

An essay on the management and nursing of children in the earlier periods of infancy : and on ... pregnancy and ... lying-in.

Contributors

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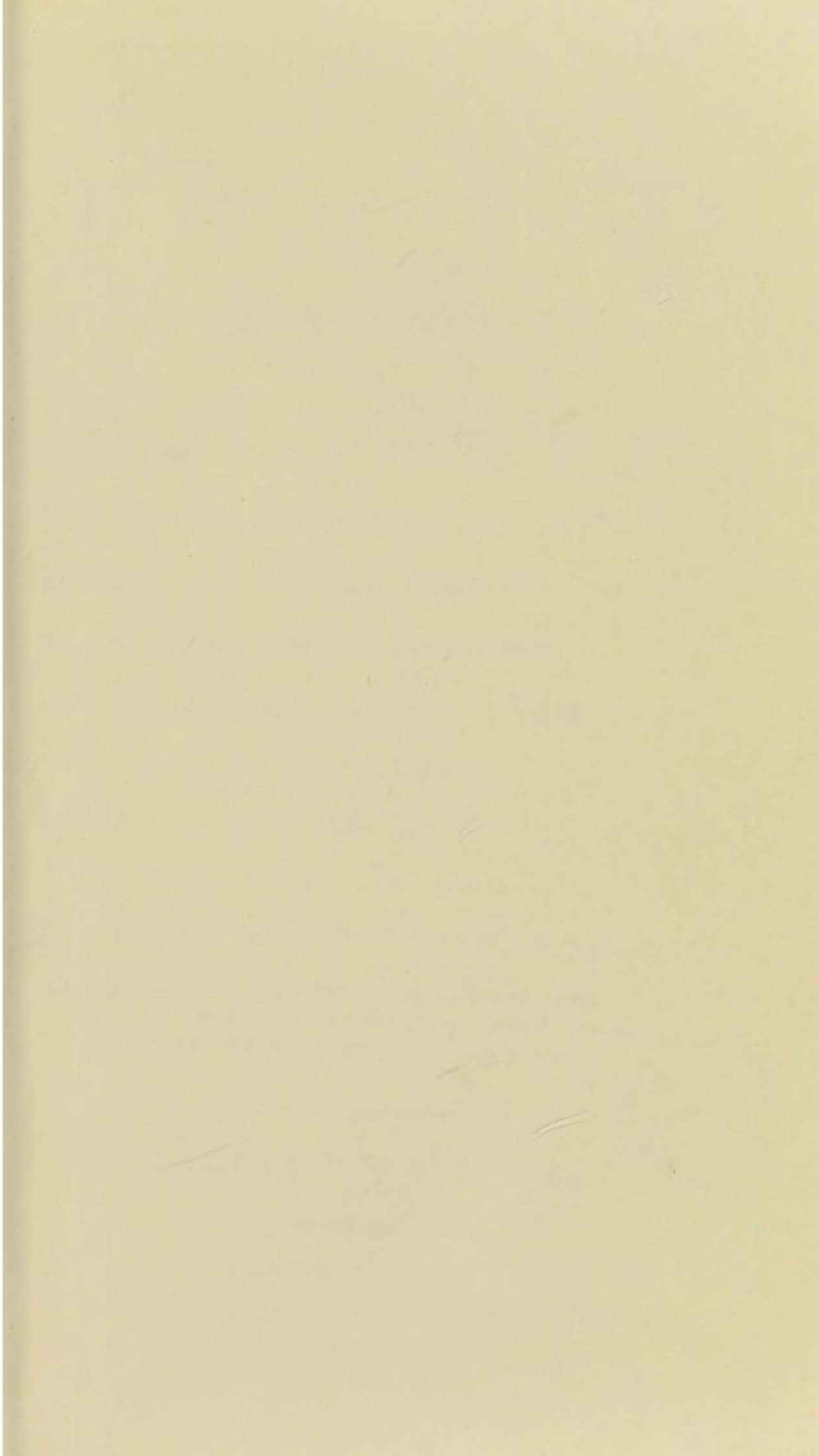


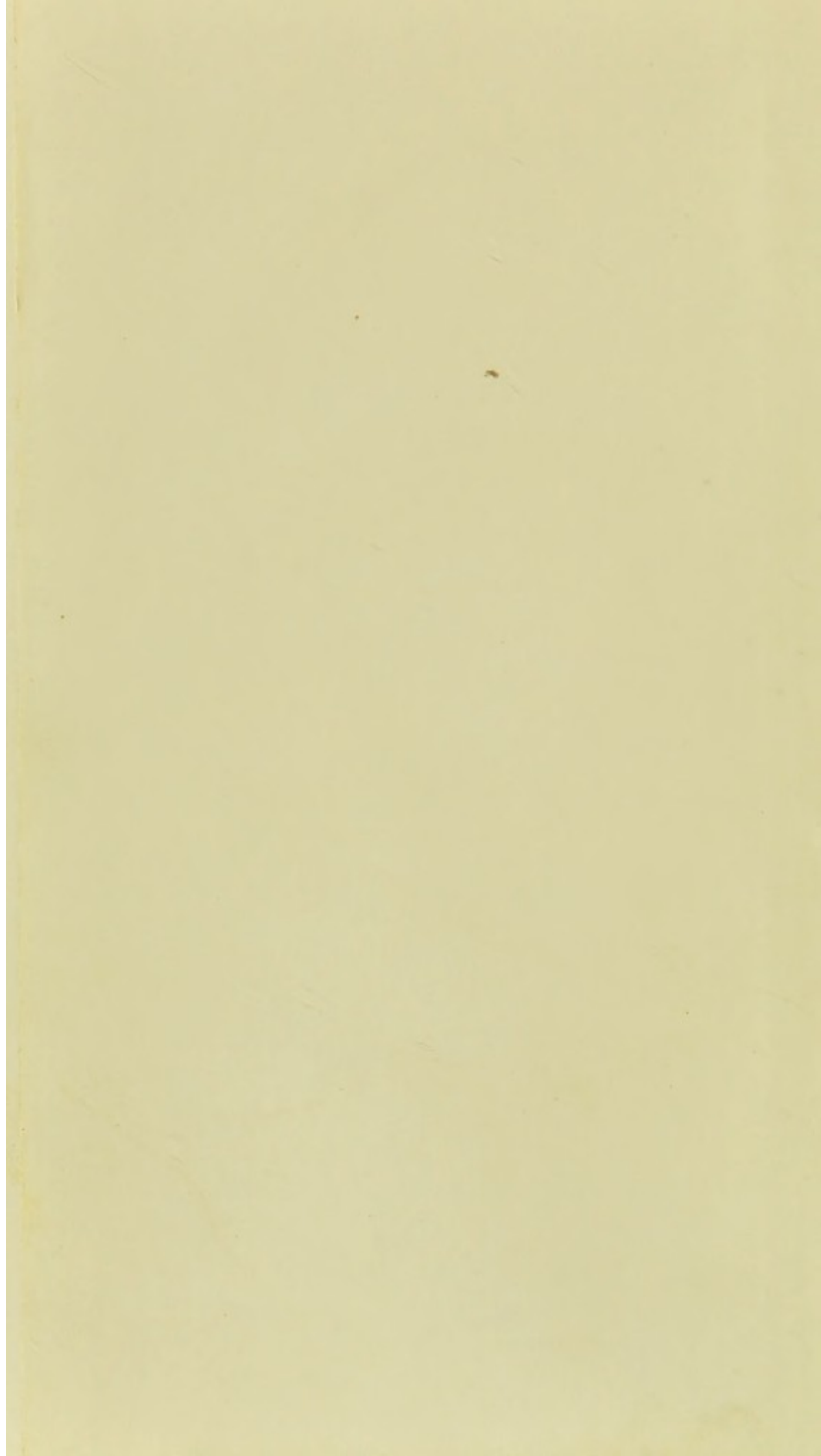
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A N
E S S A Y
O N T H E
MANAGEMENT AND NURSING
O F
C H I L D R E N
IN THE EARLIER PERIODS OF INFANCY;
AND ON THE TREATMENT AND RULE OF CONDUCT
REQUISITE FOR THE MOTHER DURING
PREGNANCY, AND IN LYING-IN.
INCLUDING THE DISEASES TO WHICH THE
MOTHER AND CHILD ARE LIABLE;
WITH THE METHODS OF CURING, AND PARTICULARLY
OF PREVENTING MANY OF, THOSE DISEASES.

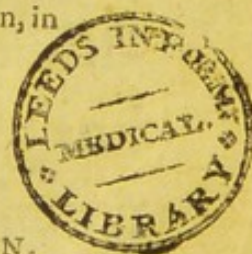
The whole addressed, as well, to the MEDICAL FACULTY, as to the PUBLIC
AT LARGE; and purpofely adapted to a FEMALE comprehension, in
a manner perfectly confistent with the delicacy of the SEX.

By WILLIAM MOSS, SURGEON.

L O N D O N :

PRINTED FOR J. JOHNSON N^o. 72, ST. PAUL'S CHURCH-YARD.

MDCCLXXXI.



E S S A Y

ON THE

MANAGEMENT AND NURSING

OF

CHILDREN

IN THE EARLIER PERIODS OF INFANCY:

AND ON THE TREATMENT AND NURSING OF

REGURGITATION FOR THE MOTHER DURING

PREGNANCY, AND IN LACTATION.

THE AUTHOR OF THE DISEASES TO WHICH THE

MOTHER AND CHILD ARE LIABLE,

WITH A HISTORY OF CASES, AND PARTICULARLY

OF EVERYTHING MANY OF THOSE DISEASES.

As the author of the preceding works, and of the present, is well known to the public, and as the present work is a continuation of the former, it is not necessary to state that the author is a medical practitioner, and that he has been for many years in the service of the Government, and that he has been for many years in the service of the Government, and that he has been for many years in the service of the Government.



BY WILLIAM MOSS, SURGEON.

LONDON:

PRINTED BY J. JOHNSON, ST. PAUL'S CHURCH-YARD.

1854.

T O T H E

Q U E E N.

M A D A M,

THAT unreserved and impartial dispensation of a native benevolence, which so justly and eminently distinguishes your Majesty ; added to a sympathetic tendernefs, manifested by your Majesty upon all occasions, in the cause of your sex and their tender offspring in the situations here treated of ; encourage me to solicit, for this essay to lessen and alleviate the sufferings sustained by the mother and infant, a refuge in, that fostering asylum, your royal protection.

Your Majesty's solicitous attention to the maternal duties of your own royal family, has long obtained the grateful acknowledgments of an admiring public ; and has been the happy means of inducing general emulation :—duties, that, although fraught with powerful, intrinsic allurements, become yet more captivating under the influence of so bright an example.

That your Majesty may long continue the patroness of every private and public virtue, is the zealous wish of,

M A D A M,

Your Majesty's most dutiful,

most humble Servant,

LIVERPOOL,
September 29, 1781.

WILLIAM MOSS.

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E R R A T A.

Page 60, line 22, for vegetable read vegetable.	
77, 11 of the note, for the stools read their stools: and for their appearance read the appearance.	
100, 10, for strictly read strictly.	
206, 14 of the note, instead of ! put ?.	
275, 4 of the note, for symptomatic read sympathetic.	
365, 1 of the note, omit to,	

P R E F A C E.

IMPROVEMENTS in Medicine have of late been more considerable and frequent than formerly; which is to be attributed to the more than usual freedom with which researches are prosecuted, and discoveries communicated, by its professors, in almost every department.

THE subjects upon which we are about to enter have not been altogether disregarded; yet they have had a less share of attention bestowed upon them, and have not been so minutely investigated as most of the others; nor have the discoveries, made therein, been improved upon and so generally applied to practice.

IN inquiring into the occasion of this omission, it will appear, that they have always been considered as situations that necessarily fall within the

sphere of domestic control and superintendency; and custom, that grand arbiter from whose decision an appeal is seldom solicited, seldom obtained, continues to enforce the opinion, and to preclude all other aids, except upon urgent occasions. The nursing of infants, and lying-in women, no doubt comes within this limitation, so far as concerns the executive part; but it does not follow, from thence, that the direction of it is to be considered in the same light. It is an opinion, very generally adopted, that the care and direction of women and children upon these occasions is most properly submitted to the management of nurses; who from their constant practice and experience are supposed sufficiently qualified to direct it; and that it is a province in which they ought not to be controlled. These arguments, which have originated in ignorance and superstition, are supported upon no other or better ground than prejudice; as daily experience proves their fallacy. I have no doubt in declaring that numerous disadvantages and even mischiefs attend a compliance with the customs and ordinary forms of proceeding upon these occasions; and am well satisfied of the many and considerable benefits that will be obtained by an alteration and revival of the practice, in a great many instances.

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THE *Medical Faculty* have for some time past been convinced of the necessity of a reform; and a few of the most gross and injurious customs and prejudices, particularly in the treatment of lying-in women, have been removed by their endeavours, as well privately in practice, as by publications: but, as prejudices, of so remote origin and long establishment, give way very slowly, and with but a few individuals, to private admonition; and as the public, from the style in which the faculty address each other, unintelligible to all but themselves, cannot be instructed by such publications; improvement has succeeded by slow and partial advances; and unless some methods, different from what have been attempted, are hit upon, may continue in the same lingering and imperfect state. These considerations have induced me to adopt this mode, as best calculated for conveying every necessary information upon the present subjects. I am well aware how arduous the task is, and of the many difficulties that are to be encountered, in opposing long established customs, and in combating common prejudices; yet these obstacles, however formidable, are not powerful enough to deter me from a pursuit so extremely essential to the welfare, happiness, and general interests of society: relying upon the prevalence which a knowledge deduced and de-

livered from facts and experience will, with the sensible and intelligent part of mankind, obtain over that which is founded upon and supported by general usage, custom, or opinion, of whatever authority, date, or origin they may be.

THESE subjects are, by many, considered as trifling, and not sufficiently important for the attention of any but old women and nurses; and, by others, as incapable of farther improvement; consequently, unworthy of serious investigation. But these are the arguments of uninformed and superficial observers only; for, upon a judicious examination, they will be found to be fair, open, and suitable fields of inquiry; of much importance; that have lain somewhat neglected; and which will admit of a much higher degree of cultivation. It is generally supposed that children have many complaints that cannot be discovered, or, if they are, that they cannot be relieved.—The admission of this opinion, which is very erroneous and ill-founded, is the cause of the daily loss of numbers, who, by it, are consigned to oblivion without an effort for their rescue. No doubt, the life of an infant is very precarious, and is cut short by a *trifle*: it therefore becomes highly necessary, if we wish to preserve it, to attend to *trifles*; and if we can by such attention be enabled but now and then to save a life, that must

must otherwise be resigned to inevitable destruction, or, at best, to chance, it is certainly worth the exertion of every endeavour in the attempt. There are also many situations that call for assistance where the life is not in immediate danger; for we are too commonly presented with cases of deformity and sickly constitutions at advanced periods of life, the foundations of which have been laid in infancy by the neglect or mismanagement of nurses, or others to whose care infants are committed; or even by the mistaken zeal and indulgences of fond parents, whose attentions and assiduities will sometimes produce the very evils they were intended to prevent, and that, for want of being properly directed and informed. There is not a doubt that constitutions, if not altogether formed, are yet materially modelled, in infancy; and that our future health depends very much upon the manner in which our infancy is conducted. This observation also holds good throughout the animal creation.

THE *mother's* life, during her lying-in, is often in danger, and sometimes actually lost, by her being compelled to submit to and go through the many rules and ceremonies that are thought indispensable upon such an occasion, many of which are not less disagreeable than injurious, and by which the constitution is *always* weakened

and impaired, *oftentimes* very materially.—Whoever saw his hopes and promised blessing defeated in the puny, sickly constitution, or the entire loss, of his child; and was told that *it is common to children*, that *little or nothing can be done for them*, and that therefore *it must be submitted to*?—Whoever beholds the health, bloom, and vivacity of the sharer and supporter of his happiness decline in a situation from which every comfort and satisfaction may be expected to arise; and is told that every thing *has* been done, and *must* be done, conformable to the custom upon such an occasion?—Who, in either or both of these situations, would not wish any opinion and ceremony, how strongly soever sanctioned by custom, dispensed with to avoid consequences so distressing; and readily subscribe to the introduction of others that, from reason and experience, promise, and, in many cases, ensure, better success?

THE task I have undertaken is to expose a number of the most gross absurdities that commonly prevail in the management and nursing of lying-in women and children, and to point out such methods, rules, and directions as have by experience been found more salutary, advantageous, and, at the same time, more desirable, easy and pleasing. Truth here impels me to declare a cause which regularly presents itself as
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an obstacle to improvement; and that is, the entire direction which nurses assume in whatever concerns the management of lying-in women and children: for they are so jealous and tenacious of what they suppose their authority upon these occasions, as seldom to suffer themselves to be directed or advised; any advice, therefore given them, they consider as a reflection upon their judgment, and, in vindication of which, they as commonly reject it. By such conduct, the avenues to improvement are nearly shut; and the same formal, baneful rules and customs are strictly and invariably handed down to successive generations. It is not without reluctance that I reflect upon so useful a body as the nurses; but the certainty and magnitude of the evil must be my apology. If, in attempts to detect and reform common errors and abuses, they are in part overlooked, concealed, or palliated; any good purposes, that may be intended by promulgation, must be considerably lessened; frequently altogether defeated. So if, in these and the strictures which hereafter follow, the censures seem rather strict, I hope it will be imputed to no other motive than, the real one, my duty as a faithful historian, to draw an exact representation of objects as they appear, without embellishment, or extenuation. To avoid the appearance of singularity, and to justify the

propriety of the method and remark, I need no other precedent than the respectable authority of Mr. White; who, in speaking of the errors in the management and nursing of lying-in women, in large towns, London especially, being somewhat "strange," considering there is the best advice and assistance to be had, says: "But our wonder will cease when we reflect that not only the general causes in large populous towns will operate, but likewise that the articles of air, diet, dress, &c. are left to the management of nurses in that city," (London) "who claim it as a kind of prerogative, and it is next to sacrilege to encroach upon their privileges. Whether this circumstance has been considered in that important light it deserves, or whether the success of a reformation has been despaired of, I will not pretend to determine. The nurses in London are a numerous and powerful body, and an attempt to reform their ancient customs might be looked upon as an open attack upon them, a violation of their rights, and an actual declaration of war. A young man just coming into business might justly think it too daring an attempt to encounter them; he would in all probability be unequal to the task, and his future progress would be stopt, by making such powerful enemies. The man in full and established

“ blished business could not perhaps spare so
“ much time as would be necessary, for it would
“ require a very frequent and constant attendance
“ upon his patients to see that the nurses did their
“ duty; and by such an attempt he might lose
“ much, and gain little, except trouble and
“ opposition.” *A Treatise on the Management of
Pregnant and Lying-in Women*, p. 157.

MR. WHITE has there exactly and truly stated the case: and although, as he observes, these errors prevail most in London, yet other large towns, and even villages, are far from being exempt from them. His subject confines him entirely to pregnant and lying-in women, therefore he has not an opportunity of noticing the fatal consequences of improper treatment in the nursing of children, which in some measure proceeds from the same cause. His arguments tend to prove the difficulty of a reformation by the methods hitherto practised, and appear to confirm the eligibility of this.

THE *First Part*, which relates to the nursing and diseases of children in the infant state, is designed for the perusal and attention of those who nurse or superintend the nursing of children; being disposed in a method and style suited to general comprehension, and divested of technical, obscure terms as much as possible; such as inevitably occur

occur are explained; whereby they may not be at a loss, or afraid to judge, or even act, upon many occasions, where proper medical advice either cannot be obtained, or may not be thought necessary, with a degree of freedom and safety under most difficulties that may occur; and be directed to shun and avoid the errors and mistakes which must often attend a want of experience and knowledge in themselves, or too close a compliance with, or implicit confidence in others, by whom, through a blind mistaken zeal and attachment to common forms and vulgar prejudices, they may be deceived and misled.

It has been generally supposed (as already observed) that children do not stand in need of medicine or medical advice. No doubt, children at this period do not require a large quantity, or great variety of medicines in the diseases to which they are liable; yet, that by no means implies that medicine is to be entirely rejected, and that, properly administered, it may not have its uses; which it certainly has: however, many other circumstances relating to infants require a nice and exact attention and judicious regulation; as, the DIET, CLOATHING, AIR, EXERCISE, &c. &c. all which are immediately essential to their health; and without which it cannot be preserved or acquired, or restored when lost or impaired.

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THE *Second Part*, which relates to Pregnant and Lying-in Women, is, in some measure, necessarily connected with the former; and the intention of it is conducted upon the same domestic principle. But although, from the nature and delicacy of the subject, it will not admit of so ample and extensive a discussion as the other; yet, it is hoped, some rules and observations are there inserted which may be attended to with propriety and advantage.

As a performance of this kind must be very unpleasing, and even disgusting, without a proper regard to delicacy in the execution of it; so the strictest attention has been paid to it through the whole of *this*, that a mind, susceptible of the most delicate sensations, cannot, it is hoped, be offended.

MEDICAL subjects are, of all others, the most improper to be submitted to general inspection and perusal, from the difficulty, and almost impossibility of making them properly and sufficiently intelligible to those who have not made medicine a distinct, particular study; on which account, medical books and receipts, except in the hands of medical men properly so called, will be, and are, most commonly misapplied, and, of course, become unsafe, and even dangerous.

THE Sciences, in general, are founded upon a series or chain of rules and precepts, so connected and invariable, as to render the application of them demonstrable, frequently, to the nicest certainty; as appears in astronomy; where the motion of many of the heavenly bodies is precisely ascertained; in natural philosophy, where the laws of nature are found to be uniform and regular; &c. &c. The laws of the human body, in a diseased state, are however an exception to, and will not admit of such fixed bounds and regulations. For although medicine, as a science, requires a study somewhat regularly progressive through its different branches and departments, with a design of forming a basis and stated rules for general practice; yet notwithstanding all the endeavours and attempts that have been made with that view, very few such general rules have been obtained to direct the practice of it, as can be invariably adopted, and which do not necessarily admit of many and very frequent objections and alterations.

MANY of the laws of animated nature, in a sound, healthy, and perfect state, are very regular, and nearly reducible to a systematic order; as, the laws of vision, or sight; hearing; and the other senses; as also are most of the processes and operations of the human body, as the food; sleeping; waking;

waking; &c. &c. yet when, from a defect in one or more of the organs or constituent parts of the machine, a disease is produced, that uniform, regular order is interrupted; and so variable, uncertain, and irregular are the changes thus produced, as to exclude the most distant hope of ever obtaining or establishing a *regular* system of practical medicine: perhaps we recede and are farther from it than ever we were; as diseases become more variable and aggravated, and even new ones formed, by luxury and indulgences of every kind, which have increased much of late years in many parts of the kingdom; and there is but little prospect of a decline of them. The diseases to which the human body is liable by nature, are comparatively very few in number with those that are produced by art, or luxuries and excesses; and are much more simple in themselves, as are likewise the means which are to be used in obviating and removing them.

If Medicine, like the other sciences above alluded to, could be so far reduced to a system, that general rules could be universally adopted, very moderate abilities and trifling application would be sufficient to conduct the practice of it. This however is found by experience not to be the case; as a disease, apparently the same in two different persons, or in the same person at different

rent periods, will frequently require a different treatment, often quite opposite, depending upon, a difference or change in the constitution, climate, season of the year, period of life, the exciting cause, or other circumstances so numerous and variable as scarcely to admit of description: so that it very often happens, that what is found to give relief upon one occasion, and at one time, may not only be ineffectual, but even injurious at another. To conceive and form these nice distinctions properly, requires the exertion of a judgment informed and corrected by much study and experience—the only guides and directors to be safely trusted.

FROM the above considerations, the obvious difficulty of practising by any given or general rules, howsoever seemingly clear and explicit they may be, is very apparent, without first obtaining such a general knowledge of the animal œconomy, the nature of diseases, and the powers and particular application of medicines, as to be enabled to vary the practice as circumstances and exigences shall indicate and require.

THESE arguments are here introduced with a view of pointing out the inefficacy and dangerous tendency of medicine as it is commonly practised and applied in a domestic or family way, either from medical books and receipts, or by means of medicines

medicines recommended by friends or acquaintance upon their own authority, or the faith and confidence they repose in a newspaper advertisement. It is not however here intended to condemn any book of medicine, or medicines otherwise prescribed or compounded, as in themselves useless, or dangerous, upon all occasions : no doubt such a judicious choice may be made of them, as to render them convenient and useful, when properly applied ; but it is the uncertainty and difficulty of such choice and application that is here alluded to, and to which the public should so warily and cautiously attend.

It is a common observation with respect to many medicines in general use, that they are so safe and innocent they can do no harm. This may be applied to a very few ; but upon the whole, the argument is very deceitful ; as, a medicine, that can do good, is also capable of doing harm ; for, to answer any purpose, it must produce a change and alteration in the body ; if it be properly applied, the change will be favourable ; if improperly, the reverse. Medicines therefore are weapons that should not be wantonly or incautiously sported with. It is also well known, that medicines, when the most judiciously applied, lose their effect by too long and frequent repetition, which

should be a caution against the too common use of such as are even found to be the most efficacious.

RECEIPTS and books of *medicine* therefore become dangerous instruments in the hands of those who have not made medicine a regular, distinct study, from the risque and danger of misapplication. This observation is most particularly applicable to books which are purposely designed for the faculty alone: for let a man's understanding be ever so exalted, in other respects, he cannot read them with any advantage to himself or his friends, as he will be subject to form erroneous conclusions from, what to him may appear, the most simple and familiar positions; and he will be as liable to be deceived by specious argument, as another man greatly his inferior in general understanding.

THE books that are intended for domestic or family use are not always so unexceptionable as might be wished, being commonly too diffuse, and not sufficiently explicit: whereby they become liable to the same exceptions with those just mentioned. The accounts of diseases, and the remedies to be applied, when addressed to the public, ought to be concise, distinct, and plain; and the greatest care and attention should be paid, not to enter, or proceed upon, any subject, beyond what the capacity of a person entirely unacquainted with
medicine

medicine can readily and justly comprehend, and which he can scarcely misconceive. For which reason, those subjects, or diseases, which are in their nature difficult, or intricate, and are liable to great and frequent varieties and changes in their different stages and appearances, should be either totally omitted, or very sparingly and cautiously touched upon; otherwise, from perhaps a slight mistake in the nature of the complaint, and the consequent misapplication of remedies, independent of the consequences of delay, the disease may be increased and aggravated, or another may be produced which would not have happened or existed had nature been suffered to take her own course, or been timely or properly assisted by a judicious practitioner.

FEVERS, and feverish complaints, are among the number of those which are difficult to distinguish and fix to stated rules, periods, and forms; as a single case of fever may assume, and run through, all the different changes and varieties of fevers; or, may put on all, or most, of the appearances of different fevers at the same time, so as to make it difficult to determine which is most predominant; and this is not so unusual as may be supposed. The difficulty therefore of applying general rules to

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practice

practice in fevers, will be obviously apparent. Many more diseases are liable to the same strictures with the foregoing; but an enumeration and description of them all would be tedious and a deviation from the present design: suffice it therefore farther to observe upon this subject; that nervous and hypochondriac affections, as being diseases in which the mind bears a principal share, and is materially affected, are, of all other subjects, the most exceptionable, and unfit for the inspection of those who unfortunately happen to labour under them.—There is, attending these complaints, a degree of restless inquisitiveness and anxious solicitude, perpetually prompting those who are afflicted with them to a search after every means which, they suppose, may direct them to an explanation of their complaints. And although this is a gratification which they pursue and embrace with great eagerness and avidity; yet it generally proves delusive: and they are most commonly seduced and led by it into such intricate and inexplicable labyrinths of imaginary evils and conceits, as serve to perplex and bewilder them, and to add to, confirm, and strengthen the disease, rather than remove, or even palliate any symptom of it: and which is not to be

be wondered at, when it is considered, that the mind, in this situation, is so agitated, discomposed, or disordered, as to be rendered unfit and unable to decide with that calmness, clearness, and candour, so necessary to its comfort and relief. The mind when undisturbed and in a state of health and perfect composure, is liable to be imposed upon by many things which are suffered to make a strong impression upon It, where It encourages, rather than checks or avoids the first impulse and impression; and which It is subject to do, often out of curiosity, depending upon Its own strength and exertion to rescue It from any unfavourable impressions; yet, in many cases, this is not very readily effected; and especially in the instances before us; wherein an appeal may be made to the feelings of those who have attentively perused medical authors, if they have not fancied themselves to have many of the symptoms and complaints which they read about, and that to such a degree, as, sometimes, to give them some uneasiness; and yet at the same time they are in perfect health, and find themselves so, when they have been able to banish those alarming ideas, which the imagination, influenced and directed by fear alone, had dictated; but which, sometimes, is not easily

accomplished; as, nothing makes a more forcible and lasting impression upon the human mind, than the dread of bodily pain and disease, with their attendant consequences. If, therefore, disagreeable impressions are produced by such means, in a state of health; it will be no difficult matter to conceive how much they must be increased and aggravated in a sickly state, when the spirits are most commonly materially affected, and, of course, become more susceptible of, and readily depressed by, unfavourable impressions.

THE subjects which compose the following *Essay* may be ranked with those that are most properly suited to domestic practice; as the diseases and affections to which young children and lying-in women are naturally liable, are more regular, uniform, and less variable in their appearances and events, than those at other periods, and upon other occasions: and this is readily accounted for, by considering; that in the infant state, the refinements and luxuries of life can seldom operate upon the constitution, to such a degree, as to produce a diversity of complicated, or unnatural or artificial complaints as they may justly be termed; (page 19) consequently the diseases, and
the

the necessary treatment of them, will, and are always found to be, more regular, uniform, and simple or plain in infancy, than at any other period of life. With respect to pregnancy and lying-in; they are to be considered as the most regular and familiar processes and efforts of nature, rather than as complicated diseases; and, of course, the rules to be observed in conducting them, will, or ought to be, almost invariably the same, in a natural or healthy state; and when, from any cause, this regularity is broken in upon, or interrupted; so powerfully, uniformly, and speedily do the laws of nature operate and assist in recovering their wonted standard and equilibrium, that the means for obtaining it are nearly similar and reducible, upon all occasions, to a regular and systematic form and order; as will appear in the sequel.

It is scarcely necessary to observe, that those bad effects upon the mind which, as has been observed, are produced by the reading or study of medical authors, cannot, with children, take place in *any* degree: and, from the plan or method which is here adopted, it is hoped it will be in the slightest degree, or not so at all, in the parts which follow.

WITH a reliance upon the propriety of the method, and a confidence in the general utility of the subject, they are submitted to the public, to be extended and improved upon (with a consciousness, arising in some degree from their novelty, that they will greatly admit of both) by those who have leisure and abilities, as may appear necessary.—No subject can be more interesting to mankind, than that, wherein the health of the most amiable part of the creation, and that of their lovely offspring, is especially concerned: they being the sources from whence we derive the most exalted and refined happiness; and unitedly form one of the greatest comforts and blessings in the very limited catalogue of human enjoyments;—namely;—DOMESTIC FELICITY!

LIVERPOOL, *April 1, 1781.*

T O T H E
M E D I C A L R E A D E R.

PRIOR to any intention of publishing upon the following subjects, I had drawn up a *few* directions for a select part, which (when completed) I proposed distributing in manuscript to my own patients, for their information: but upon reflecting that the scale would be very confined, and attended with much trouble in the execution, I declined it, and adopted this mode; the propriety of which I submit to the candour of the FACULTY, of those especially under whose department the necessary attendances upon these occasions more particularly fall; and who must be too fully sensible, from experience, that however familiar, and notwithstanding the improvements that have been made upon, the subjects here treated of, they have still too much of the rust and leaven

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of superstition, and the prejudices of custom, about them, to be removed effectually, in so great a variety of instances, by mere *verbal* directions, occasionally given, and which are frequently forgot, wilfully neglected, or despised and over-ruled by nurses and various officious advisers. This leads me to disclose an intention I have in this publication; which is: that, from the causes here assigned; and from the close attention necessary in so great a variety of occurring instances; often too numerous, from other professional engagements, to be properly and strictly attended to by the faculty; it may in its domestic application, upon many occasions, become a seasonable relief to themselves: and if I can be favoured with their countenance and concurrence in the direction of it in that line, I am sensible its use will, by their judicious interposition, be essentially promoted and extended.

As, in dry nursing, an error in the diet becomes the source of much mischief, an attention to it is an object of great importance. I have therefore been very particular upon that subject, especially as it is a matter that has not hitherto been considered with that attention it appears to deserve; and having great reason to suppose the regulations and method I have offered

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ferred are such as are not commonly known or practised, and, particularly, such as have not been published. In applying these regulations to practice, I have had sufficient experience to confirm me in the certainty of their being much preferable to the methods in common use; which, with their novelty, will, I trust, justify the manner in which I have introduced and offered them. I hope I shall stand acquitted of prolixity throughout the whole, as it is what I have endeavoured to avoid. The expediency of full descriptions and explanations, upon this plan, is too obvious to need an apology.

And as such as are not commonly known or
 pointed out, particularly such as have not
 been published, in writing their regulations
 to practice, I have had them in reference to
 contained in the contents of their books, much
 preferable to the method in common use, which
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 ner in which I have introduced and offered them.
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ON THE
MANAGEMENT, &c.
OF
NEW-BORN CHILDREN.

VARIOUS, as the climates which they inhabit, are the customs of the several inhabitants in the ceremonies, dress, and management of their young children; some of which are consistent with, and properly adapted to, the respective climates and other natural and occasional contingences; and others depend altogether upon the customs and manner of the inhabitants, many of which are as inconsistent and preposterous in their manner as they are obscure in their date and origin. Superstition and error being the offspring of ignorance, they are commonly found attached and proportioned to each other, and must prevail in the uncivilized and unenlightened countries of the

the world, whose inhabitants are entirely, or chiefly, governed and directed by custom and prejudice; their own uncultivated reason being a source from whence they can procure very little assistance, and which they seldom have recourse to.—As the manners and sentiments of mankind become enlarged and refined by unlimited intercourse, and an emulous exertion in the pursuit of knowledge, the delusive shadows of ignorance disappear, and are supplanted by a knowledge erected upon the more immutable and permanent basis of rational confidence, and palpable conviction: hence we find, that fewer of the gross absurdities of the uninformed, uncivilized countries prevail in this: yet, as knowledge, of every kind, must be acquired, and is not a natural gift, (whatever the capacity for obtaining it may be) we must expect, now and then, to meet with those, who, from a want of opportunity of being properly informed, have been early attached, and continue prejudiced, to particular forms and ways of reasoning, the absurdity of which they cannot readily divest themselves of.

A CHILD, upon his entrance into the world, undergoes a great many changes; and those so sudden and material, that it seems a matter of some surprise greater numbers do not perish at
that

that period. The changes, which may be considered of the most importance, are those which are produced by, and proceed from, the action of the *Air*; as it affects the lungs, in breathing; and the surface of the body, by its coldness. No human being could, at any other period, undergo so sudden and extraordinary a change, and degree of heat and cold, without the most immediate and fatal consequences. The breathing is an operation entirely new, and is, for the most part, performed instantaneously; as the lungs, which are the immediate organs, and destined solely to the purpose, of respiration or breathing, are inactive and useless before birth. This operation of breathing is commonly at first so laborious and difficult, and effected in so short a space of time, that a child at this time undergoes a great deal of pain and fatigue, as is discovered by his fretfulness and uneasiness, and the laborious heavings and pantings of the breast: for the lungs, not being before accustomed to their office, are some time before they become reconciled to the effect of the cold air upon them, and are properly distended and fitted for it.*

THESE

* *To the Medical Reader.*—PHYSIOLOGISTS have differed in their manner of accounting for the beginning of respiration in animals. Dr. Whytt in his *Essay on the vital, &c. Motions*

THESE considerations are here premised, with a view of pointing out the propriety and necessity of doing all in our power to assist and enable the child to encounter these difficulties. The means are

tions of Animals, p. 228, 2d edit. enumerates the several opinions. He observes; that Dr. Pitcairn supposes it to happen by the pressure of the air, which is forced into the lungs as into a vacuum. *Dissert. de caus. qua sang. fluit. per pulmon. Sect. xiv. p. 53.* This however, he observes, is not the case in dead-born *fætuses*; and it is less likely that it can possibly happen with those that are born alive.—That, “the great Boerhaave, after Thruston and Borelli, ascribes it to “the *fætus* moving all its muscles violently in the time of “birth, and, among the rest, the intercostals and diaphragm. “*Institut. Med. §. 691.*”—And M. de Haller, from the endeavours of the *fætus* to cry, upon account of its uneasy situation at this period. *Not. a in Boerhaave's Inst. Med. §. 691.*

THESE two last suppositions are however, as Dr. Whytt observes, as unsatisfactory as the former: and from the following circumstance, which I was witness to, their plausibility seems lessened. In a case of the Cæsarean section, at the Infirmary, Edinburgh, March 1767; where the maternal efforts, that from the beginning had been slight, and were still lessened for many hours at the last; I observed the *fætus* to cry very strongly almost immediately upon its exposure to the air. Crying is to be considered as an *effect*, occasioned, as Dr. Whytt observes, p. 243, by “an irregular kind of breathing, owing to some painful sensation:” perhaps that excited by the action of the cold air upon the glottis, larynx, and bronchia: and not as the cause of respiration.—What M. de
Haller

are simple and obvious, and such as are generally practised, in part. A piece of new flannel, commonly known by the name of a *Receiver*, is very properly made use of to wrap the child in before he

Haller farther mentions, in his *Element. Physiol. Tom. III.* p. 318, of a fœtus being enabled to breathe at its birth by swallowing the *liquor amnii* during gestation, is equally futile with the above; as the Doctor observes, p. 245, that deglutition and respiration have no connection.

DR. WHYTT attributes the beginning of respiration to, what he terms, an *appetite* for breathing; depending upon a sensation, desire, or call in the lungs for air, as in the stomach for food, which is adapted to *gratify* that *appetite*. — But, if that was the *only* exciting cause, it is probable that that appetite would frequently occasion efforts to breath before birth, which must as constantly and certainly be attended with immediate suffocation: for we cannot suppose, with our learned and ingenious author p. 237, that “the water surrounding the fœtus would certainly hinder its making any efforts to inspire, *though it were supposed ever so desirous of doing it,*” any more than we can imagine an animal that had already breathed would be prevented making a like effort when immersed in water. As many perfect pieces of machinery, when completed, cannot of themselves go into motion, but require to have it given to them; so the machine of respiration may at first stand in need of the same assistance: and, it is extremely probable, that, AIR, is the agent, employed upon this occasion; which, by its stimulus, *or as food suited to gratify the appetite of respiration*, is disposed and adapted to excite the action of the *glottis*; and the glottis, by its

he is dressed ; in which situation he ought to continue, very closely covered up, with the mouth and nose scarcely exposed, upon the knee of some attendant, within the air of the fire, (even in summer) in a room apart from the mother, if convenient, to prevent her being disturbed or

its immediate and palpable consent with the lungs, diaphragm and intercostal muscles, these latter ; whereby the motion and exercise of the whole takes place. Therefore, admitting, with our author, that there is before birth an appetite or disposition, “owing to particular sensations in the body,” to breathe ; yet, that appetite must be considered as passive, depending upon the action of the air to excite it. For as the air is so essential to respiration, it may be supposed the most likely to direct and govern it from the beginning ; and that its beginning is not submitted to any other exciting cause ; as any other must be uncertain and precarious.

DR. WHYTT observes, p. 237, that “air being applied after birth to the *face, mouth and nostrils* of the animal, may put it upon essaying a new action”—and that—“*perhaps* the *appetite* of breathing may be increased in a *fœtus* by the presence of a fluid fitly answering its demands :” But does not hint at the action of the air upon the glottis : and, throughout, seems rather to rest the whole upon the appetite or sentient principle, prompted and increased by the determination of blood to the lungs near and at the birth, than any other cause : although he observes, p. 199 of the same work, that a stimulus to the glottis is sufficient to put the whole machine of respiration in motion ; as is to be discovered when the least particle or drop of any thing gets by accident into the glottis.

over-heated, for a quarter, or half an hour; by which means the child will be, in part, relieved from the first shock of the cold air upon his body, and become more gradually accustomed to the feel and effect of it, and will also have time given him to recover from the fatigues invariably attending his sudden change of situation. These considerations are seldom so strictly attended to as they should be, and particularly the last; as it is very usual with nurses to hurry on the children's cloaths as soon as possible, without allowing them the least respite. No bad consequence in the smallest degree can attend a little delay, if the child is kept well covered and warm; and his being settled and composed before he undergoes the hurry and fatigue of dressing, must be not only comfortable to him, but also highly proper and necessary.

DURING this interval, (viz. the time betwixt the birth and dressing) it is very common to give the child something to clear his mouth and throat from phlegm, which is discovered by a rattling in the throat in taking the breath, and that even sometimes to such a degree as to appear alarming, although it is seldom or never in itself dangerous: for this purpose, butter and sugar, mixed together, is commonly forced into his mouth, which being a very nauseous mixture,

D

generally

generally occasions a sickness, by which the phlegm is brought up: but as sickness, at this time, will add to the fatigue, and may sometimes hurry a weak child, it seems advisable to avoid it: a little brown sugar, dissolved in water, and given gradually in a teaspoon, will dislodge and wash down the phlegm; and as it does not occasion sickness, must be more pleasant and palatable; as children, even so early, have the sense of taste more perfect than might be supposed by a comparison with the other senses, as the sight, hearing, &c. and it seems a piece of wanton cruelty, in our first office to them, to give them so disagreeable a salute, especially when it may more properly be avoided. When, therefore, the breathing is *tolerably* free, it will be advisable not to give any thing; as what is so given can answer no purpose, nor have any use. But when the rattling in the throat is urgent, and the breathing difficult, a little of the sugar and water may be given, which will generally clear the throat sufficiently.

A CHILD, from the sudden effect and impression of the cold air, is very liable to take cold at the time of his birth, from which he does not always readily recover, and which oftentimes is the cause of tedious, troublesome, and dangerous complaints; as a cough and stuffing at the breast,

breast, the gripes with looseness, sore eyes, a stoppage in the nose which proves very teasing and troublesome to him in sucking, &c. it is therefore of great consequence to take particular care, at this juncture, to avoid exposing the child to the cold air before he be dressed.

D R E S S.

IN dressing a new-born child, and indeed ever afterwards, simplicity and ease should be consulted and observed as much as possible: great care ought to be taken that no part of the body or limbs be tight bound, or closely confined by rollers or any part of the dress; as tight rolling and confining the limbs, which was formerly practised, must be very injurious, and must greatly impede and prevent the growth, strength and activity of the infant. If it should be urged, by some, that the tender frame of an infant requires to be particularly supported by rollers and bandages; it may be answered; that however plausible the argument may, upon a superficial inquiry appear, in favour of tight rolling; experience, the most sure guide, convinces us, that children thrive much better without it, and are much more likely to be free from deformity; as the body and limbs, when at liberty and un-

fettered, are more likely to attain their natural shape and proportion, than by confining them to any particular position; it being well known that the bones of an infant are so pliant and flexible as to be capable of being molded into different shapes by rollers and bandages.

A FLANNEL roller, about four or six inches broad, is commonly rolled once or twice, *moderately* tight, about the body, upon the navel; and was originally and very properly designed to support the navel, to prevent a rupture in it, to which it is subject at that tender age, from causes both natural and accidental. It is customary, in many parts of the kingdom, to roll a broad linen or crape roller *very tight* over this we have just now mentioned, a great many folds thick, all upon the body from the arm-pits to the hips, supposing the body to stand in need of such support; but which, however, as above observed, it does not, and therefore becomes not only unnecessary, but hurtful. A broad flannel roller, over the shirt, loosely folding the body once or twice, is used by some nurses, and is very proper, as it keeps the child more regularly warm than any other form of dress could do, and answers every purpose of support very effectually, besides being easy and comfortable; but care should be taken, always to let it be
put

put on loose enough. Those who are accustomed to children will readily know when they are too tightly rolled, or confined in their drefs; as they discover a particular kind of uneasiness, with a motion of their arms and body, seeming to struggle as if they wanted to disengage themselves from some incumbrance or oppression, attended with a continued restlessness and fretting. I have seen children in great pain and distress from this cause, as they were instantly relieved and perfectly at ease upon removing or loosening the drefs. This caution in dressing is well worth attending to, as any part of the drefs, if put on very tight, will prove very painful and distressing to the child, and is what often happens through thoughtlessness and want of care in servants who have the management of children, and who are very subject to commit this error, if they be not now and then looked after.

It does not appear necessary, in this place, to enter into a minute detail of the materials and composition of the drefs of infants; they are much of the same quality throughout the kingdom, among all ranks and degrees of people. It may be sufficient to observe in general, that they should be light and warm; and that they ought to be dry and clean; for which purpose

it will be necessary to renew and change them very frequently.

THE number of PINS used in the dress of a child is sometimes very great; but when *tapes* or *strings* can be substituted for them, they are much preferable. The *foundling dresses*, so called from being first invented at the *foundling* hospital, for the sake, no doubt, of convenience and dispatch, are come much into use. They draw and tye with strings, and are otherwise so contrived, that very few pins become needful in putting them on. The advantages which attend a dress so contrived and put on, are considerable enough to recommend it. In the first place, the risque of pricking and wounding the tender bodies of children is avoided, which will now and then happen, notwithstanding the utmost care and caution, where a great many pins are used: and secondly, the dress fits much easier and pleasanter, and is put on with more dispatch and less fatigue to the child.—The CAP is simple; and, when put on, has a neatness in it which surpasses all the studied and expensive finery that has ever yet been devised for that purpose; and which perhaps may be accounted for in conformity with the opinion a great many have, that a young child looks the best in its night-cap, which this resembles.

QUICKNESS

QUICKNESS and DISPATCH in dressing, are proper to be observed, especially at the first, to avoid fatigue, but more particularly cold and its troublesome and even dangerous consequences.

WARMTH and REST are invariably requisite, cannot be too strictly enjoined, and ought to be inseparably connected during the month, or, more particularly, the first fortnight; during which period children should be indulged in them to the utmost, and should seldom or never be moved or disturbed, except to be fed, dressed, or cleaned.

THE most convincing and satisfactory arguments in favour of uninterrupted and constant warmth and quiet are deducible, and may be gathered from the two following general observations which are to be made upon children.

1. A CHILD, who thrives well, is naturally disposed to *rest* and *sleep*, and is fond of *warmth*; as appears by

2. A CHILD, who is much disturbed, or exposed to the *cold air*, being more fretful and uneasy than when kept *still* and *warm*.

THUS nature dictates! and we need not a more sure and unerring guide to direct us, in this instance: for if nature or instinct, can, or will dictate, direct, or interfere at any period of our existence, it may reasonably be supposed to do it

at that time when we are the least capable of directing or assisting ourselves.

CHILDREN never seem so easy, nor sleep so sound, as when they are close covered up in bed: and it would be no easy matter to suffocate a new-born child, although you wrap him up ever so close in the bed cloaths, so as apparently to exclude the external air from him, provided no violence is done by pressure upon his mouth and nose, or any other part of the body.

WARMTH, should be as regularly and constantly supported as may be; 1st by a moderate warmth of the room; out of which a child should be carried as seldom as possible, especially to any distant part of the house. 2dly by warm clothing; which, as before observed, should be light and fit easy, and changed or removed as often as it is wet or foul. It is scarcely necessary to observe, that a child ought to be always changed or dressed near the fire, even in summer; and for this purpose, a room immediately adjoining the mother, to prevent her being over-heated or disturbed, will be most advisable, when it is convenient to have it so. And 3dly, during the time of rest and sleeping.—Various kinds and forms of beds have been adopted for children to sleep in; but none of them seems better, or so well calculated as a
common

common bed; upon which they may be laid, between the blankets in the day, where they will lie easy, and will be comfortably warm; and at night, in bed with the mother or nurse. Cribs, and other contrivances for children to sleep in in the night, seem by no means adapted to this climate, at this *early* age; and cannot, in cold weather or winter, be so comfortable and naturally and regularly warm as a common bed: they seem more calculated for the ease and convenience of the nurse, than the comfort and benefit of the child; and very young children will seldom rest so easy and well in them as in bed with the nurse; as, at that helpless age, they will frequently make surprising efforts and attempts, when in bed with the nurse, to get near her, and are seldom so easy and contented as when they are so situated: a proof, that warmth is agreeable to them; and, as it can be no other than an instinctive requisite, ought to be indulged.

THE objections which have been made to a child's sleeping with the nurse, are; there may be danger of a nurse's overlaying the child; but of this there is little fear, if she has been accustomed to sleep with children; and is an accident that scarcely happens once in an age with those who have *not* been accustomed to it.

Another

Another objection is, that of learning the child a custom it may hereafter be difficult to break him of: but this seems founded more upon surmise than reality; as it may be generally effected, with a little pains taking, at a proper season; which time and season remains to be mentioned hereafter under the heads of Air, Exercise and Washing.*

REST, or QUIET, seems the next essential requisite to warmth; indeed they are, as above observed, inseparably connected; for if a child is not kept still and quiet, he cannot be sufficiently and regularly warm. Children, at this age, show evident tokens and marks of dislike to extraordinary motion: they are fretful, and appear

* UPON the coasts of Africa, and in other climates of the like temperature, we are informed that infants are early exposed in the open air. There, the regular and continued warmth of climate renders such exposure safe: but the comparison and practice will by no means apply to this climate, where our most warm and favourable seasons are so liable to be interrupted by sudden and frequent varieties and changes in the weather: and, there is not perhaps a country in the world where so many complaints are produced by the numerous, sudden and unexpected changes in the weather, as in this.—Would nurses *now* observe the same strict care in preserving infants from cold as they *formerly* did (and many yet do) the mother in lying-in, it would be the best maxim they could adopt.

fearful

fearful and alarmed when they are thrown in the arms or hastily moved: from which, may it not be inferred, that they are not, even so early, entirely destitute of mental sensations? and that the mind is as susceptible of the impression of fear (in this instance) as the body is of pain? A child will, upon the lap, often very apparently discover an apprehension of falling, by a sudden start, attended with a sinking; as is evidently perceived by the knee of the nurse; throwing out his arms at the same instant, as if to catch and save himself from falling; and which differs greatly from the starting or twitching occasioned by gripes, or any other similar cause, as it exactly resembles the sensation and effect a grown-up person has, who when, between sleeping and waking, he fancies himself falling from an eminence. This sense of fear in children is discovered, with exactly the same appearances, when they are quickly moved or tossed in the arms, awake.

It has been a doubt with philosophers, whether or not, children at this age have ideas or mental conception; and they have been at a loss at what time, and by what token, the first dawning of the intellectual faculty is to be discovered: it is a point which perhaps may never be fully elucidated and determined, by positive proof;

proof; how far the above circumstance may be one means of leading to a discovery, time, and future observation, may determine: there can be little doubt, from it, that children, at this period, have mental feelings or sensations, and that the fact itself will, conjunctively with other arguments, serve to point out to us the impropriety of much motion and exercise at this very early age. Very great and sudden changes and transitions are never grateful to the human constitution, (in a natural or healthy state) at any period: and when material changes are to be made, the more gradually they are introduced, at first especially, the better; the necessity of which is in no one instance more striking and obvious, than in the case of infants, who would experience so great and sudden a change, from a state of continued warmth and quiet, to the opposite extremes, as would frequently prove fatal, if we did not do all in our power to prevent it.

It may seem proper in this place to determine and fix upon the time and manner in which these changes are to take place: and from what has already been observed, the following general rules may be adopted, as far as circumstances will admit.

IN

IN the *first week*, a child should not be carried out of the room, except into one immediately adjoining, and that, for necessary purposes, as dressing, &c. but be kept in bed, constantly, or as long as he is disposed to sleep or lie quiet, and never otherwise be disturbed, except to be fed, dressed, or cleaned.

DURING the *second week*, the same rules are to be observed, except that, towards the end of it, the child may be allowed to lie upon the nurse's knee, near the fire, and to be gently moved or dandled once or twice a day, for a little time.

DURING the *third week*, the time of the child's being up and out of bed may be lengthened; and he may be gently carried about the room, which will be a means of introducing him gradually, to a strange, and, often, alarming sensation, viz. motion.

IN the *fourth week*, the motion may be a little increased; but which it should not be to such a degree as to shake or agitate the child much. If the weather be warm, he may, towards the latter end of the week, be taken into any part of the house which is not cold or damp; but if the season is cold, it will be more advisable to defer it a week or two longer. This seems too early, notwithstanding the season may be favourable,

vourable, to venture out of doors into the open air.

ALTHOUGH all degrees of, what may, by some, be termed *proper* exercise are omitted in the above rules; yet when it is considered, that the dressing, washing, shifting, and feeding, are all performed daily, and some of them repeatedly each day; they will be found to amount not only to sufficient exercise, but even fatigue, for the first or second week. No doubt particular circumstances and situations will very frequently make a deviation from the above general rules; in some cases, proper; in others, unavoidable; as the season of the year, the child's health, family situations and conveniences, &c. for which proper allowances must be made: yet these will seldom happen, to such a degree, as to prevent a compliance with them, in part.*

It is of late become a practice with some to advise and direct the shaking and tossing of infants, and exposing them to the light and air of the room, repeatedly through the day; and that, on the day, or a day or two after they are born: also, carrying them out of the room, and

* WHAT remains farther to be observed upon the subject of air, exercise, &c. will be more particularly noticed in its proper place.

into the open air, very soon afterwards. The motives for this practice are (most likely) founded upon the general opinion of air and exercise being conducive to health and strength: so they undoubtedly are; and are found to be highly expedient, as well, to preserve the human constitution in a state of health, as to restore it when impaired: yet as the best remedies are serviceable only as they are judiciously proportioned and administered; so, consistency, upon this occasion, should never be lost sight of. We find nature seeks for, and takes delight in, different kinds and degrees of exercise and air, suited to the different periods and stages of life: and although children, and the young of all animals, are at a certain period disposed to be more active and playful than at any other; yet it must be considered that, desire, and even ability for motion, do not take place the moment of their birth; (a few instances in the whole animal creation excepted) but that they require an uninterrupted state of warmth and quiet, for some time, to perfect and fit them for motion and the operation and effect of the external air; which, in severe seasons, proves very fatal to those that, even by nature, are the best provided against it.

It

It may perhaps be said, that exercise, begun so early, will forward a child, and be a means of bringing him sooner to the use of his limbs: yet if nature, as has been observed, has not then perfected and fitted these limbs for motion, we may do harm by forcing them beyond what they are capable of. It also does not appear likely, that a child, who is by nature of a strong or active frame, will have it impaired, or the progress of it sensibly retarded, by a month's confinement at his birth: for, notwithstanding the indulgences we have been speaking of, it will be far from a state of total inaction, as the limbs and every part of the body will be considerably exercised by the washing, dressing, &c. which is daily and regularly practised; and which is as much, when properly performed, as can ever be immediately and essentially necessary for health, at this period.

It is remarked, that a greater proportion of the children of the poor and indigent die in their *early* infancy, than those of the more opulent; and is accounted for from a want of warmth, which it is impossible they can have in the cold, uncomfortable, and, frequently, miserable habitations which fall to the lot of the poor and needy, in large towns especially; added to the great defect in the quantity and
quality

quality of their clothing: they seldom suffer for want of food, which they are commonly supplied with, very plentifully, by the mothers; as poor, laborious women often have a great quantity of suck.—Admitting, however, that the number of deaths of the poor and rich are nearly equal at this period; as the most prevailing causes of death, in the month, may be said to be cold, and improper food (as will be immediately explained;) it is obvious, that cold taken at or soon after the birth, must be the most general and prevailing cause of death with the poor of large towns; and that, consequently, it becomes a circumstance of very great importance to be duly attended to, by all ranks, in every situation.

THE children of the poor, who survive the period of early infancy, generally appear more hardy and strong than those of the rich; as, those of the latter, although puny and weak at the birth, very often (especially when wet-nursed), by care and indulgences, survive this period; but, which very rarely is the case with those of the former, from, perhaps, a want of these indulgences: and, there can be no doubt, that free exercise and exposure to the weather, which the poor experience free from luxury and indulgences, will contribute to health, at a la-

ter period ; although it will, as it so very commonly does, prove injurious and fatal, more early.

F O O D.

IT cannot be doubted that breast-milk is the most natural as well as proper food for a child : but it happens, that some mothers are not disposed to suckle their own children ; and that others are not capable of doing it for want of milk : and, in large towns, the difficulty that attends getting good wet nurses, and the danger attending bad ones, induce many to prefer bringing up a child with the spoon, which is commonly called dry nursing, to the risque of getting a bad wet nurse. When a child is healthy and strong, this latter mode, of dry nursing, may be adopted with the most propriety, and a prospect of success ; but when a child is sickly, weak, or cross-tempered, it will generally be found a perplexing, difficult piece of business.

A CHILD does not require food very soon after his birth, nor is the mother capable of giving it immediately : nature therefore has wisely ordered, that the infants call, and the mother's ability to supply it, shall keep pace with each other. As a child, before birth, has received

no nourishment by the mouth; so the mouth, stomach, and other organs of digestion, are not immediately in a proper state and situation to exercise their different offices.* The stomach and bowels are lined with a mucous thick matter, of a black colour, called *meconium*; which is discharged in the course of the first or second day by

* *To the Medical Reader.*—As it cannot be supposed that any of the secretions subservient to the purposes of digestion, viz. the saliva, gastric juices, the bile, &c. are, at the birth, or immediately afterwards, duly prepared and given out in sufficient quantities for that purpose; so, food, of any kind, for want of these natural aids to its digestion and assimilation, will be offensive to the stomach, and which it must either reject upward, or pass downward in a crude, indigested state. The *meconium* and other contents of the bowels and stomach, which before birth no doubt have had their uses and designs, yet are afterwards to be considered in the light of extraneous bodies; and it seems highly probable that, until they are excluded, the digestion cannot properly commence, nor can the absorption of chyle by the lacteals take place. Should it be asked: may not food be properly given to clear away this (now) extraneous matter, and to excite and accelerate the natural secretions? It may be answered: it is absurd and unphilosophical to suppose that *Nature*, in so essential a matter, should be defective, and that she should be incapable of or unprovided with regular powers and a stated law and period for accomplishing so important an intention, without any accidental assistance;

by stool; and until this is purged off, the child can receive little, or perhaps *no* nourishment from food of any kind; and which is, therefore, better omitted. It is, by some, thought necessary to give the child something to carry off this black matter; but which there is seldom or never any occasion to do, as the child generally has a stool or two the first or second day; and which

otherwise, the consequences, in a state of nature, (the most conclusive mode of reasoning upon this occasion) are very obvious.—Therefore, from the inaptitude of food to the purposes of digestion and nutrition, and from its being contrary to the design and order of nature, at this juncture; is it not more consistent and rational; is it not, in general, found more advantageous in practice, to delay giving it until *nature* requires it on one part, and provides it on the other? And even if, by the above means, we had it in our power to hasten the operations of nature; might not the effects of such premature exertion be as unfavourable, or more so, than those from a short procrastination?

THAT the *gastric* and other juices essential to the purposes of digestion are either not secreted, or not in a proper state to act upon the food, appears by children's seldom or never regularly posseting, or throwing up half digested milk, for the first three or four days, or even a week, although they are supplied with the breast during that time; which must as regularly and certainly happen if the milk was then acted upon by those juices in the manner it afterwards is. See the following note to the medical reader on the digestion of the food.

if he should not, a little of the syrup of violets, manna, or a teaspoonful or two of the syrup of rhubarb, may be given to procure it; but the less such like things are used, the better; as they sometimes occasion troublesome gripings and loosenesses.

As it is commonly two, three, or even sometimes four days before the mother has milk for her child, it is usual to give him some kind of food during that interval; but, from what has just now been observed, there can be little or no occasion for it: however, if it did no harm, there would be less occasion to forbid it; but which it certainly does, and that, oftener than is suspected. It is very common for children to be cross the few days before they get the breast, and which is mostly observed to be occasioned by griping; which griping is sure to happen, in a greater or less degree, very often considerably, if any kind of food, except breast milk, has been given; and which is very easily and clearly accounted for (and will appear, by observation, to be so), when we consider the quality and composition of the food that is almost universally given;—namely,—*panada*, or *pap*; which is composed of bread and water boiled and sweetened with brown sugar; to which is, sometimes, added a small quantity of milk: or; oatmeal and

water, in the form of thin water gruel, with the same additions.

ALTHOUGH these have been intended for, and may seem to be, compositions that are palatable and light, and such as might be easy to the stomach at a more advanced age; yet, upon proper examination, they will not be found so well suited to a child, at this age, as might be wished, and as will appear by making a comparison between this kind of food and the mother's milk; which seems the likeliest method of placing the matter in a proper point of view. In doing this, it will be proper to examine distinctly the parts which compose this food; the principal and most material of which is

BREAD; which, in whatever shape or form it is made or given, is a substance, we must acknowledge, the stomach is not naturally intended, disposed, or prepared to receive; therefore, no wonder, if it should frequently disagree; and which it may reasonably be supposed to do, from its weight, vegetable quality, or some particular antipathy, inaptitude, or dislike the stomach has to any thing solid; which last seems one very probable reason; as, when it happens to disagree, all kinds of bread are equally alike disagreeable, and that, commonly, even in the smallest quantity, and which I have frequently observed

observed it to do with children, in other respects, remarkably strong and healthy, who could not bear the most trifling quantity of bread, of any sort, in their food without giving them apparent uneasiness. *Bread* may be known to disagree, when the food which contains it is rejected, or thrown up soon after it is taken, unaltered or unchanged in its appearance: or, by a looseness with much griping and green, four stools; but it most commonly happens that the sickness, and the griping with looseness, both occur together. The child upon this occasion is *sometimes* observed to have a very great dislike to the food when it is made thick with bread, and it is with difficulty he can be got to take it; but which he will take more readily, and with more pleasure, when it is made thin. If the bread should contain alum, or have undergone any other adulteration, the bad effects of it will be increased. Water, that has had a piece of bread boiled in it, when mixed with milk, seems the least exceptionable manner of giving (if it can be called giving) bread.

OATMEAL, in the form of water gruel, caudle, &c. is liable to the same objections with bread, as it produces much the same effects.

SUGAR cannot be excepted to exactly upon the same ground as bread; as, when it is mixed with

the food, it dissolves, and cannot therefore offend the stomach by its weight, or substance; yet there is a very powerful objection to it, which is; that as sugar is disposed to turn sour upon the stronger stomach of a grown up person, it certainly, and without any doubt will do it, in a much greater degree, with an infant, and will have a perpetual tendency to promote griping with, or without looseness; and, when such complaints do exist, will add to them greatly.

SUGAR is almost universally put into the food of children; and the reasons given for it are; that it makes the food palatable, and which, it is supposed, a child will not take, so well, without it: and that, as it is rather loosening (when brown sugar is made use of), it will help to keep the body open. With respect to the former of these reasons, it may be observed; that if a child, from the beginning, is not accustomed to sugar, he will undoubtedly take his food just as well without it (a very few, if any, exceptions to the contrary). But if he has been used to it for some time, there may be some difficulty in weaning him from it; yet that may generally be done by making a proper trial. As habits are not subdued without some difficulty at so early a period; we cannot be too guarded against such as may have an injurious tendency, even

even at this tender age. In answer to the latter argument in favour of sugar, it may also be observed; it very seldom happens that children have occasion for any thing opening, as they are at this age, if in health, naturally disposed to be open in their bodies; and when, at any time, they are otherwise, a little manna, castor oil, or magnesia, which may be given safely at any time, will be better for the purpose; as, any thing taken as a medicine constantly, loses, in a great measure, its effect; and, on that account, becomes of very little use when most wanted. It may be said, the mother's milk is sweetish: it is so; and there could be no impropriety in imitating that saccharine or sugar-like flavour, provided the means used for that purpose were perfectly, or nearly, consistent and unexceptionable on other accounts. Although sugar imparts a sweetness to the food that gives it the flavour of the mother's milk; yet it adds, at the same time, other qualities which are foreign to it, and which make it an improper substitute. The natural sweetness of the breast milk, and that which is produced by sugar, although much alike to the taste, may differ as much in quality as any other two sweet things: honey and sugar resemble each other a good deal in flavour, yet differ very materially in quality,
and

and effect, when used as part of the diet or for other purposes: so may and does the natural sweetness of the breast-milk, and that produced by sugar, or any other sweet substitute that has yet been discovered.

THE third and last article that composes this food, is WATER; which, when soft and pure, is not liable to any exception. MILK, is seldom added the first two or three days; yet, in a small quantity, it would be an useful addition; although it will but very imperfectly counteract or lessen the injurious effects of the BREAD and SUGAR.

HAVING descanted upon the qualities of the materials of which this food is composed; it may not be amiss further to explain how and in what manner it must constantly disagree, more or less, with an infant; in doing which, it will be necessary to consider; that the digestion of the food in the stomach is a process by nature established and supported, in the same regular, uniform manner, and with little variation, during life; and that to support this regularity, nature has provided for us, and directed us to the choice of, such kinds of food as are best suited to our support at the different periods of our life; from which if we sensibly deviate, the digestion will be interrupted, or go wrong, which

which must throw the stomach and bowels into disorder, and by which the whole body, if the change be considerable or continued, must suffer. There can be no doubt that the mother's milk is the only sustenance nature has designed for an infant at the time of his birth; that the stomach and digestive organs are accordingly particularly calculated and prepared to receive it; and that any other kind of food, which is foreign to, or differs very essentially or materially from it, must disagree more sensibly at this tender age, when the digestive organs are weak and imperfect, and, therefore, less able to overcome an error or irregularity from the diet, than at a future and more advanced period, when they have acquired a degree of strength.

THE DIGESTION of our food is always accompanied with, and (so far as has been discovered) depends chiefly upon a fermentation in the stomach; which goes on with great regularity in a state of health, unless interrupted or disturbed by something taken into the stomach which is foreign, unnatural, or unadapted to it; or which, by its quality, will check, retard, or vary the proper fermentation.

THE effect and result of *fermentation* varies according to the nature and quality of the substances made use of for that purpose. For example;

ample ; it is well known to every person, that any *vegetable* substance, as flour ; oatmeal ; bread of all sorts ; cabbage, and all greens ; fruit of all kinds, ripe or unripe ; turnips, and all kinds of roots ; sugar ; &c. &c. when mixed with water or watery liquors will, in hot weather, or when placed in a moderate degree of warmth, ferment, or *work* as it is commonly expressed ; and, if this working or fermentation is not stopped or checked, will very soon turn sour : it is by this means and on this principle the vegetable acids or vinegars of all sorts are made from different fruits and vegetables ; and which is termed the acetous or acid fermentation.— Again ; when any *animal* substance, as flesh-meat, fowl, fish ; or the broth, gravy, or juices of any of them are mixed with water or watery liquors, and placed in a moderate degree of heat, they will, like the vegetables, ferment or work ; but the result of this fermentation or working is widely different from that of the vegetables, and is called the *putrid* fermentation, very nauseous and offensive to the smell and taste. The products of these two similar processes are as opposite as any two things in nature : the first being named *acid*, and the other *alkali* ; the effect of vegetable and animal fermentation.

FROM

FROM what is here observed, it will be easy to conceive how well suited the *stomach* is, from its warmth, its natural juices, and the liquids regularly taken into it, to dispose the vegetable and animal food which we daily receive into it, and upon which we subsist, to ferment; and which happens very much in the same manner in, as out of, the body.*

THE human frame and constitution is so disposed by nature, as to require its support and nourishment from a combination of the efforts and effects of these two different fermenting substances (for stones, minerals, and every thing else in nature that is not capable of fermentation, will afford no nourishment to the body); and therefore the regularity of the digestion of the food, and the consequent health of the body, depend very much upon the quality and due assortment and mixture of these different substances or foods in the stomach: for if either the acid or putrid quality prevails too much, and for a continued length of time, the health will suffer by it; and, in either case, the food cannot, for want of a proper and suitable fermentation in the stomach, yield and

* WINE is the result and product of vegetable fermentation, which is called the vinous fermentation; but this result of vegetable fermentation never takes place in the stomach, and may be always prevented out of it.

give out its proper nourishment: hence the stomach and bowels are disordered for the present, and must lose their strength and powers in common with the other parts of the body; and, if the cause is continued, will lay the foundation for many diseases.—But when suitable proportions of animal and vegetable food are received into the stomach together, a proper fermentation ensues, by which the digestion goes on briskly, freely, and without interruption; the food affords due nourishment, is grateful to the stomach and bowels, and does not disturb them or occasion any uneasiness in them (for it is necessary to a good digestion that it be quick and hasty; as whatever lays upon the stomach without digesting readily, does not digest perfectly, and always gives uneasiness): hence the propriety of, and the natural desire and inclination we have for, a mixture of animal and vegetable food constantly and regularly in our diet.

THE injuries done to the human body by errors in the proportioning of animal and vegetable food are as follow.

FIRST, with respect to animal food, it is to be observed; that from nature's bountiful supply of vegetables and vegetable productions, in the form of fruit, roots, bread, &c. wine, beer, and other fermented liquors, throughout the habitable world,

world, injuries from excess of animal food rarely happen (especially to infants, in this part of the world): however, when from any accidental, occasional cause they do happen, a corruption and destruction of the body, from an excessive prevalence of the putrid fermentation, must, if the cause be continued, ensue; and which is the case in the sea-scurvy, when, in long voyages, the seamen are deprived of, or restrained in, the use of vegetable diet: and if any of the human species were to be confined entirely to the use of animal food, of whatever kind, and water (pure water partakes of neither an animal nor vegetable quality in the smallest degree), they would very soon die in the situation here described.

SECONDLY, with respect to vegetable food, it is to be observed; that an excess of it will not upon *all* occasions be immediately fatal; yet it is, with all, in a natural and healthy state, inadequate to the purposes of good health. For it is well known, that the sourness that is produced in the stomach by a prevalence of the acid fermentation there (in consequence of the too free use of vegetables), is not only injurious (as acids in all forms are) to the growth and nutrition of the body, but that it is also the cause of indigestion and severe and painful complaints in the the stomach and bowels: for when a person indulges frequently and freely in greens, fruit, acids,

acids, and other vegetable productions, he will almost as certainly be troubled with a sourness rising from his stomach, the heartburn, or an uneasiness and sense of a weight or load there; all or each of which are occasioned by an excessive prevalence of the acid fermentation in the stomach, which checks and restrains the digestion, by which the food lies as a load upon the stomach, accompanied with a painful sensation and oppression, and which is most commonly attended with costiveness with grown persons; but with children a sickness frequently, and generally a griping with looseness.

As the hand of *Providence* is admirably displayed through the whole creation in connecting and adapting the several parts for the preservation of the whole; so particular care has been taken to adapt food to every animal suitable to its situation. As the human race are not in any parts of the known world so circumstanced as to be under a necessity of confining themselves constantly and entirely to the use of animal food, so their nature is not calculated to subsist upon it: but as there are frequent occasions in many parts of the world, where, if they could not subsist for long periods and seasons upon vegetables alone, they must perish, so nature has a provision made for such occasions; and this provision

vifion is; a power in the animal constitution* to fubdue, *in part*, an excefs of the acid fermentation and its effects, by a natural difpofition in the animal to a putrid tendency, or
putre-

* THE procefs in the animal constitution (as well human as brute) by which a change is effected in the quality or property of the vegetables they eat, (which change takes place partly during the digeftion of the food, but chiefly after it mixes with the blood, as the nutritious parts of all food mix with the blood) is called *animalizing*; by which is meant, the converfion of vegetable into animal matter; and which will be readily conceived to take place, when it is confidered, that a cow, or any other animal that lives entirely upon grafs and other vegetables, would change its own nature, and be converted into a vegetable, but for this power in the constitution to *animalize* the food that is taken.

As this power, however, varies in different animals according to their fpecies or kind, fo nature directs every animal to the choice of fuch kind of food as is beft fuited to its constitution. Cows, and many other brutes, confine themfelves altogether to vegetables, and refufe animal food, as their constitutions are prepared to *animalize*, that is, to convert vegetables into proper nourifhment for their fupport. Man, and fome brutes, as the dog, cat, &c. from the nature of their constitutions, require a mixture of animal and vegetable food, and are found to thrive beft when they get fuch a proper mixture. Some of the birds require a mixture of animal and vegetable food; and although a very great majority of the feathered race, who are
F confined

putrefaction; and the greater the animal powers, that is, the stronger the constitution, the more this disposition prevails; from which, it becomes very considerable with the strong and healthy of
grown

confined in their feeding to the land, live entirely upon vegetables, yet there are others that we find cannot, as the nightingale, wood-lark, robin red-breast, wren, &c. and who soon die when confined to grain, feeds, and other vegetables.

CLIMATE greatly influences and directs the diet. The inhabitants of warm and southern climates require a large portion of vegetable diet to allay and obviate the effect of excessive heat, which, by favouring the putrid fermentation, tends to the putrefaction and destruction of the body: whilst, on the contrary, those of the northern climates require an ample supply of animal food (or fish, which is to be considered as being of the same quality) to support and supply a degree of heat (which it affords) necessary to prevent and resist the powerful action of cold. These varieties in the diet are found proportioned to the degrees of climate. The inhabitants of some parts of Asia are said to live entirely upon vegetables: no doubt the vegetable productions of that country are numerous and in regular, alternate succession; and very likely, from the warmth of the climate, may come to fuller perfection and maturity than we find them in the northern parts of Europe; from which, and being always to be had fresh and in perfection, they will be better suited to the purposes of digestion and nutrition; yet those people are weak and effeminate.

THE farther we advance northward, the more we find the inhabitants disposed to eat flesh-meat; and, where they
have

grown persons ; and of course but very slight and inconsiderable with infants.*

BREAD, and SUGAR, together or separately, when mixed with *water*, in the form of *panada* or *pap*, are, in common with other *vegetables*, readily disposed to turn sour in a certain state of

have it in the greatest perfection and plenty, the healthier and stronger they are. In the most northern regions they eat a great part of their flesh-meat and fish raw ; and have very few vegetables ; in the winter (which is very long) scarcely any except dried roots. In these two contrasted situations, of climate and diet, the inhabitants may, independent of excessive indulgences and debaucheries, be nearly alike healthy ; although the latter must be, and are, more robust and strong.—This kingdom, with respect to climate, is situated between the two extremes of heat and cold ; yet as, throughout the year, the cold season may be said to exceed, in length, the warm ; it follows, that a plentiful supply of animal food is necessary not only for the assimilation and digestion of the food, but also for the purposes of good health and strength of constitution.

* THERE are some persons, however, who cannot be said to have strong constitutions, who yet require more than usual of the acescent or vegetable diet to support this equilibrium in the digestion, owing to an uncommon disposition in the constitution to the putrid fermentation ; but is what happens to very few in this climate ; and, when it does, is with grown persons, and is scarcely or not at all observable or to be distinguished in the early periods of infancy.

warmth, and with a slight degree of fermentation (as will convincingly appear by making the experiment): such a mixture, therefore, taken into the stomach of an infant, where it will meet with nothing that will, in any considerable degree, counteract this acid tendency, must inevitably produce an acidity or sourness, in a degree proportioned to the quantity taken, and the length of time it is continued. It is from this cause the sour smell and green colour of childrens' stools proceed; which are always attended with griping and looseness; sometimes with convulsions; and which frequently prove fatal at this early period. When this food has been given to children, I have constantly observed them to have either a sickness, or sour, green stools with more or less of griping, or both, which have generally increased while the food was continued, and which were mostly troublesome, often alarming: and, on the contrary, when I have been able to prevail with a nurse to avoid giving any thing until the mother's milk was ready, such like appearances and symptoms have rarely occurred, and when they did, it has been in so slight and moderate a degree as not to disturb the child, or be worth notice. It will, no doubt, now and then happen, that children, from causes which we are strangers to, will have complaints in the stomach and
bowels

bowels that are alarming and dangerous; yet, if nothing in its nature sour, or disposed to turn sour, be taken in at the mouth, the sour smell and green colour of the stools will not happen, except, perhaps, in the slightest degree. Cold is a very common cause of griping with looseness; but, in that case, the stools will be nearly of the natural colour, and free from sourness, if nothing in the food conspires to make them otherwise.

THE sour smell, green colour, and the watery and often frothy appearance of the stools, are unerring signs, and the regular consequences of the acid fermentation from improper food.

THE MOTHER'S MILK partakes of both the animal and vegetable quality, and therefore is, as nature designs it, perfectly suited to the purposes of digestion and nourishment for children.

Cows' MILK also partakes of both the animal and vegetable quality; and although it differs somewhat from breast-milk, may yet be substituted for the latter, and to advantage when properly directed and managed; as will be presently explained; but it has not sufficient powers and qualities effectually to correct the injurious effects of bread and sugar, when mixed with them, although it will do it in part.*

FROM

* *To the Medical Reader.*—As no appearances, or but the most imperfect ones, of either an animal or vegetable

FROM this short and familiar account of the *digestion* of the food, the propriety of attending to the quality of it, with children, is strikingly obvious; as they are ill qualified, from their natural

quality are to be distinctly discovered in milk by the common test of an acid or alkali in a chemical analysis, it has been considered as participating and being an intimate combination of both. Dr. Cullen, in his *Indicationes Curatoriæ* (as delivered in his lectures), when upon the *Nutrientia*, observes of milk, that it is to be considered as aliment in an *intermediate* state between animal and vegetable. Macquer calls milk, "a liquor half changed into an animal juice."—This perfect, and, as it may be called, indissoluble combination of animal and vegetable matter, of which milk is composed, may account for its being in general so light and easy of digestion to weak stomachs; as it may, by such preparation, require less assistance from the digestive and assimilating powers than any other mixture of animal and vegetable matter previously less combined: hence we may infer, that the process in the digestion of milk (in a child's stomach particularly) differs a good deal from that of any other food. It is well and universally known that the juices of the stomachs of sucking calves are disposed to act in a particular manner upon the milk as soon as it is received by them; a familiar example of which appears in the making of cheese, where a portion of the stomach of a calf is macerated in water a few hours, to extract its juices, which being put into a quantity of milk, previously warmed to about the degree of animal heat, occasions a separation of its parts into a soft curd and whey: which, without

natural weakness and delicacy, to combat the effects of a material irregularity in it.

SIR JOHN PRINGLE, a physician of eminence, has been at great pains in investigating and ascertaining

without doubt, is very similar to what happens in the stomach of the calf, as also in that of a child and every other animal that is fed with the mother's milk; and depends upon a *specific* quality in the juices of the stomach capable of regularly producing it.

As this change is effected without the aid of fermentation, neither acidity nor putrefaction are the *immediate* result of it; and it is probable, from the appearances and qualities of children's stools, that, with children, only the slightest degree of fermentation follows during the *remainder* of the digestion; as the stools, when newly excreted, have their appearance of soft curd tinged with bile, nearly inodorous, but which will soon afterwards undergo a spontaneous fermentation. As the particular qualities of the gastric juices of animals must vary with their several species, so those of each may be supposed the best suited to act upon the milk of their own respectively: but, as it may be supposed that the component parts of milk are much the same in all animals, and vary only in their proportions; so the milk of one animal will, with a little art and assistance, be more likely to agree with another, than food of any other kind.

It is observed, that cows' milk seldom agrees so well, and is so light and easy of digestion, with grown persons, as with children and those who are younger; and, that the older a person grows, the less relish he has for it. From which, it is extremely probable, that as a man, or any

certaining the nature of the digestion of our food; and most of the arguments here offered are consonant with his reasoning and experi-

animal, advances in age, the gastric juices gradually and progressively lose that quality which originally enabled them to act upon and promote the digestion of milk; for it does not appear that the stomach of a cow will produce the same change with milk, out of the body, which that of the calf does.

FROM this view of the digestion of milk, we are led to discover the impropriety of any food for children that differs from it. The bad effects upon the stomach and bowels in consequence of the acetous fermentation from the use of *panada* or *pap*, or any other vegetables that require strong animal powers for their digestion and assimilation, are too obvious to need a recital.

CHILDREN are always observed to thrive best when they posset, or throw up freely. The reason appears plainly to be, that as children, whether they feed themselves from the breast, or are fed with a spoon, for the most part overload their stomachs; and the superabundant food in its half-digested state, is easily and readily rejected: but if the food is of such a quality as is not adapted to the stomach, the proper digestion does not take place; so that it will lay there and oppress the stomach (as with a grown person so circumstanced) for a much longer time, and cannot be got up without uncommon exertions and much straining. It is on this account that children who are dry-nursed, upon the *usual* food, seldom or never are observed to *posset*; and therefrom suffer a good deal when their stomachs are overloaded.

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ments upon the subject. With respect to vegetables, he in general observes; that when they are taken alone, or even in over proportions, into the stomach, by the acid fermentation which they must necessarily undergo, the digestion is interrupted, and many complaints of the stomach and bowels produced; all of which are observed to happen the most remarkably with those of weak stomachs and bowels, even of grown persons. What effect, therefore, may a diet altogether or chiefly vegetable, and which differs so much from breast-milk, be expected to have upon the uncommonly weak and delicate stomachs and bowels of infants?—Certainly a very bad one. *Bread* must disagree, on two accounts; as being a vegetable; and from its substance, which (as already observed) the stomach of an infant is not by nature intended, and, of course, prepared to receive.—*Sugar* will disagree from its disposition, as a vegetable, to turn sour, as well as from its other unfavourable qualities.* They
who

* *To the Medical Reader.*—Sir John Pringle's observations and experiments on the tendency and effects of *sugar* in digestion, are as follow. "Nor does sugar at all promote putrefaction. A plain syrup is said to preserve meat better than any brine; and from the trials I have made, this seems to be true: as also, that weak solutions
" of

who are unacquainted with the properties of sugar, cannot always be readily brought to conceive that one of the sweetest things in nature will so readily and easily be converted into the directly opposite quality, to the taste, of sour; but which they will assent to, and be convinced of, when they reflect that it happens in the preparation of all sorts of vinegar in which sugar is an ingredient; and that vinegar, for some uses, is made of sugar and water only, by means of fermentation.

FROM what has been observed, there will not be much difficulty in accounting for the prevalence of griping with looseness, &c. with infants at this period; especially when it is farther considered how few children escape having food of

“ of sugar are proportionally antiseptic. But what is most
 “ remarkable here, though weak solutions of sugar soon
 “ yield to the putrefaction of flesh, yet as soon as an acidity
 “ is produced from the sugar’s fermenting, that putrid
 “ tendency is either much retarded, or entirely overcome.
 “ Wherefore in sugar, the effects of both the *farinacia* and
 “ salts seem to be combined; for as a salt, it opposes putre-
 “ faction at first, which the *farinacia* do not; and like the
 “ *farinacia*, it checks putrefaction after the fermentation
 “ begins.” *Observations on the Diseases of the Army,*
Appendix, page 354; third edition. Hence the impropriety
 of sugar where an acidity is to be strictly guarded against.

the

the quality above described forced into them in great quantities, with little intermission, frequently from the moment of their birth. It is a very common practice with nurses to feed children, at this time, when they are cross, supposing they are hungry and want food; not knowing that they are, by such means, adding fuel to the fire, and promoting the cause, which is no other than griping from the same sort of food which they have before given. For although fretfulness and crying may be signs of hunger, yet they are not always so, as, an uneasy or painful sensation, from griping occasioned by cold, improper food, or any other cause, must equally occasion them: and when a child has had as much food as is necessary, how great the absurdity, how great the hardship upon him to be stuffed and gorged night and day with immoderate quantities of what, for the most part, is the chief or only occasion of his uneasiness!—If children are not fed at all, are kept warm and dry, still and quiet, and are never taken out of bed except to be dressed and cleaned, they will very rarely be cross the first, second, or third day; and, if they are, it may as reasonably be supposed to proceed from any other cause as hunger. Warmth, and rest, answer every intention of nourishment until nature requires

quires the use of food, and prepares the stomach and other organs and instruments of digestion to receive it, for that purpose.

THERE is yet one other argument remaining in support of the impropriety of this food at this period, which is; that a child shall have, while he takes this food, for the first two, three, or four days before he gets the breast, a sickness with or without throwing up, or a griping with looseness, &c. which will disappear totally, or in a great measure, by quitting this food and being fed entirely from the breast; and this is what happens very often, and in a very sensible manner, as may be observed by those who will notice it. To what causes are these sudden and material changes and appearances to be attributed, independent of the impropriety of the former food, and the salubrity and propriety of the latter? Is not this as convincing an argument as can be given, and would there need any other?

IT is of the utmost importance to have this subject properly understood and attended to, as the number of children who suffer in their health and lose their lives by the gripes with looseness, at this critical juncture, is very considerable; and as there is no complaint which, at this tender age,

age, they suffer so frequently and so much from, and which is to be more dreaded, especially with those who are dry-nursed, and are of course confined to it for a longer time: for although a child who is wet-nursed may suffer a good deal by improper food, yet it is but for a short time, and as he gets the breast in two or three days, the cause is removed, and he generally, sooner or later, overcomes the effect of a short irregularity: yet puny, weak children may, and often do, lose their lives from it, even in that short space of time. But when children are dry-nursed, and confined to such like food, no wonder so few should thrive and do well: those, who live, are most commonly teased with a frequent griping and looseness, which keeps them always weak, puny, and spiritless, and gives them a pallid, sickly look; and daily experience but too fully convinces us that numbers are carried off by it.

FROM what has been observed, it will appear; that children very seldom can have a *real* occasion for food, of any kind, before the mother is capable of supplying it; and that, food (especially such as is commonly given upon this occasion) is more likely to do harm than good: therefore, it will be better, in general, to avoid giving any thing as food, till the mother's or another breast be ready. This practice, considered as an innovation

vation in the established custom or rule of nursing, will, no doubt, meet with opposition from some, merely on that account; it can be founded upon no other pretext, as reason and experience unitedly conspire to confirm the propriety of this practice, and to place it in the most clear and convincing light; and which must have its proper weight and influence with those who prefer the conviction of their own senses to vulgar prejudice: yet if any doubts or objections arise, they will be solved in the best and most satisfactory manner by making the experiment, which, upon most occasions, may be done with the utmost safety.

It sometimes happens when a mother intends to nurse her child herself that it is some time before she can be satisfied whether she will be able to do it or not (especially of the first child), from the state of her breasts, the quantity of her milk, or other causes. It also may happen, that when a wet-nurse is intended, she may not be ready or at hand for a like time. In either of these cases it will be necessary to give the child some food, and to continue it until the breast be ready: for which purpose, it will be advisable and proper to make choice of such food as appears to resemble and approach the nearest in quality to the mother's milk. *Asses' milk* comes

comes nearest to the human of any we are acquainted with in use;* and therefore, when it can be had, is very desirable and proper: it should be given, alone, without bread, sugar, or any thing else, and always as warm and fresh milked as possible; and the child may be constantly fed with it, nor will any other kind of food be necessary: but, as from the expence which attends it, and the consequent difficulty of getting it, the more opulent only can be indulged with it, it will be necessary to substitute something else that can be more universally obtained. *Cows' milk*, as being the only milk in general use,† must be had recourse to, and will
answer

* *Asses' milk* resembles breast milk so much in taste, consistence, and every other quality, that very little, if any, difference is to be discovered between them. It is so light and easy of digestion that it is recommended to grown persons in declines, or when the constitution is weakened or impaired from any cause; and in cases, more particularly, where the stomach is too weak to retain or digest other food. From which, there can be little doubt that it is admirably calculated for, and adapted to, the very weak and delicate stomach of an infant.

† *Goats' milk* approaches somewhat nearer to breast milk than the cows' does; although it more resembles that of the cow than of the ass, and therefore the advantage which
will

answer the purpose very well; but, as it is a good deal thicker than breast milk, it will be proper to reduce it to the same consistence; and which may be done very well, and with propriety, by diluting or mixing it with water. As milk is frequently mixed with water by those who sell it, it cannot be said, with any degree of exactness, what proportion of water must be added to the milk to reduce it to a suitable consistence: but, if the milk be good, about one part milk, and two parts water,* will do very well,
to

will attend its use cannot be expected to be *very considerable*: yet, when it can be conveniently had, it appears to deserve a preference and trial, especially in cases where the cows' will not agree in any form or manner of giving it; and, when asses' milk cannot be obtained. The goats' milk must be mixed with water, in the manner hereafter described, and with a proportion of somewhat more than one half part water.

* *To the Medical Reader.*—According to *Hoffman's* experiment, as upon the evaporation of cows' and human milk, the inspissated residua were, as 13 to 8; so, to reduce the former to the consistence of the latter, a less proportion than half water might seem sufficient; yet, upon mixing one part milk and two parts water, the mixture seems, to the sight and taste, even then, less dilute than breast milk. As the nutritive part of milk is supposed to be chiefly confined to the unctuous and gross; and as these are the most
difficult

to give at the first. In mixing the milk and the water, the following directions ought to be attended to. The water that is to be put into the milk must have boiled,* and be of such a heat when

difficult of digestion; there can be little doubt of its affording due nourishment when diluted so much as here directed; and the risque of its being too gross and heavy for a child's stomach will also, by that means, be avoided: for as it has been observed, in the preceding note to page 77, that the gastric juices of every animal may be supposed the best suited to act upon its respective milk; but that, by proper management, the milk of one may be adapted to another: so, if from the grossness of cows' milk, the gastric juices of a child's stomach are not powerful enough to produce in it the necessary change, (there explained) by reducing it properly, that change may more reasonably be expected. That this is not however merely hypothetical, may be gathered from what hereafter follows; where it is observed to be confirmed by experience, that this dilute mixture of *cows'* milk may advantageously be substituted for that of the *mother*; and that it, in general, will agree with infants much better than the other kinds of food with which they are usually fed; and will be also sufficiently nutritive, during the first month.

* It is a matter worth attending to, in preparing this, or any other kind of food for children, not to do it in a copper pan or kettle, if it can be avoided. For if any part of the tinning should come off (as frequently happens), it might be a means of occasioning very frequent, troublesome,

when put into the milk, as, when thus mixed together, they may be as nearly of a proper warmth for the child to take as may be (viz. about the warmth of milk when it comes from the cow). It will be advisable to mix no greater quantity at one time than it may be supposed the child will take at once. The milk ought to be as fresh milked as possible, and, if warm from the cow, the better: but as it can seldom be had warm from the cow oftener than twice a day, it may at other times be prepared from cold milk. It ought not, at any time, to be put upon the fire to warm or boil.

and even dangerous complaints in a child's stomach and bowels. A tea-kettle is supposed less liable to such an accident than any other sort, and therefore may not be thought improper to be used for the purpose of boiling the water that is mixed with the milk. However, to avoid any, the least risque, it will be advisable to boil the water in a vessel made of tin, in the form of a tea-kettle, panikin, &c. which will be as commodious, to the full, as a common copper tea-kettle, and preferable even to a silver vessel that is not well and daily cleaned. An iron tea-kettle, that has been well and long seasoned and used, is very proper for the purpose. This caution respecting the copper is, with children, a very necessary one; as, from such a circumstance, what would not sensibly affect a grown person, might, by frequent repetition, occasion the death of an infant before the cause was discovered.

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THE advantages which attend this mode of mixing the milk and water, are; that the milk, by this means, suffers little or no change or alteration, except being thinned, and is received by the child in a state which must be best suited and most agreeable to his stomach: whereas, on the contrary, when milk is boiled, it suffers a change which makes it harder of digestion, to an infant, and also binding: warming it upon the fire, without boiling, gives it these qualities in a slighter degree: if milk is suffered to stand until it be so cold that the cream separates, its quality is altered: if milk and water, when mixed, is suffered to go cold, and is warmed again once or twice, especially in warm weather, it is very apt to turn sour. From which considerations, it appears how necessary it is to conform, as near as may be, to the rules above-named; all which may readily be complied with, in part, very easily, upon most occasions.* There will

* MANY grown up persons who are fond of taking new milk warm from the cow, or have it recommended for the health, find it too rich, cloying, and heavy to the stomach, and put in brandy, or rum, to make it sit easier; who, by mixing a third or half part water, that has boiled, with the milk, will find the same desirable purpose answered; which will to many be a much more agreeable method;

will seldom or never be occasion to put *sugar* into this food to induce children to take it, which they will do equally as well without, if, as has been before observed, they have not been accustomed to it: and if a child is to begin with this food who has been used to *sugar*, and refuses to take it without, a little may be put in, which may be diminished in so gradual a manner, that, in a little time, he may, perhaps, come to take it without any at all. *Sugar* is somewhat less injurious than *bread*; therefore it is the lesser of the two evils.* Loaf *sugar* will always be preferable to brown.

and will to all be much more eligible and expedient for the purpose of health in the generality of the complaints for which new milk is prescribed. It will be a desirable substitute for asses' milk when that cannot be procured. If a little *sugar* will make it more palatable, it may be added. I know some persons, who, when they take new milk in the state it comes from the cow, find it heavy on the stomach; but who, when they take it mixed with a little warm water, find it perfectly light and easy. If a very little loaf *sugar* is previously dissolved in the water that is put into the milk, it takes off the rawness and insipidity occasioned by the water, and gives the milk the same flavour, and richness to the taste, nearly, that it had before the water was put to it.

* *To the Medical Reader.*—*Sugar*, although equally disposed to favour the acetous fermentation, as it must pass the stomach much more readily than *bread*, will be less disposed to occasion sickness, obstruction, and oppression there.

THIS

THIS LIQUOR or FOOD, thus prepared, a child may be fed with as often as feeding is necessary, nor will any other kind of food (if this agrees) be needful; and, from what has been observed, the oftener it is fresh made, the better, and which is much preferable to what is warmed over again.

CARE should be taken that the milk is not adulterated with any thing that may be hurtful: chalk is said to be put into the milk in London, which must make it very improper food for children, as chalk is powerfully binding. In this town I believe nothing but water is put into the milk, which can do it no other injury than making it poorer and thinner.

THIS is a food which can be easily procured by all ranks of people, and is prepared much more readily and with less trouble than that made in the usual manner: it is palatable and agreeable to children, as they take it readily, and frequently with avidity and seeming pleasure: and what recommends it still more powerfully, is, its approaching near the quality and consistence of, that natural food, the mother's milk; of which although it should not be supposed to be an exact imitation, yet it appears to be nearer than any thing else we are acquainted with that can be generally and easily

obtained. It is very nourishing, and agreeable to the stomach and bowels, as appears by its seldom producing, or being accompanied with, any of the disagreeable symptoms of griping, &c. &c. which the food, prepared with *bread* and *sugar* (as has been observed) so very commonly does. Those children who are fed with it generally posset nearly as regularly as they who get the breast only; which is what seldom or never happens with those who are fed upon the common food with bread and sugar:—a strong proof in favour of its advantage.*

I HAVE known many instances of children who have been dry-nursed, whose food was prepared in the usual way, of milk, bread, and sugar, with, and without a proportion of water in it; who, notwithstanding repeated medical assistance, have been brought to death's door by perpetual gripings with looseness and sour, green stools, and who have been restored by confining them entirely to this simple food, with which, alone, they have been supported for some months, and have grown remarkably strong and healthy; and when at any time, during that time, a little bread was, by accident,

* SEE the conclusion of the notes to the *Medical Reader* pages 58 and 78; as also the article *Sickness*.

or otherwise, put in the food, the disagreeable symptoms as certainly recurred, and continued till the bread was again left out. When bread disagrees with children, I frequently observe them to have a dislike to the food that contains it, which they take very unwillingly, although it be made quite smooth; and bread of every sort is equally disagreeable: however, although this is commonly the case, yet it may, and does sometimes happen, that a child who has been accustomed to have bread in his food, will not willingly take it without something in it which will thicken it: when it so happens, a little flour may be boiled in water, and the milk added to it after it is boiled; and, as flour is rather binding, it will be an useful addition for the present; and if, hereafter, it should be proper to drop it, it may, most likely, be done by putting in a little less each time the food is made, till, at last, it be entirely left out. Childrens food is prepared in this manner chiefly, with flour instead of bread, in Paris; and that, very likely, from being found to agree so much better, which in general it certainly does, while they are very young.

FROM finding, in so many cases, that the milk and water prepared in this manner had so much the advantage of the food made in the

usual way, I have been induced to prefer and advise it upon all occasions, when a breast is wanting; and have repeatedly found it to answer most desirably. However, I am but too sensible it is imperfect and falls short of an exact imitation of breast-milk, and therefore of course may be expected, and will be found, sometimes, inadequate to the purpose: yet, until something else is discovered that promises, and is found by experience, to be better suited to the purpose, and that can be easily and universally obtained (for whatever is rare, or difficult to prepare or come at, will be far from answering a desirable and general intention), it is justly entitled to an attention and preference.

I HAVE observed that some children, who take this food are sometimes costive; and which is the only unfavourable effect I have observed it to produce: but as the effects of costiveness are much less to be feared than those from looseness, and as costiveness is always easily, readily and safely removed and prevented, it becomes an object of trifling importance; and if a child, who takes this food, should at any time be inclined to be costive, a little manna, castor oil, magnesia, &c. (as hereafter directed, on costiveness) will always relieve it. A little chicken or veal

tea

tea* will be very proper for a child who is dry-nursed and takes this food, and may be given now and then, occasionally and particularly when the food seems to disagree, either by causing a sickness with or without throwing up (see sickness); or costiveness; both which the broth or tea is, in a particular manner, calculated to relieve; and a little of this tea
 added

* I HAVE of late, from some trials that I have seen made, had great reason to suppose that the broth or tea of veal is preferable to that of chicken for children. There are two ways of making veal tea: one is, scraping the veal with a knife, and pouring boiling water upon it. The second is, mincing a piece of raw lean veal, putting it into boiling water, and boiling it five minutes; after which it stands until it be cold that the scum and fat may be taken off; and is afterwards warmed for use. The latter method seems to be the best; and half a boat, or a boatful, will be sufficient in general for a child to take in the course of one day. It ought to be fresh made every day; and the veal ought to be of the whitest kind, and newly killed.

To the Medical Reader.—It seems highly probable that the juices of the young of those animals that feed upon milk, are more likely to prove acceptable to the stomach of a child, than those of the animals, as the chicken, &c. that do not; or even than those of the older animals, as the cow, &c. that may have formerly been fed upon milk; as the juices of young sucking animals must be considered in a state approaching nearer to milk than those of other
 animals

added to the milk and water approaches as near to, and produces as close an imitation of, the quality of breast-milk (the sweetness excepted) as perhaps is to be obtained by a familiar artificial composition: but, as preparing the tea and mixing it with the milk and water constantly, would, in many situations, be attended with trouble and difficulty, and as it is not always
needful

animals that do not derive their support from milk; and these juices, as partially extracted by slight boiling, appear to be no other than milk somewhat more elaborated, assimilated, or animalised. These suppositions seem much strengthened by the following experiments.—Three ounces of raw, lean veal, cut very small, was put into a pint of boiling water, and boiled five minutes. The same quantity of raw, lean beef was treated in the same manner: as also a like quantity of the flesh of a young, though full grown fowl, skinned. The broth (or *tea*) of these were severally poured off from the flesh, and, when cold, were filtered. They were then, in phials, placed in a water bath of about the warmth of animal heat, or 100 degrees of *Fahrenheit's* thermometer. To each was put half an ounce of the infusion of *runnet*, or *calf's stomach*, in water, passed through a rag. (The infusion is as limpid as water). When the phials were examined an hour or two afterward, that with the veal tea had a light coloured sediment, with distinct particles of the same matter floating in the still transparent liquor, but which soon settled to the bottom. This matter upon a slight motion of the bottle floated in
the

needful to be done constantly, a very good purpose will be answered by giving the tea now and then, when convenient, alone and by itself, at intervals with the milk and water; observing, to be more exact and careful in giving it at those times the child happens to be costive, has a looseness (as it is equally proper in both) or sickness, or is any way disordered in his stomach or bowels.

As

the liquor, without uniting with it, and had the appearance of a fine *curd*.—The teas of the beef and fowl remained unchanged: I therefore put to each two drams more of the infusion of the runnet, which however in an hour or two more produced no alteration in them: two drams more were then added, when a sediment and separation took place as with the veal tea, but in a trifling and much less quantity. I then put in half an ounce more of the infusion; after which the separation was as copious as from the veal tea. The fowl tea was treated in exactly the same manner with the beef tea, and the effects produced were precisely the same. The sediment of the veal tea was very light; that of the beef less so; and that of the fowl still less, as it had more of a mucous appearance than either of the others. None of them discovered any signs of either acidity or putrefaction, although kept many days afterward in tolerably warm weather.

FROM these experiments, it appears, that if we can admit, or suppose, that there is a similarity between the juices of the stomach of a calf and those of an infant; and it is probable

As the good or bad success of every experiment or trial that is made must, upon all occasions, depend very much upon the manner in which it is conducted: so, in feeding a child with the milk and water, if due care is not observed in the preparation and manner of mixing and giving it, it may disagree, and become as improper as any other kind of food. The proportions of the milk and water above-named

probable they may not differ much; we may conclude, that the juices of veal, thus extracted, will be more readily acted upon by the stomach of a child, and consequently easier of digestion, than those of beef or even fowl. This might, however, be determined with greater certainty, where an opportunity offers of making the experiment *cum succis ventriculi infantilis, extra corpus*.—The runnet in these experiments acted upon the broths in the same manner that it acts upon milk; and produced a change somewhat similar to what happens in the stomach, especially of an infant, that is prepared for and adapted to the digestion of milk, and where that digestion may be supposed to be accomplished in part and in the first instance (as observed in the note to page 75) without the aid of fermentation. Veal tea has too much of the animal quality in it to be the sole food of an infant; but, on that account, appears, and is, well calculated for removing and preventing the acridities so frequent in dry-nursing, when occasionally given: the advantages that attend its partial use are very considerable; as it will act both as a curative and preventive, and also becomes a most suitable and desirable food.

are,

are, one part milk, and two parts water: for if one part milk, tolerably good, and two parts water, are mixed together, they become of nearly the consistence, and look like, breast-milk (and if properly sweetened could scarcely be distinguished from it by the taste): so that these proportions must, without doubt, be the most suitable, and are the most likely to agree with a child at this time.

As the quality of milk varies much, it being sometimes to be had very good, and at other times but very poor and thin, the proportioning of it with the water must, in some measure, be left to the discretion of the person who does it. There is a rule, however, in doing it, that ought invariably to be observed; which is; to be careful to make it thin enough, and not exceed the proper proportion of milk, especially at the beginning and in the first month; for if too much milk is put in, it will make the food heavy of digestion, which will clog and cloy the stomach, and may be attended with indigestion; costiveness, with pasty stools; or a griping, with frequent stools, small in quantity, and frequently curdled and resembling curds and whey; or a sickness and oppression at the stomach, with, or without throwing up, but most commonly without (see the article sickness).

ness). Therefore without an exact observance of the rules and precautions, in mixing and giving the milk and water, as here and above described, the proposed benefit and advantage from it must not be expected, cannot be obtained: for, as above observed, it is not the doing a thing, but the manner of doing it, that must ensure success. This caution, in proportioning the milk and water, ought to be strictly observed, remembering, that it is much safer to be under, rather than exceed the proper quantity of the milk; for as nurses, or those who feed children, are liable to err in putting in too much milk, by way of making the food, what they suppose, *good enough*; it will happen, that to avoid the risque of *starving* them, they may literally, and as it is proverbially expressed, *kill them with kindness*. For instance; if a child is fed with milk as it comes from the cow, or with a third part water in it, or perhaps even one half part water, it will very likely disagree, as will appear by some of the unfavourable symptoms, just mentioned, coming on; and, if constantly continued, may cause the child's death; and from which nothing can rescue him but such an uncommonly strong constitution as falls to the lot of a very few: whereas by reducing it properly with water to such a consistence

sistence as may adapt it to the tone, strength, and powers of the stomach, and such as it is by nature prepared and disposed to receive, it may be expected, and will be found to agree with the major part of those children to whom it is given.

A STATE of childhood, and a sick-bed, are the only situations in life that are denied the refusal of disagreeable and improper things, notwithstanding they may be called *good things*. The sick man has little better chance of avoiding taking what he dislikes, and is injurious to him than the infant; for, although the latter can make very little opposition, and is compelled to swallow every thing at the pleasure of his nurse, while his mouth can be forced open; the sick man is in a situation very little better, as he is as certainly teased into a compliance with the requests of his friends, by repeated petitions and entreaties. By *good things*, in the diet, is commonly understood, what are the most scarce, costly, rich, and strong, of their kind: and many would suppose themselves negligent in their duty if they did not get all the *good things*, that their address or pockets could procure, for their children or sick friends.

I CANNOT help repeatedly deploring that, upon this, as on other similar occasions, the baneful
influence

influence of prejudice and custom is so difficult to overcome, howsoever apparently advantageous the change may be in the result. This difficulty is chiefly supported and increased by nurses, who, it is well known, are not "over fond" of being put out of their way, and who seldom, willingly, submit to be directed, in occasions even of urgent necessity, if they suppose it is in a department which falls under their own immediate direction. It appears to be this jealousy of their supposed rights and privileges that makes them so tenacious of them, and so zealous in preserving them from infringement: or, it may arise from a mistaken and false conception they form of their own merits in their profession; in thinking, that to have occasion to receive advice from another, will betray a want of knowledge in themselves.* Medical
men

* SEE page 14; where although it refers to the improper management, by nurses, of lying-in women only, yet the censures there passed upon them are equally applicable in their conduct to infants, over whom they consider themselves as having entire dominion, and from whom they can meet with no resistance; whereas the mothers will sometimes, from their own opinion, confirmed by the advice they are willing to receive, consult their own ease and safety; whilst the poor infants, from not having the power and ability to enforce a negative, are compelled to submit

men are seldom allowed, or as seldom care to interfere in this, or such other like trivial matters as they have been thought (although they are really of the utmost consequence); being deterred from, or despairing of success in, the attempt; or, finding, perhaps, acquiescence and compliance to be more political than an opinion urged: but, as such a deportment becomes a chain thrown across the road to improvement, attempts ought to be made to remove it; and

submit to every thing that ignorance and bigotry imposes upon them.

I do not mean to apply these censures to all nurses indiscriminately; no doubt many have sense, good-nature, and feeling enough to act otherwise; but as it is a picture that may be taken, but too often, from nature, I should not acquit myself as a faithful historian, did I not draw it justly, and give it its proper colouring, for the purpose of advising the unwary and uninformed of what their own knowledge and experience cannot inform them. There are abuses in every profession and calling, which are (and it is proper they should be as the likeliest means of removing them) daily exposed, which those who do not merit them, although they feel the justness of the reflections, feel no resentment at: so those nurses who do credit to their calling, and do *not* deserve the censures here passed upon their profession, ought not, cannot be offended at them, as the intention of so doing is a public good: and they who do deserve them, may, I hope, see their error, and be benefited by it.

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which might be done compatible with their own *real* dignity; which could not fail in the end of being acceptable to the public; and which would be more laudable and candid than suffering an interested fervility or *false* dignity to preponderate against the calls of duty to their friends in particular, and the benefit of the community in general.

WHEN a child is very small or weak at the birth, from any cause, there does not appear to be any necessity for giving food much sooner than if he is lusty and strong; as, if what is given should happen to disagree, by bringing on a looseness, or otherwise, the food may, in his weak state, do much more harm to him, on that account, than it would to a stronger child; and in such a case, it will be more advisable to wait till the breast be ready, and the child able to take it: but if a child is so very weak, that there appears but little prospect of his being able to take the breast, in a reasonable time, it will be proper to give him something; and, upon such an occasion, nothing perhaps is so proper as broth, which must be thin and weak: chicken broth, or chicken tea as it is called,*

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* CHICKEN TEA is made by stripping off the skin of a fresh killed fowl, cutting it up the back, taking out the entrails,

is very well adapted to the purpose. But, from what was observed in the note to page 95, *veal* tea (prepared as there directed) will be preferable to that of chicken or any thing else. If any other kind of food may be thought necessary, asses' milk, or the milk and water, may be given at intervals; perhaps it may be full as well to give the broth and milk and water alternately and by turns. Asses' milk seems admirably calculated to this occasion.—The following case, which fell under my observation, will explain the situation we are treating of.

Miss M——, at her birth, was remarkably small, and very weakly, although at her full time: it was intended she should be nursed by her mother: the common food of *panada*, or *pap*, with sugar, and without milk, was, as usual, given the first day. On the second day, she had

entrails, and washing it: it is then to be put immediately into boiling water, and boiled for about five minutes; the broth must be poured off, and suffered to stand till it is cold, that the fat, which may happen to be upon the surface, may be taken off; after which it may be warmed for use. But, where it is not convenient to have a fresh fowl as often as it may be needful to make fresh tea, any limb, or part of the fowl, may be cut small, and boiled in the same manner, in a less quantity of water. It will be proper always to skin the part that is used.

a sickness, which brought up part of what she took, attended with a looseness and griping: a little milk was now added to the food; the complaints continued, and on the third day the looseness was increased, with more griping, and watry, four stools of a greenish colour. The child was now so weak as not to be able to take the breast, which was ready for her, and there seemed to be no probability of her living two or three hours; she was accordingly given up by the nurse and attendants. Seeing the child in this situation, about to expire, I desired a little broth might be given; a little *veal* broth was very soon procured, and a few teaspoonful was, with some difficulty, got down, which staid upon the stomach: in a short time a little more of the broth was given, which went down rather better than the first, and also staid with her. The child, from this time, begun apparently to revive, and to show signs of returning strength: the broth, only, was continued all that day, and the next her complaints were much abated, and she was able to suck a woman who had given suck for some time and was purposely provided, thinking her breasts would, for that reason, be easier to draw than the mother's: the child recovered, was afterwards healthy, and thrived well.

IF the child, in the case before us, had not been fed at all with the *panada*, she would not, most likely, have ailed any thing, nor wanted food: for if she was able to survive, the three days, with such complaints, how much better might not she be supposed to have been without them, as the food which she took cannot be supposed to have afforded her any nourishment? — There is little doubt, from the circumstances of this case, but that the *panada* was the occasion of the sickness, griping, &c. and that the child must have died, as great numbers do in exactly the same situation, but for that accidental trifle, the broth.

WHEN a child is intended to be dry-nursed, the *milk and water*, prepared as directed page 85, may be begun with and given, towards the end of the second day, and continued; and if he thrives well, it will be advisable to confine him to it entirely, without giving any other food, except veal tea occasionally and as above advised, for the first, second, or third month, or until his stomach will bear to take it with bread in it: when that will happen, can only be known by making the experiment; as some will bear it much sooner than others. There can

however be no occasion to make trial of the bread for the first or second month; and when, at the end of the second month, if a little bread is put in, and agrees, without producing any of the disagreeable, untoward symptoms of sickness, griping, &c. before enumerated, it may be continued, and increased in proportion as it seems to agree. Care is necessary in the choice of the bread: it should by all means be free from alum (which is sometimes put into the flour to make it white), which, from its strong astringent or binding quality, will be highly injurious: it should not be too fine, nor too coarse (although the former extreme is less to be avoided); the first, may make it binding; the latter, too loosening. The bread should be made with yeast, without butter, or any kind of seeds, and very light; so that, when mixed in the food, it may be as smooth and free from lumps as possible; which will induce most children to take it better, and it will be more likely to sit easy upon the stomach. Hard biscuit, commonly called crackers, are sometimes given; but they are heavy, owing to their being made without yeast and not fermented. Every sort of bread made with leaven is very improper for children at any age, as it is difficult of digestion, and is much disposed to turn sour upon the stomach.—

When

When bread, of any kind, is put into the food, it ought to be boiled sufficiently in water first, and the milk put to it afterwards without being boiled. When all sorts of bread have disagreed with a child, I have sometimes found that a piece of upper crust boiled whole in water, and the water poured off clear and mixed with the milk, would agree very well. By this method much of the nutritive part of the bread is obtained, and is given to the child in such a manner as must be most acceptable and best suited to his stomach and digestion.—SUGAR will always, and at every age, be better omitted; as the bad effects of it will, during the state of childhood, still take place: and although its use may not always be attended with the sensible bad effects of looseness with sour, green stools, &c. yet it may affect the digestion, and cause an acidity or sourness, in such a degree, without looseness,* as to injure the stomach and bowels, and

* CHILDREN, as they grow older, generally have less of looseness from any thing that disagrees with the stomach and bowels: so that, at ten or twelve months a looseness is not always the criterion by which we are to judge of the disagreement of food; as some children at that age, or earlier, will be costive from the same cause which, at the birth, occasioned a severe looseness.

and prevent the food from affording the nourishment it otherwise would give. It vitiates the taste; and those children who are accustomed to it in their food, will seldom be brought to take any thing, willingly, that is not sweet; which makes them nice and particular in the choice of their food.—It palls the appetite, so much, that a great many children who are liberally supplied with it have weak, bad appetites; which last, united with the other bad effects produced by it, must make them puny, and prevent their growth and thriving.—It may be said that many children do well with

To the Medical Reader.—A morbid acidity in the *primæ viæ* of grown persons, and many children turned a year old, does not always occasion a looseness; on the contrary it is often accompanied with costiveness. Its exciting a looseness in the earlier periods of infancy, more than afterwards, may be owing to the extreme irritability (not morbid) of the intestines in children soon after the birth, but which seems gradually to lessen as they advance in age. Therefore, in weak stomachs, whether of adults, or many children turned a year or two old, where the digestion and assimilation of food of an acescent quality is, as it must be, imperfect, acidity must and does prevail; and from the corresponding weakness and inertia of the intestines, wanting also the proper stimulus of food duly assimilated, their action becomes inert and languid, and their expulsive powers diminished.

sugar

sugar in their food, and suffer no sensible inconvenience from it: so it may happen: but as it so very frequently happens otherwise, and may do some harm, although not always in the most sensible and perceptible degree, is it not better, and more eligible, to avoid the risque of any the least bad consequence from it, by entirely omitting it; as no good or advantage can attend its use; and the most that can be said in its favour, is, that it is an indulgence, and that, a needless one?

THERE is a machine made of horn, or tin, in use with many for feeding children: it is so contrived that the child sucks his food from it as from a breast. Some children will not, without difficulty, take their food with a spoon or boat who will take it more readily with this machine; upon which occasions it becomes very useful; otherwise, it has no advantage over the spoon. I have known some children who took their food very unwillingly, and were much troubled with the gripes and a looseness, when fed with a spoon, who took it more readily with this machine, and were freer from complaint; but which I discovered to be owing to their dislike and the disagreement of bread; as those children took it greedily with a spoon, and were well with it, when the bread was
omitted

omitted or lessened. As a child gets his food from this machine by sucking, he has it thinner than when fed, with the food as it is commonly prepared, with a spoon.

A CHILD, whatever he is fed with, should never have more food forced upon him at a time than he is disposed to take readily: for if he should happen to overload his stomach, and not posset it up again, it will disorder him, and he may suffer much from it. This stuffing, gorging and overloading of children with food, is an error as great and prevalent as any in nursing. It is done with the laudable intention of promoting their hasty growth and thriving, and also to make them rest better. These are however mistaken designs, as the contrary purposes are produced by them. If a child overloads his stomach at the breast (as often happens), he is relieved by possetting; but the possetting seldom happens with a child who is dry-nursed, especially when he gets bread; therefore, when his stomach is overloaded, he will suffer as much as a grown person in a like situation; and frequent repetitions of the practice will have the worst (and sometimes fatal) consequences. See the conclusions of the notes to the Medical Reader, pages 58 and 78; and also the article *sickness*.

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As it seldom happens that a child is so regular in his body when dry-nursed, as when he gets the breast; it will be needful to attend to that circumstance: if he be *costive*, half a teaspoonful, or more, of *manna* may be given, dissolved in a little warm water, or in the food; and repeated as often as there is occasion. As *manna* is one of the gentlest purgatives we are acquainted with, and pleasant to the taste, it becomes very proper and well suited to this occasion: however, if there ever should be any difficulty in getting a child to take it, a teaspoonful of castor oil; three or four grains of *magnesia*; or a little fenna stewed with a few prunes,* will, any of them, answer the purpose very well, and be very suitable; although the effect of them will not always, perhaps, be so permanent and lasting as that from the *manna*. *Rhubarb*, is not so proper upon this occasion:

* As much fenna as can be held between the thumb and two fingers may, with three or four prunes, be stewed for half an hour in as much water as will leave about a small teacupful of liquor, when poured clear off; of which a young child may take three or four teaspoonful every two or three hours, until a loose stool is procured.—This is more powerful than the other medicines here named, and may therefore most properly be given when the others fail of answering the intention.

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for although it may answer a present purpose, by giving a stool or two; yet it leaves the body costive and bound afterwards. It is very common to give it upon this occasion; but, for the reason here assigned, it is not a fit or desirable medicine.*

WHEN a child is too loose in his body, it will be advisable to check the looseness: the means to be taken for that purpose are fully explained hereafter (see gripes and looseness). A child can never be said to have a looseness, or such a one as need be stopped, or even checked, while his stools continue of a proper consistence and are not inclined to be thin and watery; as children, who have good appetites, and plenty of such kind of food as agrees with them, will commonly have three, four, or more stools in the course of twenty-four hours, when in the most perfect health.

By a proper attention to the food, &c. children who are dry-nursed will generally do

* COSTIVENESS is not attended with much danger, as it can always be readily relieved, and which it ought to be, as often as it happens, by some of the means above-named: but if it should happen that no kind of medicine can be got in, which seldom is the case, it will be necessary to have recourse to a *glyster*; which may be made of new milk, with a little brown sugar in it, and given milk warm.

very

very well: cases will, however, notwithstanding every precaution, now and then happen where they will not thrive so well, or at all, without a breast: but that is never to be discovered until a trial of food has been made; and there seldom or never can be any impropriety or harm in making the experiment. The length of time proper for a trial of food to be made can no way be precisely ascertained or limited in this place, but must depend entirely upon the circumstances of the child's health and strength. When a child is, at his birth, weak, or sickly from any cause, such as, being born before he is at the full time; from being weak and puny when born, although at the full time; or, from a disease which he may happen to labour under, as a looseness, &c; three or four days or a week may be as long as it will be prudent or advisable to make the trial, if it appears not to agree. But when a child is, at his birth, healthy, and has strength, the trial of food may continue a week, or a fortnight, or even three weeks: a longer delay, in either of these cases, may, if the food does not agree, so far reduce the child as to risque his life; and may also prevent his taking to the breast afterward. If the food agrees the first, second, third, and fourth weeks,

weeks, it may be reasonably expected to do so ever afterward.

BEFORE I entirely quit this subject of diet, it may not be amiss to remark, that should it be said, many children do well with dry-nursing upon the usual food, and therefore there is no occasion to alter it: I do not hesitate in acknowledging, that such instances are to be met with; yet cannot allow them to be common, or frequent; on the contrary, they are, by daily experience, proved to be very rare. I have no doubt, in declaring, as I do it from experience, that food, prepared in the manner here recommended, has greatly the advantage of that made in the usual way; and that many children will do very well, in dry-nursing, with this, who will not do at all with the other; as many, whose lives have been in imminent danger from its effects, have been restored by this, with little, and often no other kind of assistance. Those who, from prejudice, or any other cause may still be inclined to favour the usual mode, may, when that appears not to answer their wishes, be induced to vary it, by adopting and making trial of this: it has some qualities which will always encourage and promote its use; which are; that it is simple, and easily tried; it cannot possibly be attended with the least bad consequence;

quence; and, it may be safely declined at any time if it should not answer.

THERE will seldom be any occasion to vary or alter the proportion of the milk and water, if it agrees with a child, the first month. In the second month however, if a child thrives, and is lusty and strong, the water may be decreased, from two parts, to one half, or nearly so; which will make the food half milk and half water: it will be advisable, at all times, to be careful not to put in too much milk, which may make it heavy of digestion, and may, as has been already observed (page 99), clog and cloy the stomach, which will be attended with disagreeable consequences (see sickness); whereas a trifling error in the over proportion of water can do no harm, and which makes it the safer side to incline to.

THERE is oftentimes a good deal of difficulty in getting children to take the breast, and which may happen from different causes; the most common seems to be, bad nipples; which, from their smallness, or unfavourable shape, a child cannot easily take hold of: in which case they must be well and frequently drawn by an older child, or the mouth of a grown person;
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or by a glass: but the mouth does it most effectually, and is to be preferred. Sometimes the breasts are so swelled and distended as to bury the nipples; and if the nipples are even easy to take hold of, yet the breasts, in that situation, are oftentimes hard and difficult to draw: upon this occasion the breasts must be repeatedly drawn until they be softened. The breasts of some are much easier to draw than those of others; and it is very usual for one breast to be easier to draw than the other, of the same person.

THE liking that children sometimes take to one breast more than the other, is not easily accounted for; as, it often happens, that they repeatedly refuse one, and cannot be even brought to take hold of the nipple by any means or pains that can be taken with them for that purpose. Some refuse attempting to take hold of either of the nipples of one person, who will readily catch at both the nipples of another: but when this happens, it is commonly the mother's breasts that are refused, and those of another person, who has been a nurse some time, that will be accepted: by which it may be reasonably concluded, that a child's objection to taking one or both of his mother's breasts may be owing to their not having been drawn before by a child; and that there is a particular
flavour

flavour or something in the touch or feel that is communicated to the nipples by the sucking of one child, that induces another so readily to follow him; as the same dislike and refusal will frequently continue although the breasts have been repeatedly drawn by a grown person. Therefore when the child's refusal of one or both breasts continues, some time, it will be advisable to get another child to draw them a few times.

THIS difficulty, which now and then happens, of getting a child to take the breast freely, sometimes becomes a cause of uneasiness to the mother; and her anxiety and pains to accomplish it makes her hurry and fatigue herself more than, at this time, is consistent and advisable, and she needs do: for she may be satisfied that, although he may not at first readily take to the breast, yet there can be little doubt that he will take it in a little time: she may also be assured, that if he will take one breast, he will be brought to take the other, although he refuses it for the present; and she must not give it up, but have the breast drawn, two, or three times a day, to preserve the suck in it, which might otherwise go away. And she may likewise be as well assured, that although the child for some time persists in refusing both

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her breasts, yet if he will suck those of another person, he will as certainly be brought to take hers when they have been properly drawn by a grown person, or, particularly, by another child, as above mentioned.

A CHILD's being tongue-tied will impede and hinder his sucking freely; when that happens, he may be observed to lose his hold very often, and, when he draws the breast, he frequently makes a chucking noise. Upon this occasion the mouth must be examined, and the tongue set at liberty, by cutting a ligament or string* which will be found to confine the tongue down to the lower part of the mouth; and which is done by the surgeon with little or no pain to the child, who will commonly take the breast immediately after the operation without any farther inconvenience to him; and there never is any danger to be apprehended from bleeding, or any other consequence of the operation.

AMONG the number of causes, that of a want of milk or where there is but little, is not, when it happens, the least frequent; as a child will seldom take much pains when the reward

* DR. YOUNG of Edinburgh invented an instrument on purpose for performing this operation, and which is admirably well calculated for it.

of his labour is trifling and unsatisfactory.—If a child is put to the breast the first or second day, he may not, if he is a weak child, have strength enough to suck, especially if the nipples and breasts be unfavourable, and which they very frequently are until they have been once or twice drawn.—Some children seem, without any apparent cause, naturally disposed to suck much better than others. It might be supposed, as sucking is the most particularly instinctive action of any we are capable of, and so essential at that age, that few or no children would be defective in it; yet some are very shy about beginning, and are never very perfect at it. A case fell under my observation of a child, who in every respect was perfectly formed, and was remarkably stout and healthy, who never shewed the least inclination or disposition to suck, notwithstanding every means that could be thought of, to induce him to it, was tried.

WHEN the mother or nurse has milk enough to satisfy the child, there can be no doubt that it will be best to confine him entirely to the breast, as no other kind of food is so proper, and whatever else is given may happen to disagree: but, if by accident (as it may, and often

does happen that) from indisposition of the nurse, or child, there may be at any time a necessity to give the child medicines, or to wean him either totally, or in part, there will be often a great deal of difficulty in getting him to take food or medicine, if he has not been accustomed to a spoon. To make feeding with a spoon, or boat, therefore familiar to the child, in case there should be a necessity for it, it will be very advisable to accustom him now and then to take a little food. Affes' milk, or milk and water, will be the most proper for this purpose.

WHEN the mother, or nurse, has not milk enough to satisfy the child, he may be fed at intervals, as often as there is occasion, with asses' milk, or milk and water, to supply the defect.*

It is a custom with some, or rather in some places, to endeavour to confine children to regular times of feeding, either with the breast, or a spoon; which is very desirable to the nurse, as it makes it very comfortable, easy, and often

* I HAVE seen children that would not be contented and satisfied with suck alone (although they got plenty of it), without being fed with other food, as they clearly expressed by their restlessness until they constantly got it: but this has *always* happened with children that were uncommonly strong and lusty, and is a rare and singular occurrence.

convenient

convenient to her, and is no disadvantage to the child when it can be accomplished, and which it sometimes may with quiet, healthy children; but it is done with difficulty with those who are cross from any cause.

Of Air, Exercise, and Washing.

IT has been already observed (see pages 45 and 48) that a state of *rest* and *quiet* during the first month is proper and necessary for an infant; as, likewise, *warmth*: yet although they are, at that period, so essential, they must not, hereafter, be so much and so constantly indulged, but must be declined at a proper season, and by suitable degrees. It is scarcely possible to fix the exact times when these changes are to take place, as so much must depend upon seasons, and childrens health and constitutions: however, we may venture to repeat the propriety of enjoining rest and warmth, as most safe and advisable during the first month, in all situations, and upon every occasion.

At the expiration of the month, if the weather be moderately warm, the child may be taken from his own room into any part of the

house; taking care that every part of the body and limbs be well wrapped and defended from the cold, except the face; whereby he will have the benefit of breathing the fresh air, without much risque of taking cold, which children are very subject to do upon their first going out, and which appears by a sneezing, a stuffing in the nose, a cough, or griping and looseness.

At this time a little exercise may be given by a gentle and even motion of the nurse's arms, increasing it by degrees, that the child may gradually get quit of the apprehension and fear which infants so sensibly show at quick motion. If there is no real necessity for the child's going out of doors, it will be better to pursue this plan within doors the greatest part of the second month, adding a little, by degrees, to his exposure to the air, and his exercise, during that time. Towards the expiration of the second month, if it be in summer, and dry weather, the little stranger may be ushered into the open air, to acquire, by slow degrees, a familiarity with every thing he will, in the common course of nature, have to encounter.—If it should be in winter, or a cold season, it will be much better to keep the house until the weather becomes milder and more favourable; as the risque of cold will overbalance every prospect
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of advantage that can be expected from going out in a rigorous, unfavourable season.

THE exercise in the arms may now be increased, and which the child will by degrees seem to relish and be fond of: but there is a caution, in doing it, which ought to be particularly attended to: many nurses have a habit of laying children across the lap; and, by the motion of the knee, to shake them, and that sometimes violently, and even so as to make them rebound from the knee; which is done with a view of quieting them when they are cross; and, sometimes, for pastime. This practice, from what has been observed, with very young children, in the month especially, is far from being consistent and right: it will undoubtedly quiet a cross child *sometimes*; but which is effected by a lesser pain being removed by a greater; which surely can be no recommendation to it. I have been witness to the bad effects of this violent agitation and concussion, where very alarming symptoms were produced by them: and I have no doubt, where they are practised, children suffer very frequently when the cause is not known nor suspected. The symptoms which I have observed to happen, in consequence of this practice, were, a sickness, and uneasy breathing, with a constant moaning and

complaining, as if there was a fixed pain in some part; sometimes a costiveness. I have also observed it to occasion a starting and enlargement of the navel. As this practice is liable to be attended with much danger, it is better entirely omitted: as much exercise as is wanted may be given in the arms, which is the most suitable method.

THE nurse or servant who carries a child about, ought to be careful to change arms; that is, to carry the child sometimes in one arm, sometimes in the other; and which they will seldom attend to without frequent admonition, as one arm becomes more familiar and easy to them than the other: a nurse who gives suck with one breast only, will be very liable to do so.—This is not a needless or trifling precaution, as a child may very easily become crooked by being confined to one position, especially upon one side. Some nurses, through indolence, have a habit of carrying a child under the arm, as it is called, and which they do, by resting the hand upon the hip, and carrying or slinging the child across the arm.—Children frequently become crooked with careless nurses, especially those who are puny and inactive, from these causes; and if they escape a distortion of the shoulder or back, one of the hips is often flattened and
made

made lower than the other by constant pressure upon the same part in one position; and although it may not occasion or show much deformity in men; yet in the other sex it is, from their manner of dressing, very plainly discovered to injure the shape, and may be hurtful in other respects. Young girls are not very proper to be entrusted with the exercise of a child, as they are seldom so careful and diligent as they ought to be, and often have not strength sufficient for a stout, active child, and one who is about getting to his feet.

CRADLES, are used sometimes for the sake of the exercise they afford; but much oftener for convenience. This mode of exercise, however, has its improprieties, and some disadvantages attend it which seem to overbalance the supposed benefit from exercise; and these are: a cradle can scarcely be ever so regularly warm as a common bed, and an air is produced by rocking: there is an impropriety in the *motion* of a cradle in the first, second, or third week: those children who are rocked in the day will seldom sleep well in bed at nights, and some will not rest at all except they are kept in the cradle in the night to be rocked occasionally. *Cradles*, when considered altogether with respect to the advantages to be derived from the exercise they afford, become

come needfuls, when as much exercise (and of a more suitable kind) may be given in the nurse's arms in the day as will be quite sufficient: exercise, also, seems more proper awake than sleeping. These arguments, independent of the inconvenience of a cradle where there is not a proper nursery, will outweigh every other benefit. If it should be said, that cradles are sometimes found necessary to quiet cross children; it may be observed, that as custom is very prevalent, so, if some pains is taken with a cross child to get him to rest quietly in bed without rocking, it is worth while, for the reasons now offered, to be at some little pains in making the experiment; when, if it should not answer, the cradle may be had recourse to as the *dernier* or last resort: but, when a child has once been accustomed to a cradle, it will be a difficult, not to say impracticable, task to wean him from it, whatever may be the necessity of so doing.—It may be observed, that children who have not been accustomed to a cradle, will generally rest as well without, as with one.

THE regular and constant warmth that was so essentially necessary for children, both in and out of bed, the first and even second month, will become less so hereafter; and it is proper they should be gradually accustomed to be kept cooler;

cooler; but the degrees by which this is to be done must depend so much upon the childrens health and constitutions, the season of the year, and other circumstances, that it cannot be, here, determined how, when, and by what degrees it is to take place: however, there is no doubt, when all circumstances favour it, that a child's sleeping in a *crib*, or any other contrivance of the like kind, and by himself, is preferable to being in a bed, and with another person; and when he begins this practice, he ought to continue it constantly, and regularly, in all seasons, and upon all occasions: a mattress is to be preferred to a feather bed. This practice is scarcely ever advisable earlier than the third or fourth month although all circumstances should favour it: after that time, it may be begun with whenever it seems suitable, and when the child can be brought to take to it.

WASHING with *cold* water, every morning previous to dressing, is very conducive to health: it acts as a general bracer and strengthener. This washing ought to be (as it generally is) practised from the birth. For the first three or four days, or a week, it will be better to have the water a little warm, to prevent the child's taking cold: the warmth of the water may be gradually and daily lessened; so that at the expiration

piration of the first or second week it may be quite cold ; and in this state must, with the hand, be poured freely and copiously upon every part of the body, so as to answer the purpose of bathing. There may be seemingly a hardship and severity in this mode ; but which custom soon reconciles, and makes so familiar, that the children do not seem sensibly affected by the shock, when it is done constantly, completely, and without intermission ; for if it is done only now and then, or imperfectly, it will be the greater hardship when it comes again to be done completely : nurses or servants will sometimes, from indolence, or a mistaken lenity, neglect it, and therefore ought to be now and then looked after. It is scarcely necessary to observe that the child ought to be wiped dry after washing, before he be dressed : the rubbing of the body and limbs with a towel, is conducive to health, as it is a good and suitable exercise.

VERY few of the complaints to which children are liable will forbid this practice of daily washing with cold water, except when they are uncommonly severe and in the extreme : perhaps, the peripneumony or asthmatic affection (hereafter treated of) is the only one wherein it may be improper, as cold bathing is found not to agree with complaints upon the lungs ; therefore,

fore, upon such an occasion, the water may be warmed.

COLD bathing, or washing, is of the utmost service to children, particularly those who are puny and weakly, and which nothing can exceed or equal as a bracer and strengthener: it ought not to be omitted with those who are healthy, strong, and thriving: it will, with all, be a means of encouraging and promoting health and strength, and of preventing many complaints which, from weak habits and constitutions, children may be liable to: it ought to be practised, without interruption, in all seasons, and may be continued for some years with great advantage.

*Of a hired Wet-Nurse: her Diet,
Exercise, &c.*

A FEW cautions are proper to be observed in the choice of a hired wet-nurse, in large towns, more especially, for very obvious reasons.

THE first enquiry very generally and properly made, is, her general as well as private character, from some persons of character; by which it may be known whether she and her husband,
if

if she be a married woman, are sober, virtuous people, or bear such a general good character. She ought to be healthy, and free from any particular hereditary or family complaint: great care should be taken to avoid a nurse who is consumptive; as there appears to be a greater risque of a child's imbibing that disease, than any other the human body is *naturally* liable to. A woman is to be preferred who has had more than one child; as, on that account, she will, most likely, have a greater flow of milk, and, that, of longer continuance. A woman who has had more than one child will be better qualified by experience to take care of a child. The number of children she may have had is not of much importance, provided her constitution is good and not impaired by it: no doubt, a young woman is to be preferred, when she is in other respects suitable and qualified.—A very material circumstance to be attended to in the choice of a nurse is, that she has plenty of milk; to discover which, it will be necessary, sometimes, to see her more than once; as she may have more milk at one time than another; and which may happen either by accident or deceit; as it is not uncommon to find nurses who will retain their milk for some time before they offer themselves, that they may appear to have

have a great deal. Children often suffer considerably when they have not plenty of suck, as it subjects them to be fed with whatever the nurse may be disposed to give them, and which cannot always be readily discovered when they are nursed from home.* A nurse ought to give suck with both breasts.†

GOOD

* As it seldom happens that children have justice done them when either wet or dry-nursed from home; it will be advisable, if possible, to have them at no greater distance than where they may be often seen; which may keep the nurse upon her guard constantly, and be a means of preventing any negligence on her part: this will be always advisable, except upon particular occasions, and where the fullest faith and confidence can be placed in the nurse, from former experience. This negligence of hired nurses has long been a subject of complaint. A physician of great eminence, who lived in the reign of king *William* and queen *Mary*, and who attended the persons of their Majesties, in a treatise of the diseases of children, when speaking of the neglect of nurses in the neighbourhood of *London*, says: “To the same causes was owing an observation which was made not long ago by a worthy divine, rector of a parish twelve miles from *London*, who with great grief of mind told me seriously, that in his parish, which was not either small in its bounds or number of inhabitants, and was situated in a very wholesome air, was, when he first came to it, filled with sucking infants”
from

† See page 126.

Good nipples are very desirable, as they enable a child to suck with much ease and advantage to himself. Care must be taken that the nurse does not give suck to her own child after this time; and that (to prevent it) he be entirely weaned, or put to nurse with another person; as very few women can have milk sufficient for two children, or attend them in other respects as they ought to do. Country women are to be preferred, as not only being healthier than those in towns, from their diet and regular manner of living; but, from being much more likely to have plenty of milk. The sooner a nurse is had after her lying-in, the better; as her milk will then be in the greatest quantity, and likely to continue plentiful for a sufficient time. A circumstance not always attended to in a nurse, is, her disposition and

from *London*, “and yet, in the space of one year, that he
 “buried them all except two, and one of his own, who,
 “being weakly, he had committed to my care from his
 “very birth; and that the same number of small infants
 “being soon twice supplied, according to the usual custom
 “with hireling nurses, from the very great and almost
 “inexhaustible city, he had committed them all to their
 “parent earth in the very same year.” *Dr. Harris’s Treatise on the Diseases of Children, translated by John Martyn, F. R. S.*

temper

temper of mind; which ought to be mild, and not subject to be agitated by strong passions. It is commonly, and very justly observed, that grief has a sensible effect upon the milk, in causing it to disagree with a child: a hastiness of temper, accompanied with rage and passion, will produce the same effect. This is easily accounted for; as nothing more readily and sensibly affects the secretions than strong passion from grief, rage, or any other cause: the milk therefore, as being a secretion, must, and does, suffer in such a manner as to produce an apparent bad effect upon a child who takes it so circumstanced. A woman of good temper is also to be wished for, as she will be likely to be careful of the child.

THE nurse's own child at her breast will afford the best proof, and will be the best specimen of her abilities, care and attention as a nurse. If he is thriving, and looks healthy and well, it is a strong argument in her favour; and it may with great certainty be determined that she has plenty of suck, and that she does her duty to him, in other respects, properly. If she has other children that are older, it will be still a greater satisfaction if they appear healthy.—On the contrary, if the child at her breast is weak and puny, and does not appear to thrive well;

there is great room for suspicion that the mother is not healthy, or that she wants suck or some other requisite essential to a good nurse ; except, that the child's appearance can be very satisfactorily accounted for from some present, occasional and accidental indisposition, independent of what may justly be supposed to be occasioned by, or proceed from, the mother's nursing.

THE DIET of a nurse ought to be plain, simple, and light of digestion ; and chiefly of the vegetable kind : broth, or a little flesh-meat, to those who have been accustomed to them, are proper occasionally, but should not be too much indulged in ; they must be free from high seasoning of pepper, salt, or any thing else of the kind. Good table beer (as it is called) for common drink, and a little ale, or porter, proportioned to the nurse's constitution and what she has been accustomed to, are very proper. Butter-milk and cheese-whey, in the summer season, or when they can be had fresh and sweet, and agree without causing a griping or looseness, and sit easy upon the stomach, may be indulged in by those who are fond of them, as they are not to be exceeded, or, perhaps, equalled by any other food upon this occasion, where they agree. *Spirituuous liquors*, or *wine* of any sort, are upon no occasion necessary to be repeatedly
given

given in a state of health; but, on the contrary, are very improper, and may be highly injurious: for if a nurse is suffered to have them at her pleasure, or very frequently, she may take such a liking to them as will endanger the child's health. It will therefore be most advisable never to offer them, except in cases of real sickness, or a glass of wine now and then to a nurse, who may, in the common course of her life, have been accustomed to it.

It must be observed, that this regimen or form of diet is meant as applicable and suited to the expectations and constitutions of those in general, who, from their situations and circumstances in life, engage in the office of nursing: it might, however, be copied and attended to by those in more elevated situations, who nurse their children themselves; as it is treading in the footsteps of nature, our best guide, and is a copy of what is practised in country places; where an uninterrupted glow of health diffuses itself throughout whole families, and pervades even the meanest cottage; and where nature enjoys her fullest scope, is least restrained, and will be found commonly to have most liberally bestowed her own gifts. Those in advanced and distinguished stations, who, from the prejudices of education and custom, are not led to

attend to and copy nature and the beauties of native simplicity, seem studiously to avoid what are called the ordinary forms of conduct upon this, as upon most other occasions; but which they would much seldomer do, for their own sakes, if they would suffer the dictates of reason to prevail over fashion or caprice; considering, and remembering; that human nature, whatever forms may, by artifice, be obtruded upon her, and she compelled to assume, to enlarge or contract her bias and inclination, can never be made eventually to deviate, without manifest injury to herself, from the station and bounds unalterably imposed upon her by the unerring Powers which first created and gave her laws.

EXERCISE, in a moderate degree, will be very beneficial, and will assist a good deal in increasing the milk: gentle walking; riding in a carriage, or more particularly on horseback; will, all, as convenience suits, be proper: but, in all kinds of exercise, particular care must be taken that she does not overheat herself, as it would have a bad effect upon her milk.

If a nurse proves to have a weak constitution, or loses her strength, or if her milk becomes impaired; cold bathing, especially in the sea, when the season will admit of it, is often found particularly useful in restoring the strength and increasing the milk: it never can do any harm

to

to a woman, merely as a nurse and except some other reason, independent of that situation, forbids it. As bathing is generally improper for consumptive persons, she should not be permitted to do it, if in that situation, without proper advice. She may safely begin to bathe at the end of the second month from the time of her delivery. See the article cold bathing.

Of the DISEASES *of* NEW-BORN
CHILDREN.

Swelling upon the Head.

A SWELLING about the size of an egg, but of a round form, will sometimes be observed, soon after the birth, upon the crown of the head: it is seldom that any thing is necessary to be done for the removal of it, as it commonly by degrees lessens and entirely disappears in a few days, of itself: however, that does not always happen, as it will sometimes remain some weeks without much visible alteration; in which case, a piece of thin sheet lead, or such as the India tea-chests are lined with, big enough to cover the swelling, folded in a

linen rag, and kept constantly upon the part, will generally reduce it in a short time; although it sometimes proves stubborn; yet, by continuing the lead, it will yield in time. No attempts should ever be made by poultices (as is sometimes done) to bring the swelling to a head, or gathering, by way of discharging any matter which may be vainly supposed to be contained in it; nor should any other means be used to open the swelling, which most likely would be attended with the most immediately fatal consequences. It happens most frequently of the first child; feldom afterwards.

Tongue-tied.

THIS has been noticed before (see page 120).

Of the Navel.

THE navel string generally comes off about the sixth day; and if it should remain longer, nothing must be done to bring it away before it will come of itself. Nothing particular need be applied after it is come away.—If a swelling or fulness about the navel is at any time observed, the roller, commonly called the belly-roller, may be made a very little tighter than usual;

usual; and if the swelling should continue, or increase, it will be advisable to get proper assistance to it; otherwise, from delay, a rupture may be formed, which may be troublesome for life; although it is what very rarely happens. I have known a piece of thin sheet or tea-chest lead, applied in the manner above-mentioned to the swelling upon the head, to assist greatly in reducing this swelling; but it must be worn constantly, and for some time, to produce any considerable effect.

Sore Eyes.

CHILDREN are sometimes, a few days after their birth, observed to have a swelling upon one or both eyes, and which are so gummed up that a child is scarcely able to open them. This however is not a complaint in the eye itself, but in the eye-lids, which appear swelled and a little inflamed. This complaint will generally go off of itself in a few days; however, if it does not, it will be proper to bathe the eye or eyes with a little lime water, twice or thrice a day, by means of a soft linen rag. If, in the course of a few days, the complaint does not go off by this means, it will, almost certainly, by the following.

TAKE two grains of white vitriol, dissolve it in an ounce, or two table spoonful, of pure water: with this bathe the eye, or eyes, as above directed. It rarely happens that the complaint attacks both eyes. This complaint is not attended with any lasting or bad consequences; and commonly goes off readily.

Gripes, with, and without Looseness.

THE GRIPES is a complaint from which few children are exempt, in some degree; and it is the most troublesome, in general, they are subject to: they are liable to it at all periods of infancy; but more particularly so in the early ones; when it is often very troublesome and distressing.

Causes of the Gripes.

THE general causes of griping do not exceed three* in number.

THE

* THERE are other causes of griping; as, a disease in the constitution in general, or in a particular part of the body, which, however, rarely happens so early in infancy: and, it may be epidemic; that is, prevailing in the town or neighbourhood, depending upon the season of the year,
or

THE first, is a *Natural Weakness* of the *Constitution*, or a particular *irritable* or *tender* state of the *Stomach* or *Bowels*.

THE second, COLD.

AND the third, IMPROPER FOOD.

To some one, or more, of these causes, may the complaint be generally ascribed: any of them, singly, are sufficient to produce it: but two, or all of them, may unitedly conspire to do it; upon which occasion it may be expected to be more severe and violent.

A *weakness* of *constitution*, and of the *stomach* and *bowels*, so general in infancy, seems to be the greatest and original cause; the others being lesser causes, depending upon, governed by, and subordinate to the first, without which they would seldom act.

COLD, it is well known, is a very common cause of griping with grown up persons who

or some infectious cause; when it is generally accompanied with a severe looseness, and is most common in the autumn months.—But these, and some others, that, to avoid confusion, are here full as well unnamed, are to be considered as only occasional and accidental, and cannot be numbered with the general causes.—The *Thrush*, *Froeg*, or *sore Mouth*, as it is variously called, which, as when it is in the extreme, will occasion a severe griping and looseness, is to be numbered with the occasional causes of griping.

have

have weak bowels (and numbers are so circumstanced): no wonder then if it affects children, in that way, in a particular manner, whose bowels are naturally weak and tender at that age; and few children escape a griping when they take cold.

OF all the causes of griping in the first periods of infancy, *improper food* is the most common and frequent.—A griping which is occasioned by *cold*, or any other cause, may be supposed to happen by accident, and only now and then: but when *improper food* is given, the same is generally repeated daily, and without change or variation; whereby the complaint is constantly supported, and continued without intermission; which makes this, when it happens, the cause of frequent griping: it may also be justly said to be the most common; as, in dry-nursing, not one child in twenty has proper food, or such as agrees with him, given him: and a less proportion of those who get the breast escape having improper food, or such as disagrees with them, forced upon them a few days previous to their getting the breast; during which time, although it be but short, the injury done is oftentimes considerable; sometimes irreparable. See page 82.

THE mother's or nurse's milk is liable to be affected by many causes; such as, a disease of any kind, improper food, grief or any other passion of the mind, &c. (see page 134) so as to make it disagree with a child, and cause a griping: and although this milk cannot literally be called improper food, yet it is to be considered as food in an improper state, and, consequently, subject to a like acceptation with improper food of any kind. I have known a very troublesome and obstinate griping and looseness brought on by a child's sucking a nipple which had been bathed with lead water for the purpose of healing and skinning the nipple.

THAT improper food is the most common cause of frequent and troublesome griping, appears by what has already been observed in the article of FOOD;* and has been there so fully spoken of as to render a repetition, in this place, unnecessary.—Children who are wet-nursed are not subject to such frequent and severe fits of griping as those who are dry-nursed, on account of the food.

* Page 59 and following.

Symptoms of Griping.

WHEN a child is cross and fretful, it is very common to suppose he is griped, especially when no other reason can be apparently assigned for his uneasiness: but it is not very uncommon with some children to be frequently very cross without being griped, or ailing any thing else, and who are very healthy and thrive well; which cannot be accounted for any other way, than, that it is their natural disposition to be so.

THE most certain and unerring signs of griping are; a costiveness; or a looseness with watery or thin stools of a sour smell and green colour, slimy, or curdled, commonly, although not always, attended with a hardness or swelling of the belly: sudden fits of crying when asleep, and at other times, with a drawing up of the knees towards the belly. When any one or more of these symptoms jointly or separately occur, there can be little doubt that the complaint is the gripes. But when the stools are of a natural colour and consistence, without being costive; or disposed to be thin, sour, slimy, curdled, or of a green colour; and unaccompanied with any of the other symptoms here enumerated; it may be concluded, with a certainty,

tainty, that the gripes makes no part of the child's complaint. As a looseness is one of the most constant and regular attendants upon griping, it will be proper to observe, that there are many degrees of it: sometimes, especially at the beginning, it will be very slight, so that the stools will not be much more frequent than usual, nor much thinner, nor altered in their colour, or smell; which may be called the first, or mildest state of it; and where it will remain, sometimes, for a long time when the cause of it is slight, or seldom repeated. But when the cause is great or considerable, or often renewed; as *cold* often repeated; or *improper food* constantly continued, the disorder may be expected to continue and increase accordingly; so that it is very usual for it to increase by degrees until the last and worst state of it takes place; which is, a constant motion for stool, the stools little in quantity, thin, watery, and commonly green and sour.—Sometimes the stools are curdled, and have much the appearance of curds and whey; when they are generally accompanied with much pain and griping.

GRIPING is sometimes attended with costiveness when it first comes on; but the costiveness seldom continues long, and a looseness generally soon succeeds it. Children require to be open in
their

their bodies; and two stools a day are as few as they generally have when they are healthy: so that when they miss having a stool for a day or two, they must suffer some uneasiness, although they be not griped; but it seldom happens that costiveness is accompanied with any considerable and continued degree of griping.

THAT a griping and looseness are often preceded by costiveness for a day or two, is owing to improper food, as bread, &c. remaining upon the stomach without being properly digested; till nature, by an effort, relieves herself by a looseness (see the account of the digestion of the food; as also, sickness).

A GRIPING may happen without any sensible degree either of looseness or costiveness; but it must be so slight, when the looseness especially is not perceptible, as scarcely to need noticing, or any particular assistance; and cannot be of long duration without a change and alteration of the symptoms. It is generally upon this occasion caused by cold.

CONVULSIONS sometimes attend griping; yet are never a real symptom of it, except when the griping is violent and in the extreme, and has been produced by some cause uncommonly violent or long continued.

The Cure of the Gripes.

WHEN, by a proper attention to the *symptoms*, a child's complaint is clearly and distinctly discovered to be the gripes; the first step must be to seek for the cause which may most likely and reasonably be supposed to occasion the complaint: and when that is discovered, and removed, as much as circumstances will admit of, the complaint may be reasonably expected to be relieved in part, or entirely removed; it being a maxim in physic, that, *remove the cause, and the effects will cease*.—By way of example; suppose a child has been uncommonly, and more than usually exposed to the cold; has had any part of the dress left off; or has been suffered to remain wet without being changed for a much longer time than usual; and has the gripes: it is reasonable to suppose that the cold, or wet, is the only or chief cause of the griping (provided no other cause is known or suspected at the same time); and that it will most likely be relieved, or removed, in a short time, by keeping the child more regularly warm and dry.—Or, if there is reason to suppose the complaint is occasioned by a constant or occasional taking of improper food, it most likely will abate, or entirely

go off, by changing that food for some other that may be expected to agree better.

It is of great consequence in all diseases to take them early and before they have been suffered to advance far; as, when the cause is early discovered, and speedily removed, a complaint may be expected to yield immediately and without further disturbance; as it is striking in a direct manner at the root of the evil: but when they have proceeded to a certain length, they may be so aggravated, and may become so inveterate, as not to be subdued without the utmost difficulty. This caution is in no instance more necessary to be attended to than our present subject, the gripes; which may, upon most occasions, be prevented, and removed, by proper precautions, timely observed and taken, and which ought never to be neglected; as it is a disease the most painful and distressing that children are liable to, and proves very frequently fatal.

IN the CURE of the GRIPES with LOOSENESS, it will be always necessary to discover the cause as justly as may be; and, by removing it, the complaint will very likely disappear without any other means or assistance, when it is slight and taken in time. (It will seldom be difficult to find out the cause, as the general prevailing causes

causes at this early period have been observed to be very few, and may be nearly reduced to two, namely *cold*, and *improper food*.) While the complaint is in the first state, that is, while the stools are not much more frequent than usual, nor much thinner, nor curdled, nor altered in their colour, it is seldom any thing is needful in the way of medicine; and it will, most likely, go off without: but if, notwithstanding every precaution with respect to warmth and food, the griping continues, with a frequent motion for stool, the stools small in quantity, and thin and watery, green and sour, or curdled, it will seldom go off (readily at least) without the assistance of medicine; and for this purpose the following powders will answer very well.

No. 1. TAKE of *turkey rhubarb*, finely powdered; and *magnesia*; each eighteen grains: mix them well together, and divide them into six papers; one of which is to be given every night and morning, mixed in a little warm water, while they last.

THESE powders may be given to the youngest child, and under three months; but at that age, or afterwards, they may be made one third stronger or more in quantity: they will often check the looseness, and restore the colour and consistence of the stools (which are favourable

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symptoms)

symptoms) when, or before, they are all taken; and they may be repeated a second time, either immediately, or afterwards, as there is occasion: they are most proper when the looseness and other symptoms are not in the utmost extreme; but when that happens, and the gripings are very severe and violent, the following mixture may be given, as it is more particularly calculated for dispersing and expelling wind, and giving ease when there is much pain, than the powders.

No. 2. TAKE of *turkey rhubarb*, twelve grains; *magnesia*, eight grains; *spirituous tincture of rhubarb*, one dram; *syrup of poppies*, two drams; *simple mint-water*, an ounce and a half:* mix them properly together, and shake the bottle well every time it is used.

If a child, who is to take this, is in the first or second month; two, or three, middle sized teaspoonful may be given for a dose, and repeated every four hours while it lasts, or until

* WATERY and spirituous liquors, although commonly ordered by weight, are generally measured; as a pound measures a pint; and an ounce, by measure, is two middle sized tablespoonful: and as an ounce contains eight drams, so a tolerably large teaspoon, which is about the eighth part of two middle sized tablespoons, or an ounce, will measure a dram, or as near it as may be.

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the griping and looseness sensibly abate. If the child is three, four, or more months old, three or four teaspoonful may be given each dose: upon which last occasion it will be proper to have a double quantity of the medicine prepared at a time.

THIS, like the powders, may be renewed as there may be occasion; and benefit may also be expected from it, when the colour and consistence of the stools alter for the better, by returning and approaching to their natural appearance; and, by an abatement of the frequency and severity of the fits of griping and pain; which will often take place in the course of twelve or twenty-four hours.

WHEN a child, with this complaint, is wet-nursed, it will be proper to confine him entirely to the breast for his food, if there be milk enough; and if the mother, or nurse, has taken any thing which is likely to disagree with the child, she must, at this time, be more observant and careful in her diet. But if it should happen (as it sometimes will with children in the month) that a child will not, or is not able to take the breast; a little weak broth, or veal or chicken tea, as before mentioned page 104, will be very proper; it will not only answer the intention of food, but that of a medicine likewise; as it will

be comfortable to the bowels, and will greatly assist in correcting acidity or sourness, which very often prevails, and adds very much to this disease. When the mother, or nurse, has reason to suspect she may have taken any thing which (as just now observed) may disagree with the child, the veal tea will also be very proper for him. The milk and water, prepared as above,* may also be given at any time when it may be supposed there is occasion for any other kind of food.

UPON this, as upon every other occasion of sickness, the advantage of early accustoming children to feed with a spoon,† will be very apparent; as they will be got to take such food and medicines as may be proper for them with much less difficulty than when they have not been used to a spoon. The mother, or nurse, if she is upon a vegetable diet, ought to alter it a little for the present; she must, particularly, abstain from fruit; and eat sparingly, if at all, of peas, beans, cabbage, cauliflower, greens, salads, and the like: potatoes, spinnage, turnips, and carrots, are perhaps the least exceptionable of roots and vegetables in common use; and asparagus, artichoke, and kidney-beans, of those

* See page 85.

† See page 121.

that are more rare. Malt liquor is as well avoided; and water with a toast in it, with or without (as is most agreeable) a little brandy, or foreign wine, as madeira, red or white port, &c.* is to be preferred. Salep, fago, and gruels of all sorts, are proper; as are also broth and flesh-meat, which may now be indulged in with more freedom than at another time.

WHEN a child is *dry-nursed*, a strict regard and attention to his food is of the utmost importance in this complaint: for although cases will happen where an error in the diet shall not have been the apparent cause of the complaint; yet a trifling error in the diet will add to it, and may greatly protract the cure: but, from what has been observed, the food is by far the most frequent cause. Upon this occasion, then, if the child's diet has differed from that which has been here recommended (page 84), it will be advisable to decline it, and adopt this; the good effects of which, as I have frequently observed, are generally very apparent in a short time, when the case is such as will admit of remedy. The more urgent the case is, the greater will the necessity be for observing a

* HOME-MADE wines, old raisin wine excepted, are not so proper, as they are generally windy.

strictness and exactness in this matter. In cases the most alarming and dangerous, asses' milk, when it can be come at, is to be preferred to every thing else, as food; and when that is not to be had, the milk and water may be given as a substitute for it: veal or chicken tea become upon this occasion extremely serviceable and proper, and may be given alternately with the other food, or as they appear to agree.—When the complaint proceeds from improper food alone, it seldom happens that the assistance of medicine is required; as a due attention to the diet only, generally proves an effectual and speedy cure, even in many cases where the disorder has been of long standing. Medicine is likely to be of the most service when the complaint comes on suddenly and with great severity; as then it (the medicine) may immediately correct the exciting cause, or assist in carrying it entirely and quickly off: therefore, whenever the complaint comes on suddenly, and does not seem to abate in a short time, it will be proper to give the powders No. 1. or the mixture No. 2. But where a child has had an habitual griping and looseness for some time, the medicines will seldom be required, as the complaint will most likely go off by a proper attention to the diet alone; which,
if

if it should not, after a proper trial, the medicines may be had recourse to; the powders may be first tried; and, if they should not answer, afterwards the mixture. Although the complaint will upon this last occasion, generally go off without medicine; yet cases will happen sometimes, where, from the cause being long and highly aggravated, the disease becomes very severe and in the extreme, and calls for assistance of every kind to be speedily administered: medicine, in this case, will act conjunctively with the food in restoring the proper state of the bowels, and preparing them to receive afterwards what is properly suited to them.

THE medicines, here recommended, are such as may always be given with the greatest safety, and will generally prove sufficient without any other: on which account no others have been offered; as a greater variety might perplex and mislead those who are not conversant and experienced in medicine. There is, however, a medicine which often is of the greatest service in this complaint, and which I have hitherto forborne mentioning, as it cannot very safely be given without a good deal of care and circumspection, although perfectly safe and harmless when administered with caution: it is, an antimonial puke. There are many preparations of

antimony made use of for this purpose: the following is full as proper as any other:

No. 3. TAKE one grain of *tartar emetic*; dissolve it, perfectly, in two ounces (or four tablespoonful) of water.

OF this, a child in the month may take a teaspoonful, and repeat it every three quarters of an hour till it makes him throw up, which it will generally do the first or second taking: it mostly works downward also, a little. A child from two to three months old may take two teaspoonful for a dose; from three to five months, three spoonful; and so on. It may be repeated once a day, or every other day, while the complaint continues with any degree of violence. If, after a trial of the other medicines, the looseness and other symptoms do not sensibly abate, it will be very proper to begin with this; which may be given, in the form and quantity here directed, with the most perfect safety, in all situations. Children seldom throw up oftener than twice, or three times, with it; after which they commonly go to sleep, and seem much relieved by it.—The cases in which I have found this medicine of the greatest service, and which seem most to require it, are those which are attended with sickness at the stomach (see sickness) and fever; both of which it is admirably

mirably calculated to remove. A child may be known to be feverish, when the insides of his hands are much hotter than usual, when he takes the breast or drink more greedily than common, and when his mouth feels hotter than usual to his nurse's breast. The looseness which so generally attends the *Thrush*, or sore mouth, is often accompanied with fever, when this medicine becomes most particularly serviceable. It is also of great service in teething, and in the measles.

THE dose of the medicine, here ordered, is such as will most commonly be proper; but it may be increased or diminished at pleasure, according to its effects. It suffers in its quality by being kept longer than a few days. Where proper medical *advice* is at hand, it will be advisable to procure it to direct the giving of this medicine, although it may be given with the utmost safety without, and can never do harm where there is a looseness, whatever cause it may proceed from, or whatever other symptoms may attend it.

A CHILD will sometimes have his backside red, inflamed, and sore, by the frequency and sharpness of his stools; which adds to his fretfulness and uneasiness: all which the following application will generally remove or relieve. Take of,

extract

extract of lead, and *brandy*, each thirty drops; put them into a small vial with four ounces (or eight tablespoonful) of water. With a little of this, aired by the fire in a teacup, let the parts be bathed, once or twice a day, with a soft linen rag.

THAT the foregoing rules and directions may be clearly understood, and to prevent their being misapplied, the following brief recital of them may, by way of general explanation, be attended to.

WHEN a child has had a looseness for some time, and which is not so severe at present as immediately to threaten his life; the cause of it must be attentively sought for; and when discovered, must be removed as much as possible. As it mostly happens that improper food (in dry-nursing) is the sole, or chief cause of the complaint, and always assists and adds to it from whatever other cause it may proceed, it will always be necessary to pay the strictest attention to the diet; by which means the complaint will generally, without the assistance of medicine, be very soon greatly relieved, or totally removed: but if, after a proper trial, sufficient relief is not found, and the disorder gains ground, the medicines may then be given.—When a child, in a good state of health, is attacked suddenly with a severe griping
and

and looseness; if the diet has not been properly regulated, or there has been any occasional remissness or neglect in it, it must be immediately corrected; and if the medicines are given, the complaint will generally be much sooner and more effectually removed with, than without them; and which will happen, whatever other cause the complaint may suddenly proceed from.

THERE will seldom be occasion to repeat the powders, No. 1. and the mixture, No. 2. immediately: if benefit is found from them they may be repeated in the space of two, three, or four days after the first are finished, if the complaint continues, or returns, so as to require it. But if during, or after the first trial no benefit or relief is obtained, it will be needless to repeat them, but in their stead give the antimonial puke as above directed. When relief is to be expected, or had from the puke, it is generally discovered and obtained upon the first trial; but which if it is not, that must be no obstacle to a second, or third attempt.

I HAVE been fortunate enough to meet with but very few cases which did not terminate favourably when the complaint has not been the direct result of an hereditary or constitutional affection (which rarely happens), and when the regulation of the diet was strictly complied with,
with

with, now and then, the assistance of the medicines here mentioned: but I have invariably found the diet to be of more avail than all other precautions and endeavours united.

RHUBARB, is a medicine given very commonly to young children, and is very proper when there is a looseness. The *syrup* of rhubarb is sometimes given on account of its being palatable, but possesses no other quality superior to rhubarb in substance.

MAGNESIA is a very useful addition to rhubarb, and may always be given mixed along with it (as in the powders, No. 1.): it is gently loosening, and as it corrects sourness, will abate griping; it also assists the operation of the rhubarb. *Magnesia*, alone, will sometimes check a slight looseness; which it does by correcting the sourness that occasions it, and which is its chief and prevailing quality, and for which it is in such general use and esteem with grown-up persons who have sour stomachs.

SPIRITUOUS LIQUORS and *cordial waters* of various kinds are frequently given when there is griping, to dispel wind; and upon some occasions answer that purpose very well: they ought always to be well diluted with water. They are most proper upon slight occasions, as, a sudden fit of griping from cold or any other accidental cause;

cause; but they ought not, upon any occasion, to be given freely, nor frequently repeated: for although they will sometimes still the pain, when so given, they do it by intoxication, which is only a temporary relief, and not a desirable method of obtaining it, as the pain is subject to return whenever the effect of the liquor ceases.

—Among the variety of liquors and cordial waters which are used upon this occasion, *geneva*, or *gin* as it is commonly called, mixed with water, appears the best suited to answer the intended purpose, being, when good, a light, pure, and wholesome liquor, and, from the juniper berry with which it is impregnated, is well calculated to dispel wind.

THE free use of HOT SPICES, and SEEDS of different kinds, is by no means eligible, as they are no way calculated to remove any of the causes of the complaint; and their effect, like that of the spirituous liquors, can be only temporary and imperfect: they may, from their heat, injure the stomach and bowels; and may, by constant use, become so habitual that a child will not readily take his food without them. Aniseed, or fennel-seed tea seems the least exceptionable form of giving them; and, like the gin and water, may be given in occasional fits of griping; but, like medicine of every kind, their use ought

to be limited and restrained, to make them of more efficacy when wanted, and to prevent the effect of habit. Pepper-mint water may be sometimes given to advantage.

THERE are a number of quack medicines imposed upon the public under various titles, as Godfrey's cordial, &c. &c. for this complaint in children; but as their compositions are as mysterious and difficult to discover as their good qualities, nothing more can be said in their favour, than that, like all medicines, they may be supposed to have their use when properly applied; but the risque, from misapplication, overbalances any benefit which is to be expected from them.* There is a *drug* however upon which, it is well known, their chief efficacy depends; and that is, *opium*; hence it happens they all have a stilling or sedative power, and a child who takes them will commonly be eased of his pain for a time, but which returns again, and calls for a repetition of the medicine, without in the least removing the cause of the complaint, by which, only, the disease is to be cured. It is this particular quality in opium, that calls for a continued repetition of it with those who take it,

* See page 21.

which

which makes its use so universally dreaded and avoided: it nevertheless becomes a sovereign remedy upon many occasions, when judiciously managed; but it should never be wantonly sported with, nor given without the greatest prudence and precaution. I have known Godfrey's cordial given to children, successively for months, with no other design, towards the end, than keeping them quiet in the nights; but which was begun with, at first, for a griping, or what was supposed to be so. The children who take it, in this manner, are lifeless and inactive, do not thrive well, and are with very great difficulty weaned from it; all which are the natural consequences of the free use of opium. The medicines of this description that are a little loosening are to be preferred to those which are not so.

THOSE who are inclined, from any motive, to give medicines of this kind, should do it cautiously, and not make too free with them; one, or two, moderate doses is as much as in general ought to be ventured upon and is likely to be given to advantage in the course of a week or a fortnight; and with this precaution they can seldom do harm, when such like medicines are *really* wanted. If it should be observed, that the mixture No. 2. contains some of the objectionable

tionable articles here enumerated and restricted, it must at the same time be noticed, that they are in small quantities, and so combined as to strike at the root of the complaint, as well as give present relief. The abuse of spirituous liquors, and quack medicines of the opiate or composing kind, may be observed to happen most frequently, and in the greatest degree, with children who are nursed from home; who, when they are cross, from griping or any other cause, are supplied with them, to still and quiet them. Nurses and servants at home will also sometimes be guilty of the same practices, which, as highly injurious, ought as much as possible to be prevented.

CHALK is sometimes put, scraped fine, into childrens food to check a looseness, and which it will often do: the only danger that can be apprehended from its use is, that it may stop a looseness too hastily; therefore it may not be amiss to give one of the powders of rhubarb and magnesia now and then, at the time the chalk is given. Chalk, for this reason, is not so proper in loosenesses at the beginning, and when they have come on hastily; but is proper enough in those which have been of longer standing and continuance: it will perhaps *always* be advisable to

to give rhubarb and magnesia, now and then, at the same time.

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WHEN *convulsions* accompany this complaint, as a symptom of it merely, no other treatment, than that which has already been described, will scarcely be necessary; except, they come on at the beginning of the complaint (or at any other period of it and the child is lusty, and strong and healthy in other respects), then a leech or two, applied to the foot, will sometimes give relief.

IF his complaint is of some standing, the looseness very violent, and he is at the same time weak, and much reduced, the mixture, No. 2. will be very proper; and, upon which occasion, the quantity of the syrup of poppies may be increased to one half, or double the quantity. A *warm bath* ought not to be omitted upon this occasion; and flannels, wrung out of hot water, and applied warm to the belly, will sometimes give relief.

A *Mithridate* plaister, applied to the belly, will often afford considerable and speedy relief.

THE warm bath and flannels may be used at any time to advantage when the gripings are very severe, although there be not any convulsions; and may be continued, repeatedly, two or three times in the day: they generally

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afford

afford present relief. When there are convulsions, a blister to the belly, after other means having failed of giving relief, may be tried; it is a very safe remedy. It seldom happens, when the complaint has proceeded thus far, that medical assistance, is not more particularly obtained: here it becomes very necessary.

CHILDREN who are *wet-nursed* are liable, sometimes, to attacks of griping and looseness, with or without green stools; but which are commonly much slighter than what happens to those who are *dry-nursed*. This complaint, with children at the breast, is most prevalent at particular seasons, especially at the decline of summer. It often appears in the month of August, when it is sometimes accompanied with a *rash* (see *rash*) and slight fever, and frequently prevails during the autumn (*see note to page 142*) and until the frost sets in. Upon this occasion the complaint will generally be effectually relieved by a few doses of the powders No. 1. page 151: if they should fail; the antimonial puke, No. 3. page 158, will be advisable; especially if the child is observed to have any sickness at stomach, or is feverish.

THE means, and cautions, which have been here offered, for the relief and cure of that formidable, frequent, and distressing complaint, the

the gripes with looseness, are such as experience have directed as competent, in general, in wet-nursing particularly, to accomplish a purpose so desirable, and, often, difficult. However, it will sometimes happen, in dry-nursing, that none, nor all of them are equal to the intention; and that a remedy, which is yet wanting, is the only one upon which an ultimate hope and dependence is to be placed—which is—*a breast*.—Therefore when all these means and cautions, of medicines, diet, &c. have been tried, and prove ineffectual, and the child seems to decline, rather than get forward, *a breast* must, if the child's life is earnestly solicited, be got for him: and if he is under, at, or even above a month old, he will most likely take to it, although he has not had the offer of it before.—As it has been repeatedly observed that continued and severe gripings and loosenesses, in dry-nursing, are occasioned by the food; and that it is so difficult a matter to give a proper substitute for the breast, it will appear less surprising that children will sometimes be found who cannot be supported or exist without it; and which can, perhaps, be easily accounted for, by considering, that it is a provision nature has bountifully and regularly supplied to all mothers, in every climate and country, who do not

sensibly and materially deviate from the paths intended and prescribed by her; and that, therefore, it is unlikely she should liberally and fully provide for a defect which was scarce likely to occur. Nature, however, has wisely ordered that the *parents* should be able to subsist upon a change of food; otherwise, it would be impossible they could be supported, upon the variety they are necessarily obliged to take to, in the various climates and seasons they are often successively exposed to. See page 70 and following.

A griping with looseness is most severe and frequent with those children who are dry-nursed; and of course those who are wet-nursed are freer from it, and have it more slightly. When it prevails in the extreme, and proves fatal, from any of the common causes, it is generally by suffering it to continue too long, and advance too far, either, through negligence, or want of proper information and assistance. When it is epidemic, or the prevailing disease of the town or neighbourhood (upon which occasion it most commonly is accompanied with a *severe* looseness), it is often dangerous. When accompanied with convulsions, still more dangerous. When it is otherwise and proceeding from any other cause, as cold, improper food, &c. it generally very readily admits of relief, and
severe

severe returns of it may be prevented. A sickness accompanying a griping and looseness is an unfavourable symptom.

Of the Cure of Gripes without a Looseness.

A GRIPING seldom, as has been observed, happens to very young children without more or less of a looseness; yet it sometimes will, and that, without any apparent alteration in the number or appearance of the stools; but when that is the case, it is commonly slight and of short duration, and may be supposed to happen (as it generally does) from cold; and it is seldom that any thing is needful to be done upon this occasion to remove it. However, if any thing may be thought necessary, a little anise, or fennel-seed tea, hartshorn and water, peppermint water, or geneva or any other cordial that may be preferred, properly diluted with water, will be proper. This is the occasion when these and other things of the like kind and quality can be employed and given with propriety and a prospect of advantage. But if there be a tendency to costiveness, or if, as sometimes is the case, a costiveness should have taken place at, or before, the commencement or first attack of the griping, these warm and cordial things

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will

will not, cannot remove the griping; and the means to be taken must be chiefly, or solely, directed to the procuring a loose stool or two, which will most likely entirely remove the griping: the medicines, suited to this purpose, have been enumerated, and will be found under the article costiveness (page 113). Whether manna, magnesia, or castor oil is given, it will be proper to mix two or three teaspoonful of peppermint water along with it. Opiate and composing medicines of all kinds are improper in all cases of griping accompanied with costiveness, and until the costiveness be removed; when, they may be given to advantage, if needful. If it should happen, as it rarely does, that the griping continues after the costiveness is removed, the mixture No. 2. (page 152) will be proper. And if a looseness should succeed a costiveness, and become immoderate, the same mixture, and other means as have been recommended for the cure of a looseness and griping, must be pursued.

A GRIPING which is accompanied with costiveness is rarely dangerous, or of long continuance, as it is generally entirely and readily removed by procuring a loose stool or two, and as the cause from which it proceeds is commonly cold, or some other, equally as trifling and easily obviated.

WIND in the STOMACH and BOWELS.

A CHILD, like a grown person, may have wind upon his stomach which may be troublesome and uneasy to him, without griping him, or sensibly affecting or disordering his bowels, as is discovered by his not being so cross with it as a child is when griped. A child is discovered to have wind upon his stomach, by the wind often rising into his throat, which makes him struggle at times as if to get his breath, and from which he is occasionally relieved by the eructation or breaking of wind upwards; and, as it often returns upon him, it becomes very teasing, and interrupts his rest: he *generally* takes his food unwillingly. It is common with children in the month who are dry-nursed, and before they begin with what is called possetting. A variety of things are given upon this occasion to dispel the wind, some of which have been enumerated page 162 and following: but none of them, nor any thing else that I have seen given to procure a temporary relief, exceeds *spirit of hartshorn*, or *hartshorn-*

drops as they are commonly called. Three drops of the hartshorn may be given, to a child in the month, in about half a table spoonful of cold water, and repeated two, or three times in the day, or as there may be occasion. Hartshorn, when it will answer the purpose, is to be preferred to cordials, spirits, feeds, spices, and hot things, of any kind; as, although it is fully as powerful in dispelling wind as any of them, it will not, by a permanent heat, nor by repetition, injure the stomach as they do; nor can any bad habit or other disadvantage arise from giving and repeating it as often and long as it may be necessary so to do. It is endowed with a property which makes it a desirable medicine for children; which is, it corrects and removes acidity or sourness, a principal cause of griping with children. Its use in these intentions is well known by grown up persons, with whom it is a favourite and familiar medicine: and the reason why it is not extended more generally to children, proceeds, I imagine, from a supposition that it is too strong for them; but which is a mistaken notion; as it may be given, as above directed, with ease and safety. The dose here mentioned is the smallest that need ever be given, and it may be increased, as a child grows older especially, to four, five, or six drops.

As

As wind upon the stomach is, with a child as well as a grown person, to be considered as a mark and indication of a weak stomach and indigestion; so it will be observed to be most common and troublesome to those children who are dry-nursed and fed with food of an improper quality, as bread, thick and rich milk, &c. which cannot digest and pass the stomach so perfectly and readily as it ought to do: for we well know, that whatever is heavy of digestion, and lays long upon the stomach, is not only uneasy, but also causes wind there; and cannot but be sensible how much these painful sensations must be increased if we were compelled, as infants are, to a constant repetition of the food which occasioned them. Many weakly, puny children, who are even wet-nursed, will now and then be observed to have a wind upon their stomachs; and the *bickup*, which they all have at times, is occasioned by it; as also those who are the most carefully fed in *dry-nursing*; but when it occurs only now and then, and that slightly, it is not worth notice; and if any attack of it should seem more severe than usual, the hartshorn and water will most likely relieve it. The occasions which call for a more particular attention, are those where, as above-named, when the child is dry-nursed, he takes his food unwillingly, and
swallows

swallows with difficulty from the wind rising into his throat, and that for some successive days, a week, or longer. Whenever therefore the complaint appears in this latter form, it will be necessary to pay the strictest attention to his food (pages 56 and 84) and by no means to force more, even of such as is the most suitable, than he is disposed to take willingly (see page 112). If he is costive, it will be proper to give him a little manna, or a teaspoonful of castor oil: and if he has now and then griping stools, the powders No. 1. page 151; but if the powders have not the desired effect, the puke No. 3. page 158, will scarcely fail. Wind upon the stomach, when to excess, and occasioned by the constant use of improper food, is often a presage and fore-runner of an alarming sickness that frequently terminates in a severe griping and looseness, as described in the article immediately following.

CHILDREN, also like grown up persons, seldom have wind in their bowels without being griped by it; but which they will sometimes have without being either costive or too loose in their bodies. When it so happens, it most commonly proceeds from cold, and will generally go off in a short time. The hartshorn may in this case be tried, although its effects will not always be so striking as when the wind is in the stomach; and

and if it does not answer, recourse may be had to geneva and water, anise or fennel-seed tea, &c. as mentioned above, page 162 and following. If these fail, and the complaint increases, it must be treated as a griping without looseness, as in the preceding article, page 170.

SOME children seem naturally more subject to wind in their bowels than others; and which can be accounted for no otherwise, than as proceeding from a particular weak and tender state of those parts. And as it is much increased by cold, a particular attention must be paid to keep and defend those children who are liable to it from taking cold, by a proper regard to the closeness and warmth of their dress, and by keeping them out of the air in the first or second month.

A SICKNESS, with or without throwing up.

INFANTS are very subject to a sickness the first or second week. Sometimes they throw up with it; and at other times they do not, but lie in a dozing state, without motion, the lips pale, and a paleness and sinking of the face; and

and they generally refuse their food, or do not take it so freely as at other times, seemingly owing to their being stuffed and full at the stomach, and not able to get it down.

A THROWING up, or *possetting* as it is commonly termed, is seldom esteemed an unfavourable circumstance with young children; yet the sickness that happens at this early period is generally from a widely different cause with the possetting, which rarely happens so early, and, when it does, proceeds from a natural and not unfavourable cause; whereas the sickness that comes on at this time, whether accompanied with a throwing up, or not,* is unnatural and unnecessary, and therefore not desirable. In possetting, what comes up is in a digested state; whereas what comes up at this period, and upon this occasion, is scarcely changed or altered from what it was when it went down: and, if it is altered, appears in hard curdled lumps. From which, it clearly appears, that the cause of this sickness, as here described, with, or without, throwing up, and which is so frequently observed to happen during the first three or four days, or

* THIS natural throwing up, or *possetting*, has been noticed and explained in the conclusions of the notes to the *medical reader*, pages 58, and 78.

as long as the child is fed with a spoon previous to his getting the breast at all, or so sufficiently as to satisfy him without feeding with a spoon,* is altogether occasioned by the food that he takes, which, not being suitable, disagrees, and therefore will not digest and pass the stomach as it ought to do, but remains unaltered, till nature, by an effort, relieves herself by a sickness, or a looseness: but until this sickness, or looseness, or both, take place, and while the food stays upon the stomach, it lies there as an oppressive load, and the child is overcome and overpowered by it; which accounts for the child's looking so pale and otherwise ill. This sickness at stomach, without throwing up, is a very common cause of alarm and much uneasiness and anxiety to the mother and friends, who suppose the child, from the apparent great and, oftentimes, sudden alteration in his look, must be in a dangerous situation; although, notwithstanding the alarming appearances, it is very rarely attended with immediate danger; and, when the cause is known, may, by proper means, be readily removed, and a return of it prevented. The means to be pursued for these purposes are, first,

* THIS may happen, at any future period, with a child that is dry-nursed, or has been weaned.

to remove the load from the child's stomach, which will give him immediate relief, as will be perceived by his resuming his former look; and this will often be done by giving him a teaspoonful of castor oil, which may carry the complaint off by stool: but if this should fail of giving the wished for relief, the antimonial puke, No. 3. page 158, given as there directed, will scarcely fail of fulfilling the intended purpose. To prevent a return of the sickness with, or without, throwing up, the child's food must be strictly attended to; and if (as is generally the case) it happens before the child gets the breast, he had better not be fed again until he can have the breast: but if food or nourishment from the child's real, and not imaginary, weak state, is absolutely and immediately necessary, it must be given of such kind as may be reasonably expected to agree better, and such as has been advised when treating of the food and diet, pages 56, 84, and following.

THIS complaint is very common, at this early period, with those children who are dry-nursed, or those (especially weakly children) who are fed, in the usual manner, before they get the breast. It is a common attendant or, rather, fore-runner of gripes and looseness. It is more rare and less frequent with those who are not fed at all, or properly

properly so, before they get the breast: and when they come to have the breast plentifully, and take it freely, they seldom have any returns of it. It is not, as before observed, immediately dangerous; yet if it is neglected, by suffering the cause of it to be repeated and continued, it may lead to severe gripings and looseness, that may, and often do, prove fatal.

A SICKNESS seldom seems so alarming when a child throws up with it; as throwing up, from time to time, relieves the stomach, and the child is disposed to take food, and does not seem so dull and heavy: however, as the food does not digest, and is chiefly returned unaltered, or else in hard curdled lumps, it can afford little nourishment; and what happens to pass the stomach will do more harm than good, by causing a griping and looseness; all which will, in the end, terminate as unfavourably as in the case of sickness *without* throwing up.

THIS case of *heart-sickness*, as it is commonly called, when not accompanied with a throwing up, and which is very common to children in the first or second week, for the reasons already given, is not very generally understood; for when a child lies in a dull, heavy state, without motion, refuses his food, and, as is common in cases of heart-sickness, looks pale, sunk and fallen,

fallen, without any obvious and visible ailment to distinguish and point out his complaint by, it is supposed undiscoverable, and that any means, to relieve him, will be needless and of no avail; however, from the description and account here given of it, it can scarcely be mistaken, and may as certainly be palliated, or entirely removed, by the means here recommended.

CHILDREN, with this complaint, will, often, have wind upon their stomachs, which becomes very troublesome to them, especially in swallowing their food; and is occasioned by the same cause; namely, an imperfect digestion, as has been explained in the preceding article.

COMPLAINTS in the stomach and bowels are commonly so connected, and interfere so much with each other, that it is sometimes difficult to disunite and properly distinguish them. The preceding complaints, of, and in, the stomach and bowels, here treated of, are the most common and material. In describing them, I have not been inattentive to what authors have said upon them; yet as some of them have not, so far as I know, been noticed by authors; and as they are frequently so interwoven, and depend so much upon each other, I have given and described them exactly in the manner and form they have repeatedly appeared to me in practice.

practice. And although descriptions of the most simple complaints may, to those who are perfect strangers to them, at first sight appear somewhat strange, and difficult to conceive clearly; yet, there can be little or no doubt but that, by a careful attention to the descriptions here given, and a little acquaintance with the ways, appearances, and treatment of children, these will be clearly, properly, and easily discovered and distinguished. I have been more full and particular upon the complaints of the stomach and bowels, and the causes that produce them, than most of the other complaints of children; for which I need offer no other apology, than, that they are the most frequent, and fatal, and, perhaps, the least understood; or, at least, that they are seldom so properly attended to as their importance requires.

If due attention was paid to remedying and preventing these complaints, the advantages to society would be very considerable, as it would be a means of preserving a number of the species that we see daily dropping into an untimely grave; and, with them, the fond parents great dependence, and chief delight.—If proper accounts were kept of the causes of the death of those children who are dry-nursed, and die under four months, throughout the kingdom, it would most likely appear that

two-thirds, or even three-fourths of them die of complaints in the stomach and bowels, evidently occasioned by a disagreement of their food. And if the same account was kept of the causes of the death of those who die within the week from the birth, it would as likely appear that the same proportion are carried off by the same complaints, even if they are intended to be wet-nursed; and which happens from improper feeding before they get the breast.

OF how much importance it is, therefore, to the comfort and happiness of the parent, and the ease of her tender and suffering infant, to have this article of the diet (frequently, by an error in it, of such alarming and fatal consequences) properly regulated; and how much it behooves her to assert her just authority, in defence of it, against any other opinion that is directed by bigotry and ignorance; which generally, *solely*, governs and prevails upon these occasions!

FROM what has been observed of the complaints in the stomach and bowels at this tender age, it seems highly probable, that, could those children who are intended to be brought up by hand, or dry-nursed, be but indulged with a breast for three, two, or *even one* month, from their birth, their stomachs and bowels would, in that time, acquire so much strength as to prevent the complaints, either altogether, or in a great measure.

The

The THRUSH, FROG, or SORE MOUTH,

IS a complaint which children are subject to about the third week ; it rarely happens earlier ; but may come after that time. It is very commonly known and distinguished by the name of a *sore mouth*, which it really proves to be to the poor infant, as it is mostly attended with a good deal of pain and uneasiness, especially in feeding, in sucking most particularly. The appearance in the mouth is, as if the child had been eating curds, and that some of them remained sticking upon the tongue ; to which the complaint and foreness are, at first, chiefly confined ; but, afterwards, it will spread all over the inside of the mouth, and be extended to the throat, stomach, and bowels. It is a very common and frequent complaint : when it happens, it proves troublesome, and ought therefore to be closely watched, that, when it appears, its departure may be hastened and expedited as quickly as possible. Whenever, therefore, any white specks, or matter like curds, are observed to be sticking upon the tongue, so fast as not to be readily washed or rubbed off, it may justly be supposed the sore mouth is commencing. If the child at this time is in the least disposed to

be coſtly, a little manna or magnesia muſt be given to procure one or two looſe ſtools; and which may be repeated afterwards, if the body does not keep gently open.—It will be neceſſary to have the tongue frequently cleaned; for which purpoſe many things are recommended, as honey, borax, alum, white vitriol, &c. a few leaves of dried *red roſes*, infuſed in boiling water, ſtrained off when cold, and a little *honey* mixed and diſſolved in the liquor, makes a very good mouth-water for this purpoſe: it is to be made uſe of, by tying a piece of linen rag upon the mouth or ſhank of a teaſpoon, which muſt be dipped in the liquor, and the tongue gently rubbed with it two or three times a day; and it muſt be regularly perſeversed in daily, while any appearance of the complaint remains; although, in doing it, the child will receive ſome pain, eſpecially if the complaint has been ſuffered to increaſe before proper attempts are made to remove it; but when it is taken early, and at the beginning, the mouth will be kept tolerably clear and free, without paining the child; by which he will be enabled to feed with much more eaſe, and the complaint will be got rid of, in a tolerable eaſy manner, in the courſe of ſeven or eight days.—The colour of the ſpecks upon the tongue are, as has been obſerved, at
first

first white; yet it is very common for them to turn yellowish, and brown: they generally come off, at the last, in sloughs.—When, from neglect, or any other cause, the complaint has continued for some time, it is very common for the child to have a degree of fever, very often accompanied with griping, and looseness with watery, sour, green stools; in which case the disorder becomes more alarming and troublesome.—As this complaint may be occasioned by an imperfect or improper digestion of the child's food; so it is very liable to be brought on, or greatly aggravated, by improper food; it will therefore be very necessary to pay a strict attention to the diet at this time, if the child is dry-nursed; and to the mother's or nurse's diet, if otherwise.*

WHEN the looseness is great, the complaint must be treated as a looseness from any other cause,† with this caution, that the powders No. 1. page 151 (which are proper to be given as there directed), are to be preferred to the mixture No. 2. page 152; but, of all medicines, the antimonial puke, No. 3. page 158, is most eminently serviceable in this state of the complaint, and is often attended with the

* See page 154.

† See page 150.

happiest effects, and therefore ought not to be omitted: it may be given once a day, while the complaint continues: as it commonly operates both upward and downward, it clears away the offending matter from the stomach and bowels, which is the cause of the complaint, and also of the fever; by which means the most sensible relief is obtained. The powders alone will sometimes be sufficient; but if they should not, the pukes must no longer be delayed: it is needless to repeat that they are perfectly safe when given as above directed, page 158.

WHEN the thrush is neglected, and suffered to continue until it is communicated to the bowels, (as it begins first in the mouth, and is extended gradually and regularly downward) the stools will frequently be so sharp and acrimonious as to inflame the child's backside, and make it troublesomely sore; and which is the most certain proof and indication that the complaint has reached the bowels. When this happens, the parts, that are red, inflamed, and sore, must be kept as clean as possible, and often washed with cold water. And, if the soreness increases, it will be proper to bathe them with the extract of lead and water, prepared as has been directed, page 159, for a soreness of the backside, and in the manner there advised.

The GUM, and YELLOWNESS of the SKIN.

THE GUM is an eruption of red spots resembling a thick rash, which often appears after the birth, upon any, or every, part of the body: it is generally attended with a costiveness, and is very easily removed by giving any thing that is loosening, as manna, magnesia, &c. it continues but a short time, is no way dangerous, nor need any thing farther be done for it.

A YELLOWNESS OF THE SKIN, which very often overspreads the whole body, is very common with infants a few days after they are born; it sometimes continues for some weeks, during which time it often becomes of a deeper yellow, or orange colour. It is not to be regarded, nor is any thing needful to be done to remove it, as it will disappear totally and spontaneously at last. It is commonly said that the skin is left clearer and fairer by it than it otherwise would be without it; which seems a doubt: however, it is an agreeable delusion, and may help to reconcile so unpleasing an appearance.

The SMALL-POX, and INOCULATION.

VERY young children are not so liable to take the small-pox as those that are older; so that it rarely happens that a child under six months old is attacked with the small-pox; and they will, under that age, often escape it when they are in the same house where the disease is present. Their escaping the infection at this age, seems to be owing to a mildness of the juices of the body, which makes it not so readily susceptible of that, and many other infectious diseases; or when it does take place, it is sometimes in so slight a degree as not to be discerned; which accounts for the opinion formed, and the declaration made, by many, that they have not had the small-pox, although they have been inoculated for it, and have repeatedly been in the way of the infection; yet, upon enquiry, it will generally be discovered that they have been exposed to the infection when infants, although they have not visibly appeared to take it. I have sometimes seen a child at the breast really, or apparently escape the small-pox, when a
great

great part of the same family had the disease. It is oftentimes difficult to communicate the infection by inoculation at this age, and it sometimes will not take place at all. Dr. Young, a gentleman of established character and abilities, inoculated several children at the Royal Infirmary in Edinburgh at about a week old; yet in none of them could he perceive the infection to take place; he nevertheless supposes that some of them took the infection, but that it was in so mild a manner that no external symptoms or appearances of it could be discovered; and yet so sufficiently that they never would have the small-pox afterward.

As the disease proves so mild at an early age, it may be supposed the most proper for communicating the infection by inoculation; and which it certainly would, if other reasons did not discourage it; the principal of which is, a dread of convulsions, which infants are so subject to from many causes, and none more so than the small-pox: it is true, all children have not convulsions with the small-pox, and when they have, it is commonly in so slight a manner as not to endanger their lives; yet if the convulsions *should* prove fatal, as it may happen, and has happened; that risque is a sufficient reason for forbidding the inoculation, and to point out the advantage

vantage of deferring it to a future season, when so much danger is not to be apprehended from so alarming a symptom.

THE greatest disadvantage which is supposed to attend a delay, is the risque a child runs of taking the small-pox in the natural way during that time ; but, as has been already observed, that is an accident not much to be apprehended ; and even in large towns, where the infection almost constantly prevails, may be avoided if the least pains is taken to keep out of the way of immediate infection ; and which, in country places, is very easily done. As childrens lives are so very uncertain, and hang by so slender a thread at, and for some months after, their birth ; they, like tender blossoms, are ill qualified to resist a rude assault or severe shock, of any kind, and are seldom able to cope with a complication of diseases : a looseness, or many other complaints they are liable to, might be equally dangerous with convulsions upon this occasion.

THE objections, here offered, cannot be said to be much lessened or removed at any age under six months ; and at that age, or about the seventh month, the teeth are expected to make their appearance, which has been always supposed a sufficient cause to forbid inoculation ; and as teething often continues attended with danger

ger until the expiration of the twelve months, the practice of inoculation seems entirely prohibited and forbidden during the whole of the first year.

It is a practice with many to advise inoculation about the fifth or sixth month, from a supposition, that a child will, at that age, have acquired strength sufficient to combat the small-pox; and that they will avoid the risque and danger from teething by doing it a little while before the teeth may be expected to come. But this argument proves a very deceitful one, as will hereafter appear,* and when it is considered; that the time of breeding the teeth, which may happen so early as the third or fourth month, is frequently as tedious, troublesome, and dangerous, as that of getting or cutting them; and that there will be consequently as much risque and danger from the small-pox at the time of breeding, as at the time of cutting teeth. I have seen a great many cases, both in inoculation and in the natural way, where children have been cutting teeth, both single and double ones, and where they have had the gums very much swelled and inflamed, with pain and fever, at the time of the eruption of the small-pox, who have yet done as

* See *Teething*.

well, and have had as small a quantity of pustules, or the pock, as if nothing of the kind had happened: however, as this is not always to be expected, some precautions will still be proper to be observed.*

SOME

* *To the Medical Reader.*—It appears upon many occasions, that although the symptomatic fever from cutting of teeth shall be very smart during the eruption of the small-pox (as is discovered by the state of the gums, and the febrile symptoms continuing beyond the period of eruption), yet that the disease does not seem rendered more unfavourable, or aggravated in any of its consequences, by such accumulated fever.—On the other hand, there is frequently the greatest reason to suppose the disease much aggravated by such fever. This difference and distinction I have frequently noticed under the following circumstances.—I have observed that when a child has been attacked with urgent symptoms of dentition at the time of, or a day or two before, the eruptive fever of the small-pox, that the disease (as in the first instance above-recited) has been as mild and favourable as might have been expected had no such additional cause interposed. On the contrary, and when the symptoms of dentition may have seemed to aggravate the disease and its consequences, I have often observed that the symptoms of dentition have existed without intermission some time (perhaps a week, fortnight, or longer) before the attack of the small-pox: or else that the child has had one or more *severe* attacks immediately previous to that of the small-pox.—From these observations, it should seem, that the symptomatic fever excited by the
teeth

SOME children get their teeth much easier than others; the greatest difficulty and danger generally attends getting the first teeth; and if a child gets his first teeth without much trouble and uneasiness, it seldom happens that he has much difficulty afterwards. From which it may be concluded; that if, about the ninth or tenth month, a child has got two, or more, of his teeth without much trouble or difficulty, he may be inoculated with great safety: but if the teeth which he has then got, whether more or not, have come with much pain, fever, or difficulty, it will be most advisable to wait till these difficulties and all danger from teething are got over, before the inoculation is ventured upon.

teeth will not always sensibly add to the quantity of the pustules of the small-pox, or its malignity; and that cool air, and cool treatment, will very often so far subdue the contagion, and its fermentative process in the habit, as to bid defiance to the auxiliary fever; and that when the disease becomes aggravated by the teeth, it may, mostly, happen from a putrescency induced by the attack or attacks of fever prior to this period; as the cases, which I have seen so circumstanced, were invariably accompanied with marks of putrescency, discoverable by purple petechiæ, &c. according to the degrees of malignity.

THESE distinctions may be of use in ascertaining a suitable period for inoculation, when it is to be governed by the teeth.

It will always be proper to defer inoculation till a tooth is cut, even although it should be twelve or fourteen months before that happens, for the above reasons.

THERE is a rule which I have invariably observed in the inoculation of children while they are getting teeth: it is; as the teeth generally cut regularly in pairs,* and as there is commonly a space of a few weeks between the cutting of each pair, I have the child properly prepared, and take the opportunity of introducing the infection very soon after the cutting of a pair; by which the small-pox is generally finished and over in the space or interval betwixt the cutting of the teeth; and the child escapes all pain and danger from the teeth.

DRS. DIMSDALE, a gentleman who has had a long and extensive experience, and who has published upon inoculation, says; he declines inoculation upon a child under two years old, where it is left to his own choice, on account of the hazards from convulsions, fevers, fluxes, teething, and other complaints, to which children are subject: no doubt he is directed in his opinion by the extreme of prudence; and when children can be kept safely out of the reach of in-

* See *Teething*.

fection, it is an age as early as a cautious choice will direct: but in large and populous towns and neighbourhoods that are seldom free from the infection; or in other places where it may happen to prevail; it cannot be so advisable to run the risque, for so long a time, of taking it in the natural way; as the inoculation may be practised with great safety by an attention to the cautions above recited, at a much earlier age. There are many complaints which with those of five or six years old would be no obstacle to inoculation, but which would be objectionable at, or under, a year; therefore a child ought to be tolerably healthy who is inoculated so young.

A good deal of stress has been laid upon the seasons of the year best suited for inoculation. The spring, and autumn, have been recommended on account of their temperature; and, on that account, are proper enough; but as children, at those seasons, *and particularly the latter*, are more subject to worms, loosenesses, fevers, sore throats, &c. than at any other, they become less eligible. Therefore, from midsummer till christmas, or until the frost sets in, is the most improper season for inoculation (see page 168: and the article, *rash*). Cold seasons, and particularly frosty weather, are undoubtedly more suitable than those that are warm, damp, or wet.

WHEN

WHEN a child is inoculated at, or above the age of five or six months, it will be advisable to wean him, for two reasons : the first is ; that he can, if he is weaned, be better prepared by his diet than he otherwise could, provided his nurse is ever so attentive to her own diet for that purpose ; and he will more readily be got to take such kind of drink and medicines as are proper for him at the time of the eruptive fever, or when the small pox are about to make their appearance. The second is ; children who suck will seldom, when they ail any thing, be appeased or satisfied without they are almost constantly lying at the breast ; and that, at night and in bed especially ; which must keep them hotter than they ought to be at that time, and which will of course, and as certainly, add to and increase the quantity of the small-pox, upon the face particularly.

THE advantages attending inoculation are so obvious, and so universally known and established, as to make a recital of them superfluous and unnecessary in this place. Those who are most conversant in it, are the best satisfied, that not the least inconvenience or disadvantage has ever really, and unequivocally, accompanied a judicious management of it ; on the contrary, it is fraught and replete with
greater

greater benefit and comfort to mankind, than any measure ever yet adopted for the relief or prevention of any calamity, of like magnitude, the human body is heir to. Yet, although the clearest evidence and most convincing proofs are to be gathered from reason, experience, and the conviction of the external senses, in its favour, there are those to be found who are strongly biassed against it, who strenuously oppose it, and who even are studious in depreciating it:—but no wonder—since mankind are, by nature, disposed to differ in sentiment; and perhaps no one position, which the art or ingenuity of man has been able to frame or conceive, was ever universally adopted, or assented to! Those persons who will credit and allow the conviction of their own senses to decide in the matter, must be convinced of its distinguished excellence, by considering, how much personal grace and beauty is preserved by it, by comparing the present set of faces with those twenty or thirty years backwards: by examining and comparing the registers and impartial accounts of those who have been at the pains to collect them, respecting the fatality of the disease in the natural way, and that by inoculation: by the example of the most learned, and, in every respect, most eminently distinguished personages in the kingdom: with

many other arguments; all, and every, of which, if considered without *prejudice*, would convince, where conviction will be admitted. Some there are who object to it from a religious motive, by supposing that it is interfering with the dispensation of the *Divine Providence*; yet they ought to consider, that the ALMIGHTY has endowed us with powers, and has put weapons into our hands, to preserve and defend ourselves, and to enable us to encounter many calamities, difficulties, and dangers which, HE HIMSELF, for purposes best known to HIS unerring wisdom, has placed in our way, and which we must, for our own preservation, necessarily combat. Every discovery which HE vouchsafes to make us, it is our duty fully to respect, and to express our gratitude for, by applying it to the purpose and intention it is calculated to answer; and which, like a *talent*, is not given us to be "*buried in the ground*;" but to be appropriated to such an use as may display the beneficence of the CREATOR, "*and declare the wonders that he doth for the children of men.*"—The assistance and power of art and medicine are eagerly solicited for the *prevention* and *mitigation* of every *other* disease we are liable to, without reserve or restraint; therefore why *this dreadful disease* should be singled out, and we forbidden to disarm it of its terrors, can be

no more easily conceived than, that we ought suddenly to sit down under every calamity and danger which daily awaits us, without exercising those means, for extricating ourselves from them, which have been apparently and designedly given us for the purpose of so doing. Houses have been thrown down and burnt, and lives have been lost, by lightening; yet can it be deemed impiety to endeavour to preserve ourselves from, and avert the lightening's rage, by the means which the ALMIGHTY has suffered to be discovered to us, for that purpose?

MANY, are prevented from submitting to the inoculation of their children, by fear only, who otherwise are disposed to favour the design and propriety of it, and who think it right: their mode of reasoning is; "they could wish to do it, but dare not; for if any accident *should* happen, they could never forgive themselves." If this kind of argument, which arises from fear, and is produced by a want of the exertion of the reason, was suffered and encouraged upon all occasions through life, we might be continually unhappy, and perpetually blaming ourselves for every transaction which did not answer our expectations, although the result of the most mature deliberation. The maxim by which we ought to govern ourselves, upon every occasion,

is, that whatever act we commit, and whatever we do, as the result of our reason, we do ourselves the highest injustice to blame ourselves for, when the event happens not to be so favourable as our reason promised us to expect and hope for. On this account therefore, they who cannot bring their reason to coincide with the propriety of inoculation, would be to blame to submit to it: but when the reason favours it, it is an incumbent duty to comply with it, and (of course) a breach, or neglect, of that duty not so to do. It may be said, some die under inoculation? It is true such accidents have happened; but they are comparatively so small, when properly considered, as scarcely to amount to an objection. I suppose, not one in three or four hundred, in this town and neighbourhood, have died of it; and it is more than an even chance that one or more will die out of that number, in the space of time necessary for going through inoculation, of some disease, provided none of them were inoculated; and when children die under inoculation, it commonly happens from some other complaint attacking them at the same time, which might be equally fatal without the inoculation.

AN apprehension of the risque of communicating some other disease along with the small-pox, has

has been alledged as an argument against inoculation; but experience proves clearly the futility of such reasoning; the improbability, also, of such an event, is contradictory to reason and the laws of the human œconomy.

THE notion in favour of taking the small-pox a second time, and in the natural way, after inoculation, is a mistaken one, where the infection has before taken place *completely* from the inoculation; and can only be accounted for, like the others, from a want of knowledge and experience in those who favour such an opinion; or such reports may be circulated as a bugbear, held out to answer some sinister or interested purpose. If a person can have the disease a second time in the natural way, he may also by and after inoculation; but not otherwise; as the disease is exactly and specifically the same, in what shape or form soever it is received.

AN account of the preparation and management under inoculation will be superfluous, and can answer no purpose here, as it cannot be safely practised but under the immediate inspection of a medical person: but as the small-pox in the natural way will sometimes make its attack unawares; a few cautions, respecting it in that situation, may not be unseasonable.

*Symptoms and Treatment of the natural
Small-Pox.*

WHEN the small-pox is in a town or neighbourhood, those who have not had it are continually liable to be infected, although they may not be immediately near or in the presence of an infected person ; as the disease is very easily conveyed, to a great distance, in the cloaths of a person who has been with another in the small-pox. It is not any easy matter to determine certainly when a child is attacked with the small-pox, as no symptom, that occurs, pronounces it distinctly ; however, some knowledge of it may be gathered by attending to the following appearances. If a child, when in good health, should suddenly become dull, drowsy, and hot and feverish, with startings, especially when seeming to doze or slumber ; the eyes heavy, and red and inflamed ; a short breathing, with the breath hot, and strong or offensive ; a sickness with vomiting ; the feet cold, although every other part of the body feels hot ; and the small-pox is in the town or neighbourhood ; the child's complaint may, if there is no reason to suspect any other, very reasonably

reasonably be supposed to be the small-pox, especially if these symptoms do not abate in the course of the first or second day: the cold feet is generally a constant symptom, and is peculiar to the small-pox at and before the eruption. Sometimes slight shiverings come on at the commencement of these complaints. When a child is thus situated and circumstanced, it will be proper to keep him very cool, and by all means from the fire: he must not be suffered to lay with his face in the neck of the person who carries him (which children are much disposed to do in this complaint), but may be laid across the arms upon a pillow, or without, and carried about the house, in any part of it where he can breathe a cool air: he must not be wrapped up warmer than usual, and particular care must be taken to have his face always uncovered: at night, when in bed, he must be kept very cool, and not suffered to lay near his nurse: in the day, he may lay upon his back across the lap; or rather upon a settee, or sofa, which will be cooler than the knee. As a thirst is common at this time, if the child is weaned he may drink cold water with, or without, a toast in it; or milk and water, cold; whatever else he drinks ought to be cold, and without any wine, or other liquor of the kind, in it: if the child

sucks, he may have the same drink, if he will take it. A few loose stools will give very great relief, by abating the fever and relieving the oppression and heaviness; and therefore must be immediately procured by a little manna, infusion of fenna, or any thing of the like kind.*

WHEN a child has all, or many, of the above-named symptoms, particularly the fever, this cool treatment can do no harm whatever the complaint may be; and, if it proves to be the small-pox, will be attended with singular advantage and benefit; as, cold air, cold drink,

* *To the Medical Reader.*—Emetics are in very general use at the time of the eruptive fever; but it is agreed, by all, that their good effect is never so apparent as when they operate by stool also. As the operation of purgatives, at this time, is accompanied with such evident and desirable effects, it is highly reasonable to conclude that such good effect depends chiefly upon their determining to the intestines, and, of course, deriving from the skin. As, therefore, purgatives, cool air, and every other means that diminish the determination to the skin and promote it elsewhere, are the most sovereign remedies at this period of the disease; may it not be concluded, that emetics of all kinds, but particularly antimonial, as determining to the skin, are not only improper, but even injurious! And may not this supposition be sufficient to forbid their use, especially as they are not observed to be accompanied with much, if any, obvious benefit independent of their casual purgative operation?

and

and cool treatment in general, have the most happy effect in the small-pox. Those parts of the body which are kept warmest, are fullest of the small-pox; and those which are kept cool, have the fewest number; so that the strictest care must be taken to keep the face cool, to prevent its being full. Those parts of the thighs behind, which are covered and infolded by the arm going across them in carrying a child, will always be apparently fuller than any other neighbouring part. I well remember the case of a young woman whom I inoculated at a farm house, who could not be prevailed upon to keep her feet out of the warm ashes of a hearth fire (her feet being cold as usual upon this occasion) at this juncture: when the small-pox came out, her feet appeared each one continued blister, and looked as if they had been burnt or scalded; but which was nothing else than the small-pox, which put on that appearance, as they increased and filled regularly with the pock upon the other parts of the body, and, when at the height, became intolerably painful; so that the girl suffered very much for her temerity, in these parts, yet she had the disease very favourably in other respects.

It seldom happens that the symptoms abate, in any degree, till the small-pox come out; which commonly happens about the third day
from

from the first sickening; during which time, the same cool treatment must be strictly continued without intermission. It is a general observation, almost without exception, that, the longer the small-pox is in coming out, after the time of sickening, the better; and that, an early eruption is as certain an indication of an unfavourable disease, as a late one is of a mild and favourable kind of small-pox.—The eruption, or coming out of the pock, may be called very early when it happens with, or on the same day* with, the first sickness; upon this occasion it comes out generally very suddenly, and the face and breast are covered, as with a rash. The second day may be called early for the eruption; and when it happens on that day, the face and breast are commonly very full, and have the appearance of a rash upon them. The third day is as soon as the eruption is to be wished for: it then generally comes out more slowly and distinctly; and is oftentimes scarcely to be discovered till the fourth day. Sometimes the eruption is not to be at all discerned till the fourth day; when it comes out very slowly, and the spots are very

* By the first day, is meant, within twenty-four hours from the first sickening. By the second day, forty-eight hours. And so on.

distinct

distinct and few in number.—When the eruption happens so early as the first day, the fever and other symptoms seldom abate during the whole course of the disease, which may be expected to prove fatal. When the eruption happens on the second day, the fever seldom abates much, and if it should abate a little when the eruption is completed, it returns again in a few days, and much danger is to be expected, as the patient is commonly very full.—It seldom happens that the patient is very full when the eruption is delayed till the third day; and if he is full, the small-pox are generally of a favourable kind, and the fever abates very considerably when the eruption is completed; and although it returns when the pock comes to be at the height, which is commonly about the eighth, or ninth day, yet it is mostly slight; and he does well: when the patient has few in number, the fever goes off entirely when the eruption is finished, and seldom returns afterwards. When the eruption is protracted till the fourth day, the disease may always be expected to be mild and favourable.

As it appears that a late eruption is accompanied with such favourable circumstances, it is very much to be wished for: the means for accomplishing, or greatly promoting it, are within the reach and compass of every person;

and

and are no other than the cool treatment above-named; and they who will be prevailed upon to conform with it, may expect all the benefit and assistance which art can afford them: but it is worthy of remark, that from the time of the sickening, to that of the coming out of the small-pox, is the only time when this cool treatment can be practised to the most advantage; and that if it should be omitted then, and that period and opportunity be suffered to slip and pass, neither it, nor any other means, that can be devised, will, afterwards, be attended with any material benefit to the poor sufferer; as his fate is generally fixed, and may be determined as soon as the eruption is completed, beyond the utmost reach of art to alter.

WINE, or cordials, of all sorts are to be strictly avoided; as also warm drink; warm rooms, from fire or any other cause; and warm beds: and on the contrary, the free breathing of cool air, out of doors if the weather is not uncommonly rigorous; cold drink; and cool beds, are to be the chief dependencies.*

A FAR-

* *To the Medical Reader.*—There is not in the annals of medicine any thing so extraordinary, and that reflects so severely and justly upon its professors, as a neglect of the advice and example of the illustrious Sydenham; who, more than
a hundred

A FARTHER accompaniment of this disease, in a domestic line, is seldom done; and would

a hundred years ago, published his method of treating the small-pox; and which, although nearly similar to the present most improved and happy manner, was disregarded until very lately. What still renders this circumstance more unaccountable, is, the esteem in which his works have been universally held and acknowledged since his death; and that a part of his practice in the same disease, viz. the administering of opiates in the advanced state of it, should be adopted, whilst the most material part, the cool regimen and treatment during the eruptive fever, was neglected.—Fourteen years after his letter to Dr. *Cole* on his improved treatment of the small-pox, as recorded in his works, we find that, Mary, *queen to king William III.* fell a victim to the prejudice in favour of the heating regimen. Her case is recorded by Dr. *Harris*, in a treatise on the diseases of children, and several other “grievous diseases;” translated by John Martyn, F. R. S. Dr. *Harris*, who attended her majesty at that time, says; that upon all occasions of feverishness she was accustomed, by the advice of Dr. *Lower*, to take a large quantity of Venice Treacle (then much in vogue) on going to bed, to promote sweating; that, on being attacked with the small-pox, she took larger quantities than usual; and being of a plethoric habit, the eruption was accompanied with the most unfavourable appearances, of petechiæ; a copious discharge of blood from the lungs, and in the urine; and an efflorescence upon the skin, which, together with the bloody coloured petechiæ, gave the appearance of the measles, with which the physicians then (perhaps improperly) supposed the small-pox to be united. She died on the night of the eighth day from the attack.

be useless, unintelligible, and of no advantage here; what has been already observed, refers to that part of it which is of the most consequence to be attended to; and as it often happens that the complaint is not discovered and understood by the patient's friends before the actual appearance of the small-pox, the usual appearances, and manner of treating it at this period, are of consequence to be universally known and understood.

It is a comfortable reflection, that this once so formidable disease, which was justly considered the most dreadful the human race had to encounter, is now, in so great a measure, divested and disarmed of its terrors.

It is customary, and very proper, to give a dose of physic a day, or two, after the small-pox have turned the height; which the best and most favourable kind will do about the sixth or seventh day; the worst and most dangerous sort seldom turn before the eleventh day after their coming out. The eruption always appears first upon the face, breast, and upper parts of the body; and last of all on the legs and feet; and, when at the height, it turns first upon the face, and last of all upon the legs.

THE CHICKEN-POX is sometimes taken for the small-pox, and has given rise to the opinion of a person's having the small-pox twice; but although they are somewhat alike, yet they may be distinguished by attending to the following appearances. A child is not so ill upon the coming out of the chicken-pox, as he is of the small-pox; and when it comes out, the pock rises all at once, and fills immediately with a thin, clear liquor, which always remains so, and does not turn white and thick as in the small-pox. The chicken-pox always turns, and goes off, in three, or four days; which the small-pox never does in less than a week; and which, of all other appearances, most distinctly marks the difference between the two disorders; and there are no eruptions, that resemble the small-pox, which do not turn or disappear in less than a week from their first appearance. It is seldom that any thing is necessary to be done in the chicken-pox: a dose or two of physic may be proper, afterwards. It seldom, or never proves dangerous; and never happens more than once in the life.

The

The M E A S L E S.

THE measles, like the small-pox, do not often attack young children, who will frequently escape although the disease be in the same house with them. There are particular seasons of the year when the measles are most subject to be rife, or prevalent: the season which is the most common to them, is, the spring.

THE signs, or symptoms, of the measles are, a sickness; a heaviness; a thirst; a short, dry cough, with hoarseness; a sneezing, and running at the nose; and a running and thin discharge from the eyes, which appear red and much inflamed, particularly the eye-lids; sometimes cold shiverings. These symptoms are commonly slight at first, and increase till the measles come out, which generally happens on the fourth day from the first attack, although children will frequently be much indisposed for a week before they come out. At the first appearance of the measles, they look like flea bites upon the face and neck, in distinct spots; but soon after, the face, neck, and breast, are covered in patches, resembling a thick rash that does not seem to rise
above

above the skin, although it may be discovered by the touch, and feel of the hand, to be a little prominent or raised upon the face and breast, but not upon the other parts of the body. The measles, like the small-pox, come out first upon the upper parts of the body, and last of all upon the feet; and they observe the same progressive regularity in going off.

THERE is no disease, to which children are liable, that is so sickly, and attended with so much depression and dejection, as this; as it is very common for the most lively children to lay in a stupor, or state of heaviness and seeming insensibility, from the second day of the attack, during the whole of the complaint, which continues three days after the first coming out: on the third day, the eruption begins to look paler: and, on the fourth, goes off with a mealy appearance upon the skin. During the whole of the complaint, there is a smart fever, which often, with the cough, and a difficulty of breathing, increase in proportion as the disorder advances, and will sometimes be the most violent and severe at the height, or turn, of the measles: sometimes the fever, cough, and other symptoms, abate; and the child recovers, in part, his spirits soon after the measles come out; but this is not often the case.

A CHILD, in this complaint, must not be kept either very warm, or very cold: he ought not to be kept near the fire, nor yet suffered to breathe the cold air: it will be best to confine him to one room that is moderately and temperately warm; as, much warmth will increase his heaviness, fever, and difficulty of breathing; and cold, and cold air, will add to his hoarseness, and make his cough worse. His drink may be water, barley water, milk and water, balm tea, or any weak liquor; but water, or milk and water, seem most agreeable to children at this time. What he drinks ought to be a little warmed, but not hot. Wine, and cordials, in all shapes, must be totally avoided.

THESE are the most material precautions which are to be observed on the first attack of the measles; and although it is not always thought necessary to have recourse to medicine, and medical advice and assistance, yet they may frequently be employed to great advantage. It will always be proper to give something at the beginning to procure two or three loose stools; as, the infusion of fenna and prunes, or manna: rhubarb, in any shape, is not very proper. *Bleeding*, with leeches, or with the lancet, often becomes highly necessary, and is most particularly required when the cough is severe and violent;

violent; but, as it has been already observed, that the symptoms of fever, cough, difficult breathing, &c. are seldom so urgent at the beginning as they are at the middle and latter end of the complaint; and as the bleeding is calculated, in a particular manner, to abate and relieve the cough and difficulty of breathing; it is better to defer the bleeding until these symptoms, by their urgency, call for it. It is not here intended to give a regular and exact account of the medical treatment of the measles, which would be of little use in a domestic line, and might perplex and embarrass; but as bleeding is so general a remedy, and sometimes had recourse to rather incautiously in this complaint, a caution respecting it may not be unreasonable, especially as cases have happened where the incautious and too hasty practice of it has been attended with unfavourable consequences. When bleeding is used before or at the time of the coming out of the measles, it will often check and retard the eruption, and will sometimes cause it to strike in; the consequences of which may prove fatal: therefore, bleeding ought to be very cautiously ventured upon before the second day after the coming out of the measles, except the *real* urgency of the cough requires it, when it may be had recourse to at any time and

period of the complaint, and will prove a sovereign remedy.*

BLISTERS,

* *To the Medical Reader.*—This caution, respecting bleeding indiscriminately in the measles, is here given, as well on account of the propriety of delaying it during the first attack, and until the symptoms of cough and difficult respiration, by their urgency, require it, which they seldom do until the eruption is completed; as, to give time to discover, by the symptoms and appearances, whether the disease is accompanied with any *unusual* degree of putrescency; which, it is well known, sometimes happens, and forbids a loss of the vital fluid. For although, in that case, the oppression upon the lungs may seem urgent, yet it is generally accompanied with an anxiety and oppression that differs much, and is to be distinguished from, the laborious respiration, with a hard, dry cough, the effect of inflammation only.—It is highly probable that the measles are accompanied with more or less of putrescency *always*; and which is discovered by a fœtor of the stools, which exceeds that from the small-pox, or any other of the common exanthemata: and as this fœtor of the stools, which is most remarkable at, and after, the turn of the measles, cannot reasonably be supposed a local affection, originating in the intestines, solely from their natural contents; it must be referred to some other cause; and none seems more likely than that it may be, an effusion from the system, deposited in the intestines, in the manner of a critical discharge, the effect of the fermentation produced in the habit by the contagion of the measles.—Appearances of putrescency are sometimes observed in the small-pox; yet that seldom happens except in the confluent kind; and when they are distinct,

BLISTERS, applied between the shoulders or to the sides, have been found of great use in abating

distinct, and most favourable, no symptom of the kind is to be discovered during the progress and at the turn of the pock: whereas, in the most favourable case of the measles, this fœtor of the fœces regularly occurs.—Why the contagion of the measles should induce this putrescency in the system, more than that of the small-pox, cannot be accounted for while we remain ignorant of the specific qualities of contagion in general, as well as each species distinctly. If, in the small-pox, we suppose putrescency to be as regularly produced by the contagious ferment as it is in the measles, we shall be at a loss farther to discover, from analogy, by what means, and in what manner, it is expelled the habit: the eruption and suppuration of the pock does not seem the means by which its exclusion is effected; as, the more the eruption can be restrained and prevented, by exposure to the cold air and other cooling means, the more mild and favourable the disease is rendered; and even when the eruption is, by these means, entirely restrained, we are not sensible of any other critical or occasional discharge happening in consequence thereof. Therefore, as the good effects of cool treatment, especially cold air, is so very apparent in the small-pox, whatever the quality and tendency of the contagion may be, it seems as if cold air may, conjunctly with, if not independent of, the simple mechanical action of cold upon the surface, by a quality and mode of action, yet undiscovered, have a power of subduing the contagion: and although it may be difficult to explain how and in what manner the contagion is acted upon by cold air, yet thus much may be determined with

ing the cough and relieving the breathing, and may safely be applied at any period of the disease, when the cough and breathing require it.

A FEVER

tolerable certainty, viz. that cold air has a power of limiting and restraining its assimilation with the fluids, to an extent; which extent will be governed, chiefly, by the state of the fluids at the time of eruption; and, of course, of preventing its fullest putrescent or other unfavourable effects. Hence, also, the eruption will be restrained.

THE putrescency so inseparable from the measles, may reasonably be supposed the most formidable difficulty we have to obviate in that disease; and which it will continue to be, until chance leads to the discovery of a remedy, or means, capable of subduing it: for we do not find that any ground has been gained, or any advantage derived from the important discoveries that have been made in the treatment of the small-pox, that will admit of a reference to the measles.—Purging has always been found particularly necessary after the measles, and is generally employed with the intention and for the purpose of draining the body of morbid matter, acrimony, or whatever else it may be that is the *remains* of the disease in the *habit*: but, from the sensible and instantaneous relief, from the fever and other symptoms, that is obtained, at any time after the turn of measles, by loose stools, which are always very foetid, it seems likely that nature regularly relieves herself by constantly directing this offensive matter to the intestines, to be there deposited; and that therefore our endeavours are seldom or never extended beyond the *primæ viæ*. It is observed

A FEVER always accompanies the measles, and is the cause of the drowfiness and stupor which children

served that the fever and other symptoms continue, very frequently with little abatement, after the turn and desquamation of the eruption; but then, a disposition to costiveness, or a want of loose stools, may also be as constantly observed, nor will the symptoms abate, in any considerable or desirable degree, until loose stools happen spontaneously, or are procured by art: but when a looseness occurs spontaneously (as often happens) or is produced by art at the turn of the measles, the symptoms rarely continue beyond that time. There seems little doubt, therefore, that, during the progress of the eruption, or at the turn of the measles, this acrimony is regularly thrown into the intestines in the manner, as already observed, of a critical discharge; that, if it passes off immediately by a looseness, the fever and other symptoms disappear; but that, while it is retained in the intestines by costiveness or want of loose stools, it supports the fever, cough, and other symptoms, which are then only symptomatic from this cause, but which will continue, until it be removed by a natural effort of the bowels, or by purgatives administered. That this putrescent acrimony may be retained for some time in the intestines without exciting a looseness, appears from the costive stools, which are discharged at and after the turn of the measles, being equally as offensive and foetid as when a looseness happens. The loose stools that are discharged at the turn of the measles are equally offensive with those that are retained a week or longer. As, upon many occasions, it happens that the intestines are incapable of readily and effectually excluding their morbid contents without the

children always have in the beginning, and often during the whole of the complaint. Nothing will

assistance of suitable purgatives; so, upon this, they are highly requisite, as appears by the relief they afford.

THE regular occurrence of symptoms of inflammation does not invalidate the argument in favour of putrescency in the measles, as fizy blood, and other inflammatory appearances, are often to be observed at the onset of fevers of other kinds where putrescency is the most apparent.

DR. CULLEN's general observations on blood-letting in fevers deserve particular attention in the case of measles. After observing how necessary bleeding is, where the violence of re-action, and a phlogistic diathesis, are so evident as to constitute the *principal* part of the disease, he proceeds: "In the case of synocha, therefore, there is little doubt about the propriety of blood-letting; but there are other cases of fever, as the synochus, and even some cases of typhus, in which a violent re-action and phlogistic diathesis appear, and prevail during some part of the course of the disease; while, at the same time, these circumstances do not constitute the *principal* part of the disease, nor are to be expected to continue during the whole course of it; and we know, that, in many cases, the state of violent re-action is to be succeeded, sooner or later, by a state of debility, from the excess of which the danger of the disease is chiefly to arise. It is, therefore, necessary, that, in many cases, blood-letting should be avoided; and even although during the inflammatory state of the disease, it may be proper, the evacuation should not be so large as to increase the state of debility which is to follow." *First Lines of the Practice of Physic*, vol. I.

will so sensibly check and abate this fever, remove the drowsiness, and restore a child's spirits,

BLEEDING, although it may be sometimes necessary in the measles, appears to be much less so than has been generally imagined, and practised, especially with children under four or five years old: it will most likely be more so with young people, and adults, with whom the phlogistic diathesis must be more prevalent than with children. In all the cases of measles which I have attended of late years, of children of the age here named, I have not found bleeding required, and that all have done well without it. As soon as the symptoms have appeared, I have procured a discharge by stool, by medicines of which calomel has been a part; at the eruption, as the symptoms increased, I have given regularly, and daily, a solution of tartar emetic (as hereafter described) in the evening, which, when it has operated both ways, has never failed of procuring an obvious and desirable remission of the symptoms; and, at the desquamation of the eruption, I have repeated the purgative as often as has been needful for the removal of the remaining symptomatic fever. I first conceived an opinion of the impropriety of bleeding in the measles, from the bad success of others who practised it, especially in the early part of the disease; and therefore have not found it at all necessary, at any period, under the circumstances and treatment here described. It is to be observed, that in the above practice, no *unusual* symptoms of putrescency occurred (and which rarely accompany any febrile complaints in this town), otherwise, it might be found more necessary to restrain the use of opening medicines: however, blood-letting, in cases of *unusual* putrescency, will be still the more to be avoided.

as repeated doses of the antimonial puke, No. 3. (page 158); it may be begun with on the second or third day after the sickening of the child, and after the stools have been procured as above directed, and repeated, once a day at least, while the fever and heaviness continue: it will be particularly proper to give it in the evening, at which time the fever is commonly most severe; and if it operates, as it generally does, both by vomit and stool, it will give most sensible relief; the fever, heat, and oppression, will be considerably abated; and the child will be much more easy and cheerful, and more tranquil, calm, and settled and composed, than before he took it.

THE fever and cough will very frequently continue, without much abatement, for a few days, or a week, after the measles are entirely gone; but which, the fever especially, may be greatly relieved, or entirely removed, by working physic; a dose of which may be given as soon as the measles are turned; and repeated once, or twice, in the course of a week. The stools, which come away with the physic, are generally very offensive, and the matter of which they are composed is, while it is retained in the bowels, sufficient cause for the fever; and it may reasonably be supposed to be the only cause, when the relief, that is obtained by the discharge of it, is considered,

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as the fever is sensibly subdued by the operation of the physic; and it is on this account that repeated doses of physic are found so requisite after the measles; and which they are as much, or even more so than after the small-pox. It may always be known that the fever continues, while the dullness, thirst, and want of appetite remain; and, during which time, the physic ought to be given, at proper intervals, if no other cause forbids it. It may also as certainly be known that the fever is gone off, when the child's spirits and appetite return; and which when they do, the physic may be discontinued.

THE EYES, and particularly the eye-lids, will sometimes remain sore, swelled, and inflamed after the measles. The cough also will oftentimes continue for some time after the fever and every other remains of the measles are gone. While either of these complaints, of the eyes, or the cough, remain, the child ought not to be suffered to go out of doors, or be exposed to the cold; as the air, of a cold season particularly, is very apt to add to and greatly aggravate these complaints, and may make them very troublesome and tedious. Too much caution, therefore in avoiding cold, cannot be observed while there is any remains of sore eyes, or cough. It is well known that the measles sometimes leave behind
them

them coughs and sore eyes, that continue for life; a great part of which are occasioned by the single circumstance of going out too soon; and which, a little caution, and seasonable confinement within doors, would prevent.

WHEN these complaints are confirmed, and of long standing, they seldom admit of a complete cure: they are sometimes relieved by issues, and a warm climate. Blisters, behind the ears, and to the back of the neck, will frequently relieve the eyes, if they are not delayed too long; it will often be needful to repeat them frequently, to receive much benefit from them. It is better to suffer the blisters to heal up, and to apply fresh ones, than to keep one constantly open by the means commonly made use of for that purpose.

CONVULSIONS.

CONVULSIONS are commonly distinguished by, and divided into, the two different kinds of, OUTWARD, and INWARD.

OUTWARD *convulsions* are those which are attended with contractions of the limbs and body, grasping of the hands, and distortion of the face and features.—When they attack children

dren at, or a few days after the birth, and without any known cause, they generally prove fatal: upon this occasion, a leech or two applied to the foot, will sometimes give relief, and is the chief remedy to be depended upon; and may be repeated once, or twice, if the fits continue, and the child be lusty and strong. They must be applied early, to promise a prospect of success. If the child be costive, or there be any suspicion of griping, a little opening medicine, of a suitable quality, will be proper.

CONVULSIONS, happening at this early period of infancy, generally terminate fatally, as depending upon a cause deep seated, and beyond the reach and power of art; and when they are violent, and of long continuance, they often leave the limbs and features distorted, and the faculties so much impaired, as to render a recovery no very desirable event. However, when the convulsions are slight, a recovery will sometimes be obtained, and that without any of the distressing circumstances, in the slightest degree.

CONVULSIONS may be occasioned by the gripes,* small-pox,† teething,‡ and some other

* See page 148, and 167.

† See page 191.

‡ See *Teething*.

complaints;

complaints; when the treatment of them must be governed and directed by the particular disorder they proceed from; for as, in those cases, the convulsions are only a symptom of the disease they are occasioned by, they may be expected to abate, or increase, according as that disease declines, or advances; and it is seldom that any thing can be done for the relief of the convulsions alone, without directing the means in a particular manner to the disorder from whence they proceed: for, as has been formerly observed, “remove the cause, and the effects will cease.” For example; if a child has convulsions when he is cutting teeth; set the teeth at liberty, by lancing them, and there can be little doubt that the convulsions will cease.

INWARD *convulsions*, as they are commonly called, differ very much both in their nature and outward appearances from the real convulsions just now described; and may with more propriety, as well as for the sake of distinction, be called *spasms*, or *twitchings*. This complaint is to be distinguished and known by a twitching or contraction of the mouth, nose, or any of the features, when asleep. The sweetly pleasing smiles, which are so often observed upon the countenances of infants when asleep, and which the fond mother indulges herself with the idea of
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of being the effect of pleasing dreams, is no other than the effect of what is called inward convulsions. The expressions of grief, or pain, which children shew when asleep, are to be attributed to the same cause; and often alternate with those of pleasure; as are also the sudden startings and twitchings, in that situation.—These symptoms and appearances proceed from spasms or contractions of the stomach and bowels, from wind or any other cause; and may be considered as the slightest degree of griping: few, or, perhaps, no children are exempt from them the first or second month; and they are, of themselves, perfectly harmless, although they often accompany griping and other affections of the stomach and bowels. They depend upon the weakness and delicacy or irritability of the system, or frame, in general, and the stomach and bowels in particular, so inseparably connected with the infant state; therefore, nothing but time will subdue them.

R A S H.

YOUNG children are very subject to rashes, which strike out upon every part of the body, but are most frequently discovered upon
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the face, neck, and breast: they commonly come out very hastily, and disappear as suddenly, in the course of a few days. They are very safe and harmless, nor is any thing needful to be done for them. They may sometimes be occasioned, when the child is wet-nursed, by the mother or nurse over-heating herself in hot weather, or by any thing which she may have taken that is of a heating quality. A child is observed to be sometimes a little sick upon the sudden disappearance or striking in of a rash, but which commonly goes off in a short time: however, if the sickness should continue longer than a day or two, a few of the powders, No. 1. page 151, may be given, especially if there be the least disposition to costiveness.

CHILDREN at the breast will frequently have *rashes* about the decline of summer, particularly in the months of *August* and *September*, which assume different appearances: sometimes they differ from a common rash, and are in prominent, distinct spots resembling the small-pox: at other times they are in larger spots, and like blotches. They are upon this occasion very generally accompanied with a griping and looseness, and a slight degree of fever. The *powders*, No. 1. page 151, will seldom fail of relieving these complaints; if they should, the *antimonial puke*,
No. 3.

No. 3. page 158, becomes proper, especially if the child is observed to have any sickness at stomach (see page 168). This complaint, thus circumstanced, is derived from the mother's or nurse's milk, occasioned by, and the consequence and effect of, present or preceding summer heats; consequently may be expected, and generally is found to be most prevalent at the decline of summers that have been more than usually hot.

*SORE EARS and NECK, and CHAFEING
or FRETTING of the SKIN in other
PARTS.*

FEW children, during the first months, escape a fretting of the skin behind the ears, and in the wrinkles or folds of the skin of the neck; or about the upper parts of the thighs, from the sharpness of their water: oftentimes about the seat, in cases of looseness and sharp four stools (page 159). Upon these occasions, nothing is better than dusting the excoriated parts with white lead, as is commonly done, and having the parts washed with cold water and cleaned as often as may be; once every day at least. Clean-

lines and frequent washing will go farther in promoting a cure, as well as preventing the complaint, than any other means; and without them all other endeavours will be fruitless. When the skin is off behind the ears, it will be proper, after dusting the parts with the white lead, to introduce a piece of thin linen rag, thinly spread with cerate, behind the ears every day. A piece of singed rag is sometimes applied with good effect. The wearing of a coral neck-lace has its use in preventing the chafeing of the skin on the neck, as it in part absorbs and dries up the moisture which causes it, and by insinuating itself among the folds of the skin, prevents its fretting. If these means do not prove effectual in healing and skinning any excoriated part, the following application will seldom fail of doing it.—Take of, *extract of lead*, and *brandy*, each thirty drops; put them into a small vial, with four ounces (or eight tablespoonful) of *water*. With a little of this, aired by the fire in a teacup, let the parts be bathed, once or twice a day, with a soft linen rag. If the soreness is behind the ears, or in any other part where a plaister can be kept on, the cerate spread upon a rag, as above-mentioned, may be applied after each bathing with the liquid. A soreness within and behind the ears, and a breaking out upon the face and neck, will

will sometimes happen at the time of cutting the teeth. See *teething*.

S O R E H E A D.

BY a sore head, is meant, a complaint, in some places, known by the name of *reef*, or *felon*: it often begins upon the forepart of the head, in large white scabs, which, if neglected, spread all over the head, and mostly break out upon the forehead and face, in large patches, at the same time: it sometimes, generally at the beginning, is dry; at other times it is moist, and has a thin discharge. Medical writers have named this complaint, *crusta lactea*, or milky crust, from its appearance. The children of the lower order of country persons, who are gross and feeding, are most subject to it; and it seems to be occasioned by a want of cleanliness and exercise, which children, who have a bountiful supply of suck, require; but to which parents, in this situation, are not often disposed, or seldomer have opportunity to afford them. A cabbage leaf is a very common application, as it draws, and greatly promotes a discharge

charge from the head, which is supposed necessary previous to the cure: but as such a discharge is no way necessary, and as it makes the head uncommonly offensive, it is better not to encourage it; and the sooner the complaint is cured, the better: for that purpose, take of, *brandy*, and *water*, each equal parts; or one part brandy, and two of water; mix them together, and bathe the parts of the head and face where the complaint is, well, once a day, and immediately afterwards lay on a plaister of *epulotic cerate* (commonly called Turner's cerate) spread upon a linen rag, which is also to be renewed every day after each washing with the *brandy* and *water*. Two or three doses of physic must be given during the cure. *Bathing* in the *sea*, when convenient, and the season favours it, will be of great use.—I have met with no cases which were not readily cured by these means, and with perfect safety to the child, notwithstanding the general practice is so much in favour of drawing, rather than repelling or drying, applications. If a child takes physic, no inconvenience can attend the early removal of the complaint, as I am fully satisfied of, by repeated experience.

A CHILD is liable to have this complaint in the first or second month, or afterward: it is uneasy to the child, and very disagreeable and
offensive

offensive to the sight and smell. The applications must be continued while any remains of the disorder can be discerned. If bathing in the sea cannot be complied with before or during the cure, it will be very proper, the first opportunity, afterwards, to confirm the cure, and to prevent a return of the complaint. Oil-cloth (or oil-case) is often applied upon this occasion; but can have no other use, nor answer any other purpose, than keeping the cap clean, and preventing its sticking to the head.

TEETHING.

THE time of *cutting* the first teeth is very uncertain: it may happen at the third or fourth month; or not before the sixteenth, or eighteenth; yet, in general, it is about the seventh or ninth. Strong, thriving, healthy children commonly get teeth sooner than those that are puny and weak; yet this is not an invariable rule; as sometimes the healthiest do not cut their teeth before they are a year old.

THERE are *two* stages or periods of teething which it becomes needful to attend to: the *first*

is the time of *breeding* ; and, the *second*, the time of *cutting* the teeth.

THE first, or that of breeding the teeth, commonly begins about the third or fourth month ; seldom sooner ; sometimes later. It may be known that a child is breeding teeth, when, at or about the third month, he has a copious discharge of saliva, or spittle, from his mouth ; is pleased with having his gums rubbed with the finger or any hard substance, as glass, coral, &c. ; is more fretful and uneasy than usual ; and is at times hot and feverish, with, sometimes, startings in his sleep. These are commonly the first and mildest symptoms or appearances of the breeding of teeth, and are what all children may be observed to have for some weeks, or months, before they cut, or have any appearance of cutting, the first teeth ; and although many get over this period with little more difficulty or disturbance than is here described, yet others suffer a great deal, and some lose their lives ; and this period of teething proves sometimes as painful, tedious, and dangerous, as the time of getting or cutting the teeth. The more alarming symptoms are ; when the fever is strong, with great heat, and quick breathing ; a drowsiness and heaviness, with frequent and severe startings and twitchings that seem to threaten convulsions, and

and which, sometimes, do happen: this may be called the more severe state of the breeding of the teeth. A cough, and costiveness, very often attend both the mild and severe state. These symptoms and appearances are readily accounted for, and depend upon the following circumstances.—The teeth, when a child is born, are lodged within their sockets in the jaw bones, and are covered with, and enveloped by, a thin membrane,* or skin, that is very irritable, and sensible of pain: so that when the teeth begin to grow and emerge from their recesses, or sockets, they must necessarily distend, perforate, and force their way through this membrane, which, when upon the full stretch, from its sensibility, gives great pain, and occasions fever, startings,

* THE *Medical Reader* will discover that the *membrane*, here alluded to, is the *periosteum* proper to the teeth. The perforation and rupture of this membrane, is an event that has scarcely excited the attention of anatomical or other authors, either as to the time when it happens, or the circumstances attending it. As it is very vascular, there can be no doubt of its having a great share of sensibility, and that its perforation may excite pain and irritation sufficient to produce the urgent symptomatic affections so often observed at this early period of dentition. If the symptoms of early dentition (which are constantly and regularly to be observed in a greater or less degree) do not proceed from this cause; to what other are they to be attributed?

and all the symptoms which happen, both in the mild and more severe state of teething, above described. As soon as this membrane is completely divided in that part by the tooth or teeth which then happen to be rising, the child is relieved, for the present, from the fever and other complaints; but which are subject to return (and which they generally do in much the same manner and degree) upon the successive rising of the other teeth: thus it commonly happens, that a child who begins this part of his teething with difficulty, continues it so: and the reverse happens when he begins it favourably.

It is seldom that any thing particular is needful to be done during this period, of breeding the teeth, in the mildest state of it, and when the child is tolerably free from fever and preserves his appetite, cheerfulness, and vivacity, except guarding against costiveness; as nothing adds more to the heat and fever attending teething; and nothing, on the other hand, more sensibly relieves a child in this situation, than a looseness, or loose stools.

A CHILD at this time is pleased with having his gums rubbed, and which he commonly is indulged in, with a view, as is supposed, of forwarding or assisting the cutting of the teeth: but, at this time, it is extremely doubtful whether

ther such intention can, in the smallest degree, be promoted by it, as the teeth lie too low and deep to be affected by it : however, as it is grateful to the child, is an amusement to him, and seems to sooth and lull the pain, it is right to indulge so harmless a gratification. *Coral*, or *glafs* in the form of coral, are commonly made use of for this purpose ; but care ought to be taken that they do not crack, splinter, or break ; which if they do, and it is not timely discovered, the child may receive an injury from them : therefore any other smooth, polished substance, that is not so liable to such like accidents, as *wood*, *bone*, &c. become more eligible : a piece of half dried *liquorice root*, with the outer skin scraped off, is very proper, and often proves agreeable to the child.

CHILDREN will often get over, this part, of their teething, in this easy manner ; yet if at any time, or at the beginning as it will sometimes happen, that the heat, thirst, and fever are more violent, with a dulness and drowfiness, and frequent startings when asleep, with, or without convulsions, the case requires more particular attention. In the first place it is necessary to give something that will expeditiously procure three or four *loose stools* (if the child has not that number daily and naturally), and repeat it every day, or every other day, while
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the symptoms continue so violent : *manna, senna*, or any thing of the like *cooling* quality, will be proper upon this occasion. Although a costiveness is very common at this time, especially at the beginning ; yet sometimes a looseness will come on spontaneously, which must not be hastily checked, although it be severe. Many children have a severe looseness, that continues, with little or no abatement, for some weeks, when they are getting teeth ; yet it is seldom advisable to stop, or even check it ; and it is very difficult to say (especially in this place) when, and upon what occasions, it is proper to check or stop it ; as there is no other occasion in which a continued looseness is attended with so little injury to a child, and is of such signal use and advantage. It will, therefore, always be advisable to let the looseness take its course without attempting to stop it, upon all occasions of teething, except something very particular, in the child's health or constitution, forbids it ; but which rarely happens. As soon as there is reason to suppose that the period of breeding the teeth, or a present fit of breeding, is over ; which is to be partly discovered by an abatement of, and relief from, the other symptoms of heat, fever, uneasiness, and discharge of spittle from the mouth ; it will be proper to check the looseness,

ness, if it does not settle without ; but which will generally be the case. If, during the looseness, there should be much griping, with green, four stools, a little *magnesia* may be daily given, while these symptoms continue.

BLEEDING is a remedy much to be depended on, when the symptoms of heat, fever, drowsiness, and startings are urgent : it is commonly done, to children, by means of *leeches* ; which may be applied to the foot or feet ; and may be repeated every day, or every other day, while these symptoms continue with any degree of severity : two leeches may be applied, at one time, to a child about three months old ; and three, to one of five or six months.

THE mouth ought always to be examined, and if there is reason to suppose a tooth or teeth are near cutting, or breaking through the gum, it will be proper to lance the gum, to set them at liberty ; for, as has been observed, a child *may* cut teeth at three or four months ; yet it is what very rarely happens ; and the lancing of the gums, before the teeth have risen and grown into them, can be attended with no advantage to the child ; as the chance of making the incision in the right place will always be so extremely uncertain and precarious, as to discourage the attempt.

IF

If the child is wet-nursed, the nurse ought to live somewhat lower than usual, at this time; and avoid much flesh-meat. If he is dry-nursed, he ought to have more water than usual added to his milk; and be restrained from broth or animal food.

As a *thirst* commonly attends teething, *barley-water*, with a little *sweet spirit of nitre* in it, will be a proper drink: a teaspoonful of the nitre may be put into as much barley water as it may be supposed the child will take in a day: if the child is fond of sweet things, a little fresh *liquorice root* may be boiled in the barley water, which will make it very palatable. This drink will be proper at all times, when there is a thirst.

BLISTERS, have been found of great service, and may be applied, if there should be occasion, after the purging and bleeding: they are commonly, and most properly, applied behind the ears, or upon the back of the neck.

THE *antimonial puke*, No. 3. page 158, is often attended with the happiest effect; and may be given and repeated, while the fever continues violent. It will be most proper to give it in the evening. A child of four months old may take four teaspoonful for a dose; and one of eight or ten, a tablespoonful.

CONVULSIONS

CONVULSIONS, are very common at all periods of teething: they sometimes come on with the first symptoms; yet are oftener preceded by startings and twitchings, which may be considered as convulsions in the slightest degree. A child will, often, have one or two fits, and not more: sometimes, he will have more. Many children who have convulsions with their teething do very well, although they continue for some time; and to others they prove fatal at first; so that it cannot be said how they are likely to terminate: however, when they do happen, the means above-named, are, of all others, the most calculated to remove them, and ought not to be too long neglected.

MEDICINES of the *composing* kind have been found very useful in cases of severe startings and convulsions; as also in most of the different periods of teething: but, for obvious reasons, the manner of giving them cannot here be named with propriety and safety.

WINES, *spirits*, and *cordials* of all sorts, must be avoided in all shapes, as they will increase the fever and every other symptom and complaint.

A CHILD will get over the *breeding*, or a fit of breeding, of his teeth, very often some weeks or months before the teeth make their appearance;

ance; and will be very well and easy during that interval: so that the *getting*, or *cutting*, of the teeth is what he has yet to undergo.

THE usual time of *cutting* the first teeth is, as has already been observed, about the seventh, or ninth month; and, whenever it happens, the signs, appearances, and symptoms, are the same as have been described and observed at the *breeding* of the teeth, and require the same treatment and management, with respect to the *purging*, *bleeding*, *blistering*, &c. A child who some time ago was much pleased with having his gums rubbed, will, now, seldom suffer any thing hard to touch them; for when a tooth is upon the point of coming through the gum, the gum is exceedingly sore, and sensible of pain from the slightest touch. It may be known that a tooth is near cutting, when the gum, in one particular part, where a tooth or teeth may be expected to come, appears fuller and more distended than usual, and than the other parts of the gums are: the gum, in that part, looks red and inflamed at the bottom or base, but is paler or whiter at its point or edge; and, when the tooth is very near cutting, the edge of the gum seems as if it had a flat white blister upon it, and appears thicker and broader than the edges of the gums are in other places. If, at
this

this time, any of the disagreeable and alarming symptoms should come on, we have in our power a remedy that will give instant relief;—it is, the *lancing*, or *cutting*, of the gum, by which the tooth, or teeth, are immediately set at liberty:—it is an operation that gives little or no pain, and some children even undergo it with a seeming gratification; and, no wonder; as they find relief the instant the lancet is applied to the gum, and during the operation, which is very short; and when a tooth or teeth is distinctly discovered, and appears full within the gum, it will be the greatest kindness done the tender sufferer to set them at liberty.

If a tooth is so near cutting that the extreme edge of the gum appears very full and distended, and as if blistered, the tooth will, most likely, be discovered immediately upon lancing the gum. But if the tooth be not so forward and far advanced, it cannot be expected that it will be seen for some days, or weeks (according to the depth it lies within the gum), after lancing: for although lancing the gum takes off some resistance which it may give to the rising and expulsion of the tooth, yet it (the lancing) cannot be supposed to accelerate the growth of the tooth, which, at this time, and afterwards until it has acquired its full growth, is as regularly and progressively slow
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as it was from the birth : however, this is a trifling consideration ; and if relief is obtained from the operation, by taking off the pain and irritation occasioned by the tooth (which, in this situation, acts nearly in the same manner, and is to be considered and treated as a thorn, or any other extraneous substance in that or any other part of the body), an intention sufficiently desirable is answered by it. It sometimes becomes needful to repeat this operation once, or oftener, when the tooth is not very near cutting ; as the gum, from being a part that is disposed to heal very readily (in a sound state), when wounded, soon heals up again, and, by so doing, renews the child's complaints ; but which are always, as certainly, removed again by repeating the operation.* It is a prevailing notion that the gum, by

* MR. JOHN HUNTER, in a valuable publication, which includes this subject, says, " It often happens, particularly when the operation," the lancing of the gums, " is performed early in the disease, that the gum will re-unite over the teeth ; in which case the same symptoms will be produced, and they must be removed by the same method. I have performed the operation above ten times upon the same teeth, where the disease had recurred so often, and every time with the absolute removal of the symptoms." *Practical Treatise on the Diseases of the Teeth*, page 121.

being cut, becomes harder, when healed again : but this is an erroneous opinion, and is founded upon surmise, and from analogy with other external parts of the body, where the skin, after having been cut for a length of time, forms a cicatrix or hardness, as is observed in the arm after bleeding, &c. but the texture of the gum differs so much from any other external part of the body, that the comparison will not hold good ; and even if it were so, the distance of time between the incisions, is too short to allow of such hardness taking place. Experience, however, the best guide, informs us, that the oftener the gums are cut, upon *this* occasion, the softer and more yielding they become in consequence thereof.

CHILDREN commonly have the greatest difficulty, and suffer most, in cutting the first teeth ; which, if they come in proper order, are the two lower front teeth ; and, next afterward, the two upper front ones ; but, when they exceed the usual time of coming, the two upper ones will sometimes appear first. They *generally* come in pairs ; so that a child *commonly* gets two at the same time, or near together. The ease or difficulty of cutting the teeth, may commonly be guessed at by the first teeth ; for, according as the first teeth are cut with ease or difficulty, the

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succeeding

succeeding ones will, most likely, be the same. It is thought, by some, that those children who are late in getting their teeth, get them with more difficulty on that account; but which is far from being a general rule.

CHILDREN have sometimes a discharge from within the ears, and a breaking out behind the ears and upon the face and neck, when they are cutting teeth (seldom when they are breeding them). It will often be difficult either to stop the running from the ears, or to heal the breaking out upon the face and neck; nor does it appear eligible or safe so to do, especially when a child has much fever, as it may be a means of adding to and increasing the fever. If the breaking out upon the face, or behind the ears, should not heal when the fever goes off, and the tooth or teeth, which were then about coming, are cut, but which it commonly does, it must be treated in the manner as described page 232.—If the running from within the ears continues in like manner, it will be most advisable to let it take its own course, without attempting to do any thing by way of stopping it.

TEETHING is very properly ranked with the number of alarming and fatal complaints that children must necessarily undergo; and, from what has here been observed, the period of *breeding*
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ing the teeth must be (as it is), very often, more tedious, and becomes sometimes as dangerous as the time of *getting* or *cutting* them; and which happens chiefly from the means we have in our power being more ready and effectual in giving relief in the latter than in the former instance: for while the teeth lie deeply buried in their sockets, they are out of our reach; but when they project full in the gum, as they do at the time of cutting, we can administer safe and immediate relief by a trifling incision in the gum.

TEETHING may always be considered dangerous, in proportion as the heat, fever, cough, drowfiness, or startings are more or less violent. *Convulsions* are, upon this, as upon every other occasion, to be considered as a dangerous symptom; although many children, who have them, do very well. The lancing of the gums, at the time of cutting the teeth, deserves particular attention; it is too often neglected from want of attention, or is prevented by the parent's fears, which are imaginary and groundless, as the child can scarcely be said to suffer pain by the operation. It seems astonishing what a length of time, and how much a child will suffer in teething, and yet do well; and what becomes an agreeable reflection, is, that the child's health and constitution is not hereafter impaired by his sufferings.

It has been observed above, that a child commonly gets his teeth in pairs, and it feldom happens that he gets more than two teeth at once; consequently it is reasonable to suppose that he breeds only two at one time: but as it now and then happens that a child cuts four or more teeth at the same time; so, a child may breed that number at once; hence it must and does happen, that a child will suffer in proportion to the number of teeth he is breeding or cutting; and that a child, who with great difficulty gets over the breeding, or cutting, of a pair of teeth, can scarcely be expected to overcome two or more pairs, when they all come together, or in very quick succession; and when children die of teething, either at the time of breeding, or cutting, it most commonly happens that the number which is coming exceeds one pair; and upon this occasion it is not unusual to find a child so much reduced and exhausted, that although he is able to support and get through the cutting of one, or two pairs of the teeth which are coming; yet that he will be overpowered by, and sink under, a greater number.

RICKETS.

RICKETS.

THE RICKETS is known and discovered by an unusual enlargement of the head and joints, particularly the knees, elbows, and wrists; a crookedness of the limbs and back; a pale sickly countenance; frequently a cough and difficult breathing; a hardness and swelling of the belly; and a dislike to motion and exercise.

THE appearance of the rickets may be discovered so early as the fourth or sixth month; and when it happens so early, the first sign or symptom of it, that is generally observed, is, from the child's head, which seems larger than it ought to be. Much about the same time, the joints of the knees and wrists appear to be swelled and enlarged: and the child is very dull, and seems better satisfied with lying still than being moved or tossed about. In a few months afterwards, the legs and arms, and, soon after that, the thighs and back appear crooked, and seem shortened. During all this time the child seldom shews a disposition to put down or make use of his feet and legs; and when he is brought to rest upon his legs, they may be observed to become still more crooked.

The Cause of the Rickets.

THE RICKETS may be occasioned by the child's weakness; which weakness may be either, natural to his constitution; or, brought on by disease, or any defect, fault, or error in nursing. Some children are so puny, and have such weak frames and constitutions, from their birth, that some appearances of the rickets are not to be avoided and prevented; yet by far the greatest number of cases which we see of it are chiefly, or altogether, brought on, and increased, by improper or bad nursing. By improper nursing, is to be understood, all those errors in diet, exercise, &c. which the parent or nurse may have committed through ignorance or improper indulgence. And by bad nursing, is meant, a want of cleanliness, proper exercise, &c. from indolence and inattention in the parent or nurse. But the greatest number suffer from what may be called bad nursing, as we find the cases of rickets most frequent with the children of the poor, whose parents have seldom more inclination than leisure to take proper care of their children: and with those who are under the care of hired nurses, who, often wilfully neglect discharging,

charging, with justice, the task they have undertaken ; and who, while a child is tolerably quiet, will suffer him to lay upon the bed or in the cradle the greatest part of his time, without a proper change and supply of clean, dry things about him ; and without being taken up, carried into the air, and shaken and tossed in the arms, as a child ought to be at a proper age : or when, by the child's own exertion, he is able to stand upon his legs, he is left to scramble by himself ; or is placed by a chair, where he is suffered to stand for many hours together, except he has strength enough to enable him to make a shift to move from one chair to another, of his own accord.

THIS is a true picture of what very frequently happens with those children who are nursed out ; and the only means that can be taken to prevent it, by those parents who are reduced to the necessity of parting with their children, is, to have them so near at hand that they can daily inspect the nursing ; and never to suffer them to go a great distance off, except where the fullest confidence, from their own, or the experience of others, can be placed (*see the note to page 133*).

A CHILD may become crooked in his back by being constantly carried in one arm (*see page 126*) or by an accident, without being rickety.

The cure of the rickets may be gathered from, and discovered by, the description which has been given of the causes and symptoms of the disorder. When it proceeds from a disease, or any defect in the child's constitution, such disease or defect must be remedied, or removed as much as possible. And when it is occasioned by improper, or bad nursing (which is the most common cause), that must be more strictly attended to and narrowly inspected by the parents or friends.—Cold bathing in the sea, or in fresh water, is, of all others, the remedy most to be depended on. It may be begun with at any season, and ought to be continued as long as the child appears to receive benefit from it. Two, or three doses of rhubarb may be given previous to the bathing, and repeated now and then during the time of bathing. The bathing may be discontinued, at any time, for a while, if it should appear necessary, and begun with again.

THE season of the year, proper for bathing in the open sea, or a cold bath, is confined to a very few of the summer months: yet if cold bathing is thought necessary, even in a cold season, it need not be declined on that account, as it may be practised, to great advantage, by means of a tub in the house, with either salt or fresh water; and if the child is to begin bathing
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in a cold season, the water may be a little aired, so as to take off the extreme cold, by means of a small quantity of hot water put into the cold, at first, and which may be gradually declined until it be used quite cold. But if a child begins bathing in the open sea, or a cold spring, late in the summer, he may continue it, as long in the winter as bathing is thought necessary, in perfectly cold water, either in that manner, or in a tub at home; as he will not be sensible of the increased coldness of the water, if the bathing be continued, constantly, from the beginning.

THE medicines that are most commonly given in the rickets are, the *bark*, and preparations of *steel*; but as the doses, and form and manner of giving them, will require to be much varied upon different occasions, they cannot here be named with any degree of propriety, or a prospect of advantage.—When the legs are much bent, they may, while the child is young, sometimes be much assisted by external mechanical means.—When the deformity is in the back, it is usual to put pads and cushions in the hollow or depressed parts, to hide the deformity; but which ought by no means to be done with children, or young people while they are growing, as they add to, rather than prevent or lessen, the deformity. There is, upon this occasion,
a method

a method of suspending a child by the chin and back part of the head, for some time, every day; it does not hurt the child, and will sometimes be of service when the deformity is in the back or shoulders, especially if it is begun with in time and while the child is young, and persevered in long enough.

THE *remedies* which are in general administered for the relief of the rickets, are those of the bracing and strengthening kind, as *bathing*, the *bark*, &c. as above-named: and which become proper and necessary, as the complaint depends upon, and arises from, a weakness; which, as has been observed, may be either natural or constitutional, or brought on and acquired by improper or bad nursing; therefore as soon as the first symptoms of the complaint are observed, the means, here recommended, ought immediately to be put in practice, to prevent a farther progress of the calamity; by which means the unpleasant appearances, here named, may commonly be removed, and the child may be restored to his spirits, health, and just figure and proportion; but which cannot be obtained so perfectly, when the complaint is suffered to go on and become confirmed; although, in that situation, very great help will sometimes be procured. A dose of rhubarb, of such strength as

to

to procure three or four loose stools, ought to be given now and then, and particularly when the child is hot and feverish, which is very usual in this complaint, and also during the bathing, as above-mentioned.

COUGH, DIFFICULTY *of* BREATHING,
and ASTHMA.

CHILDREN, in the month, are liable to coughs, with obstruction at the breast and difficulty of breathing, occasioned by exposure to cold; either improperly and imprudently; or through necessity or by accident.

A CHILD may be said to be imprudently and improperly exposed to cold, when he is not carefully kept close and warm by a strict and regular confinement to the bed and room (as advised and directed page 45), particularly in cold and damp weather, but is exposed to the air by being frequently carried out of the room into different parts of the house, or out of doors.

COLD may be said to happen by accident or necessarily, when there is a real occasion for the child to be exposed to the air for want of a
warm

258 *Cough, Difficulty of Breathing,*

warm room or other conveniences within doors; being unavoidably carried out of doors; or when, from restlessness, occasioned by the gripes or any other cause, he is much out of bed, in the nights and in cold weather especially.

WHEN the cough is so slight that it does not give the child much disturbance, and that he breathes tolerably free and does not seem much stuffed at his breast, it is seldom that any thing is particularly required for it, except keeping the child strictly close and warm. But if the cough becomes very teasing and troublesome, is hard and dry, and the child appears to have pain in coughing, accompanied with a stuffing at his breast, and uneasy, laborious breathing, it will be proper, if he is a strong child, to apply a leech to one of his feet; and he may take the following medicine to ease and loosen his cough. Take of, *sperma cæti*, eight grains; rub it very well in a marble mortar with a little *sugarcandy*, and a teaspoonful of *mucilage of gum arabic* (which is made by dissolving gum arabic in as much hot water as will form the consistence of oil): to these add three grains of *salt of hartshorn*, and as much *water* that has boiled, as will make the whole mixture two ounces, or four middle-sized tablespoonful; of which a child in the month may take two or three teaspoonful every six hours. It is a palatable medicine.

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THIS complaint, when to excess, is alarming and dangerous; and the danger is increased by children not having knowledge or power to assist themselves in getting up the phlegm. When the phlegm seems loose (which often is the case when the cough has continued some time, never at the beginning) and the child is not able to get it up, it will be advisable to give an easy puke, which will bring up the phlegm, and the child will, by that means, be considerably relieved from his cough and difficulty of breathing.

THERE is a kind of cough and difficulty of breathing which children are subject to, that differs very much from this we have been treating of, and so much resembles the *asthma* of grown persons, as not to be distinguished from it. It is generally discovered very soon after the birth of the child. It does not attack so severely as a common cough: nor does the child seem to have so much pain from the cough, yet appears stuffed, and as if he would be suffocated at each fit of coughing; and has a difficulty of breathing at other times, especially when he is tossed or hastily moved: in short, the appearances are every way the same as in a grown person with the *asthma*. He will often take the breast, or other food, as if nothing ailed him. If his cough, but particularly

particularly difficulty of breathing, increase upon him, as often is the case, he does not seem to thrive and get forward, but is overcome by them, and dies, commonly, at about three months old. On the contrary, if his cough and difficulty of breathing do not increase, he sometimes thrives and looks tolerably, and seems pretty easy when kept still, quiet, and warm; but if exposed to the cold, or hastily moved, his cough and appearance of suffocation return accordingly, and are proportionally violent; on which account he is deprived of the benefit of air and exercise, in a great measure, particularly in cold weather. A child's life in this situation is not to be anxiously desired, as recoveries are so exceedingly slow and doubtful. I had occasion to see a child, in whose fate I was much interested, support this complaint fifteen months, at which period he died.

I HAVE observed this complaint to be most common with the children of the poor; from which there is little doubt that it is most commonly occasioned by cold caught by the child at the birth, or very soon after (see page 54).

ALTHOUGH this is a complaint that can seldom be entirely removed, yet it will admit of relief at those times it is most urgent; as, like the *asthma*, it is better and worse by turns. For general benefit

nefit and relief, a clear air, free from fogs and the smoke of a town, will be found to answer a desirable purpose : also large, airy rooms, that are dry, in every situation.

WHEN it happens, from cold or any other cause, that the cough and difficulty of breathing are more than usually increased, a puke will give sensible relief : and when they are to excess, a leech, or two, according to the child's strength, to the foot, or a blister between his shoulders, becomes necessary.

IF the child is dry-nursed, food that is thin, as the milk and water (page 85), and now and then a little veal tea, will be found to agree better with him in respect to his breathing, than that made thick with bread, &c.

To the Medical Reader.——The *peripneumonia notha*, or an infarction of the lungs, is a disease not attributed to infants by many authors. Dr. *Hugh Smith*, in his *Formula Medicamentorum*, upon the diseases of children under the title of *peripneumony*, briefly observes : “ An infarction
“ of the lungs and difficulty of breathing in chil-
“ dren is a complaint of a dangerous, and many
“ times of an irremediable kind.”

FROM the preceding description of this disease, it appears to differ widely from the *spasmodic asthma* of children, treated of by Mr. *Millar* and
others ;

others; and to be no other than the real *humoral asthma*. Dr. Cullen in his *Nosology*, notices the disease treated of by Mr. Millar as; "*Asthma Infantum*, Millar on the Asthma and Chin-cough." He also inserts: "*Asthma Infantum spasmodicum*, Rush, Dissertation." I have not seen either of the publications: but as these diseases are classed in the *Nosology* with the *Pyrexiae*, under the order of *Phlegmasiae*, and Genus of *Cynanche*, (*Cynanche trachealis*) it is probable they both differ entirely from the disease here given.

It is very likely that this asthmatic affection of children is more prevalent in Liverpool than in many other places; and which is perhaps to be accounted for, from a disposition which there is in the situation to favour pulmonic complaints: as the air is very sharp, and the changes of temperature very great and sudden. A stranger seldom escapes a cold upon coming to it; and many who have never had colds with coughs before, have had them to excess upon being here in the winter. The *acute rheumatism*, which is very prevalent here, is a proof of the keenness of the air.*

THIS

* To this sharpness of the air, and the sandy soil which every where surrounds this town and prevents the stagnation of

THIS disease, as above observed, is most commonly met with in the children of the poor who inhabit cellars; and, as it is observed soon after birth, it without doubt is occasioned by cold caught at or soon after the birth. As these cheerless situations admit of but few indulgences, the tender sufferers have little chance of overcoming so formidable a complaint, and commonly sink under it at or before the third month.

It is now and then to be met with in the children of the less needy; when it, no doubt, is occasioned by the same cause, from the negligence or inadvertency of the nurse. These children however, by future care and indulgences, generally survive it longer than those of the

of rain and other waters by affording them a ready absorption, we are no doubt indebted for its healthiness; for which, independent of the two complaints above-named, it is not perhaps to be exceeded in the kingdom, especially, when it is considered, that it is the second in size. As a proof of its salubrity, putrescency is a circumstance that very rarely occurs in febrile or any other complaints, even with the poorest. Nervous fevers are as rare; and agues seldom met with. See the conclusion of the note to page 218.

DR. DOBSON in his ingenious *Medical Commentary on Fixed Air*, when describing its effects in putrid fevers, observes, page 23: "Putrid fevers rarely acquire any great degree of malignancy in Liverpool, or its neighbourhood."

poor; some, when it is slight, recover altogether; but others, when it is to excess, are overcome by it.—The child, above-named, who died in the fifteenth month, appeared to have his death hastened by a severe attack of the *gravel*, which he voided in surprising quantities, and which appeared to be occasioned, or greatly promoted, by his inactivity; he not being able to bear a suitable degree of exercise. He was perfectly formed externally; as were all the other children I have seen with the complaint.

THE WORMS and CHIN-COUGH, as being complaints that are extremely rare with very young children, cannot properly be ranked with the diseases of early infancy; and of course will not be here fully and regularly discussed. I have named them, solely to give an opportunity of cautioning parents against giving very frequently and freely such things, by way of medicine, as they have continually recommended to them; by which childrens constitutions suffer often very materially, sometimes irreparably.

TANSY juice is often given very liberally for the *worms*, and is generally esteemed an innocent, safe remedy: yet this, and many other such

such like strong bitters, by frequent use, have greatly injured the stomach and bowels, and have done more mischief, on that account, than any uncertain benefit which might be obtained from their use, respecting the worms, can possibly compensate.

ALOES; and *Anderson's pills*, which are made entirely of aloes, and that generally of the worst kind; are commonly given for the worms. There is perhaps no complaint which happens to a child for which *aloes*, as a medicine, is suited, or becomes needful. And there is no medicine, which is usually given to children, that is so improper for them, and which, by repetition, is so likely to injure their constitutions. It is by much too rough and irritating for the tender bowels of children, and impairs their proper tone and power of action. It is as ill suited to their bowels, as spirituous liquors are to their stomachs; and is attended with much the same injurious consequences.

THE *Chin-cough* is a disease that has hitherto in a great measure eluded the art of medicine: and as it oftentimes proves very stubborn, and gives way very reluctantly, it frequently becomes an object of domestic skill and management. But as none of those familiar domestic means have ever been *really* serviceable, they are better

(especially what is made use of as medicine internally) omitted. When the complaint takes a favourable turn, it is frequently attributed to the means that were last used; hence, that means is, ever after, recorded as infallible.—As it is a disease of the spasmodic or convulsive kind, it has been sometimes relieved, or even removed, by a shock or sudden fright:* thus; riding upon a bear (a frightful mode of travelling no doubt,) from the fright it occasions, has been said to be serviceable. Giving the patient a part of some disgustful animal, as a mouse, &c. to eat, and afterwards informing him of it. And so forth.—By way of medicine, the antimonial puke, No. 3. page 158, given every or every other evening, as there directed, will often greatly relieve the complaint, and cause the fits of coughing to be less severe and frequent.

Of W E A N I N G.

THE time of weaning children, generally is chiefly governed by, and depends upon, the state of the mother's or nurse's milk. A

* *To the Medical Reader.*—Is electricity, in any mode, likely to relieve this disease?

child is seldom weaned sooner than the eighth or tenth month, when the mother or nurse is capable of supplying him for that length of time; and it seems to be as long a time as can, in general, be necessary for a child to suck, or proper for the nurse to give suck, consistent with her own health. If a child is thriving, and gets a tolerable good supply of suck, for three or four months, he will seldom suffer materially in his health by being weaned at that time; so that, so circumstanced, there need never be any hesitation about weaning a child at that, or any other early age, when any particular occasion requires it.

THE most material circumstances to be attended to in weaning, are; the child's taking of food; and the state of his bowels. If he is inclined to feed well with the spoon, and his bowels are settled, so that he is tolerably free from fits and attacks of griping and looseness, he may be weaned at any time with the greatest safety. But when, on the contrary, the child seems much averse to feeding with the spoon, or has frequent attacks of griping and looseness, the weaning is not likely to prove so favourable, and is better deferred, when it can be done, a while longer. These are circumstances very necessary to be attended to in weaning.

THERE are some disorders to which children are liable, in which it will be better for them to be

weaned; namely, the small-pox (see page 198). At the time of cutting the teeth, a heat, fever, and thirst, often prevail so much as to render sucking of no advantage at the time to the child, and very teasing to the nurse; as the child is desirous of being perpetually at the breast, which heats him, and often prevents his taking cooling liquors and other things that might be very suitable and proper. It is not here meant that children ought to be always weaned when they are cutting teeth; but only, that it is no disadvantage to them to be weaned at those times.—It is universally known, that the sooner a child is weaned, the more easily it is effected on the part of the child.—When a child is near a year old before he is weaned, he seldom parts with his favourite food and amusement, the breast, without some difficulty and regret; yet he may readily be made to quarrel with it, by putting something upon the nipple that is bitter, and of course disagreeable to him, and which at the same time will not harm him; a little foot, or aloes, are often made use of upon this occasion, and which the child no sooner tastes than he commonly looks very shy at the breast, and seldom is inclined to touch it again; but which if he should be, his dislike to it may be still farther heightened by a repetition of the same means

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It will, upon all occasions, be advisable, when there is time for it, to accustom the child to feed freely with the spoon, for a short time before he is weaned; which will not only bring him to take his food with more pleasure, but will also give an opportunity of discovering how, and what kind of, food agrees best with him. When a child is weaned so early as the third or fourth month, a more strict attention to his food will be required than if he is weaned later, or at the tenth or twelfth. If a looseness and griping should come on, they must be treated as above described, see page 150 on griping and looseness; and if a costiveness should happen, it may be relieved as mentioned above, see page 113 on costiveness.

Of the MANAGEMENT *of* PREGNANT *and*
LYING-IN WOMEN.

AMONG the number of improvements which have of late years attended and been the result of medical enquiries, what relates to the management of *lying-in women* stands with the foremost and most distinguished; notwithstanding

standing which, the practice is still much short of the perfection it is capable of, and is very confined and limited in its application.

It is not much to be wondered that discoveries upon this subject are only of a recent date, when it is considered, that the practice was formerly very confined; and it was strictly enjoined by custom, that the management of women in this situation was to be entirely confined to their own sex, and which commonly fell to the lot of the most unpolished and illiterate.

THERE would, no doubt, be a good deal of propriety in restoring and restricting the practice altogether to the female sex, if women of credit and abilities would be at the pains to acquire a competent knowledge of what relates to it; but which has not hitherto been attempted; nor, perhaps, never may; as it is a pursuit which has been, and most likely will long be, considered as incompatible with female manners and education: for, such a general knowledge of the structure and œconomy of the human body, with its relative diseases and affections, are so intimately connected with it, that without both a distinct and united knowledge of them all, and which can only be obtained by the process of a regular education, it would prove very defective.

SUCH parts of the practice as have been submitted entirely to the care of men, are brought

to

to a great degree of perfection: yet what concerns the direction and management after delivery in lying-in, they have not been able to direct so minutely and effectually as might be wished, at all times, and are seldom allowed to dictate, except when danger threatens; or if they do, their advice is not properly noticed, or is thought superfluous and unnecessary.* This most commonly is the case in large towns, where nursing is considered as a regular profession, or business; and where those who profess it are generally so bigotted, and jealous of any incroachment upon their supposed privileges, as very unwillingly to submit to any inspection into, or alteration from, a course which they think time and custom has

* MR. WHITE, after describing the treatment of lying-in-women as it is commonly practised, observes: "I believe it will appear that many of the most important errors do in reality prevail, and this I impute in great measure to the large share which nurses have in directing the management of lying-in women, to whose interference practitioners must, in some measure submit, though contrary to their better judgement." *Treatise on the Management of pregnant and lying-in Women*, page 11.

He also, in another place observes: "I know likewise the difficulty there is in bringing patients to conform to proper directions, and the still greater one in inducing nurses and other attendants to follow the rules which are prescribed them." Page 149 of the same *Treatise*.

established

established to a degree of perfection approaching to infallibility ; and many a *London* nurse would sooner give up her profession than her caudle.*

THIS improper influence is very frequently exercised upon women of the best sense ; who, as they acknowledge, are often inclined, or compelled, to submit to many things for the sake of conforming with what they are told is the custom, although their own reason and inclination would direct them otherwise. Nothing, therefore, but a little exertion on their parts, and proper information from others, is wanting to enable them to act conclusively and determinately for themselves.

THE design of the following observations is purely that of exposing the inconsistencies which have prevailed, and still continue to prevail, altogether, or in part, in many places, to the great disadvantage and injury of those who are obliged to submit to them ; and, of setting forth, and explaining, such improved rules and methods as are consistent with reason, and have been confirmed by experience ; whereby the ladies may have an opportunity of detecting the errors which they are liable to have imposed upon them ; and may be enabled to determine and judge, upon most occasions, for themselves.

* See the 14th page.

*Rules and Cautions, proper to be attended to,
during Pregnancy.*

Of Blood-letting.

AS soon as a woman is convinced of being with child, it is a common practice with her to get *bled*, from a supposition that it is not only safe, but proper and necessary.

MEDICAL authors and practitioners are not perfectly agreed as to the general propriety or necessity of *bleeding*, upon this occasion : some constantly advise it, and others think it better entirely omitted. When the matter is impartially considered, and directed by experience, it will appear, that no general and invariable rule can be adopted in favour of either opinion : it being, in some cases, necessary ; in others, not so ; and perhaps in a few, hurtful.

THE rules for determining this matter are nearly as follows.—When bleeding is *necessary*, it is commonly found to be so between the second and sixth month ; and if at any time, during that space of time, there is a sense of heaviness or weight, or a pain in the head, with those

those especially who are not much subject to complaints of that kind at other times; or, a pain in the back or hips, either constant, or often recurring, and which does not seem to abate, or go off, in a few weeks; bleeding will, under any, or all, of these circumstances (as they may all happen at the same time), be advisable; as, most likely, it will be found to remove or greatly relieve them; and without which they sometimes will continue for weeks, and even months, without any abatement; and are very troublesome and depressing. Bleeding once, will generally be sufficient; but if the pains and uneasinesses should return, it may safely be repeated at any time, especially if relief is found from the first bleeding.

THESE pains and uneasinesses are most common of the first child, less so of the second; and many who have them of the first and second, have little or no return of them afterward.* The delicate

* *To the Medical Reader.*—These varieties in the symptoms of pregnancy may perhaps, in a great measure, be accounted for by referring them to the laws of the animal œconomy, which are frequently much biassed and influenced by habit. In the first pregnancy, a material change is to take place in the sanguiferous system, and which occasions the symptoms; that being once overcome, as the vessels must

delicate are as subject to them as the more healthy and strong. When none of these symptoms of pain and uneasiness occur, or when they are only in a slight degree, bleeding is *unnecessary*, can do no good, nor can any advantage or good purpose be expected from it; therefore it is much better let alone.

Sickness, and Heartburn.

THESE are complaints which frequently come on very early in pregnancy, and are very troublesome and teasing. The *sickness* commonly abates about the third or fourth month; although it sometimes continues longer; and now and then it comes on, at intervals, during the whole time of pregnancy.

NOTHING that has yet been discovered seems to relieve or abate it much for the first two, three, or four months; which is considered as the time of breeding: but if it should continue, or return, after that period, the following preparation will sometimes greatly relieve it.

must be supposed to resume their former state, nearly, before another pregnancy, the symptoms and effects in future may become gradually reconciled and subdued by habitude and repetition: the symptomatic affections of nausea, sickness, &c. more especially.

The

The Acid Mixture.

No. 4. TAKE, of *loaf sugar*, an ounce and half; put it into a quart bottle of *spring water*; when the sugar is dissolved, put in two teaspoonful of the *acid elixir of vitriol*, and shake the bottle well. A teacupful of this may be taken twice a day, at least, in the middle of the forenoon and afternoon, or when the stomach is most empty. It is very palatable, and may be made to suit the taste, by increasing or diminishing the quantity of the sugar, at pleasure. If it agrees, relief will be found from it before the bottle is finished; when it may be repeated, and continued as long as benefit is obtained, or until the stomach becomes settled.

If there is a costiveness, it must be relieved by the means proper for that purpose, immediately following.

THE *heartburn*, and a *sourness* upon the stomach, often accompany the sickness, and are very subject to continue, at times, during the whole pregnancy. *Magnesia* is a favourite and very suitable medicine for them, and generally affords a present relief. *Costiveness* will always add to them. The *acid mixture*, No. 4. just now mentioned, will sometimes relieve them, as the
causes

causes of the sickness and heartburn are nearly allied.

THESE symptoms, of *sickness* and *heartburn*, are, like those pains of the head and back just mentioned, commonly more troublesome and tedious of the first child, than of a second, or others afterward.

Costiveness.

A *costiveness* is very common in pregnancy; and although it may happen at all times of it, yet is most usual and stubborn at the latter part. It ought constantly to be guarded against, and may often be removed and prevented by the diet; and any thing which, in the diet, is found to be loosening, may be often taken.—*Vegetables*, and ripe fruits of all kinds, where they agree, are very suitable for the purpose; but ought not to be indulged in so as to produce, what may be called, a looseness. If an attention to the diet should not answer the intended purpose, recourse must be had to medicine.—*Lenitive Electary*, when it will have the desired effect, is as proper as any thing; but it is seldom effectual enough. *Magnesia* will sometimes answer, although but seldom.—The *liquor* which is obtained by infusing, or boiling, of *senna* and
prunes

prunes in water, will generally be found very effectual, and is far from being unpleasant.—*Castor oil*, with those who can take it, answers very well; it seldom gripes: from half a table-spoonful to a table-spoonful may be taken for a dose: the most easy and agreeable method of taking it, seems to be; to put it into a cup or glass of water, and swallow it in the manner of a raw egg.—*Rhubarb* is improper, as it leaves the body as costive, or more so, than before.

Diet.

It is of no little consequence to pay a regard to the *diet* during pregnancy; as the advantages, to be derived from such an attention, will repay the trouble (if it may be so called) of it. Those who propose nursing their children themselves, will be particularly benefited by it, as it will be a means of promoting and increasing the quantity of their suck; and the suck will be more likely to agree much better with the children: the children will be more likely to be healthy and free from complaints, and thrive well: and, lastly, they may reasonably propose to themselves a better and more speedy recovery from lying-in, free from fevers and feverish complaints, also gathered breasts, &c. &c.: for the
diet

diet upon this occasion may, as in the small-pox, be considered as a proper and necessary preparation, and is nearly, if not fully, as advantageous in this as in the preparation for the small-pox. (See child-bed fever, and gathered breasts.)

No particular rule or form of diet can be fixed upon or invariably pursued; as different constitutions, habits, and manner of living, will always require and call for some variety: however, what in general ought to be, and may be, upon all occasions observed, is; a *simplicity* in the diet; which consists in, avoiding strong, rich food, as, made dishes, or food of any kind that is naturally strong and heating, or rendered so artificially by spices, high seasoning, and other heating things. Wine, and other heating liquors, ought to be sparingly indulged in; and the quantity which has been usually taken, ought to be lessened, rather than increased.

A DIET that is light and easy of digestion, and which is chiefly composed of vegetables, is most suitable. The appetite will oftentimes call for many things that seem inconsistent, unsuitable and out of the way, and which there seldom is any harm in gratifying, in a limited degree; yet that seldom continues beyond what is commonly understood by the period of *breeding*; however, when it does exceed that time, there

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can be no harm in complying, in some measure, with what may be supposed the dictates of nature, although these fancies may be indulged to too great an excess, and ought *always* to be restrained, rather than encouraged, especially when they seem very much out of the way.

THE benefits attending a *simplicity* of diet are very fully displayed in country women, who enjoy good health themselves, and have the comfort and satisfaction of dispensing that invaluable blessing to their offspring;—the best gift that can be bestowed by a parent!—and which parents of this class are indebted for to this *simplicity*, which their stations and situations impose upon them; aided by exercise and pure air, to be immediately spoken of.

To conceive a proper idea therefore of conducting the diet upon this occasion, the farmhouse may not be improperly consulted and attended to; and which may in part, and as far as custom, habit, constitution, and other circumstances, will admit of, be copied and imitated to singular advantage.

IN mentioning the diet of a hired wet-nurse, page 136, it is there observed, that butter-milk and cheese-whey are conducive to suck. They may be both taken to advantage at this time, if they are liked and agree; and in such quantities as are agreeable to the person who takes them, and are found

found to agree with the health. Their use is, at this time, attended with great advantages; as it may not only dispose the mother to have an increased quantity of suck for her child; (a desirable circumstance if she proposes nursing!) but will also be a means of preparing her for passing through her lying-in with greater safety to herself, free from fever and feverish symptoms: the child will also be materially benefited by it with respect to his future health and thriving.

BUTTER-MILK and whey cannot be said to disagree when they lay easy and light upon the stomach, and do not occasion costiveness (which rarely happens), griping, or looseness, in a considerable degree. They both ought to be taken as fresh as possible; the whey warm, if so liked; and if the butter-milk should be, from its thickness or coldness, too cold or heavy for the stomach, it may be thinned by the mixture of a suitable quantity of warm water that has boiled, but which is not so hot as to curdle or break it; which will sometimes make it sit easier upon the stomach. These, when they can be had good, are considered as articles of luxury by the inhabitants of large towns.*

Exercise.

* As *cheese-whey* may be made equally as well in town as country, the method of preparing it, as it is not generally understood,

Exercise.

EXERCISE may properly be considered a needful requisite during pregnancy. It gives health, strength and spirits, and will most essentially contribute to, and assist in, an increase of suck; a circumstance the most desirable with those who nurse their children themselves!

understood, may not be unacceptable to some.—Take a piece of runnet or calf's stomach (which is commonly to be had of the butchers, who properly prepare it for the purpose) of the size of a shilling, or less; put to it a table-spoonful or two of cold water, and let them stand a few hours, or over night, in a cup. Put new milk upon the fire till it be about blood warm: then pour it into a basin, and put to it the water poured clear off from the runnet: keep them in about the same heat for a few minutes, when a separation of the curd and whey will take place; and by cutting or breaking down the curd with a knife or spoon, the whey may be poured from the curd, and may be taken then, as it will be of a proper warmth. The above quantity of runnet, or *steep* as it is frequently called, will be sufficient for a quart, or more, of milk; half the quantity for a pint; and so on. If too much *steep* is put in, it gives the whey an unpleasant, acerb taste: if too little, the milk will not break at all. If the milk is either too little or too much heated, the consequences will be the same as when too little or too much *steep* is made use of.

THE

THE chief objection that has been made to exercise during pregnancy, is, the danger and risque of miscarriages; but which is an opinion by no means well founded; as miscarriages, in general, will be much more prevented than promoted by exercise; for as they happen most frequently with those who are of delicate, nervous habits, or who lead sedentary, inactive lives; and with those of weak constitutions; whatever will give strength, and will assist the constitution, will, as certainly, and of course, prevent them; and every one knows that exercise is one of the first and leading requisites of health, and is always a chief means by which it is to be acquired and preserved. However, as exercise, like every other necessary and convenience in life, becomes useful or injurious, according as it is managed and directed; so some caution is requisite in the direction of it upon this occasion.

THE quality or kind, and the quantity and degree, of exercise, ought always to be regulated by, and proportioned in a great measure to, what the person, who is to take it, has been accustomed; as, what would be very moderate exercise to one person, would be excessive fatigue to another; and they who are accustomed to walk much, or be frequently upon horseback,

will find very little exercise in a carriage. The person, therefore, who is to use the exercise, ought to have her choice of the method; as, no doubt, what is her own choice, will not only be accompanied with the most pleasure, but will also be done with more ease, and to greater advantage. It is the abuse and mismanagement of exercise that does harm and is to be guarded against at this time, and not the judicious use of it, which will ever answer the best and most desirable purposes.

THE evident advantage and superiority in point of wet-nursing which the more laborious part of the world (in the country especially) have, depends in a great measure upon the free exercise they enjoy in the open air; as there are many ladies of good constitutions, and no way indolent, who yet, from the very little free exercise in the pure and open air consequent upon a town life, prove very defective in their nursing, although they may be very desirous to accomplish it: and there is little or perhaps no doubt if their situations and all circumstances would admit of a country situation, with suitable exercise (and proper diet) during the greatest part of their pregnancy, they would be much more able to effect so desirable a purpose.

WITH respect to this subject, it may be necessary only farther to observe in general; that
exercise

exercise may be begun with and continued during the whole time of pregnancy, or when, and as long as, it will be acceptable, and can be borne with ease and pleasure. It never ought to be to excess, nor accompanied with much hurry and fatigue; and ought to be always proportioned and suited to the persons own disposition for it, and the habitual practice and mode of exercising she has been accustomed to; as excessive exercise, and such as is unusual and disliked, may do more harm than good.

It will of course follow, that, walking, or riding on horseback or in a carriage, may, singly, or all by turns, as the fancy and other circumstances will direct and admit, be practised to advantage.—A journey, when it can be conducted with ease and pleasure, can never be more seasonable, and may be taken any time before the seventh month; much later than that will hardly be thought prudent.

It is scarcely necessary to observe that the degrees of exercise ought to be lessened and confined in proportion as the pregnancy advances; as, what would be an agreeable and salutary recreation in the third or fourth month, will, in general, be found an unpleasant fatigue in the seventh or eighth. The seventh month is as long as, perhaps, the more laborious and fatiguing

exercifes ought ever to be continued : and every good purpofe to the conftitution, both prefent and future, that is to be had, will be obtained at, or before, that period, provided the exercifes are fuffered to commence early enough.

Cold Bathing.

COLD BATHING answers moft of the good purpofes of exercife ; and when exercife cannot commodioufly be complied with, it will be a good and defirable fubftitute, when the feafon of the year will admit of it, and there is the convenience of a fituation near the fea, or a bath of frefh water. When neither of thefe are to be obtained, a tub with cold water will do very well.

THE bathing may be begun with as foon after the pregnancy is difcovered as is convenient, and may be continued till the fixth, or feventh month, at intervals, and as it agrees. Three or four times in the courfe of a fortnight is as often as will in general be needful, although it may frequently be praftifed oftener with great fafety, and to advantage.

COLD bathing, like exercife, affifts greatly in promoting fuck, generally gives ftrength and fpirits, and is admirably calculated to prevent
miscarriages

miscarriages with those of sedentary, inactive lives, or who are weak, delicate, or nervous, from any cause, and subject to miscarriages. They who are strong and healthy, and use exercise, will not often be benefited by it, as they seldom stand in need of such like assistance.

It cannot always be practised with perfect safety by those who have an habitual cough and pain in the side, and those who are consumptive or so inclined: however, it ought not to be ventured on in those cases without proper advice.

THE advantages attending cold bathing are derived from its strengthening and bracing qualities; whereby, a delicate or weak constitution is assisted and restored to a more perfect state of health; and, by which, it is enabled to perform and go through with the task and duty imposed upon it, more completely and perfectly.

THE summer months that are thought warm enough for bathing, are few, and consequently bathing in the sea, or in a fresh spring, cannot, very often, be done at a time when it may be required. However, that inconvenience may be remedied with great safety, by a tub of water, which may be used in the house, even by the bed-side if necessary; and, if the season is rigorous, it may be a little aired by putting a kettle, or two, full of hot water into it for a few times

at

at first ; but which may be gradually lessened until it can be borne perfectly cold.

If it be found proper and necessary to begin the bathing in the open sea, or cold bath, late in the summer, it may be continued during the succeeding cold weather, in the same manner, or by means of a tub of water in the house, perfectly cold ; as the increased coldness of the water will not be sensibly perceived, if the frequent bathing be duly continued.

OIL-CASE caps, which of late are come much into use in bathing, are to be recommended : every good purpose is answered as well with, as without them ; and no advantage can attend wetting the hair ; on the contrary, wet hair is not only uncomfortable, but also may and does frequently occasion the head-ach, and will be liable to give cold. These objections to wetting the hair become still increased, when bathing is practised in a season that is not very warm.

SEA water, when it can be conveniently had, is preferable to *fresh water* for the purpose.

It may be remarked in general with respect to bathing, that when the idea or shock of the water impresses, and is accompanied with, an unusual terror, it is better avoided until the terror abates ; but when it can be accomplished, with but a slight degree of fear, it need not be avoided.

Of

OF MISCARRIAGES.

THE causes of *miscarriages* may properly be divided into three in number.

THE *first*, and most common, is; a weak, relaxed, or delicate habit of body and constitution; as proceeding from, or much increased by, a sedentary life without much action or exercise.

THE *second* is; fright, with, or without external hurt or injury, as a fall, great fatigue, &c.

THE *third* is; an over fulness of blood, which mostly accompanies a state of high health and a strong constitution; but it seldom happens from this cause alone without the concurrence of the second, or fright, a hurt, a fall, fatigue, &c.

THE most frequent cause of miscarriages is, as here observed, a weak, relaxed, or delicate habit and constitution, the frequent concomitants of a sedentary, inactive life; so, they are found to be the most common with those in easy circumstances, whose situations or inclinations do not prompt them to much exercise and bodily exertion, especially without doors and in the open air;

air ; as no custom or habit tends more to weaken and relax the body, and, of course, impair the constitution and bring on a train of nervous symptoms, than an habitual confinement within doors without the use of free exercise in the open air. A good constitution will sometimes bear such confinement for a long time without much apparent injury ; but a constitution that is naturally rather weak or delicate, will always be made more so by it.

MISCARRIAGES, from this cause, may happen at any period of pregnancy, but are most common about the third or fourth month : they often come on spontaneously, and without any apparent external cause, such as, a fright, a fall, &c. ; and those who have once had them are subject to them afterwards, at or about the same period of pregnancy. As this cause and occasion of miscarriage is a weakness of body and constitution ; whatever will strengthen and restore the body to a state of health, will undoubtedly be the likeliest means of preventing miscarriage. These salutary purposes are best answered by exercise, properly conducted (see page 282) ; and, particularly, by cold bathing, as above-named (see page 286).

COLD bathing is attended with the most happy and desirable consequences, and too much
cannot

cannot be advanced or urged in favour of a remedy that can be so easily obtained, and which, by experience, is found to have the advantage, and to claim the preference of any other upon this occasion. Suitable exercise, therefore, and cold bathing, are the dependences.*

BLEEDING will very seldom be required; it may oftentimes do harm, and should not be done except when the occasions named in page 273 par-

* CONFINEMENT, and rest, were formerly thought essential requisites during pregnancy, to prevent miscarriages: however, that doctrine is now much exploded in this kingdom; perhaps more so than upon the continent; as we are informed the queen of France, during the whole of her first pregnancy, was not permitted to stir out without being carried in a litter, or by the most studied easy conveyance, to prevent, no doubt, a miscarriage.

THE modern most approved medical writers, of our own country, are unanimous in their recommendation of exercise and cold bathing upon this occasion. Mr. *White*, upon this subject, says: "I have known short rides on horseback
" repeated daily procure success, when total confinement
" would not; and have for a great number of years been
" sensible of the good effects of cold bathing, not only in
" preventing miscarriages, when every other method has
" been likely to fail, but other disorders which are incident
" to pregnant women, and generally attendant upon a weak
" lax fibre," or frame or constitution. *Treatise on the Management of pregnant and lying-in Women*, page 68.

ticularly

ticularly call for it. Bleeding will seldom put a stop to a miscarriage when it is coming on.

REST, and close confinement, are, by some, strictly enjoined, most particularly about the time the miscarriage is expected and usually happens; but which will not at all prevent it; and the exercise and bathing may as safely and properly be continued at this time, as at any other.

It sometimes happens that a miscarriage threatens, and the symptoms afterwards go off, or abate; when, the bathing, and exercise, may be properly used, and become particularly requisite to prevent a return of the symptoms.

MISCARRIAGES which have here been observed to happen from the second cause, as a fall, a fright, &c. are not liable to happen at the same period upon a future occasion, without a renewal or repetition of the same accident; which no doubt will always be guarded against; and no other means of prevention seems necessary to be here particularly distinguished, farther than what has been already observed. If the person, who has met with such an accident, be of a weak, delicate constitution, or such a habit and disposition as above described, cold bathing, with suitable exercise, will be the best preventives.

THE *third*, and last, *cause* of miscarriage which has been here noticed, is very rare; and, when it happens,

happens, is with the strong and most healthy; and then, most commonly, in consequence of an accident, as a fall, &c. or great hurry and fatigue. In this case, bleeding, and avoiding too great exertion or fatigue, will be proper.

WHEN the real symptoms and appearances of a miscarriage are come on, it is oftentimes a difficult matter to prevent it; and if a stop is put to it for the present, the person seldom goes to her full time. But the symptoms, or signs, of miscarriage are often misconceived; and what are frequently supposed to be so, are not so in reality; which leads to a deception; therefore it will always be proper to make a just distinction upon this occasion, before any means are made use of.

It is almost needless to observe that when the *real* symptoms of miscarriage are come on, the most perfect rest and composure, both of body and mind, are to be observed while the symptoms continue.

MISCARRIAGES become dangerous, or otherwise, according to the circumstances which attend them. *Those* that happen under the third or fourth month, and which are common at that period with persons of weak, delicate, &c. habits and constitutions, and come on without any other known cause, are very rarely attended with danger,

ger, and seldom require more than a few days confinement. *They* are not often accompanied with much danger before the sixth month: but, at any period between that and the full time, they are more so.—*Miscarriages* that happen from fright, or any urgent, violent cause, are, at all times, to be considered as more alarming and dangerous than those which come on without any known cause, or a very slight one. A flooding has always been justly dreaded: it scarcely ever becomes dangerous at, or about, the third or fourth month, although it will then be, sometimes, what may seem great and excessive. If it happens to excess after that time, particularly after the sixth month, it becomes alarming, and the most speedy assistance becomes absolutely necessary. If a miscarriage happens without a flooding, or with only a slight and moderate degree of it, the danger is much lessened and removed at any time or period, and there is seldom any at all to be apprehended.

A PROPER degree of confinement to the bed, the room, and the house, will be needful after a miscarriage; yet that confinement ought not to be unnecessarily prolonged and indulged, nor heat, nor heating things be made use of. The sooner the benefit of the air can safely be obtained, the better; and the rules and cautions which
here-

hereafter are advised in lying-in, will be applicable to this occasion.

REAL miscarriages, and such as may properly be so called, and which are supposed to happen in the earlier periods of pregnancy especially, do not happen so frequently as is imagined; as what are supposed to be real miscarriages, are very often false conceptions.*

IF the NIPPLES are washed with brandy, every night at bed-time, for a month or two before delivery, it may be a means of preventing a trou-

* *To the Medical Reader.*—False conceptions are most frequent and common, as I have observed, with those who are of delicate, weak habits; or are sickly, or unhealthy, from any cause: from which, it is highly propable and reasonable that they happen chiefly, or altogether, in consequence of a defect, arising from a weakness, and want of power and ability in the system to forward or complete another task which was intended or begun; viz. the formation or perfection of the foetus. I am farther confirmed and strengthened in this opinion, by observing, that those who have been subject to successive false conceptions, have, upon bathing, and making use of such other means as tended to strengthen the body and constitution, escaped them, and have afterwards had children.

THEREFORE, in cases of false conceptions, the same means of cold bathing, exercise, &c. may be made use of, and are most likely to succeed in preventing them, as have been recommended in miscarriages arising from the first cause, or a weak and delicate habit and constitution.

blesome soreness, to which they are very frequently liable, upon giving suck.

IN noticing the difficulty that often attends inducing children to take the breast, page 117, among the number of causes there assigned, the *nipples*, from their *unfavourable shape*, is observed to be the most common. This obstacle, of *unfavourable nipples*, presents itself most frequently with those in better life, and is rarely met with in the laborious and those in inferior stations; depending upon the manner of wearing and lacing the stays; as tight lacing over the breasts, so much practised by the former, is the sole cause of it; which not only destroys the natural beauty, shape, and proportion of the breasts and nipples, but depresses and flattens the nipples, and sinks them into the breasts, so much, that they are not without difficulty, and cannot sometimes be got out at all. Strange! that fashion should so frequently become the enemy of nature, and ever be the bane of health!—Many ladies who are desirous of suckling their children, and have suck sufficient, are prevented doing it by this unfavourable circumstance of the nipples: no doubt, therefore, was the cause of it generally known, parents would more frequently guard against it with their daughters at a proper and early period. The breasts from
long

long and continued compression, are often rendered incapable of performing the office intended them by nature ; hence one cause of the want of suck with those of this description.

Cautions in Dress.

TIGHT lacing is prejudicial at all periods of pregnancy, but more particularly at the latter parts. A support from the stays will no doubt be always requisite ; yet tight lacing is seldom borne with ease, and may have an injurious tendency.

IN the latter months of pregnancy, the cloaths, by their weight, oftentimes give considerable uneasiness: to remedy which, if a part of them and the pockets are sewed or otherwise fastened with tapes, &c. to the stays or jumps, and the stays provided with shoulder-straps, so that the weight of the whole may chiefly hang or be suspended from the shoulders, a desirable relief will be obtained.

JUMPS are most commonly worn at this time ; yet the *buckles* and *straps*, with which they are fastened, make them awkward and troublesome. There are some upon a different construction, that are much more commodious. Instead of buckles and straps, the fore-parts of the stays are

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made wide enough to pin over the stomacher, both at top and bottom, at first; and, as the pregnancy advances, they still pin over at top, but to the stomacher down the sides and at the bottom. These foreparts, that pin over and to the stomacher, are without bone. The stomacher is made in the usual manner.—The present extreme fashion of the ladies stays, which makes the waist very short and slender, is highly improper for this situation; and were ladies to know the injuries they are liable to sustain from it, they would, surely at this time, sacrifice the transient gratification of a fluctuating fashion to future permanent ease and health.

*Rules and Cautions after Delivery, and
in Lying-in.*

THE treatment of lying-in women has been, till very lately, universally founded upon a general supposition, that from the moment of delivery, and for a certain length of time after, they could not have too frequent and plentiful a supply of warm liquids, cordials, and nourishing food in the form of gruel of different sorts made with spices, with the addition of
wine,

wine, or spirits; and that an unusual degree of warmth and sweating was to be produced and kept up by it, and farther supported by the warmth and closeness of the room, close confinement to the bed, and an additional quantity of bed-cloaths. All this was done with a view of supporting and recruiting the strength and spirits, and keeping off cold and its effects. However, these opinions and practices are discovered by experience to be ill founded and erroneous, and to create the very evils they were intended to lessen and obviate; and their prevailing so long cannot perhaps be accounted for more probably than has been already attempted, page 270.

THE impropriety and disadvantage of this warm and heating method of treatment, depends chiefly upon the following circumstance.

THERE is, from the time of delivery, a constant and particular propensity and disposition to fever and feverish heat and symptoms, which gradually increases the first three or four days; and more danger is to be apprehended from this fever (see child-bed fever) and its consequences, than any, or all, the other complaints which are liable to happen at this time. Whatever will add to the heat of the body, will increase and also prolong this fever; and which nothing is

more calculated to do than wine, spices, cordials, and liquids of all kinds taken hot; with an unusual warmth of the bed and closeness of the room. A person, of either sex, in the highest health, if placed in such a situation, and under such a regimen, would most likely have a temporary artificial fever brought on by it: it is very easy to conceive, then, how much the fever will be promoted and aggravated, with all its consequences, by such treatment, in a situation where there is a natural inclination to fever.

A *coldness* and *shiverings* very commonly accompany all feverish complaints, and are of course very common at this time; which may have led to the notion of warmth and warm things being proper by way of preventing them, and removing them when present: but this is a false and mistaken opinion; for whatever brings on the fever, may be said to bring on the shiverings also; as the shiverings will not come on, if the fever is kept off: and when the shiverings are actually present, the most heating things will not shorten or abate them, in such a manner as to be productive of any good; and no more than a moderate warmth should ever be employed, or is ever requisite, for that purpose.

THE *sweating* which is brought on by this warm treatment, has also been supposed necessary
to

to prevent, or carry off, any degree of the fever, and to prevent the shiverings; but which is a notion as fallacious as the other; as it not only serves, when in excess, or long continued, to support and increase the fever, but, also, renders the fever, by prolonging it, much more dangerous and tedious, and exhausts the strength and spirits.

THOSE who lie-in are sensible how liable they are to be overheated by the most trifling heat of the room or bed, or by taking any thing warm; at which time they feel very uncomfortable and uneasy to themselves; often have the head-ach; and perceive a faintness, weariness, and depression of spirits; all which continue, and are increased, according as the heat and heating things are repeated; and are the symptoms of the feverish complaint here mentioned.—On the contrary, they who are never suffered to be overheated by the warmth of the bed, room, or what they take, seldom or never experience these disagreeable sensations, but feel comfortable and easy to themselves, and find their strength and spirits increase apace; all which desirable circumstances, with many others, are entirely effected by subduing and keeping off this feverishness by cool treatment.

THE public has lately been favoured with some publications upon the advantages attending

this cool treatment of lying-in women, and one in particular by Mr. *White* of *Manchester*;* a performance that does the author great credit. They are all addressed to the faculty, therefore not calculated to find their way, or become very general, in private use.

THERE is great reason to believe that this improved method of treating lying-in women had its origin at *Edinburgh*, and was at first discovered, as many of the most important discoveries are, by accident. Dr. *Young*, professor of midwifery in that *University*, appears to have the merit of first observing and propagating it, as seems probable from the following circumstances.

THERE is a long, spacious, lofty room (called a ward) in the *Infirmary* at *Edinburgh*, not much connected with the rest of the house, and set apart for the reception of poor women for the purpose of lying-in, particularly in the winter season, under the direction of Dr. *Young*. The room is entered, by folding doors, at one end; and the fire place is placed, exactly opposite, at the other end; the beds, about ten or twelve in number, are ranged, at a good distance from each other, down each side of the room; by which means, as the door is generally left open, even in the winter, the air is freely admitted and

* The author formerly quoted.

passes in a current constantly through the room, which the beds, from their situation, partake of nearly all alike. The womens diet is, as may be supposed, plain and simple. As a good many women are admitted every season, they are seldom permitted to stay longer than there is a necessity for; so that at, or about, the fortnight end is the time they usually go away; when it is common for them to take their children and *walk* to their respective homes, perfectly recovered.

SHOULD it be supposed that the people, especially of the poorer sort of that part of the kingdom, are, from their natural hardiness, more capable of enduring hardship than the English constitutions; it may be observed; that the indulgences and manner of living of the inhabitants of Edinburgh is much similar to that of other large towns in the more southern parts of the kingdom; where many poor women, from confinement and other causes consequent upon having a number of children, are very delicate; and many of the women admitted there, were, as I frequently observed, of weak and delicate constitutions. I have also constantly observed elsewhere, and since I had an opportunity of attending the practice in that place, that weak and delicate constitutions are the most sensibly benefited by a cool treatment, and that heat, or heating things,
sickens

sicken and disagree with them much more apparently than with those of stronger constitutions.

THE doctor observing these women recover so much better, and more readily, than those in his private practice (a great many of which latter were of high rank and nobility,) was led to suppose it must chiefly depend upon the free admission of air, and cool treatment; and was thereupon induced to try that method in his private practice; and he found it answer his wishes. The opportunities he had, as public professor in the University, of disclosing this important discovery, enabled him to publish it to the world, confirmed to them by practice; and it has made a progress as quick as any thing so novel, and opposite to an old established custom, generally does. It is a method I adopted from this authority, and which I have invariably recommended during fifteen years, with the most complete success, and without the loss of a single patient in the month, or in lying-in.

THE following rules and directions are such as experience will warrant and recommend, and as will be found to agree with all constitutions, ranks, and situations in life, with a very little variation; and which nothing but some very uncommon circumstance need ever prevent the complete practice of.

IT

It is an universal custom, immediately after delivery, to give something *cordial*; and, for that purpose, *spirits*, as brandy, rum, &c. not diluted, or very little so, with water, frequently with grated nutmeg in them, are given. This practice has obtained the sanction of long and ancient custom, and is founded upon the prevailing notion, of keeping out cold by heating things. Something, no doubt, is necessary, after the fatigue of labour, to restore the exhausted strength and spirits; yet as raw spirituous liquors are, to a great many, highly disagreeable, and, with those that are unaccustomed to them, may produce a temporary intoxication, with great heat, pain in the head, &c. they are much better entirely omitted at this time; except when they are preferred through choice; and then it will be advisable to mix them with, at least, one half, or two parts, water. *Wine*, when it is liked and is agreeable, is to be preferred to all other cordials upon this occasion; and a glass or teacupful of foreign wine, as maderia, &c. will be very proper, and may be taken singly, or mixed with water, moderately warm, in the manner of negus; or it may be taken in a little gruel. But when spirits and wines of all sorts are disagreeable or unpleasant, there is no necessity for forcing any thing of the kind against the inclination; and a little
gruel

gruel only, of such kind as is most agreeable, and without spices, moderately warm, may be taken in lieu of them.

A *shivering*, or rather *trembling*, often comes on at this juncture, which, as it is occasioned by the agitation and fatigue of labour, will very soon subside by rest, and by keeping still and quiet; the cordials were, also, given with a mistaken notion of preventing this trembling.

IF, as it sometimes happens, that the mother's legs or feet are cold; or if she is sensible of being rather chilly or not comfortably warm; it will be better to procure warmth by wrapping her legs and feet in a flannel petticoat, or something of the sort, than by heaping an unusual quantity of cloaths upon the bed, or by taking any thing hot or heating; as, by the latter means, more heat may be obtained than is necessary and proper, or than can be easily subdued. This method and caution will, upon the like occasion, be proper to be attended to during the whole time of lying-in.

A FATIGUE of body, and an agitation and exhaustion of spirits, always, more or less, attend and succeed labour: it is therefore very necessary, as well as comfortable to the mother, at this time, to lie still and quiet, without being moved at all, or scarcely spoken to or any other-
wife

wife disturbed by those about her, for half an hour, or an hour, or until she is perfectly settled and composed: half an hour seems the shortest space that should ever be given. After this, and when she is properly adjusted and settled in bed, she may, as soon as it is agreeable to her, have a little gruel, without wine, nutmeg, or spices of any kind, either boiled along with it, or added afterwards. The gruels which are most in use upon this occasion, are those made with *oatmeal*, *groats*, and *barley*; any of which are very proper; but *barley*, where it is liked, is to be preferred, as it is more cooling and opening than the others. *Scotch barley*, as it is called, is better than pearl or french barley, to which it is a degree coarser: when it is well boiled in water, with the addition of a very few currants put in towards the end of the boiling, and made agreeable to the taste with a little sugar or salt, it makes a palatable, wholesome, and suitable food.

SPICES, *brandy*, or *spirits*, and *wine*, of any sort or kind, should all in general be rejected, and ought to have no place at all in any part of the food or drink: none of them are essentially requisite, and any of them may do a great deal of harm, at this juncture: if any thing of the kind can be excepted in this general prohibition,

hibition, a small quantity of *wine* may, with those who have been *daily* accustomed to use a little; but they ought to be careful, whether they choose to take it separately, with water, or mixed in the gruel, to go *under*, rather than *exceed*, their usual quantity, at this time, and for the first three or four days: but if they can do entirely without it, the better; and those especially who are seldom, or not at all, accustomed to it, *may be assured* that they will recover their strength and spirits, and find themselves much better, *entirely without it*.

Caudle, as it is commonly made with spices and brandy, is the most unsuitable food that ever has or, most likely, ever will be devised for this purpose; but it appears consonant and of a piece with the general warm and heating method and notion above-mentioned.

A CAUTION very proper to be attended to in taking food and drink, is, never to take them *hot*, nor more than *moderately warm*; as liquids and spoon-meats, when taken but moderately warm, are apt to excite and diffuse a more than usual degree of heat over the whole body.

A *slight thirst* is very common; but it is seldom that any drink is required when the gruel, prepared as here named, is taken; as it answers the purposes of both food and drink; and seldom fails of moderating and quenching a thirst.

THE

THE next circumstance that claims our immediate attention, is, the degree of *warmth* proper for the mother to be kept in at this time. When she is settled in bed, and has something warm given her, she very commonly has a glow of heat, frequently accompanied with sweating; and if the warm food or drink is repeated, the curtains close drawn, and the room close shut up with a fire in it, with an additional quantity of bed-cloaths, as is often the case, the heat and sweating will be increased, and will most likely continue as long as these means are pursued: but this heat and sweating ought by all means to be guarded against and prevented, as the sweating, so commonly looked for and encouraged, is not in the least necessary, in any degree, either at this, or any other period of lying-in: but if a gentle sweat should break out at this particular time, as it very commonly does, it must not be hastily stopped, nor ought it to be encouraged, but suffered to go off gradually, which it commonly will do in the course of an hour or two.

THE means to be taken for regulating and governing this degree of heat, depends altogether upon the quality of the food and drink, the warmth of the room, and the quantity of the bed-cloaths; therefore, as particular rules cannot be exactly laid down and adapted

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adapted to all situations, seasons, constitutions, and circumstances, it will be very sufficient to observe in general terms; that the mother, from the time of her delivery, ought to keep herself as near as she possibly can of such a warmth as, and no warmer than, she has been accustomed to at any other time when in bed, and as is now most comfortable and agreeable to herself; and always to avoid so much heat (even if it should happen to be desirable to her) as may assist in bringing on, or keeping up, excessive or long continued sweatings. For this purpose, it will be proper, carefully to observe, that she never takes her gruel, nor other spoon-meat, nor drink, warmer than she is capable of drinking off with ease: that she has no more cloaths upon the bed than she is usually accustomed to at that season of the year: that her room be temperate, and not warmer than she has been accustomed to, or than is quite agreeable to herself; and that any cause, that may over-heat the room, be removed; if it should happen from a fire, that may be lessened, or taken away, even if in the depth of winter; and in warm weather and in the summer season a fire is always much better entirely omitted. It will often be found needful to undraw the curtains and set open the door, and even a window, for air, in the day time; all which may be done with

with safety, and to great advantage, if the room cannot be made comfortably cool without, and provided that care is taken that a draught or current of air is not suffered to come directly upon the head of the bed.

SHE ought to be kept *still* and *quiet*, and from company and visitors, and avoid much talking which often proves very fatiguing, notwithstanding there may be a desire and seeming strength and ability for it; when, perhaps a little sleep may be caught, which will be found very refreshing.

NOTHING more properly and effectually allays overheat and proves more refreshing, at this time, than *sitting up in bed*; and which, when the strength and spirits will allow of it, may very properly be done once, at least, in the course of the first day, especially if she finds herself inclined to be more than commonly and comfortably warm; and if she even does not seem likely to be of more than an usual heat, sitting up in bed will be a great means of avoiding the risque of it.

A FATIGUE of body, and agitation and exhaustion of spirits, constantly, as has been observed, succeed labour; and therefore a state of the most perfect rest and quiet becomes essentially necessary, for a certain time; there would be no im-

propriety in extending this time to, or even in its exceeding, the first day, if overheat, and the risque of overheat, could be avoided in so doing; but which they seldom can be. The body and spirits will recover from the fatigue they have undergone, and will be restored much sooner by keeping moderately cool, or temperate, than by warmth or unusual heat: heat, so far from being a means of affording strength and spirits, prevents them; and not only so, but it adds to the weakness of the body and depression of spirits, as is clearly and certainly discovered by those in this situation, who, when they are, from the heat of the bed and room, more than ordinarily, and for a continued length of time, heated, or more than agreeably warm, will constantly discover more or less of a weariness, a sense of weakness, oppression and want of strength and exertion, and a lowness and sinking of spirits; all which continue and increase in proportion as the heat is promoted; and which will be as certainly relieved, or totally removed, by restoring and reducing the body to a more natural and comfortable state and degree of warmth; and which, *sitting up in bed*, as a means, in conjunction with others here pointed out, is desirable and eligible, and well suited to promote that intention.

THERE

THERE is no occasion for sitting long at a time; however, she may do it as long as, but no longer than, she seems at ease, and is comfortable; and the moment she perceives herself fatigued, she may and ought to lie down. A bed-chair, when it can conveniently be had, will be found very commodious at this time; as it will not only support the body better, but will also be more suitable and proper than pillows, or any thing of the like kind that will heat the body.

THE time when she is to sit up in bed, must vary according to circumstances; if nothing particular and uncommon happens, and if her fatigue of body and spirits have not been much more than usually great, she very likely will be able to effect it, with ease, in about six hours after her delivery. If a sweating should interfere, there will, generally, be opportunity, in the course of that time, to check it sufficiently to make sitting up in bed safe.

THE chief obstacle and hinderance that will, in general, prevent early sitting up in bed is, a pain, aching, or weakness in the back or hips, which some have after delivery: however, even in this case, attempts ought to be made to accomplish so desirable a purpose; when, if the sitting up, or being partially supported, in bed, cannot be borne with tolerable ease, it must be

declined for the present, but resumed and again attempted as soon as there appears to be a prospect of its being done with ease. *After-pains* may be so violent as to deter many from attempting sitting up; yet ought to be no obstacle to making the attempt sometime in the course of the first day; and which may be done and repeated, or declined, according as it seems to agree.

A *faintishness*, which may happen from various causes, may seem to forbid sitting up; yet it will often prove the best means for taking off the faintishness, especially when it is occasioned, as it often is, in hot weather particularly, by overheating, or when it happens from any other cause than a flooding.

RESPECTING sitting up in bed, it may generally be observed, that there are many degrees of it: when an erect or upright position, or nearly so, can be borne, with ease, it is to be preferred; when it cannot, it must be sloping and reclining, to be managed by the bed-chair, or other convenience employed for the purpose, and directed by the patient's own desire and ability to comply with it. If no degree of sitting up in bed can be borne, she may be raised as much with her head and shoulders as can be done conveniently with pillows; which, and keeping her hands and arms
out

out of bed, will serve to allay or prevent overheating, and will in general be found a comfortable and agreeable position and situation. Lying high with the head, and keeping the hands and arms out of bed, are advisable at all times, and are attended with other advantages beside those of allaying and preventing heat.

ALTHOUGH it will be prudent and advisable to keep the bed and room more close in the night than in the day-time; yet, even then, a fire, or a weight of cloaths upon the bed, ought to be regulated so as to keep the mother of such a warmth as is most agreeable and comfortable to herself, and no warmer. On this account, it will be much better for her to sleep alone, for the first three or four nights especially; as nothing will be more likely to overheat her than the nurse, or any other person being in bed with her.

THE size and situation of the room are objects worth attending to. The larger and loftier the room, in all seasons, the better; and if, in hot weather, the sun does not come much upon it, the more desirable. However, the season must be uncommonly hot if a large room cannot be kept tolerably cool, by keeping open the door, and one or more of the windows in the day, even though the sun should come full upon it. The

advantage of a large and lofty room is, that it can be kept more regularly temperate than a small one, and consequently will be much more comfortable, salubrious, and agreeable ; and, when there is a choice, ought invariably to be preferred.

THEY who are accustomed to sleep upon a *mattress*, will find it particularly comfortable at this time, either under, or over, the feather bed ; but especially upon the bed in warm weather ; as it will be found cool, and will prevent sweating and overheat, which are much promoted and encouraged by a soft bed.

IT is the custom with nurses to urge, and even force upon, the mother at this time more food than is agreeable to her ; which is wrong ; as she ought not to take it oftener, nor more at once, than is agreeable to her, and she has a desire for. Therefore her own appetite and call for it ought always to regulate the time and quantity. If more is forced upon her than her appetite requires, she may become surfeited and tired with it too soon ; there is seldom any occasion to force it, as the appetite is commonly rather craving the first two or three days ; and if a person has a natural desire for as much food as is quite sufficient, where can the advantage be of forcing more than is sufficient ? Spoon meats (as has
just

just been observed) when taken warm, diffuse a heat over the whole body; and therefore the oftener they are taken, the more frequently that heat, which ought so studiously to be avoided, is renewed and increased. This forcing of food is one of the errors founded upon the mistaken notion of the extraordinary necessity of warmth and nourishing things at this time.

AFTER-PAINS, when they happen, are commonly felt very soon after delivery, and often increase and become troublesome during the first twelve hours. They are by many disregarded, from an opinion that they are safe, and even advantageous: however, the advantage is by no means to be discovered: but when they are severe, and return very frequently, they become heating, prevent rest, and are very painful and teasing; and it becomes very proper to put a stop to, and remove them; which can be readily done by a medicine, universally known to be applicable to this purpose by every person in the profession of medicine; but as some caution is needful in giving it, it cannot be mentioned here with perfect safety. They seldom return, so urgently, after being removed by the medicine; but which if they should, it may again be repeated with the utmost safety. When the after-pains are so slight as not to prevent rest, it is less needful to

give any thing for them. When they are severe at the beginning, they will often continue without much intermission, for two or three days and nights, except something is given to remove them. They are very well known to be less frequent of the first child than afterwards.

As strong, hot, and heating things are had recourse to upon all particular occasions in lying-in, so they are seldom forgot upon this occasion: however, they seldom answer the purpose of stilling after-pains; and, as they are injurious on other accounts, they ought to be cautiously and sparingly used. Heat will oftener increase the pains than mitigate them: and if the mother is more than usually warm, and the pains frequent and severe, she will most likely find them lessened by making herself cooler.

WE have hitherto been considering the *first day's* treatment, only; from which however may be gathered and discovered the basis and groundwork upon which every future day's proceeding is to be founded.—On the *second day*, the same regulation of the food, warmth of the bed and room, &c. must be as strictly enjoined as on the preceding day: and sweating, and any degree of warmth, more than is perfectly comfortable and agreeable, ought to be avoided; as also every means which may have a tendency to promote or increase them.

It will be proper to have the mother got up on the *second* day ; which will give an opportunity to have the bed made, and she will find herself more comfortable, and much refreshed, by it. She may be permitted, if she is not faintish, nor seems tired or fatigued, to sit up a quarter of an hour, or rather more ; and if she is a little sick, or giddy or light-headed, upon first getting out of bed, she may have a glass of wine, or a little hartshorn and water, as is most agreeable to her.

WHEN she is in bed again, she will, most likely, feel more than usually warm, occasioned by the exertion and hurry of getting out of, and into, bed ; therefore she had better defer taking her gruel, or other food or drink that may heat her, till she be settled and composed, which she will find herself to be much sooner without, than with taking any thing ; although it is very much the custom to give food immediately upon getting into bed, and which is done under the same general delusive notion of keeping out cold. However, if it should, as it may, happen, that upon getting into bed she feels a slight chill or cold ; if her legs and feet are rubbed with a warm hand, and wrapped in a flannel petticoat, or something of the sort, it will be a more eligible means of procuring warmth than by
taking

taking any thing hot or heating, or heaping cloaths upon the bed. If the chilliness happens to be more than very slight, she may then take a little gruel moderately warm, without wine, &c. but needs not otherwise.

It is also very usual, upon this occasion of getting up the first or second time, to have the room made uncommonly close, and the mother almost smothered with the quantity of bed and other cloaths in which she is folded; which, together with the bustle and dust that necessarily attends making a bed, very often overcome her, and make her very hot, languid, and faint; and are by far the most common causes of faintness and sickness upon this occasion, and will always increase them. Therefore, if, during her sitting up, she seems overcome with heat, she must be made more comfortable to herself, in that respect, by suffering the door to stand open for a certain time; removing some part of the cloaths, if needful; and screening her from the fire, &c. &c. all which may, with caution and prudence, be done without any risque of giving her cold, and will prove very comfortable and refreshing.

No certain length of time can be fixed upon for sitting up, upon this, or any other day; but if the following rule is observed, it will direct it more certainly and properly than any other.

She

She may always, even from the first day, sit up as long as she finds herself easy and comfortable; but the moment she perceives herself the least tired or fatigued, she must go to bed immediately; for if she attempts to sit up longer, her weariness and fatigue will be increased, and will not even go off readily upon getting into bed; and it is very common for the night's rest to be greatly interrupted, and sometimes even entirely prevented, by sitting up much after the weariness and fatigue are come on.

COMPANY, and visitors, may sometimes keep her up longer than is agreeable to herself; yet, if the extreme of ceremony is ever to be dispensed with, this situation, as entitled to every indulgence, may justly claim an exemption from it; and a hint of retirement may surely be given by herself, the nurse, or any other person, without being deemed an infringement upon the rules of politeness or good manners?

SOME, recommend getting out of bed the first day, or the day of delivery; but which does not seem to promise any advantage; on the contrary, it will mostly be attended with too much fatigue at a juncture when rest and quiet are so evidently necessary: it is ordered with a design of preventing overheat and fever; but which may be done very effectually, by an attention to the rules and directions

directions already given; *and particularly by sitting up in bed.*—Getting up and out of bed is commonly, and very properly, deferred until the evening; as it disposes and prepares her for sleep; and that, at a time when it is most to be desired.

SITTING up in bed once, twice, or oftener, in the course of this day, and previous to the getting out of bed, will be attended with the best and most desirable effects: it will be a means of preventing or removing any heaviness or pain in the head; languor; faintishness; lowness of spirits; &c. so common with many who are confined, for a longer time than usual, to the bed: it is also admirably calculated for preventing or removing profuse sweatings, heat, fever, and feverish symptoms; which, as has been observed, are so frequent, and are so much to be apprehended and guarded against, at this time: it even, at this juncture, has the advantage of getting out of bed, as it answers most of the good purposes of the latter, without the fatigue. Independent of the essential benefits that are derived from sitting up in bed, it proves an agreeable relief and variety; as also a pleasing amusement and seasonable refreshment.

THE same caution will be needful on this, as on the preceding day, and indeed ever after:
namely,

namely, she ought not to sit longer at a time, nor oftener, than she can do it with tolerable ease and pleasure to herself, and without fatigue: for if she does it so as to fatigue or tire herself much, it will become prejudicial, rather than of benefit: therefore the number and length of times of sitting must always be regulated by her ability for performing them; remembering, that it will be always right to sit up as often, and long, as she can do it with ease and pleasure to herself, and no longer.

It must be observed that, during the sitting up in bed, the room must, as at other times, be made comfortably cool; otherwise, little or no benefit will be obtained by it; and this must be done, by setting open a window, the door, or opening the curtains; one, or all of which may be done, as the season of the year, and other circumstances, make it needful.

THE room ought not to be washed, even in part, during her entire confinement to it; but which is sometimes unthinkingly done; as nothing is more likely to give cold; and there scarcely can ever be a real necessity for it, as a close confinement to the room need seldom exceed a week.

THE *third day's* proceedings are to be regulated by those of the two former days. She will, on this

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this day, most likely, be able to sit up a while longer than she did the preceding day; and, if nothing particular prevents it, will perhaps sit an hour, or longer, with ease and pleasure; not forgetting the caution of getting into bed as soon as she finds herself in the least tired or fatigued, whenever that happens. If she has an inclination, and finds her strength equal to it, she may take a turn across the room; but if she thinks her strength is not sufficient, and that she is likely to be fatigued by it, it will be better to defer it a day, or two, longer. It is needless to enlarge upon the propriety of sitting up in bed, on this, as on the preceding days.

TOWARDS the end of this, or sometime in the course of the *fourth day*, an uneasiness will be felt in the breasts, which discovers the approach of the milk. At this time she will find herself inclined to be rather more hot and feverish than before, and will very likely have more of a thirst, perhaps a faintishness, and pain in the head, with a stiffness and shooting pains in the breasts; all which happen separately, or unitedly, and in a greater or less degree, at all times; and are occasioned by a degree of inflammation in the breasts, naturally happening upon the approach of the milk.

THESE uneasy and painful sensations may be much relieved and abated, by a proper attention
to

to the diet, and the temperature of the room and bed: if she has hitherto taken a little wine in her gruel, or otherways, she ought to abstain from it entirely at this time, and be kept cool in every respect, by the admission of air into the room, and every other means which can be safely made use of. No opinion can be more erroneous than that of warmth, and warm things, at this time; which is like adding fuel to the fire; as they increase every one of the above-named symptoms of fever, pain in the head and breasts, &c. and are the sole cause of, what is called, a milk fever, and the most common cause of gathered breasts.

VERY great attention ought to be paid to the state and situation of the breasts at this time; for by neglect, or which is as bad, or worse, mismanagement, the most troublesome and alarming consequences happen, as, milk fevers, inflammations and painful and tedious gatherings of the breasts; all which, I am fully satisfied, might be totally avoided by due care.

THE means to be taken for preventing these mischiefs, are simple, and such as may be very easily complied with by every one: they are as follow. The diet and cool treatment, as above-named, must be strictly enjoined. As soon as the breasts, by their appearance, may be supposed

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posed to contain milk, they must be drawn by the child, or a grown person; and that, two, or three times a day, at least; by which means they will be kept cool, and easy.

It often happens that the child will take one of the breasts more freely than the other; by which, the drawing of one breast is frequently neglected, until it becomes much swelled, hard, and painful; oftentimes with lumps, or a lump in one particular part, which is sore and painful to the touch. Whenever this happens, it becomes of great importance to have that breast well drawn, twice a day at least; and that daily without intermission, while the least soreness, swelling, or hardness remain. The drawing of the breast is, at this time, commonly attended with some pain, especially the first and second drawings, which prevents and discourages many from suffering it to be repeated so often and so completely as it ought to be; by which neglect, the breast gathers: but they who are aware of, or have experienced the pain and trouble of a gathered breast, would, I dare say, have very little doubt or hesitation in submitting to any, the greatest, pain which can attend the drawing, rather than risque a gathering; as, drawing is the chief dependence; and, without it, little benefit or relief is to be had.

GREAT

GREAT confidence and dependences are sometimes had in outward applications, in the form of ointments, and other different matters; and nurses, who are mostly, only, consulted upon this occasion, are seldom without something of the kind, upon which they firmly and entirely depend, for removing the complaint: but a dependence upon outward applications only, whatever their efficacy may be, is extremely uncertain, and not to be trusted to, with confidence: however, although we cannot rest all our dependence upon them, they may yet be employed to some advantage.

OILS, or greasy applications, seldom do any good, except, that when the breast is much swelled, they help the skin to stretch, which will often give present relief. Of all the things of this kind, the oil, or fat of geese, commonly called *goose grease*, seems to have very much the preference, as it is very gentle and smooth, and more penetrating than any other oily or greasy application; and, when it is nicely and properly prepared, its smell is not disagreeable.

RUM, and *vinegar*, separately, or mixed, are common applications; and although much dependence cannot be placed on them, yet they are likely to be of some service. It may be observed, that the relief which is supposed to be

found from these, and other such like applications, depends full as much upon the rubbing with the hand, as any efficacy in the ointments and other applications that are used; and as much relief will frequently be found from the dry hand alone, as when any thing else is made use of.

POULTICES, as they are commonly made with bread and milk, with the addition of oil, or any thing else that is greasy, are better omitted; as they will forward rather than disperse or put back a gathering: but a poultice made as follows is, perhaps, superior to any other, or perhaps any other outward application yet invented for dispersing a gathering.

TAKE of, *extraët of lead*, and *brandy*, each three large teaspoonful; put them to a quart bottle of *rain*, or *spring water*; and with this, and the *crum*, or inside, of a fine, stale *wheaten loaf*, make a *poultice* in the usual way, without the addition of milk, oil, or any thing else: lay it on, not warmer than the heat of the body; and change it night and morning: it is not apt to become uneasy, or stiff, when made moist enough. Care must be taken that neither the child, or any other person, draws the breast, without first washing the nipple well with milk and water, if it should happen to be wet with the poultice.

It

It will be advisable to avoid drinking much of any liquid, although the thirst may seem to require it; and the diet, for the present, and while the pain and swelling in the breast continue, or increase, may be chiefly confined to chocolate, and light puddings of any sort that are most agreeable.

If there be the least disposition to costiveness, a stool or two must, without delay, be procured by means of a *glyster*, *lenitive electary*, *infusion of senna*, *castor oil*, or any thing else equally as mild and safe. If the pain and swelling seem to gain ground, rather than abate, it will be proper to procure a loose stool, or two, and that, daily while they continue, although there be not a costiveness.

In this situation of the breasts; that is, when they are painful, stiff, and swelled; they feel the most uneasy when they are not supported; as their own weight causes an additional pain; hence it happens, that they whose breasts are so circumstanced, have an inclination to lay still in bed, and a dislike to getting up, or motion; proceeding from the easy position, that is found for the breasts, in lying; and the uneasiness from motion or sitting up, from their own weight. This desire, in themselves, to lay in bed, aided by an additional warmth that is usually supplied

by the increased warmth and closeness of bed and room, becomes a principal cause of augmented pain and the many mischiefs that follow and happen to the breasts in lying-in. Keeping the bed and room, therefore, full as cool at this as at any other time, is indisputably necessary, and ought not to be neglected: and although lying in bed may, for the reason above-named, seem to be the most easy and desirable position; yet, as it keeps the body much warmer (notwithstanding any care that may be taken to keep the room cool) than it will be up and out of bed; getting up, once a day, ought to be complied with, if possible: there will be no danger of getting cold by it; on the contrary, it will allay the heat and feverishness, so constant attendants at this time, and will be found very refreshing.

To alleviate the uneasiness which may be occasioned by the weight and hanging position of the breasts, they ought to be suspended in a linen cloth tied over the shoulders; by the hand; or in any other manner that may seem most easy and practicable; by which means, the mother will not be debarred the advantage, and gratification as it will be found, of her daily and regularly getting up. If, however, it should happen that the fatigue of getting out of bed cannot be borne, but which will seldom or never be the case without

out

out great neglect at the first, sitting up in bed, now and then, in the day, with the breasts supported as before-mentioned, may be complied with, and ought not to be neglected; as it will answer, in part, the intention of sitting up out of bed.—The length of time of sitting up in, and out of, bed, must now, as at other times, be regulated by her ability for doing it: she ought not to sit so long as to tire and fatigue herself, as a very good purpose will be answered by doing it for a short time.

WHEN it so happens, from neglect or any other cause, that matter is formed, and a gathering has taken place and is advancing; it is not of such immediate consequence to attend so strictly to the rules of sitting and getting up; especially if they are attended with particular uneasiness, or pain; and the easiest position, in that case, may be indulged in: but if they can be done without sensible uneasiness, it will be advisable to comply with them accordingly.

FROM what has been observed, it may be remarked; that the breasts of the mother who proposes giving suck, ought always to be kept well drawn by her own child, or another child, a grown-up person, or a glass, so as to keep them soft and gentle, and free from lumps and hardness; and this to be done daily, and regularly from the first

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sign and appearance of milk, although it should give some pain; otherwise, a gathered breast is most likely to be the consequence.

IF, from neglect of drawing, or any other cause, the pain and hardness should continue, or increase, take something that will procure a stool or two; keep cool, and take the food cool and without wine, spices, or any thing heating; let the breasts, or breast, be now and then gently rubbed with the dry hand, or with rum, brandy, vinegar, or goose grease; let the pained part of the breast be covered with a small piece of thin flannel, which may be moistened with a little hartshorn, if the smell of it can be borne: if, notwithstanding these means, the pain and swelling continue, the poultice may be applied.

By a perseverance in some, or all, of these means for a few days, the breast (for it very rarely happens that both breasts are threatened with a gathering at one and the same time) softens, and the pain, swelling, and hardness, together with the fever and feverish symptoms, will gradually decline, if taken early enough, and to which I have met with very few exceptions.

I HAVE no doubt in declaring, that, when proper care is taken from the beginning, a gathering may generally be prevented; and that the greatest number of those which do happen, are from neglect, or mismanagement.

WHEN

WHEN the breast has been neglected or mistreated for some time, so that the gathering is begun, and the matter formed, it will very seldom be possible to disperse and put it back: however, all the means here recommended (the drawing, perhaps, only excepted, which will now be uncommonly painful) may be used; and if they do not entirely remove, may perhaps lessen, the evil.

IF a chill or shivering should come on, it is almost a sure sign of the gathering and formation of matter. The time when the matter may be expected to form, cannot be exactly ascertained; it often is within a week from the time the pain and swelling begin. When the gathering breaks, it is not uncommon for the milk to discharge along with, and out of the same place with the matter; especially when it breaks near the nipple; but which is attended with no other inconvenience than sometimes keeping the place open and unhealed rather longer than it otherwise would be.

It seems needless to pursue this subject farther, as the surgeon's assistance is commonly solicited when the gathering has taken place; only, it may not be unpleasing to those who have an uncommon dread of surgeons instruments, to observe, that there very seldom is occasion to make use of them, and that the breast breaks, and heals, commonly, *without their use at all.*

As gatherings in the breasts are so painful; and as the constitution suffers much from them by long confinement and its consequences; it becomes a matter of great importance to guard against accidents so distressing, by every practicable means; especially with those who are frequently subject to them when they lie-in; and many are so circumstanced.

THE inhabitants of towns, and those in better life, appear to have them more frequently than the laborious, particularly of the country; from which, it may be concluded, that the diet, and want of suitable exercise, are the chief causes before delivery, aided by mistaken care and indulgences in lying-in. It appears therefore of how much importance it is, on this, as upon many other accounts, to pay a due regard to these matters, agreeable to the rules and cautions which have now been offered after delivery, as also those during pregnancy, page 278 and 282 on the diet and exercise; where, respecting the diet, it is there observed to be as advantageous and necessary upon this occasion, as it is in the preparation for the small-pox.*

THE

* *To the Medical Reader.*—The free use of animal food, with seasonings and rich sauces, and the quantity, although but small, of wine, &c. the prevailing usage of towns, joined

THE NIPPLES, which, before delivery, were bathed with rum or brandy (see page 295), may have the same continued, between the times of the child's sucking, for a week, or longer, to harden them, and to prevent their being sore with the child's sucking. Some will have sore nipples, notwithstanding every precaution; and others escape it, without doing any thing to them. When the nipples are sore, they may still be washed in the same manner; or, if that does not seem to agree with them, a greased rag, or a piece of the net or caul of veal, may, if they feel easy to the nipples, be kept on between the times of the child's sucking. They are sometimes tedious and slow in healing, whatever is

joined to a want of proper exercise, communicate to the system a disposition to inflammatory affections; which, from the irritation regularly produced by the increased action of the vessels of the breasts by a more than usual determination to those parts at this time, may be expected to excite a degree of inflammation in them that will frequently terminate in suppuration, with those so circumstanced; and which the puerperal state will very much contribute to, without particular attention in the direction of it. On the other hand, the laborious, of the country especially, by avoiding the predisposing causes of inflammation by the simplicity and regularity of their diet; breathing a pure, uncontaminated air; and the regular use of free exercise; more generally escape these and all other local inflammatory affections from internal causes alone.

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done to them. Whatever may be applied to the nipples that may be supposed offensive to the child, ought to be wiped off before he sucks. I have known a little lead water, incautiously applied to the nipples, do the child harm, although it would otherwise have been very suitable for skinning the nipples.—A rag moistened with warm milk and water, and repeatedly applied to, and kept upon, the nipples, will, when they are very sore, often afford relief and give ease when other means fail.—*Pap-shells*, kept upon the nipples between the times of the child's sucking, have been found advantageous: they defend the nipples from the pressure of the stays, &c. gently draw them out, and prevent the linen or any thing else sticking to them.

As soon as there is any sign or appearance of milk in the breasts, which there generally is about this time [the latter part of the third, or the beginning of the fourth day], sometimes sooner, the child may be laid to the breast, if the mother intends to give suck; the putting the child to the breast earlier, can answer no good purpose (page 56 and 83), but most likely the reverse; as many children, when they get nothing the first or second time of sucking, cannot, oftentimes, without great difficulty, be brought to take the breast again. The longing and notion that it
gives

gives them of the breast, without satisfying them, often makes them cross and uneasy: and when they suck without getting milk, they are very liable to get wind upon their stomachs, which makes them unwell, and, of course, fretful.

It does not appear that putting the child to the breast upon the first or second day, or that drawing the breasts, are means calculated for bringing the milk any sooner than it is otherwise disposed to come without.

THERE is oftentimes a good deal of difficulty in getting a child to take the breast, the causes of which have been enumerated page 117 (see also page 296). Very few children take one of the breasts so well as the other; and some quite refuse it: however, that breast ought not to be given up, but should be regularly drawn twice or three times a day; and the child, although at present he refuses it, may be brought to take it in a little time. Many disadvantages may attend giving suck with one breast only; it lessens the quantity of the milk; and the mother and child (see page 126) from being confined so much to one position, may, one, or both, get a cast, and become crooked. It is not unusual with those mothers who have repeatedly given suck with only one breast, to have one shoulder raised, or fuller than the other.

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ON the *fourth day*, therefore, the mother must not expect to be quite so well as she has been the preceding days, nor have so good an appetite; as her milk, although it comes ever so favourably, may be expected to give her a little uneasiness: however, by observing the rules and cautions above recited, she will, without much doubt, get over this difficulty, as it will be greatly lessened, or entirely overcome. She may observe the same rules about sitting up, &c. as the day before; and although she seems very well, and comfortable to herself, she had better avoid wine or any thing of the like kind.

If she has been accustomed to take *butter-milk* at any time of her pregnancy, and found it agree with her, she may safely indulge in a little now: (*wey* perhaps may not be so suitable, as it might endanger a looseness): and if it be thinned and warmed with a little warm water that has boiled, it will be a pleasant and grateful drink; and if it fits light and easy upon the stomach, and does not occasion griping or looseness, will be very safe, proper, and useful; as it will prevent, or cool or allay, any heat or feverishness; and will promote the suck. It may be taken in moderate quantities every day, from this time, during lying-in, or while it agrees, as here mentioned, and above, page 280. If it should *not* have been
taken

taken before, and during pregnancy, there can be no impropriety in a cautious trial of it *now*.

ON the *fifth* day, her breasts will, if she has had them drawn, and has observed the other directions, be more soft and easy, and she will feel cool and comfortable to herself. If her breasts are quite easy and soft, she may, if she chooses, have a little boiled chicken, or veal, or the broth of either, for dinner; with a glass of wine and water, or malt liquor, as is most agreeable: but if there be any thirst, heat or feverishness, or uneasiness in the breasts, the meat and liquors are better entirely omitted this day.

ON the *sixth* day the same rules may be observed as on the *fifth*; and on the SEVENTH her breasts will most likely be so settled, and she will find herself so strong and well, that she may eat a little boiled meat for dinner, and drink a glass of what she likes best after it. She will also very probably find herself able to sit up a great part of the day; and also to walk into another room, upon the same floor, either on this or the day following; which she may do to advantage, if the room is properly aired; and she will find herself much refreshed by it.

THE advantages which attend this early going out of the room are very great: the exercise and
fresh

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fresh air give strength and spirits, and promote a flow of milk : it likewise gives an opportunity for the chamber to be properly cleaned, and also aired, by setting open the doors and windows ; so that upon again coming into it, she considers it as an agreeable and pleasant retreat, rather than as a place of confinement. She had better, upon her first going out of her room, not attempt staying longer than is needful for settling and adjusting her room ; but she may, hereafter, prolong her stay, by degrees ; so that at the end of the fortnight, she may safely venture down stairs to dinner.

HER health, strength, spirits, and appetite, increase daily. Towards the end of the third week she is as well, and looks as well, nearly, as when in her best health at other times.—And, at the month end, she recovers her wonted glow of health, and spirits ; and her constitution is as perfect and unimpaired as if nothing had happened to her.

THIS favourable termination of lying-in is far from being unusual ; and the account will not be found exaggerated, when the rules, here recommended, during its progress, are duly observed ; and is what, in general, may be very easily obtained, frequently even more completely and speedily than here described.

THAT the advantages of this mode of cool treatment may appear more conspicuous and striking,

striking, let us contrast it with the method formerly, and still by some, practised altogether, or in part.

WE will suppose a woman, of health and temperance suited to a female character and constitution, safely delivered: she immediately has something very cordial given her; is put to bed, closely covered up with an additional quantity of bed-cloaths; the curtains are close drawn; and the room shut up close, with, perhaps, a fire. As soon as she can take it, she has caudle given, or some sort of gruel with brandy or wine, and perhaps hot spices in it, and that, as hot, and as often repeated, as she can well take it: of course she will be very hot, and most likely will sweat: this practice is continued, with little or no intermission, for some days, oftentimes a week, or longer; during which time, she is closely confined to the bed, in an almost continued sweat; and the air is, as much as possible, excluded the room.

TOWARDS the third or fourth day she is sensible of a greater degree of heat than before; she will have more thirst; and, very likely, a pain in her head, back, and limbs, with a languor, faintness, and sense of weakness; perhaps she may have cold shiverings. In this situation it appears to those about her, that, from the pain
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in the head, back, and limbs, and from the shiverings, she has by some means taken cold; accordingly, she is confined still closer, if possible, in bed; and warm, cordial things are given to renew or increase her sweating.—During this time, her breasts will most likely be uneasy, and, if the greatest care is not taken of them, she may have a *milk fever*, or a *gathered breast*; and, if the heat and sweatings are continued, it is not unlikely that she may have the *child-bed fever*; or, if she escapes that, an eruption upon the skin resembling a rash, which denotes the presence of what is called a *miliary fever*. It is under these circumstances that danger is to be apprehended, and in which many lives have been lost; all which are totally and entirely brought on and occasioned by heat and heating things, and which might be completely avoided by cool treatment.

It very seldom happens but that, under the treatment here described, all or most of these alarming symptoms are either threatened, or exist partially or altogether: when they do not threaten danger, and happen only in the slightest degree imaginable, yet, from the long confinement, heat, and sweating, the health and constitution will be impaired, and will suffer very much; the strength and spirits will be considerably

ably reduced; and a pale, sickly complexion, and languid countenance, will usurp the seat of health and vivacity, and perhaps not readily relinquish it; for upon her first getting up, her first going out of her room, and particularly upon going out of doors, she will be sensibly affected with the cold air, and very likely *really* take cold; which puts her upon having recourse to warmth and sweating to remove it; but which, if she *has* acquired a little strength, reduces her to her former state of debility and weakness; so that, upon stirring out, she is always carefully muffled up; and may acquire such a habit of care and indulgence as she cannot get rid of without the utmost difficulty, perhaps never completely. Hence it is we frequently see healthy, sprightly women, after lying-in once or twice, lose their vivacity and healthy look, and which they, sometimes, never recover.

THERE is an evil attending the free use of hot and heating things, as, hot liquids, spices, spirits, and wine, that has not yet been mentioned; but which proves as powerful an objection to them as any yet named: and that is, the injury they do to the stomach, by destroying its tone and powers of digestion; whereby it may, hereafter, require a more constant repetition of such like things than is consistent or advisable, or agree-

able and necessary to a female constitution, for the purposes of health. This will be readily conceived, when it is considered, that the female constitution is, by nature, habit, and education, delicate; and as a particular abstemiousness is, in general, strictly observed previous to this period and occasion, no wonder so sudden and material a change (at a time too when it is highly and particularly unsuitable) should be attended with such bad and lasting consequences.

THEY who attend to the description, but particularly they who see or experience the difference of the two different methods of treatment here described, cannot hesitate in declaring in favour of the former, as being not only more salutary, but also more pleasant, comfortable, and desirable: it is perfectly consistent with the dictates and design of nature, which the other is as foreign and repugnant to. By the former method, a lady will preserve her health, bloom, vivacity, and youthful appearance unimpaired and unfaded during the whole time of her bearing children: whereas, by the latter mode, she must be fortunate, or indebted to a more than common constitution, if she is not deprived of a very great share of them all, in even her *first* lying-in.

THE method here recommended would be imperfect, and might be liable to some objections, did

did it not agree so well with all ranks and constitutions ; for, as has been just now observed, the sickly and delicate find it agrees with them remarkably well, and they have their health improved by it : it also agrees not less well with the strong and healthy, who have their health preserved to them by it. In short, there are no constitutions with which it does not agree, and that, much better than the other method.

THE simplicity of this practice brings it within the reach, and adapts it to the situations, of all ranks and degrees : and it is a reflection that must be highly acceptable and grateful to a contemplative and feeling mind interested in the cause of humanity, that, the humble mate of the humblest peasant may, in a situation so inevitable, and of so much importance to the comfort, prosperity, and even existence of mankind, be accommodated nearly as advantageously as the most exalted *peerefs*, or even MAJESTY itself. “ *Nature!* in the midst of thy disorders, thou
“ art still friendly to the scantiness thou hast created—with all thy great works about thee,
“ little hast thou left to give, either to the scythe
“ or to the sickle—but to that little thou grantest
“ safety and protection ; and sweet are the dwell-
“ ings which stand so sheltered.” *Sterne.*

I HAVE selected the following case, as being very applicable to the present subject, and as it

will convey a just idea of the two opposite modes of treatment we have been describing.

A LADY, healthy, and of good constitution, lay-in of her first child, a very few years ago, in the spring, attended by a gentleman of repute, in *London*. During her lying-in, she was treated, in the manner very usual there, with *caudle*; and had *wine*, and other *good things*, as they are commonly called, of the like kind given her very liberally. As she proposed nursing her child, she was directed and advised by her nurse to continue this form of diet after lying-in, as the best and only proper means of strengthening her, and of promoting her nursing. Early in the summer she came to *Liverpool*; at which time she was very unwell (as she had been during and since her lying-in); had a continued fever upon her, with heat, thirst, and flushings and eruptions upon her face and body resembling the scurvy; and was languid and weak. Her child was nearly in the same situation, with a rash, and an almost constant griping and complaint in his bowels.—Being *prejudiced* in favour of a regimen or diet she had been taught, by her nurse, to look upon and consider as strictly right and proper, she was not easily prevailed upon to relinquish it: however, she and her child daily growing worse, she consented to vary it:

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the child was weaned and sent into the country, where, he soon became healthy and well; and she herself, by a diet chiefly vegetable, and, of which, *butter-milk* made a principal part, recovered her health. The following summer, she lay-in in this town; was treated in the manner above recommended; and, although it was the hottest weather in the season, recovered, and had her health, remarkably well. She suckled her child, who, with herself, was also free from the least attack of the above disagreeable symptoms.

THIS case, which is as much to the purpose as a case can be, clearly points out and discovers the result and effects of the two different methods of treatment. In the first instance, the appearances there described happened, without any the least doubt, in consequence of the lady's particular treatment* under the direction of her nurse, to whose management she was (after delivery, agreeable to the prevailing custom) entirely resigned; as much as they were prevented, or rather avoided, by it in the second instance. Her good constitution preserved and

* I AM informed that strenuous efforts are making in London, by many of the most respectable of the faculty, to reform the practice upon this occasion, by the introduction of a cool treatment in lying-in.

rescued her, in the first instance, from present danger, and also from any future lasting bad consequences, which otherwise might have happened.

Child-bed, or Puerperal Fever.

THIS is called a child-bed fever, from its being peculiar and confined to that situation. When it happens, it generally comes on some time in the first week; commonly on the third or fourth day. It begins with a shivering, like the cold fit of an ague; and which, like the ague, is also succeeded by a great and burning heat of the whole body; thirst; flushing in the face; pain in the head and back; and a sickness at stomach; after some time a sweat breaks out, which relieves the pains, and, if encouraged by warmth and heating things, continues for some days: a griping is not uncommon; yet it more frequently occurs when these symptoms have continued for some days, and is then generally accompanied with a looseness.

WHEN this complaint happens so early as the third or fourth day, it commonly makes its attack in the manner here described; but when it is much later of coming on, it steals on imperceptibly

perceptibly and without much shivering (or a *shake* as it is commonly expressed) or any extraordinary degree of burning heat; when, the first appearances of it are, a heat greater than usual, a languor and faintness, a sickness frequently with vomiting, a sweating, and constant griping with a looseness.

THIS may be distinguished from the milk fever (mentioned immediately after this), by the shivering, which does not happen at the beginning of the latter; and by the breasts, which, in this case, are often more than ordinarily easy and soft; whereas in the milk fever, they are always swelled, hard, and painful.

FROM the long string of unfavourable symptoms here enumerated, this complaint will appear alarming, if not dangerous: it would be disingenuous not to acknowledge *it is so*: but however alarming this declaration may appear, the alarm will be greatly abated, if not entirely removed, when it is observed, that this fever, with all its alarming consequences, may be, perhaps, *always* avoided; and that, when it does happen, it is occasioned entirely by improper management before, but chiefly at and after delivery.

THROUGH the whole of the directions and rules, that have here been offered, from the

time of delivery, a particular caution has always been given against a close room, heat, and heating things; and it has been observed (page 299) that there is a particular disposition to fever and feverish symptoms at this time. This *child-bed fever*, therefore, is no other than that feverish disposition increased and aggravated by heat and its consequences; the chief of which is, foul confined air from the closeness of the bed and room; and may as certainly be avoided by a due observance of the rules there and afterwards laid down. The preventive means, therefore, have been fully described. But when the complaint does happen, although it will be always necessary to procure proper medical assistance as early as possible, yet, in the mean time, the following directions may be observed to great advantage.

WHEN, if about the third or fourth day after delivery, a coldness and shivering should come on, instead of overloading the bed with cloaths, and pouring into the patient all the hot and strong things that can be come at (as is the common custom upon this occasion), it will be more advisable to rub the legs and feet with a warm hand, and to wrap them up in a flannel petticoat, or something of the like kind, made warm; and, if the thirst requires it, to give her
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a little weak wine and water, without nutmeg, moderately warm; or a little thin gruel, in the same manner: for, if much heat is applied, or heating things given, the hot fit, which is sure to follow, will be proportionally aggravated and prolonged. When the hot fit comes on, the heat and sweating must not be encouraged, but, on the contrary, discouraged, by undrawing the bed-curtains; by making the room cool, by removing the fire, and, according to the weather and season of the year, setting open the door and a window; by sitting up in bed; getting out of bed; and by taking the food and drink cool: by some, or all, of which means the farther progress of the fever will be commonly prevented, always mitigated. It is to be observed, that the sweating must not be *stopped immediately*, and entirely, upon its first breaking out, by cold and cold things; but rather *discouraged gradually*, so that it may entirely cease in the course of a few hours.

It is a common opinion, that, when shiverings come on, they must be occasioned by cold; and that warmth and forced sweating are necessary to expel it and carry it off. This mistaken conclusion may, most likely, have all along betrayed nurses and others into the erroneous practice of warmth and heating things, by way of
avoiding

avoiding and preventing so formidable an evil, in this situation; and unfortunate it has proved to preceding ages that so fatal an error prevailed so long; as it is discovered, that not cold, but, its opposite extreme, heat, and its consequences, are the only causes of it; and that the greatest degree of heat, that could safely be administered, would not avert, suspend, or even lessen the shiverings.

As this fever may be entirely brought on by heat and close confinement, with those who are the least disposed to it; how much must it be increased and aggravated, by such means, with those who have, from constitution, a more than ordinary disposition to it?—It must, as it has often done, prove alarming and dangerous.

It very rarely happens that any, even the slightest, appearance of this fever is discovered when the cool treatment above described (pages 298, 304 and following) is properly observed from the time of delivery; and, more especially, when the diet and exercise during pregnancy (pages 278, and 282), are attended to. The diet in a particular manner, as there observed, is worthy attention; as it is as much calculated to prepare the body to resist, or rather to check and subdue this fever, as it is serviceable in the preparation for the small-pox, for the purpose

pose of rendering that disease more mild and favourable.

ATTACKS of this fever are more frequent, from midsummer until the frost sets in, than at any other season; therefore, more care is requisite to prevent it, at those seasons. And as butter-milk, whey, and vegetables of all sorts, are then in the highest perfection, such as are found to agree may be made use of during pregnancy, as well as in lying-in.*

A MILK FEVER, which is by some so much dreaded, happens about the fourth or fifth day, and is occasioned by the swelling and hardness of the breasts, consequent upon the first coming of the milk into them.

EVERY unusual degree of heat and fever that happens at this time, and is occasioned by the

* *To the Medical Reader.*—As the *puerperal fever* regularly discovers evident marks of putrescency, it may be supposed to be, as it is, most prevalent at the decline of the year; that season favouring a putrescency of the fluids. The advantages, therefore, from a diet chiefly vegetable, when it agrees, and exercise, with the inhabitants of large towns especially, during pregnancy, are too obvious to need farther comment; as also, a strictly cool treatment, and every other obviating means, in lying-in.

milk,

milk, may be called a milk fever ;* although it seldom is worth notice, nor has that name given it, except when the fever runs high and is in the extreme.

It will follow, from what is now observed, that the cure of the milk fever must entirely depend

* *To the Medical Reader.*—The heat and feverishness that is observed to take place upon the first secretion of milk in the breasts, seems to be purely *symptomatic*, from the *local* affection ; and not *general*, as depending upon absorption of milk at all, or any other cause. If the fever was *general*, it would of course be regularly accompanied with *rigor* ; which we do not find it is, except when, from a continued obstruction of the milk from want of drawing, from an inflammatory disposition in the breast or breasts, or from a *phlogistic diathesis* in the system (see note to page 334), a suppuration takes place ; and, if it was from absorption, it is most likely that it would assume the appearance of a hectic, which is not to be observed at this early period, without preceding suppuration. As it rarely happens but that more or less of heat and feverishness may be discovered to accompany the first formation and secretion of milk, and which increase as the breasts become distended, but which are as effectually and instantly relieved by drawing the breasts ; so, the stimulus given to the secreting vessels by their increased action, and the distention of the lacteal tubes, as also that of the external teguments, appear to be the sole (and also sufficient) causes of the feverish symptoms : for so early as the second or third day from the first symptom and appearance of secretion (which does not take place while the lochia is

pend upon the abating and lessening the inflammation, swelling and hardness of the breasts; and that the preventing it will also depend upon not suffering that inflammation, swelling and hardness to take place; all which means have been fully spoken of and explained, see page and following). Drawing the breasts, keeping cool, taking nothing but what is cool and of a

is undiminished) no degree of absorption, sufficient to produce so material an effect, can be supposed to happen, yet the symptoms of fever are, about that time, often very urgent. It is true, when partial tumors and hardnesses are formed, whether of a cancerous, scrofulous, or the like kind; or when, from long retention of the milk; cold taken; or any other cause; rigors, and other symptoms of general fever; or hectic from absorption, will take place; but which differ much from what is generally understood by a milk fever commonly so called, happening so early as the third, fourth, or fifth day after delivery, and the second or third of its real secretion; in which short space the milk, if really absorbed, cannot be supposed to acquire a morbid acrimony sufficient to excite fever.

As the milk fever, so called, is commonly supposed to happen from an absorption of that fluid, an inquiry into the real nature of it may have its use in practice; and, if the distinction here offered appears eligible, the title of *milk fever* will necessarily be exploded by the *medical faculty*, and, *symptomatic fever from secretion of milk*, or something of the like import, substituted in its place; as no *partial, local* cause, without a *general* participation or affection of the system, can properly constitute a *distinct species* of FEVER.

cooling

cooling quality, and sitting up in bed, or getting out of bed, must be all complied with as circumstances will permit, and as have been advised in their respective order.

A MILIARY FEVER is what lying-in women are known to be sometimes liable to; and is known and distinguished by an eruption resembling a rash, coming out commonly first upon the neck and breast, afterward upon the other parts of the body, and seldom or never upon the face: it generally appears the thickest upon those parts that are kept the warmest and closest covered.

THE eruption, upon its first coming out, is red; but towards the second or third day it becomes white; and soon after goes off with a dry scurf. The complaint does not however terminate here, as it is immediately succeeded by another rash or eruption, which proceeds, and goes off, in the same manner; and that, sometimes, successively and repeatedly.

THE time of its first appearing is uncertain: it seldom comes before the end of the first week; and may happen afterward at any other period of the confinement, to the bed particularly. It is attended with a sense of weakness, and a dejection and depression of spirits.

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THIS fever, and these appearances, are entirely occasioned by much warmth, warm and heating things, and, more especially, by much and long continued sweating in bed, as there is every reason to suppose it never happens without, and except in consequence of, much sweating. The means for preventing it therefore are very clear and obvious; and if the method and directions at, and from, the time of delivery, and during lying-in, page 298, are properly attended to, it may always be with great certainty prevented, and need never be feared or apprehended.

WITH respect to the treatment and cure of the miliary fever when it does happen, it may be observed in general terms; that the same means which will prevent it, are also the likeliest and best suited to remove and cure it. The medicines, and other medical treatment of it, cannot, with any prospect of advantage, be here given; however, the following directions may, so far, be safely observed and attended to. Every means that can heat the patient must be cautiously avoided. The room must be made cool, by removing the fire, or setting open the door, and even a window if needful. The bed-curtains must be undrawn, and any additional quantity of bed-cloaths, if any there be, be removed; *all which must be done gradually.* Whatever she takes

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as food or drink, must be cool, and without spices, wine, or spirits of any kind. If she is costive, a stool or two, and not more, must be procured by a glyster, lenitive electary, infusion of senna, or castor oil: much of a looseness will be injurious.

As soon as, by these means, the heat and sweating are checked and abated, she must be raised up and supported in bed, and, with the assistance of a bed-chair, she will perhaps be able to sit up in bed; and which she may do once, twice, or oftener in the day; observing, that she be not too much covered up and muffled in the bed-cloaths, &c. and that she has her hands and arms out of bed, which will be a means of putting an entire stop to the sweating, and, of course, of removing the disease. She ought, as soon as she is thought able to bear the fatigue of it, to be got out of bed once a day, which will be an effectual means of removing any remains of the complaint, and also of preventing a return of it. The notion that is commonly entertained of the propriety of keeping up a heat and sweating, by way of forcing out the rash or eruption, is very erroneous, as the heat and sweating are the sole causes of the rash, and consequently the removal of them must be the most sure means of removing the complaint: and except the sweat-
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ing is checked, and even entirely stopped (which may be done, with safety, by degrees), all other attempts to remove the disorder will be vain and fruitless. It is well known that long continued sweating, will, alone produce a rash at any other time, and upon any other occasion.

THIS complaint is justly dreaded, as it has often proved fatal, in this situation, when in the extreme; although a slight attack of it may be got over without danger. It was very common, when sweating and long confinement in bed, and heat and heating things were in vogue; and is much less so since the cool treatment has been introduced. Those of weak and delicate habits seem more liable to this complaint than the strong and healthy.

*Of dispersing or putting back the Milk of
those who do not intend to give Suck.*

WHEN a mother does not intend to give suck, it will be advisable to make use of such means as will prevent a flow of milk to her breasts, or any inflammation in them. For which purpose, from the time of delivery, a particular abstemiousness ought to be observed in the diet;

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which ought to consist of, what may be called, the substantial, rather than the thin and diluting; as for example, the gruel may, if it can be so taken, be rather thick, than thin; but still without wine or any thing heating in it. *Chocolate*, when it is liked, is perhaps the most suitable food, as it is not at all disposed to turn to suck; and may be begun with immediately after delivery. Light *puddings*, and *custards*, may be taken for dinner, so early as the second or third day. *Liquids*, of all sorts, ought to be drank as sparingly as possible, although a thirst should call for them. On the third day, a stool may (if it be wanting) be procured, by a glyster, lenitive electary, or castor oil.

SOME have little or no difficulty in dispersing or putting back their milk, while others have a great deal of trouble with it. In general, the delicate, and they who do not use much daily exercise, have the least milk, and consequently will have the least trouble, oftentimes none at all, in putting it back. But the healthy, and they who have strong constitutions; as also they who use labour, or much bodily exercise, are those who have the greatest flow, and who will have the most trouble and difficulty in dispersing it.

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THE breasts need not be drawn at all, except they are uneasy and very stiff; and then they may be drawn once a day, or oftener, in proportion as the swelling and uneasiness continue or increase.

THE benefit supposed to be obtained by plaisters, and all other outward applications, is chiefly imaginary; and the generality of them are displeasing and disagreeable.

WHEN the breasts are much swelled and feel very stiff, a little neats-foot oil, and particularly a little goose grease, rubbed gently upon them, will soften them and give them ease.

IF, notwithstanding these means, the pain and swelling still continue, the breasts must be frequently drawn, to avoid a gathering; and if a gathering should really threaten, the means above-recommended upon that occasion, page 324, must be strictly and diligently complied with, to prevent it.

DRAWING the breasts is commonly as much avoided upon this occasion as can be, as it sometimes brings a flow of milk that is not readily got quit of. Yet howsoever troublesome that may be, it is much less to be apprehended and avoided than a gathered breast; and, therefore, it is always safer to draw them sufficiently, than to run any risque from not doing so at all, or but imperfectly.

WERE ladies to be governed and directed by an attention to their own immediate health, and the benefit of their constitutions, more than choice or fashion, they would, when they have it in their power, give suck to their children. No other argument need be urged to convince them of the propriety of it, than its being the order and design of nature, the counteracting of which, as one of her most familiar and regularly intended processes and operations, must be injurious to the constitution; and whenever it is done, the constitution receives a check and a shock that tends to its immediate or future disadvantage. *

It is not always necessary that a mother should give suck for a long time; a very good and salutary purpose will be answered by doing it for two or three months; † which, if a hardship, is

* *To the Medical Reader.*—Dr. Cullen speaks of this, as a remote cause of the MENORRHAGIA, “by overstraining the extremities of the uterine vessels:” and which must often be the consequence of an unseasonable determination to those parts.

† GIVING suck *one month only*, provided the mother is not willing or capable of doing it longer, may benefit her constitution: and the child in the course of one, two or three months may have thriven, and acquired so much strength,

is but of short duration, and of trifling import, when placed in competition with health, the greatest blessing of life.

MANY and frequent are the instances of bad health and sickly constitutions being restored and improved by nursing; and as many that are occasioned by a want of it. *Nervous* and *hysterical* complaints are generally surprisingly benefited by it.

THE trouble, that attends nursing, is greatly magnified to an observer, who notices only that part of it, without being sensible of the infinite and ineffable delights that invariably accompany, are inseparably connected with it.*

strength, as to do very well with being weaned; but if that is not the case, and it does not seem advisable to wean him, a wet-nurse may be got with as much propriety then, as at his birth. Mr. *White* says: "If the patient does not suckle her child, it is better to have her breasts drawn, that her milk may gradually decrease, than to repel it suddenly. But should she be persuaded to consent, it would be better for her to let the infant suck a month, than to have her milk dried up sooner, and this I am sure would in no case hurt even the tenderest constitution." *Treatise on the Management of Pregnant and Lying-in Women*, page 147.

* THERE is a number (No. 246) in the *Spectator* solely devoted to the subject of mothers nursing their own children.

Six, or eight months, is a period as long as a mother can give suck consistent with a proper regard to her own health; a longer time may be weakening, especially to a delicate constitution, particularly in hot weather; and children may be weaned at that age, with great safety and propriety, if they are tolerably healthy and thriving. There are those of strong constitutions who will give suck ten months, or longer, without any apparent present injury to themselves; yet, with those, that is a period which ought not to be exceeded (see page 266): for although nursing, for a certain length of time, benefits the constitution; yet it may be continued so long as to injure it. The extremes of not giving suck at all, and of continuing it too long, ought both to be avoided. There are many robust country women who give suck for two years, or longer; and which they appear to do without any present disadvantage to themselves; yet when they do it of a number of children, it undoubtedly impairs the constitution. This unusual ability in nursing is, however, chiefly confined to the rank and station here named;*

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* A COUNTRY woman, in this neighbourhood, gave suck to her first child sixteen months; at which period, she

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as that part of the sex whose exercises and employments are confined to what is understood by the polite and fashionable amusements of the age, together with its luxuries and indulgences, are so far from being capable of such an exertion, that a great many are not able to nurse at all, for want of suck; and others do it very imperfectly, although anxiously disposed to do it.

NURSING very seldom disagrees with the mother when she has a good appetite, and plenty of suck: therefore, when she is disposed to nurse her child, she may always do it, not only with safety, but even to advantage to herself, for a few months, whatever may be the state of her constitution, while her appetite is pretty good, and she has a tolerable supply of milk for her child; and when these fail, she may, and can at any time, readily wean him. A good appetite is one of the most favourable circumstances that attends nursing; and it seldom disagrees when

was delivered of another child; to which, with the first also, she suckled twenty-one months longer, and until she was within three months of her time of the third. So that, she gave suck, to one child, three years and one month: and to two children, one year and nine months of the latter part of the time; and all this without any intermission, and had during the whole time (about a month at the last excepted), to use her own words, plenty of milk.

the appetite is tolerably good, although the suck should not happen to be much in quantity.

PAINFUL and afflictive emotions of the mind ought as much as possible to be guarded against, as they not only cause the suck to disagree with the child (page 135), but also lessen its quantity; and, when excessive, will sometimes take it away entirely. They are liable to be excited at this time by many causes; such as; when the child cannot readily be brought to take the breast; from the child's fretfulness, occasioned by indisposition or any other cause; from the mother's very great anxiety to accomplish her giving suck, &c. when from these, or any other causes, the mother gives way to grief and fretting, she may expect her suck will be diminished: it therefore behoves her, if she is desirous of preserving her suck and her child's health, to endeavour, as much as possible, to preserve a serenity and composure of mind, upon all occasions. It is very common for a mother, of her first child, to be alarmed unnecessarily and without cause at many trifles respecting her child; but which a little experience will enable her to distinguish, and ought, hereafter, to make her disregard.

MUCH *sweating*, particularly in bed, will diminish the suck; therefore every cause, that will promote

promote and encourage sweating, ought to be avoided.

SOME have a tolerable supply of milk for one, two, three, four, or more months; and then it decreases considerably, or entirely ceases: but, be the time longer or shorter, the benefit that is derived to the constitution from nursing, is sufficient always to encourage and favour a trial of it.

As nursing may be said almost always to agree with the mother when she has plenty of milk; so it very rarely disagrees with her except for want of a sufficient quantity of suck: therefore if, at the beginning, she has but little suck, or if, at any time afterward, her suck sensibly decreases, and if her appetite fails her, and she is sensible of an almost constant languor, faintness, and universal weakness, especially upon the child's drawing the breast, she may with great certainty conclude that nursing disagrees with her, and that the sooner she weans her child, or gets him another breast, the better; as any farther attempt, on her part, will sicken her, and reduce her strength and spirits; and the child will be prevented from thriving, and consequently no way benefited by it.

HOWEVER, it may happen, [as it very frequently does, that the mother's want of suck, and her indisposition otherwise, may be occasioned

ed by various circumstances, as, her confinement to the house, and want of exercise in the open, pure air; a want of a proper diet, &c.: upon which occasions, if she is desirous of nursing, she may, as her strength and other circumstances will favour it, if she resides in a town, try the effects of a country situation and the air and exercise it affords; and that, in a carriage, on horseback, or by easy walking, as suits her inclination and convenience, and the season of the year. It is a general, and no less just, observation, that the quantity of the milk is always increased upon the first motion and exercise within doors, and still more evidently upon going out of the house; a clear proof of the utility and efficacy of exercise and air upon this occasion, and which the country affords, and will admit of, in the greatest perfection. It must be observed that the exercise be moderate, and such as will not produce much fatigue of body or spirits.

As an attention to the diet may very much conduce to perfect this desirable purpose, it must not be neglected. *Liquids* and *spoon-meats*, are to be preferred to *solids* or *flesh-meats*, for general use; not that the latter need be avoided, at dinner particularly, when they are liked. Some articles of the diet are found to have a tendency
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to increase the milk more than others. *Malt liquor*, where it agrees, and is liked, is very well suited to answer this purpose, and may be indulged in as freely as the inclination shall prompt or require, and by which the quantity should always be governed; for neither that, nor any other liquor, should be forced upon the stomach, or taken in much larger quantities than the appetite has a natural call or desire for, as, so taken, it can answer no good purpose. A moderate thirst is no unfavourable circumstance, especially when the appetite is tolerably good at the same time, as it directs a supply of what passes, and is converted into, milk. When malt liquor is drank, barrel porter, slender barrel ale, or good table beer that is not very new nor upon the turn, are preferable to bottled ale or beer, and such as are strong, or in the least tart or windy. *Chocolate* tends more to the nourishment of the body than the promotion of suck, and therefore is not suited to this purpose. *Milk*, in its natural state and as it comes from the cow, does not much promote an increase of suck; but when prepared, as in the form of possets with wine or ale, in whey, or as butter-milk, it assists very powerfully; perhaps nothing exceeds butter-milk and whey, for this purpose, when they agree. *Roots*, and *vegetables* of all kinds

kinds, that are found to agree with the stomach and bowels, are proper. *Fruits*, that are ripe, may be moderately taken, especially the more sweet and mellow; but those that are unripe, or naturally sour when ripe, should be more carefully avoided, as they may gripe the child. It appears unnecessary to urge the impropriety of acids, as vinegar, pickles, &c. at this time. The use of *spirituous liquors* ought to be limited; and they should never be taken, except when they may be required as a medicine; as they will not increase the milk, may injure the stomach and constitution, and may affect the child. *Gruel*, of any kind, that is best liked, may be taken as often, and at such times of the day, as is agreeable; and without, or with, a little quantity of wine; but gruels are seldom much relished after lying-in. *Cold bathing*, particularly in the sea, is sometimes found considerably to increase the milk; and, if other means fail, may be tried: it may safely be begun with about the end of the second month, when nothing very particular, as the season of the year, &c. forbids it thus early.

IF, after a proper compliance, as far as circumstances will allow, with the above rules, the appetite, strength, and spirits, are not benefited, nor the suck apparently increased; it will be the
most

most advisable to decline any farther attempts of nursing, for the present. If it be of the first child, it ought not to be considered as a specimen of what may be expected hereafter upon another the same occasion; as it is very common to have but little milk of the first child; and many who have had very little of the first, have great plenty afterward. This want of milk of the first is a common reason for discouraging and declining another attempt; but which, from what is here observed, ought to be no obstacle to another attempt, upon a like future occasion. But if, on the contrary, after complying with these rules, the suck, strength, and spirits, with a good appetite, promise to increase, the mother's happiness will be complete; and she will be enabled to perform the pleasing duty of supporting her own lovely offspring, with satisfaction and delight to herself, and singular advantage to the sweet innocent.

WITH regard to the *diet* and *exercise* during the remaining time of nursing; any thing that could be farther said upon them would be only a recapitulation of what is here mentioned, and has already been given, when treating of the diet and exercise of a wet-nurse (page 136,) and during pregnancy, (pages 278 and 282,) to which I refer the reader, to be governed and directed by,

by, hereafter, with equal propriety and advantage. The *diet* ought, in general, to be *plain* and *simple*, and chiefly of the *vegetable* kind; and the *exercise* ought to be *frequent* and *regular*, and such as can be taken with *pleasure*, and will not *burry* or *fatigue*.

THE END.

