

**A
TREATISE
ON THE
MANAGEMENT OF PREGNANT
AND
LYING-IN WOMEN,**

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CHAPTER I

Of the Causes and Symptoms of the Puerperal or Child-bed Fever¹

Women, during the time of lying-in are subject to this fever, which has evident symptoms of putrescency, and which if not properly managed has often fatal effects.

That child-bed women should be so liable to putrid fevers,² is not to be wondered at, if we consider every circumstance, and every inconvenience they lie under, owing to bad fashions and customs; but to trace them up to their original source we must look back as far as the early months of pregnancy. At this period the tightness of the stays, and petticoat bindings, the weight of the pockets, and of the petticoats, press the womb already enlarged by the foetus and its membranes, so strongly against the lower intestines, as to prevent the descent and exclusion of the excrements. These being retained, the thinner parts are absorbed by the lacteals, which cause, or at least greatly increase, that obstinate costiveness of which most women complain during the whole time of pregnancy, and which is also farther increased by a sedentary, inactive life, and improper diet. This excrementitious matter being absorbed into the circulation undoubtedly occasions a great inclination to putridity; loss of appetite soon follows, and the stomach and duodenum being no longer distended with aliments, large quantities of bile are collected in the gall bladder, the cystic and hepatic ducts, and by lodging there soon acquire a putrid, or putrescent acrimony.

When the woman is in labour, she is often attended by a number of her friends in a small room, with a large fire, which, together with her own pains, throw her into profuse sweats; by the heat³ of the chamber, and the breath of so many people, the whole air is rendered foul, and unfit for respiration⁴ this is the case in all confined places, hospitals, jails, and small houses, inhabited by many families, where putrid fevers are apt to be generated, and

¹ This disorder in the northern parts of this Island is called the weed; and in the southern parts by some, improperly, the lochial fever.

² 'Puerperae ex male affecti corporis vitio tanquam aurae pestilentialis contagio tactae *febri putridae*, seu potius *malignae* quam nimium obnoxiae reperiuntur; hujusce vero morbi labem haud omnes ex aequo suscipiunt: etenim pauperes rusticae, aliaeque duris laboribus assuetae, nec non viragines, & meretrices, quae clandestina agunt puerperia, sine magna difficultate pariunt, & deinceps brevi a lecto excitatae, ad solita redeunt opera; mulieres autem ditiores, tenellae, & pulchrae, pleraeque vitam sedentariam degentes, quasi maledicti divini graviori modo participes in *dolore pariunt*, indeque mox a partu difficiles & periculosos subeunt casus.'—Willis de Febribus Puerperarum, Febres putridae Caput xvi.

Willis's account would not have been liable to any material objection, if he had not excepted the poor in general, for it is now well known that they are very liable to this fever both in the hospitals, and in their own houses, especially if they are situated in the middle of large manufacturing towns and cities; but there is this to be said in favour of the Doctor, that it is above a century since he wrote this Treatise on the Puerperal fever, at a time when there was no hospital for lying-in-women in the British dominions, our manufactories were then in their infancy, and the diet and mode of living amongst the poor people, were totally different from what they are at this time.

³ Dr. Thomas Cooper speaking of the lochial fever says, 'this fever is most common, and also more fatal in the hotter months.' Compend. of Midwifery, p. 220. Lond. 1766.

⁴ It has been found by Dr. Stephen Hales (Statical Essays, Vol. 2, p. 324) that a person in health destroys two gallons of air in two minutes and a half, so as to render it unfit for respiration.

Dr. Percival informs me that a correspondent of his, (a gentleman distinguished for his knowledge of Natural and Experimental Philosophy) has lately discovered that air which animals have breathed is in all respects the same with air in which animals have putrefied. The original quantity is equally diminished in both cases; which is found to be owing, in part at least, to the precipitation of the fixed air it contained: and they are restored by the same process. One use of the lungs therefore must be to carry off a putrid effluvia, without which a living body might perhaps putrefy, as well as a dead one.'

proportionally the most so where there is the greatest want of free air. Putrid fevers thus generated are infectious, witness the black assize, as it is usually called.

If the woman's pains are not strong enough, her friends are generally pouring into her large quantities of strong liquors, mixed with warm water, and if her pains are very strong, the same kind of remedy is made use of to support her. As soon as she is delivered, if she is a person in affluent circumstances, she is covered up close in bed with additional cloaths, the curtains are drawn round the bed, and pinned together, every crevice in the windows and door is stopped close, not excepting even the key hole, the windows are guarded not only with shutters and curtains, but even with blankets, the more effectually to exclude the fresh air, and the good woman is not suffered to put her arm, or even her nose out of bed, for fear of catching cold. She is constantly supplied out of the spout of a tea-pot with large quantities of warm liquors, to keep up perspiration and sweat, and her whole diet consists of them. She is confined to a horizontal posture for many days together, whereby both the stools and the lochia are prevented from having a free exit. This happens not only from the posture of the patient, but also from the great relaxation brought on by warm liquors and the heat of the bed and room, which prevent the over-distended abdominal muscles from speedily recovering their tone, whereby they are rendered unable to expel the contents of the abdomen, which lodging in the intestines many days become quite putrid.

The lochia stagnating in the womb, and in the folds of the vagina, soon grow putrid, for it is well known that the mildest humours in the human body, if suffered to stagnate, become so, as soon as the air has access to them. These are in part absorbed by the lymphatics in the womb and vagina, and the effluvia from them help to make the air in the bed, and in the room, more putrid; this air in every act of inspiration is taken into the lungs, and is there again received into the circulation: add to this that women are generally of a lax, seldom of a rigid fibre, owing in some measure to their periodical evacuations, to their sedentary, inactive, and domestic way of life, and likewise to their muscles being surrounded with a much larger quantity of cellular membrane, than those of men; hence also they arrive at their acme sooner than men.

Amongst the poor people who live in cellars, and upon clay ground floors, the air is still made worse by the dampness, and closeness of their houses, and the want of clean linen, and cleanliness in general. Those who live in garrets are also in no better a situation, for the putrid miasmata of several families inhabiting the lower part of the house, ascend to them, already suffering perhaps from the effluvia of a whole family in every single room, the putridity of which is farther increased, by the heat of the sun piercing through the covering of the house; nor is it to be wondered at that they are still in a worse situation in hospitals,⁵

⁵ 'Il a régné pendant l'hiver de 1746 une maladie épidémique parmi les femmes en couche: M. de Jussieu a le premier observé cette maladie; elle commençoit par le dévoïement, ou par une disposition au dévoïement, qui continuoït pendant la couche: les eaux qui accompagnent ordinairement la naissance de l'enfant, sortoient pendant le travail de l'accouchement; mais apres ce temps, la matrice devenoit sèche, dure & douloureuse, elle étoit enflée, & les vuidanges n'avoient pas leur cours ordinaire.

Ensuite, ces femmes étoient prises de douleurs dans les entrailles, sur-tout dans les parties qu'occupent les ligamens larges de la matrice; le ventre étoit tendu, & tous ces accidens étoient accompagnés d'une douleur de tête, & quelquefois de la toux.

Le troisième & le quatrième jour après l'accouchement, les mammelles se flétrissoient, au lieu qu'elles durcissent & se gonflent naturellement dans ce temps par le lait qui s'y filtre alors en plus grande quantité: enfin ces femmes mouroient entre le cinquième & le septième jour de l'accouchement.

Cette maladie n'a attaqué que les pauvres femmes, & elle n'a pas été aussi violente, ni aussi commune parmi les pauvres femmes qui ont accouché chez elles, que parmi celles qui ont été accouchées a l'Hôtel-Dieu;

where a number are crowded, not only in one house, but in one ward, where the disease is conveyed from one to another by the putrid miasmata lodging in the curtains, to bed cloaths, and furniture, and by the necessary houses, which are either contiguous to, or so near the hospital as to occasion a most disagreeable smell, and must of course convey that infection which cannot be more effectually communicated, than by the excrements.

The breasts, if drawn at all, are not drawn till several days after delivery, when they are so full as to be perfectly gorged, and as hard as stones. By this means the first milk, which for a very wise purpose is thin, purgative, and of a stimulating nature, is thrown back into the circulation.

This description may perhaps seem overcharged for a picture of that improved practice which is introduced by modern professors of the art; but upon a close examination, I believe it will appear that many of the most important errors do in reality prevail, and this I impute in great measure to the large share which nurses have in directing the management of lying-in women, to whose interference practitioners must in some measure submit, though contrary to their better judgement.

Women have frequently many, and sometimes all of these difficulties to struggle with, even after the most easy deliveries, but if there has been such violence used, either by instruments or by the hand, in the extraction of the child or the placenta, as to bring on an inflammation of the womb, these difficulties will still be farther increased. The patient may likewise be put upon her labour too soon, by endeavouring to dilate the os internum, or be too frequently teased with unsuccessful attempts to deliver her, or after the head is born, the body of the child may be delivered too suddenly, and too forcibly, without waiting for another pain, or giving the shoulders time to accommodate themselves to the different dimensions of the pelvis, the bad effect of which I shall explain more at large hereafter.

In a few days after delivery the patient is perhaps seized with a shivering fit, and the nurse is surprised, as she protests she has not had the least waft of cold; more cloaths are heaped upon her; spirituous liquors, and hot spices, are given her, to throw off the cold fit, which most certainly increase the succeeding hot one. A warm room, plenty of cloaths, and warm drinks are continued to throw her into a sweat, but have frequently a contrary effect, by increasing and prolonging the burning fit, which at last terminates in a most profuse putrid sweat, continuing many nights and days without giving relief.

on a remarqué que dans le mois de Fevrier, de vingt de ces femmes malades en couche a l'Hôtel-Dieu, a peine en échappoit-il une: cette maladie n'a pas été si meurtriere dans le reste de l'hiver. Mrs. Col de Villars & Fontaine, Médecins de cet Hôpital, nous ont rapporté qu'a l'ouverture des cadavres de ces femmes, ils avoient vu du kit caillé & attaché a la surface externe des intestins, & qu'il y avoit une sérosité laiteuse épanchée dans le bas-ventre; ils ont même trouvé aussi de cette sérosité dans la poitrine de quelquesunes; & lorsqu'on en coupoit les poumons, ils degorgeoient une lympe laiteuse & pourrie. L'estomac, les intestins & la matrice bien examinés, paroisoient avoir été enflammés, & il est sorti, suivant la rapport de ces deux medecins, des grumeaux de sang, a l'ouverture des canaux de la matrice. Dans plusieurs de ces femmes, les ovaires paroisoient avoir été en suppuration.'—Hist, de l'Acad. Royale des Sciences l'an 1746, 4to. p. 160.

'I am well informed that this fever and obstruction occur more frequently in the lying-in hospitals, than in private practice. What can this arise from but from the different states of air? This in my opinion is the cause, for though very great care is taken in those hospitals, yet as the apartments and furniture will imbibe some of the morbid effluvia, arising from the patients, the air must always be more or less tainted.' Johnson's Midwifery, p. 253.

The cold fit sometimes like the paroxysm of an ague returns, but at uncertain periods, and at last ends in a continued fever; at other times no cold fit precedes the disease; it creeps on gradually, and first shews itself by putrid sweats, attended with a nausea, or by vomitings of porraceous matter, and a looseness. What the patient vomits is generally mixed with large quantities of bile of a dark colour. The stools are sometimes very copious and frequent, and so exceedingly putrid as to be offensive all over the house, and to convey infection to the whole family : at other times the patient is racked with a constant tenesmus, and with frequent motions to make water, accompanied with swelling, pain, and soreness in the belly, and with pains in the head, back, breasts, sides, hips and iliac region, with a cough and difficulty of breathing; there is commonly a wildness in the countenance, and the head seems hurried, and in some cases the face is flushed; the urine is generally very high coloured, and sometimes turbid, with a gelatinous, unequal sediment; but in others it is very pale, or appearing like foul cyder, with filaments in it.

The tongue at first is white and moist and soon after is covered with a white fur; or else it is dry, hard, and brown, and afterwards covered with a brownish fur; a brown, or blackish sordes, the consequence of putrid exhalations, adheres to the edges of the teeth. The patient usually nauseates all kinds of food and drink, except what is cold and acidulated. The pulse at the beginning of the disorder is very little altered, only something fuller and quicker, but as the disorder advances, it grows quick, small, and creeping, and the patient complains of great anxiety, and oppression about the praecordia, attended with sighings, lowness of spirits, lassitude and great debility. The quantity of the lochia is frequently not at all diminished, at other times it is very much lessened, what flow are very foetid, and in some cases this discharge is totally suppressed.

The breasts in some grow flaccid, the milk abates in quantity, and if the disorder is not soon removed, is entirely lost; but this is not always the case.

If the hot regimen be continued, with vinous spicy caudles, hot alexipharmic medicines, volatile alcalious salts and spirits, opiates, and a close room so as to keep the patient in a perpetual sweat, vibices⁶ or petechiae appear, or eruptions either of the white or red kind, or both, first upon the neck and breasts, afterwards extending themselves all over the body, one crop succeeding another till the patient is worn out; but they give no relief, are not in any way critical, nor is there indeed any regular crisis in this disorder, except the looseness.

The patient is generally easier after every stool, and they seem to give relief. The stools at last are discharged together with the urine, involuntarily; colliquative sweats, hiccupings, convulsions, &c, come on; and death, which happens sometimes sooner, sometimes later, closes the scene. There are some who have died so early as within twenty four hours after the first attack, but the eleventh from the first seizure, is said to be the day on which the patient most commonly dies, though others have lived many days longer without recovery.

This disease was well known to Hippocrates,⁷ and to numberless authors who have written since his time, and has been styled either epidemic,⁸ malignant, putrid, or inflammatory, and

⁶ Cooper speaking of this fever about the fourth day says 'Now, if not before some violent pains come on, in the arms, and thighs, succeeded by a discolouration of the skin, occasioned by the blood corroding and stagnating in the vessels.' Compend. of Midwifery, p. 218.

⁷ Hipp, de Morb. Mulierum, lib. I, sect. 5. on Epidemical Diseases, case 4 and 5.

⁸ During the prevalence of epidemic fevers, the recovery of women in child-bed is much more precarious than in healthy seasons. This is observable in every sphere of life, but for obvious reasons, more remarkably in

by some a compound of all four. It is certainly at all times malignant and putrid, when suffered to run its course, and frequently at some seasons epidemic, and in some situations may properly be said to be endemic. Nay if the womb has been lacerated, or has received any injury in labour, it is sometimes undoubtedly compounded of all five. Some have represented it as entirely owing to the milk, some to an inflammation of the womb⁹, and many to a suppression of the lochia; some have ranked it amongst hysterical¹⁰ disorders, and others have called it only a symptom, but all have agreed in its fatality,¹¹ and the uncertainty of every method of cure, both in the rich, and in the poor, who all acquire this disorder from similar causes, though by means somewhat different. I am informed that the appearances after death, are those of inflammation and gangrene in the intestines, or some of the abdominal viscera; sometimes in the uterus;¹² and in some cases when the disease has been of long continuance, it has extended to the lungs, and all the neighbouring parts. In the cavity of the abdomen, is generally found an extravasated serum, mixed with purulent matter, and an exsudation appears upon the surface of the intestines, glueing them to one another, and to the peritoneum. There is no wonder that these appearances should be observed, more particularly in the abdomen, as the very acrid putrid stools voided in this disorder must naturally tend to inflame, and to give a putrescent disposition to the intestines by transuding their coats, or being absorbed into their small vessels; and we may conclude, that the same causes which produce putrefaction in the abdomen of a dead body,¹³ sooner than in any other

lying-in hospitals; it has been taken notice of by the industrious Dr. Sydenham, and by Tho. Bartholine, and must undoubtedly have happened invariably in all ages of the world, though it is now better understood in this country, since some of the most ingenious of our physicians have devoted their time chiefly to the study and practice of midwifery, and the management of those diseases with which it is more particularly connected.' Millar on the prevailing disorders of Great Britain, pt. 3, sect. 1, p. 332, of the puerperal fever.

'Nonnunquam post lochiorum suppressionem in febrem incidunt puerperae, quae vel in earum quae tum grassantur epidemiarum castra transit, vel ab ea sola pendit origine.'—Dissert. Epist. ad Gul. Cole, M.D. op. p. 532.

⁹ Tissot, in his *Avis au Peuple*, Eng. edit, by Kirkpatrick, p. 371, seems to think that this disorder is an inflammation of the womb, and he mentions an extraordinary circumstance not taken notice of by other authors, viz. that the belly turns black. Sect. 370 he says, 'The inflammation of the womb is discoverable by pains in all the lower parts of the belly, by a tension or tightness of the whole belly, by a sensible increase of pain on touching it - a kind of red stain or spot that mounts to the middle of the belly, as high as the navel, which spot as the disease increases turns black, and then is always a mortal symptom, by a very extraordinary degree of weakness, an astonishing change of countenance, a light delirium or raving, a continual fever with a weak and hard pulse, sometimes incessant vomitings, a frequent hiccup; a moderate discharge of a reddish stinking sharp water, frequent urgings to go to stool, a burning kind of heat in the urine, and sometimes an entire suppression of it.'

¹⁰ Femina XXX. annorum, temperamentum sanguineo-melancholici, hystericis passionibus in puerperio, & extra illud, saepius, obnoxia, tertium grvida, gestationis tempore nec venae sectionem admisit, nec exquisite servavit praecepta diaetetica. Primis post partum diebus non bene purgata est utero: sed de dolore lumborum, torminibus ventris, alvo adstricta, & somno per aliquot noctes inquieto conquerebatur. A practico, quem in consilium vocavit, validiores essentiae ad pellenda lochia fuerunt datae; & ad alvum aperiendam uncia dimidia salis amari Sedlicensis in aqua simplici soluta est oblata. Inde auctis torminibus, nec facta per alvum, nec per uterum excretionem, converso sanguinis versus superiora motu deliravit, & accedentibus convulsionibus extincta est. Hoffman, Tom. 3, sect. 1, cap. 5, obs. 10 de malo Hysterico.

¹¹ 'As the disease which is the subject of this Essay occasions the death of much the greater part of women who die in child-bed, &c.' Denman on the Puerperal Fever, p. i.

¹² Pouteau in his *Melanges de Chirurgie*, p. 182, upon opening two women who died of this fever in their lying-in at the Hospital at Lyons says, 'En ouvrant ces matricies il ce presenta dans l'une & dans l'autre une circonstance qui merite attention; la tunique interne de ce viscere etoit noire & molle: la matrice dans son epaisseur avoit une rougeur livide & vraiment gangreneuse.'

¹³ Sir John Pringle gives us the following note, which he informs us he had from Doctor Hunter. 'That the abdominal viscera and muscles corrupt the soonest of all parts in the body after death, wherefore it is a rule with anatomists to begin their dissections and demonstrations with those parts which first become offensive. That

part, will also operate in the same manner in the living body, wheresoever there is a general putrefactive tendency; nor need we be surprised that the womb itself should be found in a gangrenous state when we consider the great distension it has undergone, and that it has afterwards suddenly collapsed, and has been kept sometime imbued with the stagnating putrid lochia.

It does not appear that this disorder can be ascribed to simple inflammation. The patients complain chiefly of a tension, soreness and tenderness of the belly, and are seldom affected with those excruciating pains which generally attend common inflammations of the bowels; but it evidently manifests itself to be of the putrid kind, occasioned by human effluvia, by accumulations of acrid putrid bile, and of a putrid colluvies through the whole intestinal canal and organs of generation, and is a malignant¹⁴ fever of the same genus as the jail or hospital fever.

Scarce any two authors have described this fever alike, and yet I believe their descriptions have truly been from what they have seen, but these different appearances have been probably owing to a variety of management, and to a difference in the constitutions of the patients.

A true puerperal fever is originally caused by a putrid atmosphere, &c. not occasioned by either the heat of the air, or any hot things taken internally; but notwithstanding this, it may be much aggravated by these, and many of the symptoms frequently attending it, are entirely occasioned by hot air, and a hot regimen. For instance, if a woman of a strong constitution, and of a plethoric habit of body, is seized with this fever, and spirituous liquors and hot spices are given her, she will have a strong hard pulse, and the symptoms of inflammation will run so high as to indicate the necessity of copious bleeding; and when the fever is farther advanced, a delirium, subsultus tendinum, &c, will come on. But if the patient is of a more relaxed habit of body, and is kept sweating in bed in a warm room, by warm liquids, eruptions will appear upon the skin; and if a woman subject to hysterical complaints is seized with this fever, and has any large evacuations either naturally, or procured by art, a train of hysterical symptoms will succeed. And lastly, it must be observed that though all the symptoms here enumerated have been seen in different patients, yet it must not be imagined that all of them ever occurred in the same subject.

End of Chapter 1

the quick putrefaction here may reasonably be ascribed to the putrid steams of the faeces with which all those parts are more or less impregnated, hence too the cause of the speedy corruption of the psoas and iliacus internus in comparison of the muscles in the extremities. That next to the abdominal viscera and adjacent parts, the lungs are commonly soonest tainted, whether from the air stagnating in the vesiculae bronchiales, or some remains of the perspirable matter that may act as a ferment, and hasten the putrefaction. For whoever tries the experiment of compressing the thorax in a body that has been dead some time, will be sensible of the putrid state of the lungs, by the offensiveness of the air that is forced out of them.' On the Diseases of the Army, Appendix, p. 84, 4to. Edit.

¹⁴ Dr. Munro says, 'Many authors have reckoned the malignant, petechial, and pestilential, to be distinct species of fevers, and have treated each under a particular head. But Riverius has very justly observed, that they all belong to the same pestilential tribe, and only differ from one another in the degree of infection, and violence of the symptoms, and that they are cured by the same general treatment, and the same medicines.' On the Dis. of the Military Hospitals, p. 55.

And in a note he farther says, 'The malignant or hospital fever, and petechial, seemed to me to be entirely the same disorder, and the petechial spots to be only a symptom which appeared sometimes, but not always.' Ibid. p. 56.

CHAPTER VI

Of the Prevention of the Puerperal, Miliary, and Milk Fevers

As soon after the woman is delivered as it can be conveniently done, clean linen should be put about her, she should be left to the most perfect quiet of body and mind, that she may, if possible, get some sleep. The child should be removed into another room, and no visitors, or other persons, except such as are absolutely necessary, should be allowed to enter the patient's chamber. A number of people, besides preventing repose, foul the air, and render a frequent supply necessary. From hence appears the disadvantage of a small apartment. Where the patient has it in her option, I would always recommend a large lofty room upon the first chamber floor, and could wish it (if in summer) to have a northern aspect, but if that cannot be had, there should be window blinds placed on the outside of the windows, for when they are on the inside, they do not answer the purpose of keeping out the heat of the sun. In this room there ought to be no fire in summer, and little or none in winter whilst the patient is in bed, unless she has been used to sleep constantly with one in her chamber; for though fires are undoubtedly of the greatest service in keeping up a circulation of air, yet at the same time a constant fire in a small room, when a person has not been accustomed to one, may overheat the patient. This I know will be objected to by the nurses, upon their own account, especially if they are to wake, but waking is what I do not approve, except on the first night, and then only if the delivery be late in the evening. It will disturb the patient much less if the nurse has a small bed in the room, but I would by no means suffer the child to remain there, if accommodations can possibly be had for it in any other part of the house. The patient should not be disturbed in the night, either upon pretence of giving her liquid or solid nourishment. If either be necessary, she will naturally of herself demand it.

Much mischief is often done by binding the belly too tight.¹⁵ If there be any occasion for support, a thin napkin pinned very slightly round the waist, is all that is absolutely necessary, and the sooner this is disused the better. But if there really was occasion for strong compression, the common methods would be extremely inadequate. The compression must necessarily be unequal, the large hip bones of women effectually preventing such means as these from making an equal pressure upon every part of the uterus.

The thick fustian waistcoats and petticoats usually worn during the lying-in, are much too warm. In the whole article of dress and bed clothes, nothing should be added to what the patient has been accustomed to in perfect health.

In a few hours after delivery, as soon as the patient has had a little rest, she should sit up in bed, with a bed-gown thrown over her shoulders. If she proposes to suckle the child, it should now be laid to her breast, whether there be signs of milk or no. This should be repeated four or five times a day, but in the night it is not necessary either that the breast should be administered, or that any kind of food should be given to the infant.

The patient should lie very high with her head and shoulders, and should sit up in bed when she takes her food, and as often as she suckles her child, and should kneel whenever she has occasion to make water, which should be often done.

¹⁵ This disease (the puerperal fever) it must be acknowledged, may follow a labor under the best circumstances, but endeavours to dilate the os internum, and too hasty a separation of the placenta will produce it, and binding the abdomen tight after delivery.' Denman on the Puerperal Fever, p. 18.

This frequent upright posture is of the utmost consequence, and cannot be too much enforced. It prevents the lochia from stagnating, the stools and urine from being too long retained, and promotes the contraction of the uterus, together with that of the abdominal muscles.

Large quantities of caudle, and thick gruel mixed with ale, wine, or brandy, are often very pernicious. They clog the stomach, and pall the appetite. Strong liquors as they are apt to heat, should not be given to the patient, unless she has been accustomed to them. Thin water gruel, well boiled and strained, panada, sago, wort, salep, barley water, to which a small quantity of lemon juice has been added; teas of all kinds, but particularly those of bitter antiseptic herbs, such as chamomile, or buckbean ; coffee, cocoa and chocolate, buttermilk alone, or mixed with spring water, imperial, orange, or lemonade, or plain toast and water may be allowed, provided none of them have been found by experience to disagree with the patient. None of these liquors should be given hot, the cooler they are drank the better, and they may even be given perfectly cold. Toasted bread, sea biscuit, or something solid should be taken to prevent faintness, and as soon as the patient has an appetite her food should consist of boiled bread pudding, boiled fowls, lamb, or veal, vegetables and ripe fruit. Too much animal food should not be allowed, and it should never be eaten oftener than once a day, and then not without bread and greens, roots, or some kind of vegetables. The North American sago powder, dissolved in boiling water forms a most agreeable, transparent, mucilaginous, vegetable jelly, which is demulcent, restorative and nutritious; obtunding the acrimony of the fluids, and correcting putrefaction ; of a more pleasant taste, in my opinion, than salep, and much cheaper than the foreign salep, though not so cheap as that produced in our own country, and prepared in the manner directed by Mr. Moulton in the Philos. Trans, vol. 59, p. 1.

Whatever water the patient drinks either alone or in gruel, teas, &c, should not be such as is tainted with any putrid animal or vegetable substances, which is generally the case in all reservoirs of stagnant water and in rivers adjoining to large towns.

Broths,¹⁶ or soups made of flesh-meat, especially if given warm, are improper, as they are apt to throw the patient into a sweat, and promote putrefaction. If the patient cannot, or does not choose to suckle her child, she should be very abstemious in her diet; but if she suckles it, a much greater latitude may be allowed.

Fruits, vegetables, and all kinds of acid or acescent food have generally been denied to nurses, upon a supposition that they created acidities in the children's bowels. This in some constitutions they certainly do, but the rule is by no means general. I have known nurses abounding in acrid putrid bile indulge freely in these kinds of food with great advantage to themselves, and with no disadvantage to their infants, as plainly appeared by the children's

¹⁶ The French and many other nations, give their patients meat soups, in acute diseases, and after capital operations, and they allow them but little bread, or other preparations of vegetable substances ; but these soups, without bread, do not nourish the patient sufficiently, and tend too much to the putrescent; and this is one reason why more sick die in the French, than in the British hospitals.' Monro on the diseases of the British military hospitals, Note to p. 373.

Dr. Lind, speaking of a marine hospital erected at Jamaica, upon a most unhealthy spot of ground, says, 'The recovery of patients in that hospital was observed to be very tedious, and uncertain; the least indiscretion or irregularity brought on a relapse. After a flux had been stopped some days, the eating of any sort of food, which had a putrid tendency, such as even a mess of broth, would sometimes in a few hours bring on a return of the disease, accompanied with all its violent symptoms.' Essay on the diseases of Europeans, p. 174.

never parting with green stools during the time of their being suckled.¹⁷

The heat of the room ought to be so tempered that the patient may neither be chilled with cold, nor yet suffer from sweat or burnings. She should be kept in that degree of heat that approaches nearest to the standard of health. Some have kept themselves in a constant gentle sweat, or diaphoresis as it is called, in order to prevent a rigor, or cold shivering fit ; but it is well known that no degree of heat, let it be ever so great, will prevent the rigor, either in a puerperal woman, or even in a common ague. There have been instances of persons having rigors in the hot sweating room of a bagnio, and I have been informed that these have been the most dreadful; rigors and even common agues are frequent in the hottest climates. The patient's skin should be soft, but not so much as moist; her linen being damp with sweat will render her liable to catch cold ; she will be sensible of every breath of air, and cannot rise or even turn herself in bed without danger.

The apartment cannot be ventilated, nor even a curtain be undrawn; consequently she becomes weak, the fibres are relaxed, and thus a predisposing cause is given of putrid fevers. Custom in this I know is much against me, as well as in many other particulars; but I have hundreds of evidences to prove that sweating is not necessary even in the smallest degree.

Much mischief appears to have been done amongst ignorant people by confounding the ideas of perspiration¹⁸ and sweat. The difference between them has been remarked by so great a number of authors, that quotations would be endless; it is sufficient for common use to observe that perspiration is that insensible discharge of vapour from the whole surface of the body and the lungs which is constantly going on in a healthy state, that it is always natural and always salutary ; that sweat, on the contrary, is an evacuation which never appears without some uncommon effort, or some disease in the system, that it weakens and relaxes, and so far from coinciding with perspiration, obstructs and checks it.

With regard to sweating in febrile disorders many contrary opinions have prevailed. It was introduced with the notion of carrying off by its means the morbid matter which was supposed to be the occasion of all fevers. Later observation has however found it prejudicial in many cases; and some have gone so far as to deny its utility in any. I shall make quotations from some of these authors¹⁹ who have considered this matter the most clearly and

¹⁷ Are not the sour green stools of children oftener owing to weakness and relaxation in their digestive organs, and the inert quality of their bile, than to the acescency of the milk? And do we not often see them change for the worse even though the nurse has made no alteration in her diet, nor has tasted any kind of acescent food?

¹⁸ Dr. Home has proved by several experiments that a free perspiration does not depend so much upon the heat, as the dryness of the air, he says, 'Moisture stops perspiration in a great degree. Dr. Hales has observed that moisture has the same effect on the perspiration of plants.' Med. Facts and Experiments, p. 245. A little farther he observes, that 'by these two experiments it appears that the perspiration is greater in frost than in open weather.' Ibid. p. 246.

¹⁹ Hippocrates relates the cases of some patients, whose fevers were terminated after the eruption of sweat, whether that sweat really put a period to the disease, or only appeared at its end; as it happened in the instances recorded, lib. I. patient 6. 7. lib. 2. patient 7. 11. 12. in which patients the fever seems rather to be terminated by an eruption of blood than of sweat; for sweat so far as I can perceive is not by Hippocrates always proposed as an instrument by which the disease is cured, but only as a mark or sign by which its event or termination may, with the greatest certainty, be prognosticated. For this reason, in those books of his which are accounted genuine, he nowhere mentions sudorific medicines; and even in those works which are falsely ascribed to Hippocrates, there is only once mention made of a sweat procured or forced by medicines; for the author of his second book of epidemics orders a sweat to be procured by carefully covering the patient with the bed cloaths, and exhibiting meal, mixed in rich and generous wine, nor does he even prescribe these measures as proper to be taken, except in those fevers which arise from lassitude, or some other similar cause, such as those

particularly.

From the whole we may conclude.

1. That sweating in bed in a confined atmosphere must be very detrimental to a person in health, may bring on many disorders, but cannot prevent any.
2. That sweats are particularly detrimental to women in the puerperal state, as they render them costive, check the discharge of the lochia, relax and weaken the patients, and make them so susceptible of cold, that the air cannot be renewed, nor the common offices of life be performed without danger.
3. That sweats are very detrimental in the beginning of all low nervous, or putrid fevers, but

commonly called diary fevers.

'Internal medicines for producing sweats were so little in use among the ancients, that Celsus has not a single word upon this subject. If therefore sweats are of any advantage in fevers of this kind, they seem to derive their efficacy from nature alone. During those sweats perhaps the peccant matter might be easily dissipated, and carried through the skin, either on account of the temperance of the climate, or by the good constitutions of the patients, which were not yet corrupted by sloth and luxury. But in the present condition of mankind, we in vain expect the solution of a disease by sweat, whether spontaneous and natural, or procured by art; and I believe I may justly venture to affirm, that in violent fevers the patients are rarely restored by sweats alone.' Friend on Fevers, Comment. 1.

'But whereas the hot regimen is still too much in use, it may not be amiss to examine a little more narrowly, how it comes to pass that so many ill consequences flow from it.

'Nature then is scarce ever able to expel the febrile matter by sweat, before it has taken up a proper time for its maturation, except in the plague; so that sweats, which of their own accord flow largely in the beginning of a disease, do not carry off the fever, but prognosticate a long and dangerous disorder, and probably are the occasion of it.

They likewise render the patient costive in the beginning, and in putrid fevers frequently cause a diarrhoea towards the crisis, whereas those persons generally escape, and most easily get free from a fever, to whom the very contrary of this happens.

'In these climates there is no necessity that persons in perfect health should have a visible moisture on their skin, but in very warm countries, in hot days this seems to be of great service. In Egypt during the second part of the summer, every one sweats profusely several times a day, and at that season the inhabitants always enjoy the most perfect health.

'Such an error is never more frequently committed than in giving what they call cordial and sudorific medicines in the beginning of fevers, for this method promises an easy and pleasant cure, and is agreeable to the opinion of the vulgar. Custom has made it familiar, and the patient finds himself relieved when the sweat begins to flow, and if they stop he is abundantly hotter, more thirsty and restless.

'But sweats which are very easily brought on in the beginning of a disease, will frequently quite disappear, as it advances towards the height, so as not to be recalled by the warmest medicines; and though they should continue to flow, they will certainly bring along with them those bad symptoms which have been mentioned before. Although the ancients, the most studious of nature, never admitted this method of practice, and the moderns more intimately instructed in the sacred mystery of physick always rejected it, yet it is never to be expected that the old women who have a licence of slaying mankind with impunity should ever suffer themselves to be taken off from their method of cure; but it is to be wished that Physicians who follow the guidance of reason, would throw aside their prejudices, and weigh the matter with that carefulness it deserves, and banish this pernicious method from that art which promises health to mankind.' Glass on Fevers, Comment. 10.

'Plerumque in principio morborum acutorum nocet (sudor); rectius tunc succedit, quando facta coctione materies morbi per cutem expelli parata est. Ipse tamen per seipsum neque petechias, neque miliarem morbum sanat, neque variolas & periculose per calida medicamenta quaeritur, ut ne calidus quidem potus nimis tutus fit, quem vidi, de mitissimis herbis decoctum, bis intra triduum in delirium atrox hominem miliari febre laborantem conjecisse: qui idem refrigeratione undique quaesita levatus, denique convaluit.' Haller. Elena. Physiol. tom. v. p. 51.

particularly those of lying-in women, which if not in the beginning, are always in their termination of one of those classes, if they continue any length of time.

4. That the rigor in the paroxysm of an ague is terminated by a sweat, but the continuance of that sweat will not prevent a fresh accession.

5. That when the morbid matter is thrown off by the skin, it must be an act of nature; and the most probable means of promoting that end is to keep the patient in that kind of heat which nearest approaches the standard of health, at the same time promoting a free circulation of air, that those morbid particles and the human effluvia may not stagnate about the patient, but be carried off, and their absorption prevented by an effectual ventilation.

The chamber door, and even the windows, if the weather be warm, should be opened every day. There should be no board or other contrivance to stop the chimney, on the contrary it should be quite open, that it may act as a ventilator. The curtains should not be close drawn, that the effluvia may have the liberty of escaping. Carpets are very useful, as they render washing the room unnecessary, for moisture ought as carefully to be avoided as heat or cold, therefore it ought not to be washed upon any account as long as the patient stays in it. The room should be brushed, and the carpets taken out every day, to be cleaned and aired.

The lying-in chamber should in every respect be as sweet, as clean, and as free from any disagreeable smell, as any other part of the house. The patient should often be supplied with clean linen, for cleanliness, and free, pure, and in some cases cool air, are the greatest necessaries in this situation; and upon the strictest examination it appears evident to me that there never was a miliary eruption produced without a sweat, nor a puerperal fever without foul air, except in cases where violence had been used, either in dilating the os internum, or in the delivery of the child or the placenta, or from some very great imprudence.

The sooner she gets out of bed the better; this should not be deferred beyond the second or third day at the furthest, and then if it be winter time, it will be necessary to have a fire.

Clean, well aired sheets, should now be laid upon the bed, but by no means such as have been lain in since their washing.

If the patient has not every day a stool, one ought daily to be procured. The best and safest way of effecting this (especially during the first week) is by clysters; for these will not only procure stools, but by passing along the arch of the colon, act as fomentations to the whole abdomen, without any griping or other disagreeable commotions. For this purpose warm water is generally sufficient; but if the faeces are too much hardened, milk, oil, and brown sugar, or the decoct. commun. pro clyst. with syrup of buckthorn may be administered, nothing of a more stimulating nature should be used; it is better to repeat these clysters, in which case their end will certainly be answered. If the patient has an unconquerable aversion to these applications, or if a clyster cannot be administered either upon account of lacerations in the sphincter ani, or from any other cause, it will then be necessary to give a little manna, lenitive electuary, rhubarb, or magnesia. The stools, urine, and foul linen, should not be permitted to remain in the apartment.

If the lochia do not flow so plentifully as may be expected, or if they entirely stop, no irritating, forcing medicines should be used. They never do any good, and are often

productive of much mischief.²⁰ If the patient is otherwise as well as can be wished, no regard needs to be paid to this circumstance. We not only find this evacuation very different in different women, but even in the same woman in different lyings-in, from which she recovers equally well. I have frequently known this discharge to stop the very first day without the least bad consequence. If she has other complaints, the causes of those complaints must be enquired into, and the disorder remedied; if this be done, the stoppage of the lochia will be of little or no consequence, and when the cause is taken away they will sometimes flow again. It is not a primary disease, the effect is mistaken for the cause.

The patient's recovery does not depend upon the quantity of the discharge, for the evacuation itself will not prevent either the puerperal or miliary fever. It is well known that the laborious hard working women (who using much exercise, seem to live in a state nearly approaching to that of nature) have not so large a quantity either of the menses or lochia as the more delicate part of their sex, yet they commonly enjoy a good state of health, and recover from their lyings-in much sooner than others. They are the very reverse of those whose fibres are relaxed by a sedentary inactive life, and I have frequently observed, that such as have the lochia in greatest abundance are most liable to putrid fevers. It must however be owned, that after these fevers are commenced, stoppages are not uncommon. All I would here inculcate is, that the danger does not arise from the smallness of the quantity of the discharge, but from its stagnation, whereby it becomes putrid, and in this state is again absorbed into the circulation. When the discharge is great, but does not weaken the patient, no remedy is necessary; when it does, an infusion of the external rind of oranges, with the bark,²¹ and the acid elixir of vitriol may, during any period of the puerperal state, be given with safety and advantage. To these may be added a strengthening incassating diet, blomange, flummery, sago, salep, jellies of calves' feet, hartshorn or isinglass. When this disorder arises from irritations and spasms, occasioned, as is very often the case, by too great an acrimony of the fluids, opiates and the tincture of roses well acidulated are generally successful. If the evacuation should be excessive, provided the patient be kept cool, she may be indulged with rest in a horizontal position, and more powerful astringents must be used, such as alum posset, and the lixivium martis, given to the quantity of fifteen or twenty drops three or four times a day. Linen cloaths dipped in cold vinegar²² may be frequently applied to the lower part of the abdomen.

²⁰ 'We have also been taught to endeavour strenuously to remove every obstacle to the regular procedure of the lochia. But it unfortunately happens that almost all the medicines recommended as emmenagogues are improper in every inflammatory state of the blood, and experience proves that in this case, all the symptoms are aggravated by their use.

'It may not be amiss to observe that either a great, or a little quantity of the lochia unattended with other symptoms, is not to be looked upon as a disease, or meddled with.' Denman on the Puerperal Fever, p. 24.

²¹ The Peruvian Bark has been given to a woman successfully in the quantity of a drachm every three hours, two days after her delivery, for twenty-four hours, without lessening the lochia; and it has frequently been given to others during their catamenia without the least interruption of them.' Med. Transact., vol. I, article 21, by Dr. W. Heberden.

²² 'Injecting cold water into the uterus is recommended by that celebrated professor of midwifery at Edinburgh, Dr. Young, but it is a remedy I have never tried. "Verum arteriolas rubras constringendo ad haemorrhagias sistendas optime accomodatum est frigus. Ad hoc efficiendum, applicatio topica, in partis affects vicinia, maxime convenit. In epistaxe, remedium apud omnes notissimum est aqua frigida, quae ope lintei, fronti vel nuchae imponitur: nec ullum quidem efficacius invenitur. Ne crarius, neque minore successu, in menorrhagia adhibetur: interdum enim, multis aliis incassum tentatis, aqua gelida dorso, modo supra dicto, applicata speratum auxilium praebet. In lochiorum profluvio immodico & periculoso eandem multum laudat Cl. professor noster Young; quam in uterum, per horae quadrantem, continenter injicere jubet. "'—Tucker Dissert. Med. Inaug., p. 21.

If the patient faints²³ away she must not be roused by volatiles, or anything else applied to her nose, nor by wine or other cordials given internally. I have frequently known fainting fits put an immediate stop to violent floodings, by giving the blood time to coagulate in the uterine veins, and large doses of nitre²⁴ have often afforded instant relief, which I suppose is owing to the power which Mr. Alexander justly ascribes to it, of almost instantly retarding the velocity of the circulation, and of surprisingly diminishing the number of pulsations; but it should be given immediately after being dissolved, as the same gentleman has observed, that it then possesses that power in a greater degree. In constitutions that are subject to acrid putrid bile, nitre is improper, as it generally disagrees with the stomach.

If the discharge of the lochia be moderate, the patient should not only sit up often, but should every day get out of bed, staying up as long as she can without fatigue, and continuing it a little longer every day than she had done the day before. A very convenient easy chair has been invented, to which a foot-board is adapted, not only preserving the legs and feet from cold, but by the means of two straps, so contrived that the back of the chair may be depressed, and the footboard raised at pleasure. By means of this contrivance, if the patient is faint or fatigued with sitting up, she may be greatly relieved, and her posture made as easy as possible. As the chair runs upon castors, it may be readily moved, and by its assistance the patient may be enabled to continue a long time out of bed without inconvenience.

Let the directions I have given be strictly observed, and I will venture to assert that there will be neither puerperal nor miliary fever, nor will the milk fever be worth notice, except it be her first lying-in. This may be said to be a bold assertion. I am well aware of the uncertainty of the medical art, and of the difficulty of ascertaining facts, especially by those who, neglecting nature as their guide, seem rather to take pleasure in obstructing her in her

²³ 'And upon this occasion I recollected a remark of Doctor Hunter's, which is, "that the faintness which comes on after haemorrhages, instead of alarming the by-standers, and making them support the patient by stimulating medicines, as spirits of hartshorn and cordials, should be looked upon as salutary, as it seems to be the method nature takes to give the blood time to coagulate." '—Hewson's Experimental Enquiry into the Properties of the Blood, p. 68.

'From this circumstance, that the disposition of the blood to coagulate is increased as the animal becomes weaker, we may draw an inference of some use, with regard to the stopping of haemorrhages, viz., not to rouse the patient by stimulating medicines, nor by motion, but to let that languor or faintness continue, since it is so favourable for that purpose; and also that the medicines likely to be of service in those cases, are such as cool the body, lessen the force of the circulation and increase that languor or faintness. For in proportion as these effects are produced, the divided arteries become more capable of contracting, and the blood more readily coagulates; two circumstances that seem to concur in closing the bleeding orifices.

'Besides giving stimulants and cordials to counteract the fainting, it is a common practice in many parts of England, to give women who are flooding, considerable quantities of port-wine, on a supposition that it will do them service by its astringency. But surely, from its increasing the force of the circulation, it must be prejudicial in those cases. Perhaps many of the remedies called styptics might be objected to for the same reason.' Ibid. 71.

²⁴ 'It therefore shews how much languor and faintness should be encouraged in haemorrhages, and how carefully we should avoid giving anything that can stimulate, or rouse the patient; that the medicines that are likely to be of service are nitre and the acids, or such as cool the body or have the property of diminishing the force of the circulation, or of increasing that languor or faintness; that all anxiety and agitation of mind should, as much as possible, be prevented, lest they increase the circulation, that all muscular motion should be avoided for the same reason.' Hewson's Experimental Inquiry, p. 100.

Dr. Dickson, in the Med. Obs. and Inq., vol. 4, art. 16, p. 220, speaking of nitre given in the form of an electuary with conserve of roses, says, 'I have found nitre too administered in this manner of singular service in *uterine haemorrhages*, but only so far, if my observation is correct, when there was a feverishness and hardness of pulse; for in other cases the *elix. vitriol. acid.* given in small quantities, and very frequently repeated, was attended with much greater benefit. '

operations. I know likewise the difficulty there is in bringing patients to conform to proper directions, and the still greater one in inducing nurses, and other attendants to follow the rules which are prescribed them.

I am not now amusing the public with idle theories, and speculative reasonings; I am treating on an affair of consequence, not only to the female sex, but to mankind in general. I speak from facts, from facts which cannot deceive me, founded upon my Father's experience of more than fifty years, and upon my own of above half that period. I appeal to the inhabitants of this town and neighbourhood, where if I be guilty of misrepresentation, I must meet with the imputation I deserve.

It would be easy to produce a long list of successful cases; successful cases avail nothing, where the unsuccessful are concealed. It is evident that by much the greater part of the sex will do well, even under the worst of treatment. The practitioner therefore can only judge from the result of general practice; and here for the sake of the most important argument I can use, I am obliged to refer to a fact, which otherwise could scarcely be mentioned without a hew of ostentation which I despise. Out of the whole number of lying-in patients whom I have delivered (and I may safely call it a great one) I have never lost one, nor to the best of my recollection, has one been greatly endangered, by the puerperal, miliary, low nervous, putrid malignant, or milk fever; nor have any of these fevers ended in madness,²⁵ or any other disagreeable complaint. Some few indeed have had the puerperal fever, but this has evidently arisen from non-observance of the rules above laid down. Some few, too, have had miliary eruptions, proceeding from the same cause, though not one, unless my memory greatly fails me, ever had what properly might be called a miliary fever. Where feverish symptoms have appeared before delivery, they have been happily extinguished. The reader may perhaps imagine that by a different treatment disorders may take different forms, and appear under different denominations. That I may not seem to shelter myself under so poor a subterfuge, I am necessitated to make a further declaration. I never lost a patient either during her month, or at any other time, where there was the least reason to imagine her death was the consequence of her lying-in. It must however be remembered, that in this last declaration I speak only of natural parturitions. I would by no means be understood to include in this account preternatural cases, or such laborious ones as have required the use of instruments; those of floodings, or convulsions, or those in which consumptions have taken rise before the patient's time of delivery. I only mean likewise those patients whom I have myself attended during the time of delivery. After fevers have been created I have been unsuccessfully called in to those delivered by others. I have however the pleasure to observe that those fevers, in this neighbourhood at least, have of late years greatly decreased. This must chiefly be attributed to a system of management lately introduced, much to the honour of our present practitioners, and of those nurses who seem sensible of the advantages arising from it; and I must here do my brethren the justice to assert, that I do not know a place where midwifery is more successfully practised. Perhaps some general causes may contribute to this success amongst the poor in this town, viz., their eating very little animal food, and living chiefly upon vegetables. Potatoes are a principal part of their diet, on account of their goodness and cheapness in this country. We have butter-milk likewise in the greatest

²⁵ 'It is not only in lying-in cases that madness is sometimes a consequence of the neglect, or ill-treatment of this fever, for, in other persons it too often terminates in that manner. It is therefore well worth observing, since experience confirms the fact, that this sort of madness, which follows this low fever, will by no means yield to the common methods for the cure of madness, because great evacuations, as purging, vomiting, and especially bleeding, always heighten the disease, and soon either destroy the patient, or bring on an incurable foolishness.' Etherington on Fevers, p. 41.

perfection, and it is drank by the common people both in sickness and in health. This liquor when properly managed has a pleasant acidity, and very happily contributes to prevent and cure any disorders arising from putridity. In many parts of this kingdom it is so ill prepared, that the poor people will not drink it, and it is either thrown away or given to the swine. We are likewise well supplied with coals, which is an article of consequence, as fires prevent moisture, and keep up a circulation of air, and there is little danger of the poor people keeping such large fires as to be overheated by them. Does not the pump water²⁶ of this place by being impregnated with selenitical and aluminous salts contribute in some degree to prevent putridity, whatever bad effects it may have in promoting disorders arising from glandular obstructions ? It may be worthy of observation that dysenteries are almost unknown in this town.

Is it not one cause of the frequency and fatality of the puerperal, jail, hospital, and other putrid fevers, in London, that so many of the inhabitants drink, and use for most culinary purposes, the New River water, which is frequently replete with putrid vegetable and animal substances, or the Thames water,²⁷ which is full of all kinds of putrid matter ?

It may seem strange, but it is nevertheless true, that the puerperal and miliary fevers are more common and more fatal in London than in the country; and yet it must be acknowledged that in general the ablest men in every branch of the profession resort to the metropolis: but our wonder will cease when we reflect that not only the general causes in large populous towns will operate, but likewise that the articles of air, diet, dress, &c, are left to the management of the nurses in that city, who claim it as a kind of prerogative, and it is next to sacrilege to encroach upon their privileges. Whether this circumstance has been considered in the important light it deserves, or whether the success of a reformation has been despaired of, I will not pretend to determine. The nurses in London are a numerous and powerful body, and an attempt to reform their ancient customs might be looked upon as an open attack upon them, a violation of their rights, and an actual declaration of war. A young man just coming into business might justly think it too daring to attempt to encounter them; he would in all probability be unequal to the task, and his future progress would be stopped, by making such powerful enemies. The man in full and established business could not perhaps spare so much time as would be necessary, for it would require a very frequent and constant attendance upon his patients to see that the nurses did their duty; and by such an attempt he might lose

²⁶ *Vide* Dr. Percival on the Pump Water of Manchester, *Essays Med. and Exp.*, p. 288

²⁷ Most pump water is as incapable of changing and of being spoiled by keeping as distilled water; for though it be loaded with various foreign particles, yet it seldom has any, or at most but a small proportion of a vegetable, or animal nature, and therefore it will always remain the same. This property of water is not so much attended to as it ought to be by sailors, who usually supply their ships with river water taken up near great cities, and then keep it in wooden casks: the necessary consequence is, that it soon putrefies, and most probably contributes very much to the occasioning of those putrid distempers with which sailors are so apt to be afflicted. Pump or spring water would be greatly preferable, and if they could keep this in glass or stone bottles, or earthen jars, they would find it, after being carried round the world, just the same as when they set out.' *Med. Trans.*, vol. 1, p. 19, by Dr. W. Heberden.

'The great tendency in the Thames water first to ferment, and then to become pure, in long voyages is well known, and it is probable that this quality is owing to the extraordinary quantity of putrid matter with which it is impregnated at the place where it is taken up, *viz.*, a little below London bridge. Pringle's Appendix, p. 67.

Sir John Pringle, in his *Observations on the Dysentery* says, 'Having observed in my private practice that some were better for drinking Bristol water, not only at the spring, but at a distance, I desired one of my patients (who had come from the Havannah) to observe whether he found any difference between drinking the river water and the pump water in this city; and after some trials he assured me that he was less liable to a return of his flux when he used the latter.' *Obs. on the Diseases of the Army*, p. 285.

much, and gain little except trouble and opposition.

But the fatality of these fevers is not confined to the metropolis. There are several country towns where puerperal fevers are very fatal, particularly the town of Northampton, a place otherwise remarkable for its healthfulness, and situated in an open, champaign country; and I am acquainted with two gentlemen in another town, where the whole business in that branch is divided betwixt them, and it is very remarkable that one of them loses several patients every year of the puerperal fever, and the other never so much as meets with the disorder; but their methods of treating their patients, as I am informed, are very different.

From what has been above remarked, I imagine it will appear that where a due observance is paid to nature, not only during labour, but for some time afterwards, there is not the least danger to be apprehended from natural parturitions; that most, if not all of those disorders which are usually supposed to be peculiarly incident to the puerperal state, are either the effects of mismanagement in the accoucheur or nurses, or else arise from the patient's own imprudence; that they may in general be truly said to be fabricated, and may always, except in lying-in hospitals, be avoided.

In hospitals indeed, where numbers are crowded together not only in the same house, but in the same ward, the puerperal fever cannot so easily be prevented, though the miliary fever undoubtedly may.

I am afraid no methods will be effectual where several lying-in women are in one ward. It will be impossible to keep the air pure, dry and sweet, and at the same time to accommodate the heat of the ward to their different constitutions and symptoms. If separate apartments cannot be allowed to every patient, at least as soon as the fever has seized one she ought immediately to be moved into another room, not only for her immediate safety, but for that of the other patients. Or it would be still better if every woman was delivered in a separate ward, and was to remain there for a week or ten days, till all danger of this fever was over.

Whenever a patient has recovered from this fever and is removed into another room, the bedding and curtains should be washed, the floor and woodwork should be cleansed with vinegar, and it would still add to the salubrity of the apartment, if it was stoved with brimstone, or what is much more effectual, if explosions of small quantities of gun-powder were made in it after the manner described by Doctor Lind, which driving out the foul air, a fresh current immediately rushes in to fill up the void space occasioned by the explosion. The Doctor seems to think that the good effects of it in purifying ships, or other infected places, is owing to the antiseptic vapour arising from it; but is it not more probably owing to the explosion? He says he has found this method effectual in purifying the air, and that it is inoffensive to the lungs. The steams of warm vinegar applied to the patient's nostrils are very refreshing, but fumigating the wards with it as has been advised by many authors, has not I believe proved so antiseptic as was at first imagined, which may be owing probably to the following cause.

In distilling vinegar it is very well known that what comes over at first is mostly mucilage and water, to the amount of a third or fourth of the whole quantity; this is generally thrown away as useless, and the very acid parts which are supposed to be productive of the greatest good, are not to be raised without a very considerable degree of heat. So much watery steam therefore being diffused all over the room, may tend to increase those complaints it was

designed to remedy; for it is universally allowed that heat and moisture when joined are the parents of putrefaction.

I have my doubts in regard to the utility of dry or moist fumes, or sprinklings in general, such as camphorated vinegar, tobacco, nitre, pitch, tar, resinous or aromatic gums, sulphur, or frankincense, during the patient's stay in the room. Without the free admission of air I am apprehensive they will operate to no good purpose. If a sufficient quantity of free air be admitted they will seldom be necessary. And if by their means the air is either heated or moistened, they will certainly be prejudicial; but all these methods may be used with advantage if there be no patient in the room.

End of Chapter VI