

Hints to mothers : for the management of health during the period of pregnancy, and in the lying-in room; with an exposure of popular errors in connexion with those subjects / by Thomas Bull.

Contributors

Bull, Thomas, active 1840.

Publication/Creation

London : Printed for Longman, Orme, Brown, Green, & Longmans, 1837
(London : Printed by A. Spottiswoode.)

Persistent URL

<https://wellcomecollection.org/works/q5rf6vnb>

License and attribution

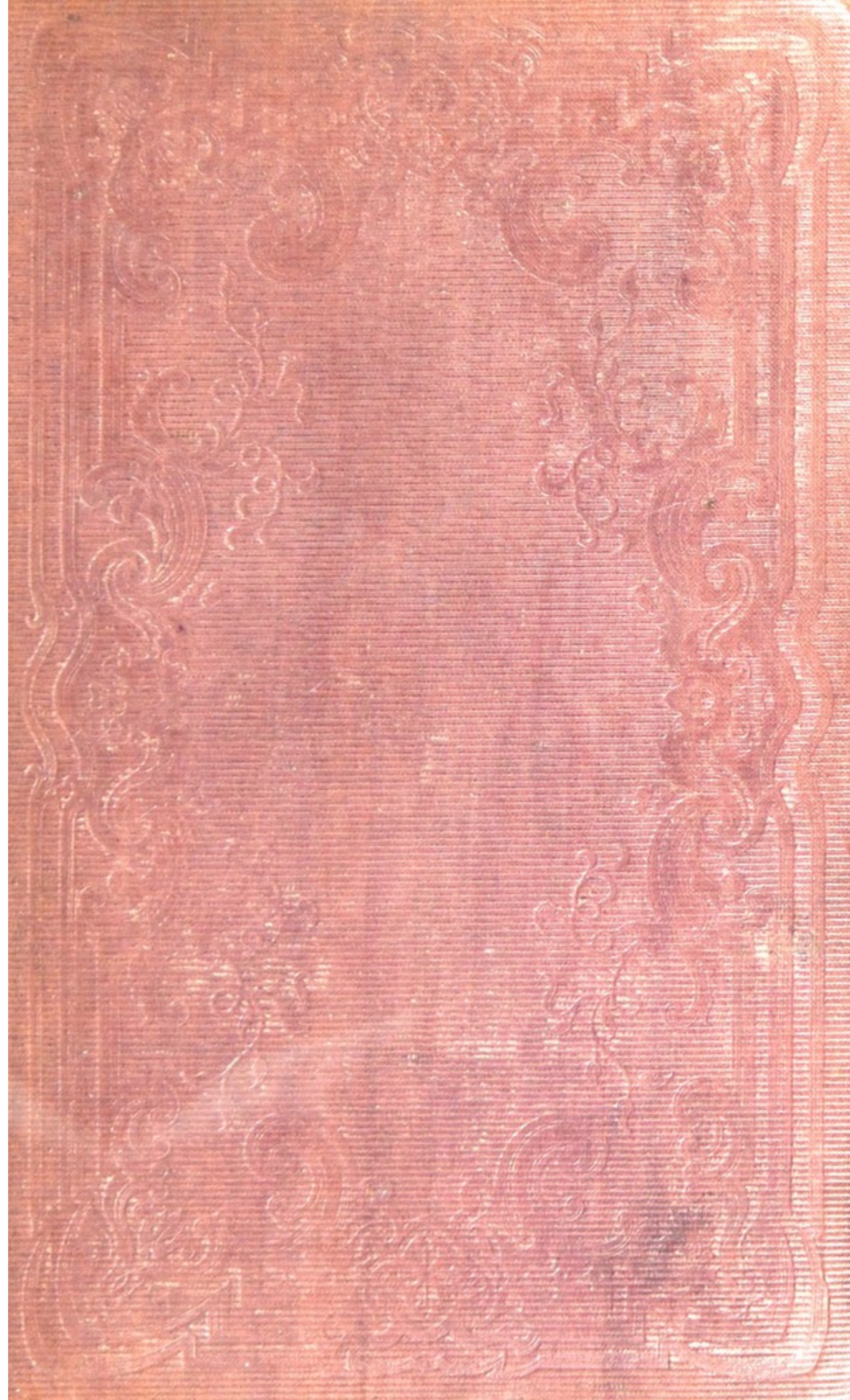
This work has been identified as being free of known restrictions under copyright law, including all related and neighbouring rights and is being made available under the Creative Commons, Public Domain Mark.

You can copy, modify, distribute and perform the work, even for commercial purposes, without asking permission.




Wellcome Collection
183 Euston Road
London NW1 2BE UK
T +44 (0)20 7611 8722
E library@wellcomecollection.org
<https://wellcomecollection.org>





58583 / B



Digitized by the Internet Archive
in 2016 with funding from
Wellcome Library

<https://archive.org/details/b2874469x>

58583 / B

HINTS TO MOTHERS,
FOR THE MANAGEMENT OF HEALTH
DURING THE PERIOD OF PREGNANCY,
AND IN
THE LYING-IN ROOM;
WITH AN EXPOSURE OF POPULAR ERRORS IN CONNEXION
WITH THOSE SUBJECTS.

BY
THOMAS BULL, M.D.

PHYSICIAN-ACCOUCHEUR TO THE FINSBURY MIDWIFERY
INSTITUTION;
AND LECTURER ON MIDWIFERY, AND ON THE
DISEASES OF WOMEN AND CHILDREN.

LONDON:

PRINTED FOR
LONGMAN, ORME, BROWN, GREEN, & LONGMANS,
PATERNOSTER-ROW.

1837.



LONDON :
Printed by A. SPOTTISWOODE,
New-Street-Square.

P R E F A C E.

I^N the minds of married women, and especially in young females, those feelings of delicacy naturally and commendably exist which prevent a full disclosure of their circumstances, when they find it necessary to consult their medical advisers. To meet this difficulty, and also to counteract the ill-advised suggestions of ignorant persons during the period of confinement, is the chief object of the following pages.

While it is believed that much of the information contained in this volume is highly important to the comfort, and even to the well doing of the married female, much of it is, at the same time, of a character upon which she cannot easily obtain satisfaction. She will find no difficulty in *reading* information, for which she would find it insuperably difficult *to ask*.

There are many little circumstances, too, in which it does not occur to her to seek for advice, of the nature and result of which she ought not to be ignorant. Young married women are especially liable to many needless, yet harassing fears, which it has been the anxious object of the author to remove, by showing that they have no foundation in truth. It has often been necessary to be minute, but *that*, it is imagined, will not be regarded as an imperfection.

The author's connection for some years past with a large and important Midwifery Institution, has led him to direct especial attention to the important subject upon which he has ventured to appear before the public, and he must leave his work with them, in the hope that he has not written altogether in vain.

T. B.

Finsbury Place,
London, 1837.

CONTENTS.

CHAPTER I.

OF POPULAR ERRORS ON THE SUBJECT OF PREGNANCY.

SECT.	PAGE
I. Of the supposed Influence of the Imagination of the Mother upon the Child in the Womb - -	3
II. Of the supposed Necessity of an increased Supply of Nourishment during Pregnancy - -	17
III. Of the supposed Necessity of refraining from Exercise at the Commencement, and of the beneficial Influence of its Employment at the Conclusion of Pregnancy - - - -	21
IV. Of the supposed Necessity of losing Blood during the Period of Pregnancy - - -	24

CHAP. II.

OF THE MODE BY WHICH PREGNANCY MAY BE DETERMINED.

I. Ceasing to be unwell - - -	28
II. Morning Sickness - - -	40
III. Shooting Pains through, Enlargement of, and other Changes of the Breast - - -	42
IV. Quickening - - -	50

CHAP. III.

OF THE DISEASES OF PREGNANCY, AND HINTS FOR THEIR
PREVENTION AND RELIEF.

SECT.	PAGE
I. Nausea or Vomiting. (Morning Sickness) - -	56
II. Heartburn - - -	66
III. Costiveness - - -	67
IV. Diarrhœa - - -	73
V. Piles - - -	76
VI. Enlargement of the Veins of the Legs - -	80
VII. Swelling of the Feet and Legs - -	82
VIII. Toothach - - -	83
IX. Salivation - - -	85
X. A painful and distended Condition of the Breasts -	87
XI. Cramp and Pains in the Legs, etc. - -	88
XII. Violent Movements of the Child - -	90
XIII. Soreness and cracking of the Skin of the Abdomen	92
XIV. Inconvenience from Size - - -	93
XV. Being unwell during Pregnancy - -	94

CHAP. IV.

ON THE PREVENTION OF MISCARRIAGE.

I. The Period of Pregnancy at which it most frequently occurs - - -	100
II. Its Symptoms, etc. - - -	101
III. The Causes - - -	102
IV. The Means to be adopted for its Prevention: —	
i. The Plan to be followed for preventing Miscarriage by those who are subject to it; -	107
ii. The Means which are to be used to put a stop to Miscarriage when it is occasionally threatened - - -	120

CHAP. V.

HINTS FOR THE LYING-IN ROOM.

SECT.	PAGE
I. The Period previous to Labour	- 126
Reckoning	- ib.
Symptoms of Labour approaching	- 127
Attendants, etc.	- 128
Bowels	- 130
II. The Period during the Process of Labour	- 131
The Bed	- ib.
The Dress	- 132
Shivering	- 133
Vomiting	- ib.
Cramp	- 134
Examination by Medical Attendant	- ib.
Posture, etc.	- 136
Diet	- 139
Probable Duration of the Labour	- 140
The Close of Labour	- 142
III. From after Delivery to the Time of leaving the Chamber	- 144
Arrangement of Patient's Dress	- ib.
Management of the Child immediately after birth	- 145
Putting the Infant to the Breast	- 147
The Bladder of the Mother	- 152
The Bowels	- 153
The Discharge	- 154
The Diet and Management of the first Three Days	- 155
The Fourth Day	- 156
The Fifth Day	- 157
The Tenth day	- 158

CHAP. VI.

SUCKLING.

SECT.	PAGE
I. Management of the Nipples prior to Delivery	- 159
II. Sore Nipples	- 160
III. Drying up the Milk	- 164
IV. Uncontrollable Flow of the Milk	- 166
V. Plan of Suckling	- 168
VI. Deficiency of Milk	- 169
VII. Choice of a Wet-nurse	- 171

HINTS TO MOTHERS.

CHAPTER I.

OF POPULAR ERRORS ON THE SUBJECT OF PREGNANCY.

DURING the period of pregnancy the happiness of a nervous and anxious woman is often completely destroyed by the influence of many popular errors, which still prevail upon this subject. And, what will be thought still worse, the effect of these prejudices on the constitution of the mother, will be found more or less to impair the health and future vigour of her offspring.

It may be said, the day is past when prejudices of this kind can operate ; that the tales and fears of former times exist no longer; and, that the well-educated woman regards even the direct

counsels of the ignorant as little as she heeds the gloomy forebodings and prophecies of popular credulity. To this I cannot give my assent: it may be admitted, indeed, that when truth is properly presented to such minds, it will be at once received; yet, as a subject like this has never been plainly discussed with a view to popular perusal, I find even now the sensible, and otherwise strong-minded woman, more or less under the influence of notions as absurd in themselves, as they are mischievous in their tendency.

Every medical man much engaged in the lying-in-room can attest the truth of this statement; and, were it necessary, it were easy to adduce the most ample evidence upon the subject. Believing, however, that this point will be undisputed, I would rather at once proceed, impartially, to specify a few of these still popular absurdities.

In this inquiry I shall be as brief as possible, examining those errors only which are most prevalent; and if successful in pointing out their folly, shall attain my end. In treating this part of our subject, my principle aim is to convince the nervous and timid woman, that pregnancy

is not to be looked upon as necessarily a period of deprivation and suffering; but, as it truly is, *a state demanding only a little more than ordinary care and prudence, and compatible with the enjoyment of health and comfort.*

SECT. I. — OF THE SUPPOSED INFLUENCE OF THE
IMAGINATION OF THE MOTHER UPON THE
CHILD IN HER WOMB.

THE supposed influence of the imagination of the mother upon the child in her womb is an error still popularly current; and, though reason, experience, and anatomical knowledge, concur to refute this notion, it is received by many as an established truth, and tends more than any other delusion of the mind, during pregnancy, to render the female truly wretched. Should a woman have an ungratified longing for some particular article of food; should she have been suddenly and seriously frightened,—or occasionally the witness of some miserably deformed object,—she at once becomes possessed with the belief, that her unborn babe will receive a mark, blemish, or deformity, similar to the thing

longed for, or to that which caused her alarm, or excited her aversion. From the time of this occurrence, the idea haunts her imagination night and day ; a victim to the influence of an evil called into existence by her own fancy, she is wretched and miserable. Ashamed of her weakness, she imparts her secret to none ; she will hardly confess it to herself ; yet does its impression deepen upon her mind, and she looks forward to the period of her confinement with the greatest dread and apprehension. Thus the whole period of pregnancy is made a season of needless trial and suffering ; and nothing pacifies her mind, or can remove her long-cherished fears, but the birth of an unblemished and healthy child.

The origin of this belief in the power of the imagination during pregnancy is coeval with our earliest records ; and the multitude of instances handed down to us, in which its influence was supposed to be exerted, would fill a goodly volume : but neither the antiquity of its source, or the abundance of the evidence of its supposed truth, can entitle it to the least weight, if it can be proved that it is inconsistent with anatomical science, experience, and reason.

The first point which we should naturally consider in this inquiry would be, the nature of the connection between the parent and her offspring; and anatomy proves two most important facts: First, that there is no communication whatever between the nerves of the mother and the child; and, secondly, that the infant has its own distinct circulation, carried on by the action of its own heart and blood-vessels, forming a circle within itself, and having no direct communication with the vessels of the mother.

How then is it possible, when no nervous connection exists, that the sensations, fears, and desires of the mother, should in any way be communicated to the child; or that any impression on the imagination of the former, should produce any changes in the structure or appearance of the latter? Did it ever happen to any woman, by any series of fancies or desires, that the figure of the objects of them was traced upon her own skin? Does she then suppose it more probable, or indeed possible, that such changes or appearances should be impressed upon the infant, thus insulated from any nervous influence of the parent? Anatomy, then,

proves nothing in favour of this doctrine, but presents an unanswerable difficulty opposed to it, demonstrating most clearly that the infant is not one body with the mother, any more than a plant is one substance with the earth which nourishes it.

Let us next examine the various deformities said to be produced in the body of the little one by this powerful agent. i. It is said to impose upon its skin certain resemblances to things on which the fancy has been busily occupied, or dwelt upon: such as fruit, wine, insects, or animals. ii. To produce additional parts: as an increased number of limbs, toes, or fingers, etc. iii. To destroy certain parts of the child's body: as a leg, or arm, or both; and to effect the want of a lip or portion of it, a hand, or foot, &c. These *three* effects, tending either to the *increase, decrease, or alteration of parts*, include almost every variety of case supposed to be produced by the power of the imagination.

The most common of these deformities are the first: the marks and moles on the skin. The former, generally of a red or purplish

colour, are said to resemble different sorts of fruit,—such as raspberries, strawberries, mulberries, cherries, etc.; and if a child is born with such a discolouration or mark on the surface of its body, it is frequently ascribed to the disappointed longings of the female during her pregnancy, for the particular fruit which the mark is declared to resemble. The latter, the moles, being covered with a downy hair, are compared to the skin of a mouse, mole, or some other animal; and their presence is referred to some agitation of mind occasioned by one of these objects running in sight of, or against the individual while pregnant.

It would be easy to cite very many cases that are on record of these “discolourings of the skin,—such as redness from women’s longing for claret, or having the same suddenly spilt upon them;” of marks “of foods desired, but not obtained;” of “excrescences, which, like the fruits they resemble, have their times of bloom, ripening, and languishing, though never quite dying or falling off themselves,” etc., etc. Here, too, might be adduced a variety of the most extraordinary cases of deformity which have

been very gravely related by our forefathers; and commented upon, believed in, and added to, by a few authors even of our own day. Books abound with such statements, but their detail would only be a waste of time, for amidst the whole mass, there is not one case so fully and sufficiently authenticated as to enable me to bring it forward "for conviction," if I were an advocate, instead of being an opponent to the "imaginationists." Take, as an example, the following fable, which is extracted from a work published in London, 1723, by Dr. Turner, entitled *De Morbis Cutaneis*:—

"Philippus Meurs, apostolical prothonotary and canon of St. Peter's in Lovain, a reverend ancient man, affirmed unto me, saith our author*, with sundry others, that he had a sister complete in the rest of her body, but without her head: Instead of which was joined to her neck the likeness of a shell fish, having two valves, which shut and opened; and by which, from a spoon, she took her nourishment: and this, he said, was occasioned, for that

* Fienus de Virib. Imaginationis. 1608.

his mother with child of her had a strong desire after some muscles she beheld in the market, but could not procure at that instant. This sister of his lived in this monstrous condition to be eleven years old, and dy'd then by accident, happening angrily and very strongly to bite the spoon they fed her with, and breaking those testaceous valves, dy'd quickly after: He kept diverse of her pictures in his chamber, which, saith Fienus, the whole world hath seen, being more particularly famous and well known to all the city of Lovain."

This marvel is immediately followed by this observation of the learned doctor: "The case of Sebastian Munster, of the two children born growing together by the foreheads occasioned by a person coming behind the mother and another woman, at unawares, and wantonly striking their heads together, seemeth the less rare to us, who have seen here in London, within these few years, two girls brought out of Germany miserably complicate, or conjoined, etc."

Let us, however, for a moment take one of the doctor's own cases; — a case of deformity

from a deficiency of the child's body — which I believe to be true; but then not brought about after the fashion which its author supposed. And I will endeavour, with this illustration, to show the absurdity of the whole matter. The case is related, in p. 174. chap. xii., in Dr. Turner's book: — Speaking of a man greatly deformed, he says: “But of this kind we have a sad instance at home (I mean in this city,) in a child of Sir J. B——'s. His lady, when advanced five or six months in her pregnancy, was so frightened at the unexpected view of a beggar's stump-arm upon the coach door, that the child, of which she was afterwards delivered, was born wanting one of its hands, the stump resembling that of the beggar.” Dr. T. adds, “How these strange alterations should be wrought, or the child cut, wounded or maimed, as if the same was really done with a weapon, whilst the mother is unhurt, and merely by the force of the imagination, is, I must confess, above my understanding; but it is a fact, undeniable.”

Now let us for one moment consider, what an operation must have been performed to work this effect, to produce this fact unde-

niable ! The child was some months old when the frightful object was seen by which the deformity was said to be produced. It is presumed it was of the natural and perfect form, and must, therefore, at this period, have been considerable in size, and the arm itself not small. This arm, then, must drop off by the power of the imagination; there must be no blood lost to endanger the life of the child; and the wound must be healed before the birth. This would seem improbable enough; but, admitting that the limb could drop off by the force of the mother's fancy, and that some cause could put a stop to the bleeding from the stump after the separation of the hand from the body, still the limb must remain in the womb until the delivery, and the bones at least could not putrify, or waste away, although the flesh might. But is it stated in this case, or pretended in any other of a like kind, that any part of the deficient limb was found by the medical attendant, nurse, or by any body else?—Never. We hear nothing of the decayed hand, either in this or in any other case we may be curious enough to search after.

There is one other point in connection with all cases of this kind; and that is, the stumps of all such imperfect and deformed limbs have always smoothness and regularity of the skin covering them,—which plainly indicates, that from their *earliest* formation they must have been of the same figure: for had the arm in this case dropped off, there must have been a wound; and if there had been a wound, there must have been a scar, at all times sufficiently distinguishable from sound skin.

Will any one have the temerity to affirm their belief that, in this case, the force of the affrighted lady's imagination lopped off her child's limb — staunched the bleeding wound — healed it without a scar, — and then, by some other extraordinary mental effort, rid itself of the offensive, but unoffending, member? Can man or woman by the force of imagination add an inch to their stature, or take an inch from it, or transform any part of *their* bodies into the resemblance of other animals, of vegetables, or of fruit? Is it not then absurd to suppose, that a woman has more influence over another than over her own body; that she should be able,

by an effort of the imagination, to add *new* parts to a child already completely formed, — to destroy any of the parts so formed, — or *transmute* any of those parts into other forms of structure? There can be no doubt that deformity existed at birth in the case just quoted; but then the little one was deformed from its earliest formation, months before the mother's alarm, and, therefore, altogether unconnected with it; at the same time it must be confessed, the beggar's stump and the handless child were an extraordinary coincidence.

Again, with respect to marks, moles, and other blemishes on the skin; the resemblances which they are said to bear to fruit, etc., is purely fanciful. For instance, I operated, only a short time since, upon a very large one situated on the forehead of a child. The lively imagination of the mother, led her to believe that it was the exact counterpart of a ripe peach: it might be something like it; but it consisted, as all these *nævi* or marks do, of nothing more than a multiplicity or net-work of small blood-vessels; and at its most prominent part, the vessels being large and distended with blood, gave it the pur-

plish or dusky red appearance, peculiar to all these tumours. This grew with the child from its earliest formation, as in the case of any other deformity — an extra toe, or finger, or hare-lip, for instance, — and was the creation of nature's will, and not the production of human caprice or fancy.

The late Dr. William Hunter investigated this subject at the Lying-in-Hospital to which he was attached. In every one of 2000 cases of labour, as soon as the woman was delivered, he inquired of her, whether she had been disappointed in any object of her longing; and, if she replied in the affirmative, what it was; — whether she had been surprised by any circumstance which had given her any unusual shock; and what that consisted of; — whether she had been alarmed by any object of an unsightly kind; and what that was. Then, after making a note of each of the declarations of the women, either in the affirmative or negative, he carefully examined the child; and he affirms, that he never, in a *single instance* of the 2000, met with a coincidence. He met with blemishes, when

no cause was acknowledged ; and found none, when it had been insisted on.

To conclude the whole matter ; I would ask, why should we be surprised at some irregularities on the skin, and other parts of the human body, since we see the same thing occurring daily throughout the animal and vegetable world ? They have their moles, their discolourations, their excrescences, their unnatural shapes, which resemble animals and other bodies, which it certainly would not be very philosophical to ascribe to any effort of the imagination ! *

I trust enough has been said to satisfy the

* The following illustration of this point is from the *Gentleman's Magazine*, for October 1764 ; and is contained in a Paper, entitled, A Letter from an eminent Physician to a Married Lady : —

“ Those who have been attentive to their poultry will inform you that chickens are as liable to a preternatural structure of their organs as children. Now the egg in order to be hatched is placed under the hen, the heat of whose body gives motion to the fluids which nourish the chick till it becomes sufficiently strong to break the shell, when it is produced with a claw extraordinary, or any other preternatural appearance to which chickens are liable. Now, in this case, the extraordinary claw, if we take this instance for our argument, must either have been formed in the moment of conception, or have been added at some period afterwards, when we suppose the hen to have been under the influence of some powerful imagination. If

reader upon this subject; and shall only recall attention to the following points: —

First. That a disappointed longing cannot be in any degree more injurious during pregnancy than at any other time. It might indeed, nay, it very often does, occasion sickness at the stomach, a temporary loss of appetite, and sometimes vomiting; but here the evil ceases.

Secondly. That while it is not denied that marks and deformities sometimes happen, yet they are to be accounted for in a much

you grant that the chick was originally formed in this shape, it follows, from the rules of analogy, that all preternatural births have the same cause. If not, the fancy of the hen must have operated through the shell to work the effect. I flatter myself that this is too marvellous and absurd a notion to gain much credit from a woman of good sense. If, however, you still have a secret persuasion that the hen may, (in some wonderful manner, you know not how,) whilst she is sitting, affect the chick or the egg, so as to alter its frame, know for a certainty that eggs hatched in dung-hills, stoves, and ovens, produce as many monstrous births as those which are hatched by hens; which, I should imagine, proves irrefragably that the chick is produced in the very shape in which it was formed."

This illustration at least seems to show how entirely unphilosophical and absurd are the views entertained on the subject before us.

more scientific and natural manner, than by the influence of the mother's imagination; and,

Thirdly. That they cannot be produced by the power of the imagination of the mother, inasmuch as there is no nervous communication whatever between the parent and offspring; and, therefore, that any alarm or fright which a lady might accidentally meet with during her pregnancy, can in no way affect the symmetry of her little one, — although if her own health be seriously affected, the nutrition and health of the child must more or less suffer.

SECT. II. — OF THE SUPPOSED NECESSITY OF AN INCREASED SUPPLY OF NOURISHMENT DURING PREGNANCY.

It is presumed by some that, during pregnancy, a larger proportion of food is necessary for a female than at any other time, the support and nourishment of the child demanding the

extra supply. This is a great mistake, and, when acted upon, injurious to the health of both mother and offspring. Its origin, no doubt, is simply this: if a female ordinarily only takes food sufficient to nourish her own system, surely, it is said, when she is pregnant, the extra demand made for giving support to another must require an extra supply of nourishment. This conclusion, though it appears at first sight reasonable enough, will, upon examination, be found fallacious. It is sufficient for me to remark, that we habitually take more food than is strictly required for the demands of the body; we therefore daily make more blood than is really wanted for its support: a superfluity amply sufficient for the nourishment of the child is thus furnished—for a very small quantity is requisite—without the mother, on the one hand, feeling the demand to be oppressive, and, on the other, without a freer indulgence of food being necessary to provide it. Nature herself corroborates this opinion; indeed she solicits a reduction in the quantity of support, rather than asks an increase of it; for almost the very first evidence of pregnancy is the morning sickness,

which would seem to declare, that the system requires reduction rather than increase, or why should this subduing process be instituted? The consequences, too, which inevitably follow the free indulgence of a capricious, and what will afterwards grow into a voracious, appetite, decidedly favours this opinion; for the severest and most trying cases of indigestion are by these means induced, the general health of the female disturbed, and more or less impaired, and through it the growth and vigour of the child; so that the means intended for its good become a source of direct injury. A stronger proof of the fallacy of this error is not necessary. A female, then, should guard against this opinion influencing her conduct during pregnancy.

If the appetite in the earlier months, from the presence of morning sickness, is variable and capricious, let her not be persuaded to humour and feed its waywardness from the belief that it is necessary so to do; for, if she does, she may depend upon it, from such indulgence, it will soon *require* a larger and more ample supply than is compatible with her own health or that of her little one.

If the general health before pregnancy was delicate and feeble, and, as a consequence of this state, becomes invigorated, and the powers of digestion increase, a larger supply of nourishment is demanded, and may be met in such case without fear; for instead of being injurious it will be useful. If, however, as in the majority of cases, the health is in no way interfered with, and the appetite as good as usual, it is not advisable that any essential difference should be made in the *diet*; it is not called for, and, either way, would be attended with disadvantage.

During the latter period of pregnancy, if, although in the enjoyment of health, a dislike to animal food of every kind, and under every form, is experienced, and if a female prevailed upon to eat it incautiously is sensible of much inconvenience, and she prefers vegetables and fruit, etc., which she finds may be eaten without prejudice, let her adopt such a diet; only I would impress upon her mind, that she should make the attempt to take a moderate quantity of fresh meat, or game, once in the four and twenty hours.

Lastly, a female, towards the conclusion of

pregnancy, should be particularly careful not to be persuaded to eat in the proportion of two persons, for it may not only bring on vomiting, heart-burn, constipation, etc., but will contribute, from the accumulation of impurities in the lower bowel, to the difficulties of labour.

SECT. III. — OF THE SUPPOSED NECESSITY OF
REFRAINING FROM EXERCISE AT THE COM-
MENCEMENT, AND THE BENEFICIAL INFLU-
ENCE OF ITS EMPLOYMENT AT THE CONCLU-
SION OF PREGNANCY.

There is no doubt that in some cases, in the early months of pregnancy, great and continued care is not only useful but absolutely necessary, in order to prevent miscarriage; but, that women should be encouraged to live more indolently, exercise being thought improper, unless towards the conclusion of pregnancy, when it is supposed to procure a more favourable delivery, is an error, equally injurious to mother and offspring. The fact is, a directly contrary method

of proceeding is the most eligible and proper : exercise in the early months, gradually seeking a state of repose as the period of confinement approaches.

During the *first six or seven* months, frequent and gentle exercise in the open air, and domestic occupations, which require moderate exertion, are exceedingly desirable ; both have a beneficial influence on the health of the mother, and, through her, upon the child. The former invigorates health, the latter contributes, by its regular return, and succession of duties, to employ her time, and thus ensures that ease and serenity of mind so essential to her happiness. On the other hand, excessive effeminacy is highly injurious. The female whose time is spent in indolence, continually reclining on a softly cushioned sofa, in the unwholesome atmosphere of an overheated apartment, who never breathes the fresh and pure air of heaven, but is fearful of even putting her foot to the ground, and who yet, perhaps, at the same time indulges pretty freely an immoderate appetite, under such circumstances is not likely to preserve her health, much less to improve it ; in

fact, it must suffer serious injury. Unfortunately, the evil will not stop here, for, by such improper and injudicious conduct, the nutrition and growth of the child must, as a natural consequence, be much interfered with, and, when born, it will be feeble, perhaps emaciated, and will be reared with difficulty.

During the *last few weeks* exercise should still be taken in the open air; but as walking with some, is now attended with inconvenience, and so quickly with fatigue, that it is injurious instead of useful, exercise in a convenient and easy carriage becomes indispensable. Domestic duties must be almost altogether given up; and the recumbent position ought to be resorted to for at least two or three hours in the course of the day. And it should never be forgotten, that, throughout the whole period of pregnancy, every kind of agitating exercise, such as riding in a carriage with rapidity on uneven roads, dancing much and frequently, lifting or carrying heavy weights, ought to be avoided; in short, all masculine and fatiguing employments whatever.

SECT. IV. — OF THE SUPPOSED NECESSITY OF
LOSING BLOOD DURING THE PERIOD OF PREG-
NANCY.

This is an error which prevails to a very great extent, but amongst the lower class of society principally. Some poor women, as regularly as they become pregnant, after the second or third month go to a chemist with the request to be bled. They make a point of this, because they are impressed with the idea that pregnancy demands it. It is a remedy, however, which ought to be resorted to with the greatest precaution ; and, so far from pregnancy demanding it as a necessary consequence, *it is most erroneous* ; for I have known several delicate and weakly women, who, by the advice of their friends, regularly submitting to be bled, as regularly have miscarried, and who, on again becoming pregnant, warned of the mischief resulting from such practice, have avoided it, and become the mothers of healthy children.

That bleeding is sometimes useful, and even

loudly called for, there can be no question; but such indiscriminate use of it, and solely because pregnancy has taken place, is an error productive of manifest injury. And it is a prejudice which is perhaps more seriously mischievous to the child than the mother; for, if it does not cause its miscarriage, it will sometimes, in a weak and delicate woman, decidedly affect the stamina of the little one. So essential and important are certain observances of the parent during pregnancy, that health and vigour may be imparted to her offspring.

Such are the errors connected with pregnancy, which I have thought it might be useful thus briefly to notice. I have known them to be a source of much mental distress and physical suffering; and, if these few observations expunge them from that list of evils, always supposed by many as necessarily connected with the pregnant state, I shall exceedingly rejoice, convinced that it is a process which ought not to be regarded with fear and trembling, although it certainly demands a little more than ordinary prudence and care. For it must never be forgotten, that on the judicious conduct of the

mother, while pregnant, a vigorous constitution on the part of the child much depends ; and to her neglect, a feeble frame may, in some measure, be attributed ; for, like fruit of every other kind, the child in the womb requires a certain amount of care for its preservation and perfection.

It would be well, therefore, on every account, that a female should engage her future medical attendant *early* : she will be able to seek his direction and guidance in every doubt that may arise, and, confiding her fears and anxieties to him, will derive, from his experience and knowledge, that rational and kindly explanation of her difficulties which may instantly dispel them.

CHAPTER II.

OF THE MODE BY WHICH PREGNANCY MAY BE
DETERMINED.

THERE are certain signs which a female is taught to regard as essential evidences of pregnancy; and it is supposed by most, if not by all women, that their presence is absolutely necessary to the existence of this state. In reference to one or two of these signs, this is far from the fact; for they are not unfrequently absent, although pregnancy exist, and the remainder may be present, although pregnancy be absent. Many a female, I am confident, has from this very circumstance experienced much difficulty in attaining certainty as to her state, and suffered months of anxiety and doubt. This has arisen from a want of those clear notions, and that precise information, which a question so important demands.

The object of this chapter is to remove this difficulty, by presenting a short account of those symptoms of conception which the female may herself observe, and to point out to what extent they may be relied on. It will be necessary to notice only *four* of the signs or symptoms of pregnancy, and they may be considered in the order in which they usually arise; *i. e.*, ceasing to be unwell; morning sickness; shooting pains through, enlargement of, and other changes of the breast; and, lastly, quickening.

SECT. I. — CEASING TO BE UNWELL.

The first symptom of pregnancy is the omission of that regular monthly return, which, in female phraseology, would be described as “ceasing to be unwell;” and it may be adopted as a general rule, that, in a healthy woman, whose menstruation has been established, and continued regular, and who is not nursing, “conception is followed by a suppression of the

menstrual discharge at the next return of its period." Thus, a female may have been pregnant a week or two already; but she is not aware of 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.

Now this symptom, as a general rule, admits of four exceptions: —

1st. A young female shall never have menstruated and yet conceive.

2dly. A mother shall conceive while she is nursing, and not menstruating.

3dly. A female shall conceive, and yet be unwell during the first three, four, or more months of pregnancy.

4thly, and lastly. Occasionally conception takes place late in life, after menstruation has apparently ceased for ever.

First exception. — Many cases are on record proving this point. I have met with only two cases; one quite a girl, not having arrived at her seventeenth year, and yet was in her sixth month of pregnancy when she applied for a letter for the Finsbury Midwifery Institution;

the other was in her nineteenth year. Menstruation was, subsequent to confinement, established in the first; with the result of the latter I am not acquainted.*

Although pregnancy under such circumstances is not of frequent occurrence, still it does now and then take place. A knowledge of the fact may therefore prove useful.

Second exception.— It is scarcely necessary to advert to the well-known fact, that a woman may conceive whilst she is nursing, without any previous return of the monthly discharge, except to expose the popular error, “that a

* A remarkable case is mentioned by Morgagni: —“ I was acquainted,” he says, “ with a maiden of a noble family, who married before menstruation took place, though the menses had been expected for some years; nevertheless she became exceedingly fruitful. We were the less surprised at this circumstance because the same thing had happened to her mother.”

Another instance is recorded in the Philosophical Transactions for 1817, of a young woman who bore two children successively without any previous menstruation; which function did not commence till after the third pregnancy, which ended in a miscarriage.

Frank attended a patient who gave birth to three children without ever having been unwell. Capuron, also, refers to several cases of this description.

female will not become pregnant during lactation." This is very far from being the case. Poor women are much in the habit of nursing their infants eighteen months, two years, and even two years and a half, in order to protect themselves, as they imagine, from becoming pregnant; and many a poor creature have I seen with exhausted frame and disordered general health, arising from protracted nursing, pursued alone from this mistaken notion.

I have large opportunities of investigating this, as well as the several points touched upon in this chapter. On an average, between forty and fifty poor women call upon me every month, with midwifery letters for attendance in their confinement; and the result of my inquiries upon the present question has led me to believe, that more than one third of these women have conceived at least once while nursing, and very many of them oftener.*

Mrs. M——, ætat. 30, married six years. Became pregnant three months after her marriage. Having

* The following cases, as well as others, are extracted from my Note Book.

suckled this child for more than two years, became pregnant a second time. This last died in three weeks, and immediately after she proved pregnant for the third time. The third child she brought this morning (being out of health), and assured me that she had not seen any thing since she first conceived, *i. e.* three months after her marriage, and six years from the present time.

Mrs. W——, ætat. 25, married five years. Has not been unwell since she first fell in the family way: is now pregnant with a third child, having hitherto fallen pregnant always whilst nursing.

Many other cases illustrative of this fact I might insert, but these suffice to prove the exception.*

Third exception. — That a female should become pregnant, and yet be unwell during the first three, four, or more months of pregnancy, may appear an extraordinary statement; but it is a fact, that the menstrual discharge sometimes continues in its usual regularity for two, three, or more months after conception, and without any dangerous consequences.

It has been asserted, as an objection, that this

* Mr. Robertson of Manchester inquired minutely into the result of 160 cases, in which he found that eighty-one women had become pregnant once or oftener during suckling.

discharge is not truly menstruation ; but the discussion of that question does not concern us here. We have only to consider, whether there does not frequently, during pregnancy, take place a discharge, so closely resembling menstruation in its periods, quantity, duration, and appearance, that neither the female herself nor her medical adviser shall be able to detect any difference between them ; and of this I have no doubt.

It may occur *once* only after conception, either in diminished quantity or more profuse than usual. It may thus give rise to miscalculation as to the expected time of confinement.

It may continue in its usual regularity for *two or three months*. The following instance of a patient I attended illustrates the fact of its going on to the period of quickening : —

Mrs. R., ætat. 27, married eight years. Was first unwell when eighteen years of age, and continued to be so regularly until she became pregnant, two years from the time of her marriage. She suckled her first child for eleven months ; soon after became unwell, and continued so until she quickened with her second child ; a circumstance which she had not the slightest suspicion of, for there was no

perceptible difference either in the quantity or appearance of the monthly discharge. During the remaining months of gestation she did not see anything; she afterwards suckled her little one for ten months; and then was obliged to wean the child, having an attack of cholera. She continued from this time regular for two years; but meeting with a fall, much to her surprise, two or three days after, miscarried of a four months' child. She is now pregnant again, having been regular every month till she quickened, and expects to be confined, February, 1836.

In this case, then, the female was unwell in two pregnancies till the period of quickening; and in the other for four months, when miscarriage took place from accident.

And, lastly, it may occur through the *whole* period of pregnancy.

Mrs. F., is now pregnant for the third time. In her first pregnancy the monthly returns appeared for three periods, regular as to time, and in quantity and appearance as heretofore. During the second-child bearing, at every month till confinement. During the third—her present pregnancy—for three months only. This patient is always unwell while nursing.

Mrs. J., now in her eighth pregnancy. Was unwell every month throughout the first six pregnancies; but the quantity always slightly diminished.

In the seventh, the same circumstance occurred; but premature labour was this time induced, between the sixth and seventh months, by a fall. During the present pregnancy she has not seen anything. Is always unwell whilst suckling.

Mrs. P., is in her fourth pregnancy. In the first three was unwell, at her regular periods, to the time of confinement. The discharge the same in quantity, but of rather lighter appearance. Has been unwell in her present pregnancy every month up to the present time.*

The following case proves how important it is that this fact should be generally known; for up to a very late period, some medical men have even denied the possibility of this occurrence.

The case I refer to was that of a young lady, privately married, the gradual enlargement of whose abdomen was decided by her medical attendant to arise from dropsy; for, although she had most of the symptoms of pregnancy, and the medical man was aware she had been married eight months, still,

* Dr. Heberden was acquainted with a lady who never ceased to have regular returns of the menses during four pregnancies, quite to the time of her delivery. — *Heberden Commentaries*.

This opinion is confirmed by Gardien, Dewees, Hamilton, Desormeaux, Puzos, &c.

as *she continued to menstruate*, he declared it impossible that she could be pregnant. Tapping was proposed; and, except that her general health suffered much at this time, the operation would have been performed. The delay saved the patient such unfortunate and mistaken treatment—it might have proved fatal in its results—and she shortly gave birth to a living and healthy male child.

Fourth exception. That women late in life have conceived after menstruation had apparently ceased for ever, the following cases prove.

In September, 1834, I was called to the assistance of a female in labour in her 49th year. She had not been pregnant for twelve years, and supposed she had ceased to menstruate two years previous to that time. She did well, and never afterwards saw anything.

Mrs. B., ætat. 39. Has been married eighteen years, commenced to be unwell very early in life. Has had three children; the last pregnancy seven years since. Is now again pregnant, her menses having left her sixteen weeks prior to conception; before which, she had been much dodged, and supposed she had ceased to be unwell for ever.

Other cases of a similar nature are on record.

There can be no doubt they are authentic; but at the same time it must be acknowledged

that a female is not unlikely to be deceived, by the irregularity which attends the returns of this discharge, late in life. It so happens, too, that just before the change of life takes place, there appears in the constitution of some females a great disposition to pregnancy; so that many who have ceased to bear children for years, or have been hitherto barren through the whole of their married existence, at this time, to the surprise of their friends and themselves, become pregnant. *

A knowledge of these facts must be useful,

* "A woman came to me one morning," says Dr. Gooch, "with a note from a medical man, containing the following statement: — The patient's 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. I examined the case, pronounced her pregnant, and seven weeks afterwards she brought forth a child at the full time."

Dr. Montgomery says: "A lady in her forty-third year, who was married to her present husband twenty years ago, remained without any promise of offspring until within the last few months; but, having missed her menstruation in September last, and finding her size increasing, I was requested to see her in January, when she exhibited evident symptoms of

as they will tend to allay apprehension at what might be supposed disease, both by the mother and by the hitherto childless woman.

A female must not forget, however, that she may mistake her condition, and that such mistakes are not at all unlikely to arise from the circumstance that the symptoms which naturally accompany the *cessation* of menstruation, much resemble those of pregnancy. She passes over the menstrual period;—she is struck with this. Other symptoms are soon manifested: the size increases,—the breasts even become swollen and painful,—the stomach disordered, and the appetite capricious;—flatulence collects in the intestines; and whilst on this account the size

pregnancy. She was subsequently delivered of a healthy boy, after a natural labour of about four hours."

Mosse, one of the medical officers of the Dublin Lying-in Hospital in 1775, states, that eighty-four of the women delivered in the Institution under his superintendence were between the ages of forty-one and fifty-four; four of these were in the fifty-first year, and one in her fifty-fourth.

In May, 1816, Mrs. Ashley, wife of John Ashley, grazier, of Frisby, near Spilsby, at the age of fifty-four years was delivered of two female children.

The succession to an estate was disputed in France because the mother was fifty-eight years old when the child was born. The decision was in favour of the fact.

still increases, the air moving about the bowels gives an inward sensation which is mistaken by the female for the plunging of the child. Time alone, or the investigation of the medical attendant, detects the mistake; and the symptoms are then to be easily removed by the exhibition of carminative and purgative medicines, the use of active exercise, and bandaging the distended abdomen.

It must be remembered, also, that *suppression* of the monthly return may arise from a variety of causes, altogether independent of conception. Every female is aware, that exposure to cold, just before the expected period, is a frequent cause. Different forms of disease, hardships, or mental emotions, may produce the same result. It does not follow, therefore, because a woman ceases to menstruate, she *must* be pregnant; which naturally presents this inquiry: what dependence, then, is to be placed upon the omission of menstruation as a symptom or sign of pregnancy?

When a female ceases to be unwell, and experiences other symptoms of pregnancy, she must consider her situation as yet uncertain,

because these signs are common to disease as well as pregnancy. But if towards the third month, while the suppression continues, she recovers her health, and if her appetite and colour return, she needs no better proof of pregnancy; for under other circumstances her health would remain impaired, and even become worse.

SECT. II. — MORNING SICKNESS.

Soon after conception, the stomach often becomes affected with what is called “morning sickness.” On first awaking, the female feels as well as usual; but on rising from her bed qualmishness begins, and perhaps whilst in the act of dressing, retching takes place.

This symptom may occur almost immediately after conception; but it most frequently commences for the first time between two and three weeks after. Now and then it is experienced only the last six weeks or two months of pregnancy, when it is attended, generally, with much

distress and discomfort. And, lastly, it is not unfrequently absent altogether.

It continues, more or less, during the first half of pregnancy, and subsides about the time when the movements of the child begin to be felt.

Irritability of the stomach, however, may arise from a variety of causes totally independent of pregnancy, and connected with disease or disordered function. Of what avail then, it will be asked, is this symptom, as a sign of pregnancy? It is so far available:—

The nausea and vomiting of pregnancy is not accompanied by any other symptom of ill health; but, on the contrary, the patient feels as well as ever in other respects, and perchance takes her meals with as much appetite and relish as formerly; but while doing so, or immediately after, she feels suddenly sick, and has hardly time to retire, when she rejects the whole contents of her stomach, and very shortly after is quite well again. Not so with sickness arising from disease, or disordered condition of the stomach.

SECT. III. — SHOOTING PAINS THROUGH — EN-
LARGEMENT OF — AND OTHER CHANGES OF THE
BREASTS.

When two months of pregnancy have been completed, an uneasy sensation of throbbing and stretching fulness are experienced, accompanied with tingling about the middle of the breast, centering in the nipple. A sensible alteration in their appearance soon follows: they grow larger and more firm. The nipple becomes more prominent, and the circle around its base altered in colour and structure, constituting what is called “the areola.” And as pregnancy advances, milk is secreted.

The period of gestation at which these changes may occur, as well as the degree in which they become manifested, varies very much. Sometimes, with the exception of the secretion of milk, they are recognised very soon after conception; — in other instances, particularly in females of a weakly and delicate constitution, they are hardly perceptible

until pregnancy is far advanced, or even drawing towards its termination.

Enlargement of the Breast.—The changes in the *form* and *size* of the breast may be the result of causes unconnected with pregnancy. They may enlarge in consequence of marriage, from the individual becoming stout and fat, or from accidental suppression of the monthly return. There are, however, these differences: enlargement from pregnancy may in general be distinguished from that produced merely from fat, by the greater firmness of the breast, and its knotty uneven feel,—it is heavier; and the tension and enlargement from suppressed menstruation, by its subsiding in two or three days, whereas that caused by pregnancy continues to increase. Nevertheless, the dependence which may be placed upon the enlargement of the breast only, as an evidence of pregnancy, is not very great, and, considered alone, but a doubtful sign.

The Nipple.—Not so the changes which take place in the nipple, and around its base. These alterations, if present, are of the utmost value, as an evidence of pregnancy. The changes referred to are these:—

About the sixth or seventh week after conception has taken place, if the nipple be examined, it will be found becoming turgid and prominent, and a circle forming around its base, of a colour deeper in its shade than rose or flesh colour, slightly tinged with a yellowish or brownish hue, and here and there upon its surface will be seen little prominent points, from about ten to twenty in number. In the progress of the next six or seven weeks, these changes are fully developed; the nipple being more prominent and turgid than ever; the circle around it of larger dimensions, of an extent of about an inch or an inch and a half; the skin being soft, bedewed with a slight degree of moisture, frequently staining the linen in contact with it; the little prominences of larger size, from the sixteenth to the twelfth of an inch perhaps; and the colour of the whole very much deepened, but always modified by the complexion of the individual, being darker in persons with black hair, dark eyes, and sallow skins, than in those of fair hair, light-coloured eyes, and delicate complexions.

Such are the essential characteristics of the

true areola, the result of pregnancy, and, I believe, of that condition only.

This, then, is a most valuable sign; but, unfortunately, it is frequently absent; and how often it is present, although I have examined many hundred cases for it, I cannot determine, as unfortunately no note was made upon this point. It should, also, be observed, that, both in dark and fair women, the change of colour, without the other appearances, may be present, and yet pregnancy exist; and I have also seen frequently the dark circle alone, where pregnancy did not exist; but I never saw an instance where these prominences were truly developed, without the presence of pregnancy.

This fact has been more particularly noticed of late years by an eminent physician-accoucheur, and the attention of the author has, in consequence, been much directed to it; and, as a striking illustration of its truth, he may mention, that called upon very recently to visit one of the Institution patients the third day after her delivery, and having occasion to examine the breast, I pointed out to the gentleman in attendance the presence of these little prominences around

the base of the nipple; upon which the patient, to my great surprise, immediately observed, "Ah, sir, I always know when I am pregnant by them, for they appear about ten days or a fortnight after its occurrence, and subsequent to delivery diminish gradually, as my milk leaves me."

It has occurred to me during the past year to be consulted in five cases of doubtful pregnancy. In *two* of them, circumstances forbade the probability of its occurrence; but in both the true areola was distinctly and fully developed. It decided my opinion; and the result proved its correctness: both became mothers. *Two others* had made themselves patients of the Lying-in Institution, having obtained letters for attendance from governors of the charity, and upon which was marked, by their own calculation, the month of their expected confinement. But I was led to believe, from observing two or three symptoms, that pregnancy did not exist.

Their cases were examined, and at last the breast: in both the true areola was wanting; the review of symptoms decided all doubts. Had, however, the true areola been present in

either, it would at once have reversed, instead of confirming, my first suspicions.

The *fifth* was pregnant, but the true areola wanting; and I was obliged to refer to those signs which can alone be recognised by a medical man.

The absence, then, of this sign, except in combination with other circumstances, proves nothing; but, if present, I believe it conclusive.

The Presence of Milk. — With regard to the presence of milk in the breasts, as this is a symptom which may arise, and does very generally, in the latter months of gestation alone, when the existence of pregnancy has been long determined, it is only mentioned here to refute the popular error, “that the presence of milk in the breasts is an infallible proof of pregnancy.” It is no such thing; and many well-recorded instances could be brought forward to prove the possibility of its formation under circumstances totally independent of pregnancy.

Belloc speaks of a servant girl, who being obliged to have sleeping with her an infant who was being weaned, and which by its crying disturbed her rest, bethought her of giving it her

breast to appease its clamour ; and the result was that in a short time she had milk enough to satisfy the child.*

The following case is related by Mr. George Semple. Mrs. B., wife of John Breward, Simpson Green, near Idle, aged forty-nine, the mother of nine children, the youngest of whom is twelve years old, lost a daughter-in-law about a year ago, who died in about a fortnight after giving birth to her first child. On her death, Mrs. B. took charge of the infant, a little puny, sickly baby. The child was so fretful and uneasy, that Mrs. B., after many sleepless nights, was induced to permit the child to take her nipple into its mouth. In the course of from thirty to thirty-six hours she felt very unwell ; her breasts became extremely painful, considerably increased in size, and soon after, to her utter astonishment, milk was secreted, and poured forth in the same abundance as on former occasions, after the birth of her own children. The child, now a year old, is a fine, thriving, healthy girl, and only a few days ago I saw her eagerly engaged

* Cours de Méd. Légale, p. 52.

in obtaining an apparently abundant supply of healthy nourishment, from the same fountain which, nearly twenty years ago, poured forth its resources for the support of her father." *

* North of Engl. Med. and Surg. Journ. vol. i. p. 230.

That the presence of milk in the female breast shall take place independent of pregnancy, from the above, and other recorded facts, there can be no doubt; but the following beautiful exemplification of its formation in that of the *male*, places the question in a still stronger light. This interesting fact is cited from Captain Franklin's narrative of his journey to the shores of the Polar Sea.

"A young Chipewyan had separated from the rest of his band, for the purpose of trenching beaver, when his wife, who was his sole companion, and in her first pregnancy, was seized with the pains of labour. She died on the third day, after she had given birth to a boy. The husband was inconsolable, and vowed in his anguish, never to take another woman to wife; but his grief was soon in some degree absorbed in anxiety for the fate of his infant son. To preserve its life he descended to the office of a nurse, so degrading in the eyes of a Chipewyan, as partaking of the duties of a woman. He swaddled it in soft moss, fed it with broth made from the flesh of the deer; and to still its cries, applied it to his breast, praying earnestly to the Great Master of Life to assist his endeavours. The force of the powerful passion by which he was actuated produced the same effect in his case as it has done in some others which are recorded: a flow of milk actually took place from his breast. He succeeded in rearing his child, taught him to be a hunter, and, when he attained the age of manhood, chose him a wife from the tribe. The old man kept his vow in never taking a wife for himself, but he delighted in tending his son's children;

SECT. IV. — QUICKENING.

There is only one other symptom which I think it useful to notice, i. e. quickening; by which is meant, the first sensation experienced by the mother of the *life* of the child within her womb.

The first time this motion of the child occurs, the sensation is like that of the fluttering of a bird within her, and so sudden that she frequently faints, or falls into an hysterical paroxysm. A day or two passes by when it recurs. It afterwards increases both in frequency and

and when his daughter-in-law used to interfere, saying, that it was not the occupation of a man, he was wont to reply, that he had promised the Great Master of Life, if his child was spared, never to be proud like the other Indians. Our informant, Mr. Wenkel (one of the Association), added, that he had often seen this Indian in his old age, and that his left breast, even then, retained the unusual size it had acquired in his occupation of nurse." p. 157.

Man possesses the same organization as women for secreting and conveying milk, which enables us readily both to understand and believe in the truth of the foregoing singular statement.

degree, until the movements of the child are fully recognised.

It is proper that a female should be informed that the *period*, when quickening takes place, is very uncertain; for an impression is popularly prevalent that it always occurs *exactly* at the end of four calendar months and a half. This is not the case; it varies in different women, and in the same women during different pregnancies, as the following one or two instances will prove.

Mrs. F., Quickened with her first child at four months; quickened with the second, at fourteen weeks; and is now in her third pregnancy, and reckons from the fourteenth week again.

Mrs. B., Has had seven children, and with all felt the motion of the child for the first time at the third month.

Mrs. Mc M., Has been several times pregnant; seldom feels the movements of the child at all until the sixth month, and not strongly till the eighth.

The annexed table of the periods of quickening of 70 cases taken in the order in which they have been entered in the author's note book, will forcibly stamp the truth of these opinions: —

9	Quickened at the 3rd month.
11	Quickened at $3\frac{1}{2}$ months.
21	Quickened at the 4th month.
16	Quickened at $4\frac{1}{2}$ months.
8	Quickened at the 5th month.
1	Quickened at $5\frac{1}{2}$ months.
4	Quickened at the 6th month.

70

In a few of these cases, for the sake of convenience, I have used round numbers, when two or three days before and after was the exact time; and for the sake of correctness, have omitted several cases, in which there was the slightest doubt in the patient's mind of the exact time.

It appears from this table, that this symptom takes place more frequently between the 12th and 16th week, than before or after these periods; and that subsequent to the $4\frac{1}{2}$ and the expiration of the 6th month, it may occur in the proportion of more than one case out of every five.—Before the 3rd month, quickening seldom arises.

This symptom may not be felt by the mother at all, and yet pregnancy exist. This is rare, but the fact is confirmed by many writers; and I have met during the last seven years with two

instances, and in both the mothers gave birth to living and healthy children.

Now comes the question, how far this symptom is of value, as a sign of the pregnant state?

If it has been experienced in former pregnancies, it is invaluable, for I believe it is not to be mistaken. If it is a first pregnancy and doubtful, it removes all obscurity, provided the sensation grows stronger and stronger, until the movements of the child are distinctly felt.

Four only of the symptoms of pregnancy have been noticed, because the remainder are not recognisable, except by the accoucheur, although to him of the greatest value when pregnancy is complicated and doubtful from the presence of disease.

The nature of these symptoms have been described as plainly, and yet as briefly, as possible, because of the importance of their being clearly understood by the married woman.

I have also endeavoured to point out their real value as evidences of pregnancy—how they are sometimes absent in patients who are pregnant, and some of them present in those who

are not so — because of the doubt and obscurity which arises from these variations.

And lastly, in bringing these observations to a conclusion, I venture to say, that if the married female will only take the trouble to make herself familiar with this little detail, she will not regret the time as lost or misspent, because it will generally guide her right, and I trust save her many moments of anxiety and discomfort.

CHAPTER III.

OF THE DISEASES OF PREGNANCY, AND HINTS
FOR THEIR PREVENTION AND RELIEF.

IN describing the diseases which are incident to the whole period of pregnancy, my design is to take a general popular survey of the subject. I wish simply to communicate that kind of information, which every married and well-educated woman should certainly possess, and can usefully employ. To advance farther than this, to those points upon which the assistance of the medical adviser ought to be sought, would be on every account improper, and productive rather of evil than of good.

There is no organ in the body, with the exception of the stomach, that exercises a more extensive control over the female system than the womb. Hence, when in the condition of pregnancy, it affects, directly or indirectly, various

parts of that system. The effects of pregnancy, however, vary much according to the constitution of the female.

Sometimes a very salutary change is produced, so that the individual enjoys better health during gestation than before. The delicate and frequent ailing girl, for instance, — the propriety of whose marrying was a matter of doubt among her friends, — becoming pregnant, instead of realising the apprehensions and fears of those most dear to her, will, sometimes, acquire new life and vigour from the altered circumstances of her condition. On the other hand, speaking generally, it is sometimes the case that harassing and painful symptoms will arise. These are designated the “diseases of pregnancy.”

SECT. I. — MORNING SICKNESS.

Nausea, or vomiting, is one of the most common and distressing affections of pregnancy. It is chiefly troublesome in the earlier months

of gestation, continuing until the period of quickening, when it decreases or ceases spontaneously ; — or, it does not occur until the latter months of pregnancy, when it subsides only upon delivery. I shall consider these states separately ; and, —

First, of sickness during the *earlier* months. This arises solely from sympathy with the newly commenced action, and irritable condition of the womb. This is evident from the fact, that, as the novelty of the pregnant state ceases, and the stomach becomes accustomed to it, the sickness subsides gradually, and is rarely troublesome afterwards.

It occasionally commences immediately after conception ; and it is a remarkable fact, that a pregnant woman scarcely ever feels sick, until she first gets upon her feet in the morning. Hence it is called the “morning sickness.” She awakes refreshed and well, arises from her bed, and whilst dressing begins to feel qualmish. At the breakfast table she has no appetite, or if she takes anything, is shortly obliged to leave for her dressing-room, where she returns what she has taken ; — or, if she has been unable to

take anything, ejects a fluid, limpid, thin, and watery; and if the vomiting increases in severity, bile is thrown up at the same time. After the lapse of three or four hours, she feels quite well again, and by dinner time sits down with an appetite to her meal.

If there is merely nausea or vomiting *without the presence of bile*, it is evident that it arises solely from irritability of the stomach, and is not connected with a disordered condition of the digestive organs, which latter circumstance is not unfrequently the case. The best means that can be employed to relieve this irritable state will be found in a draught taken twice a day for several days, composed of 15 grains of magnesia, one drachm of tincture of columba, and an ounce and a half of distilled peppermint-water.

Medicine sometimes is hardly called for; and I have known a tumbler of warm chamomile tea, or even warm water only, taken immediately nausea was felt, by inducing immediate vomiting, tranquillise the disturbed stomach, and thus abridge the morning attack. It is sometimes attended with advantage to take the chamomile tea

before the female rises from her bed. I advised this with the most marked success very lately in the case of a lady who was very much reduced by the morning sickness. It had continued for several weeks, and with so much violence and straining, as to cause blood to be ejected with the fluid. In less than one week, when all other means had previously failed, the above suggestion was successful.

It frequently happens that the acidity is very great, in which case 15 or 20 grains of magnesia should be taken in a wine glass of milk,—or, if it is preferred, a small tumbler of soda water; but the latter must not be persevered in for any great length of time, as it will then become injurious. The presence of acidity, however, is sometimes so difficult to overcome by alkalies, that these medicines must be given up, and acid remedies employed. Lemonade may first be taken, but lemon-juice and water is still better.

The state of the bowels must not be forgotten, and if any of the latter remedies are resorted to, the most marked benefit will be derived from a gentle dose of Epsom or Cheltenham salts every second morning, if so often necessary.

The diet in such a case must also be carefully attended to; but as this point will be referred to more particularly presently, it is only necessary now to say that the quantity of food taken must bear some proportion to the slightly diminished powers of the digestive functions, and that it will be well, when the sickness is very obstinate and distressing, to take no food at all for several hours after rising. If after a few hours the mouth is much parched, it may be moistened with a little broth, or weak beef-tea; but let nothing more be taken for five or six hours, and it is most probable that the sickness, which has resisted all other means, will thus be relieved.

If this irritable state of the stomach is connected with a *disordered condition* of the *digestive organs*, the sickness will be accompanied with the presence of bile in the matter vomited, a furred tongue, confined or irregular action of the bowels, and occasionally with what is termed "a sick headach." These symptoms are to be relieved by medicines which thoroughly clear out the bowels, allay the irritability of the stomach, and afterwards by those which restore

tone to both. But it is to be observed that the following directions are only intended to apply to those simple cases, in which, whether necessary or not, no one ever thinks of consulting their medical adviser, and for which it is certainly desirable that they should have some judicious directions, rather than be left entirely without them.—If these symptoms become at all aggravated, it is requisite that they should make immediate application for professional advice.

The bowels will need in the first instance a draught composed of infusion of senna and Epsom salts — the common “black draught” — with half a drachm of the tincture of henbane in addition. This, with five grains of blue pill, most probably effects the object desired: the bowels will be well purged, and the tongue become clean.

The next thing is to allay the irritability of the stomach, which is to be accomplished by the means already pointed out—the effervescing draught of soda, magnesia, chamomile tea, etc.; but in connexion with this, two or three grains of the purified extract of aloes, with an equal

quantity of the extract of henbane, must be taken two or three times a week, at bed-time. This will keep the tongue still clean, and the bowels in order.

After a little time, the sickness having subsided, tonic medicines may be taken; and a fourth part of the following mixture, taken three times a day, will, under the present circumstances, be the best means of restoring the tone of the stomach and bowels:—sulphate of quinine, six grains; diluted sulphuric acid, half a drachm; infusion of columba, five ounces and a half; simple syrup, half an ounce.

Having pointed out the means for mitigating sickness in the early months, there only remains one additional suggestion to make, and it is, that all the remedies for relief detailed may, in some case, fail. The sickness continues most obstinate; every time the female takes food, or even sometimes when abstaining from it, she vomits; and at last, from this excessive irritability and long-continued violent action of the stomach, symptoms threatening miscarriage will manifest themselves. There is generally in such a case pain and a sensation of tension

about the pit of the stomach, increased after every attack of sickness. If symptoms of miscarriage are not present, the application of nine or twelve leeches to the stomach, and pieces of soft linen rag well soaked with laudanum, constantly applied and renewed, will give the most decided relief. If, however, there is pain in the loins and hips, increasing in frequency and power, becoming at last slightly bearing down, I strongly advise the patient to consult her medical adviser, as the loss of a little blood from the arm, perfect rest in the recumbent position, and other directions which he alone can give, will in such a case be absolutely necessary, and I may add, if perseveringly acted up to by the patient herself, be certainly followed with success.

Secondly, of sickness coming on at the *conclusion* of pregnancy.

This arises from the distended state of the womb affecting mechanically, by its pressure, the coats of the stomach, and certain parts in its neighbourhood.

This form of vomiting but rarely occurs ; for do not let me be supposed to refer to the sickness which sometimes immediately precedes, and

generally accompanies, the early part of labour. I am speaking of that irritability of the stomach which may arise about the sixth, seventh, or eighth month, and from which the female has been entirely free during the previous months of gestation, and now producing vomiting of an exceedingly troublesome form.

A lady suffering from sickness thus late in pregnancy ought to seek medical advice at once. From this cause, if severe, premature labour might be brought on, and judicious medical treatment is always decidedly necessary to mitigate this form of sickness. The patient must lose a little blood, she must keep strictly to her sofa, and the bowels ought to be gently acted upon by small doses of Cheltenham or Epsom salts. A grain of the extract of opium may be given to allay the irritability at night, and cloths dipped in laudanum frequently applied to the pit of the stomach.

In all forms of sickness arising from pregnancy as its cause, the diet must be light, mild, and nutritious, taken in moderate quantities of three or four meals a day. It should consist of mild animal food, boiled or roasted. Chicken,

white game boiled, mutton or beef roasted, are the viands most nutritious and easily digested. Stale pure bread untoasted, or captain's biscuit, mealy potatoes, or well boiled rice, in moderate quantities, may be taken with animal food for dinner. A glass of port wine with warm water, at the conclusion of the meal, is the best kind of beverage.

Advantage has often been derived from always taking brown bread, and Jamaica sugar in the morning's coffee. The healthy operation of the bowels has been thus promoted; although a system of regular walking exercise, apportioned to the strength, and short of fatigue, will generally effect this purpose, while at the same time it gives tone to the general health. Fatigue of body is sedulously to be avoided. Slow and moderate walks, exercise in an open carriage or on horseback (if the patient has sufficient strength), should be daily obtained between breakfast and dinner; always avoiding to sit down to the latter meal tired, and therefore, probably, with a blunted appetite.

SECT. II. — HEARTBURN.

This is a very distressing symptom, and occurs early after conception; sometimes, however, not till after the fourth month; and occasionally is absent altogether. It is produced by an acid forming in the stomach, which rises into the throat, and, from the sensation it occasions, is called *heartburn*.

It is a very common complaint of pregnancy; and every female knows that she finds relief by taking a little magnesia, or chalk, or lime-water and milk, with the occasional use of magnesia; but although these means generally mitigate this symptom, occasionally it is very severe, and almost intractable, and they fail. Under such circumstances, a draught composed of 15 grains of magnesia, 10 drops of the solution of the subcarbonate of ammonia, and $1\frac{1}{2}$ ounce of mint or peppermint water, taken three times a day, and continued for three or four days, will remove the complaint.

If the bowels are confined, as is frequently the case, mild doses of Epsom or Cheltenham

salts will be the best aperients. The use of these must be regulated by circumstances, — taken every second, third, or fourth day; that is, resorted to with sufficient frequency and perseverance to guard against costiveness.

The *diet* must also in every case be strictly attended to, regulated upon the plan already stated.

SECT. III. — COSTIVENESS.

A costive state of bowels is one of the most common, and, at the same time, troublesome, of the diseases of pregnancy. It arises partly from the increased activity which is going on in the womb, and which induces a sluggish condition of the bowels, and partly from the pressure of the now enlarged and expanded womb on the bowels themselves.

A confined state of bowels is the frequent source of many and serious evils; it therefore behoves the female to be vigilant, and guard against it.

First,—Because, as before stated, pregnancy itself predisposes to constipation.

Secondly,—Because it is much more easily prevented than removed, when, after several days' confinement, an accumulation of hardened fæces has collected in the lower bowel.

Thirdly,—Because such an accumulation may give rise to inflammation of the bowel itself, and, in the earlier months of pregnancy, to miscarriage: and,

Lastly,—Because, if a female falls into labour with her intestinal canal so loaded, it will of itself be sufficient to render, what would otherwise have been a quick, easy, and safe labour, a long, painful, and difficult one; and may be the cause also of very serious and alarming symptoms, some forty or eight and forty hours after her labour is over.

The first and leading symptom of this affection is a costive or more consistent state than usual of the fæcal excretions, with a less frequent call for evacuation than is customary with the individual when in health. If this is not attended to, and several days, perhaps a week, pass by without the bowels being relieved

at all, pain in the head, a foul tongue, and an increased degree of fulness and tension of the abdomen are experienced. These symptoms are followed, in all probability, by thin watery evacuations, attended with pain, weight, and pressure about the lower bowel: they become frequent; and the female at last, finding that the bowels are not only open again, but even loose, takes chalk mixture. She is not aware that this very looseness is nothing more than increased secretion of the lining membrane of the bowel, caused by the pressure of the accumulated mass of hardened fæces, which it passes and leaves unmoved. The chalk mixture relieves the irritation upon which the looseness depends, but the disease is not removed, and, instead of its being a case simply of costiveness, it has now become one of constipation; an accumulation of hardened stool is distending and irritating, by its pressure, the lower bowel and the womb, and the serious consequences before enumerated may follow.

Very often have I been consulted by a female far advanced in pregnancy, for what she has supposed mere looseness of bowels, which has

readily been found to originate under circumstances like these. It is of the highest importance that the patient should endeavour to guard against such a result; and without doubt she may avoid it, and regulate her bowels with great comfort to herself, throughout the whole period of pregnancy, if she will only use the means.

In pointing out a plan to accomplish this desirable object, the first prescription I have to offer is by far the most valuable,—“prevention is more easy than cure.” If the bowels are sluggish to-day,—that is to say, if they are not as freely relieved as usual,—and you do not assist them by medicine, depend upon it, to-morrow they will be confined, and there will be no relief at all. If, then, the bowels are *disposed* to be costive, I would recommend one large table-spoonful of castor oil—if it does not nauseate the stomach,—and advise that the dose be repeated in four hours, if the desired effect has not been produced;—or, a wine-glass of beaume de vie at night; and early the next morning, before leaving the dressing-room, let the lavement be used, the injection consisting

merely of a pint of blood-warm water;—or, the following pills will be found useful to be kept in the patient's bedroom:—Two scruples of the compound extract of colocynth and one of the extract of henbane, divided into twelve pills. Two or three of these may be taken at bedtime, when the bowels have not been, during the day, satisfactorily relieved. These are always ready in the bedroom, and as they generally answer the object efficiently, and with comfort to the patient, are the most convenient form of aperient.

It will now and then happen, however, that the female has let the day slip. When this is the case, in combination with medicine, the use of the lavement is desirable. Medicine alone will not answer the purpose, unless it be taken in doses so strong as will not only move the bowels but irritate them too. With the exhibition of the warm water, mild aperients never fail. Females, generally, are averse to the use of the lavement, and it is a prejudice which is most deeply to be regretted. I have known purgative medicines so often resorted to, and, in time, so increased in power and quantity,

because they began to lose their effect, that, by their continued irritation, disease of the lower bowel has been produced, and death has at last been the consequence. If, then, the bowels have been one or two days confined, the lavement in the morning will render much less medicine necessary, and frequently have an effect when medicine alone would not. Many ladies use the warm water every second or third morning, during the latter weeks of pregnancy; and by this means they regulate their bowels — which would otherwise be confined — with great comfort to themselves, and need no medicine at all.

I will add only one word, in conclusion, upon this subject. Let it be remembered, that if the bowels have been confined several days, and diarrhœa comes on, that this is not a natural relief, but the effect of irritation, caused by the presence of a loaded state of the lower bowel, which must be quickly removed by the medical attendant, or it may give rise to some one of those serious evils already enumerated.

SECT. IV. — DIARRHŒA.

An affection the very opposite to that which has just been discussed, may occur during pregnancy. We have seen how diarrhœa may arise as a symptom of costiveness. It will manifest itself, however, independently of such a cause. The intestines may participate in the irritability of the womb, and, their vermicular action becoming morbidly increased, diarrhœa is the consequence. It is a disease which varies very much in different individuals, and may clearly be divided into two kinds.

One, in which the motions are more loose and frequent than in health, but not otherwise much altered in their appearance. The tongue is clean, or only slightly white, and the appetite is pretty good. No medicine is required here; a careful diet will correct the evil.

In the other case, the stools are liquid, dark-coloured, and very offensive, accompanied with a coated tongue, bad taste, offensive breath, loss of appetite, and more or less disorder of the digestive organs. In these latter circumstances,

I have found at first the following draught, given every three or four hours, very useful : — rhubarb, eight grains ; ipecacuanha, one grain ; dill-water, one ounce.

As the tongue cleans, and the stools become more natural, a wine-glass, three times a day, of some bitter infusion, such as cascarilla, orange-peel, or gentian, may be taken with advantage. If the diarrhœa continues for any length of time, it is always wise to have the surface of the body kept warm with flannel ; and this is best accomplished by a flannel roller bound gently round the abdomen.

But in either form of this disease, whatever remedies are proposed, there is one mode of treatment applicable to both, and which is the most important of all ; a proper system of *diet*. The food must be sparing in quantity, of the mildest quality, and such as to leave, after the process of digestion, as little excrementitious matter as possible.

In a recent attack, the *first* day, the patient should only take mild drinks, containing a small quantity of unirritating nutriment ; such as barley-water, or arrow-root made with water.

During the *next* day or *two* the same diet must be continued, but may be given in larger quantity, and of greater strength. Tapioca, sago, and rice-gruel, might be added to the list. When the irritation is somewhat allayed, on the *third* or *fourth* day, perhaps broth may be taken; but no solid food of any kind, least of all solid animal food, until the disease is removed or greatly allayed. As soon as this is the case, a small quantity of the lightest animal food may be taken; chicken with well-boiled rice, white game boiled, roast mutton and beef may follow; but lamb and veal, for the future, should be avoided.

It may be observed, that in some cases, where the diarrhœa has been of long standing, a *drier* diet is best, the liquid food appearing to keep up the disease. Rice well boiled, and merely moistened with a little broth, is the best and one of the most desirable articles of diet in such cases.

SECT. V. — PILES.

Pregnant women are very subject to piles. Both with costiveness and diarrhœa they are a frequent attendant, but particularly with the former. They will usually disappear, if they are slight, as soon as the bowels are restored to healthy action; but they may not, and then will give rise to great suffering.

The pregnant woman recognises piles under two forms: i. Where they exist as little tumours within or without the bowel, becoming, very soon after their exclusion, more solid and firm, unless they early break and bleed; and, ii. Where they present, without the bowel, a tumour, large in circumference, separable in lobes, altogether like a piece of sponge coloured, and bleeding occasionally from the surface.

Of all the *causes* which operate in the production of piles, habitual constipation is the most frequent. The excrementitious matter is delayed in the bowel, becomes hard and knotty, and a source of great irritation: this irritation induces a determination of blood to the part,

and the gradual dilatation of its vessels takes place as a consequence, which eventually forms the tumours known under the appellation of *piles*. Now, as in pregnancy there is a greater disposition to costiveness than at any other time, and as piles are a consequence of this disordered function, so this disease is much more prevalent during the pregnant state than at any other period; another argument, and a very powerful one, why costiveness should be diligently guarded against.

The *symptoms* of this complaint are well known. There will be weight, heat, and a sense of fulness about the lower bowel, a frequent desire both to relieve the bowels and bladder; all of which symptoms are removed for a time if a discharge of blood takes place.

If the piles be without the bowel, they are constantly irritated by the friction of the parts in the ordinary motion and erect position of the body, and that to a painful degree during the period of the evacuation of the bowels. If exercise be taken in a carriage, the pain is much aggravated; and if the irritation produce inflammation, the piles will become swollen, red or purple, and excessively painful.

The *treatment* of this disease, when it occurs during pregnancy, is two-fold—general and local. We must remove the *cause* by such means as excite a brisker action of the bowels; and our choice of aperients must be directed to those which act efficiently but mildly, and without irritating the lower bowel itself. Next to small and repeated doses of castor oil—say a tablespoonful,—the most desirable form of aperient that can be employed is the confection of senna i.e. lenitive electuary, combined with sulphur and magnesia. Of the following form, a dessert spoonful or more should be taken, at first, twice daily:—Confection of senna, two ounces; flowers of sulphur, one ounce; carbonate of magnesia, two drachms and a half. In conjunction with this medicine, much benefit may be derived by the injection of half a pint of warm or cold water—whichever soothes most,—as a lavement; but it must be administered very cautiously, to avoid irritating the parts with the pipe of the instrument.

It is important that medicine, in frequent use, should be so taken as to act upon the bowels in the evening only; for if the bowels are

acted upon in the morning, the patient, being obliged to move about all day, will suffer considerable distress and local irritation; whereas, if the bowels are not evacuated till the evening, the horizontal position, and the perfect rest of a long night, will obviate all inconvenience.

Great assistance may be afforded in the cure, and also in alleviating pain, by external applications to the tumours themselves. If, however, the piles are swollen and inflamed, and the pain experienced great, half a dozen leeches, or from half a dozen to a dozen, should be first applied in their immediate neighbourhood, the parts fomented, and then warm bread and water poultices renewed every three hours.

These remedies will afford very considerable relief; and, when the inflamed state is subdued, an ointment must be applied to the tumours and around them, night and morning, composed of two drachms of powdered galls, half a drachm of camphor, and two ounces of lard; or composed of one drachm of powdered black hellebore root, rubbed down in one ounce of lard. The latter preparation will, for some time after its application, give much pain, but proportionate relief will follow.

The *diet* must be sparing in quantity, mild in quality, and such as to leave, after its digestion, as little to pass through the bowels as possible.

I would beg attention to one more observation on this subject. The removal of piles by operation, during the pregnant state, is perhaps never justifiable. Let the patient, therefore, consult her medical attendant in time, and not by a false delicacy expose herself to an evil which it is her duty to endeavour to prevent.

SECT. VI. — ENLARGEMENT OF THE VEINS OF
THE LEGS.

This is a frequent, but not very troublesome, accompaniment of the latter months of pregnancy. It arises in some degree from the pressure of the womb upon the large venous trunks, impeding to a certain extent the free flow of blood through them. It is frequently remarked in pregnant women who have passed a certain age; but it is particularly unusual for

it to happen, in the case of young women, even during a series of repeated pregnancies.

When first observed, *if the veins have not become knotty*, — that is having little lumps or swellings in their course up the leg, — the only means which it is necessary to employ, is the application of a calico bandage, — six yards in length, and as wide as three fingers — from the sole of the foot up to the knee, and sufficiently firm to give support to the venous trunks. This bandage well and equally applied to the limb, with a little aperient medicine twice a week, and the recumbent position for two or three hours in the middle of the day, will cure this form of the affection.

When after a time the *veins more and more distended, have become lengthened, tortuous, coiled up or knotty*, the female begins to experience a sense of heaviness, numbness, and sometimes very acute wandering pain, through the whole of the affected limb. In a more advanced stage, in proportion as the knotty tumours increase, the limb becomes generally swollen.

This form of the disease calls for much care and patience on the part of the sufferer. The

legs should be strapped, from ankle to knee, with strips of adhesive plaster, and over this a calico bandage must be applied with a moderate degree of tightness, and kept wet with goulard water. In conjunction with these local applications, it is sometimes wise to lose a few ounces of blood from the arm, and always necessary to take every other night a gentle aperient, to live upon a spare diet, and for some days to keep the horizontal posture. An elastic laced stocking made for the purpose may be afterwards worn, and will be found at once a sufficient support to the limb, and a source of great comfort to the wearer.

SECT. VII. — SWELLING OF THE FEET AND
LEGS.

In the course of pregnancy, during the latter months particularly, the feet and legs frequently become much enlarged. It is partly owing to the pressure of the womb, but sometimes apparently independent of it. It is first observed

towards night, about the ankles ; by degrees the swelling rises higher, and the legs may become of a very large size. The female suffering from this complaint, always goes to bed with legs much swollen, but towards morning her face swells, and the enlargement of the legs disappears to a greater or less extent, returning, however, as the day advances.

Sometimes this disease is very trifling in its character, and in ordinary cases, except aperients, no medicine is necessary, and support may be given by a well applied flannel roller ; but when the swelling is extensive and permanent, remaining in the same degree after the patient has been for several hours in bed, and connected with uncomfortable sensations in the head, an accelerated pulse, etc. ; a medical man ought to be consulted, for the consequences might otherwise be dangerous.

SECT. VIII. — TOOTHACH.

This may appear a trifling disease, to notice in connection with the subject before us ; but,

in the course of pregnancy, females will sometimes suffer severely from erratic pains in the face and teeth. As these pains are generally induced by the increased irritability of the nervous system, the result of the new action which is going on in the womb, and not from the decay of any particular tooth, extraction of any tooth for its cure is out of the question. Indeed, did the suffering arise from a carious tooth, its removal is unadvisable, inasmuch as this operation has been immediately followed by a miscarriage. The fact is, that the patients who have consulted me while suffering from this affection, have had, apparently, in most cases, very sound teeth; and, feeling confident that its cause has been what has been before pointed out, the treatment has been purely constitutional. The following pill may be taken, night and morning:—Socrotrine aloes, one grain and a half; blue pill, two grains;—together with one drachm of the rust, or carbonate of iron, mixed with treacle or milk. The latter must be repeated twice a day, for four days, and then a third dose may be added in the middle of the day; and the remedy con-

tinued, even after all uneasiness in the face has subsided for some time, with great advantage to the general health.

The only local application I would advise, is that of washing out the mouth and teeth, night and morning, with salt and cold, or lukewarm, water. This plan of treatment not only relieves the painful affection of the face and teeth, but allays also that local irritability of the nerves, upon which it depended.

If a carious tooth seems alone affected, it has been proposed carefully to apply a drop or two of nitric acid, which is said to be infallible.

SECT. IX. — SALIVATION.

A pregnant female must not be surprised, if, some little time after conception, or during any of the months of gestation, the ordinary quantity of saliva, which lubricates and keeps the mouth constantly moist, should increase to such an extent as to be exceedingly troublesome; and, indeed, sometimes become so excessive, as se-

riously to affect her health. It is a symptom of pregnancy, but a very unusual one; although the quantity of saliva discharged has now and then exceeded three, and even four, pints daily.

It differs essentially from the salivation produced by the exhibition of mercury, inasmuch as in this case, there is no tenderness of the gums, or disagreeable fœtor in the breath. The fluid itself is either perfectly colourless and transparent, or more tenacious and frothy. It has an unpleasant taste, and, when tenacious, induces vomiting. It is generally accompanied with acidity; and the plan of *treatment* most advisable, when the disease is moderate in its character, is the frequent use of from 20 to 30 grains of magnesia, say every morning, rinsing the mouth out very often with lime-water, and to resist the desire to discharge the saliva from the mouth as much as possible, for, if it is not very great in quantity, it may be swallowed with advantage. Should this symptom, however, be very excessive, the health will suffer considerably in consequence, and the assistance of the medical man is imperatively called for.

SECT. X.—A PAINFUL AND DISTENDED CONDITION OF THE BREASTS.

Pain and tension of the breasts frequently attend, as also they are natural consequences of, conception.

In a first pregnancy, a large and rapid development of this organ may take place, the breast becoming two or three times as large as before marriage; but if tight lacing be only avoided, and the breasts be permitted to expand, no material inconvenience will arise from this circumstance.

As, however, these symptoms are sometimes attended with considerable distress, I would advise, under such circumstances, the application of half a dozen leeches, or more, tepid fomentations, and a gentle aperient — two drachms of Epsom salts, in a little peppermint water — night and morning. These means, by relieving the over distension and fulness of the vessels of the part, remove the cause and complaint at once.

If these symptoms occur to a female who may have been several times pregnant, and for-

merly has had an abscess in one or other breast, that bosom is generally most painful which was before affected, and there will be an increased hardness about it, which may give rise, perhaps, to the apprehension of an abscess again forming, or, what is much worse, to the disease terminating in cancer. Both these fears are groundless: and, if she will only use fomentations, gentle friction frequently during the day, with almond oil and laudanum—about a drachm of the latter, to an ounce of the oil, warm,—and exercise patience, every thing will do very well.

Nature often seeks her own cure, and a colourless, thin fluid runs from the nipple, which relieves the symptoms.

SECT. XI.—CRAMP, AND PAINS IN THE LEGS, ETC.

Some females, during the latter months of pregnancy, suffer dreadfully from cramp and pain in the legs, and about the sides and lower part of the stomach. This symptom arises from the pressure of the womb, upon certain

nerves in its neighbourhood, which proceed to the extremities.

If the cramp be seated in the muscles of the legs, a hard, knotty induration is perceivable to the touch, accompanied with great soreness, the latter continuing for a long time after the lump has disappeared. An uneasy position of the muscles is a sufficient cause of irritation, to produce it, and it is frequently removed, by simply rising from the bed or sofa, and walking the room, so as to put the muscles of the leg into action. If this does not succeed, warm friction with the naked hand, or with camphorated oil, generally will.

If spasm affect the sides, or lower part of the stomach, the speediest relief will be obtained from twenty, to five-and-twenty, or thirty drops of laudanum, with a little æther, in distilled peppermint water, or, even at the moment, a little brandy and water; but I generally order, for patients who are at all subject to this affection, the following mixture:—Batley's sedative solution of opium, one drachm; compound tincture of lavender, half an ounce; distilled peppermint water, six ounces. Two table spoonfuls

to be taken before retiring to rest, if there is the slightest intimation of an approaching attack, and also direct, that the feet be put into a mustard foot-bath. During the attack, great benefit will be derived from the external application of hot flannels, moistened with the compound camphor liniment.

SECT. XII. — VIOLENT MOVEMENTS OF THE
CHILD.

Before the third month of pregnancy, the child is not sufficiently developed to enable it to move. When a little further advanced in growth, it moves, but so feebly, and imperfectly, that the mother is not yet sensible of it. A period, however, soon arrives, when its movements, although at first like the mere fluttering of a bird, acquire a power and force, that enables it to give decided proof of life. It is instantly recognised, the female knows she has quickened, and perhaps the sensation experienced is so sudden, that she faints. After

this time the motions of the child increase both in frequency and degree, and are readily perceived by the mother, but after a time the womb accustomed to this action within itself, is less sensible of its effects, and, except as a satisfactory evidence of the life of the child, is little regarded.

Sometimes, however, the child is *disagreeably active*, so violent as not merely to alarm the mother, but occasion much sickness and uneasiness ; — sleepless nights ; feverish symptoms, etc., and all this to such an extent, as to require medical interference. If this is not thought necessary, relief will be obtained from losing blood, when not otherwise objectionable to the amount of a few ounces ; gentle aperients, and a night draught containing from 25 to 30 drops of Batley's sedative solution of opium. These remedies will afford the greatest relief, and if the symptoms are not altogether removed by them, the female must then endure patiently, recollecting they are a proof that the child is alive and vigorous.

SECT. XIII. — SORENESS AND CRACKING OF
THE SKIN OF THE ABDOMEN.

It will sometimes happen during the latter months of pregnancy, that the skin covering the abdomen will not yield readily. This produces much uneasiness; the skin becomes tender and fretted, and, if there is very great distension, cracks. It forms a source of great discomfort, and renders the female miserable whenever she moves.

It is to be relieved by fomenting the parts with a decoction of poppy-heads *; and the frequent use of warm almond oil, applying in the intervals spermaceti ointment, spread very thinly on a piece of soft linen.

* This decoction is made by taking four ounces of poppy-heads, breaking them up, putting them into a vessel, pouring upon them four pints of boiling water, boiling the whole for fifteen minutes, and then straining off the liquor.

SECT. XIV. — INCONVENIENCE FROM SIZE.

Many women in the latter months of gestation experience considerable annoyance, and sometimes severe suffering from the great size of the abdomen, and from want of support, when even not so very large. This is a rare occurrence in a first pregnancy, owing to the firmness of the abdominal muscles, but very frequent in subsequent ones. Little women especially suffer from this unpleasant cause, and, in fact, it is so universally the case with all, who have borne children *rapidly*, that it is highly important for a female to be provided with the means of relieving it.

There is but one remedy with which I am acquainted, but have usually found it answer every purpose. It is wearing during the day-time *a well applied belt*, next the skin. It must be sufficiently broad for its upper edge to surround the abdomen above the point of its greatest diameter, and its lower edge to come down to, and be supported by, the hips. It must be drawn tight by a lace-string behind, as circum-

stances may require, and it must likewise be supported by broad straps passing over the shoulders. This will give the required support to the womb, and when the patient is in an upright position, as much as possible of the weight, of what she externally carries, will be thrown upon, or hang from, her shoulders.

Those who suffer much from this cause, ought also to lie down upon a couch or bed, for two or three hours every day; this will give great relief to the muscles.

SECT. XV.—BEING UNWELL DURING PREGNANCY.

A female may be pregnant, and yet be unwell for one period or more whilst in that condition. Indeed it may take place every month to the time of quickening, and has even continued in some rare cases up to the time of delivery.

Now, although this can scarcely be called one of the diseases of pregnancy — for it, ordinarily, in no way interferes with the health — still, as

while the discharge is actually present it predisposes to miscarriage, it is necessary to give one or two hints of caution.

Any female then, thus circumstanced should manage herself with great care immediately before the appearance, during the existence — and directly after the cessation of the discharge. She should observe the most perfect quiet of body and mind — keeping upon the sofa while it lasts, and carefully abstaining from any stimulating or indigestible article of food, and if any symptoms of pain, uneasiness, or threatening miscarriage come on, immediately seek medical advice.

A case, showing the necessity of carefulness under such circumstances, occurred to me some time since, and its relation is all that I need add upon this point.

A lady, resident in Gloucestershire, missed one period, suspected herself to be pregnant, but being unwell on the following month, supposed herself mistaken. She had occasion, however, to come to London on the second day of her being unwell — Monday. On the Wednesday following she suffered considerable uneasiness from the exertion

attendant upon the journey, and on Friday whilst from her hotel was obliged to return home in haste, and before night, miscarried.

Here then is a case in point — first proving, what some persons deny, that a female may be unwell and yet be pregnant, for she could not perceive the slightest difference in the appearance of the discharge from what ordinarily took place, and it was exact as to the time of its return — and, next, showing how necessary is great caution, and the most perfect quiet since undoubtedly this lady would not have miscarried, if her journey had only been delayed another week.

Jaundice sometimes occurs in the early or latter months of pregnancy — certain affections also of disordered function of the heart, producing palpitation, — a troublesome cough, accompanied with considerable pain in the head, sudden attacks of difficulty of breathing, and distressing inconvenience from irritable bladder.

These, and many other slight affections may manifest themselves during gestation, but of those I say nothing. It would be advancing

beyond the bounds by which I thought it right to limit myself, and departing from the object proposed.

I have finished what was purposed, and presented the married female with that information, for direction and relief in those little ailments and discomforts which frequently arise during pregnancy, for which she does not think it necessary to consult her medical adviser, and yet from which she will not unfrequently go on suffering for weeks, rather than speak of them.

CHAPTER IV.

ON THE PREVENTION OF MISCARRIAGE.

THERE is no accident befalling female health which forms a greater source of dread, anxiety, and subsequent regret to a married woman than miscarriage. When this occurrence becomes habitual, there is no circumstance the consequences of which are productive of more serious injury to the constitution, blasting the fairest promises of health, and oft-times laying the first seeds of fatal disease.

The frequency of its occurrence, however, would excite little surprise, were the delicacy of attachment which exists in the early months of pregnancy between the future offspring and its parent only understood, for it would then be easily perceived with what facility this union may be destroyed.

If, then, this disease is so frequent in its occurrence, — if its consequences are so serious when the habit of miscarriage is established, and if the facility with which it may occur is so great from the delicate and slight connection which exists between parent and offspring, at this early period, it will be asked, are there any means by the adoption of which, an accident so sad in its results may be prevented? Can the female herself contribute in any measure to avert its liability? Or can any plan be pointed out, the rules of which, when strictly observed, shall eventually remove this disease when it has grown into a “habit,” and reward the female by carrying her securely and safely through to the termination of gestation, when next she shall become pregnant? In the majority of cases, and without hesitancy, I confidently reply in the affirmative, and it is because the success of such a plan depends for the most part upon the prudence and perseverance of the female in carrying it to a happy result — for a medical man can do little to arrest a miscarriage when the process is once set up — that she ought to be fully acquainted with the means of prevention.

There is another fact also, which I am sure will have considerable weight with any well-regulated mind : and that is, that the subject is of the highest importance to the party chiefly interested, not only as respects her own health, but also that of her offspring, whose condition from the first is dependant upon that of the mother ; a disregard therefore to her own health may destroy the very life of her child.

SECT. I. — THE PERIOD AT WHICH IT MOST
FREQUENTLY OCCURS.

The usual term of pregnancy is forty weeks, or nine calendar months. At any time, however, within this period, the child may be expelled, and if this take place before the commencement of the seventh month, it is usually called a miscarriage. The process of gestation may be checked from its earliest period, for many of the causes producing miscarriage which can operate afterwards, may operate through the entire term, and hence miscarriage occurs

not unfrequently within three weeks after conception; it most frequently, however, takes place between the eighth and twelfth week.

SECT. II. — ITS SYMPTOMS, ETC.

With regard to the nature of this process, and the mode by which it is effected, we have in this place little to do. In warning the female of its probable approach I have only to mention certain local appearances, and other general and constitutional symptoms, which indicate its commencement.

Thus, if during pregnancy a female experience an unusual depression of strength and spirits, without any apparent cause, — if this is accompanied with attacks of faintness, pains going and coming about the lower part of the stomach, loins, and hips, *she threatens to miscarry*. If these symptoms are after a time followed by the discharge of more or less blood, *a partial separation* of the child has already taken place; if the pains in the loins and hips increase, becoming sharper

and more expulsive,—bearing down—with a free discharge of clotting bright-coloured blood, *the child is altogether separated* ; — and in fine, if the blighted and dead child is not quickly expelled, thus terminating the whole process, this will be the case before many days elapse, preceded, however, in such a case, by the breasts becoming flaccid, the stomach and bowels more or less disordered, and the discharge altered in appearance and offensive in character.

Here, then, the presence of the discharge, the quantity poured forth, and the subsequent alteration in its colour, are, as will be afterwards pointed out, signs of considerable importance in marking the progress of miscarriage.

SECT. III. — THE CAUSES.

The causes of miscarriage are numerous : they are either of an accidental or constitutional kind. The most important of these are the following : —

ACCIDENT may give rise to it. The delicacy of attachment between the offspring and parent, and the facility with which this union may be destroyed, have already been alluded to. If then a sudden shock by a fall, or a blow on the stomach occur to a female while pregnant, she can readily perceive how miscarriage may take place as a consequence.

VIOLENT EXERCISE OR EXERTION is a very frequent cause. Immoderate exercise in dancing, riding, or even walking; lifting heavy weights, the fatiguing dissipations of fashionable life, — all, or any of these will sometimes produce so much disturbance of the nervous and vascular systems, as seriously to affect the well-doing of the child, and frequently produce miscarriage.

VIOLENT PURGATIVES, EMETICS, etc., may produce miscarriage. It is well known that drastic purgative medicines, by their cathartic influence upon the lower bowel, now and then cause miscarriage; and that the violent action upon the stomach, of powerful emetics may pro-

duce a like effect. Both, therefore, should be carefully avoided during pregnancy.

This leads me to observe, that strong purgative medicines used with a view to promote miscarriage, are necessarily taken in such quantities as generally to produce inflammation of the stomach and bowels, and if abortion is thus intentionally and wilfully effected, not unfrequently at a sacrifice which is never calculated upon — the death of the mother !

VIOLENT MENTAL EMOTIONS are capable of disturbing the organs of the body, and so producing miscarriage. It is notorious that our physical condition is affected by the state of the mind. In the peculiarly sensitive condition of the pregnant female, any extraordinary excitement, or depression, especially when produced suddenly, may therefore give rise to the evil of which I am speaking.

THE FORCE OF HABIT on the part of the womb to expel the child at a certain period, of pregnancy, is the *most frequent* cause of mis-

carriage. What I mean is this : Miscarriage having once occurred from accident or any other cause, there is a tendency to its repetition. A female goes on in a very promising way to a certain time, and then miscarries, and again and again this occurs. Thus “a habit” is induced on the part of the constitution of the individual to the production of this accident, and then also slighter causes, applied at the period when miscarriage formerly happened, will be sufficient to induce it, than would be required at another time.

DELICACY OF CONSTITUTION, connected with habits of indulgence, may give rise to a state of health producing miscarriage. In high and fashionable life, among those who use little exercise, live luxuriously, and sleep in soft warm beds, there is often a weak condition of the vessels produced, which conveys the blood from the parent for the nourishment of the child, and the increased impetus and force given to the circulating fluid, induced by these habits, detaches one or more of these vessels, so that the supply necessary for the growth of the child is cut off, and it withers, dies, and is expelled.

In a NATURALLY ROBUST AND VIGOROUS CONSTITUTION, the same effect may be produced. Miscarriage may arise from a rupture of the vessels of communication between parent and offspring, but then it is under different circumstances. An increased quantity of blood is made, more than is compatible with health; it is propelled, as a consequence, with unnatural power, through the vessels of the body,—the vessels of the womb participate in the irresistible vehemence of this action, and if they do not suddenly give way, the female experiences a sensation of weight and tension about these parts, with shooting pains about the loins, hips, and in the neighbourhood, which, if not relieved, rupture of the vessels quickly takes place, and miscarriage follows.

Lastly, a peculiar excitable state of constitution; continuing to be unwell during pregnancy; advancement in life before marriage; piles, in an inflamed state; as also severe and large loss of blood, from their rupture;—these, and some other causes, may give rise to this accident.

SECT. IV. — THE MEANS TO BE ADOPTED FOR
ITS PREVENTION.

Having thus briefly reviewed the principal causes which may excite miscarriage, we proceed to consider the means to be adopted for its prevention. I shall divide this subject into two distinct parts:—

I. The plan to be followed for preventing miscarriage by those who are subject to it; and,

II. The means which are to be used, to put a stop to miscarriage, when it is occasionally threatened.

I. *The plan to be followed for preventing miscarriage by those who are subject to it.*

This plan has reference to two distinct periods: *before* the female becomes again pregnant, and *after* she conceives. And I may illustrate the subject in two kinds of constitution, widely differing from each other, and requiring, in part, rules and directions directly opposite:—

- i. The plan to be adopted by a female of delicate and feeble health and spare habit.

Before she again becomes pregnant, her object ought to be to invigorate her general health. This is to be accomplished, first, by attention to the stomach and bowels. The latter may be comfortably regulated, by taking a wine glass of the *beaume de vie* at night, the last thing, twice a week, or oftener if necessary, the object being to induce a full and consistent evacuation daily. This medicine unites a cordial with its aperient qualities, and therefore strengthens the bowels, at the same time that it keeps them unloaded and free. But although it may be continued for a considerable time, and with benefit, it is better, as the bowels again acquire tone, from the improvement in the general health, to discontinue its use, and have recourse to the lavement every morning before leaving the dressing-room. I have known many instances where much harm accrued from the long continued use of purgative medicines; and although the exhibition of the one just advised will be found exceedingly necessary, and beneficial in its influence

for some weeks, I would much rather, after a time, do without purgatives at all, and simply use the warm or cold water injection; a little less than a pint in quantity every or every other morning.

In conjunction with the aperient, if there is much debility of stomach, manifested by little or no appetite, and uneasiness and sense of weight after taking a meal, great benefit will arise from taking, three times a day, a pill consisting of one grain and a half of the sulphate of iron, and one grain of the sulphate of quinine, rubbed down in two grains of the extract of gentian. This will not only strengthen the stomach and increase its digestive power, but, at the same time, sharpen the appetite. It may be pursued for some weeks, and then only continued once a day, about an hour before dinner.

The *diet* must be small in quantity at first, but nutritious in quality. Mild animal food, as boiled chicken or white game, mutton and beef: these must be well masticated, and, therefore, eaten slowly. The meat of young animals, as veal and lamb, must be avoided;

as also pork. Fish should be seldom taken, as it leaves a large quantity of excrementitious matter in the bowels. Mealy potatoes, or well boiled rice, stale bread, or captain's biscuit, should be the only solid taken with one kind of animal food, as the dinner meal; towards the conclusion of which, a glass of port-wine, thrown into half a tumbler of hot water, with sugar and nutmeg, is the best kind of beverage. Coffee with brown sugar, and brown bread not toasted, and a new-laid egg, are best adapted for breakfast; and coffee, in preference to tea, in the evening.

Animal food may be taken twice a day, when the stomach has acquired sufficient power to digest it, but in moderate quantities, and certainly never at night. The wine, too, may be increased to two glasses, but then without water. Port-wine is most suitable, and it should never be taken until the conclusion of the meal.

Lying on a couch after dinner, to induce sleep, does not at all assist digestion. Rest for a couple of hours is certainly necessary; but the time should be employed in conversation, or light

reading, rather than the frequently unrefreshing after-dinner doze. The patient must rise and retire to rest early; she must lie on a hair mattress, and there must be no further drapery about the bed than curtains at its head. The chamber ought to be large and airy.

She must at once use the shower bath, and at first, the temperate salt water shower bath, for a week or ten days. The temperature of the water must not exceed 85° , and not be lower than 75° ; and so gradually reduced, until the shock of the cold shower bath can be borne. It must be used every morning, immediately upon getting out of bed—provided there is no perspiration present at the time—while the surface of the body retains the warmth of the bed. This insures reaction, or the well known delightful glow, which will be proportioned, in a feeble and delicate woman, to the warmth of the skin and extremities, previous to receiving the fall of the shower. Warm water should previously be put into the bottom of the bath, so that the ankles are covered; this will tend, in some degree, to lessen the shock, and, at the same time, to increase the reaction.

Upon coming out of the bath, the surface of the body must be rapidly dried, by a servant with coarse towels, or flannels, and as rough as they can be well borne, as the friction thus produced is exceedingly useful.

If the patient is residing on the coast, in the summer, she may bathe. It will be well, however, for her to commence with the tepid shower bath. After this has been employed for ten days, or a fortnight, she may bathe, and the best time in the day is two or three hours after breakfast, exercise being taken previously, but not to an extent to cause fatigue or perspiration. The patient ought to plunge in, or be dipped suddenly: one or two dips at first, and, after a time, the stay may be prolonged from five to ten minutes, and the body must be speedily dried.

A very nervous and delicate woman, who cannot bear, from apprehension, the shock of plunging into the sea, or that produced by the shower bath, will derive great benefit from daily having the body rapidly sponged with cold salt water, and quickly rubbed dry with rough flannel, etc.; the more friction employed

here the better, because the greater will be the subsequent warmth produced. This method is not adopted by many, from fear of taking cold; but if it is effected quickly, I have no hesitation in saying, it is the best *preventive*, and diminishes the susceptibility to the impressions of cold. During the winter, the head and chest should alone be sponged; and, during the period of being "unwell," the cold bath is inadmissible.

It is not only necessary, however, to attend strictly to diet, and to the other means pointed out; the patient must also adopt a regular system of exercise, proportioned to her strength. She should commence by taking gentle exercise on foot, or in an open carriage, between breakfast and dinner. As her strength increases, she may extend the walk or drive, or take horse exercise; never forgetting, that it should always precede a meal, and never follow it; that the amount of it should always be far short of fatigue;—in a word, that she should always feel refreshed and invigorated by it.

A change of air is often very desirable, and affords one of the most powerful means of im-

proving the general health. In midsummer, autumn, and during the winter, a residence on the coast is best for such a patient; but in the spring and early part of the summer, inland is to be preferred.

By such a plan of proceeding, I feel confident the general health will be restored, the female will no longer have a capricious appetite, foul tongue, disordered stomach and bowels—sometimes sluggish, sometimes relaxed; she will no longer rise in the morning unrefreshed by sleep, and retire to rest at night, fatigued with the slightest exertion of the day: her flesh, which, by slow but progressive steps, she was losing, and had become flabby, and apparently bloodless, will now return, hard and firm, and possessing the blush of health and strength;—she will have found out how to obtain health; and she will, if I mistake not, be careful to preserve it.

After the patient becomes pregnant; let every cause which might excite miscarriage be avoided. The principal causes have been pointed out. The patient must sleep alone—this is absolutely and imperatively necessary; she must be more careful and attentive than

ever to her diet, and the regulation of the bowels; and, above all, guard against costiveness. Let the shower bath be still continued, and gentle exercise; but carefully avoid any fatigue. As the *period approaches*, when *miscarriage occurred before*, let vigilance and attention to rule be redoubled. The patient must now keep on the sofa nearly all day; retire to rest early, still using a mattress, and taking care that the bed-room be airy and well ventilated. If the slightest pain or uneasiness is felt about the loins, or hips, the sofa must be immediately resorted to, and the medical attendant called in. If he approves it, a little blood should be lost, and the bowels gently acted upon. When these symptoms subside, the recumbent position must be continued, and the above directions carefully observed for six or seven weeks beyond the time miscarriage last occurred. At the expiration of that time, I might say, I believe *you safe*; gestation will go on. The health is invigorated, and the womb now strengthened, through the general improvement and increased tone of the whole system, is not so irritable, and therefore is

not so likely to throw off its contents. It is not so weak, and therefore does not flag as it did before; but is able to carry on those processes which are necessary for the continued life and perfecting of the offspring.

- ii. The Plan to be followed by a female of vigorous and robust health.

BEFORE PREGNANCY takes place, the excitement and fulness of the system must be gradually reduced, at the same time that its general tone must in no way be impaired. The plan proposed is the following: —

Let the *bowels* be regulated, keeping them slightly relaxed with Rochelle, Epsom, or Cheltenham salts; and if this is effected, no other medicine will be necessary.

Let the quantity of food be diminished, taking sparingly of meat; selecting that kind only, and but once a day, to which reference was made before: dining from vegetables, rather than from animal food; taking no wine or stimulant of any kind, no fermented liquor; the beverage with dinner being water only. Fashionable hours and habits must be given up; for they tend

to keep up that excited state of the whole system which it ought to be the grand object to allay.

I would recommend rising early; sleeping in a large and airy room, with little clothes about the person, to prevent the accumulation of too much heat.

The salt-water shower-bath must be used every morning; the quantity of the water being considerable, and, from the first, cold; observing the precautions, before alluded to, in reference to rapidly drying the body. After the bath, a short walk may be taken before breakfast; the latter should consist of coffee, brown bread, and fresh butter. The patient may use considerable, but regular exercise, between breakfast and dinner; horse exercise, if it can be accomplished, is best; but never to fatigue.

Change of air is not absolutely necessary; but in spring, and the early part of the summer great benefit will arise from pursuing this plan during a residence at Cheltenham or Leamington; for every thing there will contribute to its regular and successful employment. In midsummer and autumn, the sea-side is most desirable; as bathing, instead of the shower-bath,

may be employed, in this case, with great advantage.

AFTER PREGNANCY has taken place the *diet* must be still sparing. If there is head-ache shortly after, with a full pulse, this slightly renewed excitement of the system, depending as it will upon the new action set up in the womb, must be allayed by the loss of a little blood. This measure must be repeated, in small quantities, if judged necessary by the medical man; never, however, ought it at any time to produce faintness. The cold salt-water shower-bath should be still employed daily; and cold water, used as *an injection* night and morning. The female syringes are all too small for the latter purpose, and much inconvenience is produced by the frequent necessity of withdrawing the pipe for the purpose of refilling the instrument. This is easily obviated by substituting for the common ivory tube of the lavement pump, a four inch gum elastic tube, about half an inch in diameter, and having several holes in its point, which must be rounded off. Any quantity of fluid may be injected into the *vagina*, with this

instrument so prepared, without withdrawing the tube. Exercise must be continued,—but not on horseback, and with care. It is most important that the more evident and immediate exciting causes of miscarriage,—such as fatigue, dancing, etc., should be carefully guarded against; and the patient, from the time she conceives, must sleep alone.

As the *period approaches* when she *formerly miscarried*, care and attention must be more than ever exercised. She must now keep to the sofa altogether; and continue to do so for five or six weeks. If slight pain in the back should be experienced, it must not create alarm, but it will be right at once to seek medical advice. If however a female has acted up to the rules laid down for her guidance, both for *before* and *after* conception, she need not fear any threatening symptom of her former accident presenting itself; but I confidently promise that she will, by going her full time, receive the ample reward of all her continued care and little privations.

II. *The Means which are to be employed to put a stop to Miscarriage when it is threatened.*

Now and then, particularly when it occurs for the first time, the whole process of a miscarriage does not occupy more than six or seven hours from the very earliest symptom of its approach to its final completion. But in by far the greater majority of cases, more especially when it has become “habitual,” its progress is not terminated in as many days or even weeks. When this is the case—as is already evident—it may be clearly separated into Three Stages ; a division I propose to adopt. This will tend to bring this important portion of my subject in a clearer light before the reader, and at the same time assist me considerably while pointing out, though with necessary brevity, those directions which are to be followed in the different stages of this accident : —

THE FIRST STAGE. — I shall speak of that as the “ First Stage,” in which the child as yet has sustained no injury, and the symptoms are only those *menacing* miscarriage.

It commences usually by the female experiencing a great depression of strength and spirits, without any assignable cause. She loses her appetite, and has a little fever. Pains about her loins and hips soon follow; these are at first transitory, they go and come, and, after a while, increase in frequency. Or if the patient be of a strong and vigorous constitution there will be an excited condition of the circulation, manifested by a full pulse, throbbing in the temples, followed by a smart headache, a hot skin, thirst, and no inclination for food, and united with the pains in the loins and a sense of weight and tension. These are so many symptoms *threatening* miscarriage, but of course much modified by the constitution and previous state of health of the individual. For instance, some will experience only an indistinct, dull aching pain in the loins, with slight languor, continuing for many days without any other symptom: but if these feelings come on about the same period from conception at which miscarriage formerly occurred, it behoves the patient at once to attend to them; for if she does not, she may depend upon it the same

event will befall her, however apparently trifling and unimportant the symptoms may be considered.

If then any of the foregoing symptoms present themselves, the female ought *immediately* to send for her medical attendant. This is the time at which the latter can interfere with the most certain prospect of success; and almost every thing depends upon its being done at a sufficiently early period. This is the first direction offered,—and with the next includes everything;—*the imperative necessity of a strict and unvarying attention to the rules and regulations which he enjoins.*

It has already been intimated, that, at the first approach of these symptoms, the female must at once retire to her bed. She must strictly confine herself to it, resting on a mattress, with few clothes upon her, no curtains about her bed, or fire in the room,—which ought to be large, and airy. Her diet must be most sparing, a little toast and water, lemonade, or thin gruel, tapioca, or sago; and whatever is taken must be given cool. Some gentle aperient, Cheltenham or Epsom salts, in two drachm

doses, may be taken every four hours. By this time, in all probability, the medical man will be at her bed-side.

THE SECOND STAGE. — But suppose the patient has not heeded these symptoms; that she has thought nothing of a little pain in the back, etc., and never having before miscarried, she has looked upon them as of no consequence. The local pains will increase in frequency and power, and soon a discharge of blood, in clots, will be discovered, or, if more freely, of a clotting bright colour. This indicates that a partial separation of the child has taken place, and brings us to what I call the “Second Stage.”

Now, although it must be apparent that, under these circumstances, the probability that the process of miscarriage will go on is much greater than in the former stage, still I have no hesitation in saying that it is possible to check it even here; and that frequently. But in a situation so critical it will require a prompt and vigorous practice on the part of the medical man, and an equally decided and vigilant conduct on the part of the patient herself: and let the patient

recollect when tempted to disobey the instructions she receives, because they may appear trifling, or a little too rigorous, that no man who enjoys her confidence would willingly lay down one rule too strict, or one injunction, the performance of which was unimportant; and remember also, that by *one* act of disobedience she may blast every hope of success; and thus throw away in a single moment the result of hours, nay, of days and weeks of careful and persevering deprivation. The only directions advisable for a female's adoption before her medical adviser arrives, are, strict rest in bed, cold water dashed over the loins and hips, and the sudden application now and then of a piece of linen dipped in cold vinegar and water, perfect abstinence, and the aperient, as in the former case, every four hours.

A female never ought, if the premonitory symptoms have been present, to advance to this stage of the accident; but it may be brought about very quickly, by the shock from a fall, or any great exertion, when the first and second stages will frequently merge into one, — separation of some portion of the child having taken

place from the first. Let her, under these circumstances, follow the above directions, until she can obtain further advice.

THE THIRD STAGE. — If the previous means for stopping the progress of the threatened miscarriage are unsuccessful, — if the discharge continues, the pains increase, becoming slightly bearing down, and the other signs follow, which have before been pointed out, the “Third Stage” is far advanced; and of course every expectation of success on the part of the patient, or her attendant, must have fled,—and it only remains for him to conduct her safely through to the end; and afterwards adopt means for restoring her health and strength.

THE FIRST STAGE, then, is one of *warning*; and by improving it in time, a female ought never to miscarry.

THE SECOND STAGE is one of *hope*; and, with strict attention, that hope may be realised.

THE THIRD STAGE is one in which all means of prevention are useless, and therefore its *treatment* has not fallen under our notice.

CHAPTER V.

HINTS FOR THE LYING-IN-ROOM.

SECT. I. — THE PERIOD PREVIOUS TO LABOUR.

RECKONING. — The period when confinement may be expected, is naturally enough, to the female mind — particularly if it be a first labour — a matter of considerable importance; and it is very desirable that this event should be as accurately determined upon as may be.

It is very difficult, however, by what is popularly called “reckoning,” to determine positively the precise day upon which labour shall commence; although I have known frequent instances where this has occurred.

Conception, I believe, generally takes place a day or two after the last menstrual period; and if a female calculate on this supposition, reckoning nine calendar months from this date, she will commonly be right. Some are in the

habit of reckoning from the middle period, between the last menstruation, and the one that should next ensue. Neither mode is infallible, and indeed it is impossible to decide the matter to an hour or a day ; but, as the first method noticed is preferable, I advise a note to be made of the *period* when *last unwell*, and the reckoning to *commence* from the *third* day of its *cessation*.

There are circumstances which may throw a female out of her reckoning altogether, referred to, at length, in the second chapter. If such should exist, she must wait till “quickenings” occurs; and consider herself advanced four months and a half the day it takes place. This is, at best, an uncertain mode of calculation ; but it is the only one I have to offer.

SYMPTOMS OF LABOUR APPROACHING.—Labour is commonly preceded by certain symptoms, called “premonitory ;” they sometimes appear several days, oftener only a few hours before its commencement. I shall notice only one of these, viz., *a subsidence of the abdomen*, — arising in part from the fact of the child being situated *lower* than formerly.

This sinking down of the child may occur either *gradually*, and therefore almost imperceptibly, from day to day, yet sufficiently obvious after the lapse of several;—or *suddenly*, during the course of one night.

It is a *useful* symptom, affording to the medical attendant satisfactory information, — and pointing out to the patient, that her labour is not far off.

And it is attended with certain effects: in part agreeable, and in part productive of discomfort. Agreeable, because the female now feels lighter and more alert, and breathes with more ease and comfort than she has done for weeks past, — and her night's rest is less interrupted. — Attended with discomfort, because the child being lower, the bladder and rectum are somewhat interfered with, and an irritable condition, of one or both, may arise.

ATTENDANTS, ETC. — At this time the nurse should be in attendance, if possible, and every thing in the lying-in-room in order. The latter ought to be large and airy, and should have a dressing-closet attached to it.

The Friend that is to be present during the labour should be fixed upon. And it may be proper to suggest that medical men do not like unmarried females in the room; they are neither the most fit companions for the patient, nor the most useful assistants to the practitioner. Let a confidante be selected in some judicious and affectionate married friend, whose presence during the hour of trial, will ensure sympathy and yet encouragement.

During the labour the medical man, the nurse, and the patient's friend, are all the assistants the occasion demands. The lying-in-room is not the place for a crowd. A great number of persons breathing the atmosphere of the same room soon pollute it; and if there happen to be a fire, its temperature will inevitably be raised to a point which will make the patient restless and feverish, — add to her feelings of fatigue, and often, by rendering the pains irregular or ineffective, protract labour considerably.

The patient also is much disturbed by their conversation, and what is a much greater evil than this, by their imprudent remarks they

frequently diminish her confidence in her own powers, or in the judgment and skill of her necessary attendants. The mind in a state of distress is easily excited and alarmed, and whispering in the lying-in-chamber, or any appearance of concealment quickly produces an injurious impression.

BOWELS. — As labour approaches, the bowels should invariably be cleared by some aperient, or consequences exceedingly disagreeable to a delicate woman will inevitably occur at the latter stage of the labour. A table-spoonful of castor oil is the best medicine for this purpose, particularly if the bowels have already been confined a day or two; otherwise the use of the lavement is preferable, the injection to consist of one pint of warm gruel, or tepid water with two table-spoonfuls of castor oil.

SECT. II. — THE PERIOD DURING THE PROCESS
OF LABOUR.

THE BED. — As the patient is to lie on her *left* side, the bed must be so placed that she may be either at the foot, or right side of the bed. Many prefer the foot, because the foot-post serves to support the feet during what is called the second stage of labour; but then this post should have a *small hair cushion* secured firmly to it by straps for the feet to press against, otherwise they will be found tender and fretted subsequent to labour.

Where there is both a mattress and bed, it is better for the mattress to be uppermost. The patient in a feather bed is likely to sink into a hole, which is inconvenient to the attendant, and keeps the patient too hot and close.

And next, the bed must be “guarded,” as it is popularly called. The method of doing this is very simple: The blanket and sheet having been placed upon the feather bed, or mattress as usual, a blanket is to be spread upon the

right side of the bed and towards the lower end, and upon this a skin of leather, or a large sheet of oil-skin; one or two blankets are now to be folded over this — then a sheet, upon which the patient lies on her left side; and lastly, a sheet, blanket, etc. is to be thrown over her person as the season of the year may determine. Patients are frequently too warmly covered by the nurse, which relaxes and weakens when strength is of so much consequence.

THE DRESS. — When the pains of labour first commence, the dress should be so arranged that if its progress becomes suddenly rapid, it may be readily changed.

A loose dressing-gown is best in the earlier part of the labour, which must be exchanged for a chemise and bed-gown folded up smoothly to the waist, as she lies down for good, and a petticoat without shoulder straps that it may afterwards be readily removed.

Some persons suppose that wearing their stays during labour assist them, affording support; but they are improper, being rather in the way than useful.

SHIVERING. — Rigors are very common during the early part of labour, and will vary in degree from a gentle tremour to an agitation of the frame so violent, as to shake the bed on which the patient rests. It is most desirable that this should be known, lest it should produce alarm, for which there is not the slightest ground. I am acquainted with one lady, where this symptom always ushers in her labour, which is quickly and easily accomplished.

The attendants in the room will wish to give spirits, warm spiced wine, etc. to relieve these rigors, but this should be resisted. — *Warm* diluting drinks are always useful, as tea, broths, plain gruel, etc.; but wine, or spirits and water, ought to be absolutely forbidden, for they are unnecessary, and are always productive of fever, and subsequent mischief.

VOMITING. — An inclination to be sick, followed by actual vomiting, is one of the most frequent occurrences attending the *early* part of labour.

It may be produced by the close sympathy which exists between the stomach and womb,

but an overloaded stomach is a more frequent cause. In either case it is useful: in the latter, it clears the stomach of improper food; — in the former, the practitioner sometimes is very sensible of the good effects arising from it, in forwarding the labour. — It is an every day saying of a monthly nurse, “that one fit of vomiting has more effect than six pains,” and there is a good deal of truth in it.

CRAMP. — This is very likely to trouble the patient who has been unnecessarily kept for many hours on the bed in one position. It may affect the muscles of the side, the thighs, or legs.

Except that it produces intense pain for the moment it lasts, it is not attended with any unfavourable result; is relieved by the friction of a warm hand; or, if the patient be able, by getting up, and walking for a minute or two, in the bed-room.

EXAMINATION BY MEDICAL ATTENDANT. —

Soon after the arrival of the practitioner, if labour has commenced, he requests through the intervention of the friend of the patient, or the

the nurse, to make an examination, "*to take a pain,*" as it is termed. This is frequently objected to; and from false delicacy the patient does not consent to his wish until obliged by the severity of her pains in a more advanced stage of the labour.

Now it is highly important that in the *earliest* stage of the process, this examination should be made, for the medical attendant obtains necessary and valuable information, which regulates his conduct. Thus he ascertains whether labour has actually commenced, or if her pains are spurious or false pains only, requiring a plan of treatment for their relief, which he at once prescribes. He is enabled to determine by it whether his assistance is necessary; whereas if it is deferred he might be the means of occasioning mischief, by being an idle spectator, when he ought to be acting. And moreover it enables him to acquaint his patient not only how far she has advanced in her labour, but what is of much more importance, whether the position of the child is natural.

On the other hand there exists a vulgar prejudice that these examinations are attended with

great benefit, that they materially assist the labour, and expedite the termination of the female's sufferings, and she is, therefore, naturally enough, continually looking for such supposed assistance. This is an injurious mistake, for frequent examinations are not only superfluous, but may materially retard or interrupt the processes of labour.

POSTURE, ETC. — The time occupied by the labour, if well managed by the attendants, may be relieved of much of its tediousness. Until the patient is advised to lay down for good by her medical attendant, she may be allowed to pass through this period in that posture most agreeable to herself. Walking, standing, sitting, kneeling, lying on the bed, will all be tried in turn, and there is not the slightest objection to this. Indeed, confining a patient even to her bed-room during this time is quite unnecessary; she will be more amused by being allowed a greater range; this likewise will be rather useful than otherwise, by changing the air, as well as the scene.

The bed must not be too much indulged in :

it heats, oppresses, and weakens the patient. If fatigued, she may lie down on the sofa, and should lie on her back, or right side, rather than the left, as this must be her future position. It is too much the practice of medical men and nurses to keep the patient on the bed from the very first, thus adding to the tediousness of the labour, unnecessarily wearying and weakening the patient, and frequently inducing severe attacks of cramp in the side, thighs, or legs.

A patient may almost determine for herself whether it is necessary for her to keep to the bed or not. What is called the first stage of labour is by far the longest usually, the pains being short and far between, becoming longer and more frequent as the stage advances, but unaccompanied by any disposition to *bear down*; the latter circumstance being the striking distinctive mark between those of the first and second stage. Now so long as the pains are not bearing down, the patient may keep about, and with advantage.

But during this time, perchance she will be importuned by the attendants “to bear down

forcibly," that is, to exert the muscles under the power of the will in forcing downwards. This is a very bad practice, adds greatly to fatigue the patient, but does not expedite the labour. She will soon be *obliged* to bear down, and *then* it will be useful.

At this period too the female's mind is often depressed by being told through the whispering of some *kind* friend, that her pains do no good. This, however, is not the fact. The pains may not be so effectual as we might wish them to be, but every parturient throe during the first stage, however slight, is useful in forwarding the process. It is sometimes a very unfortunate occurrence when the attendants in a lying-in-chamber acquire an idea that the pains do no good, or are unprofitable. This has led to many improper practices intended to encourage the pains, to the use of cordials and strong drinks, or to the exhibition of medicines supposed to have the effect of hastening delivery, by which it has often happened that a labour which would have terminated easily and happily in a few hours, remains unfinished for many hours, sometimes for days.

It is at this time too, that the patient complains of great pain and *suffering in her back*, and is very urgent to have pressure made in order to alleviate the pain. This support, however, must be given with care. For it would seem that the degree of pressure made, must sometimes tend to bruise the back, so powerfully is the hand pressed upon it. But the patient is desirous of having it made, and conceives that it so much relieves her that it is impossible almost to forbid it, altogether.

DIET. — This must be light and simple. Tea, coffee, broth, plain gruel, arrow-root, light nourishment of this kind is best. Solid animal food is hardly admissible, and wine, spirits, or caudle, are always followed with mischievous consequences.

It is a very common practice to urge females to eat, and drink, *to keep up their strength*, great muscular exertion being supposed essential to the accomplishment of labour, and that this can only be supported by the free use of nourishing and stimulating articles of diet. The opinion is not only incorrect, for experience

fully proves this, but if acted upon is decidedly *unfavourable* to a *safe* and *speedy delivery*.

PROBABLE DURATION OF THE LABOUR. — Though the progress of labour is almost always slower with a first, than with any subsequent child, I can confidently declare, that under proper management, there is not a jot more danger with a first than with future deliveries. This fact ought to inspire confidence in the powers of nature, and in the skill of the medical attendant, and thus prevent both needless anxiety and injurious impatience.

Labours vary considerably in respect to duration, whether a first labour or not. In the same woman the process shall have been accomplished with rapidity for three or four successive confinements, and then a tedious and protracted labour shall follow. This circumstance, however, does not necessarily involve either difficulty or danger, but in ninety-nine cases out of a hundred is equally safe with former labours, provided no *meddling interference* be used, and nature left to the secure, though it be slow, accomplishment of her object.

Generally it is quite impossible for a medical man to form an opinion worth anything, as to the probable duration of a labour, and therefore the incessant inquiries made upon this point are in fact useless: but not so the confident assurance of the medical man that all is *going on well*; it ought to inspire the *patient* with confidence, and with that gentle and patient endurance, which at such an hour will prove of inestimable value to her.

Labour is looked upon by the timid and inexperienced young female with apprehension and dread, arising in a great degree from ignorance and idle gossip. I have known young women who have, after marriage, dreaded lest they should become pregnant, simply from the fears they entertained of labour. I do not of course mean to deny that it is attended with pain, although I have known females give birth to their offspring, acknowledging that their sufferings were so slight as to excite their surprise; but all I mean to say, is this, that labour is a *natural* process; as such, judiciously managed, it is unattended with danger, and the amount of pain falls very far short of what is generally anticipated.

CLOSE OF LABOUR. — When the labour is proceeding rapidly and *the pains become bearing down*, as it is now far advanced, *the bed must be kept altogether*. This is what medical men call the second stage, and having arrived, the patient may assist somewhat with voluntary effort, viz. exerting her abdominal muscles and diaphragm; and to enable her to do this she must not scream, but during pain, hold her breath. A cloth or jack-towel will also be fixed to the bed-post for her to pull by, or the hand of another person. But this auxiliary ought not to be employed to pull by so much as *to fix* the trunk. And if the patient only follow the dictates of nature in this matter, she will do right; for she will find that all that is required is almost an involuntary exertion of voluntary muscles. Let her, however, be careful to make no straining effort in the absence of pain, during the intervals of which she ought to lay at perfect rest, renewing her strength. As its termination immediately approaches, the patient must be careful not to give way to feelings of impatience and become restless, but implicitly follow the directions of her medical attendant,

otherwise serious consequences to herself might hereafter ensue. And now, if she have previously obeyed his instructions, she will be in possession of that strength and fortitude, which are called for at this time, and prove invaluable.

The labour *completed*, the patient may turn slowly on her back, and a *broad bandage* will be slipped under her, spread evenly, and pinned sufficiently tight around the lower part of the person, to give a comfortable degree of support. This bandage or belt, made of linen or cotton cloth, should always be in readiness for the medical man.

A little tepid gruel may now be taken by the patient, and she should be left to rest. If disposed to sleep, she should indulge it; but if not, must be kept perfectly quiet, and undisturbed by conversation.

SECT. III. — FROM AFTER DELIVERY TO THE
TIME OF LEAVING THE CHAMBER.

ARRANGEMENT OF PATIENT'S DRESS, ETC. —
The medical attendant having retired from the room, it will frequently happen that the nurse proposes to make her mistress comfortable, and if allowed will change the linen about her person, and alter her position in the bed; in effecting which she will perhaps lift her off the bed, or if not, place her in an *erect* or *sitting posture*, upon it. Nothing can be so improper, or more likely to induce serious consequences. It is the duty of the medical man himself to leave his patient comfortable, as it is called, and it is in his power to do this, without running any risk, or altering her situation in the bed, that is, if the previous directions about her dress have been attended to. Little things are often of great importance, and are sometimes found to be so, when it is too late.

An hour, or an hour and a half, however, having elapsed from the time of delivery, the necessary alterations about the bed and dress

may be made. The soiled linen is to be removed, and the chemise and night-gown, previously folded around the chest, drawn down. The patient is then to be carefully moved to the upper part of the bed, in effecting which *the horizontal position is to be strictly preserved, and on no account, for one moment, must the female be raised upright.* She must now seek a long and refreshing sleep.

MANAGEMENT OF THE CHILD IMMEDIATELY AFTER ITS BIRTH.—The infant warmly wrapped up in a flannel receiver by the medical man and given to the nurse, if it be cold weather, is to be dressed by a good fire. This is necessary, both because the temperature of the child's body at birth is several degrees below that of the adult, and because its power of retaining its warmth is also less.

The first thing to be done is to *wash* the child; and, as its body will be found covered with a white, greasy, curd-like substance, this must be removed, and with great care, particularly from the eyelids, groins, armpits, and from the folds in the skin. This is most easily ac-

complished with warm water, fine soap, and a soft sponge. Sometimes the nurse will wish to use spirits of wine, or a little gin, especially to the head, under the idea that it prevents the taking of cold. It does neither good, nor harm, so long as the head alone is bathed with it, but *warm* water is far preferable, and with a mild unirritating soap is fully efficient. If any of this secretion is not removed, it dries, hardens, irritates the delicate skin of the infant, and sometimes even produces severe excoriations.

The surface of the child's body having been thoroughly dried with a soft towel, the next thing is *to put up the remains of the navel string*. Having been examined by the medical man previous to his leaving the chamber, it is presumed that its vessels are properly secured, and it is now to be protected from injury, until it separates from the body of the child, an occurrence which usually takes place somewhere between the fifth and fifteenth day from delivery. The mode is as follows:—A piece of soft old linen rag doubled, and about four or five inches in diameter is to be prepared, and a circular hole cut in its centre, through which

the cord is to be drawn. The cord being carefully folded up in this envelope, is to be laid on the abdomen of the child, and secured by what is called the belly-band, viz. a band of thin flannel, five or six inches broad, and long enough to go twice round the body. This ought to be fastened with strings, pins in any part of an infant's dress being objectionable.

The child is now to be dressed; and about this it is unnecessary to say more, than that it should be sufficiently warm, and not calculated to place the slightest restrictions upon the movements of the limbs; and in reference to the head-dress, that a thick muslin cap is all that is required, and more than this, or any thing that shall compress or restrain the free motion of the child's head is highly injurious.

PUTTING THE INFANT TO THE BREAST. — Immediately the infant is dressed, many nurses are in the habit of dosing it with castor oil, or honey of roses and almond oil. It is objectionable on many accounts; it is quite uncalled for so early, and it may be altogether unnecessary if they only wait. The infant should be put

quietly to sleep, and allowed to repose for four or five hours, when the mother having also obtained some sleep, it is proper to place the child to the breast. This should always be done within the first four and twenty hours, partly to draw out and form the nipple before any hardness of the breast occurs and renders that difficult, and partly to encourage the flow of milk; for the very effort made by the infant to obtain it, will excite its secretion.

It has been supposed by some that the milk first secreted is improper for the child, that it teases its bowels. The fact is, that there is a difference in its quality to that which is soon after poured forth; but then it is a difference which nature has ordained and designed for a wise purpose. For the bowels of the little one when born are loaded with a dark black secretion, of which it is essentially necessary they should be relieved. Now the means for its removal are found in the aperient qualities of the milk which is first secreted in the breast of the parent; so that instead of being injurious when the child is allowed to take it, it is highly necessary. Should the child, therefore, not get

the first draught of the mother's breast from being put to a wet-nurse, or from any other cause, or should the abdomen, even some five or six hours only after birth, become full, the child fretful, and no evacuation take place, a gentle purgative must be given, and half a drachm of castor oil is best. The fact is, there is generally no secretion of milk for the first twelve hours. About the end of this time a pricking sensation will be felt in the bosom, which gradually enlarging, a full supply is produced in twenty-four hours.

Not so, however, in *first* confinements; there is rarely any quantity secreted before the *third* day. At this period, now and then a little later, the breasts become hard, swollen, and very soon painful. As the process of secretion proceeds, the breasts more swollen than ever, appear to be made up of large, extremely hard lumps or knots, and become very heavy and very tender. After a time the milk is at "its height," as it is termed, and if the breasts be fomented or gently pressed, a small quantity of milk will be seen oozing from the nipples. When the infant is placed at the breast, the

action of suckling will be attended with great pain, but followed by considerable relief; and as the milk flows, the hardness will diminish, the general swelling subside, and the milk being freely and frequently drawn off, the feelings of the patient will become more comfortable, and all pain removed; the breasts will be distended only when some few hours have elapsed since they were drawn, and thus *lactation* will be established.

The *difficulty* which the infant experiences in drawing out the nipple when the breast is hard and swollen is very great; and various measures have been suggested to obviate this. The mode I always propose is as follows: first, foment the hardened breast with flannels wrung out in warm water, — or take small wooden bowls soaked in warm water, wrap them up in flannel, and then place them over each breast, or apply nicely made bread and water poultices. Any of these means will promote the easy flow of the milk. Having done this, let the nipple be drawn out either by a vigorous child of three or four weeks old — by a grown person — or by the following method: — Take a pint

decanter, or a wine bottle with a smooth mouth, fill it to the neck with boiling water, pour out this water almost immediately, and, provided it is not too hot, apply the mouth of the decanter to the flattened nipple. As the decanter cools a vacuum will be created, and the nipple will be elongated in its neck; retain it thus a few minutes, when the bottle is to be gently removed by depressing it, and immediately apply the child.

Various kinds of breast-pumps, and other machines have been invented, but none answer the purpose so well as the simple warm bottle,—the mouth of another child, — or that of grown person.

It is unnecessary for the child to take any nourishment until ten or twelve hours after birth. Usually, at this time, the mother will be able to supply it with its natural nutriment; should not this, however, be the case, as will always happen with first labours, the child must be fed, every four or five hours with a small quantity of thin gruel with a little milk sweetened with sugar. To be left off as soon as lactation is fully established. And now it is proper

for the mother to support her infant independent of any other nutriment. The suckling should be performed at regular intervals of about four hours, during the night as well as day. And during sleep, the nipple ought not to be allowed to remain in the infant's mouth, as is too often the case; nor during the day, the child put to the breast every time it cries, to quiet and soothe it. Both much interfere with the health of the infant, the stomach is kept constantly loaded, and unable therefore to digest its contents; — time must be given for this purpose, and an interval of four hours is not too much. A child thus nursed will be found less troublesome and fractious than one that is hushed by the breast at every cry, and will awaken with great regularity as the time for its meal approaches.

THE BLADDER. — If the labour has been tedious some difficulty may be experienced on the following day in passing the water, and if fomentations do not effect relief, the medical man must be informed of it at his next visit. This inability occurs very frequently, and a

lady should be very careful that she does not deceive herself in this particular. — Passing a little water drop by drop does not empty the bladder, and she may rest assured, assistance is demanded, if such be the case. It would be a sadly mistaken delicacy that kept a patient from hiding such a circumstance from her attendant, and if too long delayed might be followed by the most disastrous consequences to herself.

THE BOWELS. — On the evening of the second, or morning of the third day, some aperient medicine should be taken, and this must be given even if the bowels have been previously moved, for they will be only *partially* relieved. Castor oil is the best medicine. Fill two thirds of a wine-glass with milk, coffee, or mint-water, and upon this pour a large table-spoonful of the oil, which may be thus swallowed without being tasted. If it does not have the desired effect after four or five hours, the dose must be repeated. If the stomach will not retain the oil, some mild aperient draught may be substituted, or the common domestic lavement.

THE DISCHARGE. — The liberal use of tepid milk and water as a wash during the existence of the discharge will be necessary, and give rise to great comfort. This must be delicately and carefully managed by the nurse. Let no lady permit the prejudices of the latter personage to interfere and prevent this. In general her dictum upon such a point, however unreasonable it may appear, is received and submitted to by the young married woman, because she is supposed by her experience to be fully informed upon all such points. Now, I could not have believed it, except that a very few weeks since it happened to me whilst in attendance with a highly respectable lady during a miscarriage, to hear from her, whilst giving directions on this very matter, that her nurse in the country, never permitted any thing of the kind until a full fortnight after delivery, lest she should take cold. Was any thing ever more preposterous, and something much worse ! The milk and water then should be used three or four times a day for the first week, and gradually left off as the discharge diminishes.

It is right also to observe that this discharge is sometimes *very profuse*, and may continue

thus for many days — nay weeks, after delivery. When such is the case, the *medical attendant* should be *early informed* of the circumstance, or serious consequences to the health of the patient may follow.

THE DIET AND MANAGEMENT FOR THE FIRST THREE DAYS. — For the first three days after delivery the diet ought to be small in quantity and more simple in quality than before labour. The sudden and great change in the habits and situation of the patient, from one of activity to the perfect quietude of the chamber, renders this necessary; as also, the possible existence of a more or less excitable condition of the whole system, the effect of the labour. Not, however, that I consider the lying-in-room, a sick room, or approve of a very usual plan of treatment. For it is a frequent but very injurious practice for nurses, for several days after delivery, to keep the bed-room curtains drawn close — to increase the number of blankets, — and to be continually giving every thing as hot as it can be swallowed, deluging the patient's stomach with water-gruel and slops with a view to promote perspiration, and pre-

vent her taking cold. This is the most direct way to produce the evil so much dreaded, for it follows as a natural consequence, that by these means, she is rendered more than ever susceptible to the impression of cold, — is sure to be much debilitated, and a troublesome species of fever will be induced, which it may be found difficult to remove.

Coffee in the morning, a light pudding for dinner, coffee again, or tea, in the evening, and moderate quantities of gruel in the intervals — if the patient desire it — is the simplest and best diet at this time, and all other kinds of nourishment must be abstained from during these first three days.

The body and mind of the patient must be kept at perfect rest, — and the lying-in apartment cool, well ventilated, and free from visitors.

THE FOURTH DAY. — The fourth day having arrived, and every thing going on well, the patient may take the wing of a chicken, or what is better, a mutton chop, but must not have wine, porter, or any stimulant. Her beverage should consist of equal parts of barley

water and milk, which will allay thirst, relieve any sinking of the stomach, and produce milk better than any thing else.

THE FIFTH DAY. — On the fifth day she may be removed from the bed — the heat of which is relaxing — to the outside of it, or to a sofa previously placed at the side of the bed; but on no account must she give the *slightest assistance* in her removal, and when on the sofa must strictly keep *the horizontal position*. Indeed for *three weeks* after delivery an almost constant compliance with the latter direction is highly important. Among the poorer classes of society, who get up very soon after delivery, and undergo much fatigue, "*the falling down of the womb*" is a very common and distressing complaint. It is the effect, simply, of their not being able to keep the recumbent posture long enough. I cannot too strongly endeavour to impress upon the recollection of a female the importance of this hint, the more especially as some nurses are the first to induce the lying-in patients to break it.

THE TENTH DAY. — The usual mode of diet may now be resumed, except that in addition to the former beverage, a pint of good sound ale may be taken daily, provided it is found to agree with the stomach.

It matters little from this time, whether the patient remains in the lying-in-chamber or not, as if a sitting-room adjoins it, it is better for her to be wheeled into it for the day, returning to the chamber in the evening. The atmosphere of which will thus be preserved purer and more refreshing to sleep in. This plan however can only be adopted where the bed-room opens into a sitting room, as it would be quite out of the question to remove the patient through any passage, or to another floor. And she should be wheeled from her bed-room, *lying* on the sofa; not *walk* from it.

It is never safe for her to join her family before the expiration of the third week, — and the *month* from her delivery having terminated, she gradually resumes her accustomed domestic duties.

CHAPTER VI.

SUCKLING.

SECT. I. — MANAGEMENT OF THE NIPPLES
PRIOR TO DELIVERY.

EVERY female, especially in a first pregnancy, ought during the six weeks prior to her confinement *to prepare* the nipples for nursing. The skin covering them is generally so thin and irritable, that suckling soon makes them tender and excoriated, and if this irritability is not diminished, and the delicate skin rendered thicker and more callous before labour comes on, nursing will frequently be obliged to be given up very soon after.

The plan to be adopted is simple enough:—all pressure upon the nipple and bosom must be most carefully avoided, flannels, or any thick covering must be laid aside, and the nipple itself must be washed, and rubbed three or four

times a day with green tea, brandy, or with the infusion of oak or pomegranate bark, and exposed to the air each time for ten minutes at least.

If the above remedies should not succeed, the following astringent lotion will : — Four grains of the sulphate of zinc, to one ounce of distilled rose-water ; to be used liberally.

These means must be regularly and perseveringly employed up to the day of confinement, and will accomplish the object desired, — the prevention of sore nipples.

SECT. II. — SORE NIPPLES.

The previous directions having been neglected, one of the most early and troublesome attendants upon suckling may arise — soreness of the nipples.

I. *If they are only tender and fretted*, the strong infusion of green tea, brandy, or the lotion of zinc just mentioned, — ringing the changes upon each, using each daily in its turn, will quickly harden the skin, and remove its

irritability. If not, try a lotion containing one grain of the nitrate of silver dissolved in one ounce of distilled rose-water. These applications should be used freely and frequently during the day, and the part exposed to the air afterwards.

II. *If they are tender and fretted, but also hot, dry, and very painful to the touch, and yet not chapped,* the stimulating applications before advised would only aggravate the mischief. A bread and water poultice should be first applied, changed every three hours, and fomentations of warm water, or decoction of poppy-heads after each poultice is removed.

When the unnatural heat, and great pain of the part is relieved, it must be dressed with a little spermaceti ointment spread upon thin linen or lint.

III. From the friction, however, of the child's tongue and gums, *the skin may have become excoriated, and cracks formed upon the nipple, or around its base.* Every time the infant sucks they bleed, and the mother suffers exquisite pain.

The first object in the treatment is this: that the infant shall obtain its nourishment

from the breast without its mouth coming in contact with the nipple. This is accomplished by means of shields made of glass, wood, ivory, or silver. The shield is neatly covered with an artificial, or prepared cow's teat, through which the child sucks without biting or irritating the nipple.

But this contrivance frequently fails, not because it is not good, but, because it is badly managed. When the teat is sewn on the shield its extremity should not extend beyond its apex more than half or three quarters of an inch; for if it projects more, the child will get the teat between its gums, press the sides of the teat together, and thus prevent the passage of the milk through it. The teat should also closely cover all the orifices to which it is stitched; for if not, air will pass in, no vacuum will be formed, and the child will draw nothing but air.

Of late I have employed a shield with a *cork nipple* as a substitute for the prepared teat. The nipple shield is made of ivory, or box-wood, with a small ivory tube for the passage of the milk. The cork nipple is placed upon the ivory

tube, and secured by means of a small collar which screws over the nipple on to the shield. The cork being of a particularly fine texture, is supple and elastic, yielding to the infant's lips while suckling. The cork being perfectly harmless, more cleanly and durable than the teat, and the ivory tube through its centre obviating the difficulty frequently met with from the misapplied teat, I would strongly advise its use.*

For the cure of the excoriated and chapped nipple, any one of the following remedies will be found useful:— Half an ounce of brandy to eight ounces of rose-water;—four grains of the sulphate of zinc, dissolved in one ounce of rose-water;—two grains of the sulphate of copper, in one ounce of camphor julip;—or one grain of the nitrate of silver, in one ounce of rose-water. These lotions by means of linen dipped into them, are to be applied frequently. If they fail, the surface of the sores or cracks may be *slightly* touched once a day with the nitrate of silver in substance, and in the intervals the part

* It is the invention of M. Darbo, of Paris, and is sold by Weiss and Son, 62. Strand.

kept smeared with an ointment, composed of two drachms of honey, and one ounce of spermaceti ointment, or half a drachm of Peruvian balsam, and one ounce of spermaceti ointment.

The nipple should always be washed with a little milk and water, both before and after suckling, which it will be remembered is to be effected through the shield.

These measures are commonly successful; if, however, they should not succeed, and the parent's health suffer from the continued pain and irritation attendant upon nursing, she must obtain either a wet nurse, or rear the child by an artificial diet.

SECT. III. — DRYING UP THE MILK.

It may be necessary from the delicate health of the mother — local defect, the nipple, for instance, being too small or obliterated by the pressure of tight stays — death of the infant, or some equally urgent cause, to dry up, or “backen the milk,” as it is popularly called.

For this purpose, if the breasts are only moderately hard, easy, and but little distended with milk, they must not be emptied; for this would encourage further secretion, and they would soon fill again. If, however, they are very hard and painful, and give much uneasiness from their distension, they must be partially emptied, so as just to relieve the distension — nothing more; and this is to be repeated as often as is absolutely necessary.

It is a very frequent practice to apply cold evaporating lotions to the breast. It is true they may produce a rapid dispersion of the milk, but they ought never to be resorted to, as they frequently give rise to symptoms of an alarming and dangerous character. The best and safest local application consists in the following liniment: — Compound soap liniment, three ounces; laudanum, three drachms; camphor liniment, one drachm; — or if this is found too irritating, compound soap liniment, alone. Either of these liniments must be applied warm, and constantly, by means of several layers of linen or flannel, covered by a piece of oiled silk; and the breast gently pressed, or rubbed

for five or ten minutes, every four or five hours, with warm almond oil.

A gentle aperient should be taken every morning, and, if necessary, at night, the object being to keep the bowels slightly relaxed. The diet must be very scanty, and solid nourishment only taken.

Following up this plan, the distress arising from the extreme distension of the breasts, if it have been present, will be removed; although several days will transpire before the milk is thoroughly dispersed, or the remedies can be discontinued.

SECT. IV. — UNCONTROLLABLE FLOW OF THE MILK.

This occasional evil seems to arise either from some original defect in the structure of the nipple itself, or from the milk tubes, which terminate at the nipple's point, having lost their elasticity, and therefore their power of retaining the milk: so that the mouths of these little

tubes never being closed, during the intervals of suckling, there is a constant draining of milk from them. This uninterrupted flow not only proves a source of great annoyance to the patient, but, after a time, seriously affects her health.

The means proposed to remedy this defect have been many, but I am obliged to confess their success infrequent. Benefit may be obtained by frequently applying a lotion containing one drachm of alum, dissolved in a pint of spring water, or thirty grains of the sulphate of zinc, in a pint of the decoction of oak-bark. The breast must be exposed for at least ten minutes after the application of the lotion, and the nipple washed with milk and water before the child is put to it. A glass receiver made for the purpose of catching the milk, must be constantly worn, and the breast have but slight clothing.

These measures I have always found successful where the case has not been in its worst form; if, however, such a case should occur—fortunately they are very rare—and the treatment is of no avail, the flow of milk not checked, and the health of the mother decidedly and seriously affected, the child must be weaned and the

milk dispersed. This becomes absolutely necessary for the mother's safety.

SECT. V. — PLAN OF SUCKLING.

From the first moment the infant is applied to the breast, it must be nursed upon a certain plan. This is necessary for the well doing of the child, and will contribute essentially to preserve the health of the parent, to keep her a good nurse, and render her duty a pleasure and delight.

Until the breast-milk is fully established — which may not be accomplished until the second or third day subsequent to delivery — the infant must be fed every four hours upon a little gruel, or upon one third of gruel, and two thirds of milk, sweetened with sugar. After this time, it must obtain its nourishment from the breast alone, at regular intervals of four or five hours day and night as this allows sufficient time for each meal to be digested, and tends to keep the bowels of the child in order. Such regularity, moreover, will

do much to obviate fretfulness, and that constant cry, which it seems as if nothing but for ever putting the child to the breast would allay. For the same reason the child that sleeps with its parent must not be allowed to have the nipple remaining in its mouth all night, and if nursed as recommended, will be found to awaken, as the hour for its meal approaches, with great regularity.

This plan, and without variation, must be pursued to the sixth or seventh month, when the child may be fed twice in the course of the day. Tops and bottoms steeped in hot water with the addition of fresh milk and a little white sugar being the best food: and as the teeth gradually make their appearance, beef tea and chicken broth may be given occasionally till weaning.

SECT. VI. — DEFICIENCY OF MILK.

It is the custom with many two or three weeks after their confinement, if the supply of

nourishment for the infant is scanty, to partake largely of malt-liquor for its increase. Sooner or later this will be found injurious to the constitution of the mother. But how then is the deficiency to be obviated? Let the nurse keep but in good health, and this point gained, the milk, both as to quantity and quality, will be as ample and good as can be produced by the individual."

I would recommend a plain, generous and nutritious diet — not one description of food exclusively, but as is natural, a wholesome, mixed, animal and vegetable diet, with or without wine, according to former habit. Regular exercise after leaving the lying-in-room, and the use of the cold salt water shower bath every morning; if the latter cannot be borne, sponging the head and chest as a substitute.

A pint of good sound ale may be taken daily and with advantage, if it agree with the stomach.

In this case, however, where there has been any early deficiency in the supply of nourishment, it will most frequently happen that long before the sixth or seventh month the infant's demands will be greater than the mother can

meet. The deficiency must be made up by artificial food, which must be of the kind generally employed before the sixth month, and given through the bottle. If, however, this plan of dieting should disagree, the child must have another nurse.

SECT. VII. — CHOICE OF A WET-NURSE.

Ill health and many other circumstances may prevent a parent from suckling her child, and render a wet-nurse necessary. Now although she will do wisely to leave the choice of one to her medical attendant, still as some difficulty may attend this, and as most certainly the principal points to which his attention is directed in the selection of a good nurse the mother herself ought to be acquainted with, it will be well to point out in what they consist.

The first thing then to which a medical man looks, is the general health of the woman — next, the condition of her breast — the quality

of her milk — its age, and her own — whether she is ever unwell while nursing — and, last of all, the condition and health of the child.

Is the woman in good health? Her general appearance ought to betoken a sound constitution — her tongue clean, and digestion good — her teeth and gums sound and perfect — her skin free from eruption, and her breath sweet.

What is the condition of the breast? A good breast should be firm and well formed — its size not dependant upon a large quantity of fat, which will generally take away from its firmness, giving it a flabby appearance, but upon its glandular structure, which conveys to the touch a knotted, irregular and hard feel — and the nipple must be perfect, of moderate size, but well developed.

What is the quality of the milk? It should be thin, and of a bluish-white colour; sweet to the taste; and when allowed to stand, should throw up a considerable quantity of cream.

What is its age? If the lying-in month of the patient has scarcely expired, the wet-nurse hired, ought certainly not to have reached her second month. At this time the nearer the

birth of the child, and the delivery of its foster parent, the better.

The nurse should not be too old. A vigorous young woman from twenty-one to thirty, admits of no question. And the woman who has had one or two children before is always to be preferred, as she will be likely to have more milk, and may also be supposed to have acquired some experience in the management of infants.

Inquire of her *whether she is ever unwell while nursing*. If so, reject her at once. You will have no difficulty in ascertaining this point, for this class of persons have an idea that their milk is *renewed*, as they term it, by this circumstance, monthly; and, therefore, that it is a recommendation, rendering their milk fitter for younger children than it would otherwise have been. — It produces, however, quite a contrary effect: it much impairs the milk, which will be found to disagree with the child, rendering it at first fretful, — after a time being vomited up, and productive of frequent watery dark green motions.

Last of all, *what is the condition of the child?* It ought to have the sprightly appearance of

health — to bear the marks of being well nourished — its flesh firm — its skin clean and free from eruption. It should be examined in this respect particularly about the head and neck, as also its gums.

If a medical man finds that both mother and child answer to the above description, he has no hesitation in recommending the former as likely to prove a good wet-nurse.

THE END.

LONDON :
Printed by A. SPOTTISWOODE,
New-Street-Square.

39, PATERNOSTER ROW, LONDON.
August, 1838.

NEW WORKS AND NEW EDITIONS.



PUBLISHED BY
LONGMAN, ORME, BROWN, GREEN, & LONGMANS.
PATERNOSTER-ROW.

On Saturday, September 1, will be published, in 8vo. Part I. and No. I.
TO BE COMPLETED IN TEN MONTHLY PARTS, PRICE FIVE SHILLINGS EACH,
And Fifty Weekly Numbers, at One Shilling each,

ILLUSTRATED BY
UPWARDS OF ONE THOUSAND ENGRAVINGS ON WOOD,
OF
A DICTIONARY OF
ARTS, MANUFACTURES, AND MINES;
CONTAINING A CLEAR EXPOSITION OF THEIR PRINCIPLES AND PRACTICE.

BY ANDREW URE, M.D.
F.R.S. M.G.S. M.A.S. LONDON;
M. ACAD. N.S. PHILADEL.; S. PH. SOC. NORTH. GERM.; HANOV.; MULH. &C. &C.

THE author has embodied in this work the results of his long experience as a Professor of Practical Science. Since the year 1805, when he entered at an early age upon the arduous task of conducting the Schools of Chemistry and Manufactures in the Andersonian University, up to the present day, he has been assiduously engaged in the study and improvement of most of the Chemical, and many of the Mechanical Arts. Consulted professionally by Proprietors of Factories, Workshops, and Mines, of various descriptions, both in this country and abroad, concerning derangements in their operations, or defects in their products, he has enjoyed peculiar opportunities of becoming familiar with their minutest details, and has frequently had the good fortune to rectify what was amiss, or to supply what was wanting. Of the stores of information thus acquired, he has availed himself on the present occasion; careful meanwhile to neglect no means of knowledge which his extensive intercourse with foreign nations affords.

The latest Statistics of each important object of Manufacture is given.

. *Specimens, with Prospectus, may be had of all Booksellers.*

NATURAL HISTORY.

INTRODUCTION TO ENTOMOLOGY;

Or, Elements of the Natural History of Insects.
By W. KIRBY, M.A. F.R.S. & L.S. and WILLIAM SPENCE, Esq. F.L.S.
5th edition, 4 thick vols. 8vo. Plates and Portraits, price 4*l.* in boards.

SEQUEL TO KIRBY AND SPENCE.

INTRODUCTION TO THE MODERN CLASSIFICATION OF INSECTS:

Comprising an Account of the Habits & Transformations of the different Families;
A Synopsis of all the British, and a Notice of the more remarkable Foreign Genera.

By J. O. WESTWOOD, Sec. Ent. Soc. London, F.L.S. &c.
Parts 1 to 4, price 2*s.* 6*d.* each. To be completed in about Ten Monthly Parts,
containing upwards of a Thousand Illustrations on Wood.

MANUAL OF

BRITISH VERTEBRATE ANIMALS:

Containing Descriptions and Measurements of all the British Animals belonging
to the Classes *Mammalia*, *Aves*, *Reptilia*, *Amphibia*, and *Pisces*.

By the Rev. LEONARD JENYNS, M.A., F.L.S. &c. 8vo. 13*s.* boards.

A HISTORY OF THE RARER BRITISH BIRDS.

Containing Descriptions of all the Species discovered since the time of Bewick,
with Woodcut Figures of nearly all, and with Vignettes; also, a Systematic
Catalogue of all the British Birds hitherto discovered.

By T. C. EYTON, Esq. F.L.S.
8vo. 10*s.* 6*d.*; royal 8vo. 21*s.*

By the same Author, in 4to. 4*l.* cloth lettered,
Illustrated by 24 Lithographic Plates, chiefly by Gould, Scharf, and Lear; and
upwards of 70 Woodcuts.

A MONOGRAPH OF THE ANATIDÆ, OR DUCK TRIBE;

Including the GEESE and SWANS.

LETTERS TO A YOUNG NATURALIST,

By J. L. DRUMMOND, M.D., Author of "First Steps to Botany."
12mo. Cuts, 7*s.* 6*d.* boards.

BOOK OF NATURE:

A Popular Illustration of the General Laws and Phenomena of Creation.
By J. MASON GOOD, M.D. F.R.S. 3d Edit. 3 vols. fcp. 8vo. 24*s.*

TAXIDERMY;

Or, the Art of Collecting and Preparing Objects of Natural History.
12mo. Plates, 4th Edition, 7*s.* 6*d.*

ESSAYS ON NATURAL HISTORY.

By CHARLES WATERTON, Esq. of Walton Hall;
Author of "Wanderings in South America."
Second Edition, 1 vol fcp. 8vo. 8*s.* cloth lettered.

Natural History—continued.

GEOLOGY, CONCHOLOGY, & MINERALOGY.

REPORT ON THE
GEOLOGY OF CORNWALL, DEVON, AND
WEST SOMERSET,

By Order of the Lords Commissioners of Her Majesty's Treasury.
By HENRY T. DE LA BECHE, F.R.S. &c. Director of the Ordnance Geological
Survey. 1 vol. 8vo. with numerous Sections and Plans.—*Shortly.*

AN INTRODUCTION TO GEOLOGY;

Intended to convey a Practical Knowledge of the Science; and comprising the
most important recent Discoveries; with Explanations of the Facts and Phenomena
which serve to confirm or invalidate various Geological Theories.

BY ROBERT BAKEWELL.

5th Edition, considerably enlarged from the 4th Edition, and with new Sections
and Cuts, price One Guinea in cloth, lettered.

NEW SYSTEM OF GEOLOGY;

In which the great Revolutions of the Earth and Animated Nature are
reconciled to Modern Science and to Sacred History.

By A. URE, M.D. F.R.S.

8vo. with 7 Plates, and 51 Woodcuts, 21s.

CONVERSATIONS ON MINERALOGY.

With 12 Plates, engraved by Mr. and Miss LOWRY.

Third Edition enlarged, 2 vols. 12mo. price 14s. cloth.

MR. JOHN EDWARD GRAY, of the British Museum, is preparing a New Edition,
thoroughly revised, and with considerable Additions, of TURTON'S

MANUAL OF THE
LAND AND FRESH-WATER SHELLS
OF THE BRITISH ISLANDS.

Also, by Mr. J. E. GRAY,

OUTLINES OF CONCHOLOGY;

Or, a short Account of the Orders, Families, and Genera of Molluscan Animals
and their Shells. Illustrated with 12 Plates.

INTRODUCTION TO LAMARCK'S
CONCHOLOGY.

By E. A. CROUCH, F.L.S.

4to. 22 Plates, 31s. 6d. plain; 3l. 3s. coloured.

Natural History—continued. Botany.

BOTANY, AGRICULTURE, ETC.

BY JOHN LINDLEY, PH. D. F.R.S. L.S. &c.

PROFESSOR OF BOTANY IN THE LONDON UNIVERSITY COLLEGE AND IN
THE ROYAL INSTITUTION.

INTRODUCTION TO BOTANY,

Second Edition, with Corrections and considerable Additions.
One large vol. 8vo. with numerous Plates and Woodcuts, 18s. cloth.

"The most valuable and perfect in any language we are acquainted with."—Medical Gaz.

A NATURAL SYSTEM OF BOTANY;

Or, a Systematic View of the Organization, Natural Affinities, and Geographical
Distribution of the whole Vegetable Kingdom; together with the Uses of
the most important Species in Medicine, the Arts, &c.

2d Edition, with numerous Additions and Corrections, 1 vol. 8vo. 18s. cloth.

SYNOPSIS OF THE BRITISH FLORA,

Arranged according to the Natural Orders.

Second Edition, with numerous Additions, Corrections, and Improvements.
12mo. 10s. 6d. boards.

A KEY TO STRUCTURAL, PHYSIOLOGICAL,
AND SYSTEMATIC BOTANY.

For the use of Classes. 8vo. 4s. 6d.

FLORA MEDICA:

Or, a Botanical Account of all the most remarkable Plants applied to Medical
Practice in Great Britain and other Countries.

1 vol. 8vo. 18s. cloth lettered.

FIRST PRINCIPLES OF HORTICULTURE.

2s. sewed.

GUIDE TO THE ORCHARD AND KITCHEN
GARDEN.

By G. LINDLEY, C.M.H.S. Edited by J. LINDLEY, Ph. D. F.R.S. &c.
1 large volume, 8vo. 16s. boards.

INTRODUCTION TO THE STUDY OF
PHYSIOLOGICAL AND SYSTEMATICAL
BOTANY.

By Sir J. E. SMITH.

New Edition, with Illustrations of the Natural Orders (combining the object of
Sir JAMES SMITH'S "Grammar" with that of his "Introduction.")

Edited by Sir W. J. HOOKER, LL.D. &c. 8vo. 36 Plates, 16s. cloth.

Natural History—Botany, continued.

BY SIR JAMES EDWARD SMITH, M.D. F.R.S.

LATE PRESIDENT OF THE LINNÆAN SOCIETY, ETC.

THE ENGLISH FLORA.

New Edition, in 4 vols. 8vo., containing the FLOWERING PLANTS, and the FERNS, 2*l.* 8*s.*

Vol. V. Part 1, 12*s.*—CRYPTOGAMIA: comprising the Mosses, &c.

By Sir W. J. HOOKER, LL.D. F.R.A. and L.S., &c. &c.

Vol. V. Part 2—The FUNGI—completing the Work—by Sir W. J. HOOKER, and the Rev. M. J. BERKELEY, F.L.S., &c. 8vo. 12*s.*

COMPENDIUM OF THE ENGLISH FLORA.

Second Edition. By Sir W. J. HOOKER, LL.D., &c. 12mo. 7*s.* 6*d.*

THE SAME IN LATIN. 5th Edition, 12mo. 7*s.* 6*d.*

BY SIR WILLIAM JACKSON HOOKER, K.B. LL.D.

REGIUS PROFESSOR OF BOTANY IN THE UNIVERSITY OF GLASGOW, ETC.

THE BRITISH FLORA;

Comprising the FLOWERING PLANTS and the FERNS.

8vo. 4th Edit. enlarged and corrected, with 4 Plates, 12*s.* plain; 16*s.* coloured.

. In this edition all the newly-discovered Species are introduced. The Linnæan arrangement is followed in the body of the work; but in the Appendix are given the Characters of all the Natural Orders, with a List of the Genera, referring to the pages where they are described.

Vol. II. Part 1 of the above (CRYPTOGAMIA), 8vo. 12*s.*

Vol. II. Part 2 (FUNGI), completing the work, by Sir W. J. HOOKER, and the Rev. M. J. BERKELEY. 8vo. 12*s.*

MUSCOLOGIA BRITANNICA.

Containing the Mosses of Great Britain and Ireland, systematically arranged and described; with Plates.

By Sir W. J. HOOKER, LL.D. F.L.S. &c., and T. TAYLOR, M.D. F.L.S. &c.
8vo. 2d Edit. enlarged, 31*s.* 6*d.* plain; 3*l.* 3*s.* coloured.

ICONES PLANTARUM;

Or, FIGURES, with brief Descriptive Characters and Remarks, of NEW or RARE PLANTS, from the Author's Herbarium.

2 vols. 8vo. with 200 Plates, price 2*l.* 16*s.* cloth lettered.

Natural History—Botany, continued.

BY J. C. LOUDON, F.L.S. &c. &c.

ENCYCLOPÆDIA OF PLANTS;

Comprising the Description, Specific Character, Culture, History, Application in the Arts, and every other desirable Particular, respecting all the Plants Indigenous to, Cultivated in, or Introduced into Britain.

With nearly 10,000 Engravings on Wood. Second edition, corrected.

One large vol. 8vo. 3l. 13s. 6d. boards.

"The most useful and popular botanical work that has ever appeared in the English language."—Jameson's Philosophical Journal.

HORTUS BRITANNICUS:

A Catalogue of all the Plants Indigenous to, Cultivated in, or Introduced into Britain.

Part 1.—The Linnæan Arrangement, in which nearly 30,000 Species are enumerated, &c.; preceded by an Introduction to the Linnæan System.

Part 2.—The Jussieuan Arrangement of nearly 4000 Genera; with an Introduction to the Natural System, and a Description of each Order.

8vo. 23s. 6d. in cloth.

AN ENCYCLOPÆDIA OF GARDENING;

Comprising the Theory and Practice of Horticulture, Floriculture, Arboriculture, and Landscape Gardening; including all the latest Improvements; a General History of Gardening in all Countries; and a Statistical View of its Present State; with Suggestions for its Future Progress in the British Isles.

New Edit. greatly enlarged & improved; with nearly 1000 Engravings on Wood.

1 vol. 8vo. 2l. 10s.

ENCYCLOPÆDIA OF AGRICULTURE;

Comprising the Theory and Practice of the Valuation, Transfer, Laying out, Improvement, and Management of Landed Property; and the Cultivation and Economy of the Animal and Vegetable Productions of Agriculture, including the latest Improvements; a General History of Agriculture in all Countries; and a Statistical View of its Present State; with Suggestions for its future Progress in the British Isles.

One large vol. 8vo. With nearly 1300 Engravings on Wood. 3d Edit. 2l. 10s. bds.

ARBORETUM ET FRUTICETUM
BRITANNICUM;

Or, the Trees and Shrubs of Great Britain, Native and Foreign, Pictorially and Botanically delineated, and Scientifically and Popularly described;

With their Propagation, Culture, Management and Uses in the Arts, in Useful and Ornamental Plantations, and in Landscape Gardening. Preceded by a Historical and Geographical Outline of the Trees and Shrubs of Temperate Climates throughout the World. Eight thick Volumes, 8vo. (Four of Letterpress and Four of Plates), consisting of above 3000 Pages of Letterpress, above 400 Octavo Plates of Trees, and upwards of 2500 Woodcuts of Trees and Shrubs, price 10l. neatly bound in cloth lettered.

Natural History—Botany, Agriculture, &c. continued.

ELEMENTS OF PRACTICAL AGRICULTURE;

Comprehending the Cultivation of Plants, the Husbandry of Domestic Animals, and the Economy of the Farm.

By DAVID LOW, Esq. F.R.S.E.

Professor of Agriculture in the University of Edinburgh.

1 vol. 8vo. 2d Edition, with Alterations and Additions, and above 200 Woodcuts, 18s. cloth lettered.

"No work on agriculture has appeared in our time which will bear a comparison with this excellent, and we would say classical work, of Professor Low. It will become the manual of practical agriculture for the British empire; and the judicious views and sound rules of our author will unquestionably prove beneficial to the agriculturists of other countries."—Jameson's Edin. Philosophical Journal.

ELEMENTS OF AGRICULTURAL CHEMISTRY.

By SIR HUMPHRY DAVY, Bart., LL.D. F.R.S., &c.

Fifth edition, with Notes by his Brother, Dr. John Davy, 8vo. 15s.

THE CULTIVATION OF THE GRAPE VINE ON OPEN WALLS.

By CLEMENT HOARE.

8vo. new Edition, with Additions, price 7s. 6d. cloth.

"Mr. Hoare has thrown more light on the subject of vine culture than any British gardener who has written on the subject."—London's Gardener's Magazine.

FIRST STEPS TO BOTANY.

By J. L. DRUMMOND, M.D. 12mo. 100 Woodcuts. 3d. Edition, 9s. bds.

CONVERSATIONS ON BOTANY.

With Twenty two Engravings.

12mo., 8th Edition, enlarged, 7s. 6d. plain; 12s. coloured.

CONVERSATIONS ON VEGETABLE PHYSIOLOGY.

Comprehending the Elements of Botany, with their Application to Agriculture.

By JANE MARCET. 2 vols. 12mo., with Plates, 2d Edit. 12s.

By the same Author.

CONVERSATIONS ON NATURAL PHILOSOPHY.

8th Edition, 10s. 6d. boards. With 22 Engravings by Lowry.

CONVERSATIONS ON CHEMISTRY,

In which the Elements of that Science are familiarly explained and illustrated by Experiments; with Conversations on the Steam Engine.

2 vols. 12mo. 13th Edition, with Plates by Lowry, 14s. boards.

POETRY, &c.

SOUTHEY'S POETICAL WORKS;

COLLECTED BY HIMSELF.

10 vols. fcp. 8vo. with Frontispieces and Vignettes, price 2*l.* 10*s.* cloth lettered.

JAMES MONTGOMERY'S POETICAL WORKS.

A complete collected Edition, 3 vols. small 8vo. 18*s.*

LALLA ROOKH: AN ORIENTAL ROMANCE.

By THOMAS MOORE, Esq.

New Edition, with Four Engravings, from Paintings by R. WESTALL, R.A.

Fcp. 8vo. 10*s.* 6*d.* Demy 8vo. without plates, 14*s.*

Also,

IRISH MELODIES.

New Edition, foolscap 8vo. *in the press.*

FAMILY SHAKSPEARE;

In which nothing is added to the Original Text; but those Words and Expressions are omitted, which cannot with propriety be read aloud in a Family.

By T. BOWDLER, Esq. F.R.S.

New Edition, in 1 large vol. 8vo. with 36 Illustrations after Smirke, Howard, &c. 30*s.* cloth; gilt edges, 31*s.* 6*d.*

Or in larger type, without Illustrations, in 8 vols. 8vo. 4*l.* 14*s.* 6*d.* bds.

REMAINS OF HENRY KIRKE WHITE;

Selected, with prefatory Remarks, by ROBERT SOUTHEY, Esq.

2 vols. 8vo. 24*s.*; and 1 vol. 24mo. with engraved Title and Vignette, 5*s.*

SELECT WORKS OF THE BRITISH POETS,

From JONSON to BEATTIE. With Biographical and Critical Prefaces.

By DR. AIKIN.

1 vol. 8vo. 18*s.* in cloth; or neatly done up, gilt edges, 20*s.*

SELECT WORKS OF THE BRITISH POETS,

From CHAUCER to WITHERS. With Biographical Sketches.

By ROBERT SOUTHEY, LL.D.

1 vol. 8vo. uniform with "Aikin's Poets," 30*s.* cloth; or gilt edges, 1*l.* 11*s.* 6*d.*

THE MORAL OF FLOWERS.

With 24 beautifully coloured Plates, royal 8vo. 3d Edition. 30*s.* half-bound.

"Full of exquisite poetry."—Blackwood's Magazine.

By the same Author,

THE SPIRIT OF THE WOODS.

1 vol. royal 8vo. with 26 beautifully-coloured Engravings, price 36*s.* half-bound.

"The two elegant volumes with which Mrs. William Hey has favoured the public, are well fitted to lend grace and ornament to that which is solid and useful."—Med. Gazette.

JOANNA BAILLIE'S POEMS, &c.

NEW DRAMAS, 3 vols. 8vo. 36*s.*—A SERIES OF PLAYS, in which it is attempted to delineate the stronger Passions of the Mind. 3 vols. 8vo. 1*l.* 11*s.* 6*d.*

MISCELLANEOUS PLAYS, 8vo. 9*s.*—METRICAL LEGENDS, 8vo. 14*s.*

RELIGION, THEOLOGY, &c.

COLLEGE & SCHOOL GREEK TESTAMENT,

With English Notes.

1 vol. 12mo. price 12s. cloth lettered.

By the Rev. S. T. BLOOMFIELD, D.D. F.S.A., of Sidney College, Cambridge;
Vicar of Bisbrooke, Rutland.

By the same Editor,

THE GREEK TESTAMENT,

With English Notes, Critical, Philological, and Exegetical, partly selected and arranged from the best Commentators, Ancient and Modern, but chiefly Original.

Second Edition, considerably improved, in 2 thick vols. 8vo. price 2*l*.

**GREEK AND ENGLISH LEXICON OF THE
NEW TESTAMENT.**

By E. ROBINSON, D.D., Professor of Biblical Literature in the Theological Seminary, New York.

Edited, with careful revision, corrections, &c. &c. By the Rev. S. T. Bloomfield, D.D. F.S.A. 1 vol. 8vo. price 28s. in cloth, lettered.

THE SUNDAY LIBRARY;

A Selection of Sermons from Eminent Divines of the Church of England, chiefly within the last Half Century.

With Notes, &c. by the Rev. T. F. DIBDIN, D.D.

Complete in 6 vols. small 8vo. with 6 Portraits of distinguished Prelates, 30s. cloth.

THE SACRED HISTORY OF THE WORLD;

Philosophically considered, in a Series of Letters to a Son.

By SHARON TURNER, Esq. F.S.A. and R.A.S.L. 5th Edit. 2 vols. 8vo. 28s.

The Third and concluding Volume is just published, price 14s.

PRINCIPLES OF CHRISTIAN PHILOSOPHY;

Containing the Doctrines, Duties, Admonition, and Consolations of the Christian Religion.

By JOHN BURNS, M.D.

Regius Professor of Surgery in the University of Glasgow, &c.
12mo. 4th Edition, 7s. bds.

LETTERS FROM AN ABSENT GODFATHER;

OR, A COMPENDIUM OF RELIGIOUS INSTRUCTION FOR YOUNG PERSONS.

By the Rev. J. E. RIDDLE, M.A., Curate of Harrow.

Author of "First Sundays at Church," &c. &c.

12mo. 6s. cloth lettered.

**DISCOURSES ON THE SOCINIAN
CONTROVERSY.**

By RALPH WARDLAW, D.D. Glasgow. 8vo. fifth Edition, 15s. cloth lettered.

By the same Author. SERMONS. 8vo. 12s.

ORIENTAL CUSTOMS:

Applied to the Illustration of the Sacred Scriptures.

By SAMUEL BURDER, A.M. &c.

New Edition, 12mo. 8s. 6d. cloth lettered.

HISTORY AND BIOGRAPHY.

A VIEW OF THE REIGN OF JAMES II.

From his Accession to the Enterprize of the Prince of Orange.

By the late Right Hon. Sir JAMES MACKINTOSH.

In 4to., with a Portrait, 31s. 6d.

"We have no hesitation in pronouncing this fragment decidedly the best history now extant of the reign of James the Second. It contains much new and curious information, of which excellent use has been made. The accuracy of the narrative is deserving of high admiration."
Edinburgh Review.

Also, the above, completed to the SETTLEMENT of the CROWN, by the EDITOR. To which is prefixed, a Notice of the Life, Writings, and Speeches of Sir James Mackintosh. 4to. 3l. 3s.

LIFE AND TIMES OF WILLIAM III.

King of England and Stadtholder of Holland.

By the Right Honorable A. TREVOR (now Lord Dungannon), M.P. F.A.S. &c.

2 vols. 8vo. with Portrait, &c. price 24s.

LIFE OF FREDERIC II., KING OF PRUSSIA.

By LORD DOVER.

2 vols. 8vo. with Portrait, Second Edition, 28s.

"A most delightful and comprehensive work.—Judicious in selection, intelligent in arrangement, and graceful in style."—Literary Gazette.

MEMOIRS OF SIR WILLIAM TEMPLE.

By the Right Hon. THOMAS PEREGRINE COURTENAY.

2 vols. 8vo., with Portrait, 28s.

LIFE OF SIR HUMPHRY DAVY, BART.

By his Brother, Dr. JOHN DAVY.

2 vols. 8vo. with Portrait, 28s.

HISTORY OF ENGLAND,

From the Earliest Period to the Death of Elizabeth.

By SHARON TURNER, Esq. F.A.S. R.A.S.L. 12 vols. 8vo. 8l. 3s. bds.

The same work may also be had in the following separate portions:—

HISTORY OF THE ANGLO-SAXONS. 3 vols. 8vo. 6th Edit. 2l. 5s. bds.

ENGLAND during the MIDDLE AGES. 5 vols. 8vo. 3d Edit. 3l. bds.

THE REIGN OF HENRY VIII. 2 vols. 8vo. 3d Edit. 1l. 6s. bds.

EDWARD VI., MARY, AND ELIZABETH. 2 vols. 8vo. 3d Edit. 1l. 12s. bds.

GIBBON'S HISTORY of the ROMAN EMPIRE:

For the Use of Families and Young Persons.

Reprinted from the Original Text, with the careful Omission of all Passages of an irreligious or immoral tendency.

By THOMAS BOWDLER, Esq. F.R.S. &c.

5 vols. 8vo. 3l. 3s. bds.

HISTORY OF THUCYDIDES;

Newly translated into English, and illustrated with very copious Annotations, &c.

By the Rev. S. T. BLOOMFIELD, D.D. &c. Editor of the Greek Testament.

3 vols. 8vo. with Maps, 2l. 5s. bds.

"A version as literal and as perspicuous as erudition and industry combined can render it."
Eclectic Review.

History and Biography—continued.

LIFE AND ADMINISTRATION OF
EDWARD, FIRST EARL OF CLARENDON.

With Original Correspondence and Authentic Papers, never before published.

By THOMAS HENRY LISTER, Esq.

3 vols. 8vo. with Portrait and Fac-similes, price 2*l.* 8*s.* cloth lettered.

COMPANION TO MAUNDER'S TREASURY OF KNOWLEDGE.

THE BIOGRAPHICAL TREASURY;

Containing Memoirs, Sketches, or brief Notices of the Lives of about 12,000 Eminent Persons, from the earliest periods of History to the Present Day; surrounded by nearly 3500 Maxims and Precepts, original and selected.

By SAMUEL MAUNDER.

8*s.* 6*d.* cloth; 10*s.* 6*d.* bound, gilt leaves.

"A work worthy of great and lasting favour."—Literary Gazette.

"An extraordinary book, whether we look at the labour necessary to its production, the quantity of matter it contains, or the price at which it is sold."—Spectator.

VOYAGES & TRAVELS, GEOGRAPHY, &c.

JOURNAL OF A RESIDENCE IN NORWAY,

Made with a view to inquire into the Rural and Political Economy of that Country, and the Condition of its Inhabitants.

By SAMUEL LAING, Esq. Second edition, 1 vol. 8vo. 14*s.* cloth.

"A book which everybody should read."—Dublin Review.

SEVEN WEEKS' TOUR ON THE CONTINENT.

By JOHN ROBY, Esq. M.R.S.L.

2 vols. with Map and numerous Illustrations, 25*s.*

"The best book of the kind that has issued from the press these fifty years."—Standard.

RAMBLES IN THE PYRENEES,

AND A VISIT TO SAN SEBASTIAN.

By FREDERIC W. VAUX, Esq.

1 volume, post 8vo. with a Frontispiece drawn by Rochard, from a sketch by the Author, a Map, and 6 Engravings on Wood by S. Williams.

10*s.* 6*d.* cloth lettered.

IMAGERY OF FOREIGN TRAVEL;

Or, Descriptive Extracts from "Scenes and Impressions in Egypt," India, Spain, Portugal, Italy, Germany, &c. &c.

By MAJOR SHERER. 1 vol. post 8vo. 9*s.* 6*d.* cloth lettered.

SKETCH OF
ANCIENT AND MODERN GEOGRAPHY.

By SAMUEL BUTLER, D.D. Lord Bishop of Lichfield and Coventry, late Head Master of Shrewsbury Royal Free Grammar School.

8vo. new edition, corrected, 9*s.* bds.

AN ABRIDGMENT of the same, 12mo. price 2*s.* cloth.

By the same Author.

ATLAS OF MODERN GEOGRAPHY,
8vo. 12*s.* half-bound.

ATLAS OF ANCIENT GEOGRAPHY,
8vo. 12*s.* half-bound.

GENERAL ATLAS OF ANCIENT AND
MODERN GEOGRAPHY,
4to. 24*s.* half-bound.

Voyages, &c.—continued.

ENCYCLOPÆDIA OF GEOGRAPHY:

Comprising a complete Description of the Earth; exhibiting its relation to the Heavenly Bodies, its Physical Structure, the Natural History of each Country, and the Industry, Commerce, Political Institutions, and Civil and Social State of all Nations.

By HUGH MURRAY, F.R.S.E.

Assisted in

ASTRONOMY, &c. by Prof. Wallace, | BOTANY, &c. by Sir W. J. Hooker,
GEOLOGY, &c. by Prof. Jameson, | ZOOLOGY, &c. by W. Swainson, Esq.
With 82 Maps, drawn by Sidney Hall, and upwards of 1000 other Engravings on Wood, from Drawings by Swainson, T. Landseer, Sowerby, &c. representing the most remarkable objects of Nature and Art in every region of the Globe.

Complete in one thick volume of upwards of 1500 pages, 8vo., 3l. hf.-bd. vellum.

"It is without a rival."—*Asiatic Journal*.—"The most perfect book on its subject."—*Atlas*.

NEW GENERAL ATLAS OF FIFTY-THREE MAPS,

On Colombier Paper,

With the Divisions and Boundaries carefully coloured.

Constructed entirely from New Drawings, and engraved by SIDNEY HALL.
(Corrected to the present time).

Folded in half, and bd. in canvass. £8 18 6

Ditto, half-bound in Russia 9 9 0

In the full extended size of the Maps, half-bound in Russia . 10 0 0

ALPHABETICAL INDEX of all the NAMES contained in the above Atlas,
With references to the Number of the Maps, and to the Latitude and Longitude in which the Places are to be found. Royal 8vo. 21s. cloth.

COMMERCE, &c.

A HISTORY OF PRICES,

With Reference to the Causes of their principal Variations, from 1792 to the present Time.

Preceded by a brief Sketch of the HISTORY of the CORN TRADE
in the last two Centuries.

By THOMAS TOOKE, Esq., F.R.S. 2 vols. 8vo. price 1l. 16s. cloth lettered.

A DICTIONARY,

PRACTICAL, THEORETICAL, AND HISTORICAL,

OF

COMMERCE & COMMERCIAL NAVIGATION.

Illustrated with Maps and Plans.

A New Edition, corrected and improved, in one closely and beautifully-printed volume, containing upwards of 1350 pages, 50s. bds.

By J. R. M'CULLOCH, Esq.

LIBER MERCATORIS;

OR, THE MERCHANT'S MANUAL:

Being a practical Treatise on Bills of Exchange, particularly as relating to the Customs of Merchants; with the French Code relating to Bills of Exchange.

By F. HOBLER, Jun. Attorney-at-Law;

Author of "Familiar Exercises between an Attorney and his Articled Clerk."

Foolscap 8vo. price 6s. cloth lettered.

Commerce, &c. continued.

STEEL'S SHIP-MASTER'S ASSISTANT,
AND OWNER'S MANUAL;

Containing General and Legal Information necessary for Owners and Masters of Ships, Ship-Brokers, Pilots, and other persons connected with the Merchant Service. New Edition, newly arranged, and corrected (containing the New Customs Laws, &c.), by J. STIKEMAN, Custom-House Agent.

With Tables of Weights, Measures, Monies, &c., by Dr. KELLY.

One large and closely-printed vol. 21s. bds.; 22s. 6d. bd.

CONVERSATIONS ON POLITICAL ECONOMY.

By JANE MARCET. 12mo. 6th Edition, 9s. bds.

By the same Authoress.

JOHN HOPKINS' NOTIONS ON POLITICAL ECONOMY. 12mo. 4s. 6d.

THE
HISTORY AND PRINCIPLES OF BANKING.

By J. W. GILBART. 4th Edit. enlarged, 8vo. 9s.

This book may be considered as a grammar of banking. The general reader may here acquire a competent knowledge of most of the facts and principles connected with the subject.

MISCELLANEOUS.

THE ROBBER: A TALE.

By the Author of "The Gipsy," &c. &c. &c. 3 vols. post 8vo. 1l. 11s. 6d.

"The best of Mr. James's romances."—Spectator.

THE DOCTRINE OF THE DELUGE.

Vindicating the Scriptural Account from the Doubts which have recently been cast upon it by Geological Speculations.

By the Rev. LEVESON VERNON HARCOURT. 2 vols. 8vo. 1l. 16s. cloth lettered.

LETTERS ON THE SUBJECT OF THE CATHOLICS,

To my brother Abraham, who lives in the Country.

By PETER PLYMLEY. Post 8vo. 21st Edition, 7s. cloth lettered.

THE DOCTOR, &c.

Vol. V. post 8vo. 10s. 6d.

. Vols. 1 to 4, price 2l. 2s.

"Rich, beyond almost any other of the time, in the best knowledge, and in the most beautiful literature."—Quarterly Review, No. 104.

Miscellaneous—continued.

COLONIZATION AND CHRISTIANITY:

A Popular History of the Treatment of the Natives in all their Colonies by the Europeans.

By WILLIAM HOWITT, Author of "The Book of the Seasons," etc.
1 vol. post 8vo. 10s. 6d. cloth lettered.

By the same Author.

THE RURAL LIFE OF ENGLAND.

2 vols. post 8vo. beautifully illustrated with woodcuts by S. Williams.
24s. in cloth lettered.

WOMAN IN HER SOCIAL AND DOMESTIC CHARACTER.

By Mrs. JOHN SANDFORD. 5th Edition, 12mo. 6s. in cloth.

By the same Authoress.

ON FEMALE IMPROVEMENT.

2 vols. 12mo. 12s. cloth.

"Mrs. Sandford's previous work entitles her name to respect, and her present performance strengthens her claim to it. It is an offering which her sex should receive with gratitude."
Court Journal.

LACON; OR, MANY THINGS IN FEW WORDS.

By the Rev. C. C. COLTON. New Edition, 8vo. 12s. cloth.

SELECTIONS FROM THE EDINBURGH REVIEW;

With a preliminary Dissertation, and Notes.
Edited by MAURICE CROSS, Esq. 4 large vols. 3l. 3s. bds.

WORKS OF GENERAL UTILITY.

**THE TREASURY OF KNOWLEDGE,
AND LIBRARY OF REFERENCE.**

By SAMUEL MAUNDER.

The whole uniquely surrounded by Moral Maxims and Proverbs. 9th Edition.
1 thick vol. royal 18mo. neatly printed in pearl, 8s. 6d. cloth;
or 10s. 6d. embossed and gilt.

**HINTS ON ETIQUETTE;
AND THE USAGES OF SOCIETY, &c.**

By Αἰωγός. Sixteenth Edition. Fcap. 8vo. 2s. 6d. gilt edges.

INSTRUCTIONS TO YOUNG SPORTSMEN.

By Lieut.-Col. P. HAWKER.

8th Edition, greatly enlarged, thoroughly revised, with new Cuts of Heads of Wild and Tame Swans, all his last new Coast-Gear, with many other original subjects; and containing altogether 60 Plates and Woodcuts.

Price One Guinea cloth lettered.

"Col. Hawker's 'Instructions to Sportsmen' is the very best book we have on the subject."
Blackwood's Magazine.

Works of General Utility—continued.

THE GUN;

Or, a Treatise on the Nature, Principle, and Manufacture of the various descriptions of Small Fire-Arms.

By WILLIAM GREENER. 1 vol. 8vo. plates, 15s.

"I have no hesitation in saying that I consider it by far the best work ever written on the subject, and I should recommend the perusal of it to every gun-maker in the United Kingdom."—Letter from Col. Hawker.

SHORT WHIST; Its Rise, Progress, and Laws :

With Maxims for Beginners. By MAJOR A*****.

5th Edition, fcap. 8vo. with Frontispiece, 3s. in fancy cloth, gilt edges.

TOMLINS'S POPULAR LAW DICTIONARY.

1 thick volume, post 8vo. 18s. cloth lettered.

"A volume of the greatest utility, and affords a vast mass of information essentially necessary to almost every man in his ordinary occupations of life."—Weekly Dispatch.

HINTS TO MOTHERS.

By THOMAS BULL, M.D.

Physician Accoucheur to the Finsbury Midwifery Institution, &c.

1 vol. foolscap 8vo. 5s. cloth lettered.

"There is no mother that will not be heartily thankful that this book ever fell into her hands, and no husband who should not present it to his wife. We cannot urge its value too strongly on all whom it concerns."—Eclectic Review.

PLAIN DIRECTIONS FOR MAKING WILLS

In conformity with the New Act, which came into operation on the 1st January.

By J. C. HUDSON, of the Legacy Duty Office, Somerset House.

6th Edition, fcp. 8vo. price Half-a-Crown, neatly done up in cloth gilt edges.

By the same Author,

THE EXECUTOR'S GUIDE.

Foolscap 8vo. 5s. in cloth, gilt edges.

INSTRUCTIONS TO EXECUTORS AND ADMINISTRATORS.

By J. H. BRADY, late of the Legacy Duty Office, Somerset House.

8vo. 6th Edition, improved to the latest date, 8s.

This work contains information of a more technical nature than Mr. Hudson's work, and is therefore adapted to the use of Attorneys as well as the Public.

DOMESTIC DUTIES ;

Or, Instructions to Young Married Ladies.

By Mrs. W. PARKES. 12mo. 4th Edit. 10s. 6d. cloth lettered.

"The volume before us is a perfect vade mecum for the young married lady, who may resort to it on all questions of household economy and etiquette."—New Monthly Mag.

**THE
COMPLETE LATIN-ENGLISH DICTIONARY,**

Compiled from the best Sources, chiefly German.

By the Rev. E. RIDDLE. 8vo. price 1l. 1s. cloth boards.

The above is abridged for the use of Schools, price 7s. bound.

. The ENGLISH-LATIN portion is nearly ready.

ARCHITECTURE, ROAD-MAKING, &c.

DICTIONARY OF THE ARCHITECTURE AND ARCHÆOLOGY OF THE MIDDLE AGES;

Including the Words used by Old and Modern Authors.

By JOHN BRITTON, F.S.A. &c.

1 large volume, royal 8vo. illustrated by 41 Engravings, by J. Le Keux,
price 2*l.* 16*s.* half-bound.

Medium 4to. 5*l.*; Imperial 4to. 7*l.* 7*s.*

F. F. HUNT'S ARCHITECTURAL WORKS.

HINTS ON PICTURESQUE DOMESTIC
ARCHITECTURE; In a Series of De-
signs for Gate-Lodges, Gamekeepers'
Cottages, &c. 4to. New Edit. 2*l.*s.

DESIGNS FOR PARSONAGE-HOUSES,
ALMS-HOUSES, &c. &c. 4to. 2*l.*s.

DESIGNS FOR LODGES, Gardeners'
Houses, and other Buildings, in the
Modern or Italian style. 4to. 2*l.*s.

EXEMPLARS OF TUDOR ARCHITEC-
TURE, Adapted to Modern Habita-
tions. With illustrative Details, &c.
4to. 2*l.* 2*s.*

The above may be had with Proof Impressions of the Plates on India Paper.

ELEMENTS OF MUSICAL COMPOSITION;

Comprehending the Rules of Thorough Bass, and the Theory of Tuning.

By WILLIAM CROTCH, Mus. Doc., Professor of Music in the University of
Oxford. 2d Edition, small 4to. with Plates, 12*s.* in cloth.

By the same Author, LECTURES ON MUSIC. 7*s.* 6*d.*

ENCYCLOPÆDIA OF COTTAGE, FARM, AND

VILLA ARCHITECTURE AND FURNITURE.

By J. C. LOUDON, F.L.S. &c.

New Edition, 1 large vol. 8vo., with above 11,000 pages of Letter-press,
and illustrated with upwards of 2000 Engravings, price 3*l.* in bds.

A TREATISE ON ROADS:

Wherein the principles on which Roads should be made are explained and
illustrated, by the Plans, Specifications, and Contracts, made use of
by T. Telford, Esq. on the Holyhead Road.

By the Rt. Hon. Sir HENRY PARNELL, Bart. Hon. Mem. Inst. Civ. Engin. &c.
Second Edition, greatly enlarged, with nine large Plates, two of which are new,
2*l.*s. cloth lettered.

PRACTICAL TREATISE ON RAILROADS,

AND INTERIOR COMMUNICATION IN GENERAL.

Containing the Performances of improved Locomotive Engines: with Tables of
the Comparative Cost of Conveyance on Canals, Railways, and Turnpike Roads.

By NICHOLAS WOOD, Colliery Viewer, Mem. Inst. Civ. Engin. &c.

Third Edition, very greatly enlarged, with thirteen large Plates, (several of which
are new, and the rest have been re-drawn and re-engraved), and several new
Woodcuts, price One Guinea and a Half in cloth.

TREATISE ON THE STEAM-ENGINE;

Historical, Practical, and Descriptive.

By JOHN FAREY, Engineer.

4to. illustrated by numerous Woodcuts, and 25 Copperplates, engraved by
Wilson Lowry, from Drawings by Messrs. Farey.

5*l.* 5*s.* bds.—Vol. II. is in the press.

BOUND BY
WESTLEY, SON,
AND JARVIS,
LONDON

