found no effusion, and empty blood vessels. In No. XI. the disease came on after puerperal convulsions, a disease generally but not always depending on cerebral congestion, and after one of those enormous bleedings commonly practised in these cases, and no morbid appearances were discovered after death in the brain.

These cases, if fair specimens of puerperal insanity, lead straight to the conclusion, that the disease is not one of congestion or inflammation, but one of excitement without power. I shall be asked, are not these picked cases, selected to prove a point, and forming a small proportion to those of another character? Their very number gives the negative to this suspicion: ten cases can never form a small proportion of the experience of one individual, however extensive his opportunities of seeing the disease may be; for puerperal insanity is not like fever, a disease in which an experienced physician counts his cases by hundreds. Dr. William Hunter said, that in the course of his practice he had met with about twenty or thirty. there can be no mistake, unless by some extraordinary accident, all my cases have been exceptions to the general rule,—an incredible supposition! It is true I have related those in which the nature of the disease was most distinctly marked, in which the truths I am endeavouring to explain were most legible; but in most of the remainder there was nothing to contradict these conclusions. It was the same form of the disease, only less marked and striking. They surely prove that those cases of puerperal mania which are attended by a very rapid pulse, which Dr. Wm. Hunter said generally die, and which he attributed to paraphrenitis, do not depend on this state of the brain, which requires depletion, but on a more exhausting excitation of the nervous system, which requires sooth-

ing and sustaining treatment*. But I shall be told of the fluid under the tunica arachnoides, and the unusual number of bloody points in the centrum

* I cannot refrain from extracting the following passage, notwithstanding its length, from the works of that sagacious observer and master in the treatment of disease, our own Sydenham :—

'There is a peculiar kind of madness, which sometimes follows upon inveterate intermittents, especially quartans; and yields not to the ordinary method of cure, but after copious evacuations, degenerates into a lamentable kind of folly for life. I have often been surprised to find no mention made of this disorder by practical writers, as I have frequently met with it; and whereas the other kinds of madness usually yield to plentiful bleeding and purging, this will bear neither: for when the patient is almost recovered, if a glyster only of milk and sugar be given, it immediately returns; and if repeated bleeding and purging be used, these evacuations may indeed abate the violence of the disease, but will certainly render the patient an idiot, and quite incurable. Nor will this seem strange, if it be considered that the other kinds of madness proceed from the too great spirituousness and richness of the blood, whereas this arises from its depressed state, and vapidity, as I may term it, occasioned by the long fermentation carried on by the fever, whence the spirits become utterly unable to perform the animal functions. I treat this disorder in the following manner: I give a large dose of some strong cordial three times a day; for instance of Venice treacle, the electuary of the egg, the Countess of Kent's powder, Sir Walter Rawleigh's powder, or the like, dissolved in plaugue or treacle water, or any other cordial water. Cordials may also be given in other forms. During the course of the cure, a slender but restorative diet, and generous liquors, must likewise be used; and the patient should keep her room, and lie much in bed. This regimen may occasion a costiveness, whence a fever may be apprehended, especially from the use

ovale, in Case IX. Are we, then to shut our eyes to the symptoms during life, to the effect produced by remedies, to the mode in which death came on, that is, with symptoms of exhaustion, and to the remarkable emptiness of the veins throughout the body; and because there was a little serum under the tunica arachnoides, and more bloody points than usual in the medullary substance of the brain, conclude that it was a disease of congestion or inflammation, and that perhaps the patient died because she was not blooded sufficiently? There will be some, perhaps many, who will draw this inference. To my mind, this is one of the cases in which observation of the disease throws more light on its morbid anatomy, than its morbid anatomy on the nature of the disease; the living symptoms illustrate the dead morbid appearances, better than the dead morbid appearances do the living symptoms. To make the examination of dead bodies conclusively instructive, it requires to be done by

'of these heating medicines; but there is, in reality, no danger 'of it, because the spirits are so far wasted by the preceding 'disease, as not to be able to raise a new fever. In a few 'weeks the disorder will abate by degrees, and then the cordials 'may be omitted for a few days; but the restorative method 'of living must be continued, and the cordials repeated, after 'a short interval, and persisted in till the perfect recovery of 'the patient. This method has sometimes cured a madness 'that did not succeed intermittents, particularly in cold and 'weak constitutions. I was called, last year, to Salisbury, to 'consult with my friend Dr. Thomas, for a lady who was great-'ly disordered in her senses, and she was recovered by it, 'though she was then in her pregnancy.'—pp. 66, 67.

those who possess two requisites: an eye familiar with the difference between natural and morbid appearances, and a mind capable of interpreting the hieroglyphic characters left by disease. These qualifications are never found, except in those who are, or at least have been, for a considerable portion of their lives continually employed in these examinations. A man whose experience in morbid anatomy amounts to five or six examinations in the year, is neither a competent witness of appearances, nor a competent judge of their meaning. To understand what these appearances mean, it is necessary to know the history of the case during life, the symptoms by which it was attended, and the way in which it was affected by remedies. Those pathologists who consider increased vascularity of the brain, and an effusion of fluid, however slight, as infallible signs that congestion or inflammation existed during life, and that depletion was the essential remedy, will do well to read Dr. Kelly's Paper on the Pathology of the Brain, and Dr. P. M. Latham's Account of the Epidemic at the Milbank Penitentiary.

The Essay of Dr. Kelly, which describes the appearances discovered in dissecting animals bled to death, is well known: it proves that when the general circulation has been drained to death, the vessels of the brain are still full of blood; but a far more instructive experiment was made a few years ago, at the Penitentiary at Milbank, of course with no evil intentions, and no suspicion of danger, not on sheep and dogs, but on men and

women. The Penitentiary stands on a spot made for the production of malaria, a swamp below the level of the river, which runs within a hundred yards of the prison. The prisoners were, with what object and for what reason does not appear, suddenly put upon a diet from which animal food was almost entirely excluded. An ox's head, which weighs 8lbs., was made into peas soup for 100 people, which allows 1¼ ounce of meat to each person. After they had been living on this food for some time, they lost their colour, flesh, and strength, and could not do as much work as formerly. The men could not grind as much corn, or pump as much water as they once could, and the women fainted at their work in the laundry. At length this simple debility of constitution was succeeded by various forms of disease—they had scurvy, dysentery, diarrhœa, low fever, and lastly affections of the brain and nervous system. To show the causes and nature of these diseases, it is necessary only to mention the striking fact, that while the prisoners who fed on this diet were growing weak and falling into disease, the officers of the prison, with their families and servants, who resided on the same spot, but lived well, entirely escaped; and the still more striking fact, that about twenty of the prisoners who were employed in the kitchen, and had an ample supply of meat and food, with two or three exceptions, continued healthy. The affections of the brain and nervous system which came on during this faded, wasted, weakened state of body, were head-ache, vertigo,

delirium, convulsions, apoplexy, and even mania. When bleeding was tried, the patients fainted after losing five, four, or even fewer ounces of blood, and 'were not better, but perhaps worse.' Leeches to the temples were equally useless—in some cases these patients died very slowly, after the circulation had remained for a day or two, almost though not quite extinct; yet on examining their bodies after death, there was found increased vascularity of the brain, and sometimes fluid between its membranes and in its ventricles.

But the reader will ask, is there no such disease as phrenitis in lying-in women? If I may judge from my own experience, phrenitis, that is, furious delirium from inflammation of the brain, is a rare disease in child-bed. It is true, inflammatory head-aches are not uncommon, and these are occasionally attended by delirium; but these cases are very different in their aspect and progress to those which I have related in this paper; the patients have head-ache, vertigo, singing in the ears, a flushed cheek, and a quick pulse. In most of them there is no disorder of the mind whatever, and when there is, it follows and is the effect of the inflammatory state of the brain; and it is never equal in degree, nor similar in kind, to the disorder of the mind in mania and melancholia. It is pain of the head, with fever, followed by delirium. To show the reader that I am not insensible to the existence of inflammatory diseases of the brain in child-bed, and that when I meet with them, I am ready to treat them actively, and to

afford him a specimen of these cases, I will relate one.

XII.

I was taken by a medical gentleman some miles from London, to see a lady who had been delivered about a week of her first child. She had looked forward to her confinement with a strong apprehension that she should die in it; but her labour, though severe, ended well, and she continued free from illness for several days. She was a plump and rather florid woman. She began to complain at first of a dull head-ache and thirst—this was succeeded by throbbing in the head, and giddiness, her face was red, her skin hot, and her pulse quick. She was kept on low diet, and purged well with calomel and senna, but during the night before I saw her she had become somewhat delirious. At times she was herself, and answered questions clearly; at others her mind rambled about absent things and persons: this was the account I received from her medical attendant. I found her sitting up in bed with eight gorged leeches hanging from her temples, her cheek was red, and her pulse full, firm, and throbbing. She told me that her head-ache was so distressing that she should go out of her senses; that she believed she had already been so during the night. I told the surgeon, that I thought local blood-letting was quite inadequate to this case; that it was in vain to empty the small blood vessels of the brain, whilst the heart and large arte-

ries were pumping it into them with so much rapidity and force, that nothing would do but reducing the violence of the general circulation; and I advised him to bleed her to syncope. He bled her from the arm in the recumbent posture—the sixth cup was full, and for want of another the blood had already begun to flow into the hand-basin before her pulse began to falter, and her face to blanch. On closing the vein and raising her head, she fainted completely—when she recovered she was still faint, and said that her head-ache was gone: the blood in the teacups was buffed and cupped in the highest degree. In the evening the head-ache returned a little, twelve leeches were applied, she took five grains of calomel at night, and a black dose the next morning; she passed a tranquil night, woke with no head-ache, and a clear mind; and when I saw her the next day she was so well, I took leave of her. I saw her medical attendant about a fortnight afterwards, who told me that she had no return of her symptoms. In this case the bodily symptoms indicative of inflammatory affection of the brain were sufficient guides to depletion without any disorder of the mind.

These febrile head-aches, whether attended by delirium or not, require great care and prompt depletion carried as far as is necessary to remove them. I have seen these symptoms, when neglected, or treated inefficiently, end in one case in hemiplegia, in another case in hydrocephalus, in a third in furious delirium, speedily followed by coma

and death. I had written these cases with an intention of inserting them, but they would lengthen this paper, already too long, and lead me too far out of my road.

From this digression on the inflammatory affections of the brain in child-bed, I return to the proper subject of this paper, puerperal insanity. The alimentary canal is generally disordered in its secretions—the symptoms which indicate this are a furred tongue, an offensive breath, and above all, dark and offensive stools. These symptoms exist in very different degrees in different cases; in some they are scarcely perceptible, in others they exist in a most remarkable degree; in these latter cases they seem to be the link on which the disease hangs, for as soon as they are removed the patient is well. Case No. I. affords some illustration of this principle, but the following is a far more remarkable instance.

XIII.

A lady, twenty-two years of age, clever, susceptible, and given to books, was confined with her first child at ————, ——— miles from town; she was anxious to nurse it, but several days passing with little appearance of milk, doubts began to be entertained whether she would be able; *she* thought that she would; her nurse and surgeon thought that she would not: this led to irritating discussions, her manner became sharp, quick and unnatural, and at the end of a few days she was decidedly maniacal. I and another phy-

sician were now sent for: we found her in a strait-waistcoat, incessantly talking or reciting poetry; her skin was hot, her pulse full and much above 100; her tongue covered with a dark thick fur; her bowels were confined, and her stools excessively dark and offensive; she took a dose of calomel and jalap, followed by small doses of sulphate of magnesia; these produced a few evacuations, but they were followed by no relief; she talked almost incessantly, scarcely ever slept, and was so violent it was impossible to keep her in bed without the strait-waistcoat. Thus three days passed from our first consultation. The physician who attended with me, thinking the case would be protracted, withdrew, and I was directed to take Dr. Sutherland down with me. As the purgative had operated very moderately, and the tongue and stools were as unnatural as at first, he proposed a more active purge. The next morning, therefore, she took a strong dose of senna and salts, made still more active by the addition of tincture of jalap; after this had been taken about three hours, it procured a very large evacuation, nearly black, and horribly offensive; this was as usual discharged into the bed without any notice on the part of the patient; it acted again an hour or two afterwards, but now the nurse, who was sitting by the bed-side, was surprised to see her turn round, and in a calm and natural manner request to be taken up as her medicine was going to operate; her waistcoat was immediately loosened and she was taken out of bed, when she void-

ed a stool of prodigious size, as dark and offensive as the first, and then walked back to her bed calm and collected; we saw her not many hours afterwards; her waistcoat was off, she was lying on her sofa perfectly tranquil, answered questions correctly, manifested no vestige of her complaint, excepting some strangeness in the expression of her countenance, and a timidity and abstinence from conversation which was not natural to her; she recovered rapidly and uninterruptedly.

It remains for me only to explain the method of treatment necessary for these diseases. In the cases which I have related, I have said so much about the remedies employed for their relief, and the effects these remedies produced, both beneficial or injurious, that I have little else to do than to collect the rules of conduct dictated by them, and put them in a compact and orderly shape.

I. The constant attendants on the patient ought to be those who will control her effectually but mildly, who will not irritate her, and will protect her from self-injury. These tasks are seldom well performed by her own servants and relatives.

If the disease last more than a few days, and threatens to be of considerable duration, her monthly nurse and her own servants ought to be removed, and a nurse accustomed to the care of deranged persons placed in their stead. Such an attendant will have more control over the patient, and be more likely to protect her from self-injury. She should never be left alone, and every thing should be carefully removed with which self-injury

can be effected; such as cutting instruments, garters, handkerchiefs, towels. The windows of her chamber ought to be carefully secured. With regard to the removal of her husband and relations, this also will be a question if the disease threatens to be lasting; it is generally right. Interviews with relations and friends are commonly passed in increased emotion, remonstrance, altercation, and obviously do harm; large experience, also, is decidedly favourable to separation as a general rule, yet there may be exceptions which the intelligent practitioner will detect by observing the effect of intercourse. The husband ought never to be left alone with his deranged wife, for obvious reasons. I have known more than once a neglect of this rule produce consequences which left in the minds of those concerned a never-ending regret. On this subject a serious appeal ought to be made to the sense and feeling of the husband.

II. The next rule regards the diet of the patient. It ought never to be very low; the lowest ought to consist of nutritious and unheating fluids, such as equal parts of gruel and milk, or gruel and good veal broth, or milk alone; and of these a quart ought to be given in the twenty-four hours. If there is any heat or thirst the broth had better be omitted; but the cases in which this diet requires to be reduced are few; it even sometimes requires to be mended. If the patient is pale, and the temperature of the skin lower than natural, it is useful to add to the above diet two ounces of wine

daily, mixed with gruel. When the patient is in such a state of mind as not to ask for support, and even object to take any, a thoughtless nurse will allow hours, and even days, to pass with no other food than a cup of tea or water-gruel, at long intervals—a neglect which I have known to be of serious consequences: but if the disease after many days continues unabated, a daily portion of solid meat may be necessary, and the rule for it is this: if there is nothing in the bodily symptoms, separate from the disorder of the mind, which forbids it, this state of the mind is no objection to, but rather an argument for it. Hospital patients are sometimes clearly benefited by a cup of caudle several times a day; but to them diffusible stimulants are more safe and necessary than to persons of temperate habits. After being long accustomed to a daily supply of gin, they come into a lying-in hospital, suffer pain, lose blood, live on water-gruel and take purgative medicines. If mania attacks them under these circumstances, a moderate quantity of wine is sometimes strikingly beneficial. Thus I would manage the diet in mania which occurs soon after delivery; but when melancholia attacks a woman long after delivery, who has been drained and enfeebled by nursing, a nutritious, and even cordial diet is necessary in all cases. She should take meat every day, with about four ounces of wine. Cupping, low diet, and purging, would confirm her disease, and perhaps convert it into idiotism. Lastly, if mania attack a women after sudden weaning, so that

there is reason to believe that the disorder of the mind has been caused by the sudden suppression of milk, (a case very different to that which I have last described, and one which I have not witnessed,) there would be reason to suspect an inflammatory affection of the brain; but this must be determined, and the treatment regulated, not by the disorder of the mind, but by the bodily symptoms which accompany it.

III. The third rule relates to the medicinal agents necessary in the treatment of these diseases. These are, 1st. Such as reduce the force of the circulation, especially blood-letting. 2d. Such as evacuate gastric and intestinal impurities, and amend the secretions which flow into the alimentary canal, as emetics and purgatives. 3d. Such as give sleep during the night, and calmness during the day: these are the various narcotics. 4th. Such as sustain the vital powers, as tonics and stimulants. These are not all necessary in each case, but it is out of these a selection must be made adapted to the circumstances of each case. 1st. With regard to blood-letting, the chief means of reducing the force of the circulation, the result of my experience is, that in puerperal mania and melancholia, and also in those cases which more resemble delirium tremens, blood-letting is not only seldom or never necessary, but generally, almost always pernicious. I do not say that cases never occur which require this remedy; no man's experience extends to all the possibilities of disease, but I have never met with such cases; and I

would lay down this rule for the employment of blood-letting—never to use it as a remedy for disorder in the mind, unless that disorder is accompanied by symptoms of congestion or inflammation of the brain, such as would lead to its employment though the mind was not disordered. Even here, however, great caution is necessary; local is safer than general bleeding. In Case X. the head was hot, and the face red, and the pulse was said to have become somewhat hard, yet a bleeding of eight ounces was followed by extinction of the pulse within three hours, and death in less than six. The only cases attended by a very quick pulse which I have seen recover, were those in which no blood was taken. In the really inflammatory diseases of the brain, blood-letting of course is essentially necessary; but these, I think, can never be mistaken for puerperal insanity; they are febrile head-aches, more or less acute. Pain of the head, with fever, is a much better indication for blood-letting than disorder of the mind without these symptoms. 2d. With regard to remedies which evacuate gastric and intestinal impurities, the activity with which these remedies are employed must depend on the distinctness with which these states are present. If the powers of the constitution are not low, and the gastric symptoms are very marked, namely a foul tongue, an offensive breath, a yellow eye, an emetic, not of antimony, but ipecacuanha, may be given. Vomiting has sometimes been followed by such signal success in the treatment of mania, that

some eminent physicians have considered it the most efficient remedy; but where the face is pale, the skin cold, and the qulse quick and weak, I should fear the depressing influence of nausea and vomiting. When the stools are very unhealthy in colour and odour, one or two active purges ought to be given, and a moderate action in the bowels kept up by such purges as empty the alimentary canal without drawing fluid from the circulation, such as the compound aloetic pill, or the compound decoction of aloes. Where however, the gastric symptoms are very slight, and the powers of the system much exhausted, active and prolonged purging is injurious; the utmost that is necessary and right is a dose of the aloetic pill, or decoction, sufficient to move the bowels plentifully once a day. 3d. The most valuable medicines in the treatment of puerperal mania are narcotics. If given at proper times and in proper doses, they often procure nights of better sleep, and days of greater tranquility. This calmness is most likely to be followed by some clearing up of the disorder of the mind. These remedies produce these salutary effects much oftener in the mania of lying-in women than in mania occurring under other circumstances; for it is more uniformly a disease of nervous excitement and debility. If the head is hot, the cheek flushed, and the patient thirsty, they ought to be postponed; but if these symptoms have been removed, or are not present, sedatives ought to be given, and the most efficient, first. After many days and nights passed in perpetual

wakefulness, it is an urgent object to procure tranquil sleep. For this purpose twenty minims of the sedative solution of opium may be given at once, and repeated in two hours if the patient is not asleep; even a third dose may be given in two hours more if the two first doses have failed, but the cases in which opium has been most successful have required at most two full doses. When sleep has once been procured, small doses, such as five or ten minims, should be given at intervals of six hours. If these small doses procure sleep by night it is unnecessary to return to the larger doses, but these may be used occasionally when the smaller doses fail. Constipation must be prevented by a daily dose of the compound aloetic pill or decoction, or, if these fail, by the compound extract of colocynth, which is made more soluble and active by mixing it with one-third of soap. If the sedative solution of opium should produce any of the ill effects which this drug is known occasionally to produce, such as head-ache, foul tongue, sickness, heat of skin, it should be discontinued, and the milder narcotics tried, of which the best is hyoscyamus mixed with camphor; five grains of each may be given every six hours, but the night dose should be doubled. It may be dissolved in an ounce and a half of camphor mixture. When once opiates have attained their objects they should be withdrawn, not suddenly, but gradually, diminishing the dose, lengthening the interval, watching the effect of this abstraction of the remedy, mending the diet whilst

withdrawing it, and returning to the old doses if the diminution of them occasions any unfavourable symptom. 4th. There are cases and times in which medicines which sustain the vital powers of the constitution are necessary and useful. When there is a total absence of febrile or inflammatory symptoms, when the face is pale, the skin cool, or even cold, and the pulse very weak, a scruple or half a drachm of the carbonate of ammonia divided into four doses, may be given during the twenty-four hours. The time comes when opiates have been tried and are no longer necessary, or have failed: the disease threatens to set in for a length of time, and the great object of the physician is to support the patient through a long, wearing, exhausting disease. This is done best by supporting her appetite for food, and in these cases the mineral acids are of essential service. The English physicians, most eminent for the treatment of insanity, employ these medicines much under these circumstances; they may be given alone or with a light bitter, or even bark, three times a day.

IV. The last rule I have to mention relates to seclusion and control. There can be no doubt that it is generally necessary and useful to seperate the patient from all those persons who are sources of excitement of any kind. This, however, can be effected only in one of two ways—either in a separate house, or part of a house where the patient has no other associates but her nurses, or in a receptacle for the deranged, where she has no other associates than her nurses, and

persons similarly afflicted with herself. This is the only society she has, excepting the short and occasional visits of the physician. Thus the power of controlling her, even by force, is placed in the hands, not of enlightened and benevolent persons, but of uneducated menials. I do not know how it can be otherwise, though I wish it could; but I think such a charge ought never to be placed in such hands without the most vigilant scrutiny of its exercise. There may be cases, or they may come a time at which some interruption to this solitary life may be advisable. When the disease has lasted long, when the patient expresses a strong wish to see some near friend, when she entertains illusions which the sight of some one may efface, the admission of such person is worth a trial.* I shall be told, that when patients are mending, or have recovered, the most common cause of relapse is too early an introduction to friends, and too early a return home. When the patient is recovering, or has recovered, I do not recommend these measures. It is when the patient has not recovered, and is not recovering, that I advise them to be tried; when month

* 'It is my opinion that confinement is too indiscriminately 'recommended and persisted in.' * * * * 'In many instances 'an intercourse with the world has dispelled those hallucina- 'tions, which a protracted confinement in all probability would 'have added to, and confirmed. In its passive state, insanity 'has been often known, if the expression be allowable, to wear 'off, by permitting the patient to enjoy his liberty, and return 'to his usual occupation and industrious habits.'—*Haslam, on the Moral Management of Insane Persons*, pages 14 and 15.

after month passes without any amendment, and her mental delusions assume a shape accessible to moral impressions, then it is that I would advise an interview with a friend. To illustrate what I mean, I relate the following case; on its accuracy in every part the reader may rely. I offer it respectfully to the consideration of those physicians who undertake not only the medical management of the insane, but who receive them under their roofs. I may be told that this case was rare, and may never occur again. I do not believe in such rare cases—even lusus naturæ occur in sufficient numbers to require classing, and these unique cases are unique only because we are not watchful enough to detect their fellows.

X.

A lady, twenty-eight years of age, of good constitution, but susceptible mind, became affected with melancholia a few months after her second lying-in: towards the end of her pregnancy a frightful incident had occurred to a near relation, which affected her so deeply that she often spent the night sleepless, sitting up in bed, thinking of her misfortune, and dreading that she should lose her reason after her confinement. Having nursed her child without feeding it for three or four months, with much unnecessary anxiety and exertion, she grew thin and weak, complained of sinking at the stomach and aching in the legs, and experienced so much confusion of mind, that she could not arrange her

domestic accounts; she became low-spirited, she knew not why: she was advised to wean her child, took some light tonic and gentle laxative, and went down to the sea-side, but at the end of a month she returned home, having derived little benefit from her absence; her spirits became gradually more depressed, and it was impossible to persuade her that she had not some fatal disease: one day it was a cancer; another, inflammation in the bowels; and to such a height did her apprehensions rise, that her husband was often brought home by some alarming message, and found her with a solemn air, and, in a low whisper, giving directions to her servants whom she had assembled round her, what to say if she should expire before their master arrived. She now grew much worse; there was no longer any doubt about the nature of her complaint; she was seen by a physician of extensive experience in these diseases, and sent into the country: many weeks passed; sometimes she was better, sometimes worse, now accusing herself of the deepest depravity, and meditating schemes of self-destruction; then again, convinced of the absurdity of her notions, and struggling against the load which for a short time every day weighed on her heart. In this way many weeks passed: at length the disease came upon her with more violence than ever, and in her self-examination and condemnation she became quite ferocious.

She was now put under the care of an experienced attendant, separated entirely from her husband, children and friends, placed in a neat

cottage, surrounded by agreeable country, (it was the finest season of the year,) and visited regularly by her physician.

For several weeks she manifested no improvement: sometimes she was occupied with one notion, sometimes with another, but they were always of the most gloomy description; at length it became her firm belief that she was to be executed for her crimes in the most public and disgraceful way; exery noise she heard was that of the workmen erecting the scaffold, every carriage the officers of justice assembling at the execution; but what affected her most deeply was, that her infamy had occasioned the disgrace and death of her children and husband, and that his spirit haunted her. As soon as the evening closed, she would station herself at a window at the back of the cottage, and fix her eyes on a white post that could be seen through the dusk; this was the ghost of her husband: day and night he was whistling in her ears.

Several weeks passed in this way; the daily reports varied, but announced nothing happy; at length her husband became impatient and begged to have an interview with her, thinking that the best way to convince her he was not dead was to show himself; this was objected to: he was told the general fact, that patients are more likely to recover when completely separated from their friends, that if she saw him she would say it was not himself but his ghost; but the husband was obstinate, and an interview was consented to.

When he arrived at the cottage, he was told that she had had a tolerable night, was rather more tranquil, but that there was no abatement of her gloomy notions. 'As soon as I entered the draw-'ing room, where she usually spent the day,' (I copy his own statement, which I have now before me, and which he wrote down at the time of the occurrence,) 'she ran into a corner, hid her face 'in her handkerchief, then turned round, looked 'me in the face, one moment appearing delighted 'at the thought that I was alive, but immediately 'afterwards assumed a hideous expression of coun-'tenance, and screamed out that I was dead and 'come to haunt her. This was exactly what Dr. '——— had anticipated, and for some minutes I 'thought all was lost.

'Finding that persuasion and argument only 'irritated and confirmed her in her belief, I de-'sisted, and tried to draw off her attention to oth-'er subjects; it was sometime since she had seen 'either me or her children; I put her arm under 'mine, took her into the garden, and began to re-'late what had occurred to me and them since we 'parted; this excited her attention, she soon be-'came interested, and I entered with the utmost 'minuteness and circumstantiality into the affairs 'of the nursery, her home, and her friends. I now 'felt that I was gaining ground, and when I thought 'I had complete possession of her mind, I ven-'tured to ask her in a joking manner, whether 'I was not very communicative for a ghost; she 'laughed; I immediately drew her from the sub-

'ject, and again engaged her attention with her 'children and friends. The plan succeeded be- 'yond my hope; I dined, spent the evening with 'her, and left her at night perfectly herself again.'

He went the next morning, in a state of intense anxiety to know whether his success had been permanent, but her appearance at the window with a cheerful countenance soon relieved his apprehensions: while he was there Dr. ——— came in; he went up stairs without knowing the effect of the interview, and came down, saying, 'It looks like 'magic!' With a view of confirming her recovery, she was ordered to the sea-side to bathe; as soon as the day of her departure was fixed, she began to droop again, the evening before it she was very low, and on the morning of her setting off was as bad as ever; this state continued for several weeks, in spite of sea air and bathing, and ceased as suddenly as it had done before, apparently in consequence of interviews with friends, calculated to remove the apprehensions by which her mind was haunted. She has since then continued perfectly well, and has had another child without the slightest threatening of her former malady.

The conclusion which I deduce from the foregoing case is, not that violent mania is curable by conversation, (if it should occasion the irruption of relatives during the height of the disease, the communication may do more harm than good,) but that there is a stage approaching convalescence, in which the bodily disease is loosening its hold over the mental faculties, and in which the latter

are capable of being drawn out of the former by judicious appeals to the mind.

I know too well that striking cases give an inaccurate notion of the average influence of remedies to expect that similar conduct will often be followed by similar success, yet I would ask these questions: How long would this patient have remained in a disordered state of mind, if she had not been treated in this way? and again, how many persons are there at this time in a similar state, who (although those who have the care of them do not suspect it) are capable of being restored in a similar way to their natural views and feelings?

If the reader will attend not only to the case itself, but to the remark which follows it, he will not attribute to me any disposition to deny the efficacy of seclusion and control in ordinary cases, and in the active states of the disease.

THOUGHTS ON INSANITY AS AN OBJECT OF MORAL SCIENCE.

It is a popular belief that insanity is a disease not in our physical but our moral constitution. This is not a speculation merely, but leads to various practical conclusions: that it is a subject rather for metaphysical than for medical inquiry; that a physician is requisite for a mad-house only as he is for a school or a prison; that the true theory of these mysterious diseases will be found in some extraordinary obliquities of thought, the true cure in some moral regimen, some training system for the weak or crooked faculties of the understanding.*

There are many diseases in which some of the faculties of the mind in a certain degree deviate from their natural state: such are the incubus or nightmare; severe and habitual indigestion, so often attended by lassitude of mind and depression of spirits; the hypochondriasis of liver disease;

* 'Of late, however, it has been seriously proposed in a 'great degree to remove both the medical treatment and moral 'management of insane persons from the care of physicians, 'and to transfer this important and responsible department 'of medicine into the hands of magistrates and senators.' 'Most persons who have not received a medical education 'have been fully persuaded they could arrange and compose it 'in its utmost state of distraction.'—*Haslam on the Moral Management of Insane Persons*, pp. 2, 6.

the strange and different forms of hysteria; and lastly, but most remarkably, fever attended by delirium; no one supposes these to be moral diseases; no doubt is entertained that the mind is affected by disease of the body; the mental symptoms are universally considered as the natural effects and signs of disturbance in the brain; a man of plain sense, therefore, familiarly acquainted with these facts, would naturally look upon insanity in the same light, unless some solid reasons can be given him to the contrary; where are such reasons to be found?

I. One cause of the belief that insanity is a moral disease is, that it is often produced by passions or efforts of mind; as the cause and the ultimate effect are both mental, it has been thought that the disease must necessarily be a moral one. A very little observation, however, will teach us that no causes operate more distinctly upon our bodily organs than violent efforts and agitations of mind; will not terror so enfeeble the muscles as to make us as tired as after a toilsome walk? will not the anxiety of a few hours deprive us of appetite for the next meal? will not long-continued grief or intense study so impair the process of nutrition as to emaciate the body and bleach the cheek? will not mental agitation set the heart beating, the pulse throbbing, and crimson the countenance? Those states of mind which are capable of producing insanity, act distinctly upon the bodily organs, and if they are capable of disturbing the muscles, the stomach, the organs of nutrition, the heart and

blood vessels, even to the little blood-vessels of the cheek, with which the mind is only secondarily connected, where is the difficulty of supposing that they may act physically upon the brain, with which it it is immediately connected? If mental effort or agitation induces physical disturbance in the brain, this physical disturbance will show itself by an unnatural state of the mind; thus the cause may be mental and the ultimate effect mental, yet the intermediate process itself may be essentially a physical one.

II. Another cause for the moral theory of insanity is, the supposition that the bodily disease which accompanies it is too slight, to occasion the mental derangement; but this will no more bear examination than the former. For, first, the bodily disease which accompanies insanity may not be so striking as that which accompanies delirium; it may not be so noticeable as a hot skin, a quick pulse, a furred tongue, and helplessness of limbs, yet it may be equally, or even more capable of disturbing the actions of the brain. A little black bile, which none would notice but an explorer of hepatic secretions, may be more capable of disordering the faculties of the mind than loss of appetite and prostration of strength, which every one would notice. It is certain that puerperal insanity depends on a peculiar state of the bodily constitution, yet this state, so far from being obvious, is often known to exist only by a disordered condition of the mind. This objection is founded on the supposition that bodily disease is only capable of

disturbing the brain of the patient in the same degree that it strikes the senses of an observer, which is a manifest absurdity. Besides, in the delirium of fever we consider that the deranged state of the mind is the effect of a disordered state of the brain; why then should not the same symptoms prove the same thing though unconnected with the same extent of disease?

III. It is well known that strange habits of mind long continued, are capable of generating great singularity of opinion and feeling; between this moral eccentricity and insanity there is sometimes a striking resemblance. It is not easy to confound boisterous madness with healthy singularity, but when a lunatic is harmless in conduct, insane only on one point, and talks so rationally on all others that it is not easy to detect his infirmity, his state of mind is wonderfully like those eccentric and absurd opinions which intellectual habits are capable of producing, and which often cause their possessors to be called mad, half in joke yet half in earnest: a little insight into the mode of their production will enable us to judge whether this resemblance is apparent or real.

It is so well known that the mind may brood over a subject till it loses the power of seeing it in a right point of view, that it is commonly said a man may tell a lie till he believes it. 'I wish,' says Dr. Johnson, rebuking Boswell for the zeal into which he had worked himself about the history of Corsica, 'I wish there were some cure like 'the lover's leap for all heads of which some single

'idea has obtained an unreasonable and irregular 'possession.' Objects which have had frequent access to the mind seem to have a double power over it: viz. they not only produce the natural effect of a single application, but they revive the traces or recollections of their former impressions. This is the case not only with objects of fancy, but with propositions which appeal to the understanding; an opinion produces effect partly in proportion to the manifest proof which it contains, and partly to the frequency with which it has been so presented to the mind as to excite the feeling of approval or conviction; every time it is so applied it leaves (if I may so express myself) a stratum of belief in the mind this is capable of incalculable accumulation, till at length the object produces an effect and gains a power over the individual totally different to what it possesses over one less frequently impressed by it. Objects by repetition lose their power over the senses, for the senses have no memory, while they incalculably augment it over the understanding and the affections. It is on this principle that so many trifles acquire an influence over us so disproportionate to their importance; that with the generality of mankind opinions owe their power more to habit than to evidence; that an old song however bad pleases more than a new one however good; that a wag tickles those who are accustomed to him more than those who are not; that the ploughman prefers his coarse and awkward mistress to the loveliest lady in the land; that the constant dropping of daily circumstances

on the character wear in it deeper channels than the transient torrents of persuasion.

It is this striking similarity between the erroneous opinions of the insane, and the singular opinions of the eccentric, and this power of habit to generate, even in healthy minds, something so similar to the essential features of insanity, which has been, I suspect, one of the principal causes for the belief in the moral nature of this disease. Yet any one who is familiar with human nature, both sane and insane, would perceive an important difference between the two cases: it is this, that the errors of the eccentric are the result of long habits, continued for a great part of their lives, and fabricated by slow and almost imperceptible degrees, while the errors of the insane spring up suddenly, within a few months or even weeks. The patient has suffered some mental agitation, received a blow on the head, has been lying-in, or is recovering from a fever; the mind becomes confused and hurried, and in a few weeks, or even days, there arise the wildest and most absurd beliefs. In these cases there is neither time nor peculiarity of habits adequate to explain such effects by the intellectual processes above alluded to. Between the erroneous opinions of the insane and the singular opinions of the eccentric, there is the same difference as there is between that permanent readiness of argument, imagery, and language, which is the result of study and practice, and those sudden and temporary gusts of eloquence produced by a bottle of wine.

IV. It is possible that the reader may be satisfied about the foregoing points, yet there remains another consideration which may induce him to believe that insanity is at least sometimes a moral disease: the consideration is this, that the cure of insanity is sometimes effected by a method both moral in its nature and moral in its operation; thus patients have been relieved from their hallucinations, and restored at once to complete sanity, by a well-contrived incident, a well-expressed argument, or a well-managed conversation. Here the cure is as much an intellectual process as the conviction of a sophist, or the conversion of an infidel; in fact they are identical processes. Now I would first remind the reader of the general truth of the opposite statement, the total inefficacy of argument, persuasion, and all appeals to the mind during the violence of the disease; but granting it to the full extent of the truth, do we not witness the same effects brought about by the same means in affections whose origin is confessedly physical? If a person low-spirited from ill-health should suddenly receive some joyous news, he would for a time at least be restored to the hilarity of health; would forget his low-spirits in his bright prospects; the physical would yield to the mental impulse. A more striking example sometimes occurs in delirium; a person in the height of fever, who if left to himself would stare vacantly and talk incoherently, will sometimes at a loud question wake up, answer collectedly, be himself for a short time, and then relapse into his for-

mer incoherence. Here is a mental cause removing by a mental operation a state of mind avowedly physical. From such facts what are we to infer? not that insanity is a moral disease because it is sometimes benefited by moral treatment, but that though the unnatural state of the mind arises from a diseased condition of the body, there are times and states in which the mind begins to regain the capability of being acted upon in the natural way by its natural mental objects.

V. There is another circumstance which cannot be numbered among the *reasons* for the moral theory of insanity, but which I suspect has greatly contributed to it; I mean the fear that the opposite notion would favour the doctrine of the materiality of the soul. A moment's reflection, however, will show that the physical theory of insanity is not more likely to lead to this conclusion than the physical theory of delirium, which no one doubts. If the effect of bodily disease on the mental faculties is likely to have a dangerous influence, the danger is not in this or that instance, but in the principle. As the present question, however, is not what is the safest doctrine, but what is the truest; as the example of insanity adds nothing to the danger of the principle, and as this is not the place for discussing the question how far it is compatible with the mortality of the soul, I shall not enter into it; I may be allowed however to remark, that the whole danger rests on this proposition, that if the diseases of the body disorder the faculties of the mind, then

the faculties of the mind must be the functions of the body. But where is the proof of this? Disease in the liver impairs digestion; is digestion a function of the liver? defects in the cornea confuse the perceptions of the retina; is vision a function of the cornea? It is plain therefore that disease in a part may disorder actions which are not the functions of that part. The mind is affected by the state of the stomach, of the liver, of the uterus; we know therefore that it may be affected by the state of organs with which it communicates, but of which no one pretends it is the function. It may be said that the mind and these organs can never be seen apart, and that although it is not supposed to belong to them in the same way as a function belongs to an organ, we have no proof that they can exist separately: true, but take another instance. A hand shattered by the bursting of a gun will produce fever and delirium: let the limb be removed at the proper period, the constitution regains its tranquillity, and the mind its powers: it is clear, therefore, that the mind may be affected by disease in a part not only of which it is not the function, but from which it may be separated; that such is the construction of the living body, that one thing may affect another with which it has only a temporary connexion; where then is the danger of the principle, that the diseases of the body disorder the faculties of the mind? Whoever has convinced himself by other considerations of the immortality of the soul, will find no difficulty in this principle; and so far

from shrinking from it, will rather see in it a reason for believing that 'in a separate state of 'existence, it is highly probable that the soul 'works clearer, and understands brighter, and 'discourses wiser, and rejoices louder, and loves 'nobler, and desires purer, and hopes stronger than 'it can do here.'*

It appears therefore that emotions of mind are capable of disturbing the organs of the body, and that, though moral causes in themselves, they may be physical in their operation; that the adequacy of bodily disease to disorder the mind is not to be estimated by the degree in which it strikes the attention of the observer; that although the erroneous opinions of the insane are very similar to the singular opinions of the eccentric, they are very different in their nature and origin; that causes moral both in their nature and operation, are capable of influencing diseases which are avowedly physical, and that consequently their influence in insanity is no proof that it is a moral disease: lastly, that the physical theory of insanity is no more a proof of materialism than many avowed instances of the influence of body over mind. I conclude, therefore, that there is no ground for the reasons which have led to the belief in the moral nature of insanity; if we take into the account the influence of physical causes in its production, as injuries of the head, parturi-

* Jeremy Taylor's Sermon on the death of the Countess of Carberry.

tion, drunkenness, the sun's heat, and the influence of medicinal remedies in abating or removing it, can we avoid taking it from the solitary and singular station which it holds as a moral affection, and replacing it among those in which an unnatural state of mind attends on bodily disease?

If this was merely a speculative question, an inactive scepticism might be philosphical and justifiable; but it is one of the many we meet with in life which cannot be answered with mathematical certainty, but which should be settled as well as we are able, because they are necessary for action. It is no less a question than whether, in our search after a better theory and a more successful treatment of these diseases, we shall occupy ourselves in investigating the causes and treatment of disease in the brain, or in discussing whether insanity is an error of the perception, the imagination, or the judgment; in applying the inductive mode of reasoning to its intellectual phenomena—who are the persons best fitted for prosecuting the inquiry? those who are familiary accquainted with the causes, progress, and treatment of diseases in general, and among them of the diseases of the brain, or those whose only qualifications for the task are their benevolence, their zeal, and their metaphysics?

In considering insanity as an object of legal medicine, it often becomes a question, and some-

times a puzzling one, whether the peculiarity in the mind of the person who is the subject of investigation, does, or does not, constitute unsoundness of mind? On these occasions, it is often said that the peculiarity is not madness, but eccentricity. To form a proper opinion on this question, it is necessary to have an accurate conception not only of what we mean by the word insanity, but also of what we mean by the word eccentricity.

Now, the persons who have passed for eccentric, and whom I have had opportunities of observing, I would divide into three classes. 1st. Those who differ from the rest of mankind chiefly in their objects and pursuits. Instead of desiring and aiming at the common object of human wishes, namely, rising in life, the attainment of a competence, the acquisition of wealth and power, they are contented in these respects to remain stationary, and they dedicate the whole of their time and talent to the cultivation of their minds, and the acquisition of knowledge. This peculiarity of pursuit, unless counteracted by much intercourse with polished society, generates various peculiarities in their appearance, habits, manners, and modes of expression; they are careless, often slovenly in their dress, awkward in their manners, singular, and often pedantic in the topics and language of their conversation. Such persons are called eccentric, but their eccentricity consists only in their pursuits and manners; it is the simplest and most unquestionable form of eccentricity, and is compatible with the healthiest, happiest, and most

vigorous state of mind. 2d. The second class consists of persons who differ from the rest of mankind in the singularity of their opinions. With the same materials they draw inferences widely different from those of sensible and competent judges; they are persons of great confidence in their own judgment, defective either in knowledge or in comprehensiveness of mind, and by separating those facts which are favourable to their opinions, by frequent meditation on them, and by keeping out of sight the opposite facts, they at length attain the firmest conviction of their peculiar notions. This process will sometimes carry a man a great way. There is at this time, in America, a Captain Symes, who is convinced that the earth is perforated from pole to pole, that the sea flows through, that the perforation is navigable, and he is said to be planning a voyage to explore it. This form of eccentricity, in a minor degree, is very common; the persons subject to it are often clever and zealous, but they never possess very superior minds; they have the zeal for knowledge without corresponding sagacity; still they are eccentric, not mad, for they arrive at their conclusions through an intellectual process, though a crooked one; it is a law of the human understanding, that a little evidence perpetually presented to the mind will produce as much conviction as a greater quantity presented rarely. 3d. There is still another class of persons who are called eccentric. Those whom I have had an opportunity of observing closely have been remark-

able for a high opinion of themselves, quite disproportionate to their apparent powers or actual achievements, for rashness of conduct never corrected by experience; some of them have had singularly calm and sweet dispositions; others have been of stormy tempers, subject to violent gusts from trifling provocations; they have had singular opinions without any intelligible reasons for them, and have most of them had a peculiarly formal and solemn manner. After continuing many years in this state, and passing among their friends for eccentric characters, they have ultimately become deranged. I need scarcely say that this peculiarity of mind, although constantly mistaken for eccentricity, is, in truth, slumbering, undeveloped madness. The signs which ought to create suspicion of this state are these: insanity being more or less prevalent in the family; a singularity of manners, opinions, and actions, inexplicable by the peculiar pursuits of the individual; enormous self-esteem; mischievous schemes obstinately persisted in, and uncorrected by experience.

When the body is healthy and the mind sane, our beliefs, emotions, and actions, are produced by mental processes, more or less complete in different individuals, but still in all by mental processes. We believe such a proposition because we have some evidence for it, good or bad; we

experience angry or sorrowful emotions, because something irritating or depressing has occurred to our minds; we inflict punishment upon another from a vindictive emotion excited by a real injury; but in madness, these beliefs, emotions, and actions, seem no longer to be the results of mental processes, but to be under the influence of a peculiar bodily state. I have conversed with those who have recovered from derangement, on the subject of their delusions, and have asked them what could have led them so firmly to believe such absurdities or impossibilities, what real or imaginary reasons they had; and they have told me that they had no reasons at all, that there was the thought in their mind, accompanied by the most undoubting confidence of its truth, but how it came there, they know as little as how it went away. Persons on the verge of melancholia will often declare that they are wretched, they know not why; that they have every thing to make them happy, and yet they feel no interest in life, a distaste for all their ordinary pursuits and pleasures, a wretchedness for which they can give no reason to themselves. In those extraordinary cases in which persons have committed murder on those who had never offended them, and towards whom they felt no antipathy, it seems that they were sometimes urged by some strange impulse totally different to the sense of injury, and thirst for revenge, which impels the sane man to commit such acts. If we are right in supposing that the instincts of animals consist of reasonable acts,

not preceded by any reasoning process, but subservient to some bodily sensations in the animal, there would be a striking analogy between the two conditions, and insanity might be said to be the temporary conversion of human into animal nature. This has long appeared to me to be the most reasonable conjecture on this dark and mysterious subject.

It has been stated by legal authority, that to make out insanity, it is necessary to prove 'insane 'belief.' But what is the definition of 'insane be-'lief?' Is it the belief of something either physically impossible, or utterly groundless and unreasonable? If so, it will apply indeed to the greater number of hallucinations, but will not reach them all.

I knew a captain of an East Indiaman who became deranged during a lawsuit about his father's will, and who believed that he had come into possession of £100,000 a year; he spent money lavishly, drove about the streets in a carriage with a mistress, told me that he should restore the feudal system in all its glory, offered to give me a pair of carriage horses, and at length went abroad to dethrone the Grand Sultan, promising that if I went with him, he would make me his Grand Vizier, and give me a magnificent seraglio. In this case the predominant notion was utterly groundless and unreasonable; but what shall we say to those

cases in which the predominant notion is such, that it is more reasonable to believe it than to disbelieve it, or is an actual truth? yet such cases there are.

In religious melancholy the patient thinks that he is the object of Divine anger. In this case is the prominent belief utterly groundless and unreasonable? Christianity, as represented to us in the New Testament, clearly leads to the belief that only a small part of the human race is to be saved: consequently the chances are much against any particular individual, and I know few persons who have not reason to doubt whether they have ever attained that strength of faith, purity of heart, and entire repentance, which are held out as the necessary conditions of salvation. When we consider the certainty of death, and the magnitude of the question, is seems more reasonable to feel anxiety, and even terror about it than indifference; yet experience shows that people, as long as they keep their sound senses, bear the thought with sufficient lightness for all the uses of this world. Dr. Johnson, who seldom touched any subject without lighting on the truth, perceived this, as apears by the following opinion recorded by Boswell. 'Madness 'frequently discovers itself merely by unnecessary 'deviation from the usual modes of the world. My 'poor friend Smart showed the disturbance of his 'mind, by falling upon his knees, and saying his 'prayers in the street, or in any other unusual 'place. Now, although rationally speaking, it is 'greater madness not to pray at all, than to pray

'as Smart did, I am afraid there are so many who 'do not pray, that their understanding is not call-'ed in question.'

Here the insanity consists not in the groundlessness and unreasonableness of the predominant belief, but in its affecting the mind in a different way to what it does that of sane persons. I attended a deranged lady, whose predominant belief was, that her husband was unfaithful to her; the notion, so far from being unreasonable, was, I believe, true, and she had known it for many years without any unnatural disquietude, but now it engrossed all her thoughts; she neglected her ordinary pursuits, took a dislike to her friends, felt no interest about her children, and sat silent and motionless from morning to night. After continuing deranged several months, she recovered, although she still retained the same opinion. In what, then, consisted her insanity? not in the groundlessness and unreasonableness of the predominant belief, but in its withdrawing her attention from all other thoughts and pursuits, in its overwhelming influence over her feelings and conduct.

CHAPTER III.

THE MODE OF DISTINGUISHING PREGNANCY FROM THE DISEASES WHICH RESEMBLE IT.

It is a common opinion, that the symptoms of pregnancy are so certain, that no one who is not either inattentive or ignorant can possibly mistake them; and whenever any error of this kind occurs the person who has committed it is an object of ridicule: yet not only are women and their nurses often wrong, but so are practitioners of considerable experience; nay, even those who have paid especial attention to the subject, and who have the largest experience, of obscure cases of this kind, are sometimes at a loss, and sometimes err. For want of clear notions of the subject, and a very attainable degree of tact, practitioners are frequently incurring disgrace, patients are subjected to active courses of medicine for the reduction of tumours, for which the natural remedy is parturition; and in some instances, pregnant women have been supposed to be dropsical, and actually tapped, to say nothing of other blunders*. I know of no ac-

* 'We saw at Paris in the year 1666 a miserable example 'of this kind in a woman who was hanged and afterwards dis- 'sected publicly. She was found to be pregnant with a child

count of the subject at all adequate to its difficulty and importance†; and I think I shall be doing a service to a numerous class of practitioners by giving a full and connected account of the symptoms of pregnancy, the degree in which they may be relied on, the mode of distinguishing pregnancy from the cases which resemble it, and the various forms of disease to which it requires to be applied.

In learning the symptoms of pregnancy for the elucidation of doubtful cases, it is necessary to attend, not merely to the symptoms themselves, but to the order in which they succeed one another, and to the time of their appearance.

'of four months, notwithstanding the report of the persons 'who had visited her by order of the judge before her execu- 'tion, who assured the judge that she was not so. What de- 'ceived them was that this woman had menstruated in some 'degree. This affair made so much noise at Paris, that it 'came to the knowledge of the King and all his court, by whom 'those persons were greatly blamed, who by their ignorance 'had been the cause of the rash execution of this poor unfortu- 'nate, with whom had perished her infant, which was innocent 'of the crimes of its mother..... Besides the death of such in- 'nocent little creatures, they deprive them of eternal felicity 'by making them die in the belly of their mother without re- 'ceiving the baptism which would have procured them so great 'a good.'—*Mauriceau sur les Maladies des Grosses Femmes*, 4to. 1721, tome i. liv. 1, p. 71 and 72.

† The fullest account of the subject is contained in a German work entitled 'Dr. Wilhelm Joseph Schmitt's Sammlung 'Zweifelhafter Schwangerschaftsfälle nebst einer kritischen 'Einleitung über die Methode des Untersuchens.' Vienna, 1818.

The first symptoms of pregnancy is the omission of menstruation. The patient may have been pregnant a week or two already, but she cannot know it till that period of the month arrives when she is accustomed to menstruate; and then, when she expects to be unwell, she finds that she is not so. This is soon followed by sickness; it commonly occurs on rising in the morning, and diminishes, and at length ceases, as the day advances; it generally continues during the first half of pregnancy, and subsides about the time when the movements of the child begin to be felt. When three months have elapsed without menstruation, the abdomen begins to enlarge; this is at first very slight, the patient rather *feels* distended than *shows* any visible enlargement; but it gradually increases, so that after the fourth month a prominence of the abdomen can be perceived externally. By the fifth month this prominence is so considerable, that when the patient is standing, no one can overlook it, and from this time it gradually increases till it attains the well-known bulk of a person near her delivery: thus the visible enlargement of pregnancy does not last more than five months; if it has lasted nine, that alone is a reason for doubting whether it arises from pregnancy. The next symptoms are enlargement and shooting pains in the breasts, darkness of the areola, and enlargement of the follicles round the nipples. In women with dark eyes and hair this discolouration is very distinct; in women with light hair and eyes, it is often so slight that it is difficult to tell

whether it exists or no. The last symptom I have to mention is the most important, because, if really present, it is the most conclusive—I mean the child's movements. These begin to be felt when four months have passed without menstruation. At first the sensation is only slight; it is like a pulse or a fluttering in the abdomen, and lasts only a few seconds at a time; it may be felt one day and then cease for several; but gradually this sensation becomes stronger and more frequent, till at length if a hand happens to be laid on the abdomen at the moment when the child moves, it can be felt externally. Towards the end of pregnancy its movements are so strong, that whilst the patient is sitting, the heaving of the abdomen may sometimes be seen through her dress.

Thus, the ordinary signs of pregnancy are a cessation of menstruation, morning sickness, enlargement and shooting pains in the breasts, darkness of the areola, enlargement of the abdomen beginning about the third month, and gradually increasing till the ninth; the movements of the child after the fourth month gradually growing stronger till the ninth.

It is clear that if these symptoms always accompanied pregnancy, we should always know when it existed; and if they never accompanied any other state, we could never mistake any other state for pregnancy. But unfortunately they possess neither of these requisites for infallibility; they may be absent in patients who are pregnant,

and present in those who are not so; and thus give occasion to frequent errors.

I. Many women assert that they have menstruated regularly during the early months of pregnancy: whether this is really menstruation, or a periodical hæmorrhage from partial separation of the ovum, is not the question, but whether, during the first months of pregnancy, there may not occur a monthly discharge of blood which in period and duration so far resembles menstruation, that the patient is unable to distinguish it; and about this there can be no doubt. As to sickness, there is an infinite variety in the degree in which it occurs in pregnancy: some patients are sick day and night, during all the nine months; others never feel the slightest nausea from the moment of conception to that of delivery. In thin women the enlargement of the breasts is often very slight; and in fat women the breast forms so small a proportion of the bosom, that any enlargement of the former is scarcely perceived. In very fair women with light hair and eyes, the discolouration of the areola is often so slight, that it is difficult to perceive; and in brunettes who have already borne children, the areola remains dark ever afterwards, so that this ceases to be a guide in all subsequent pregnancies. The enlargement of the abdomen from the third month to delivery, is in all cases present and progressive whilst the fœtus is alive; but it may die, and yet be retained till the ninth month, in which case the enlargement will not be progressive. The same

may be said of the movement of the fœtus; it will not move if not alive, and there are cases, though rare, in which it has not moved during the whole of pregnancy, although it has been born alive and vigorous; of this I have know one instance, and read of others. Thus a woman may be pregnant though she seems to herself to continue to menstruate, has no sickness, or enlargement about the breasts, or darkness of the areola, or progressive enlargement of the abdomen, or perceptible movement of the fœtus. Such a complete assemblage of omissions however is not likely to meet in the same case.

II. A woman may have apparently all the symptoms of pregnancy, and yet not be pregnant; menstruation may be stopped by other causes; when it ceases suddenly in a women of healthy constitution, who had previously menstruated with perfect regularity, it is a strong symptom, but there are women of feeble constitutions who, without being pregnant, frequently pass months without menstruating; in such a person the omission of menstruation proves nothing. Sickness may be produced by other causes besides pregnancy; and when it arises from a weakness of stomach, the morning is the time when it is most distressing. The bosom may enlarge because the patient is growing plump. Some have laid great stress on the darkness of the areola, thinking that no other state besides pregnancy is capable of producing it. I saw two young and newly-married women within two days, who had made preparations for lying-in,

and who were not pregnant. In both, the areola was dark, though (if their history is to be trusted) they never had children. I believe, however, that darkness of the areola rarely depends on other causes, and that when it exists it may generally be looked upon as a sign either that the patient is pregnant, or has been so formerly.* The abdomen

* 'Obstructions and pregnancy are both accompanied by a 'stretching fulness in the breasts, but in the last only (preg- 'nancy) may be perceived the areola, or brown ring round the 'nipples, from which in the last months a thin serum distils: 'but this circle is not always so discernible as in the first preg- 'nancy, and even then is uncertain as well as the others.'—*Smellie*, vol. i., p. 187.)

'Dr. Hunter had great faith in this sign, insomuch that he 'asserted that he could always judge by it whether or not a 'woman was pregnant; he once evinced how much depen- 'dence was to be placed on it. A subject was brought to him 'for anatomical purposes, but on looking at the breast, from 'the appearance of the areola he declared that the female died 'while pregnant. One of his pupils examined the genitals, 'and found that she had a hymen; this seemed a contradic- 'tion, but the doctor still adhered to his opinion, and thought 'more attention due to the former than the latter appearance. 'On opening the body his assertion proved just, for the uterus 'was found impregnated.—(*Lowder*, *MS. Lectures.*)

'The areola, or brown circle round the nipples, has been re- 'presented as an indubitable mark of pregnancy. This is not, 'however, suspected to be a primary consequence of a particu- 'lar affection of the uterus, but of the preceding enlargement 'and alteration of the breasts; and though it generally occurs 'in pregnancy, it may be produced by any cause capable of 'giving to the breasts a state resembling that which they are 'in at the time of pregnancy, of which it can only be esteem- 'ed a doubtful sign. The areola is therefore found in many of

often enlarges from flatulence, dropsy, and other diseases so as to equal or exceed the bulk of pregnancy. As to the movements of the child, it is very important to distinguish between these movements as felt internally by the patient, and as felt externally by a hand applied to the surface of the abdomen; the latter, if really felt, is an infallible sign of pregnancy, but the former are often felt when there is no child. Thus a woman may cease to menstruate, have sickness, enlargement of the bosom, and darkness of the areola, a progressive enlargement of the abdomen, and sensations which resemble those produced by the movements of the child, without being pregnant.

But if the ordinary symptoms of pregnancy are so far from being infallible, what, it will be asked, is the result in practice? It is this—that although they are sufficient guides in most cases, and under ordinary circumstances, yet that they are often insufficient. One person is pregnant who has no right to be so, and obstinately denies it; another is pregnant who has no cause to be ashamed of it, but from some peculiar circumstance, reasonable or unreasonable, disbelieves that she is so. One thinks that she is pregnant merely because she is sick, another because she is not regular, a third because her belly swells, and a fourth because she wishes to be so—and these erroneous denials and

'the complaints which resemble pregnancy, and though gene-
'rally, not universally, I think, in pregnant women.'—*Denman, Introd. to Midwifery*, vol. i., p. 251.)

erroneous suspicions are imparted from the patient to the medical attendant, and influence his conduct. Of these errors some are the result of ignorance or thoughtlessness, but some are committed by men of sense, experience, and attention.

How then are we to act in doubtful cases? To wait till the doubtful state is sufficiently advanced to enable us to ascertain two points; 1st, whether the enlargement of the abdomen depends on enlargement of the uterus, and if so, 2nd, whether the enlarged uterus contains a fœtus; these are the ultimate objects of what is called examination by touch; and the several indications which are sought for, are important only as they elucidate these two questions.

Those who have had most experience in obscure cases of this kind agree, that it is difficult to decide about them by touch during the early months, and that the longer the examination is postponed, the more conclusive it is. Dr. William Hunter, who possessed at least more than the average quantity of experience and tact, used to express himself thus, in his lectures on the subject: 'I find that I 'cannot determine at four months, I am afraid of 'myself at five months, but when six or seven 'months are over, I urge an examination.'

Having chosen the time for examination, the next question is, how to perform it? What are we to seek for, and how shall we detect them? Our object is to ascertain the state of the uterus, and this may be felt in two ways—externally through the walls of the abdomen, and internally

through the vagina. In examining externally through the walls of the abdomen, the bladder should be empty, the patient in bed, *in* her night dress, *on* her back, *in* a posture between sitting and lying, with the knees slightly drawn up. These are the most favourable circumstances for the external examination; but we are often obliged to examine without these advantages.

The first thing to notice is the situation, consistence, and figure of the tumor which is distending the abdomen. In pregnancy the uterus does not rise out of the pelvis before the third month—by the sixth it is up to the umbilicus—by the seventh it is a little above the umbilicus—by the eighth month it is half-way between the umbilicus and scrobiculus cordis—and in the ninth month it has reached the scrobiculus cordis, its highest elevation: thus, if we are examining a patient about the sixth month of pregnancy, we shall feel a circumscribed tumour occupying the front of the abdomen, from the brim of the pelvis to the umbilicus, of an oval form and firm consistency, much firmer than the abdomen above and on its sides, where it is occupied by the intestines. All this can be made out clearly if the walls of the abdomen are thin and relaxed; if they are fat, this is difficult, and often impossible; but even then we can notice whether the enlargement is firm or soft: the former will be the case if the patient is pregnant.

The next thing to notice is the umbilicus. In the unimpregnated state it is sunk below the

surface, forming a shallow pit: but in pregnancy, when the uterus has risen to or above the umbilicus, this part projects above the surface of the abdomen;* this, however, depends on the period of pregnancy at which we are examining: it will scarcely be found before the sixth month, and the further the pregnancy is advanced the more distinct will it be. The firmness of the abdomen and the projection of the umbilicus depend on one and the same cause, that is the firmness of the tumour which is distending the abdomen: but any other tumour equally firm may occasion both these symptoms; their presence alone proves little, but if the state which we are investigating is advanced as far as the seventh or eighth month, their absence proves a great deal; for if the umbilicus is depressed, and the abdomen, though enlarged, is soft and yielding, these alone prove that the patient is not pregnant. Let not the practitioner, however, give an opinion till he has collected all the proofs.

The next thing to attend to is, the movement of the child. If the hand is laid on the naked

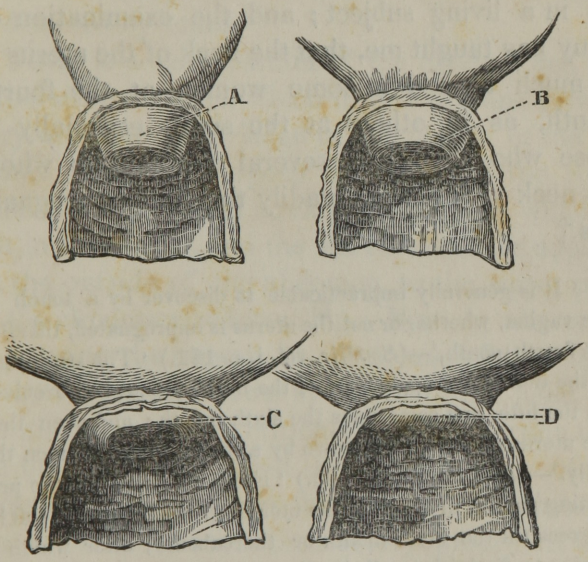
* 'Those who are pregnant have the abdomen always 'much more eminent before, and the umbilicus much more 'elevated, than in false pregnancy; so that in a doubtful sus- 'picion of pregnancy advanced four or five months, or more, if 'we find the navel of the woman sunk and the orifice of the 'womb small and hard, we may be assured by these two signs 'that she is not pregnant, for in true pregnancy, advanced to 'the period which I have named, the navel appears always 'more raised, and the internal orifice more tumefied, supple, 'and soft, than in false pregnancy.'—(*Mariceau*, t. i. p. 93.)

abdomen, between the pubes and the umbilicus, the fœtus will sometimes be felt to stir. As however it moves only occasionally, this may not happen during the examination. It is said,* that by dipping the hand in cold water, and laying it suddenly on the naked abdomen, the fœtus may be made to move. As I have long had the cold hand of a dyspeptic sufferer, I have no occasion to dip my hand in cold water; it is always cold enough to make the patient shrink, and by laying it suddenly on the naked abdomen, I have sometimes felt the child move, but this has been only an occasional occurrence. If distinctly felt, it is of course the most conclusive symptom.

Having examined the uterus through the walls of the abdomen, we proceed next to examine it through the vagina: for this the patient should be turned on her side; and here again there are three things to observe, the state of its neck, the state of its body, and the movement or rather the mobility of the fœtus. 1st, in the unimpregnated state, the neck of the uterus projects into the vagina about two-thirds of an inch, like a thick, firm, fleshy, nipple. At the termination of pregnancy, a few days before labour, this neck is completely obliterated, the portion of uterus, which lies over the top of the vagina, no longer projecting into its cavity, but forming a flat roof. This obliteration begins about the fifth month, the neck becoming

* Morgagni de Sed. et Causis, Epist. 48, § 3. Dr. J. Hamilton.

gradually softer, broader, and shorter; by the seventh month it is much altered, and not at all like the neck in the unimpregnated state, being very soft, broad, and short. It is now calculated to have lost three-fourths of its length; but it is not quite obliterated till the last week of pregnancy, so that if a false alarm about labour, two or three weeks before delivery, gives the practitioner an opportunity of examining the uterus, he will find a soft, short nipple still remaining.



A the neck of the uterus before the fifth month, when it has undergone no change in its length.
B the neck at the sixth or seventh month, when it has begun to shorten.
C the neck in the eighth month, when it is nearly obliterated.
D the neck at the end of the ninth month, when it is quite obliterated.

As the neck of the uterus remains unchanged till after the fifth month, it is a good reason for postponing examination till a later period;* yet although this statement is generally correct, especially in first pregnancies, it has been stated far more strictly than is true. An anatomical teacher will show a preparation of a uterus in the fifth month of pregnancy, with an unshortened neck, and think the question settled by anatomical demonstration; but a uterus in a bottle is only one case and proves no more than the examination of a uterus in a living subject; and the examination of many has taught me, that the neck of the uterus is as much altered in some women at the fourth month, as in others at the sixth, especially in those who have had several children, in whom the neck yields more readily than in first pregnancies.†

* 'It is generally impracticable to discover by a touch in 'the vagina, whether or not the uterus is impregnated, till after 'the fourth month.'—(*Smellie*, vol. i. p. 181.) 'The stretching 'of the uterus and upper part of the neck cannot be perceived 'till the fifth, and sometimes the sixth month; and even then 'the uterus must be kept down by a strong pressure upon the 'belly.'—(*Ibid.*, vol. i. p. 183.) 'From that time it (the pro-'jecting part of the neck of the uterus) grows broad and soft by 'degrees till the sixth month or thereabouts; after which it 'begins to diminish in all its dimensions in proportion as the 'womb extends. So that when the woman approaches the 'end of pregnancy, it is quite flat, and confounded with the 'globe of the uterus.'—(*Mauriceau*, tome i. p. 97.)

† 'The neck of the womb will in some be felt as long in 'the eighth as in others in the sixth or seventh month.'—(*Smellie*, vol. i. p. 185.)

2nd. The next thing to observe is whether the body of the uterus is enlarged: this may be ascertained by pressing up the finger between the neck of the uterus and the pubes: here in the unimpregnated state there is nothing but what is soft and yielding; but where pregnancy has advanced several months, this space is occupied by a large firm tumour. A practised hand will immediately detect the difference; but I think the young practitioner finds more difficulty in satisfying himself about this symptom than about any other which is detected by touch.

There is a combination of the external and internal examinations, which in thin persons gives a very accurate knowledge of the nature of the tumour. For this purpose the finger of the right hand is to be applied against the tumour which is felt in the vagina, and the left hand is to be applied on the outside of the abdomen, to the upper part of the circumscribed swelling. Now, by alternately pressing the tumour up, by means of the finger in the vagina, and down by means of the hand on the abdomen, the practitioner becomes certain that the tumour, which is felt through the walls of the abdomen is the same as that which is felt through the vagina; the most satisfactory proof that it is an enlarged uterus. This method is applicable as early as the fourth or fifth month.

3rd. In the pregnant uterus the fœtus floats in a bath of liquor amnii. When the patient is in the upright posture, its head rests over the top of the vagina. If the practitioner applies his finger to

the uterus just in front of the neck, and gives it a push, the fœtus will float for an instant, and the next instant fall with perceptible weight on the point of the finger ;* this sensation, if once felt, can never be mistaken; it is scarcely inferior in conclusiveness to the muscular movements of the child, and has this advantage over the latter, that it can be felt whether the fœtus is alive or dead. The patient ought to be placed almost in an upright position; the best period of pregnancy for detecting it is from the fifth to the seventh month—earlier the fœtus is too light to be felt, and later it is often too closely packed to be moved.

Having described the mode of examination by which pregnancy may with certainty be known, and by which consequently it may be distinguished from the diseases which are often mistaken for it, it will be useful to consider the different kinds of cases about which the practitioner will be consulted, and to which he will find it necessary to apply this test.

* 'In the seventh month the head of the child is frequently 'felt resting against the lower part of the uterus, between the 'pubis and os internum; and being pushed upwards towards 'the fundus, sinks down again by its own gravity.'—(*Smellie*, p. 188.) 'Sometimes the head is not felt till the eighth or ninth 'month, and in some few cases not till after the membranes 'are broken, when it is forced down by the contraction of the 'uterus and strong labour pains. This circumstance may be 'owing to the head's resting above the basin, especially in a 'narrow pelvis.'—(*Smellie*, p. 188.)

I. Single women sometimes have the common symptoms of pregnancy, yet obstinately deny the possibility of their being so; this denial is generally so positive and apparently sincere, that the young practitioner is sure to be influenced by it, but experience will teach him to turn a deaf ear to it. It appears difficult to explain the obstinacy of assurances which those who make them know to be false; but I suspect they deny to the last that they *can* be pregnant, because they hope to the last that they *are not so*. Another circumstance likely to bias him is the respectability of the patient; but this, too, must be disregarded. Single women sometimes become pregnant in all ranks of life, not only among the low, but among the high, and not only among these, but in the middle ranks; and the practitioner, in his intercourse with the world, will often be placed in puzzling situations, and have to listen to very curious disclosures.

I.

A genteel woman called on me one morning, and related to me the symptoms of her complaint, which were exactly those of pregnancy. She was healthy, had always menstruated regularly till seven months ago, when she suddenly ceased to do so, and about three months afterwards her abdomen began to enlarge. She was now about the ordinary size at the seventh month of pregnancy. As she had not told me whether she was married, I asked her whether it was possible for her to be

pregnant? she said, 'certainly not,' for she was not married. I then asked her whether I should give her a mere conjecture about the nature of her symptoms, or whether it was important for her to know it with certainty. She said that she must not leave the house without knowing it with certainty. I then told her, that there was only only way of determining it, which I explained. After a little agitation she consented to an examination. I found the abdomen firm, the umbilicus prominent, the neck of the uterus nearly obliterated, its body enlarged, and I could make the fœtus float, and feel it fall heavily on the point of my finger. After a little pause I told her, as inoffensively as I could, that she was not only pregnant, but not more than six or eight weeks from the time of her confinement, and I then repeated my question, 'is it possible?' She answered, she *thought* not. She then told me that she was privately married, that it was of the utmost importance it should be kept secret, and that her husband had assured her, and she was sure believed himself, that if he avoided injuring the hymen, it was impossible for her to become pregnant. Whilst examining by the vagina, I had noticed that this membrane was imperfectly torn. I never saw her again for several months, when one day she appeared among my morning patients; her size was gone, she was looking well but she came to consult me about some nervous symptoms. I asked her whether the opinion I had given her about her former state was correct; she said 'quite;' and that the certainty of it had in-

duced her to make arrangements which had preserved her from discovery.

II.

A few days after my first interview with this lady, another came to consult me about a tumour of the abdomen; she said that she had been seen by several surgeons, who pronounced it to be an enlarged ovary; but the last person she consulted, (Mr. Copeland,) suspecting something different, sent her to me. She was not only pregnant, but from the complete obliteration of the neck of the uterus, I concluded she was within a few days of her confinement. She told me that she was a widow, under the protection of a gentleman; and her reason for denying or disbelieving that she was pregnant was, that she had never had a family by her husband.

When, as in these cases, a healthy woman who had always menstruated with perfect regularity suddenly ceases to do so, and a few months afterwards has a progressive enlargement of the abdomen, there is the strongest reason to suspect her of pregnancy, whatever may be her station in life. But however strong this presumptive evidence, no prudent man will venture an opinion on it without testing that opinion by a careful examination by touch.

Not only are unmarried women often pregnant without its being believed, but the same is sometimes the case with married women. When, after many years of barren matrimony, they at length

become pregnant, as sometimes happens, they conclude it to be disease; and even their medical men often adopt and act on this supposition, of which I could give numerous instances.

III.

A woman came to me one morning with a note from a practitioner containing the following statement: her age was forty-two; she had been married twenty-two years without ever being pregnant. About seven months ago she had ceased to menstruate: a few months afterwards the abdomen began to enlarge, and was now nearly equal to that of full pregnancy. For several months the practitioner had been using various means for reducing the tumour, but in vain. She was too fat for me to detect any circumscribed tumour; but the enlargement of the abdomen was very firm, the umbilicus prominent, the neck of the uterus almost obliterated, its body enlarged, and the areola round the nipple was dark. I wrote an answer enumerating these symptoms, adding, that I concluded his patient was pregnant. About seven weeks afterwards she brought forth a child.

IV.

I met a physician and an apothecary in consultation about a married lady who had a circumscribed tumour of the abdomen, which was supposed to be enlarged ovary, for the reduction of which various means had been employed. For many years she had ceased to bear children, and

the tumour was inclined towards the right side. After learning these particulars from her medical attendants, we went into her chamber and heard her own account. She had suddenly ceased to menstruate, and the swelling had begun to appear a few months afterwards. When I was alone with her physician and apothecary, I remarked that the question about what the tumour was, would be much narrowed by determining what it was not—that it was not pregnancy, and I advised them to allow an examination by touch; for this purpose she was undressed and put to bed. I found the tumour distinctly circumscribed, and sufficiently lateral in its position to justify the supposition that it was an ovary; it had not risen high enough to protrude the umbilicus, and I could feel no movement within; the neck of the uterus was soft, broad, and had lost two-thirds of its length; its body was enlarged and firm, and by placing her in a sitting posture, and thrusting the finger up against its anterior part, I felt that I had displaced a moveable body, which the moment afterwards fell heavily on my finger. I communicated my conviction that she was pregnant to the physician and apothecary: and about three months afterwards she was delivered of a child.

A puzzling class of cases is that in which pregnancy really takes place, but after a time, the fœtus dies and is still retained. Here some of the symptoms of pregnancy are present, but others are absent, and the state becomes more doubtful by being not progressive.

V.

A lady, after the ordinary symptoms of pregnancy for four months, had a slow hæmorrhage for many days. No ovum came away; the hæmorrhage stopped; but though her abdomen was enlarged, from that time forth it did not continue to increase. In this state and without menstruating, she continued five months longer, when, at the end of the ninth month from her first calculation, labour-pains came on, and expelled a shriveled fœtus of the size of the third month. There can be little doubt that it had died before the hæmorrhage. The fact that her labour occurred just at the end of the ninth month is one of the best proofs that labour commences at that time, not from distention of the uterus, but as a law of nature. It is curious that the same process took place in her next pregnancy: the fœtus was blighted about the same period, and yet was retained during the natural length of pregnancy. In such doubtful cases as the above, the most prudent plan is to avoid giving a decisive opinion, and, if pushed hard, to state the impossibility of doing so.

VI.

A poor woman, in doubt about her state, came to consult me. She was healthy, with very regular menstruation when not pregnant, but it had suddenly ceased about six months; her abdomen was large, and she had milk in her breasts. The enlargement of the abdomen was very firm. She

was too fat for me to detect any circumscribed tumour; the umbilicus projected, the neck of the uterus was very short, and what little was left of it very soft; the body of the uterus, too, was considerably enlarged, but she felt no movement of the child; and though I examined her in the upright posture, I could not feel its displacement and subsequent fall. She had not enlarged for the last month. The opinion I gave was, that she was pregnant, and that the child was dead, but I could not explain my not finding the fœtus moveable. The result of the case explained this. About seven weeks afterwards she was delivered of a dead child, the placenta being attached over the orifice of the uterus. When in my previous examination I had pushed up the fœtus, it had fallen on the placenta, the thickness and softness of which prevented the impulse, at the moment of its fall, from being communicated to my finger.

There are two other circumstances in which the practitioner will often be pressed for an opinion, in both of which it is generally impossible to give one: thus, some women are very liable to pass over the natural period of the month without menstruating by one, two, or three weeks, and then to have a violent and somewhat painful hæmorrhage, during which nothing visible passes away but coagula of blood. These cases are commonly said to be early abortions, but this is a mere conjecture without proof.

Another circumstance, in which it is difficult and

often impossible to form a decided opinion, is when a hæmorrhage has occurred in early pregnancy, and has ceased without any ovum having been detected. This is no proof that it has not passed away, for it may be so small as to be overlooked in the coagula. Has the patient aborted, and is she no longer pregnant; or has she retained the ovum, and is her pregnancy going on? It is generally impossible to tell with certainty till some time has elapsed; and the more we refrain from decisive opinions, the less are we likely to give erroneous ones.

II. The next class of cases which I shall describe consists in a torpid state of the uterus, with a flatulent state of the intestines: this is most liable to occur near fifty years of age, when the uterus is about discontinuing its function. At this time menstruation will often cease for several months, and the abdomen becomes distended with a flatulent tumour: the air moving about the bowels gives an inward sensation which is mistaken for the child; there is often slight nausea, various nervous feelings, and an anxiety to believe in pregnancy as a test of youthfulness. About this age, also, the omentum and parietes of the abdomen often grow very fat, forming what Dr. Baillie once called 'a double chin in the belly.' This assemblage of symptoms at this age frequently leads to the supposition of pregnancy, but I have met with many similar cases in young women. I have repeatedly known those who, on the return of their husbands after a long absence,

have suddenly ceased to menstruate, and grown large about the belly, conclude that they were pregnant, and make preparations for their confinement. I have known the same happen to single women, who had been secretly incurring the risk of pregnancy; they were generally women of sickly constitutions, who were very subject to obstructed menstruation; and it is probable that in these cases the puzzling assemblage of symptoms was the result rather of mental agitation than of sexual intercourse.

VII.

A well dressed young woman came to me one evening, and after a long silence and much agitation, told me that she was unmarried; that a gentleman with whom she was intimate had some months ago taken advantage of her, since which she had never been unwell, and she was now so large that her parents talked of consulting a physician. As she had passed only four months without menstruating, and as I was unwilling to give her any thing but a conclusive opinion, I advised her to come to me that day month; and to prevent any danger from her alarm, encouraged her to believe that her anxiety was groundless. Exactly that day month, in the evening, a carriage drove to my door, and the same lady was shown into my library. She was excessively agitated, and had come without her stays. As soon as I placed my hand on the abdomen, I was convinced that she was not pregnant; the tumour was so

soft and yielding that I could bury my hand in it almost to the spine. I next examined the uterus through the vagina, and found its neck long and firm, and its body unenlarged. I told her that she was not pregnant: on hearing which she fainted away.

VIII.

I was introduced by an eminent physician to a very young married lady, for the purpose of attending her in her approaching confinement, of which her projecting abdomen gave visible intimations; and I was directed to call on her occasionally that she might become accustomed to me before the time for my attendance arrived. During these calls I learnt gradually the particulars of her marriage. She had been attached to a young man, her equal in station, but so profligate that her parents forbade him the house; nevertheless, the lovers continued to meet by stealth, and one fatal evening they became as man and wife, in all but the marriage ceremony. After this intercourse had been going on a few months, the young lady observed that her belly was enlarging; it was at length noticed by her mother: this led to an inquiry, and the young lady confessed all. The discovery, of course, produced a great uproar in the family: her parents agreed that as the young couple had gone so far, it was absolutely necessary that they should go a little further: the lover was called upon, and as the young lady had brothers who understood the use of the pistol, the young couple were soon married and placed in

furnished lodgings. It was at this period when I was first introduced to them. I continued to call on the bride for some time; but after two months, I one day remarked that although she still continued large, she was not larger than when I first saw her. When I pressed the abdomen, it had not the firmness of pregnancy, and she felt no internal motions; when I inquired about her menstruation, I was told that she had never menstruated in her life; menstruation had not ceased, simply because it had never begun. I now expressed strong suspicions that she was not pregnant, and advised the question to be settled by an examination. It was so. I found the umbilicus sunk, the abdomen distended by a soft flatulent tumour: the neck of the uterus of its full length, its body not in the slightest degree enlarged. I told my patient and her sister that she was not pregnant, but they would not believe me, and directed a consultation with the same eminent physician who had introduced me to them. He met me; and as he was one of the very few medical physicians who are expert at vaginal examinations, he was soon as well satisfied as myself that the young lady was not pregnant. The communication occasioned great disappointment in the family, but in no one so much as in the young husband, whose rage was boundless at discovering that he had been compelled to marry her on a false supposition.

Of the extent to which fatness of the abdomen and momentum, and flatulence of the intestines, can cause a tumid belly, resembling pregnancy or

enlarged ovary, a striking instance occurred at Edinburgh a few years ago, and is related by Mr. Lizars in his work on Tumours of the Ovary.

IX.

The patient was a poor woman with a large abdomen, and was seen by numerous practitioners. Some thought that she was pregnant, others that she had an enlarged ovary; at length, on the latter supposition, an incision, eight inches long, was made into the abdomen, the cavity of which was thereby laid open: it was then discovered that there was no tumour, and that the enlargement depended on a very fat omentem, and intestines distended with air: the wound was closed and secured, and the patient recovered.

X.

I saw a similar case about two years ago in Guy's Hospital, under the care of Dr. Bright. The patient was a young woman who had been in the same hospital some time before, for what was supposed to be ovarian dropsy, but purgatives removed the tumour, and she went out of the hospital cured. A few months before I saw her, having a return of the enlargement, she consulted an enterprising surgeon, who assured her that she had a tumour in the ovary which could be removed only by extirpation: for this purpose he made an incision in the linea alba six inches long, by which the cavity of the abdomen was exposed; it was then discovered, as in the case at Edinbnrgh, that

there was no tumour, and that the enlargement depended entirely on flatulence and fat; the wound was closed and healed; but the patient's health sustained great injury, for the recovery of which she was under Dr. Bright's care. I saw the scar of the incision, which in healing had contracted to four inches, and the marks of the stitches by which the wound had been secured.

XI.

It is now nearly fifteen years ago, since Joanna Southcott, an aged and virgin prophetess, astonished the town and nation by declaring that she was pregnant by supernatural means. Many medical men were consulted about her. As the case excited an extraordinary degree of attention, and affords a curious example of that form of spurious pregnancy which I am now describing, I have thought it worth while to select out of the published narratives those particulars which form the medical history of the case, in order to show the extent to which even medical men may be deceived, and the symptoms by which, in such cases, competent judges arrive at the truth. The fullest account of this curious case is a 'Statement of the last Illness and Death of Mrs. Southcott, by Richard Reece, M. D.,' who was consulted about the case, and was present at the examination of her body, and who has given not only the appearances discovered by dissection, but the symptoms during life, and the opinions that were given about them, both by himself and others. His narrative

is candid. The first time he saw her was on the 7th of August, 1814, in consultation with several other medical men, when Joanna described her reasons for believing that she was pregnant; begging them to form their opinion by her symptoms, not by her age,—as if she was a young woman of twenty-five; truly a very reasonable request. She was sixty-four years of age, and had ceased to menstruate for fifteen years; she had lost her appetite, and was sick; her bosom and belly were much enlarged, and she had felt the movements of the child ever since the month of May. She was willing to submit to any examination, excepting the internal one through the vagina. Dr. Walshman proposed it, but Joanna said that 'her warning spirit had desired her not to submit to it;' on hearing which the doctor refused to see her. Dr. Reece says that her breasts were 'full, plump, and 'expanded.' 'In that part occupied by the womb 'there was a firm circumscribed tumour, as large 'as a man's head, bearing the shape of the womb;' and 'I have no doubt,' he says, 'of its being an 'enlargement of that organ.' The opinion he gave was, that 'the fullness of the belly appeared to be 'produced by enlargement of the womb, but whe-'ther it was the effect of pregnancy could only be 'established by the motion of the child.' To detect this, he kept his hand on the abdomen for some time, but no movement of the child could at first be felt; a piece of peach was given her; 'on which,' says the Doctor, 'I felt something move 'under my hand, possessing a kind of undulating

'motion, and appearing and disappearing in the 'same manner as a fœtus.' He adds, 'When 'these symptoms (enlargement of the breasts and 'abdomen) were accompanied by a sensible motion 'of the womb, I never could hesitate in pronounc-'ing it a case of pregnancy, and this was actually 'my opinion of her situation.' A similar opinion appears to have been given by several other medical men, among whem was Dr. Adams, the well known author of the Essay on Morbid Poisons; and some of them held themselves in readiness to be present at her labour, and witness the birth of her child.

Hitherto Joanna had been seen only by medical men, who, whatever may have been their intelligence and general knowledge of their profession, had never paid any especial attention to the subject, and were not extensively consulted on cases of doubtful pregnancy; but on the 18th of August she was visited by a most competent judge, Dr. John Sims; and on the 3rd of September he published a letter in the Morning Chronicle, stating his opinion and the grounds of it: he describes the breasts as large, but more like those 'of an old wo-'man grown corpulent, than those of a pregnant 'woman.' The areola round the nipple was pale, the enlargement of the abdomen was less hard than that of pregnancy, 'except at the lower part, 'where there appeared to be a solid tumour, reach-'ing not far above the pubes.' 'I proposed,' says he, 'to put my finger upon the navel without any 'covering, which was permitted; this part I found

'sunk in, not at all protruded, as in pregnancy.' No motion was felt. Dr. Sims adds, 'I did not 'hesitate to declare it to be my opinion, that Jo-'anna Southcott was not pregnant.'

The period of her expected delivery now approached, when she was visited by Professor Assalini, who was at that time in London, with the numerous foreigners who came to England after the first capture of Paris. The professor 'examined her belly,' and told her that her stomach complaint would go off as soon as she was delivered,—a promise he might safely make, and, from what I know of him, was most probably ironical. At length Joanna began to think that not her labour but her death was approaching, and she sent for Dr. Reece to give him her instructions. He seems to have had some thoughts of saving the child by the Cæsarean operation; for he asked, 'if apoplexy should supervene, whether 'I should not make an effort to save the life of the child?' but Joanna refused; she continued to suffer much from vomiting, took scarcely any nourishment, and became very weak. Towards the close of the scene, Dr. Reece, finding her belly reduced in size, was convinced that he had been wrong, and that she was not pregnant: and some of her other medical attendants began also to doubt. She died on Monday the 26th of December. For four days the body was kept warm, in hopes that she would revive; but putrefaction beginning, leave was at length given to open the body, which was done on the 30th of December, 1814, in the presence of several medical men,

among whom were Dr. Adams and Dr. Sims. The body was very putrid; the womb, instead of being enlarged, appeared smaller than natural: it was free from disease, and 'neither the promised Shi-'loh nor any other fœtus was found in it.'* The walls of the abdomen were four inches thick, from fat; the intestines were distended with air; the omentum was nearly four times its usual size, and 'one lump of fat.' There were a number of stones in her gall-bladder, which were most probably the cause of her vomiting and her pain. Dr. Reece conjectures that the circumscribed tumour, which he took for the enlarged womb, was the bladder distended with urine, and that Joanna had learnt to retain it in order to produce the swelling. The apparent motion of the child he attributed to a quick movement of the abdominal muscles, which he also thinks she acquired the art of producing, and that to such an extent that 'it was felt in different parts like the appearance of twins.' Mr. Matthias* thinks that 'the life within her' must have been the movement of flatus. She had, indeed, lived a life well calculated to produce it. She had for some time taken no exercise, kept her bed, and, as her appetite was capricious, pampered it with quantities of improper food. On one occasion, when asparagus was extremely dear, she ate at one meal 160 heads.†

III. Another class of cases liable to be confounded with pregnancy, are tumours of the ova-

* Case of Joanna Southcott, by P. Matthias, Surgeon and Apothecary.

† Not only old women, but even children, have been erro-

ry; this organ, which in its healthy state is smaller even than the unimpregnated uterus, is often more enlarged by disease than the uterus is by pregnancy, and forms, like the latter, a circumscribed tumour, which rises out of the pelvis to various heights in the abdomen. These tumours are sometimes mistaken for pregnancy, but this mistake can hardly be committed by a careful and a competent judge. In most of the cases which I have seen, the duration of the tumour already much beyond nine months, is alone a sufficient guide, if it was ever safe (which it never is) to be guided by one circumstance. Another guide is a fluctuation which can generally be felt on striking the abdomen; but the tumour may not have lasted nine months, and may be too solid to afford fluctuation. Under these circumstanees, the examination of the uterus through the vagina at once settles the question. If the tumour has lasted a few months, and already distends the abdomen to a visible magnitude, the neck of the uterus, if pregnant, would be short and soft, its body enlarged, and the moveable fœtus would be eapable of being felt. On the contrary, when this tumour is an enlarged ovary, the neck of the uterus is long and firm, and its body unenlarged.

neously supposed to be pregnant. Smellie saw in Mary-le-bone workhouse a girl twelve years old, supposed to be in the eighth month of pregnancy. Several medical men had examined her; one had offered to deliver her gratis; others had made interest to be present at her delivery; the case had been advertised, and the matron had got money from numbers who went to see her. It turned out to be a case of enlarged liver. —*Smellie*, vol. ii, p. 220.

When a large ovary is mistaken for pregnancy, the error is a harmless one; but pregnancy is sometimes mistaken for dropsy of the ovary, and the patient has been tapped. A woman was taken into the operation room of a well-known hospital for this purpose, but the surgeon, on learning that she had not been examined, sent her back to her ward: this caution was fortunate, for before the next operation day she brought forth a child. I have heard several instances of this mistake.

But a woman may have enlarged ovary and yet conceive. Morgagni has said that one ovary might be diseased throughout, and the other nearly so, but provided a portion remained healthy containing one vesicle, the woman was capable of impregnation. I have known several instances in which the ovary was enlarged by disease, and the uterus by pregnancy in the same person; the two tumours went on growing side by side to the full time, and the patients were delivered of living and healthy children, leaving the abdomen still distended with the ovary. Of these patients, one has borne three children since her ovary (the right one) had attained considerable magnitude.* She is still alive, but

* 'We see women who, although hydropsical, nevertheless 'have children; in proof of which I will allege the example of 'the wife of M. Duvieux, my colleague, who having become 'dropsical after delivery, was treated during several months 'with all the usual remedies, without any benefit; after which, 'without suspecting it, she discovered that she was pregnant, 'notwithstanding her dropsy, which far from diminishing after 'her delivery, increased and lasted nine years. During this

has ceased to breed. In these cases no serious error was committed; the patients were doubtful of their state, till it was far advanced, when the strong movements of the child, felt externally by the hand, informed them that they were pregnant; but I can easily suppose that such cases might sometimes be very puzzling: the cessation of menstruation would prove nothing, for it is a common occurrence in ovarian dropsy; the enlargement of the uterus might be mistaken for the progressive enlargement of the ovary; the child might be still or dead; the protrusion of the umbilicus attends both pregnancy and enlargement of the ovary. Under these circumstances the true nature of the case could be detected only by examination through the vagina, when the obliterated neck, the enlarged body of the uterus, and the moveable fœtus would immediately discover it. The bare possibility of such cases is a strong reason for never tapping a married woman without having the uterus previously examined by a person skilful in such examinations.*

'time she had three other children, the one a girl, who at the 'age of five years and a half looked as if she was seven years 'old; another a healthy boy.'—*Mariceau*, tome i. p. 73.

* 'When a retention of urine takes place in the latter months 'of pregnancy, as the water accumulates the bladder cannot en- 'large equally in all directions, because of the resistance which 'it meets with posteriorly from the gravid uterus; it therefore 'assumes a flattened form, and spreads upwards and laterally to 'great extent over the anterior part of the uterus, at the same 'time giving under percussion an evident sense of fluctuation 'to the hand, insomuch that the case has been mistaken for a

IV. In the cases resembling pregnancy already described, the cause which distends the abdomen is external to the uterus, and by discovering that this organ is not enlarged we know that the patient is not pregnant. But sometimes the cause which distends the abdomen is within the uterus. The enlargement of the abdomen may depend on enlargement of the uterus and yet the patient may not be pregnant. The bodies which sometimes form within the uterus, and distend it to a size equal to that of pregnancy, are, fortunately for the facility of diagnosis, rare, compared with the other causes of spurious pregnancy. Those which have been mentioned by writers are, air, water, hydatids. *Tympanites of the uterus* has been described under two forms; in one the air is formed in the cavity of the uterus, is retained for several months, distends it to a considerable magnitude, and is then expelled: of this I have never seen one instance; for the other form, of which I have known several examples, a better name would be *flatus* of the uterus. Air is formed in this organ, but instead of being retained so as to distend the uterus, it is expelled with noise many times a day. It has been doubted whether it really came from the uterus, but in one of my patients there was a circumstance conclusive on this point: she was sub-

'dropsy. An unfortunate instance of this kind happened to a 'practitioner in Ireland, who tapped his patient for this sup- 'posed dropsy; death was the consequence, and on examina- 'tion it appeared that the trochar had passed through both sides 'of the bladder, through the uterus, and even into the head of 'the child.'—*Lowder's MS. Lectures.*

ject to this infirmity only when not pregnant, but she was a healthy and breeding woman, and the instant she became pregnant her troublesome malady ceased. She continued entirely free from it during the whole of her pregnancy, but a few weeks after delivery her malady returned. Of *dropsy of the uterus* I have never seen a case; there are many on record. The reality of this disease has been often doubted, but an instance related in the 'Medico Chirurgical Transactions,' by Dr. A. T. Thompson, serves to verify the cases of the older observers. The testimony of a contemporary, whom we know and can trust, produces more effect on our minds than that of twenty witnesses in remote times and places.

Of *Hydatids in the uterus* I have met with several instances; the patients had the ordinary symptoms of pregnancy, only with some peculiarity which led them to doubt it, such as the absence of movement in the abdomen, the enlargement of the abdomen being disproportionate to the period of pregnancy, or after advancing rapidly becoming suddenly stationary. In other cases the patient, after supposing herself pregnant, had a discharge, sometimes of blood and sometimes of water, which led her to suppose that she was miscarrying.

XII.

I was sent for to ———, a few miles from London, to see a lady, who having ceased to menstruate for one month, and becoming very sick, concluded that she was pregnant; the next month she

had a slow hæmorrhage from the uterus, which had continued incessantly a month when I saw her; she kept nothing on her stomach. On examining the uterus through the vagina its body felt considerably enlarged, and there was a round circumscribed tumour in the front of the abdomen, reaching from the brim of the pelvis nearly to the umbilicus. I saw her several times at intervals of a fortnight, during which the hæmorrhage and the vomiting continued unrelieved: the peculiarity about the case was the bulk of the uterus, which was greater than it ought to be at this period of pregnancy; it felt also less firm than the pregnant uterus, more like a thick bladder full of fluid. Eleven weeks from the omission of menstruation she was seized with profuse hæmorrhage; towards evening there came on strong expelling pains, during which she discharged a vast quantity of something which puzzled her attendants. The next morning I found her quite well, her pain, hæmorrhage, and vomiting having ceased. I was then taken into her dressing room and shown a large wash-hand basin full of what looked like myriads of little white currants floating in red currant juice; they were hydatids floating in bloody water.

XIII.

A few weeks after the termination of this case a lady came from a distant part of the country to London, to consult me about her state, which she at first had supposed to be pregnancy, but now began to doubt it; it had lasted for eight months;

she had ceased to menstruate, at that time, and her abdomen had been gradually growing large, but she felt no movement in the abdomen, and for the last month it had not increased. I examined the uterus both externally and internally; the umbilicus was so flat, and the abdomen though large had so little firmness, that I began to suspect it was distended by air, but on examining the uterus through the vagina, I found its neck obliterated and its body large; though large, however, it felt soft, and reminded me of the case of hydatids, still fresh in my memory. I therefore told her that her size depended on enlargement of the womb, but what the womb was enlarged by must be a subject of conjecture, which I explained by relating the former case. She returned to the country, and about six weeks afterwards I received a letter from her medical attendant, informing me that my conjecture had turned out to be correct, for after several hours of labour-pains, and a great discharge of blood and water, she had expelled half a pailful of uterine hydatids.

In the progress of these cases I believe it impossible to come nearer the truth than this; that the abdomen owes its enlargement to a distended uterus, but what this organ contains is uncertain. The following case was at first supposed to be pregnancy, and afterwards suspected to be hydatids; the result showed that it was neither the one nor the other, yet I do not see how this could have been known during the progress of the case.

XIV.

A lady, the mother of a large family, having ceased to menstruate for several months, and growing large in the abdomen concluded that she was with child—at length there came on a profuse and perpetual discharge of water, sometimes mixed with blood, by which her strength was so alarmingly reduced, that first one and then another practitioner was consulted about her, and I met a consultation of four. Through the walls of the abdomen the uterus could be felt, about as high as the umbilicus, and in the vagina the neck of the uterus was found obliterated, and its body enlarged. As every attempt to restrain the discharge and support her strength had been unavailing, and she daily became more exhausted, a silver tube was introduced through the orifice of the uterus into its cavity; that if it was distended by an ovum, the liquor amnii might be drawn off. The tube readily passed in, but on withdrawing the wire no liquor amnii came away. A few hours afterwards she was seized with violent expulsive pains, under which she sunk rapidly and died. I was not present at the examination of the body; but the following statement was sent me by the gentleman who opened it. The uterus was as large as at the sixth month of pregnancy, and its cavity big enough to hold two fists; it contained neither fœtus nor hydatids, but a mass about the size of a goose's egg of stringy matter, like very soft placenta, and unattached to the inner surface of the

uterus; this surface was red and irregular, like a granulating sore; its walls were thickened as in pregnancy, of a dark red hue, and a flaccid texture.

'It sometimes happens,' says Dr. Baillie, 'though not very often, that the uterus enlarges 'in size, and becomes much harder than in its 'natural state. This change corresponds very 'much to that of schirrus in other parts of the 'body, and commonly extends over the whole of 'the uterus. I have seen it in one case as large as 'the gravid uterus at the sixth month; ulceration, 'I believe, is commonly wanting.' I extract the following from my note-book without alteration, as I cannot abridge it.

XV.

The wife of a farmer's labourer came to me under the following circumstances: she is forty-five, and looks fifty-five years old, has been married twenty years, without ever being pregnant: three years ago, after a jolt in a cart, she suffered profuse menstruation, to which she has been subject ever since, and from which she has grown thin and weak; about eighteen months ago the abdomen began to enlarge; more than six months ago it became visible through her dress, and since then has increased more rapidly. I was permitto examine both the abomen and the vagina. On both sides, the space between the ribs and ilium feels soft and flatulent, while the front of the abdomen, from the pubes upwards, is occupied by a circumscribed tumour of stony hardness; the

umbilicus projects; the cervix uteri is broad, and as short as in the seventh month of pregnancy; the space between the cervix and pubes is occupied by a tumour of stony hardness. Here were all the symptoms indicating that the enlargement of the abdomen depended on enlargement of uterus, yet the patient was not pregnant.

I have now fulfilled the object of this paper, namely, to describe the ordinary symptoms of pregnancy; to estimate their real value; to explain the mode of examination by which alone doubtful cases can be decided, and the time proper for its employment; the causes by which pregnancy though real is sometimes obscured; and the various diseases which resemble it, and are often mistaken for it. If the young practitioner will take the trouble to make his mind master of this detail, and acquire a little familiarity will the feel of the uterus in the pregnant and unpregnant states, I will venture to say, that it will generally guide him right. There will be cases, however, in which he will occasionally doubt, and in which the best policy is caution. Some are of opinion, that this art is a blind tact, to be gained only by practice, not a knowledge to be communicated by instruction; but this is not true; the period of my life when I improved most rapidly in the art of deciding by examination cases of doubtful pregnancy, was that in which I gained clear and orderly notions of the objects of examination. The faculty of observation requires rather to be guided, than to be sharpened: the

finger soon gains the power of feeling, when the mind has accquired the knowledge of what to feel for.

CHAPTER IV.

POLYPUS OF THE UTERUS.

I BELIEVE that polypus of the uterus is a more frequent disease than is commonly supposed, and that those who have had great experience without ever meeting with it, have most probably repeatedly overlooked it. If mistaken and neglected, it occasions the death of the patient; if detected and removed she not only lives, but regains perfect health. The cure of polypus of the uterus affords one of the most striking instances of the triumph of our art.

This disease is commonly for a long time mistaken for profuse menstruation, the patient instead of menstruating regularly and moderately, has frequent and profuse hæmorrhages from the uterus, and in the intervals a pale discharge. These gradually drain her circulation and injure her health, until she acquires the deadly paleness and suffers the complaints which are the ordinary effects of deficiency of blood. The absence of pain in the uterus or pelvis, (for there is often

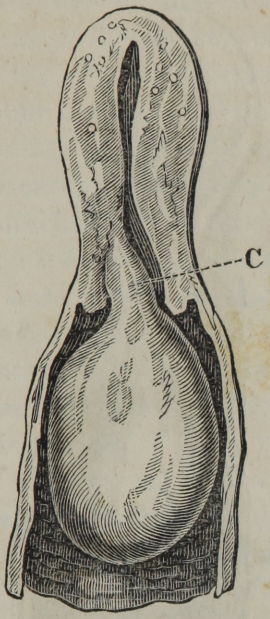
none, and never that degree which attends the malignant diseases of this organ,) leads to no suspicion that the hæmorrhages depend on a disease of structure. Tonics and astringents are given in various forms; one practitioner is consulted after another, till at length the uterus is examined, and a polypus is discovered. This is the history of most of the cases which I have met with.

A polypus of the uterus, when discovered, is a tumour in the vagina attached to some part of the uterus. It is round, smooth, firm, and insensible; it is quite unattached to the vagina, so that the finger can be pressed round between the walls of the vagina and the surface of the tumour; but if traced higher up, it is found to terminate in a narrower part or stalk. This stalk is differently attached in different cases; in some it passes through the orifice of the uterus into its cavity, and is attached to the fundus of this organ; in others, it passes into the cavity of the neck, to one side of which it is attached; in others it does not enter the orifice, but is attached to one portion of its edge or lip; hence a distinction of polypus of the fundus, polypus of the neck, and polypus of the orifice. This distinction must not be lost sight of, for it is of practical consequence. In ascertaining the nature of the tumour for the purpose of determining the propriety of removing it by an operation, the mode of its attachment is one of our chief guides; and in this respect what is true of polypus of the fundus, is not so of polypus of the neck or lip.

In polypus of the fundus the stalk is completely encircled by the neck of the uterus, and if the finger can be introduced into the orifice, it passes easily round between the stalk of the polypus and the encircling neck.

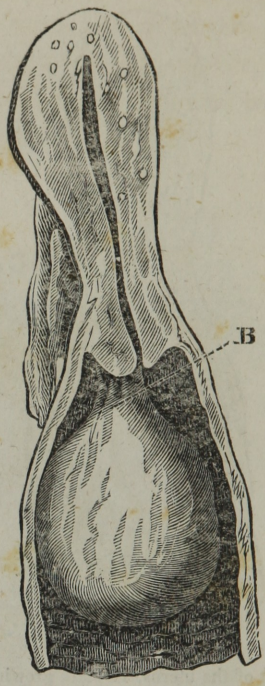
A polypus of the *fundus*, its stalk growing from that part of the uterus, its body down in the vagina, the lower part of its stalk surrounded by the orifice of the uterus.

In polypus of the neck the finger cannot be passed quite round the stalk; it may be passed partly round it, but it is stopped when it comes to that part where it is attached to the neck, the stalk is only *semi*-circled by the neck.



C polypus of the *neck* of the uterus, its stalk growing from the cavity of the neck, and consequently only semi-circled by the orifice, its body down in the vagina.

In polypus of the edge of the orifice or lip, the stalk does not enter the orifice, but grows from the edge of it; it feels as if a portion of the lip was first prolonged into the stalk, and then enlarged into the body of the polypus. It is important to remember that there is a polypus, the stalk of which is not encircled by the orifice of the uterus; if it grows from the orifice it cannot be encircled by it.



B polypus of the *orifice* or *lip* of the uterus; the orifice of the front of the stalk, and not at all encircling it, the body of the polypus down in the vagina.

When a polypus grows within the uterus, it dilates its cavity, neck, and orifice, as in pregnancy. Instead of the orifice of the projecting part of the neck forming a narrow chink in a firm thick nipple, it is a round space with thin edges, as in somewhat advanced pregnancy. In polypus of the neck and that of the lip, the projecting part of the uterus preserves more of its ordinary form and consistence.

The internal structure of polypus, in most cases,

exactly resembles the internal structure of the *large white tubercle* of the uterus, commonly called the fleshy tubercle; 'so that a person looking on a 'section of the one and the other, out of the body, 'could not distinguish between them.'* They are the same disease, differing only in the seat and mode of their attachment, and consequently in the symptoms which they produce. On cutting into them we see a hard whitish substance intersected by membranous partitions. This, however, is not always its structure, it is sometimes of a much softer and looser consistence, and sometimes has considerable cavities.†

The external covering of polypus is the internal covering or mucous membrane of the uterus; this was long ago made out by dissection. When the patient is cured by the removal of the polypus, it comes away in a putrid state, unfit for minute anatomical examination; so that when the case terminates as it ought to do, we have not a good opportunity of examining the external covering; but sometimes the patient dies before the nature of the case is discovered, and then the tumour can be examined, *attached to the body*, and *unchanged by an operation*. A woman who for many years had been subject to long and profuse hæmorrhages from the uterus, but had obstinately objected to the part being examined, one day expired in a fainting fit. On examining the body after death,

* Baillie's Morbid Anatomy. Polypus of the uterus.

* See Levret, p. 31.

a tumonr was found in the vagina, which grew by a narrow stalk from the fundus of the uterus. Levret examined it in the recent state. 'It was,' says he, 'covered externally by an expansion of the 'membrane which covers the interior of the ute-'rus; on its surface were seen a great number of 'varicose veins.'*

A polypus of the uterus differs greatly in size in different cases. I have removed several which were as large as the head of a new-born child. They are commonly of a much more moderate size, and I have known several cases in which frequent hæmorrhages were occasioned by a polypus not larger than a filbert, attached just within the cavity of the neck of the uterus. That the hæmorrhages depended on the polypus, however small, was proved by the event; for they ceased on its removal.

Often as I have touched and removed a polypus, I never *saw* one in the living subject till Mr. Brodie operated on a case in St. George's Hospital, (June 5, 1828). An attempt was made to draw the polypus out of the vagina before removing it with the knife, but the attempt failed, and the ligature was ultimately applied in the vagina with my instrument. Whilst this was going on, the orifice of the vagina was so far dilated as to expose the tumour to our view; it was of a pale flesh colour, mottled, or rather streaked with large blue veins,

* Levret, sur les Polypus de la Matrice, &c., 8vo., p. 180.

like the round balls of soap at the windows of the perfumers.

Thus a polypus of the uterus is commonly a round insensible tumour, growing by a stalk from its fundus, cervex, or lip, in its inner structure like a fleshy tubercle, on its outside covered by a mucous membrane of a pale flesh colour, streaked with veins, and occasioning frequent hæmorrhages from the uterus.

When the polypus grows from the fundus of the uterus, it is at first very small, resides within the cavity of this organ, and for some time occasions no uneasiness or disturbance in its functions, by which its existence might be suspected. I have seen a polypus about the size of a filbert, growing by a narrow stalk, in the uterus of a woman who had died of some other disease, and who, during life, had experienced no symptom of it. As the polypus grows larger it gradually dilates the uterus, till at length this organ, stimulated by its bulk, begins to contract upon it, protruding it through the dilated orifice. The polypus sometimes passes through the orifice gradually and insensibly, sometimes suddenly during the action of the bowels. I have known several instances in which patients, after this action, have been suddenly seized with retention of urine, and on examination a polypus was found in the vagina, compressing the urethra.

Whilst the tumour resides within the uterus, it cannot be felt in a common examination, and the nature of the disease is generally overlooked.

Of this the following case affords a striking instance.

I.

A lady who had been subject to frequent and profuse hæmorhages from the uterus, had consulted two eminent practitioners in Edinbuugh, without relief. The uterus was examined, but no change of structure was discovered. As she passed through London on her way to the continent, she consulted me. I examined the uterus, and discovered nothing. She went to Rome, and then to Geneva, at both which places she consulted some of the most eminent practitioners, by whom the uterus was examined, but nothing was discovered, excepting that it was rather larger than natural. Thus far the disease was considered as common menorrhagia. After being absent from England a year and a half, she returned to London worse than when she went. A few days after her arrival, she had a recurrence of the hæmorrhage, but it was attended by an unusual symptom: the blood came away in large coagula attended with bearing down pains. As soon as the hæmorrhage had ceased, I advised her to allow me to examine the uterus, though I little expected what I was to find. She consented, and the next morning I visited her at her hotel before she was up. As I passed my hand under the bed-clothes, I said, I fully expect to find nothing, yet the next instant I had my finger on a polypus; it was about the size of a large walnut,

with a slender neck encircled by the orifice of the uterus. It was easily removed, the hæmorrhages have never returned, and she has since enjoyed perfect health. There can be no doubt that the polypus was expelled into the vagina during the pains which attended the last hæmorrhage, and that I had the rare good luck to examine almost immediately after the tumour was discoverable. If I had examined before those pains, I should have overlooked the disease, as I, as well as her attendants at Edinburgh, Rome, and Geneva, had done before.

When polypus of the fundus descends into the vagina, the stalk drags downwards that portion of the fundus to which it is attached, so that in this stage of the disease it is generally complicated with some partial inversion of the uterus. An inattention to this important fact has led to fatal consequences.

When a tumour supplied with vessels, and consequently capable of bleeding, grows from an organ so subject to bleed as the uterus, it is difficult to demonstrate whether the hæmorrhage arises from the tumour, or from the uterus. The strong reason for attributing the hæmorrhages to the tumour, is this. As soon as a ligature is applied, and tightened round the stalk, the hæmorrhage from that time ceases, although it may be several days before the tumour comes away.

It was an opinion of M. Levret, that a polypus did not bleed whilst it remained within the uterus, but that after its expulsion into the vagina, the

orifice of the uterus, by constricting its stalk, impeded the return of blood in its veins, which consequently burst, and bled profusely. This opinion, however, is contradicted, by the foregoing case as well as others which I shall have occasion to relate: a polypus of the neck or of the orifice of the uterus projects from the beginning into the vagina; consequently, it does not undergo that expulsion from the uterus, which takes place in polypus of the fundus, and is capable of being detected from its commencement.

In the treatment of this disease, the chief difficulty is in the diagnosis: when once detected, any surgeon with a proper instrument is competent to remove it, but the nature of the case is almost always overlooked, and when a tumour is detected I have known the most experienced practitioners hesitate about its nature, and consequently about the propriety of the operation.

As tumours are often found in the vagina, which somewhat resembles polypus, but which are very dissimilar in their nature and treatment, it is important to learn the marks by which they may be distinguished. The tumours which are likely to be mistaken for polypus, are, 1. the prolapsed uterus; 2. the inverted uterus; 3. malignant excrescences from the uterus.

It is not likely that any man of moderate knowledge and experience should mistake prolapsus for a polypus of the uterus. In prolapsus, the tumour has at its most depending part a palpable orifice, that of the uterus, into which a probe or bougie

can be passed several inches; the tumour is sensible, so that if pricked or scratched the patient feels it; the tumour grows broader the higher the finger is passed, and it cannot pass high, for it is soon stopped by the angle where the vagina is attached round to the uterus. The higher the tumour is pushed the easier does the patient become. In all these particulars the polypus is just the opposite: it has no orifice, it is insensible, so that if pricked or scratched, the patient does not feel it; the finger can be passed very high, and the higher it is passed the narrower becomes the tumour; the higher the tumour is pushed the more uneasy becomes the patient. I have seen many cases of this kind which gave occasion to doubts, but never one in which it became a question whether the tumour was prolapsus, or polypus of the uterus.

Inverted uterus being a rarer occurrence, is less likely to be met with, but when it is, it is more likely to be mistaken for polypus. When the uterus is only partially inverted, that is, when its fundus only is drawn down through its orifice into the vagina, and the patient has survived for many months, the tumour feels exactly like a polypus of the fundus. The distinguishing marks are the time of its first appearance, which must have been immediately after delivery, and its sensibility. In the smoothness of its surface, the roundness of its body, the narrowness of its neck, and its being completely encircled by the orifice of the uterus, it sometimes exactly resembles polypus of the

fundus, of which the following case affords an example.

II.

The first time I saw the patient was in consultation with Dr. Clarke, and Dr. Henry Davies; she had been delivered some months before at St. Omer, and immediately after the removal of the placenta, which had been extracted with some violence, a tumour had been felt projecting from the uterus into the vagina, since which she had not only had no hæmorrhages, but had not even ordinary menstruation. When we examined the tumour we found it about the size of a small apple with a smooth surface, a somewhat narrow stalk, which was completely encircled by the orifice of the uterus, exactly like a polypus, but its quick sensibility to touch, and the circumstances under which it made its first appearance, inclined us to believe that it was an inverted uterus, and not to recommend its removal, particularly as she was losing no blood, and her health was sustaining no injury from it. She returned to the continent, and I did not see her again for two years, when she again came to London, to place herself under the care of Dr. Granville, who had recommended her to submit to an attempt to revert it, and I now saw her in consultation with the doctor. Since my former interview with her, she had become subject to frequent and profuse hæmorrhages, which had bleached her face, and broken her health, and it now become an urgent

object to afford her relief even at some risk. We agreed, therefore, that the attempt should be made to revert the tumour, but if this failed, which appeared most likely, we proposed to her husband the removal of the tumour by the ligature, stating to him that such an operation had been done successfully, but that it was attended with considerable risk. This both he and the patient were willing to incur; the attempt at reduction failed, but before applying the ligature, her former attendants, Dr. Clarke and Dr. Henry Davies, were consulted, and all of us agreeing to recommend the operation, the ligature was applied by Dr. Clarke; it was tightened every other day, and each time occasioned so much pain as to require a large opiate to quiet it. At length on the fourteenth day both instrument and tumour came away: there were times when I had a strong suspicion that it was a polypus, but a sight of the tumour proved that it was the fundus of the uterus, for it was a hollow cup, the size of a small apple, in the cavity of which could be seen the fallopian tubes. Excepting the pain and some vomiting, the patient had no bad symptoms during the progress of the cure, and several months afterwards her husband called on me to say she was quite well.

A more frequent subject of doubt is, whether the tumour which projects from the uterus into the vagina is a common polypus, which admits of removal and permanent cure, or a malignant excrescence which, if removed, grows again, and terminates fatally. On this question I shall say

little at present, because I shall return to it in the second part of this paper, where I speak of some unusual forms of polypus. All I shall remark here is, that whenever the tumour has a stalk, which can be included in a ligature without any danger of including the neck or fundus of the uterus, I would apply it; it succeeds in an immense proportion of cases. I have known it succeed in several, where, from the cauliflower roughness of the tumour, others have been deterred from it, and even if the excrescence should return, the patient is not worse off than she was before. She has had the only chance which art can afford her, and has lost nothing even if it fails.

If polypus of the uterus is overlooked or neglected it ultimately destroys the patient. Frequent hæmorrhages drain the circulation to the lowest point compatible with life, till at length a fresh hæmorrhage occasions a fainting fit or convulsions, in which the patient dies. It is a practical rule, therefore, of vital importance, that whenever hæmorrhages from the uterus resist the ordinary means, the nature of the case should be certified by examination. I have heard of several fatal cases from a neglect of this rule, and many are recorded in books.*

When hæmorrhages from the uterus arise from

* See Dessault's surgical works, edited by M. Roux, vol. iii. Mémoires sur les Polypus. Medico-Chirurg. Journal and Review, for December, 1816. Levret, sur les Polypes de la Matrice, p. 180.

a polypus, medicines are useless. The only effectual way to cure the hæmorrhages is to remove the polypus. This may be done either with the knife, as is practised in Paris, or by applying a ligature round the stalk, and tightening it until the tumour falls off. I have never used any other means than the latter, and, as it has served me successfully for many years, and in numerous cases, so that I wish I had as good cure for all diseases, I shall not abandon it for the knife, which, if I may judge from cases which have been related to me, is not always so safe and successful.

It may be easily supposed, and if an attempt is made, it would soon be found, that to pass a ligature round a tumour, situated in a deep and narrow canal like the vagina, is not an easy task without an instrument adapted for the purpose.* That which I use consists of two tubes, capable of being separated and joined, and was originally contrived by a German surgeon, of the name of Niessen, but has since undergone many changes in the hands of different surgeons, especially Levret. A representation of its latest form has been

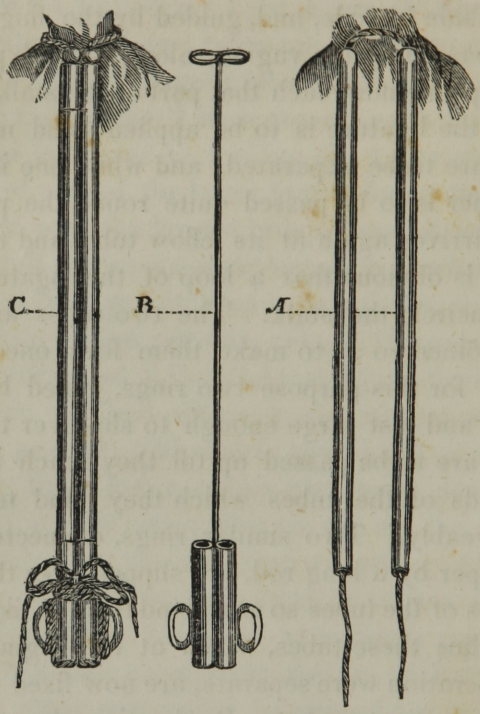
* How difficult this operation sometimes is if not facilitated by some mechanical contrivance may be seen in the cases published by Dr. Denman. He describes himself, Case the 4th, as making many and strenuous attempts to pass the ligature, but without success. At length the ligature was applied, but the patient died before the polypus came away, and appears to have been lost from the unsuccessful attempts of the operation. In Dr. Hunter's museum there is a large polypus, with the statement that after many attempts to pass the ligature the patient died.—(See *Denman's Midwifery*, vol. i., p. 100.)

copied from 'Richter's System of Surgery' into Mr. Samuel Cooper's 'First Lines of Surgery.' In this sketch the two tubes are curved to correspond with the curvature of the vagina and sacrum.

In this instrument I made two changes, the principal one consisted in making the tubes straight instead of curved, the latter form I found unnecessary even with the largest polypi; and it was liable to this great inconvenience, that when the tubes had been passed round the polypus, so as to meet again on the opposite side, if the upper extremities deviated in the slightest degree from each other, (an accident which it was almost impossible to prevent, and which took place notwithstanding their lower extremities were perfectly parallel,) it was impossible to slip up the cross part which was to join them together. On the contrary, if the tubes were straight it was necessary only to keep the lower extremities perfectly parallel to insure a similar apposition of the upper, and the cross part could be slipped up without any difficulty.

The instrument which I use for this purpose, and which in numerous cases has assisted me easily through the operation, consists of two silver tubes, each eight inches long, perfectly straight, separate from one another, and open at both ends. A long ligature, consisting of strong whip-cord, is to be passed up the one tube and down the other, so that the middle of the ligature passes across from the upper end of one tube to the upper end of the other, and the two ends of the ligature hang

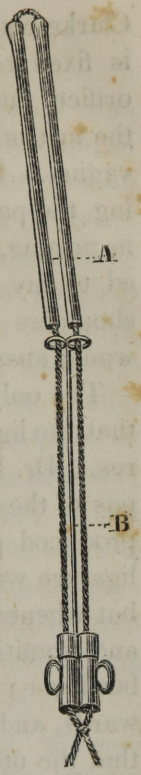
out at the lower ends; the tubes are now to be placed side by side, and, guided by the finger, are to be passed up the vagina, along the polypus, till their upper ends reach that part of the stalk round which the ligature is to be applied; and now the tubes are to be separated, and while one is fixed, the other is to be passed quite round the polypus till it arrives again at its fellow tube, and touches it. It is obvious that a loop of the ligature will thus encircle the stalk. The two tubes are now to be joined so as to make them form one instrument; for this purpose two rings, joined by their edges, and just large enough to slip over the two tubes, are to be passed up till they reach the upper ends of the tubes which they bind together immoveably. Two similar rings, connected with the upper by a long rod, are slipped over the lower ends of the tubes so as to bind them in like manner; thus these tubes, which at the beginning of the operation were separate, are now fixed together as one instrument. By drawing the ends of the ligatures out at the lower external ends of the tubes, and then twisting and tying them on a part of the instrument which projects from the lower rings, the loop round the stalk is thereby tightened, and, like a silk thread round a wart, causes it to die and fall off.



A the two silver tubes armed with the ligature, and applied to that part of the stalk which is to be encircled by the ligature; one tube a little separated from the other on its way round the polypus to meet its fellow tube on the opposite side.

B the rings which bind the tubes into one instrument, the upper and lower joined together by a long silver rod; on the lower the projection or shoulders.

C the two tubes joined together by the upper and lower rings; at the *upper end* a loop of the ligature round the stalk, at the *lower end* the ends of the ligatures twisted round the shoulders of the instrument.



The most convenient mode of preparing the instrument for the operation. *A* the two tubes armed with the ligature ready to pass up to the stalk of the polypus, and still separable so as to pass round it. *B* the upper and lower rings, connected by a silver rod, already slipped up over the long outer ends of the ligature, and ready to be slipped up over the two tubes as soon as they have been passed round the polypus, so as to encircle the stalk with the ligature; the ends of the ligature made into a knot to prevent this part of the instrument dropping off during the operation.

The instrument being thus adjusted is to be left, but every night and morning is to be untwisted from the shoulder of the instrument, drawn tighter, and then fixed again round the projecting part, and this is to be done morning and night. As the instrument projects out of the vagina, if the patient was, whilst turning from side to side, to sit down upon it, she might impale herself on it; an accident which I have heard once took place, and terminated fatally. To prevent this, the late Dr.

Clarke contrived a round flat wooden shield, which is fixed to his instrument so close to the outer orifice, that even if the patient was to sit down on the instrument it could not be thrust higher in the vagina. I have always satisfied myself with making the patient understand the necessity for care in turning, but such a guard could easily be adapted to my instrument; if the projecting part or shoulders were made two inches broader, they would answer the purpose.

The only danger attendant on the operation is, that the ligature may include a portion of the uterus. Dr. Denman passed a ligature round a polypus of the fundus; as soon as he tightened it, he produced pain and vomiting. As soon as the ligature was slackened, these symptoms ceased; but whenever he attempted to tighten it, the pain and vomiting returned; the ligature was left on, but loose; the patient died about six weeks afterwards, and on opening the body it was discovered, that the uterus was inverted, and that the ligature had included the inverted portion. Mr. Abernethy in his Lectures states, that he has opened the bodies of several women who had died from the ligature of polypus of the uterus. This accident happened to Dr. William Hunter, and he used to relate it in his Lectures as a warning to others.*

* 'A young woman,' says he, 'came to me from a man 'midwife in the City, desiring that I would examine her. I 'found a monstrously large tumour filling up the vagina. I 'wrote word that I thought she must die, if the tumour was 'not removed. She was a poor servant girl. With a long

III.

The following case, of which the result was similar, occurred at St. Bartholomew's Hospital in the year 1828. The patient was a poor woman about forty years of age, who had been delivered by the forceps about six months before, on which occasion a tumour was found in the vagina. When I saw her first she was in the following state:—she had a large tumour, which, when she was in the upright posture, protruded externally, but could easily be returned. It was as large as the head of a new-born infant, and was attached by a stalk, nearly as thick as the wrist, to the usual seat of the cervix uteri, but I could not feel the orifice of the uterus. The tumour was of a pale flesh colour, had a knotty surface, and felt firm. The patient had a profuse colourless discharge,

'instrument I tied it in the best manner I could. She com-
'plained of vast pain. I had before asked whether she ever
'had a child, and she assured me she had not. I thought the
'womb could not be inverted as she had not been with child.
'I therefore begged her to bear the pain, made the ligature
'tight, gave her an opiate, and left her, desiring my friend to
'visit her; from him I learnt that the pain had been violent,
'but had ceased, and her pulse was low and quick. She died;
'I examined the body, and found the uterus inverted, though
'she had never had a child, and that I had tied this. In this
'case my mind is easy, for my intentions were upright; how-
'ever for the future I have made it a rule, never to make a
'ligature until I am quite clear that there are no parts of
'the tumour but what may be included.'—*See Dr. W. Hunter's Manuscript Lectures—Polypus Uteri.*

but she had no hæmorrhages, and had for some time ceased to menstruate. The ligature was applied round what was supposed to be the stalk of the tumour: it occasioned little pain when it was first applied, but towards evening it became so severe as to resemble labour. It was relieved by an opiate, so that she passed a comfortable night; but the next day the pain increased, extending up the loins, and down the limbs. The ligature was tightened every day with a recurrence of pain, which required an opiate: the tumour became livid and the discharge fœtid. On the seventh day a violent hæmorrhage came on, which occasioned death-like faintings and cold sweats. The hæmorrhage was arrested by a local astringent, and the fainting relieved by brandy and ammonia, but she continued to have much pain with vomiting, and at length died on the fifteenth day after the operation. On opening the body the uterus was found of its natural size and structure; the tumour grew from the orifice of the uterus all around so as to be continuous with the cervix, and so as to cover the aperture of the uterus, and to make it impossible to say where the neck of the uterus ended, and the stalk of the tumour began. The ligature had been applied so high as to include the projecting neck of the uterus: the posterior part of it had occasioned ulceration into the cavity of the peritoneum, in which there was an aperture of about an inch in extent: the inner structure of the tumour was similar to the fleshy tubercle; there was no inflammation of the peritoneum.

The danger of including the uterus in the ligature may, I think, always be avoided by the following rules: 1st. Instead of aiming at passing the ligature as high as possible on the stalk, to pass it as low as possible, taking care to pass it over the body of the tumour. It is true by these means a portion of the stalk will be left above the ligature; but I know by experience that it does not grow again; like the remnant of the umbilical chord, it dies and falls away. These tumours have little life, and die above as well as below the ligature. By a case, which I shall soon relate, it will be shown that this is not a matter of probability, but of certainty. 2nd. When the stalk grows from the cervix, if the os uteri can be felt, it will be the best guide where the neck ends and the stalk begins; the ligature ought to be applied a little below the orifice, but if it cannot be felt, the next best guide is the ordinary length of the projecting part of the neck, that is, about two-thirds of an inch. When the polypus is very large, and the vagina closely contracted, it is difficult or impossible to reach the stalk and the cervix, so as to make anything like an accurate measurement, and the first rule only is practicable. 3d. To attend to the sensations of the patient when the ligature is tightened; if it gives much pain, there is every reason to believe that it has included a part of the uterus.

The time required for the ligature to make its way through, depends on the thickness of the

stalk, and the frequency with which the ligature is tightened; this ought to be night and morning; it most commonly requires four or five days, but sometimes only two, and sometimes as long as ten. As soon as the ligature is tightened, the hæmorrhage, if it has continued up to the moment of the operation, generally ceases; a fœtid discharge, more fœtid every day, comes away, which requires to be washed out by tepid water injected night and morning. When the polypus is of a moderate size it falls away, together with the instrument; but when very large, the instrument drops out, leaving the polypus loose from its attachment, but confined within the vagina, in which case I once found a vectis necessary for its extraction.

Nothing can be more successful than this operation generally is. A disease which has resisted remedies for several years is removed within a week; the hæmorrhages which had lasted so long, and had occasioned so much debility, suddenly cease; and the patient rapidly recovers her health. Sometimes, however, this requires to be assisted by the usual restorative remedies, such as pure air, tonics, especially bark, or steel, and sea-bathing, if the season admits of it.

M. Roux, of Paris, has published in the third volume of his edition of Dessault's works, a 'Mémoire sur les Tumeurs Polypoides,' in which he states that polypus of the uterus is *generally* accompanied by similar tumours within the substance of the uterus, and that when this is the

case, it is in vain to apply the ligature. If this were correct, the result would be, that the operation would *generally* not succeed, whereas, the truth is, it hardly ever fails. There is perhaps not an operation in surgery more, and few so uniformly successful, as the ligature of the polypus of the uterus.*

It is not an uncommon notion, that when the stalk of the polypus is very thick, the ligature is inapplicable. 'Sometimes,' says Dr. William Hunter, 'polypi do not grow by a small peduncle, but 'by a thick root from the uterus, and we cannot 'well apply the ligature.'†

'A young woman died at the poor-house, at '———: her disease had not been suspected till 'a few hours before her death. On opening the 'body a polypus was discovered eight inches 'long, growing from the fundus of the uterus, by 'a stalk three inches in diameter.' The writer adds, 'Had the precise nature of the case been

* M. Roux relates the case of a woman who died in the Hôtel Dieu from hæmorrhage and convulsions. On opening the body a polypus was discovered adhering to the neck of the uterus, and a tubercle of a similar structure in the anterior wall of this organ. M. Roux asks, 'of what advantage could 'a ligature have been? None, without doubt; the other tu-'mour would undoubtedly have caused the patient's death. '*This reasoning applies to all similar cases, of which the* '*number is unfortunately greater than that of the dispositions* '*favourable to the success of the operation.*' It is difficult to say what can have led M. Roux into this practical error, for such it is, and too important a one to pass over.

† MS. Lectures.

'ascertained before death, the extraordinary 'breadth of the base of the polypus would, I con- 'ceive, have precluded every well-grounded ex- 'pectation of a fortunate issue from any attempt 'at removal.'* I have repeatedly applied the ligature to very thick-necked polypi, with no other inconvenience than that the ligature was many days making its way through. This fear of polypi with thick necks as unsuitable for the operation is of modern date and not reasonable. M. Levret relates several instances in which the stalk was very thick, yet the operation was successful. In one, the stalk was as thick as the fore arm; in the other, it was three inches in diameter, the very dimensions of the case which died in the poor-house.† Even supposing the operation attended with greater difficulty, and the result more questionable than when the stalk is narrow, it affords the only chance of saving the patient, and that a very probable one.

Having now described the common polypus of the uterus, the symptoms which it produces, and its fatal tendency, the cases with which it may be confounded, and how to distinguish them, the mode of cure, the dangers of the operation, and now to avoid them, I will relate one or two cases, to show the young surgeon the obscurity in which the disease is sometimes involved, and the deplorable

* Med. Chirurg. Journal and Review for December 1816.

† Mémoires de l'Académie Royale de Chirurg. Tome iii., p. 537.

circumstances from which he may withdraw his patient by a prudent application of the foregoing rules of practice. These cases I shall select from among the most difficult which I have met with, so that he need not anticipate the same difficulties as of ordinary occurrence.

IV.

A lady, between thirty and forty years of age, who had been married many years without ever being pregnant, and residing in a provincial city, became subject to frequent and violent hæmorrhages from the uterus. She was attended first by her family surgeon, and next she was seen by one of the most eminent and experienced of the provincial surgeons, by whom her uterus was examined and pronounced to be cancerous. As she was one of a religious family, the fatal nature of her complaint was explained to her, and as she suffered much pain, she was resigned to nightly, and sometimes daily opiates. As her symptoms neither grew better nor worse, the uterus, after a long interval, was examined again, and it was then discovered that what was supposed to be a scirrhus, was in reality a large polypus. It was thought, however, impossible or unsafe to remove it until it had descended lower; for it was too high up for the application of the ligature. Months passed, during which she continued to take opium, lose blood, and become anasarcous. A time having been fixed when it would be probable that the tumour would be low enough for the application

of the ligature, and that time having arrived without the hoped-for result, she determined to wait no longer, but travel by short and easy journeys to London, where she arrived one evening. I saw her the next morning. She was anasarcous from head to foot, so much so in the face as almost to obliterate her features; pain and sleepless nights required two full opiates every day; she vomited frequently, and had a quick pulse. I found the vagina filled with a tumour so large, that although I could pass my finger round it, I could not pass it high enough to feel the thickness of the stalk, or the place of its attachment; the smoothness of the tumour, however, and its perfect insensibility, convinced me that it was a polypus, and without leaving the house I applied the ligature by means of my usual instrument. There was no difficulty in getting them round, and consequently encircling the stalk with a noose of the ligature, which I took care to apply not as high, but as low as possible on the stalk. Provided the ligature is above the body, the lower it is on the stalk the less likely it is to include a portion of the uterus, which is the only danger to which the operation is liable. I continued to tighten the ligature night and morning for several days; at length one evening the instrument with the ligature came away, leaving the polypus still in the vagina; but about an hour or two afterwards, violent painful contractions of the abdominal muscles, like labour-pains, came on, which alarmed her friends; and when I arrived, I found the tu-

mour at every pain protruding at the external orifice. With a dry towel I grasped the projecting tip of the tumour, and desiring her to strain during the pains, the huge polypus slipped away. It is a curious circumstance, which I have repeatedly witnessed, that the tumour, which, during its attachment to the uterus, has never excited expelling pains, should, as soon as it is separated and is become an extraneous body, excite painful contractions to cast it off. She left off her opium, and did little more than keep her bowels freely open, and return to the country, where in a few months she recovered her health, and is at this time perfectly well.

V.

I went ten miles from London to see a lady, of whom I received the following particulars from her family surgeon, Mr. Butler, of Woolwich:— For nearly two years she had been subject to long and profuse menstrual periods, in which she calculated that she lost ten times what she did when she was in health. Fifteen months ago the uterus had been examined by an eminent practitioner, who discovered nothing but that it was larger than was natural. About five months ago, during expulsive pains, a tumour had descended into the vagina, and was now so large as to fill the pelvis, and occasion a retention of urine, which required the frequent introduction of the catheter. The hæmorrhages were more profuse than ever; she had lost all colour in her face, and was so weak

that she never left her bed. She complained of pains in the pelvis, had a quick pulse, vomited often, and took little food. I found a tumour in the vagina, with a smooth surface and insensible. I could pass my finger all round it, but it was so large that it was impossible to reach above it so as to feel the stalk, and where it was attached. I was driven to this alternative therefore, either not to apply the ligature, and thereby abandon the patient to a sure death, or to apply it with a good deal of uncertainty about the part which it encircled. I of course preferred the latter, taking all the precautions with which I was acquainted to avoid including any portion of the uterus. I passed up the two canulæ side by side, armed with the ligature, kept one as a fixed point, moved the other round the tumour till it arrived again at the other canula, taking care to pass them only just above the most bulky part of the tumour. This was done with all the facility which this instrument usually gives me. The two canulæ were now joined by sliding up the rings, the ligature was tightened and secured in the usual way. Mr. Butler promised to visit her night and morning, and tighten the ligature at each visit; and I was to see her in two days. When I went I was alarmed at the state in which I found her; she complained of pain in the uterus, had a pulse of 130, and had vomited frequently. On inquiring, however, I found that these symptoms had troubled her almost daily for many months, only in a less degree. I saw Mr. Butler tighten the ligature;

and it was done so boldly, without any increase of pain, that I was satisfied that what she did suffer was not caused by the ligature having included a portion of the uterus. She was directed to take a purge; and if, after that had operated, pain or vomiting should continue, to take a small opiate every four hours. When I saw her two days after this, I was told that the day before her pain and vomiting had subsided, her pulse had fallen to 90, and she appeared very well; but about four o'clock in the morning Mr. Butler had been called out of his bed, and when he went he found her in strong expulsive pains, which had continued occasionally ever since,—that is, till about four in the afternoon, and by which about half the tumour had been protruded externally. In this case nature had been unable to effect the delivery, and we resolved to finish it. I grasped the tumour with a dry napkin, and by a little pulling, assisted by a little forcing on the side of the patient, the whole tumour was expelled. It was as big as two fists; the stalk was as thick as a wrist, and the ligature had still much of it to cut through. We therefore determined to remove the tumour by more speedy means. Whilst I grasped it with a towel, to prevent its being drawn back again into the vagina, Mr. Butler cut it off just below the ligature, and then slipped the stalk, with the ligature attached to it, back again into the vagina. Having removed the body of the tumour, I could examine the stalk, and the seat of its attachment; the orifice of the uterus encircled it, and on introducing the finger

between the orifice and the stalk, it passed up barely an inch before it was stopped by the part to which the stalk grew. The polypus, in descending into the vagina, had drawn down the fundus of the uterus, so as to change it from an upright vault into a low flat roof, not more than an inch from the edge of the orifice. The stalk was as thick as a wrist, and hung two or three inches into the vagina. The removal of the tumour was followed by a perfect calm; the pain ceased, the pulse became moderate, the sickness disappeared, the patient took nourishment, and when I saw her two days afterwards, she was going on so well that I left her under the care of Mr. Butler. I have often been asked what becomes of the stalk when a considerable portion of it has been left behind; and the only answer I could give was, that it certainly did not lead to a return of the disease, and I conjectured that it withered and fell off. In this case, however, I can give a more precise answer. For several days after the removal of the polypus, fragments, like sloughing cellular membrane, in large quantities, came away with a discharge; at length this ceased, the discharge subsided, and a short time afterwards she had a natural and moderate menstrual period. The uterus was examined soon afterwards; its orifice was wide, open, and readily admitted the finger to a considerable depth; it was examined again two months afterwards, when the orifice and body were found contracted to their natural dimensions; she was then menstruating regularly, and had regained the looks, feelings, and functions of health.

OF POLYPUS OF THE UTERUS, ATTENDED BY UNUSUAL CIRCUMSTANCES.

I. In a vast proportion of cases—to speak in numbers, in nine out of ten—to whatever part the stalk grows, frequent hæmorrhages from the uterus form the symptom of the disease, which attracts the chief attention of the practioner, and the case is long mistaken for common menorrhagia; but when the tumour grows from the neck or lip of the uterus, it sometimes occasions nothing but an obstinate and profuse leucorrhæa. The following case shows this, and shows also how liable diseases of this part are to be overlooked for want of examination by touch.

VI.

I was sent for one evening to see a lady about thirty years old, and was told that she had been troubled for nearly two years with profuse leucorrhæa. As she was unmarried, I was going to prescribe for her without examination, when I was told this would not be satisfactory. It then came out that she had seen another physician that morning, whose statement appeared to her and her mother so incredible that they would not believe it until it was corroborated by a second medical witness; but I was not allowed either to meet this physician, or to know what his statement had been. Little as I expected it, I found a small polypus, about the size of a walnut, growing by a slender stalk to the cervix uteri. The liga-

ture was successfully applied, and the patient recovered.

II. Women who have a polypus of the uterus, especially if it grows from the neck or lip of this organ, sometimes become pregnant. Of this I have known two instances. In one the tumour was discovered in the fifth month of pregnancy, and was removed by the ligature. The pregnacy went on to the ninth month, when the patient was safely delivered. In the other case the tumour was not discovered till the commencement of labour, and occasioned the death of the patient a few hours after delivery.

VII.

Mr. Borrett, surgeon at Yarmouth, with whom, when this happened, I was residing as pupil, was called to a lady in labour with her sixth child. On his first examination he found a large fleshy tumour within the vagina. The anterior segment of the os uteri was easily felt, but the posterior was occupied and covered by the attachment of the tumour. After the orifice had dilated, and the membranes had burst, the head of the child not descending, Mr. Borrett introduced his hand, brought down the feet, and extracted the child. The placenta was expelled spontaneously. The patient now being delivered, and easy, he left her at seven in the morning. At three in the afternoon he found her in strong pains as if there was another child; but as the abdomen was flat, and the contracted uterus could be distinctly felt in

the abdomen, he was satisfied that there was not, and gave her an opiate. At eight o'clock at night he found that the pains continued violent, with a sensation as of a substance coming away, and on examination he discovered a soft round tumour pressing against the outer orifice. What could it be? He would have thought that it was the uterus inverted, but it was the same tumour which he had felt in the morning before the child was born; there was no hæmorrhage; the placenta had been expelled spontaneously, and the uterus was distinct in the hypogastric region. He consulted his medical friends in the town, and sent off to Norwich for Mr. Rigby. The pains continued with violent expulsive efforts all night, and the next morning they found her with a languid pulse and a pallid countenance; a large fleshy livid tumour had been forced out of the vagina, and every pain brought it more and more in sight: she continued to suffer and to sink through the rest of the day; in the evening Mr. Rigby arrived, but she had expired about half an hour before. As soon as he arrived he examined the tumour, and was convinced that it was the inverted uterus. On opening the body next morning the uterus was found contracted, but its orifice was dragged down as low as the external orifice by a tumour which grew from it by a thick stalk; it was attached to the posterior part of the orifice, and some way up the neck, was of a livid colour, and weighed three pounds fifteen ounces.

What would have been the result of this case,

if a ligature had been applied round the stalk of the tumour, and its body cut off just below, as in the case No. V.?

III. When the polypus grows from the lip of the uterus, and its stalk is very thick, as two or three inches in diameter, the other lip and the orifice of the uterus are quite lost, and cannot be detected by touch. In this case, of which I have seen several instances, instead of feeling a slender stalk encircled by the orifice of the uterus, or the stalk and the orifice by the side of it distinct from one another, we feel at the top of the vagina, where the neck of the uterus usually projects into its cavity, a thick stalk, which lower down enlarges into a globular tumour, without any vestige of the neck or orifice of the uterus. I have seen the most experienced practitioners in London puzzled to tell what was the nature of the tumour, and what ought to be done for it.

The following case is a specimen of this puzzling combination of circumstances.

VIII.

A lady, forty years of age, who had never been pregnant, came to London for advice for frequent hæmorrhages from the uterus, which had not been relieved by the usual remedies, and had greatly injured her health. On examination there was found in the vagina a large round tumour, terminating in a very thick stalk, which grew from the situation of the neck of the uterus. This stalk however, was not encircled by the orifice of the

uterus, either completely, as in polypus of the fundus uteri, or partially, as in polypus of the neck. No orifice could be felt. On passing the finger round the uppermost part of the stalk, it formed, with the adjoining part of the vagina, a blind corner all round, as is felt in passing the finger round the neck of the uterus. For some time the nature of the tumour and the propriety of an operation were much doubted, and on this point I was consulted. On carefully examining it, I felt a little depression at the uppermost and anterior part of the stalk. This, I conjectured, was the orifice of the uterus, small, from the patient never having been pregnant, and dragged out of its natural direction, and obscured by the thickness of the stalk. That a thick stalk growing from the edge of the orifice might so obscure that orifice as to make it difficult to be felt, particularly in a woman who had never been pregnant, seemed intelligible and probable. The tumour was insensible, smooth, and of the consistence of a polypus. Thus it appeared so reasonable to believe that the tumour was a polypus, so certain that if it was not removed the patient would ultimately die of the hæmorrhages, and so probable that the operation would be successful, that, notwithstanding the obscurities of the case, I advised it to be performed: the ligature was applied to the stalk, and it was gradually tightened every day. On the fourth day the ligature gave way, and the instrument came off without the tumour: another ligature was now placed in the groove left by the former, and gra-

dually tightened every day. On the fifth day, having made its way completely through the stalk, it came away with the instrument, leaving the tumour loose in the vagina. It was necessary to introduce the whole hand, in order to extract the tumour, which was found to be as large as the head of a new-born child. On examining the vagina a short time afterwards, the neck of the uterus was found in its natural situation, and with its natural orifice. The hæmorrhages ceased, menstruation became regular, the patient rapidly recovered, and has been well ever since.

IX.

Some years before this case occurred I was consulted, together with two of the most experienced practitioners in London, about a lady who had been long subject to hæmorrhages from the uterus, by which her health had been broken, and in whom a large round tumour had been discovered in the vagina. On examining it carefully, the orifice of the uterus could be felt, the anterior lip of which seemed as if it was prolonged into a thick stalk which terminated in a round tumour. As the stalk was not encircled by the orifice of the uterus, it was thought that it could not be a polypus, and we agreed in dissuading from the application of the ligature. This lady died about two years afterwards. If I had known what I do now about the thick-necked polypus of the lip of the uterus, and that there is a large proportion of removable polypi, of which the stalk is not encircled by the

orifice of the uterus, I would have applied the ligature.

IV. A polypus may have an unusual form, as that of a solid cylinder; it is generally globular or pyriform, with a stalk like an elastic gum bottle; but I have seen two cases in which it was cylindrical, about the size of half the wrist, and the unusual form occasioned great doubts about the nature of the case and the mode of treatment.

X.

A woman for a long time had suffered frequent hæmorrhages from the uterus, which had resisted the usual remedies and greatly injured her health. At length, one day, a substance of a singular appearance suddenly protruded from the vagina; it hung out beyond the external orifice nearly half a foot; in form it was like a flattened cylinder, about half as thick as the wrist; it felt somewhat like an intestine, but on careful examination was found to have no cavity; it was very soft; on tracing it upwards it was found to extend through the vagina, and through the orifice of the uterus, beyond which it could not be traced; it was firmly attached within, for on pulling at it, it did not come away; it was of the same diameter through its whole length: a ligature was applied to it just below the orifice of the uterus, and in a few days it came away, the patient immediately losing the hæmorrhages by which she had so long been weakened.

V. A polypus is sometimes so small, that it

seems incredible it should occasion the frequent hæmorrhages which attend it, yet the hæmorrhages cease on the removal of the polypus. I have felt them as small as a filbert without its shell, growing to the neck or lip of the uterus; they were so small, that on being touched they slipped into the orifice of the uterus, and there remained concealed till the finger was withdrawn, and the patient sat up, and they dropped down again into the vagina.

I saw an elderly woman with a polypus of this size; the day was fixed for its removal, but before it arrived, whilst she was using a lotion with a long pewter syringe, it fell away, and from that time the hæmorrhages never returned.

XI.

Dr. Babington took me into the country one evening with my instrument to remove a small polypus about the size of a walnut, which he had discovered in a lady the day before. He had described the case to me about a week before, when I advised him to examine the uterus, and said I thought that he would find a polypus. She was about fifty-five years of age, and for a year and a half had been subject to frequent hæmorrhages from the uterus without pain. We found her in bed, ready for the operation. The polypus was so small, that I took it between my fore and middle fingers, and drew it downwards, on which the stalk broke and the little polypus came away. Dr. Babington, on examining immediately afterwards,

was surprised to find no polypus, on which I showed it him in my hand. From this time the hæmorrhages never returned. These little polypi are generally too small for the ligature; and if they cannot be pulled away with the finger, should be twisted off by a pair of surgeon's dressing forceps.

OF EXCRESCENSES FROM THE UTERUS WHICH ARE LIABLE TO BE MISTAKEN FOR POLYPUS.

I will just collect an account of these several excrescences such as I have observed myself, or have been described by competent witnesses, and then see whether, amid this variety of description and of denomination, it is not possible to simplify the subject, and reduce them all to one kind and one name.

'There arise,' says M. Herbiniaux, 'as well in 'the vagina, as in the uterus, excrescences which 'Levret calls vivaces, but which must not be con-'founded with polypi; they are fungus excrecen-'ces which grow from ulcerated surfaces, and are 'covered with no membrane. It is quite useless 'either to cut them off, or to apply a ligature, for 'they soon grow again; they cause little or no 'pain, but frequent hæmorrhages, which are ulti-'mately fatal. We commonly find several such 'excrescences at the same time; commonly they 'remain always in the uterus, they seldom descend 'into the vagina, for they have no stalk; the ori-

'fice of the uterus is commonly more or less open, 'and within it can be felt the excrescence; it is 'soft, and less even than a polypus; it often dis- 'tends the uterus so much that the abdomen is ex- 'ternally unnaturally large; pressure on the belly 'causes pain, but the excrescence itself is void of 'feeling.'* I suppose that the following case, which I saw many years ago, is of the kind which is here described by Mr. Herbiniaux.

XII.

I was sent for 30 miles from London, to see a lady 70 years of age, who a few weeks before had had a sudden hæmorrhage from the uterus, whilst she was standing in her drawing-room, so that the blood stood in a little pool on the carpet; terrified at this occurrence at her age, she was removed to her bed, where she had remained ever since with a slow discharge, sometimes of blood and sometimes of water. I found the orifice of the uterus circular with thin edges dilated to the size of half-a-crown, and a substance slightly protruding through it. It had a rough cauliflower surface and bled on being touched; it was round and large. I could pass my finger within the orifice and some way up between the thin walls of the uterus and this globular spongy body. She complained of violent weight and bearing down pains in the rectum, which I soon found depended on an enormous collection of hard fæces. This was

* Richter's Chirurg. Bibliothek. b. 6. s. 218.

soon cleared out by the country surgeon who met me, by the aid of a good syringe and some brown soap and water, to the indescribable relief of his patient. The more formidable part of her disease however still remained. She came to town, and was attended for some time by Dr. Babington and myself. The tumour never projected enough into the vagina to admit even of its tip end being included in a ligature. After being some months in London, she returned to the country, and about a year afterwards I heard that she died dropsical. Since this case I have seen two similar to it. Here then is a fungus excrescence, by which I understand one of a vascular structure, which is not covered by a smooth thick membrane, like polypus, but has a rough surface, which grows by a broad base instead of a narrow stalk, which if removed grows again, which bleeds on being touched, but which is insensible, and which kills by inducing frequent hæmorrhages.

'There are polypi,' continues M. Herbiniaux,* 'which are as soft as those called vivaces, but they 'are smooth; they are the slime polypi (schleim 'polypen); they excite hæmorrhages, and if you 'apply the ligature to them there arises a dis-'charge of mucus, and the polypus becomes smal-'ler. When it separates it is nothing but an emp-'ty skin.'

* Traite surivers accouchemens laborieux et sur les polypes de la matrice. See Richter's Chirurg. Bibliothek. b. 6. s. 218.

The late Dr. John Clarke described one of these tumours under the name of cauliflower excrescence; and Dr. C. M. Clarke has given a clear and forcible description of it in his work on the diseases of females. The following are its most remarkable properties. Instead of having a smooth surface like a polypus, it is granulated like that of a cauliflower. Instead of being covered with a thick mucous membrane like a polypus, it is covered by a fine transparent one; it is of a bright flesh colour, it is quite insensible, it never grows from any part but the cervix uteri; instead of growing from a narrower part or stalk, it grows from a broad base; it is attended by a watery discharge and by frequent hæmorrhages. It is as liable to occur in young and middle-aged as in elderly women, and in this respect differs from carcinoma of the uterus. It consists of a collection of small blood vessels, and in this respect differs from polypus in its internal structure, as well as its external covering. After death it shrinks almost to nothing, so that on examining the body, in place of the tumour which was felt during life, there is found only a soft flaccid slimy whitish substance, which looks like the fœtal portion of the placenta of a calf. It undergoes the same change if inclosed in a ligature. It kills, like polypus, by the profuse discharge and frequent hæmorrhages which it occasions. During the progress of the case, small pieces of granulated flesh come away, vast quantities of watery fluid and frequent hæmorrhages, by which the constitution of the patient is slowly undermined.

Compare the chief properties of these two excrescences, the one described by Herbiniaux and Levret, and the other by Dr. Clarke:—

Vivaces.	*Cauliflower Excrescences.*
A rough surface.	A rough surface.
Grows from a broad base.	Grows from a broad base.
A soft fungus.	A congeries of vessels.
If removed grows again.	If removed grows again.
The effect of death not observed.	After death or a ligature, shrinks to an empty skin.
Insensible.	Insensible.
Kills by frequent hæmorrhages.	Kills by frequent hæmorrhages.

By comparing the above parallel columns, the reader will easily see that the essential properties of these two excrescences are almost identical, and that there is no more difference between them than what would naturally arise from two observers describing the same thing: they differ only in the part from which they grow; that is, not more than polypus of the neck and orifice from polypus of the fundus of the uterus.

But what is the essential nature of these reproducible excrescences. Are they growths confined to the uterus, or are they only individuals of the same tribe which infest other parts of the body?

In Mr. Brodie's museum there is a preparation of the uterus of a young woman who died in St. James's Infirmary from cancer of the breast. During the progress of the disease, she had a constant discharge from the vagina. The uterus was not examined during life, but after death it

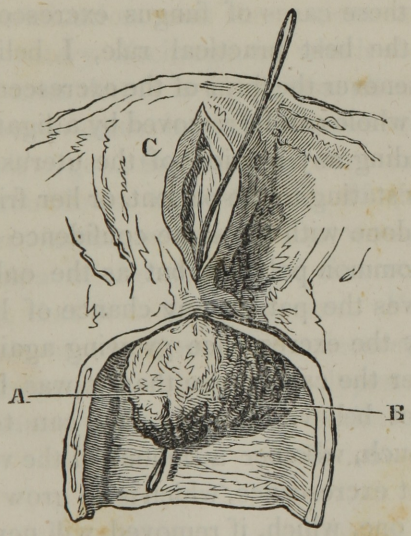
was found enlarged and containing a vascular excrescence, which grew from the fundus, and projected into its cavity, and which Mr. Brodie tells me has precisely the appearance of the cauliflower excrescence of the neck of the uterus.

XIII.

I saw a poor woman in the Middlesex Hospital, of whose case the following are the particulars :—She was thirty-three years of age, a widow, and had not had a child for thirteen years. She had for a long time been subject to leucorrhœa, but about four months back, this changed into a profuse party-coloured fœtid discharge, with slight appearances of blood every few days. About three weeks ago she had had a violent hæmorrhage, and another since her admission into the hospital. She had slight occasional pain in the loins and thighs. I felt a tumour the size of a small apple ; it appeared to grow from the orifice of the uterus, nearly, but not quite, all round, leaving a cleft on one side which admitted the finger. The surface was rough. The probabiliity that this was a malignant excrescence was distinctly recognised by Dr. Ley and myself; but as the only plan which afforded her any chance of recovering, a ligature was applied round the upper part of the tumour and tightened every day; it gave no pain. On the sixth day from its application there came on vomiting and a pulse of 140. The next morning the ligature was removed, the vomiting ceased, but the pulse continued rapid.

From this time she continued gradually to sink, and died about four months afterwards. The body was examined by Mr. Herbert Mayo, and I subjoin his account of the dissection, and his sketch of the tumour.

'The body of the uterus was shrunk, pale, and 'contracted; the adjoining portion (half an inch) 'of the cervix was healthy. The last inch in length 'of the cervix was swollen to the size of a large 'chesnut, and had the texture of a soft pulpy 'fungus: a similar structure in the place of one 'of the ovaries, and in a neighbouring lymphatic 'gland, left no doubt that the tumour was of the 'nature of fungus hæmatodes.'



A the fungus of the cervix, with a probe introduced through it from the cavity of the uterus.

B fungus of the same description, growing from the upper and back part of the vagina.

C interior surface of the uterus laid open.

The reader will by this time have drawn for himself the following conclusion: that these fungous excrescences described by Levret, Herbinaux, and Dr. Clarke, which I have found in the uterus and in the vagina, and which agree in these leading properties, that instead of a dense firm substance they are of a spongy or vascular structure; that if removed they grow again, and kill by producing frequent and profuse hæmorrhages; are only the same growth in different parts of the genital cavity, and are specimens of the same disease which, in other parts of the body, is best known in this country under the denomination of the bleeding fungus, or fungus hæmatodes.

In all these cases of fungus excrescence in the vagina, the best practical rule, I believe, to be this: whenever the form of the excrescence is such that the whole can be removed by a ligature, without including any portion of the uterus, apply it, distinctly stating to the patient, or her friends, that it is not done with the same confidence of success as in a common polypus, but as the only remedy which gives the patient any chance of life, and if it fails by the excrescence growing again, it does not render the case worse than it was before.

I do not believe that any man can tell infallibly by touch, whether a tumour in the vagina is a malignant excrescence, which is to grow again, or a benign one, which, if removed, will never return. A rough uneven surface is no test. The polypus described in Case No. III. which turned out to be a common polypus in structure, and which would

have been successfully removed if the ligature had been applied an inch lower, had a rough surface; and I have successfully and permanently removed tumours which, because they had uneven surfaces, had been judged by other practitioners to be malignant excrescences. It is a prevalent notion among medical men, that these malignant excrescences are far more common than they really are. Among the cases about which I am consulted, especially from the country, in which disease of structure is apprehended in the uterus, no one is so often named as the cauliflower excrescence. If the surface of the tumour or even the neck of the uterus is a little irregular, if blood follows an examination, and the patient states that she has a watery discharge, by which she means little more than that it is colourless, all which are common occurrences in the diseases of structure in this organ, the case is sure to be set down as cauliflower excrescence. If these suspicions were accurate this disease would be the most common of the diseases of this organ, yet the fact is, that it is the most rare. Where we see one case of cauliflower excrescence, we see ten or even twenty of common polypus, and fifty of carcinoma, or malignant ulcer of the uterus.

CHAPTER V.

OF THE IRRITABLE UTERUS.

The disease which I have ventured to call the irritable uterus, is a painful and tender state of this organ, neither attended by, nor tending to produce, change in its structure. It is now between fifteen and twenty years since I began to notice this disease, and since then I have seen several cases every year. At first it puzzled me much; I had not seen it described in books. I took it for chronic inflammation, which would end in disorganization, probably of a malignant kind; but experience, whilst it taught me that it was a very intractable disease, taught me also that it was not a disorganizing one. I became familiar with its obstinacy and less apprehensive about its result, for I know cases which have lasted upwards of ten years, in which the structure of the uterus is as unaltered now as it was at the beginning of the disease, as far at least as can be determined by examination during life. Although I often find it still an intractable disease, and wish I had a shorter and surer mode of cure to communicate, yet I think it worth describing, that practitioners may recognise it when they meet with it; that they may know what they are to expect in obstinacy,

and what they need not apprehend in the result; what will do harm, what will do good, and the mode of treatment which, however unsatisfactory to the medical attendant and his patient, will slowly but ultimately conduct most cases to recovery.

Pain in the lowest parts of the abdomen and loins attends various diseases of the unimpregnated uterus. It is the chief symptom in painful menstruation; but here it occurs only during the menstrual period, and is quite absent during the rest of the month. It is the most distressing symptom in the descent of the uterus (prolapsus), but here it occurs only in the upright posture and exercise, ceases on lying down, and replacing the organ, and is prevented by supporting it in its natural situation. It attends most of the diseases of structure to which the uterus is liable; but the change of structure, which may be ascertained by examination, distinguishes the nature of the pain.

A patient who is suffering from the irritable uterus complains of pain in the lowest part of the abdomen, along the brim of the plevis, and often also in the loins. The pain is worse when she is up and taking exercise, and less when she is at rest in the horizontal posture; in this respect it resembles that of prolapsus uteri, but there is this difference, that in the latter, if the patient lies down, she soon becomes quite easy; but in the complaint of which I am speaking, the recumbent posture, although it diminishes, does not remove the pain. It is always present in some degree, and severe paroxysms often occur, although the

patient has been recumbent for a long time. If the uterus is examined, it is found to be exquisitely tender, the finger can be introduced into the vagina, and pressed against its sides without causing uneasiness, but as soon as it reaches and is pressed against the uterus, it gives exquisite pain. This tenderness, however, varies at different times, according to the degree of pain which has been latterly experienced. The neck and body of the uterus feel slightly swollen, but this condition also exists in different degrees, sometimes sufficiently manifest, sometimes scarcely or not at all perceptible. Excepting, however, this tenderness, and occasionally this swelling, or rather tension, the uterus feels perfectly natural in structure; there is no evidence of schirrus in the neck, the orifice is not misshapen, its edges are not indurated. The patient, finding her pain greatly increased by rising and walking, soon learns to relieve herself by lying on the sofa, and at length spends nearly her whole time there. Notwithstanding this precaution, there is always a considerable degree of uneasiness, but this frequently increases to severe pain. These paroxysms generally come on either a few days before menstruation, or (as is the case in many instances) a few days afterwards. If the paroxysm is properly treated, it subsides in a few days to the ordinary and more moderate uneasiness. Whilst this uneasiness is felt in the substance of the uterus, the general circulation is but little disturbed. The pulse is soft, and not much quicker than is natural; but it is easily quickened by the slightest

emotion. In a few instances, however, there has been a greater and more permanent excitement of the general circulation; the degree in which the health has been reduced has been different in different cases. A patient, who was originally delicate, who has suffered long, and has used much depleting treatment, has been (as might reasonably be expected) the most reduced; she has grown thin, pale, weak and nervous; menstruation often continues regular, but sometimes diminishes, or ceases altogether; the functions of the stomach and bowels are not more interrupted than might be expected from the loss of air and exercise; the appetite is not good, and the bowels require aperients; yet nothing more surely occasions a paroxysm of pain than an active purgative. Such are the leading symptoms of this distressing complaint. To embody them in one view, let the reader fancy to himself a young or middle-aged woman, somewhat reduced in flesh and health, almost living on her sofa for months, or even years, from a constant pain in the uterus, which renders her unable to sit up and take exercise; the uterus, on examination, unchanged in structure, but exquisitely tender; even in the recumbent posture always in pain, but subject to great aggravations more or less frequently.

The causes to which this disease has been attributed, and after the application of which it has occured, are generally considerable bodily exertions at times when the uterus is in a susceptible state. In one patient it came on after an enor-

mous walk during a menstrual period; in another, it was occasioned by the patient's going a-shooting with her husband not many days after an abortion; in a third, it came on after standing for several hours many successive nights at concerts and parties; in a fourth, it originated in a journey in a rough carriage over the paved roads of France; in a fifth, it was attributed either to cold or an astringent lotion, by which a profuse lochia was suddenly stopped, followed by intense pain in the uterus; in a sixth it occurred soon after, and apparently in consequence of, matrimony. Although however, the disease followed, and was apparently excited by these several causes of irritation, yet the patients had previously manifested signs of predisposition to it; they were all sensitive in body and mind, many of them had been previously subject to the ordinary form of painful menstruation. The disease seemed to consist in a state of the uterus similar to that of painful menstruation, only permanent instead of occasional.

Long-continued pain in an organ so liable to malignant diseases, invariably leads to the apprehension of disease of structure, to ascertain which, repeated examinations generally take place, but nothing is discovered excepting exquisite tenderness and slight swelling, or rather tension. The disease does not terminate in change of structure. The fact, also, that many of these cases, after having lasted for years, end in entire recovery, is a sufficient proof that it is a disease only of func-

tion. Few such diseases, however, yield so slowly to remedies. Even in those which end in complete recovery, there are often long intervals in which the progress towards amendment is most unsatisfactory and dispiriting. By complete repose in the recumbent posture, and proper remedies, the painful paroxysms become slighter, and return at longer intervals; the stationary uneasiness becomes gradually less, and at length, ceases altogether, and at the end of a few months the patient is left free from pain, but more or less enfeebled. No disease, however, is so liable to relapse. The patient, feeling easy, finding herself feeble, and supposing that air and exercise are necessary to the recovery of her health, rises, and goes about again, and after a short interval of caution, throws aside her fears, engages in walks, drives, and gaiety, or takes a journey to the sea, for the recovery of her health. This conduct commonly occasions a complete relapse, and the patient and her attendant are again involved in their former suffering, apprehensions, and difficulties.

What is the nature of this disease? It is not acute inflammation, for that would run a far shorter course, and end in certain known consequences. It is not chronic inflammation, for that is a disorganizing process, and slowly but surely alters the structure of the organ in which it goes on. Both in chronic inflammation, and in the disease which I am describing, there is a morbid state of the nerves indicated by pain, and some-

times at least a morbid state of the blood-vessels indicated by their fulness; but the substances effused by chronic inflammation show, that in this there is something additional in the actions, and consequently in the state of the vessels. The disease which I am describing resembles a state which other organs are subject to, and which in them is denominated irritation. Thus surgeons describe what they call an irritable tumour of the breast.* It is exquisitely tender; an ungentle examination of the part leaves pain for hours; it is always in pain, but this is greatly increased every month immediately before the menstrual period. Although apprehensions are entertained of cancer, it never terminates in disease of structure. It is represented as a very common disease. Mr. Brodie describes a similar state in the joints.† It occurs chiefly amongst hysterical females; it is attended by pain, at first without any tumefaction, but the pain increases and is attended with a puffy, diffused, but trifling swelling; the part is exceedingly tender; this assemblage of symptoms lasting a long lime, and being often a little relieved by remedies, occasions great anxiety, but there never are any ultimate bad 'consequences.' 'The disease,' says Mr. Brodie, 'appears to de-'pend on a morbid condition of the nerves, and 'may be regarded as a local hysteric affection.' These painful states of the breast and of the joints appear to be similar to that which I have been

* See Sir A. Cooper on Diseases of the Female Breast.

† Brodie on Diseases of the Joints, p. 338.

describing in the uterus; similar in the kinds of constitutions which they attack; similar in pain; in exquisite tenderness; in resemblance to the commencement of organic disease, and in proving ultimately to be only diseases of function.

The mode of treatment which I have found most useful, (tardy as it may be in efficacy in most cases, and vain as it has been in some,) consists, 1st, in subduing pain; 2nd, in restoring the general health. The difficulty is to know when to discontinue the former indication, and when to aim at the latter; whilst aiming at the former, to select and proportion the means to the circumstances of the case; when aiming at the latter, to take care not to occasion a relapse of the pain by the means employed for the restoration of the health. The remedies for subduing pain, are the horizontal posture, narcotics, warm hip baths, occasional local bleeding, to which may sometimes be added mercury and counter-irritants.

In all those cases in which the pain is perpetual, repose should be perpetual. The patient must abstain not only from foot and carriage exercise, but from the upright posture, which even for short intervals is often sufficient to counteract the cure. As soon as she is dressed in the morning, she should be placed on her sofa with her shoulders as low as the pelvis, and in that posture remain the whole day. At first it is tedious, but she soon learns to amuse and occupy herself in this position, to write, read, work, and draw. This posture more or less strictly observed (the degree of

strictness being soon taught by the sensations of the patient) is absolutely necessary for the completion of the cure, not only till all pain has ceased, but for some time afterwards, and even then must be relinquished with the utmost caution or rather timidity.

II. The next measure is to draw blood.—When the general circulation is undisturbed, as is most frequently the case, local blood-letting is preferable to general, giving more relief and occasioning less weakness. Cupping affords decidedly more relief than leeches. The most convenient part for the application of the glasses is the upper part of the sacrum, but I have often found them more efficacious when applied to the part to which the pain is referred. Leeches afford more relief when applied to the hæmorrhoidal vessels, or between the labia pudenda, than to the loins, or the lower part of the abdomen. The quantity drawn must depend on circumstances; the best guides are the state of the constitution, the duration of the disease, and the relief afforded. The less the constitution is injured, and the shorter the duration of the disease, the larger ought to be the blood-letting, because the less likely it is to be injurious, and the more likely it is completely to remove the pain: on the contrary, when the disease has lasted long, and the patient is much emaciated and enfeebled, the more likely is it to be injurious, and the less likely it is to extinguish the pain; hence the blood-letting ought to be moderate. These, however, like all general rules, admit of excep-

tions. Twelve ounces of blood is a large local blood-letting; it seldom requires to be repeated to the same amount; I have known four ounces afford all the relief which this remedy was capable of effecting. But the pain, if only diminished will increase, and if removed will return sooner or later. The blood-letting, therefore, requires to be repeated, and the question is whether to defer it until the return or increase of the pain, or to anticipate this return or increase. I think the latter is preferable when the period of recurrence can be nearly calculated; both reason and experience show that a mode of treatment which prevents an organ from resuming its morbid action, is more likely to remove it permanently, than one which permits the action to recur, and then removes it: the subsequent bleedings, however, ought not to be so large as the first, and as it may be necessary to repeat these several times, it is important to discover the minimum of blood which will afford relief.

In determining the extent and the frequency of the blood-lettings, not only the pain, but the state of the constitution ought to be taken into the account. When they afford decided relief to the part, and inflict no material injury on the constitution, their propriety is unquestionable; but in many cases, after the disease has lasted long, and the body is emaciated and enfeebled, the relief afforded by blood-letting is so slight and temporary, and the debility it occasions is so great, that it

must be discontinued altogether. The next remedy which I have mentioned, is a narcotic. Of such medicines the most useful are, one-third camphor and two-thirds extract of henbane, or hemlock, or poppy, divided into pills of five grains, of which one may be taken two or three times a day, or about ten grains of extract of poppy, dissolved in an ounce of gruel, may be injected into the rectum every day, immediately after the bowels have acted. The solution of poppy, if retained, remains in the rectum till the next evacuation of the bowels, and until that time seldom ceases to soothe. If, however, this should not be the case, the injection may be repeated during the day, and as it is removed every time the bowels are evacuated, should always be replaced by another injection.

Want of exercise and narcotics almost always occasion constipation, which requires aperient medicines, but these must be of the most unirritating kind. A purgative sufficiently active to operate several times, almost always aggravates the pain, and a long course of such medicines, which I have sometimes seen employed from the belief of disorder in the liver, has produced great and long continued mischief. That is the best aperient which will act only once plentifully and without pain, and those which have most frequently acted in this way have been the solution of sulphate of magnesia in infusion of roses, castor oil, electuary of senna, sulphur. Of one of these, enough to produce the effect which I have described should be taken every other day.

The horizontal posture, small local blood-lettings and narcotics, are the remedies most invariably useful, and to which, after a long illness, and the vain trial of other remedies, I have most frequently been obliged to attribute all the good that has been done. There are others, however, sufficiently efficacious to deserve to be known and tried.

One is warm bathing; the hip-bath, at the temperature of 96°, for half an hour, every or every other night, is sometimes very efficacious; at other times it affords no perceptible relief, and greatly increases the languor and debility; but the kind of warm bathing which affords most relief, and occasions least debility, is the partial steam bath; the flannel sack should be drawn up to the præcordia, so as to enclose the abdomen and lower extremities, and these may be exposed to the action of the steam for half an hour every other day.

Another remedy is a mild course of mercury: from three to five grains of blue pill, or compound calomel pill, mixed with five grains of extract of henbane, taken every night for several weeks, or every other night for many weeks, have sometimes, without affecting the gums, occasioned a very regular action of the bowels; and during its influence, the periodical aggravations of pain have not recurred, and the permanent pain has diminished, and at length ceased altogether. Whilst the mercury has had this favourable influence over the local disease, it has occasioned no material injury to the constitution. This has been its

effect chiefly when the health has not been much reduced, and the disease has not lasted very long. On the contrary, in other cases, in which the body has been previously debilitated and emaciated, mercury, although it had a favourable influence over the local disease, occasioned so much wasting, weakness, and nervousness, as to compel me to discontinue it. Mercury requires to be employed with the utmost circumspection, and its effects in each individual case ought to determine whether it should be persisted in or discontinued.

Another remedy, which is often useful, is external irritation: this may be produced either by small blisters, the size of a watch, allowed to heal, and then renewed, and so on for many successive blisters; or a caustic issue may be made the size of a dollar, dressed with savin ointment, and slightly touched once or twice a week with lunar caustic: the best place for the issue is the upper past of the sacrum; the best place for the blisters is the seat of the pain. These artificial irritations, however, in sensitive constitutions, sometimes excite great disturbance without any equivalent benefit, and ought to be employed with caution, especially the caustic issue.

The practitioner can do no harm, and must do good as long as he confines himself to the employment of the recumbent posture, mild narcotics, warm hip-baths, and unirritating aperients; but with blood-letting and mercury he must be more cautious. I have seen many cases in which the pain was rather aggravated than relieved by bleeding; the patient rendered weak and irritable,

and the effect of the remedy was unmixed injury; in the employment therefore of such remedies as bleeding and mercury, the intelligent practitioner will, after a little time, be better guided by his own experience of the case than by any general directions. It is a good rule in the treatment of all diseases, whether acute or chronic, when the remedies are affording little benefit, when the constitution rather than the disease seems to be yielding under them, to desist from them; this is a rule of common sense above the rules of art, and to which the latter ought to be subservient. I know no man whose knowledge of his profession is so exact, and whose opinion of a case is so infallible, that he may dispense with this rule.

Lastly, there is a stage or class of these cases which is chiefly benefited by restorative means, especially chalybeate waters. When the disease has lasted long, is not relieved by the above treatment, is accompanied by broken health, cold extremities, and a pale complexion, I have often known the disease cured by the waters of Tunbridge Wells or Bath; the patient gradually losing her pain, regaining the power of sitting up and going about, and acquiring a more healthy appearance. The plan, however, requires great caution, for where the jar of a carriage brings on pain, the journey will often do great mischief; and the chalybeate waters, which in some cases are so efficacious, are in others clearly pernicious. The probable effects of a journey may be known by a few drives, and the effect of the

waters ought to be carefully watched; their influence on the pain and on the pulse is the best guide.

I have thus described the best remedies with which I am acquainted for the treatment of this distressing and often intractable complaint. In my hands the result has been, that some who had been previously ill for several years, recovered after a few months, and continued well, by strictly avoiding for a long time the exciting causes. Others, after a far longer treatment, experienced the same recovery; and this recovery was rendered permanent by the same long-continued caution; others, on the contrary, after sooner or later recovering, have laid aside caution, indulged in unrestrained exercise and exertion, and have experienced a relapse as severe and tedious as the original attack. Lastly, in some cases my best efforts have alleviated, but not removed the disease; and I have had the mortification to see them, at the end of several years, little better than they were at the beginning. The older I grow, however, the fewer instances do I see of this hopeless condition of the disease; and some of which I had begun to despair, have slowly but ultimately recovered. I think it an important fact, that in the cases which remained uncured after many years, the patients had, for the relief of their pain, gradually accustomed themselves to a daily enormous allowance of opium.

Thus have I endeavoured to give a general description of this disease, which I have ventured to

denominate the irritable uterus; but as general descriptions, though comprehensive, are deficient in distinctness, I will relate a few cases as specimens of this disease.

I.

A lady came to London and placed herself under my care, giving me a written narrative, of which the following is an abridgment. It affords a good instance of the duration of these cases, of their liability to relapse, of the fears which they occasion of disease of structure, of the groundlessness of these fears, of the imprudence of patients, notwithstanding repeated suffering, and after years of illness, of their ultimate recovery.

Mrs. ——— is now thirty-six years of age; from sixteen she suffered pain at every menstrual period, but in other respects was healthy and rather plump. At twenty-four she married, and after her first confinement went to a fashionable watering-place, and there passed a winter of laborious gaiety, her mornings being spent in making calls, and her evenings standing in crowded parties. She lost her appetite, suffered much from langour, and became subject to shooting pains at the lowest part of the abdomen. One day she went on an excursion into the country, during which she was compelled to hold her urine for six hours. In the evening she took a long walk, towards the end of which she was seized with severe pain and weight in the lowest part of the abdomen, and a sense of fulness in the womb. She applied

leeches, lived low, and was confined to her sofa several weeks, at the end of which time she was supposed to be well; but when she attempted to walk or ride, she felt a return of the pain; nevertheless she took a journey of forty miles, during which she suffered much; the pain was always worse at the menstrual period. Whilst in this state of imperfect recovery she took a drive in a donkey-cart, which was followed by a violent relapse, with great pain and tenderness across the lowest part of the abdomen. She was now confined to her bed, and was bled from the arm four times in one week. At the end of eight weeks she removed from her bed to the sofa, and in three weeks more went out in her carriage, and soon afterwards travelled to ————. She suffered pain during the journey, was not so well on her arrival, and consulted Mr. ———, who examined the uterus, which he described as enlarged and tender.

The narrative now goes on to recount a succession of relapses, all brought on by bodily exertion or agitation, when in a state of imperfect recovery; one by the jolting of a carriage in a long journey, another by driving in a rough donkey-cart, another by cantering for a full hour one day when the weather was fine, and she in high spirits, another by yielding to the solicitations of her friends, who assured her that she ailed nothing, and pressed her to exert herself to the utmost, and live like other people. This was to make daily calls from one o'clock to half-past four, up and

down the steep streets of ———, and going to parties in the evening, where she stood most of the time. For the attacks of pain the principal remedies were strict rest in the recumbent posture for several weeks, and blood-letting, either general or local. On one occasion she was blooded from the arm four times in one week; twice she became pregnant, and was delivered prematurely of children who had died some time before their birth. The uterus was often examined, and was always found to be tender, sometimes enlarged; on the last examination some irregularity was felt in the neck of the uterus, which led to apprehensions of disease of structure. Tired of remedies which had afforded such temporary benefit, she continued twelve months without any medical attendant, using no means excepting rest, occasionally going out, but at the end of this time she was not better; her pulse was full and quick, her pain worse, and subject to periodical aggravations. These attacks came on with, first, low spirits, then shivering, followed by sickness, head-ache, and throbbing pain of the uterus. Nothing relieved them but leeches; she was always the worse for carriage exercise, and for anxiety of mind. She now set off for London in a horizontal carriage; on her journey she met her former medical attendant, who had not seen her for many months, and who acknowledged that she was not better than she had been eighteen months before; she therefore pursued her journey to London, and placed herself under my care. I

found nothing unnatural in the form or consistence of the neck of the uterus, excepting a very slight irregularity in its orifice, which I have often observed in patients who ultimately recovered; but it was exquisitely tender, and the increased pain occasioned by the pressure of the finger lasted several hours. She had always some dull uneasiness along the anterior brim of the pelvis; but once every week or ten days she had a greater degree of pain, which generally lasted several days, and when it ceased, left behind the ordinary and more moderate uneasiness. She was not deficient in flesh or complexion, her pulse was always about 90, full and strong. After two bleedings of twelve ounces each, which produced excessive languor, without abating the pain, or the disturbance of circulation, she took a grain of calomel and five grains of extract of henbane, twice daily. In about ten days her gums become sore, and continued so for several weeks; immediately the disturbance of the circulation ceased; the pulse was slow and soft, and never resumed its former excitement. The pain likewise became considerably less, and the paroxysms come on at longer intervals; when they did, they were relieved by cupping, and by solutions of extract of poppy injected into the rectum, immediately after the bowels were moved. For a long time her plan of treatment consisted in strict confinement to the horizontal posture, a daily dose of sulphate of magnesia, just enough to excite one plentiful action of the bowels, and no more; and then a small poppy clyster, with an

occasional cupping. I have not room, and it would be tedious to relate the whole progress of this case: it is enough to say, that the permanent uneasiness gradually became less, and that the paroxysms of pain became seldomer and slighter; after both the one and the other appeared to have ceased altogether, there were occasional returns of pain, which showed that the disease was not eradicated. After these symptoms had entirely ceased, she continued for many months the same plan with the exception of the blood-letting. At length she was removed in a horizontal carriage a little way out of London; here, having learnt prudence from her former relapses, and having no relations about her to urge her to exertions, she began to make gradual, even timid, attempts to sit up and walk about. At first she walked with a watch in her hand; the first day for a very few minutes, adding one minute every day to the length of her walk. When at home, she generally reclined on her sofa, sitting up only at meals, or for a short time. At the end of a month of this cautious exercise, her health, which had become feebler, was greatly improved; she has been living most cautiously ever since, and has now been perfectly well nearly two years.

This case was written out three years ago; the patient has had no recurrence of her disease, although she has since sustained a heavy and lasting affliction. She is in good health, and can walk, drive, ride, and live like other people; but she has never since been pregnant.

II.

Miss ———, twenty-five years of age, had a constitution naturally delicate and sensitive; and this had been increased by nursing her sister during a long and alarming illness. She had been subject to painful menstruation for several years. In this state of health, she was one day during a menstrual period almost incessantly on foot for many hours, calling on acquaintances and searching for a lodging-house. In the evening of the same day she was seized with severe pain in the lowest part of the abdomen, extending from groin to groin, along the brim of the pelvis, and in the loins. Rest, fomentations, opiates, purgatives, and leeches were employed; but although they diminished, they did not remove the pain. Weeks and months elapsed, and notwithstanding the indefatigable attention of a very intelligent physician, the pain still continued; she was unable to sit up without aggravating it, and was greatly reduced in health. After nearly twelve months of disappointed expectations and unsuccessful treatment, she was put into one of those horizontal carriages which the London coach-makers let out for the conveyance of invalids, and brought up to town a distance of nearly sixty miles. The jolting of the carriage gave her much pain, so that when she arrived in town, she was suffering more than she had done for many weeks. I then saw her for the first time in consultation with the physi-

cian who had attended her throughout her illness, and with a London physician.

She was at this time completely confined to her bed; she was so much emaciated that I could encircle her arm with my thumb and middle finger, her complexion was like white wax, she had a constant uneasiness in the lowest part of the abdomen and groins; but every few days she had an attack of what she called her spasms, which she described in the following way; in the lowest part of the abdomen, or a little lower even than that, internally, she felt first a sense of heat, to this was speedily added a sense of throbbing, then a sense of distention, as if there was a tumour within, which gradually expanded till it felt ready to burst, then began the spasms; these she described as shooting or electric shocks, darting from the tumour up into the abdomen; they recurred every five or ten minutes, making her start with such violence as to shake the bed. I have been in the adjoining room when she has been in this state, and have perceived the shock; between the spasms she felt, what she called a convulsive pain. Nothing relieved these spasms but a small local blood-letting; she has used fomentations, simple and medicated, for many hours; hip-baths; opium, in draughts and injections, without relief; but as soon as four or six leeches were applied and had drawn blood, the spasms, distension, throbbing, and heat, speedily subsided, leaving behind the dull permanent uneasiness. The uterus was so tender that the examination of it

was torture, and left severe suffering for many hours. Menstruation had ceased for some months, her appetite was capricious, and required tempting by savoury and unwholesome food; ham and pork were her favourite meats. Of every meal she brought up a portion, her bowels never acted without medicine, yet medicine never acted without aggravating her pain. Her pulse was small, weak, quick, and easily quickened by the slightest emotion. If anything agitated her, it was so quick and sharp as to resemble the pulse of inflammation, yet in a few minutes it would subside to the ordinary state. She had profuse leucorrhæa. As her spasms recurred twice and often three times in a week, and the leeches were applied equally often, they were employed upon an average about ten times a month, and if the quantity of blood drawn at each time is estimated at two ounces, she must have lost about twenty ounces, every month. All this while she was taking little nutriment, and of that little a large portion was rejected. The paleness of the blood, and the marble colour of her face and skin showed how the circulating fluid had been drained of its red particles. Such was the condition in which she was when she arrived in town, nearly twelve months from the commencement of her illness. I continued to attend her for many months, with occasional consultations with some of the most eminent physicians of London. Dr. Baillie saw her repeatedly. When talking about the probability of recovery, he said, that he knew a lady

who had been confined to her sofa by a similar state for thirty years. I have not room to tell the various persons who were consulted about her, and the various remedies which were tried for her relief; every attempt was made by diet and medicine to remove the irritable state of her stomach; many months elapsed and no advance had been made towards amendment. One day, after an attack of spasms, and the application of leeches, which on this occasion were larger, and bled more profusely than usual, she sunk into a state which led her attendants to think that she was dying. She lay motionless and insensible, her extremities were cold, her pulse was like a thread, and often quite imperceptible: in this state she lay four hours; when she revived she talked incoherently, and could not see. In this state she continued for nearly two days. In describing it, she says, 'Those days are to me as though I was not alive.' We warmed her limbs, gave her nutriment, and diluted wine, and at length she recovered her sight and collectedness of mind. From this time her spasms ceased, but she was in a wretched state from fretfulness of temper and sleepless nights, and she insisted on being removed to a more quiet spot, notwithstanding the fear that the motion of the carriage might occasion a return of her spasms. The jolting of the carriage gave her great pain, and the next day the spasms recurred: they continued to recur for several weeks, about once in five or six days, but at length they ceased. She now began slowly to

recover her appetite, her food was no longer returned, her bowels were moved by milder aperients; she had colliquative perspirations and sleepless nights; for these the tepid salt shower bath was used at bed-time with great and immediate benefit; at this time she took a light preparation of steel twice daily, that is, a drachm of steel wine with equal parts of infusion of quassia and cinnamon water; her pulse became slower and fuller, and a little colour began to be visible on her cheek; she passed part of the day in the drawing-room, sat up and loitered about the garden; it was the beginning of summer: the compound steel mixture was substituted for the steel wine. Whilst taking it she began to menstruate after an interval of twenty months, and from that time did so with perfect regularity. I need not pursuse the case further in detail. It is enough to say, that her disease has never returned, and that although her health is not robust, and requires prudence, especially with regard to gaiety and exercise, she looks well, and is able to partake in most of the pleasures and pursuits of life.

Some will think that this disease has been obstinate in my hands, because it was not treated with sufficient activity, and that if blood-letting had been carried further it would have been cured more speedily and surely; but these cases are so protracted that they are seldom submitted to only one practitioner. Most of those which I have seen had already passed through the hands of several. In

some active blood-letting had already done its best and its worst. I have seen patients labouring under this disease made to live entirely on vegetable food, cupped every week, and purged frequently; the result was, that they became pale, thin and weak; the pain, it is true, was diminished, but not more than it usually is by the recumbent posture, and gentler remedies, and at the end of several months the health was formidably reduced, and the disease not relieved in an adequate degree; but the lovers of large bleedings will ask, would they not have effected more? In answer to this question, I will relate to them a case in which this practice was employed under the most favourable circumstances, that is, when the disease had lasted only a few weeks.

III.

The patient was a young married woman, twenty-five years of age, who had borne four dead children. After the last, when she began to get about again, she felt pain in the pelvis, which was attributed to prolapsus uteri, and for which she wore a pessary. This was followed by a hæmorrhage, which at length stopped, and was succeeded by pain in the hypogastric and left iliac regions; her pulse was described to be small and wiry, a very common pulse after hæmorrhages from the uterus. She was now blooded four times in less than a week, making in all eighty ounces, and a number of leeches were applied repeatedly to the hypogastrium. I saw her a few weeks afterwards: her

face and lips were bloodless, her health broken, and she had the local symptoms which I have denominated the irritable uterus, namely, uneasiness in the hypogastrium and iliac regions, so much increased by sitting up and walking about as to compel her to confine herself entirely to the recumbent posture. During examination the pressure of the finger gave no pain till it reached the neck of the uterus, which was exquisitely tender, and the increased pain, occasioned by pressing it, remained for many hours. A far better mode of bleeding actively, so as to reach the disease, is one employed by Mr. Fernandez, of Lamb's Conduit-street: when the disease is recent, when the health is unreduced, and the symptoms are more active than they commonly are in the protracted cases, he has employed cupping till it has produced faintness, with great success. This gentleman was the first person whom I ever met with who had recognized the disease which I am describing. It had been an object of his attention for several years before I had noticed it, and he had written a paper about it, which had been read at some medical society, I believe the Westminster; but his experience chiefly lay among the recent cases, whereas I have chiefly seen the protracted form of the disease. It was from him I learnt the efficacy of mild courses of mercury in a certain state, or a certain class of these cases.

Some of my readers will think that the name which I have given to this disease is a verbal refinement, and that I had better have called it chronic

inflammation; but I have two objections to this: one is, that chronic inflammation, though a slower is as surely a disorganizing process as acute inflammation, but this is not. Besides, ought the irritable breast described by Sir Astley Cooper, the hysteric disease of the knee, described by Mr. Brodie, and the irritable testicle, well known to practical surgeons, ought these to be called chronic inflammation? they are of the same family as the irritable uterus; the other objection is, that the name would be a mischievous one; many men remember the name of a disease only, and forget the history of it, and the term chronic inflammation would lead to a more indiscriminate and active employment of antiphlogistic remedies than is advisable in the protracted cases. Even the benefit afforded by small local bleedings is not uniform; in some cases the pain is worse after bleeding, in some the pain is most severe a few days before menstruation, when the vessels of the uterus are most distended; in others, on the contrary, the pain is worse after menstruation, when the vessels of the uterus are most drained; in some the uterus feels a little swollen, in others not so: it is probable, therefore, that the cases which I comprehend under the term 'irritable uterus,' may require to be subdivided into several classes, in one of which congestion is an essential part, and blood-letting and mercury may be apt remedies; in another congestion may be absent, and blood-letting and mercury may be useless and pernicious; restorative means, especially steel, being the aptest re-

medies. Lastly, another may consist of those interminable cases which nothing relieves, and which, at the end of ten or fifteen years, are as bad as they were at the beginning: in these there may be some disease of structure in a part of the uterus out of reach of examination by touch.

CHAPTER VI.

A PECULIAR FORM OF HÆMORRHAGE FROM THE UTERUS.

Hæmorrhage from the uterus, after delivery, is attributed to insufficient contraction of that organ. We infer that there is no danger of hæmorrhage if the uterus is contracted; and that the uterus is contracted, if it feels small, round, and firm. This I believe to be, generally, the truth; yet the observing practitioner must have been frequently struck by the little proportion that existed between the want of contraction and the degree of hæmorrhage; having found the uterus bulky without any hæmorrhage, and a profuse hæmorrhage without greater bulk of uterus. Nay, further, I have witnessed a profuse hæmorrhage though the uterus had contracted in the degree which commonly indicates security; and I have ventured to do what is seldom justifiable, separate the placenta before the uterus had contracted, without more hæmorr-

hage than after a common labour. What is this circumstance which has so great an influence that its presence can cause a moderately contracted uterus to bleed profusely, and its absence can cause an uncontracted uterus to bleed scarcely at all?

After delivery, the contraction of the uterus prevents hæmorrhage, by occasioning a sufficient closure of the blood-vessels to resist the ordinary force of the circulation. It appears reasonable to suppose, however, that if the force of the circulation was extraordinarily great, it would be able to overcome the ordinary closure of the orifices, and that thus a profuse hæmorrhage might arise although the uterus was contracted in the ordinary degree. That this event, so probable in point of reason, is true in point of fact, was first fully disclosed to me by the following case:—

April 10, 1815, I delivered Mrs. S. W. of her second child; for many hours before the accession of labour she was flushed, and had a very full quick pulse. Abstinence from meat, wine, and warm drinks, a cool room, and a saline purgative, diminished, but did not remove, this state of the circulation, which continued in a considerable degree when the child was born; it was expelled very gradually, and after the removal of the placenta the uterus felt in the hypogastrium contracted in the ordinary degree; nevertheless, about twenty minutes afterwards there came on one of the most frightful hæmorrhages I ever witnessed;

by the introduction of the hand, and the application of cold, however, it was speedily arrested.

It was somewhat more than a year afterwards when she informed me that she was pregnant again, and coming to town to lie in. As she arrived only two or three days before she fell in labour, I did not see her till she was taken ill; but then as soon as I entered her chamber, I was struck on observing the same state of circulation that had preceded her former labour; she was sitting in her easy chair, with a red face, and a throbbing pulse. I had not been many minutes in the room before the pains became so strong it was necessary to put her on the bed, and soon afterwards the child was born; it could not be expelled more gradually; after the head was born another pain expelled the shoulders, another the body, and another the limbs. I cut the chord, placed my hand on the abdomen, and felt the uterus contracting in the usual degree, yet a few minutes afterwards the blood burst out with prodigious impetuosity. The fearful scene which followed, I need not depict; it is enough to state, that by the introduction of the hand and the application of cold, the hæmorrhage was speedily suppressed, yet it bleached her face, and for many days she could not sit up without faintness.

I had now witnessed two labours in the same person, in which, though the uterus contracted in the ordinary degree, profuse hæmorrhage had nevertheless occurred; let me be understood—after the birth of the child, I laid my hand on the abdo-

men, and felt the uterus within, of that size and hardness which is generally unattended by, and precludes hæmorrhage; in both instances the labour had been attended by an excessively full and rapid circulation. I could easily understand that a contraction of the uterus, which would preclude hæmorrhage in the ordinary state of the circulation, might be insufficient to prevent it during this violent action of the blood-vessels, and the inference I drew, was, that in this case the hæmorrhage depended not on want of contraction of the uterus, but on want of tranquillity of the circulation, and that if ever she became pregnant again, a mode of treatment which would cause her to fall in labour with a cool skin and a quiet pulse, would be the best means of preventing a recurrence of the accident.

It was not very long before I had an opportunity of trying the truth of my doctrine, and the efficacy of my treatment, for about twelve months after this confinement, she called on me to tell me that in about four months she should require my attendance again.

The plan I advised was this, to avoid fermented liquors; to take meat only thrice a week; a purgative of salts and senna twice a week; a scruple of nitre three times a day; this she began two months before she expected to be confined, and continued it up to the full time. I saw her when she was expecting her labour every hour, and had the satisfaction to find her with a cool skin, and a soft pulse under eighty. She was to lie in at her

own house, a few miles from town; I was to attend her there; for fear I should not arrive in time, the neighbouring surgeon was to be in the house. I was sent for four days afterwards; when I arrived she was not delivered; but I was mortified to find, that since our last interview, her pulse had sprung up, and there was now the old heated skin and hurried circulation, though in a far less degree, and this the surgeon said had been the case for two days. The labour came on, the child was gradually expelled, and after the placenta had separated and was removed, the surgeon had put his hand on the abdomen, and said he had seldom felt the uterus more contracted so soon after delivery; yet within a few minutes there came on a flooding; like what I believed to be the cause, it was trifling to what I had formerly witnessed, and was readily suppressed by a cold wet napkin flapped upon the belly; but it was enough to produce syncope, and detain us in the house several hours longer than we should otherwise have remained there.

In process of time she became pregnant again. She pursued the same plan, with only this addition, that when she came within a fortnight of her confinement, she had twelve ounces of blood taken from her arm, and before a few days of delivery, eight ounces more. She fell in labour, and as soon as I entered the chamber, the first thing I did was to feel her pulse; it was as soft and slow as I could wish. After the birth of the child and the removal of the placenta, the uterus con-

tracted not more than in her last labour; but not the smallest degree either of flooding or faintness took place.

How often a disturbance of circulation plays an important part in uterine hæmorrhage it is difficult for an individual to know; but I suspect sufficiently often to deserve the especial attention of practitioners. I advise them when they meet with patients subject to hæmorrhage after delivery, to notice the state of circulation before labour, and, if disturbed, to employ means for tranquillizing it before labour comes on. I advise them, during labour, to use cordials cautiously, lest the placenta should separate during an excited state of circulation. I advise them after delivery though the uterus may feel contracted, to be slow to leave their patient, if the circulation is greatly disturbed.

I have thus fulfilled the principal object of my paper, yet there occurred other circumstances in these successive labours which I think worth relating, because they throw light on some important points in the treatment of uterine hæmorrhage.

The first time I attended this lady, after the violence of the hæmorrhage was over, although the abdomen was covered with pounded ice, it returned again and again, slightly in degree, yet sufficiently, in the debilitated state of the patient, to produce alarming occurrences of faintness: the uterus too, which had become firm and distinct, became so soft it could no longer be felt. In the

hæmorrhages from the uterus, these alterations of contraction and relaxation with cessations and recurrences of bleeding, are familiar to the observing practitioner. Finding the ice so inefficient, I swept it off, and taking an ewer of cold water, I let its contents fall from a height of several feet upon the belly; the effect was instantaneous; the uterus, which the moment before had been so soft and indistinct as not to be felt within the abdomen, became small and hard, the bleeding stopped and the faintness ceased; a striking proof of the important principle, that *cold applied with a shock, is a more powerful means of producing contraction of the uterus than a greater degree of cold without the shock.*

After the second labour, at the beginning of the hæmorrhage, I found the placenta separated, and lying in the vagina; I removed it; the hæmorrhage abated, but a few minutes afterwards it returned as violently as at first; my patient turned white and faint, and said the room was going round with her. I had been talking on the subject with Dr. Rigby, at Norwich, who told me that in hæmorrhage from the uterus, after delivery, he had found La Roux's remedy the most effectual, and that it had unquestionably enabled him to save several lives, which must otherwise inevitably have been lost. I took several handkerchiefs, soaked them in vinegar, and passed them one after the other into the vagina, so as completely to fill it; this effectually prevented all external hæmorrhage; I no longer felt the blood pouring

over my hand; the uterus began to harden, and my patient complained of pain; the colour came into her face again, and her faintness she said was gone. These favourable appearances, however, lasted but a short time; the pains ceased, the uterus grew soft and seemed to swell, the pulse became thread-like and weak, and she turned ghastly pale. It was plain that though I had prevented the blood from escaping externally, it was flowing into the uterus in great quantity, and that I had only converted an external into an internal hæmorrhage. Feeling herself sinking, she screamed out she should never see her children again, and entreated that she might see her husband, and take leave of him before she died. The next instant I thought she had realized her fears; she sunk into the pillow pale and senseless, her face became distorted, and her limbs convulsed.

My belief now is, that when hæmorrhage occurs after the removal of the placenta, the quickest way to stop it, is to introduce the left hand closed within the uterus, apply the right hand open to the outside of the abdomen, and then between the two to compress the part where the placenta was attached, and from which chiefly the blood is flowing. When the hand is introduced merely as a stimulant, there is an interval of time between its arrival within the uterus and the secure contraction of this organ, during which much blood is often lost. By directing the hand to the very vessels from which it issues, and compressing

them as I have described, this quantity is saved. If I may judge by my feeling, the blood stops, in a great degree, even before the uterus contracts: the hand acts first as a tourniquet, then as a stimulant. It is true we cannot tell with certainty where the placenta was attached, and consequently where the pressure should be applied: but as it is generally attached to or near the fundus, if the pressure be directed there, it will generally be right. Besides, after the child is born it is often several minutes before the placenta separates and descends; if, during this interval, we pass up the finger along the chord and observe, at its entrance into the uterus, whether it turn towards the front, the back, the right or left side, or straight up to the fundus, we shall form a tolerably exact idea of the spot to which the placenta has been attached in this individual case.

But to return to my patient. As it was my duty no longer to rely on the remedy I was using, I drew out the handkerchiefs and applied my hands as I have described with the most immediate and happy effect; the bleeding stopped, my patient came to herself, and whilst *she* complained of pain, *I* felt the uterus contracting; here was an end of the hæmorrhage and the alarm, and though for many days her face looked bleached, and she almost fainted in the upright posture, she recovered without any untoward circumstance.

CHAPTER VII.

OF SOME SYMPTOMS IN CHILDREN ERRONEOUSLY ATTRIBUTED TO CONGESTION OF THE BRAIN.

I REMEMBER when a boy reading a story of two knights-errant who arrived on the opposite sides of a pedestal surmounted by a shield; one declared it was gold, the other that it was silver; growing angry, they proceeded to blows, and after a long fight each was thrown on the opposite side of the shield to that where he began the fight—when both immediately detected their error; the knight who had said it was silver finding that on the opposite side it was gold, and the knight who said it was gold finding that on the opposite side it was silver. This story, a little modified, is a good illustration of the state of medical opinion in this age, perhaps in all ages; medical men have no occasion to tilt, for they all throng on one and the same side of the shield; they look only at the golden side, and never dream of the possibility that on the opposite side it may be of a different metal.

In observing disease two sets of symptoms may be noticed, which are mixed together in the case, but which require to be discriminated to form a correct opinion of it: the one consists of the striking symptoms which form what may be called the

physiognomy of the disease; the other consists of those symptoms which indicate the morbid state of organization on which the disease depends; the former only are noticed by the common observer, but the latter are the most important, and the skilful physician takes them for his guides in the treatment. 'He notices not only where the hour hand 'of nature's clock points, but also the run of its 'minute and second hands.'

Two patients complain occasionally of dimness of sight, swimming of the head, singing in the ears, and observe that if they turn the head on one side to look at an object they feel as if they should fall; but the one is plump, florid, and has a full pulse; the other is pale and thin, has cold hands and feet, and a pulse small and feeble. One practitioner bleeds them both; the other bleeds the one, but does all he can to give blood to the other. The latter cures both his patients; the former cures the one but ruins the health of the other; but such is the nature of the human mind, that the cases *for* a preconceived opinion are retained easier than those *against* it. He remembers his good deed, forgets the other, or calls the case 'anomalous,' and marches on, without the slightest doubt that bleeding is the universal and sovereign remedy for dimness of sight, swimming of the head, and singing in the ears, save and except only in 'anomalous' cases.

I am anxious to call the attention of medical men to a disorder of children which I find invariably attributed to, and treated as, congestion or inflam-

mation of the brain, but which I am convinced often depends on, or is connected with, the opposite state of circulation. It is chiefly indicated by heaviness of head and drowsiness; the age of the little patients whom I have seen in this state has been from a few months to two or three years; they have been rather small of their age, and of delicate health, or they have been exposed to debilitating causes. The physician finds the child lying on its nurse's lap, unable or unwilling to raise its head, half asleep, one moment opening its eyes and the next closing them again with a remarkable expression of languor. The tongue is slightly white, the skin is not hot, at times the nurse remarks that it is colder than natural; in some cases there is at times a slight and transient flush: the bowels I have always seen already disturbed by purgatives, so that I can scarcely say what they are when left to themselves: thus the state which I am describing is marked by heaviness of the head and drowsiness, without any signs of pain, great languor, and a total absence of all active febrile symptoms. The cases which I have seen have been invariably attributed to congestion of the brain, and the remedies employed have been leeches and cold lotions to the head, and purgatives, especially calomel. Under this treatment they have gradually become worse, the languor has increased, the deficiency of heat has become greater and more permanent, the pulse quicker and weaker, and at the end of a few days, or a week, or sometimes longer, the little patients have died with

symptoms apparently of exhaustion. In two cases, however, I have seen, during the last few hours, symptoms of oppressed brain, as coma, stertorous breathing, and dilated and motionless pupil.

I will relate a case as a specimen. A little girl, about two years old, small of her age and very delicate, was taken ill with the symptoms which I have above described. She lay dozing, languid, with a cool skin, and a pulse rather weak, but not much quicker than natural. She had no disposition to take nourishment. Her sister having died only a week before of an illness which began exactly in the same way, and which was treated by leeches and purgatives; and some doubts having been entertained by the medical attendant of the propriety of the treatment, leeches were withheld, but the child not being better at the end of two days, the parents naturally anxious about their only surviving child, consulted another practitioner. The case was immediately decided to be one of cerebral congestion, and three leeches were ordered to be applied to the head. As the nurse was going to apply them, and during the absence of the medical attendants, a friend called in who had been educated for physic, but had never practised it, and who had great influence with the family: he saw the child, said that the doctors were not sufficiently active, and advised the number of the leeches to be doubled. Six, therefore, were applied; they bled copiously; but when the medical attendants assembled in the evening they found the aspect of the case totally altered, and that for

the worse; the child was deadly pale, it had scarcely any pulse, its skin was cold, the pupils were dilated and motionless when light was allowed to fall on them, and when a watch was held to its eyes it seemed not to see; there was no squinting. Did this state of vision depend on the pressure of a fluid effused into the brain since the bleeding, and during this exhausted and feeble state of circulation, or did it depend on the circulation of the brain being too languid to support the sensibility of the retina? It is well known that large losses of blood enfeeble vision. I saw a striking instance of this in a lady who flooded to death. When I entered the chamber she had no pulse, and she was tossing about in that restless state which is so fatal a sign in these terrific cases. She could still speak, asked whether I was come, (she knew I had been sent for,) and said 'Am I in any danger?—How dark the room is!—I can't see.' The shutters were open, the blind up, and the light from the window facing the bed fell strong on her face. I had the curiosity to lift the lid and observe the state of the eye; the pupil was completely dilated, and perfectly motionless, though the light fell strong on it. Who can doubt that here the insensibility of the retina depended on the deficiency of its circulation? But to return to the little patient. The next day she had vomited her food several times; it was therefore directed that she should take no other nutriment than a dessert spoonful of ass's milk every hour, and this was strictly obeyed, and continued for several days. The child wasted,

her features grew sharp, every now and then she looked fretful, and uttered a faint squeaking cry; the eye balls became sunk in the socket, like those of a corpse that had been dead a month; the skin continued cool, and often cold, and the pulse weak, tremulous, and sometimes scarcely to be felt. Under this regimen, and in this way, she continued to go on for several days. At times she revived a little, so as to induce those who prescribed this treatment to believe confidently that she would recover, and she clearly regained her sight, for if a watch was held up to her, she would follow it with her eyes. She lived longer than I expected; a full week, and then died with the symptoms of exhaustion, not with those of oppressed brain. The head was opened by a surgeon accustomed to anatomical examinations, and nothing was found but a little more serum than is usual in the ventricles.

If the reader has perused the foregoing case attentively, and has reflected on it, he will of course draw his own inferences. I can draw no others than these, that the heaviness of head and drowsiness, which were attributed to congestion in the brain, really depended on a deficiency of nervous energy; that the bleeding and scanty diet aggravated this state, and insured the death of the child; also, that the state of the eye which so speedily followed the loss of blood, and which resembled that occasioned by effusion, did in reality depend on a deficiency in the circula-

tion of the brain, a fact of considerable curiosity and importance.

I will now relate a case similar in the symptoms, but very different in the treatment and result. I was going out of town one afternoon, last summer, when a gentleman drove up to my door in a coach, and entreated me to go and see his child, which he said had something the matter with its head, and that the medical gentleman of the family was in the house, just going to apply leeches. I went with him immediately, and when I entered the nursery I found a child, ten months old, lying on its nurse's lap, exactly in the state which I have already described; the same unwillingness to hold its head up, the same drowsiness, langour, absence of heat and all symptoms of fever. The child was not small of its age, and had not been weak, but it had been weaned about two months, since which it had never thriven. The leeches had not been put on. I took the medical gentleman into another room, related to him the foregoing case, and several similar to it, which had been treated in the same way, and had died in the same way. Then I related to him a similar case which I had seen in the neighbouring square, which had been treated with ammonia in decoction of bark and good diet, which had recovered; not slowly, so as to make it doubtful whether the treatment was the cause of the recovery, but so speedily that at the third visit I took my leave. He consented to postpone the leeches, and to pursue the plan which I recommended. We

directed the gruel diet to be left off, and no other to be given than ass's milk, of which the child was to take, at least, a pint and a half, and at most a quart, in the twenty-four hours. Its medicine was ten minims of the aromatic spirit of ammonia in a small draught every four hours. When we met the next day, the appearance of the child proved that our measures had been right; the nurse was walking about the nursery with it upright in her arms. It looked happy and laughing; the same plan was continued another day; the next day it was so well that I took my leave, merely directing the ammonia to be given at longer intervals, and thus gradually withdrawn, the ass's milk to be continued, which kept the bowels sufficiently open, without aperient medicine.

So inveterate is the disposition to attribute drowsiness in children to congestion of the brain, and to treat it so, that I have seen an infant, four months old, half dead from the diarrhœa produced by artificial food, and capable of being saved only by cordials, aromatics, and a breast of milk; but because it lay dozing on its nurse's lap two leeches had been put on the temples, and this by a practitioner of more than average sense and knowledge. I took off the leeches, stopped the bleeding of the bites, and attempted nothing but to restrain the diarrhœa, and get in plenty of nature's nutriment, and as I succeeded in this, the drowsiness went off, and the child revived. If it could have reasoned and spoken, it would have told this practitioner how wrong he was; any

one, who from long defect in the organs of nutrition, is reduced, so that he has neither flesh on his body, nor blood in his veins, well knows what it is to lay down his head and doze away half the day without any congestion or inflammation of his brain. This error, although I have specified it only in a particular complaint of children, may be observed in our notions and treatment of other diseases, and at other periods of life. If a woman has a profuse hæmorrhage after delivery, she will probably have a distressing head-ache, with throbbing in the head, noises in the ears, a colourless complexion, and a quick, weak, often-thrilling pulse, all which symptoms are greatly increased by any exertion. I have seen this state treated in various ways, by small opiates, gentle aperients, and unstimulating nourishment, with no relief. I have seen blood taken away from the head, and it has afforded relief for a few hours, but then the head-ache, throbbing and noises have returned worse than ever; the truth is, that this is the acute state of what in a minor degree and in a more chronic form occurs in chlorosis, by which I mean pale-faced amenorrhœa, whether at puberty or in after-life. It may be called *acute chlorosis*, and like that disease is best cured by steel, given at first in small doses, gradually increased, merely obviating constipation by aloetic aperients.

I shall not encumber this paper with a multiplicity of cases, but state that the above are only specimens of a class of which I have seen enough to convince me that they deserve the attention of

the profession. If I had any doubt about this, this doubt would be removed by the fact that Dr. Marshall Hall has already recognised them,* and described them in a paper which has been read at the Medico-Chirurgical Society.† He has therefore anticipated me in anouncing them, but so far from regretting this, I am glad to support my statements by the authority of so observing and reflecting a physician. The only difference be-

* Since the above was printed, and just before striking it off, I found the following passage in Dr. Abercrombie's 'Researches on the Brain,' page 310:—'I have many times,' says Dr. Abercrombie (page 310), 'seen children lie for a day 'or two in this kind of stupor, and recover under the use of 'wine and nourishment. It is often scarcely to be distin-'guished from the coma which accompanies diseases of the 'brain. It attacks them after some continuance of exhausting 'diseases, such as tedious and neglected diarrhœa; and the 'patients lie in a state of insensibility, the pupils dilated, the 'eyes open and insensible, the face pale, and pulse feeble. It 'may continue for a day or two, and terminate favourably, or 'it may be fatal. This affection appears to correspond with 'the apoplexia ex inanitione of the older writers. It differs from 'syncope in coming on gradually, and in continuing a conside-'rable time, perhaps a day or two; and it is not, like syncope, 'induced by sudden and temporary causes, but by causes of 'gradual exhaustion going on for a considerable time. It 'differs from mere exhaustion in the complete abolition of 'sense and motion, while the pulse can be felt distinctly, and 'is, in some cases, of tolerable strength.' It does not appears that Dr. Abercrombie opened the heads of any of these children, therefore it is doubtful what was the state of the brain with regard to the blood-vesels and the fluid in its ventricles.

† A short report of the paper will be found in the 'London Medical Gazette' for 1829.

tween our experience seems to be this—that he attributes the state which I have been describing to the diarrhœa produced by weaning, or to the application of leeches for some previous complaint. In most of the cases I have seen, however, the child has had no previous illness, and the leeches have been applied subsequent to the drowsiness, and as a remedy for it.

The children who were the subjects of this affection, and were thus treated, died not with symptoms of oppressed brain, but with those of exhaustion, and on examining the head after death, the blood-vessels were unusually empty, and the fluid in the ventricles rather in excess; in two instances death was preceded by symptoms of effusion, viz. blindness, a dilated pupil, coma, and convulsions; and after death the ventricles were found distended with fluid to the amount of several ounces, the sinuses and veins of the brain being remarkably empty. I believe the prevalent notion of the profession is, that all sudden effusions of water into the brain are the result of inflammatory action; but putting aside for a moment this dogma of the schools, consider the circumstances of this case. For several days before death, all that part of the circulating system which was cognizable to the senses, was at the lowest ebb consistent with life, and after death the blood vessels of the brain were found remarkably empty of blood, and the ventricles unusually full of water. From such facts I can draw no other inference than this, that this sudden effusion was a passive exudation from the

exhalents of the ventricles occasioned by a state of the circulation the very opposite to congestion or inflammation. This is corroborated by the dissection of animals which have been bled to death. Drs. Saunders and Seeds, of Edinburgh, found that in animals bled to death, whether from veins or arteries, there was found more or less of serous effusion within the head, and Dr. Kelly thus expresses himself:—'If instead of bleeding usque ad 'mortem we were to bleed animals more sparingly 'and repeatedly, I have no doubt that we should 'succeed in draining the brain of a much larger 'quantity of its red blood; but in such experi-'ments we shall, I think, find a larger effusion of 'serum.' * * * * 'Though we cannot, by general 'depletion, entirely or nearly empty the vascular 'system of the brain as we can the vessels of the 'other parts of the body, it is yet possible by pro-'fuse hæmorrhages to drain it of a sensible por-'tion of its red blood, that the place of this spo-'liation seems to be supplied both by extra and 'intra vascular serum, and that watery effusion 'within the head is a pretty constant concomi-'tant or consequence of great sanguineous deple-'tion.'* But if this is true, it is of great practical importance, for if we take delicate feeble

* Kelly on the Pathology of the Brain. Trans. of the Med. Chir. Soc. of Edinburgh. 1828. Part. 1.

Dr. Kelly found that the loss of blood required to kill an animal of a given size was very uniform. A sheep required from 34 to 38 ounces; a dog, weighing 20 lbs., was killed by

children, and by bleeding and purging for an imaginary congestion of the brain, reduce their circulation to a very low ebb, and keep it so, we run the risk of producing that very effusion of serum into the brain which we are endeavouring by our remedies to prevent. The following Case, though I would not cite it as one of the class which I am describing, still bears upon the question of passive effusion into the brain.

A little girl, about three years old, small of her age, delicate in health, and wayward in disposition, was taken ill with the following symptoms: she could not hold her head up, lay dozing, for the most part, and complained occasionally of momentary pain at the top of the head. Her skin was cool, she had little disposition for food, her pulse was 76, not intermitting but irregular; neither light nor noise were disagreeable to her. Leeches were applied to the temples twice, and she was purged daily, but the treatment, after a week, had afforded no relief to the symptoms. The vertex was now shaved, and six leeches applied where she complained of pain, a cold lotion was applied frequently to the vertex, and she took a grain of calomel every four hours for two days. The leeches bled well, and the calomel operated freely, but without affording any relief to the symptoms; the pulse too lost its

the loss of 15 ounces; another, weighing between 40 and 50 lbs., was killed by the loss of 37 ounces; another, weighing 18 lbs., was killed by the loss of 11 ounces.

slowness and irregularity; it became weak and quick, about 130. In this state, the little girl still continuing to complain of pain in her head, six more leeches were applied to the vertex, making in all two dozen, and purging was continued. The next day she appeared much altered; she was pale and cold, and fainted on being raised. Depleting remedies were now altogether discontinued, and her diet was mended though liquid, but she continued weak and faint, and the next day was convulsed. She was insensible, her limbs were stiff, her eyes drawn to the left side, not both eyes turned towards the nose, but both turned to the left. As she could not swallow, all that was done was to warm her, for she was cold, and to inject a glyster containing spirits of turpentine. After a few hours the convulsions ceased, she came to herself with pefect vision, and the natural appearance of the eye; she talked, took nutriment, but still complained occasionally of pain on the head. The next day she was so much better that there seemed a fair prospect of her recovery. She was at this time taking no medicine, and feeding on equal parts of gruel and milk, or gruel and veal broth. As two days had passed without the bowels being moved, a solution of salts in infusion of senna was given, and this not operating after eight hours, she took two drachms of the compound decoction of aloes. The next morning she had one stool, but that an enormous one, and soon afterwards became comatose, with a dilated

pupil, stertorous breathing, and palsy of the left side. In the evening she died; two weeks and three days from the beginning of her illness. The next morning the head was opened by Mr. King of Regent-street, formerly Interne at the Hôtel-Dieu at Paris, and Teacher of Anatomy, to whom I am indebted for several valuable dissections; the following are his notes of the examination. The vessels of the dura mater were quite empty; along the two posterior thirds of the superior longitudinal sinus the two plates of the arachnoid membrane adhered by a white substance like cheese; it was limited to the extent of the sinus laterally; there was no injection in the vicinity of this lymph; the sinuses were empty; the veins of the pia mater were remarkably empty, and this membrane was pale; the substance of the brain was remarkably pale; under the arachnoid membrane a thin stratum of limpid serum was effused. The ventricles were full of the same fluid, and a little distended by it. In all, there was not more than an ounce and a half of serum. On the surface of the ventricles two or three veins, rather large, were evident.

How far our opinion about the nature of the case may be modified by the white cheesy substance in the arachnoid membrane; whether the mode of treatment was wrong, or, on the contrary, right, but not prompt and active enough; on these points I shall not offer a conjecture: but when I consider, 1st, the low ebb at which the

circulation was kept for several days before death; 2d, the emptiness of the blood-vessels of the brain discovered after death; and 3d, that the symptoms of oppressed brain did not occur more than twelve hours before death; I cannot refrain from inferring that this sudden effusion of water was not an active exudation from vessels in a state of congestion, but a passive exudation from empty and feeble exhalents.

I do not expect that medical men will take my word as conclusive evidence for the truth of this paper, neither do I wish it; all I ask is that they will allow my observations and reasonings to induce them to look out for similar cases and judge for themselves. With regard to the point, that heaviness of head and drowsiness of children often depend not on congestion, but on deficiency of nervous power, and require for their cure not depletion, but support, I am quite satisfied that candid observers will find that I am right. With regard to the other point, that sudden effusion of serum may take place in the brain from a state of the circulation, the opposite to congestion or inflammation, it is more likely, even if true, to be overlooked; for such is the force of preconceived opinion, and such the prevalent notions on the subject, that the following will be the process in most minds. A child has been suffering some obscure symptoms for many days, when suddenly and unexpectedly it becomes blind, its pupils are dilated and motionless, it becomes convulsed, coma-

tose and dies. On opening the head serum is found in the ventricles, and without any further inquiry it is immediately taken for granted, that this effusion was the effect of overlooked inflammation of the brain, and regret is felt that active depletion had not been employed: the inference may be a correct one; all I contend for is, that it should not be taken for granted, but that those circumstances should be minutely inquired into which throw light on the state of the circulation in which the effusion occurred.

It is surely impossible for the reader to mistake me so far as to suppose that I am denying the important practical truths, that heaviness of head and drowsiness in children commonly depend on congestion, and are to be relieved by depletion, and that acute hydrocephalus is a serous effusion, the result of inflammation, and capable of being cured only in the inflammatory stage by bleeding and purging. These vital truths I would state as strongly as any man, but there are opposite truths. All that I mean is that these symptoms sometimes depend, not on congestion, which is to be relieved by bleeding, but on deficient nervous power, which is to be relieved by sustaining remedies. All I advise is, that not only the heaviness of head and drowsiness should be noticed, but the accompanying symptoms also, and that a drowsy child, who is languid, feeble, cool, or even cold, with a quick weak pulse, should not be treated by bleeding, starving, and purging, like a drowsy

child who is strong, plethoric, has a flushed face, perhaps swelled gums, and a heated skin. The cases which I have been describing 'may not im-' properly be compared to certain species of plants, 'by no means uncommon, which are liable to be 'confounded with others by an inattentive ob-' server.'*

* Abernethy's Works, Preface, p. 7.

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