

THE
SIGNS, DISORDERS
AND
MANAGEMENT OF PREGNANCY :
THE
TREATMENT TO BE ADOPTED DURING
AND AFTER CONFINEMENT ;
AND THE
MANAGEMENT AND DISORDERS OF CHILDREN.

WRITTEN EXPRESSLY FOR THE USE OF FEMALES.

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PREFACE.

It is universally admitted that a knowledge of the means best calculated to promote the welfare and comfort of women during pregnancy and confinement, is highly important; and it is to be regretted, that in these enlightened days such knowledge is not more generally diffused amongst females; particularly as the want of it is frequently attended with the greatest mental disquietude, and other still more serious consequences. In fact, the unnecessary suffering is incalculable, which young females frequently undergo during their first pregnancies and confinements, from ignorance of the alterations and symptoms peculiar to those states. And their extreme delicacy prevents them, in many instances, obtaining that relief which might easily be procured, if the causes of such sufferings were made known to experienced friends, or to their professional attendants.

But the mind is not unfrequently so constituted, that neither pain, anxiety, nor fear, will induce a disclosure to be made of such causes of

suffering. Under these circumstances it is essential, that females should possess a work containing the information they may require, with a view to add to their mental comfort, as well as to enable them to adopt plans suited to the exigencies of their conditions.

Unhappily, the information contained in medical works on such subjects, is usually conveyed in technical language, and interspersed with remarks intended for practitioners only, and not at all calculated to be useful to females, but rather to excite needless apprehension, and that, at a time when the feelings are highly sensitive, and when mental tranquillity is particularly desirable.

From the circumstance also, of those works being published chiefly, if not wholly, for the use of the profession; no line is drawn between the disorders which require the superintendence of the medical practitioner, and those which may be intrusted to the management of the unprofessional attendant.

With a view to obviate these objections, and to facilitate the spread of information on subjects so intimately connected with the welfare of society, this volume has been published. It contains, in a condensed form, and free from all technical expressions, a description of most of the sensations, alterations, and disorders, incident to pregnancy and confinement; and the acknowledged

plans for the prevention, removal, or mitigation of suffering.

Besides which, directions are given in cases where the accoucheur is not present, to enable the female attendant to adopt the necessary measures during and after delivery. The course to be pursued when flooding occurs, is also pointed out ; which is a subject of such vital importance, that no female should be intrusted with the care of a woman during her confinement without being perfectly acquainted with it.

Directions are also given, to enable the nurse to pursue the proper measures for the restoration of infants apparently lifeless when born.

And to render the work more generally useful, principles are laid down in simple language, for the guidance of those who have the superintendence of children during the first years of their existence, which, if acted upon in health, as well as illness, will conduce alike to their own comfort, and to the welfare of the children themselves. For if, at any time, such children should become permanently feeble, or diseased ; or should they eventually die ; a consciousness that their treatment was founded upon sound principles, will prevent the poignant regrets so often endured, when a conviction exists, that the calamities were the result of ignorance.

Throughout the work such disorders only,

have been dwelt upon, as may be attended to with safety by females themselves; and even in those cases, such a description of their appearances is given, as will enable them to decide when professional aid becomes requisite.

In every case, the treatment recommended may be regarded as neither untried, nor hazardous, but such as is practical, and generally acknowledged.

Derby, March, 1834.

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ON THE
SIGNS, DISORDERS, AND MANAGEMENT
OF
PREGNANCY.

THE SIGNS OF PREGNANCY.

PREGNANCY in most instances is first indicated by a cessation of the periodical discharge. In some rare cases, however, that discharge continues without any perceptible alteration for several months.

An irritable condition of the system also generally prevails, by which the stomach and other digestive organs are especially affected, producing loss of appetite, unusual desire for peculiar kinds of food, as well as heartburn, nausea, and vomiting.

These symptoms are often accompanied by feverishness, with flushings of the face, and by heat and dryness of the hands, coming on several times during every twenty-four hours. The sickness is usually most urgent in the morning, becoming less troublesome as the day advances, and in the evening it generally ceases.

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may be felt within the abdomen of an oval shape, and of considerable firmness; small between the fourth and fifth months, and gradually enlarging till it has reached its greatest dimensions. If the enlargement is not of firm consistence, there is much reason to doubt the existence of pregnancy.

The navel, which is depressed in the usual state of the abdomen, becomes prominent after the sixth month, in consequence of the internal pressure of the womb. This appearance, however, may occur from any organ being enlarged, so as to occupy the same situation as the womb would do at the sixth month. It is, therefore, not a positive indication of pregnancy, but it is a valuable one if accompanied by the other signs.

If the hand, and especially if it be made cold by immersion in water, be laid upon the region of the womb, in the middle or latter months, the movement of the child can occasionally be discovered. This is perhaps the least dubious of all indications. There are some very rare cases, however, where no movement can ever be ascertained either by the mother or her attendants.

In the majority of instances the ancles and feet are swelled almost from the commencement of pregnancy, and occasionally such condition affects the whole of the lower limbs. On the contrary, some females never suffer from such swelling.

It is of great importance that a suppression of the periodical discharge, arising from a disordered state of the general health, and that an increased size of the abdomen, from an accumulation of fat, or from diseases of various kinds, should not be mistaken for symptoms of pregnancy. Fortunately it will rarely happen that error from such causes will occur, if the whole, or the greater number of the above symptoms are present.

The signs of pregnancy which have been described, will, in almost all cases, be sufficient for the formation of a correct decision, provided they are carefully noticed, and also the periods at which they commence.

Peculiarities, however, will occasionally be met with, rendering the existence of pregnancy very doubtful, and requiring the most minute investigation.

THE DISORDERS OF PREGNANCY.

FROM the enlargement of the womb during pregnancy, various mechanical effects are produced upon the surrounding parts, and its altered condition gives rise to innumerable sympathies through the medium of the nervous system. From these two sources arise all the disorders incident to pregnancy.

The degree of inconvenience or suffering from such disorders depends chiefly upon the state of the constitution. Individuals, naturally vigorous, and fully arrived at maturity, having their constitutions unimpaired by luxury and indolence, or by the restraints or indulgences too often practised in childhood, will generally suffer far less than those who enter upon married life before sufficient time has been allowed for their bodily powers to become established. It must therefore be evident, that means should be adopted to induce a healthy state of the system, before, as well as during pregnancy, in order to prevent unnecessary suffering. For this purpose, plain nutritious food, and, if required, moderate stimulus should be taken.

Attention ought also to be paid to exercise and repose, and, as far as possible, all causes of mental or bodily irritation should be avoided.

It is a consolatory fact, that pregnancy occasionally produces the most beneficial effects upon the whole system, rendering the health far better than it had ever been previously. Such instances are usually observed in feeble, or torpid constitutions, where excitement is necessary to rouse their energies.

There are no organs which sooner sympathize with the important changes taking place in the womb than the digestive, whence arise irritation and indigestion, producing nausea, vomiting, heartburn and flatulence, fastidious or capricious appetite, and unusual cravings for food, spasm of the stomach and intestines, and irregularity in the action of the bowels.

But before enlarging upon these affections, it will be well to devote a chapter to the subjects of indigestion, and the general management of the digestive organs, and also one to the subject of feverishness.

**INDIGESTION, AND THE MANAGEMENT OF
THE DIGESTIVE ORGANS.**

By the term digestive organs is meant the stomach, bowels and other parts employed in digesting the food.

To manage the digestive organs in a satisfactory manner, it is requisite that the following statements should be borne in mind.

Every one must be aware that the strength of an individual is not capable of being increased beyond a certain extent, although the utmost effort be made for that purpose.

The mental and bodily powers should be duly exerted to maintain health. For if there is an over expenditure of power, in consequence of mental occupations, not only will the organs of the mind, namely, the brain and nerves, become enfeebled, but many, or all of the bodily organs will cease to act in a healthy manner, from the power of the system being so far exhausted by the mental actions, that there will not be enough remaining to keep up a state of bodily vigour.

And on the other hand, if too much work be performed by the organs of the body, they will not only eventually become enfeebled from over exertion, but the mental actions will be diminished by the energies of the system being expended

in too great a degree upon the bodily organs. And further, if both mind and body be over employed, general debility will necessarily follow.

But over exertion is not the only cause of feebleness, for independent of disease, it may be produced by inactivity. It must therefore be evident that moderate exercise is generally conducive to health; and as what is performed with perfect ease by one individual, is severe labour to another, experiment and observation must direct in each case what is to be considered moderate exercise.

It must be remembered that to a certain extent, the mental, as well as the bodily, powers, may be increased by exercise, where a greater or less degree of indolence had prevailed.

It is upon the preceding principles that the digestive organs are occasionally enfeebled.

For if the mind is kept in such a state of exertion as to engage an undue portion of power, or if the limbs, or other parts of the frame are oppressively employed, there will not be a sufficient quantity of animal power left to enable the digestive organs to act in a healthy manner.

Thus it is that too much study, anxiety, as well as too much corporeal exertion, will induce debility by leading to derangement of the digestive organs. The same effect will be brought on

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by power being expended in an undue degree by the process which goes on during pregnancy.

From the foregoing observations, it is evidently of the highest importance to economize the powers of the system during pregnancy, in order to avoid derangement of the digestive organs.

For as the process which is carried on in the womb is such as to demand much animal power, it is highly necessary to prevent any being lost by the over exertion of other parts of the system.

Although the greatest attention be paid to promote health, and especially to establish a vigorous state of the stomach and other parts employed in digestion, it will very frequently happen that a feeble condition of those organs will exist throughout the whole, or the greater part of pregnancy.

It is therefore not only imperatively necessary that the foregoing plans should be adopted, but that the strictest attention should be paid, to prevent more food being taken than is requisite to invigorate the frame; and that it should be such as is most easily digested, in order that the enfeebled and deranged digestive organs may have as little labour imposed upon them as possible.

A very large portion of bodily health and comfort depends upon the quantity and quality of the food being properly adjusted.

This is a subject of paramount importance, but it does not admit of directions applicable to all cases, as the peculiarities of circumstances and of constitutions cause some kinds of food to be digested with perfect ease by one individual, which, by another, would be digested with much difficulty. Consequently, in every case of feeble digestive organs, that kind of food should be selected, which, after repeated experiments, is discovered to agree the best.

There are, however, certain articles of diet which will generally be digested with ease, whilst others will continually disagree, therefore a short account of the qualities of different descriptions of food in ordinary use may be of service.

The most valuable kinds of animal food are those which are the most nutritious, and at the same time the most easily digested. They are venison, mutton, beef, game and poultry, with the exception of water-fowl.

Those which rank the next, are veal, lamb, and other young meats, together with the white kinds of fish.

Those which are the most difficult of digestion, and at the same time contain much nutriment, are pork, hard dried, or long salted meats, geese, ducks, salmon, and eels.

The fat of animals is more difficult to digest than the lean.

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Potted meat is never so easily digested as that which is thoroughly broken down by mastication.

When meat cannot be eaten, plain broth, or soup of mutton, or beef, is a good substitute for the more nutritious solid animal food; jellies will be good substitutes for those which are less nutritious.

Eggs hold a middle station between animal and vegetable support; they are commonly well suited to feeble stomachs, provided they are not boiled till they become hard.

Cheese is frequently very indigestible, unless rendered stimulating by being rather decayed. In many cases it agrees best when toasted.

Butter is very irritating to some feeble stomachs; as a substitute for it at breakfast a little grilled, not fried, bacon may be eaten. Those who do not dislike the flavour may use salad oil in its place.

Milk is very nutritious; it agrees well with many persons, but is oppressive to some who have inactive digestive organs requiring food of a more stimulating quality. In these cases the addition of a little ginger, or other spice, will frequently remove the difficulty.

Cream and water will occasionally suit better than milk.

Plain biscuit and stale bread are easily digest-

ed. New bread and close sticky pastry are difficult of digestion. The other best forms of farinaceous food are puddings, consisting principally of stale bread, or biscuit, flour, rice, sago, and other preparations, as tapioca, and the like, provided they are not close and adhesive.

All puddings of boiled paste are difficult to digest, particularly if they contain sweetmeats.

Asparagus, mealy potatoes, turnips, carrots, brocoli, cauliflower, young French beans, and spinage, are amongst the most digestible vegetables which undergo cooking. Of those which are eaten uncooked, the best are lettuce, young onions, and the warm sorts of cress, especially water-cress.

Amongst the cooked vegetables of an indigestible character, are to be enumerated cabbage, unless very young and soft, close, or waxy potatoes, and large beans and peas.

Of uncooked vegetables, the worst are cucumbers, radishes and celery.

With regard to fruits, those most proper to be eaten are strawberries, the inner parts of grapes, oranges, and gooseberries, and some of the least close, or acid apples. Next to these, rank peaches, nectarines and apricots, currants and raspberries.

The least digestible are melons, plums, cherries, pears, and mulberries, unless very ripe.

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Almost all fruits when preserved in the form of sweetmeats, are particularly disposed to oppress, or to become acid in the stomach, which probably arises from the sugar they contain, as that produces such effects more frequently than any other article of diet.

The more simply food is cooked, provided it be well cooked, the better.

Articles of diet without sauce or spice are the most easily digested, by all whose stomachs have not been previously accustomed to such stimulants.

In cases, however, where the digestive organs are very inactive, a moderate quantity of spice may be useful.

Where the system is free from inflammation, or fever, and yet the stomach so feeble as to be unable to take more than a small portion of food at each meal, it will frequently be found necessary to let the diet consist of the more nutritious and easily digested meats, with a moderate quantity of stale bread, or biscuit, or other farinaceous food, and a small portion of vegetables; where it does not oppress, a little animal food may be taken at breakfast as well as at dinner.

In almost all instances where the appetite fails, or where the digestive process is carried on with considerable effort, it will be found highly beneficial to leave off eating meat for one or two days,

and to restrict the food to the description alluded to above. By such occasional restriction it will not unfrequently be found that the energies of both body and mind will be augmented, and any tendency to gloom, or despondency diminished. This is a point of great importance.

Where slight inflammation, or fever is present, if any animal food be allowable, the less stimulating kinds should be taken, and those sparingly, such as veal, chicken, white fish, or broth of veal, or chicken, with light puddings, simple vegetables, and fruits.

Where there is more decided inflammation, or fever, the mildest forms of food are to be given, as rice, sago, tapioca and gruel ; with fruit, such as oranges, grapes and strawberries.

In the most acute forms of inflammation and fever, the patient will require to be kept strictly upon liquid food, as gruel, barley water and weak tea. But it is unnecessary to dwell here, as a medical attendant must of course be at hand to direct.

What has been stated with regard to the qualities of food will be found of considerable importance, and yet the quantity is still more so. Unfortunately no rule can be laid down for this.

As to the quantity of food, it can be ascertained only by experiment ; for that which is found

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requisite for an individual at one time will not be found so at another.

It may, however, be well to keep in mind, that more injury is to be apprehended from the quantity being too great, than from its being too small. Almost every person eats too much!!! And it is generally from the digestive organs being required to do more than they can perform well, that indigestion is induced with its innumerable miseries of body, and its endless list of mental sufferings, manifested by pain, irritability of temper, moroseness, despondency, groundless fears, and, what is perhaps the worst of all, insensibility to every object, or pursuit that ought to interest. In short, oppressed digestive organs are one great source of the miseries observable through life. At the first view, this assertion may seem to go beyond the truth, but if investigated, it will be discovered to be borne out by abundant facts. For if the digestive organs are in a vigorous and unoppressed state, those which may be considered as real calamities, provided the mind be well regulated, will generally be endured without much suffering, and the anticipations of future evils will be comparatively few.

The meals should be taken as regularly as circumstances will permit, and experiment in every case must determine what are the most suitable hours for their reception. Where there is moder-

ate vigour of constitution, there may generally be an interval of six hours between the principal meals, which ought, in most instances, to be three in number, namely, breakfast, dinner, and that taken in the evening, whether in the form of tea or supper.

The last meal should not be later than to allow at least two hours to elapse before retiring to bed; for if the stomach be occupied by digesting food during the night, it will be prevented having the rest requisite to ensure its vigour. In short, to take a late supper, of food which requires much energy for its digestion, is to commit an act most prejudicial, to both mental and bodily comfort.

Some persons, from long habit, are unable to leave off eating a full meal just before bed time, without experiencing considerable inconvenience from restlessness, but if such individuals will persevere, they will not only soon overcome that inconvenience, but they will receive an ample reward in the comfort which will follow.

It is not necessary to leave off this injurious habit at once, for the supper may be diminished gradually, or the length of time between the hour when it is eaten and bed time may be increased almost imperceptibly, till it becomes sufficiently long.

By adopting the above plan relative to late

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suppers, the body, as well as the mind, will be renovated by refreshing sleep, and the appetite for breakfast improved.

A long train of evils will also be avoided, especially those tormenting pains in the head, the result of oppressed digestive organs.

Feeble constitutions may require, in addition to the three meals, a small luncheon, but it should be such as is easily digested, or the stomach will be unable to digest a proper meal at the usual dinner hour.

Some persons are obliged to take small quantities of food at short intervals during the day. This plan should never be adopted if it can be avoided. It is only admissible where the system is very feeble, and the stomach incapable of bearing much food at once.

At breakfast and in the evening, black tea, or coffee, not very strong, or cocoa, will generally be the best form of liquid. If these produce irritation, heartburn, or flatulence, followed by an uncomfortable sinking, or empty sensation, toast water with cream; or ginger, or herb tea, may be substituted.

Green tea is apt to bring on wakefulness and nervous affections. Strong black tea and strong coffee have a similar tendency; it will therefore be obvious, that they should be omitted altogether, or taken with caution, particularly at

night, as they frequently prevent sleep for many hours.

Stale bread, or plain biscuit, may be taken at the morning and evening meal, and biscuit is to be preferred where acidity, or flatulence, is apt to arise. Sometimes a little meat may be had at breakfast, if oppression is not known to be produced by its use; and occasionally it will be well to substitute eggs.

Where butter does not agree, a little grilled bacon, or salad oil may be taken instead.

For luncheon, a little weak coffee, or cocoa, with biscuit, will generally be all that is requisite. Sometimes arrow-root in the coffee or cocoa will be found a valuable addition.

In some instances biscuit, with a little weak wine and water, will be preferable.

At dinner, a moderate quantity of the more nutritious and easily digested kinds of animal food will be suitable, with stale bread, or biscuit, and a small quantity of such vegetables as have been stated to be most readily digested. If the stomach requires more food than this, a little light pudding may be added.

When the digestive organs are inactive, and do not appear disposed to receive meat, or much food of any kind, it will be better to avoid animal food altogether for a day or two, unless in the form of broth, plain soup, or jelly.

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At dinner, if any fluids be requisite, they should be taken sparingly, as they dilute the secretions supplied by the stomach to assist in digesting the food.

It is well at this meal not to drink more than satisfies thirst. Wine and other stimulants should be taken with much care, if any be necessary, as they cause the stomach to experience a temporary invigoration, and enable it to receive more food than it can afterwards digest.

Where it is requisite that some stimulating liquid should be taken, it will be found, that, if the stomach is very feeble, weak spirit and water, especially if the spirit be brandy, will frequently agree better than any other liquid. One principal cause of spirit being peculiarly well adapted to a very feeble stomach, is, that it does not become acid.

The next best stimulant will, in most cases, be sherry, or Madeira and water, or claret. If the bowels are too active, port wine may be substituted. Made wines generally become acid, or produce considerable flatulence, or irritation, if taken by persons having feeble digestive organs.

Where no great disposition to acidity exists, malt liquor may in some instances be taken. The most proper kinds are ale and porter. Ale has a decided tendency to promote sleep. If

either of these produces too much excitement, small beer will be found to answer every purpose.

Experiment must determine which of these is most suitable.

As a general rule, the quantity of any stimulant should be such as not to cause much heat, or excitement; for an exhilarated condition is only temporary, and almost always followed by greater debility than that which previously existed. Besides which, much depression of the spirits often ensues.

Perhaps no part of the management of an enfeebled, or diseased system requires more minute attention than the administering of stimulants. It is always well to consider them as evils, and only to be taken where necessity demands their employment; for they do not absolutely give strength, but merely produce a temporary exhilaration.

Little more remains to be stated here, than that it is of importance that the part of the food not taken into the system as nourishment should speedily pass away.

In cases of inactivity of the bowels, the proper treatment will be found in the Chapter on Costiveness. In those cases where the food, or its indigestible part, passes through the bowels too rapidly, directions may be met with in the Chapter on Purging.

The foregoing remarks on diet and stimulus, and on the management of the digestive organs, are intended to enable persons unacquainted with such subjects, to understand the general principles upon which they are to act. It is impossible in this work to dwell upon such points, their complete elucidation requiring a lengthened treatise.

It will now be necessary to notice the more frequent disorders arising from derangements of the digestive organs.

FEVERISHNESS.

A **FEVERISH** state of the system in many instances prevails in the commencement of pregnancy, indicated by increased rapidity of the pulse, heat and dryness of the skin, and much irritability. These symptoms increase towards evening, often causing restless nights. Early in the morning comparative tranquillity comes on, which lasts for several hours, till febrile action, like that of the previous day, is renewed, which runs through a similar course.

These symptoms may last through the whole nine months, increasing as pregnancy advances, and disordering the whole system. But it does not follow that such a state is productive of serious consequences.

In some cases, after the fourth, or fifth month, but little suffering from feverishness is felt, and in others, it is scarcely perceptible throughout the whole period of pregnancy.

It is not desirable in this work to speak of the plans to be adopted where feverishness prevails to a great extent ; but where it exists in a moderate degree only, the treatment should consist in avoiding all causes of mental, or bodily excitement, in keeping the skin at a proper temperature, by suitable clothing both by day and by

night, and by other means. Plain food should be preferred, and all unnecessary stimulants avoided. The bowels should be kept gently active, if necessary, by simple injections, or by mild aperients, such as Epsom salts, magnesia, rhubarb, the electuary of senna, castor oil, &c.* Any of these may be taken two or three times during each week, or daily, according to circumstances. A mild effervescing fever mixture† may also be taken twice or three times every day.

- * The dose of Epsom salts is from two to six drachms.
- of magnesia, from fifteen to thirty grains.
- of rhubarb, from ten to twenty grains.
- of electuary of senna, from one to two drachms ;
- or one or two small tea-spoonfuls. And,
- of castor oil, from one to three dessert-spoonfuls.

The castor oil may be taken in coffee, or peppermint water, which in a great degree prevents its nauseating effects. The injection may be such as are recommended in the Chapter on Flatulence.

† The fever mixture to be two drachms of carbonate of soda, two ounces of solution of acetate of ammonia, two drachms of nitrous æther, half an ounce of simple sirup, and three ounces of water. Two table-spoonfuls to be taken for a dose, mixed with one table-spoonful of lemon juice, or twenty-five grains of tartaric acid, dissolved in a little water.

NAUSEA AND VOMITING.

NAUSEA and vomiting are almost invariably induced by pregnancy, and, in most instances, continue unabated till the time of quickening, or about the end of the fourth month; usually, after this period, the sickness gradually diminishes, and often completely disappears. There are cases, however, where scarcely any sickness comes on till the very last stage, and others, where neither nausea, nor vomiting, is experienced at all.

The sickness most commonly commences on rising from bed in the morning, subsides as the day advances, and leaves the patient towards afternoon. But cases do occur where it does not begin till the middle, or latter part of the day. In mild cases, that which is discharged from the stomach, is of a simple and tenacious quality, unless it be mixed with portions of undigested food, which will usually be the case if it be parted with within two or three hours after eating. In severe cases, bile is not unfrequently blended with whatever is ejected.

If the sickness is not excessive it is by no means injurious, but often beneficial, and nothing need be done; but where it is very troublesome, much relief will be experienced by taking soda

water, or a simple effervescing draught* three, or four times daily.

The bowels are also to be kept gently active by mild saline aperients.† And great care is to be taken that the food is such as is found to suit the best.

Sickness is sometimes greatly mitigated by applying a piece of linen, four or five inches square, soaked in laudanum, to the pit of the stomach. If that does not succeed, eight, or ten leeches may be applied to the same part, which will often prove highly beneficial, especially in cases where feverishness prevails.

Frequent recourse should be had to the recumbent position.

If the vomiting becomes very urgent, more decided measures must be adopted without delay.

* The effervescing draught is to consist of half a drachm of carbonate of soda, dissolved in a quarter of a pint of water, to which is to be added one table-spoonful of lemon juice, or twenty-five grains of citric acid, or the same quantity of tartaric acid.

† The aperients should be the Seidlitz powders; or Epsom, or Rochelle salts, in doses of one, or two tea-spoonfuls dissolved in water, or gruel; which may be taken daily, or every second day, according to circumstances.

FASTIDIOUS, OR CAPRICIOUS APPETITE.

FASTIDIOUS, or capricious appetite is a very common consequence of the irritable state of the stomach, arising from pregnancy ; and where the food, which is desired, is not of a very injurious quality, it is advisable, in almost all instances, to let it be taken, otherwise the cravings will frequently go on to such an extent as to render the patient very uncomfortable. They may appear to a superficial observer to arise from unnecessary attention being paid to trivial sensations, but those who have suffered from such longings, well know how uncontrollable they are.

There is a prevailing opinion in these cases, that if the appetite be not indulged, the child will be in danger of having some mark upon the skin resembling the food which had been withheld. It is scarcely necessary to state that, in proof of this theory, no good evidence can be adduced.

HEARTBURN.

HEARTBURN is a sensation of heat in the region of the stomach, and often extending as far as the throat. It arises from an irritating acid, produced by the contents of the stomach passing into the acetous fermentation. Where such acid falls short of producing heartburn, it frequently renders the stomach extremely irritable and uncomfortable.

In the foregoing cases great relief is experienced by taking magnesia, chalk, carbonate of soda, or lime water.* If it is necessary to take such remedies frequently, prepared chalk will generally be found the best.

The bowels must be kept gently active, and the food should be regulated with great care, avoiding all kinds that are found to be most speedily followed by heartburn. Sugar may be considered the first of this class.

- * The dose of magnesia is from fifteen to thirty grains.
- of prepared chalk, from twenty to sixty grains.
- of carbonate of soda, from ten to thirty grains.
- Each of which may be taken in water.

The dose of lime water is a small tea-cupful. The mode of preparing it will be found in the Chapter on Salivation.

FLATULENCE.

FLATULENCE is a consequence of indigestion, and it is produced by the food fermenting and liberating air. It gives rise to most uncomfortable sensations, and often severe pains from distention of the stomach and bowels.

Although it is frequently impossible to prevent flatulence altogether during pregnancy, it may generally be much diminished by keeping the bowels gently active with mild aperients, and injections,* and by avoiding, or taking sparingly, such kinds of food as easily ferment, as sugar, vegetables, &c.

Camphor julep, mixed with hartshorn, with spirit of nutmeg, or with spirit of cinnamon;

* The aperients may be, of castor oil, from one to three dessert-spoonfuls. Of electuary of senna, one or two tea-spoonfuls. Of compound rhubarb pills, two or three, weighing five grains each. Of magnesia, from fifteen to thirty grains. Of Epsom salts, from two to four drachms, mixed with ten grains of powdered ginger.

Any of the above may be taken every night, or occasionally, as required. The injections to be from half to three quarters of a pint of warm water, or soap and water, which should be employed soon after breakfast, if the bowels do not act in a proper manner. The continual use of the injections will render aperients seldom necessary.

peppermint water, or strong ginger tea,* are frequently useful in this affection: any of these remedies should be had recourse to, three or four times during every twenty-four hours, if necessary. It will be found requisite to vary them occasionally, for by adhering to one it loses its influence.

* A small wine-glassful of camphor julep is to be taken at each dose, mixed with one tea-spoonful of spirit of nutmeg, or with the same quantity of spirit of cinnamon, or with as much spirit of hartshorn as will render the draught comfortably warm.

Camphor julep is prepared by rubbing half a drachm of camphor in a mortar, with ten drops of spirit of wine, and then with one pint of water; after which the liquor is to be strained and bottled.

Camphor julep may also be made by putting a lump of camphor, the size of a nutmeg, into a pint bottle of water, well corked; the camphor must remain in the water two or three days, before the julep is ready for use.

One or two table-spoonfuls of peppermint water, or half a tea-cupful of ginger tea, constitutes a dose.

**SPASM, OR CRAMP OF THE STOMACH AND
BOWELS.**

SPASM, or cramp of the stomach and bowels, generally arises either from improper food, mental irritation, exposure to cold, or from the action of medicine. If the attack is moderate, it may be distinguished from the pain of inflammation by its coming on suddenly, and from its occasionally subsiding for a few minutes during a protracted attack. Heat may be applied to the painful part by means of hot flannels, fomentations, or bladders, or vessels containing warm water, and twenty or thirty drops of æther may be administered in camphor julep. If the spasm appears to arise from acidity, or sourness of the contents of the stomach, indicated by a sense of heat in that organ, or in the throat, the remedies recommended for heartburn should be adopted. And the bowels may be emptied by means of an injection, followed by a laxative.*

If the attack is severe, twenty or thirty drops

* The injection is to consist of a pint of warm water, containing two table-spoonfuls of common salt, or Epsom salts. The laxative is to be ten grains of compound colocynth pill, which should be repeated in six hours, if the first dose is ineffectual.

32 SPASM, OR CRAMP OF THE STOMACH, ETC.

of laudanum should be given in conjunction with the above remedies. If these means do not soon prove effectual, other more decided remedies must be promptly adopted, as abortion, or premature labour, may be brought on, from the womb sympathizing with the disordered organs.

COSTIVENESS.

COSTIVENESS, during pregnancy, is of very frequent occurrence, and should never be neglected ; for if it be allowed to continue a length of time, many very unpleasant effects may ensue ; such as disorders of the stomach, of the head, and other organs, and not unfrequently inflammation of the bowels, or even abortion itself.

It is chiefly to be attributed to the pressure of the distended womb upon the bowels, and especially upon the lower portion of them.

The effects of this pressure may, however, in most instances, be obviated by injecting, after breakfast, from half a pint to a pint of warm water, or soap and water.

Every female should be provided with a proper instrument for this purpose, as it is valuable on many occasions, but particularly so during pregnancy.

If the bowels continue uncomfortable after using the injections, from not having had the upper part of them emptied, it will be necessary to have recourse to gentle aperients, such as are recommended in the Chapter on Flatulence. Castor oil will, in most cases, be attended with the least inconvenience, and may be taken at bed time, three or four times in each week.

PURGING.

PURGING, if slight and not of long continuance, does not call for any particular treatment, further than an abstinence from vegetables, and acid food, or from such diet as is found by experience to induce it. If, notwithstanding this abstinence, the bowels continue troublesome, three table-spoonfuls of chalk mixture,* combined with ten or fifteen drops of laudanum, may be taken twice daily, for a few days, till the purging ceases.

Should this disorder, however, be accompanied by considerable disturbance of the general health, pain, or tenderness of the bowels on pressure, with an unhealthy appearance of the evacuations, it will be necessary to have immediate recourse to active measures, as much mischief might ensue from delay.

* Chalk mixture is composed of two drachms of prepared chalk, the same quantity of powdered gum arabic, one drachm and a half of sugar, and half a pint of water. The ingredients are to be mixed by rubbing them together in a mortar.

PILES.

PILES are to be enumerated amongst the most troublesome affections of pregnancy. They are brought on by a torpid or inactive state of the bowels, and by the mechanical pressure of the womb.

Piles can be greatly relieved by keeping the bowels open with mild aperients, as castor oil, electuary of senna, or sulphur,* which should be taken every night, or every second night. All active purgatives, especially those containing aloes, increase this disorder.

When the piles appear externally, great relief may be had from the application of a few leeches, and fomenting them with warm water, or a decoction of poppy heads, and afterwards applying soft poultices.†

After these remedies have been employed, so as to diminish the bulk and irritability of the

* The dose of castor oil is one or two table-spoonfuls. Of electuary of senna one or two tea-spoonfuls. Of sulphur, or of precipitated sulphur, one or two tea-spoonfuls. Occasionally half the dose of electuary of senna and of sulphur may be taken in combination: they should be mixed with a little simple sirup till of a convenient consistence.

† The poultices to be made by mixing hot water with fine linseed meal.

piles, they are to be frequently washed with cold water, and rubbed with ointment,* two or three times daily.

When piles are accompanied by considerable pain within the intestine, great relief may frequently be had from the injection of a wine-glassful of olive oil; or when much inflammation, or febrile action is not present, from the same quantity of thin starch, containing twenty or thirty drops of laudanum.

* Simple lead ointment, or seven parts by weight of spermaceti ointment combined with one part of powdered opium, may be used when the piles are much inflamed and very painful. When the inflammation and pain are subsiding, seven parts of spermaceti ointment mixed with one part of powdered galls, may be substituted.

DESCENT OF A PORTION OF THE LOWER
INTESTINE.

DESCENT of a portion of the lower intestine is most effectually relieved, by having a pad of linen, spread with pomatum, kept constantly applied to the part, by a bandage passed between the limbs, and secured before and behind to one surrounding the body above the hips, or by a simple bandage passed over the shoulders and between the lower limbs.

If at any time a considerable portion protrudes, and cannot be easily returned, it is better not to attempt to replace the whole at once, but to return a small portion at one side first, and the remainder will generally follow with ease.

In all cases where there is a tendency to descent of the intestine, the bowels should be kept in a regular and gently active state. If they be either purged, or constipated, the protrusion is very apt to take place.*

* If mild aperients be requisite, those may be employed which are recommended in the Chapter on Piles. Besides taking aperients, it will be found, in many instances, to be advisable to use injections of warm water every morning after breakfast, to prevent the lower portion of the intestine being distended, or irritated by its contents.

DISTENTION OF THE BLADDER.

THE distention of the bladder is caused by its becoming torpid, and by the pressure of the womb upon the neck of that organ.

In most cases, a strict attention to its frequent evacuation will be all that is requisite. This should never be neglected, as its continued distention is not only productive of much uneasiness at the time, but because it greatly tends to increase the torpid state of the organ ; besides which, much inconvenience may arise from the pressure of the loaded bladder upon other parts, and especially upon the womb.

IRRITABLE BLADDER.

AN irritable state of the bladder may arise either from sympathy, or from the pressure of the womb upon that organ. It is accompanied by a frequent desire to empty the bladder, and by heat from voiding the urine. The water has often a milky appearance from being blended with mucus.

In this affection the recumbent position is to be adopted as much as circumstances will permit, and all unnecessary distention of the bladder should be carefully avoided. The fluid taken should be small in quantity, and mild in quality, and the bowels ought to be acted upon by small doses of castor oil.*

When the irritation is very troublesome, it may be alleviated by injecting into the lower bowel twenty or thirty drops of laudanum in a wine-glassful of thin starch, and by warm fomentations in the neighbourhood of the bladder.

Great relief may generally be had by applying a bandage, so as to support the womb, and prevent its downward pressure. This support may

* The dose of castor oil is from one to two table spoonfuls, and it should be taken every second night, or even every night if required.

be obtained, either by passing a broad belt under the projecting portion of the abdomen and over the shoulders, or through a loop in the upper and back part of the stays, or by using stays made for the purpose.

PALPITATION OF THE HEART.

PALPITATION of the heart is one of the most distressing, and, to the sufferer, often one of the most alarming disorders attendant upon pregnancy ; it is, however, seldom dangerous. In some instances it arises from mental, or bodily, excitement, or from a disturbed state of the digestive organs ; in others, from the sympathy which exists between the heart and the womb in its altered state.

Where the palpitation is not great, nor of long continuance, much relief may be obtained by adhering strictly to plain, nutritious and easily digested food, keeping the bowels gently active by aperients,* and injections of half a pint of warm water, or soap and water, every morning, or every second morning, and having frequent recourse to the recumbent position.

In this affection, moderate stimulants are allowable, such as brandy and water, or wine and water, or camphor julep, combined with harts-

* The aperients may be two or three drachms of Epsom salts, combined with ten grains of powdered ginger. Five grains of compound colocynth pill ; or ten grains of compound rhubarb pill : either of which to be taken every second night, or every night, if circumstances require.

horn, or with compound tincture of cardamoms.* Any of these may be taken several times daily, if necessary.

If these plans do not prove effectual, twenty or thirty drops of æther, and from ten to twenty drops of laudanum may be combined with any of the above medicines.

Should the palpitation arise from acidity of the contents of the stomach, the remedies for heart-burn are to be adopted.

* One wine-glassful of camphor julep, fifteen or twenty drops of spirit of hartshorn, or one tea-spoonful of compound tincture of cardamoms, will be a dose.

FAINTING.

FAINTING is a common occurrence during pregnancy, it is generally the result of debility, arising either from various bodily disorders, or from exhaustion produced by over exertion, or from over excitement.

The first measure to be adopted, is immediately to cause the patient to lie down in the horizontal position, and to apply cold water to the hands and face. Attention should then be paid to the admission of cool air, and to the administration of moderate stimulants, as small quantities of brandy and water, camphor julep with hartshorn, or with æther.* At the same time volatile salts are to be applied to the nostrils. And means should be used to prevent the body and extremities from being cold, for any great length of time.

* A wine-glassful of camphor julep, combined with fifteen or twenty drops of spirit of hartshorn, or, if necessary, with twenty or thirty drops of æther, to be taken for a dose.

HEADACH.

HEADACH, independent of accidents, may be a sympathetic affection, arising from disorders of the digestive, or other organs. It may be the consequence of a feeble, or disturbed state of the nervous system: or it may be the effect of the vessels of the head being distended with too much blood; or even of a deficiency of blood in the head.

Where headach arises from a disordered condition of the digestive organs, there will generally be an inactive, or irritable, state of the stomach and bowels, which will frequently be accompanied by giddiness, imperfect vision, or by specks floating a short distance from the eyes, by loss of appetite, sickness, acidity of the contents of the stomach, and by flatulence.

If the stomach be loaded with undigested, or irritating food, it is to be relieved by a gentle emetic.*

* Having drank a pint of warm chamomile tea, or common tea, from one ounce to one ounce and a half of ipecacuanha wine should be taken, after which vomiting will ensue almost immediately, and without any straining, or painful effort. If ipecacuanha wine is not at hand, two or three tea-spoonfuls of powdered mustard, mixed in a little water, may be used in its stead.

In almost every case, it will be found necessary to administer mild aperients* every four or five hours, till the bowels are emptied. This mode of relieving the bowels will answer better than having recourse to active purgatives.

If the pain in the head continues to be severe, after an emetic has operated, or before the aperients begin to act, it will be often greatly mitigated by taking a moderate dose of some opiate; † this, however, should not be employed where attacks are frequent, as a habit of taking opiates is productive of much injury.

There are persons who do not experience relief from opiates, but, on the contrary, have the pain aggravated by their use. Strong green tea, or hop tea, will occasionally give relief in mild at-

* The aperients may be, rhubarb and Castile soap, of each one drachm, oil of cloves, six drops, mixed with simple sirup, and divided into thirty pills, of which from three to six are to be taken every four or five hours, till the bowels act. Where no disposition to piles exists, from one to two table-spoonfuls of compound decoction of aloes may be taken every four or five hours, till the bowels are relieved freely. Where much acidity in the stomach is present, from fifteen to twenty grains of magnesia, combined with six grains of powdered rhubarb, and the same quantity of ginger, may be substituted for the above aperients, and repeated in a similar manner.

† The opiates may be from fifteen to thirty drops of laudanum; or from five to ten drops of black drop, taken in a little water.

tacks, or where decided opiates are not productive of benefit.

Where a feeble, or disturbed, state of the nervous system gives rise to headach, aperients are to be taken, as recommended above ; and stimulants are to be employed, as camphor, ammonia, compound tincture of valerian, æther, &c.*

If the head is hot, linen, wet with vinegar and water, or eau de Cologne and water, is to be repeatedly applied to the temples and forehead ; or those parts may be occasionally moistened with æther, the evaporation of which will cause the head to become cool.

Where reducing the temperature of the head does not diminish the pain, it will be well to try the effect of heat, which may be accomplished in the following manner : pour a little æther into the palm of the hand, and apply it to the forehead, or temples. The heat will be kept up so

* Four grains of carbonate of ammonia, or fifteen or twenty drops of spirit of hartshorn, are to be mixed in a wine-glassful of camphor julep.

One or two tea-spoonfuls of compound tincture of valerian are to be added to a wine-glassful of water, or camphor julep.

From twenty to forty drops of æther are to be mixed in a wine-glassful of water, or camphor julep.

Any of the foregoing forms may be taken several times during every twenty-four hours, if necessary.

long as the hand is pressed to the part, and any of the æther remains.

In severe cases of headach, the patient is to lie perfectly quiet, with the head moderately raised by pillows, and the room is to be darkened.

If the feet are cold, they should be put into warm water; and if they have a disposition to become chilled again soon, they are to be kept warm by heated flannels, or bottles filled with hot water.

During an attack of headach, arising from disordered digestive organs, it is essential that the food be very simple, and small in quantity.

In headach, from nervous disorders, requiring stimulants, the food may be of a nutritious quality: the quantity, however, should be moderate.

The foregoing remarks apply to sudden, or severe attacks of headach. When slighter affections of the same nature often occur, strict attention to diet, exercise, and the use of aperients, as recommended in the Chapter on Indigestion, will greatly tend to mitigate the suffering, and to keep off the complaint altogether.

Where headach comes on in consequence of fulness of the blood vessels of the head, it will be indicated by a sense of weight within the scull, drowsiness, giddiness, particularly on stooping, sickness, ringing, or other sounds in the ears, and bright flashes, or sparks in the eyes. In

these cases, it will generally be necessary to bleed the temples with eight or ten leeches; and if their application to those parts is known to produce swelling of the eyes and face, the leeches may be placed behind the ears. The head is then to be kept cool by applying cold vinegar and water to it; and purgatives are to be administered.

The diet is to be very simple, animal food is to be avoided, and no stimulants are to be taken.

Headach may arise from whatever induces debility. It is generally experienced where great loss of blood has taken place, and it may seem singular that the symptoms and sensations of this kind of headach, appear to the patient to be the consequence of the vessels of the head having too much blood in them. For instance, there are usually noises resembling the violent beating of a hammer, the rushing of water, the blowing of wind, ringing, &c. It is therefore necessary to notice the condition of the system, to be enabled to decide whether the pain arises from a deficiency, or from an over supply of blood to the head.

A correct decision should be formed upon this point, by ascertaining whether there is a disposition to fulness of the system, or a state of emptiness of the vessels from great loss of blood, with general debility.

In the latter case, quietness is most essential : wine, and other stimulants, will be necessary ; together with a light, nutritious diet.

Opiates also, will generally be found requisite, such as have been previously enumerated in this chapter.

In all cases of headach, mental tranquillity is of much importance ; and the patient should not persevere in the pursuit of any occupation which materially increases the pain.

In this disorder, as well as in many others, accompanied by much irritability, the sleep is often seriously interrupted by slight noises ; in most cases, this may be prevented by stopping the ears with small plugs, three quarters of an inch in length, and about one quarter of an inch in diameter. If the plugs be made of white wax, they will generally answer the best, as they admit of being accurately moulded to the form of the openings of the ears. Plugs made of turned wood will sometimes be sufficient.

If such plans as the foregoing do not soon give relief, medical advice should be had, especially where it is supposed that there is too much blood in the vessels of the head.

TOOTHACH.

TOOTHACH is often an accompaniment of pregnancy, especially of the earlier months. In many instances it is not confined to one tooth, but affects several. It is frequently felt where there is no disease of the teeth, being merely a sympathetic affection. But whether the pain is situated in sound, or unsound teeth, it is always well to avoid, as far as possible, having them extracted, as it is by no means certain that the pain will be removed by taking them out; and because such operations have been speedily followed by abortion.

The pain may in some cases be mitigated by allowing cold water to remain in the mouth; in others, by substituting warm for cold water.

Much relief too, is often experienced from the use of fomentations and poultices, applied externally.

If a tooth be discovered to be hollow, a small piece of opium, the size of a large pin's head, or a drop of laudanum, or of oil of cloves, or of thyme, in cotton wool, placed within it, will often prove very beneficial.

SALIVATION.

SALIVATION, or an immoderate flow of saliva, is a troublesome affection, though not a serious one, and is only met with occasionally.

It generally subsides after the fifth or sixth month, but sometimes continues through all the stages of pregnancy. When it can be traced to acidity in the stomach, as is sometimes the case, the best remedy is magnesia,* as it destroys that acidity, and tends to keep the bowels gently active.

It is of importance that the mouth be washed several times daily with lime water,† or tincture of myrrh and alum, in water;‡ and that the patient refrain from discharging the saliva from the mouth, for the mind has great power over the salivary organs, and being thus constantly directed to the consideration of the affection, will materially tend to augment it.

* The dose of magnesia is from fifteen to thirty grains.

† Pour two quarts of boiling water upon two ounces of quick lime, in an earthen vessel, stir them together, cover the vessel, and in three hours put the lime and water into a bottle, which is to be kept corked, and the clear liquor decanted as it is wanted.

‡ To compose the wash for the mouth, dissolve half a drachm of alum in five ounces and a half of water, and add half an ounce of tincture of myrrh.

**TENDERNESS AND IRRITABILITY OF THE
EXTERNAL PARTS OF THE PASSAGE.**

TENDERNESS and irritability of the external parts sometimes come on to an almost intolerable extent, in consequence of inflammatory action. They are most effectually relieved by bathing the parts occasionally with cold, or hot water, or decoction of poppy heads, or of laurel leaves, and by using a soothing lotion.*

In these troublesome affections the bowels must be kept rather more active than usual by gentle aperients.† The diet should be mild, and there must be a total abstinence from spirit, wine, and malt liquor. If these means fail to give the desired relief, it will be advisable to bleed the parts occasionally with six or eight leeches, and to apply poultices of the same kind, and in the same manner, as recommended in Descent of the Intestine.

* The soothing lotion may be made of two drachms of acetate of lead, commonly called sugar of lead, and an ounce of laudanum, in seven ounces of water. It may be applied three or four times during every twenty-four hours.

† The aperients to be, from two to four drachms of Epsom salts. From one to two tea-spoonfuls of electuary of senna. From one to two table-spoonfuls of castor oil. Or from fifteen to thirty grains of magnesia. Any of which may be taken every second night, or every night, as circumstances may require.

DISCHARGE FROM THE PASSAGE.

A DISCHARGE frequently appears from the passage, which is either white, or slightly tinged with green, or blood; in such cases, the parts are to be washed, or the passage injected with a syringe, twice daily, with tepid milk and water, or a weak solution of alum in water.*

Means should be used to secure the regular action of the bowels, by employing mild aperients and injections, as recommended in the Chapter on Flatulence.

More vigorous measures than the above might be productive of much mischief.

* For the wash, or injection, twelve grains of alum may be dissolved in six ounces of water, and about two table-spoonfuls injected at each time.

PAIN FROM DISTENTION OF THE ABDOMEN.

PAIN from distention of the abdomen is frequently experienced in a greater or less degree.

In the milder affections, considerable relief is obtained by having the downward pressure of the womb diminished by supporting bandages, as recommended in the Chapter on Irritable Bladder.

In the more severe cases, it will be necessary to have the abdomen supported in its circumference also, by well adapted stays, the best of which are elastic. The recumbent position must be had recourse to as much as possible, and embrocations* of a soothing kind should be gently rubbed with a warm hand over the painful parts, several times during every twenty-four hours.

The distention is sometimes aggravated by an accumulation of air within the stomach and bowels. In this case, care should be taken to regulate the diet, so as not to produce indigestion, especially as it regards fruits and vegetables, which, from their great tendency to ferment and liberate air, ought to be taken sparingly.

Mild aperients are to be taken, or injections used, if necessary, as recommended in the Chapter on Flatulence.

* The best form of embrocation is composed of four ounces of olive oil, four drachms of spirit of hartshorn, and one ounce of laudanum.

**ENLARGEMENT OF THE VEINS OF THE
LOWER LIMBS.**

ENLARGEMENT of the veins of the lower limbs is not unfrequent. It takes place in consequence of the blood in those veins being impeded in its return, by the pressure of the womb upon them.

Great relief is produced by applying bandages, or laced stockings, especially if they be elastic.

Where the enlargement of the veins affects the legs merely, the bandages need only be applied from the feet to the knees, but where the veins are distended throughout the whole of the lower limbs, the bandages must extend as far as the upper parts of the thighs.

The limbs should be kept, as much as circumstances will permit, in the horizontal position.

Provided the foregoing plans be adopted, the veins will frequently resume their natural state after delivery, either wholly, or in great part.

**SWELLING IMMEDIATELY UNDERNEATH
THE SKIN.**

SWELLING immediately underneath the skin is not a rare occurrence, particularly during the middle and the latter months. It usually appears in the lower limbs, sometimes in the external parts, and occasionally in every other portion of the frame. Where it is not extensive, it will be sufficient to use gentle friction every night and morning for ten minutes, with oil, or oil combined with camphor and hartshorn;* but where it becomes extensive, the limbs should be kept supported in the horizontal position as much as possible. Bandages, or laced stockings, applied to the lower extremities, will be of service; and the moderate use of aperients, such as are recommended in the Chapter on Flatulence, will be essential.

* To each ounce of olive oil add one drachm of camphor, broken into small pieces, and expose it to a gentle heat, in a bottle, till all the camphor disappears. To each ounce of the oil so prepared, add one drachm of spirit of hartshorn.

**CRAMP, OR SPASM OF THE LOWER
EXTREMITIES.**

CRAMP, or spasm of the lower extremities, is very common in every stage of pregnancy.

This affection cannot be prevented returning from time to time, as it is caused by the womb pressing upon the upper portions of the nerves, which proceed to the lower limbs. It is generally relieved by changing the position of the painful limb, and by having it well rubbed with the hand simply, or with the embrocation recommended in the Chapter on Distention of the Abdomen.

When such spasmodic state extends to any part of the abdomen, prompt measures should be adopted, under the direction of the medical attendant, as it might produce abortion, or miscarriage, if neglected.

DESPONDENCY.

WOMEN, naturally possessing the most lively dispositions, as well as others, sometimes become extremely depressed and apprehensive during pregnancy, and view every object through a gloomy medium ; indeed pursuits, which formerly produced satisfaction, or even delight, prove not only insipid, but irksome in the highest degree ; and life, which had previously been a state of enjoyment, is rendered an insupportable burden. Every adverse occurrence, let it be ever so slight, is viewed as a calamity of the greatest magnitude, and, what is still more remarkable, where no cause exists, which, under ordinary circumstances, is calculated to produce this state of despondency, the mind will create objects of apprehension.

It is during this state of the feelings that females so frequently anticipate the worst results, as to their ultimate welfare, and often when there is no just ground for fear. Reasoning with the sufferer upon these points affords temporary relief, but in a short time the mind falls into its former despondency.

In many instances this state continues in a

greater, or less degree till after delivery, and, in some cases, till after the child has been weaned.

The condition of mind above described, is by no means a common attendant upon pregnancy; slighter shades frequently appear. Where the despondency commences early, it commonly subsides, or wholly disappears, towards the latter end of pregnancy. Whether the apprehensions are great, or whether they are small, it is satisfactory for females suffering from them, to know that they are states in no respect singular, and that the forebodings are scarcely ever realized.

If the despondency is but slight, and the general health not much disturbed, little, or no medical treatment need be employed.

If it proceeds to a considerable extent, it will be necessary to adopt decided remedies.

In all these cases, it is of great importance that the state of the bowels* should be attended to, that the food should be plain and nutritious, and such as is easily digested; that the mind should be cheered by pleasing and exhilarating

* If aperients are required, those recommended in the Chapter on Flatulence will generally answer the purpose. It will be well, however, to take occasionally one or two of the following pills at bed time, for about a week.

Divide rhubarb, compound colocynth pill, and blue pill, of each two scruples, mixed together with sirup, into twenty-four pills.

conversation, and by such pursuits as are best calculated to excite interest ; that exercise should be taken, but so as not to produce fatigue ; and that wine, or other stimulants should be taken very sparingly, if at all.

MISCARRIAGE.

It is not necessary to detail all the symptoms which accompany miscarriage, but merely to describe those which indicate the probability that it will take place, and also to give the plan to be pursued before decided assistance can be procured.

Miscarriage may be produced by accident, or by some peculiar state of the system.

Where it is brought on by accident, it is generally either from over exertion, a blow, a fall, some sudden alarm, or from fatigue.

But where miscarriage arises from peculiarities in the system, it may result from a variety of causes; the more obvious and important of which are, a feeble condition of the womb itself, or a state of debility of the system generally, of which the womb partakes.

Disturbances of other organs, chiefly of the digestive, which affect the womb by sympathy; irritating causes, as loaded bowels, &c. and a general fulness of the blood vessels.

There are other affections which bring on miscarriage, not requiring notice in this treatise.

Miscarriage, in almost all instances, is preceded by pains, either slight or severe, in the neighbourhood of the womb, as the bowels, the back,

the loins, and hips. After the pains have become established, they appear in succession, having intervals between them of comparative, or total ease, varying in duration from a few minutes to a considerable length of time; the pains in some instances go on regularly, in others they are suspended for one or more hours, or even a day or two, after which they are renewed, and continued till miscarriage has been effected.

In almost every case there is a bloody discharge from the passage, which is often profuse and mixed with clots of blood.

Sickness, feverishness and other disturbances of the system are common attendants, but they are not universally present. In some cases a discharge of blood is the first symptom.

When such pains appear as have been described above, although they may be very slight, and especially if they are accompanied by a discharge from the passage, the patient is to remain perfectly quiet, in the recumbent position, and the body and limbs are to be kept at a comfortable temperature. This being done, medical assistance should be procured immediately, as it is by the adoption of prompt measures in the earliest state that the most effectual relief is to be obtained. In short, if the pains are permitted to go on unchecked till they are completely established, miscarriage will in almost all cases fol-

low, although the most vigorous treatment be instituted.

It is impossible to give minute directions for the treatment of a person threatened with miscarriage, which would be of service to any one unacquainted with the subject, as such an occurrence may arise from various and even opposite causes.

It should always be considered as a point of great importance to prevent miscarriage, as it not only produces debility to a great extent at the time, from which the patient is often long in recovering, but has a tendency to set up a habit in the system, whereby repetitions of a similar nature are easily induced.

Where miscarriage arises from some constitutional cause, it is more likely to occur again at the same period of pregnancy than at any other, consequently, especial care should be taken at such time to prevent a similar occurrence.

Whenever it is supposed that abortion has taken place, great attention should be paid to ascertain whether such has really been the case or not, as it frequently happens that, after similar pains to those which precede and accompany miscarriage, there is a mass of coagulated blood expelled, of such firm consistence, as to lead to the conviction that abortion has been effected. This error, by preventing the adoption of those

cautious measures so requisite during pregnancy, may give rise to serious consequences.

In short, abortion ought not to be considered as having taken place, unless ascertained by the professional attendant, or by the discovery of a child in the mass which has been expelled.

PART II.

LABOUR.

IN the Chapter on Despondency, it was shewn that, under a nervous and highly sensitive state of the system, females are particularly liable to become dejected, and to suppose that all is not right, that sooner or later, some serious evil will arise, or that eventually they shall not survive the difficulties they have to encounter. And it is more especially so, during the first pregnancy, when looking forward to the time of labour. This feeling of anxiety is not directed to the pain they have to suffer, so much as to the danger to which they may be exposed. And it is not unusual for such females, during labour, to feel fully convinced that they must speedily sink, either from the severity of their pains, or from exhaustion.

Happily, experience shews that their fears are in a great measure unwarrantable; for, though the process of labour, and the period of confinement, are not entirely free from hazard, yet, with judicious treatment, they are by no means beset

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with so many dangers as females are apt to imagine.

A few days before the commencement of labour, but sometimes a few hours only, it is generally found that the abdomen is relaxed, and diminished in bulk, and that the child occupies a lower situation than formerly. These alterations are accompanied by a sensation of bearing down of the womb, and a slight discharge from the passage.

Labour is usually preceded by trivial and transient pains, often so slight as to be mistaken for griping pains, and so transient as not to last more than a few seconds.

These pains, called false or grinding pains, commonly begin in the back and loins; sometimes they are experienced in the back and abdomen, and at others in the abdomen alone, having intervals of ease, varying from half an hour to five minutes. And they are properly called false pains, from their not being a sure prelude to immediate delivery. Indeed, such is their uncertainty, that, after being present some time, they will occasionally leave a patient for several days, or even longer. But, notwithstanding all this, whenever the pains come on, even in the most moderate degree, the probability is, that they will increase, till what is termed true labour is established, which is nothing more, in fact, than the

pains being of such strength as to make their continuance probable.

True labour pains are generally first experienced in the loins and back of the hips, and gradually extend to the lower part of the abdomen and upper parts of the thighs. Sometimes, however, they are felt principally in the back and lower parts; at others, chiefly in the abdomen: in short, there is no regularity in the manner in which they come on, and they not only vary in different individuals, but in the same person in different confinements.

As the labour advances, and particularly towards the latter stage, cramp often affects the lower limbs. And it is by no means uncommon for considerable drowsiness to prevail, if the patient is much wearied.

Any part of labour may be accompanied by an oppressed state of the stomach, together with more or less nausea and vomiting. This should not be considered alarming, but the contrary, provided it is not excessive; for it is found, that, where the system is under that degree of depression which is induced by sickness, the severity of the labour is not unfrequently diminished.

Chilliness and faintness are also often experienced in the various stages of labour. And the pressure of the child irritates the lower bowel and bladder, producing a desire to empty them.

The pulse is almost always increased in speed ; and perspiration bedews the skin, which, at first, is cool ; but, as the pains increase in severity, becomes warm.

During labour, a discharge of water flows from the womb, sometimes suddenly and freely, at others gradually ; in most instances it takes place in the latter stage. Whenever this discharge is noticed, or if the pains are found to be increasing in strength before the arrival of the accoucheur, the patient should lie down, as standing or walking tends greatly to augment the pains, and to expedite delivery.

Perhaps no natural process is more uncertain in its duration than labour, varying, in ordinary cases, from two to twenty-four hours. It may, however, be completed in even less time, and should it be considerably protracted, that, of itself, is no just ground for apprehension.

Great attention should always be paid to prevent the bowels being loaded at the time labour comes on. And as an open condition of them conduces to an easy labour, it ought to be carefully attended to. And since salad or castor oil* acts mildly on the bowels, and at the same time appears to exert a beneficial influence in relaxing and preparing the parts for the important process

* The dose of salad oil is from two to four table-spoonfuls ; of castor oil, from one to three dessert-spoonfuls.

of labour, it may be taken every second night, or even every night, if necessary.

Should labour, however, begin when the bowels have not been properly emptied, a mild injection, consisting of three quarters of a pint of warm water, or warm soap and water, should be administered. And the bladder should be occasionally emptied.

Unless there is much faintness, or exhaustion, it will be better to avoid spirit, wine, or other stimulants, as they have a tendency to bring on fever and inflammation.

Solid food should not be taken, unless it be of the most simple quality, and then in very small quantity. In almost every case, a little tea, coffee, gruel, sago, or the like, will be found to agree the best, excepting where there is great predisposition to flatulence, or fainting, in such case a sandwich and a glass of wine and water may be advantageously taken instead.

When there is much pain in the loins, relief will often be afforded by having them moderately pressed, and rubbed by the hand of an attendant.

Where the abdomen suffers considerably, gentle friction may be useful; and much benefit may arise from moderate support being kept up by means of a folded napkin passed round the body, and held behind the patient by the nurse.

As labour becomes strong, the patient has gen-

erally a great desire to grasp and pull either the hand of an attendant, or some part of the bedding. It is therefore well to let a long napkin be fastened to the bed-post for her to take hold of whilst the pain continues. In most instances, the patient has also a disposition to press the feet, during each pain, against the bed-post; to prevent the inconvenience which this pressure produces, a small pillow should be tied round the bottom of the post.

It is not necessary to describe minutely the method of preparing the bed previous to delivery, being a subject of not much importance, and generally understood by every one in the habit of attending females during their confinements. The principal point to be aimed at, is, to preserve the bed from being wet or soiled; this is usually effected by protecting that corner of the bed where the patient lies, by means of a folded blanket, under which is placed a skin of leather, or a piece of oiled silk, or water-proof cloth, about a yard square, and which is to be kept in its proper place by tapes sewed to the four corners and tied to the posts, or to the sides of the bed.

The dress worn during labour may accord with the taste of the patient. In the earlier stage, whilst she is able to walk about, or to sit up, loose and very easy clothing will be proper; but when the pains have become so strong, as to

require her to lie down constantly, little, if any more than the under dress, should be worn, in order to avoid the inconvenience of removing the clothing after delivery.

**DELIVERY BY THE NURSE IN THE ABSENCE
OF THE ACCOUCHEUR.**

As delivery sometimes takes place before the accoucheur has had time to arrive, it will be advisable first to dwell upon the course the nurse ought to pursue on such occasions, and then to proceed to a description of the treatment requisite after the completion of delivery.

When the head of the child is about to be born, the patient is to lie upon her left side near the edge of the bed, and the knees are to be bent towards the body; the nurse should then lay the palm of her hand upon the outside of the parts forming the back of the passage, and use considerable pressure, to cause the head to be pushed rather forwards, as by affording such support, and giving such direction to the head, laceration of the back part of the passage will be avoided, and much injury prevented. The nurse must continue to support the parts with her hand till the trunk has passed. When the child is born, it is to be laid upon its back, taking care that there is nothing to prevent its breathing.

When it has cried vigorously, a cord, made of four or five doubles of thread, is to be tied firmly round the navel string, about three inches from the abdomen of the child; another cord is to be

tied in a similar manner, two inches further from the infant. The navel string is then to be divided between the two cords with a pair of scissors, and the child is to be removed in the manner described in the Chapter on the Management of Infants immediately after Birth.

The next point to be attended to, is the removal of the after-birth. This is to be effected by using moderate pressure with the hand upon the womb, which will be felt as a firm ball, the size of a child's head, situated at the lower part of the abdomen. If the after-birth does not come away in twenty minutes, at the same time that pressure on the womb is made, the navel string is to be pulled gently downwards, carefully avoiding any force.

When the after-birth has come away, which will generally be in ten or twenty minutes, a warm cloth is to be applied to the passage, and pressure is to be maintained upon the womb. Should the after-birth remain for half an hour, or even three quarters, there is no cause for alarm whilst there is *no faintness or much discharge of blood.*

It will generally be well to permit the patient to lie quietly upon the left side till the accoucheur arrives, provided that be in a moderate time. Should it, however, be found necessary to put her to bed previously, it must be done carefully ;

never allowing her to stand, or even sit up; and the dress is to be adjusted as she lies in bed.

It should be recollected, that by permitting a patient to remain undisturbed in the place in which she was delivered, for at least one hour, much mischief is often avoided.

It sometimes happens that a considerable discharge of blood, commonly termed flooding, comes on immediately after delivery; in other instances this takes place when the accoucheur has left the patient, and when all is considered safe. It is, therefore, of the greatest importance that every one who is intrusted with the superintendence of a woman, during her confinement, should be thoroughly acquainted with the proper means of arresting those discharges. For, coming on, as flooding occasionally will, with great rapidity, and without any warning, the state of the patient will not admit of any delay in the means that ought to be used to check it, especially of such delay as would sometimes necessarily take place before the professional attendant could arrive.

Although it is requisite in every case that the nurse should be prompt and active in her endeavours to check flooding, it will always be proper, where it is profuse, to send for the accoucheur without loss of time.

When much flooding takes place, recourse

should be had to cloths, wet with cold water, or cold vinegar and water, which are to be freely and suddenly applied to the lower part of the abdomen, and upper parts of the lower limbs. The hand of an attendant is to be placed upon the lowest part of the abdomen, where the womb will be felt, and it is to be grasped with firmness, but not so as to produce much pain. By these means the womb will generally be made to contract, and the bleeding will be checked. When such contraction is complete, the womb will be felt hard, and about the size of the head of a new born infant.

In some urgent cases, the pressure of the hand is to be continued for one or two hours, and the temperature of the room is to be reduced by opening the door and windows to admit abundance of cool air. Should these plans be sufficient to restrain the flooding, and the patient be free from an alarming state of fainting, it will be advisable to wait the gradual return of strength rather than, by administering stimulants, to risk a return of the bleeding. If the nature of the case, however, should happen to be so formidable, as that the flooding should continue, and be accompanied by much faintness, then, besides continuing the pressure on the womb, cold water is to be dashed boldly upon those parts, and that from a considerable height, where wet cloths had

been previously applied ; and warm spiced wine, or brandy and water, is to be administered, and repeated occasionally till a revival is produced.

In some very alarming instances, pure brandy is to be given, remembering that it is to be discontinued whenever the powers begin to rally, and that it is not to be repeated unless they begin to sink.

Where the extremities become cold from the faintness continuing, or from the cold application to the abdomen, &c. warm flannels, or bottles or bladders containing hot water, should be applied to them, and to the other parts of the body and limbs ; at the same time it is essential that the cold water applied to the abdomen should be continued.

In every case of flooding, the patient must *be kept as quiet as possible*, scarcely being allowed to turn in bed.

It will be found that almost every flooding will be satisfactorily arrested by a prompt and fearless adoption of the above measures. The most vigorous of these measures are very rarely called for, and more strictly belong to the duties of the professional attendant, but as a patient may sometimes require them in his absence, the treatment for flooding would have been incomplete without their having been noticed.

After flooding, and also in every other case, as

soon as the attendant ceases to make pressure upon the womb, a napkin, or bandage is to be bound round the lower part of the abdomen, so as to produce moderate and comfortable support. This is to be continued whilst such assistance appears requisite, which will generally be indicated by the feelings of the patient. In some instances a fortnight will be sufficient, but it will generally be advisable to use the bandage for several weeks. It must always be recollected, that if this bandage is applied too tightly, it is apt to produce fainting, sickness or giddiness, and, therefore, if those symptoms arise, it will be well to ascertain, by loosening it, whether they are the consequence of such pressure.

**THE TREATMENT TO BE ADOPTED AFTER
DELIVERY.**

THE directions in this chapter being intended to apply to those departments only which may be safely left to the mother, or to the nurse, no practical advantage would arise from alluding to the duties which belong to the accoucheur. After delivery, then, the nurse should very carefully endeavour to procure for the patient the great advantages of rest and moderate sleep. In accomplishing these desirable objects, particular attention should be paid to the quietness, the temperature, and the darkened state of the room, in order that there may be no cause of disturbance or excitement.

Of course, the attendants should perform their duties with as little noise as possible, and it needs scarcely be mentioned, that it would be improper to permit any unnecessary interviews with friends, or visitors, at such a time. With regard to the heat of the room, it should on no occasion be great : it ought, however, to be such as to make the patient feel comfortably warm ; a temperature of about sixty degrees will generally be suitable. To keep the room at that degree will require some attention to the fire ; but varying the quantity of bed clothes is a far better

method of regulating the warmth of the patient, than increasing or diminishing the supply of heated air.

With respect to the darkened state of the room, most persons are aware that light has a great tendency to prevent sleep, it should therefore be admitted very sparingly, particularly for the first day or two. The best method of regulating the quantity, is by means of the blinds, or curtains of the windows, rather than by drawing the curtains closely round the bed; the latter plan being much more unwholesome, from its preventing a proper supply of pure air to the patient, as well as keeping up too great a degree of warmth.

Having made these observations, to shew how important it is to avoid excitement at this critical period, it may be well to state, that there is a method adopted by some nurses, with a view to invigorate and strengthen patients soon after delivery, which proves, in most instances, a very injurious practice; it is the administering of a stimulant, in the form of spirit, wine, or spice in gruel, or some other fluid, which generally brings on heat and restlessness, and often flooding, fever and inflammation. It will be found better to omit stimulants altogether, except when much sinking and debility exist, which will be indicated by coldness, or faintness. In these instances,

they may be cautiously administered with great advantage, and the best that can be given are, two or three tea-spoonfuls of brandy in warm gruel, or in water, moderately spiced, which may be repeated, according to circumstances, till the vital powers begin to rally; in some cases much larger quantities of brandy may be given.

Every point having been attended to respecting the condition of the room, the nurse is carefully to examine the state of the napkin, or bandage, which, as before observed, is now always applied round the lower and middle part of the abdomen, soon after delivery. If it has become so loose as not to produce moderate pressure, it is to be gently tightened, till a comfortable support is experienced. This bandage should be occasionally regulated; which must be done, however, without raising the patient from the bed.

In speaking upon this subject, it is impossible to impress too strongly upon the minds of the mother and her attendants, the vast importance of not allowing the body, for the first day at least, to be moved from the horizontal position, as nothing has so great a disposition to bring on alarming fainting, or flooding. For this reason, if the bed, or body clothes, become damp, or wet from perspiration, or other causes, the only attempt to obviate such inconvenience, in the first instance, should be by applying warm dry nap-

kins to the body or limbs. And even when sufficient rest has been had to recruit the exhausted powers, the linen must be carefully removed, without raising the body into the sitting attitude.

After delivery, there is a bloody discharge from the womb. In a few days this gradually becomes paler and less in quantity, and generally ceases in three weeks or a month. Where this discharge goes through its various stages, as just described, no attention is required further than having the passage and external parts washed with warm water, or warm milk and water, once or twice daily; but should the discharge be too great, or should it be too small, or cease altogether, the fact must be stated to the medical attendant.

For several days after delivery, the patient suffers more or less from feverishness, during which time the breasts enlarge, and darting or aching pains are felt in them.

If the feverishness and pains be moderate, recourse to medical advice will not be needful, as such symptoms frequently precede the appearance of the milk.

In some instances the milk comes immediately after delivery, but generally not till the second or third day, and occasionally not even so soon as that. Its production is almost invariably

accompanied by an abatement of the feverish symptoms.

In nearly every instance it will be prudent to apply the child to the breast at least eight or ten hours after its birth ; for if a delay of one or two days be permitted, there will often not only be difficulty in making the child take to the nipple, but the mother will suffer much unnecessary pain from the milk accumulating in the breasts.

On the second day after delivery, a gentle aperient is to be given, such as half an ounce of castor oil, or a large tea-spoonful of the electuary of senna, and by the same means, or by the use of a simple injection of three quarters of a pint of warm water, or warm soap and water, the bowels are to be relieved every day, or every second day, as the constitutional habit of the patient may require.

After-pains, if they do not proceed to a great extent, are salutary, and require no medical treatment. They may be relieved by gently rubbing the region of the womb and the loins with the hand. After the first labour, they generally either do not come on at all, or only in a slight degree.

The food, for the first two or three days, is to consist of tea, or gruel with a little plain toasted bread, or biscuit, in the morning ; gruel, or weak chicken broth with bread, toast or biscuit, for

dinner; and, in the evening, the same kind of food as was taken in the morning, may be given once or twice, according to the appetite of the patient; or a little sago, or arrowroot without wine in it, may be substituted, some of which may be taken in the night if necessary. Toast-water, or barley-water, should be the drink. Stimulants are to be avoided, unless peculiar circumstances demand them. If no fever exists, on the second or third day, there may be added to the above dinner, a little light pudding, or chicken, and after dinner a small quantity of wine and water, provided it does not excite, but appears to invigorate. And if every thing goes on favourably, in about a week, or ten days, the patient may begin gradually to return to her usual diet.

If the mother does not intend to suckle the child, the less fluid she takes, till the milk is no longer produced, the better. But let it be remembered, that no healthy mother can adopt the unnatural plan of not nursing her infant, without incurring the risk of permanently injuring her own health, and even the life of her offspring.

For it is by pursuing such a course that many formidable diseases are brought on, especially those of the breasts. But this is not all—the mother is much more likely to have a rapid succession of children, than when she follows the

course pointed out by nature. And if frequent births do take place from such culpable interference, the great probability is, that a state of debility will be brought on, which, under natural, and proper circumstances, would not have been induced. And although it is fully allowed that many infants have been successfully reared by the hand, yet numbers, let it never be forgotten, have pined and gradually wasted away, under the most judicious artificial treatment, which would probably have been vigorous, had they been supplied with the nourishment originally intended for them. In addition to the above, the diminished attachment between the mother and her infant, resulting from the unnatural course pursued, is a matter of no small importance.

The foregoing observations are only intended as salutary hints to mothers, whose health is such as to enable them to nurse their infants without injury to themselves.

There are many cases where it is absolutely necessary that the children should not be nursed by their mothers; such cases arise from the feeble state of the constitution, diseases of the breasts, &c. In such instances, it will be evident there is no cause for censure.

Upon the point of abstaining from nursing, further observation is not necessary, as it is a subject of so much importance that medical ad-

vice will always be sought to enable a proper decision to be formed.

The most advantageous time for moving from the recumbent position, varies according to circumstances. It may be in three or four days, when the patient has a vigorous constitution. She may then sit up in bed occasionally, and on the following day may be dressed, and allowed to recline upon a sofa, but never for so long a time as to cause much fatigue. This practice may be continued till the end of the week, when, if the weather be mild, she may remove to an adjoining room, where, from day to day, as the powers return, gentle exercise is to be taken. But where the constitution of the patient is naturally feeble, or where the system has been reduced by previous illness, and more particularly where inconvenience has already been experienced from a bearing down of the womb, the recumbent position should be adhered to considerably longer, and greater intervals of repose should be allowed between the times of exertion. As a general rule, the longer the recumbent position is continued, provided the time be within moderate bounds, the less probable it is that unpleasant occurrences will arise.

EXCORIATED AND CHAPPED NIPPLES.

EXCORIATED and chapped nipples are extremely distressing and painful ; and, as they are not uncommon, it is right, as a preventive, for two or three weeks previous to delivery, to endeavour to render the nipples less susceptible. The following is frequently found beneficial, and is perhaps the most convenient plan that can be employed. Take a wide mouthed phial, and nearly fill it, either with equal parts of spirit of wine and of water, or with strong salt water, and introduce the nipples into the phial, twice or three times a day, keeping them immersed for five or ten minutes. Brandy may be substituted for the spirit and water, and in most instances it will be found to be the best of all applications. If much smarting arises from the use of any of the above fluids, they are to be diluted with water.

When excoriation exists, the nipples are to be washed several times, during every twenty-four hours, with one of the lotions given below.* It

* The lotions are to be as follow : Nitrate of silver twelve grains, rose water six ounces. Or, sulphate of zinc twenty-four grains, rose water six ounces. Or, alum one drachm, solution of the acetate of lead two drachms, water six ounces. Or, solution of the acetate of lead two drachms,

is necessary to vary the application from time to time, as each soon loses its effect.

If the chaps are very troublesome, they should be constantly dressed with spermaceti ointment spread upon lint, or what is sometimes of still further use is, a mixture of three parts by weight of that ointment with one part of finely powdered white lead. If the nipples are extremely sensitive, touching them with nitrate of silver slightly moistened, every second day, often affords great relief when the smarting it produces has subsided.

After having used any application containing powerful ingredients, such as lead, &c. the nipples are to be well washed with milk and water before placing the child to the breast, otherwise it might receive serious injury by swallowing a portion of the dressing.

In some instances the nipples are rendered sore from the child's mouth being affected with the thrush; in others, the sore nipples bring on inflammation of the infant's mouth.

Whilst the nipples continue tender, a small cup is to be worn over each of them, to prevent the clothes from rubbing or adhering to them.

tincture of opium half an ounce, spirit of wine half an ounce, water two ounces. The last form is generally the most useful.

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Such cups may be made of wax, ivory, wood, silver, &c. They should be about two inches in diameter and three quarters of an inch in depth. The common limpit shell answers the purpose very well.

Besides the foregoing remedies, it is necessary, in numerous cases, to prevent the child's mouth from coming in contact with the nipples. This may be done by using a shield made of ivory, wood, or metal, and to which is adapted an artificial nipple, or a small cow's teat, previously prepared by cutting away the inside and soaking it for a few hours in water. It should be kept in spirit of wine. And when about to be used, it should be put into water to free it from the spirit.

Where difficulty arises from the nipples not projecting sufficiently to admit of the child being suckled, they are to be gradually drawn out by the breast tube now in general use.

Where this instrument is not at hand, a common quart bottle, moderately heated in an oven, may be made to answer the purpose tolerably well. After gradually immersing the top of the heated bottle in cold water for a few seconds, the nipple should be placed within its mouth, and the bottle pressed gently to the breast, so as to exclude the air. The hot air in the bottle, as it cools, will contract, a partial vacuum will be

produced, and the nipple will be forced into the neck of the bottle.

If it should be found desirable, the breasts may be drawn by the same means, and the bottle made to act more quickly by the application of cold wet cloths to its surface.

INFLAMMATION OF THE BREAST.

INFLAMMATION of the breast arises from various causes; as from exposure to cold, or from some local injury, such as a blow, pressure, or from friction produced by the dress, &c.; or it may be brought on by the milk being allowed to accumulate, so as to cause over distention. The latter is most commonly the case, where the nipples are in such a state of soreness as to deter the mother from suckling the infant, or from having the breasts drawn so often as is requisite. Where inflammation is the consequence of such mismanagement, it must be evident that relief can be obtained only by frequently abstracting the milk from the breasts.

Where the pain is very great, the shield should be employed, and the breasts emptied, in the manner described in the Chapter on Excoriated Nipples. Should, however, none of those means be effectual, a nurse, used to the operation, is to draw the breasts as often as may be requisite.

If the inflammation be but slight, let it be from whatever cause it may, the treatment should consist in not permitting the breasts to contain too much milk; in having them rubbed with oil, or spirit of hartshorn and oil, two or three times daily, for about ten minutes; and in giving mild

aperients, such as Epsom salts ; at the same time supporting the breast with a soft handkerchief, passed under it and over the shoulder of the opposite side. If these means speedily prove effectual, nothing more needs be done ; but if the disease does not soon give way to the foregoing treatment, or if it is accompanied by decided and urgent symptoms, such as much heat, pain and fever, indicating the approach or existence of acute inflammation, ten or twelve leeches should be applied, and when they fall off, the part ought to be fomented for about an hour with flannels and hot water, to encourage the bleeding ; or a bran poultice may be laid upon the breast, into which the blood will gently flow. Afterwards, cloths, wet with cold water, or with lead lotion,* should be frequently applied, so as to diminish the heat of the breast. If the first bleeding does not subdue the inflammation, it will be necessary to have recourse to the same number of leeches, in twelve or twenty-four hours ; and in some cases it will be requisite to repeat them several times.

If, after adopting the above treatment, the inflammation continue, accompanied by throbbing and much pain, and by shiverings of the system

* Lead lotion is made by adding half a drachm of solution of acetate of lead, commonly called extract of lead, to half a pint of water.

generally, there will be every reason to suppose the part is gathering ; in such case, a poultice, made of fine linseed meal and warm water, should be kept constantly applied, to encourage the speedy formation of matter.

But in all instances, where the inflammation is not soon relieved, or where it is severe, it will be better at once to call in medical aid, for by doing so, in the commencement of such attacks, much suffering will often be avoided.

Although inflammation of the breasts is not peculiar to any period of nursing, it usually appears in the first month or six weeks ; consequently much attention should be paid for a few weeks after delivery to avoid any causes that might excite the disease, and especially where a predisposition to it is known to exist.

It may appear singular that, in the management of females during their confinements, so few affections should have been mentioned ; this apparent omission arises from many of the disorders, incident to child-bed, having been already noticed in that part of the work which treats of the Management of Pregnancy.

PART III.

MANAGEMENT OF INFANTS IMMEDIATELY AFTER BIRTH.

IMMEDIATELY after the child is born, it is to be wrapped in a small sheet of fine flannel, and placed by the side of a fire, in a situation that is neither exposed to currents of air nor too much light. The child is then to be washed by sponging every part with warm water and a little mild soap. If the white substance which adheres to the skin is not all removed by these means, the application of a little lard or soft pomatum to the parts where any remains, will render the soap and water efficacious. The first washing should be performed in the most gentle manner, that the skin, which is extremely delicate, may not be irritated. It should not, however, occupy much time, as the body soon becomes chilled at so tender an age, which is very injurious.

It is, perhaps, scarcely necessary to state, that the old practice of applying brandy, or some other spirit, to the child's head before washing it, is not now adopted, being worse than useless, in

consequence of the cold which it produces in evaporating.

After the child has been washed, the navel string is to be wrapped in a piece of fine linen, and secured in its place by a bandage passed round the body. And frequent attention should be paid, to prevent the bandage from becoming tight, for, however properly it may have been adjusted, it will occasionally become otherwise, from the stomach and bowels being distended with food or air.

It is not necessary to describe the articles of dress in which an infant is to be clothed, as they will vary according to the taste of the mother; but it is absolutely requisite that every one, interested in the management of infants, should recollect how important it is that the clothing should, on no account, cause uneasiness, restraint or pressure. No bandage, except that which passes lightly over the navel, ought to be used, as, impeding the free motions of the limbs will often give rise to deformity. If the dress produces pressure on the chest, it will interfere with the breathing; and if on the stomach and bowels, it will seriously obstruct the action of those important organs.

The socks or shoes should be elastic, and, till the child begins to walk, perhaps those made of woollen are the best.

The dress should be just such as to maintain a regular and comfortable degree of warmth. For the first few weeks this is, perhaps, best effected by the use of fine calico. Flannel, though ever so soft, being too irritating for the tender skin of a new born infant. When, however, the child is old enough to be taken into the open air, the use of fine flannel next the skin can hardly be dispensed with: for, at so early an age, the vital energies are seldom able, particularly in cold weather, to keep up a sufficient supply of heat for healthy action, without the intervention of wool-len clothing.

MANAGEMENT OF INFANTS APPARENTLY
DEAD WHEN BORN.

THE directions just given are such as are to be attended to in ordinary cases, where the child has been born in a vigorous state. Whenever an infant is born in a very languid condition, or apparently dead, and the accoucheur not present, the nurse should immediately shake it with moderate force, or slap it smartly over the back, to rouse its energies. If no pulsation in the navel string is perceptible, it is to be divided without delay, as directed in the Chapter on Delivery by the Nurse; but if there is pulsation discovered, it will be well not to be hasty in separating the child, in order that it may continue to receive support from the mother for a short time longer.

Whilst the child is in this situation, an assistant is to procure, as speedily as possible, a large vessel nearly full of water, as warm as is comfortable to the hand; in this water the infant is to be so placed, that the whole of it may be just covered, except the face; for if the back of the head and the limbs are allowed to remain out of the water, there will not be that benefit received from its stimulating warmth which it is capable of affording; and if the chest and abdomen be sunk deep in the water, the attempts at respi-

ration will be impeded by its pressure. If the child, thus situated, does not attempt to breathe, or attempts it very imperfectly, the nurse is to close its nostrils with the finger and thumb of one hand, whilst, with the other hand, she presses the wind-pipe backwards and rather downwards. She is next to apply her mouth to that of the infant, and force air into its lungs ; and then gently press the chest, to cause the air to be expelled, as in breathing. The nurse should thus continue alternately to fill and empty the lungs, and imitate, as nearly as possible, the process of breathing, until the accoucheur arrives ; or for half an hour at least, should the case require it.

It may be well here to observe, that, by pressing the wind-pipe, as above described, the air will be prevented passing along the gullet into the stomach, which is a point to be carefully attended to ; for if the stomach becomes filled with air, the bowels also will soon become distended, and that will cause so much fulness of the abdomen, as greatly to impede the artificial, or the natural breathing.

As a further means of restoration, about a wine-glassful of warm weak brandy and water, should be injected as a clyster.

During the greater part of the time occupied in these operations, friction is to be kept up over the whole body and limbs.

As a precautionary measure, it is always well to have a quantity of hot water in readiness before a child is born, as it may be unexpectedly and instantaneously wanted; should this, however, have been neglected, heated flannels are to be substituted for the water.

It must be remembered, that although no appearance of life is visible for some time after birth, the case is not to be considered hopeless. The above means ought always to be thoroughly tried, unless the child has evidently been dead a length of time. This will readily be ascertained from putrefaction having commenced, or from the skin being easily rubbed off with the finger.

THE FOOD OF CHILDREN.

No subject, connected with the management of children, deserves more serious attention than the regulation of their food ; for if it be unsuitable, and injudiciously administered, evils of a greater or less magnitude are almost invariably the result. The constitution becomes affected, even in early life, and the seeds of formidable diseases are sown, which may become so rooted in the constitution as scarcely ever to be eradicated.

If the mother has a good supply of milk from the time the child is born, it will not be necessary to give it any other food, nor will it often be requisite to administer an aperient, as the first milk is of a quality which answers that purpose. But should the mother be unable to suckle her infant for a day or two, a little simple food must be given, such as equal parts of milk and water, or of gruel and milk : the latter is, in most instances, the best.

If the bowels are not moved in twelve hours after birth, about half a tea-spoonful of manna, or a third part of a tea-spoonful of castor oil, may be given ; either of which may be repeated in six hours, if the first dose not act.

Should the mother have an abundant supply of milk, it will be sufficient support, of itself, for

the first four or five months. In some instances, a longer time than that may elapse before it will be requisite to give additional food.

The child, in most cases, should be weaned after it has been suckled from ten to fourteen months. This, however, must be regulated according to the strength of the mother, and the continuance of nutritious milk. Some cases, it need scarcely be stated, will demand the weaning to be effected long before the expiration of ten months, and others will, without inconvenience, admit of its being delayed beyond fourteen months.

Whenever circumstances permit, the child ought to have the benefit of the mother's milk; for no food can be substituted, so well calculated to afford proper nourishment. In fact, many children cannot be reared by any other food, and most suffer if they are debarred from it. Therefore, if the mother is in too feeble a state to be allowed to nurse her infant; or if, from other unavoidable causes, it is requisite to substitute an artificial diet for that usually provided by nature, it will be right to have recourse to one as much as possible resembling the milk of the mother. Now, nothing approaches it so nearly as the milk of the ass. This, therefore, should be procured, if possible, where the health of the infant seems to require it. When that is not

the case, other forms of food may be given, as equal parts of grit gruel and cow's milk—biscuit powder in milk and water—or bread and milk—or equal parts of beef or mutton broth, grit gruel and milk, with a little salt; or should milk disagree with the stomach and bowels, half the above quantity of cream may be substituted.

These forms of food are to be varied occasionally, by giving arrowroot, sago, rice, &c. combined with grit, or oatmeal gruel, milk, milk and water, cream and water, or with any of the common broths, as that of beef, mutton, or chicken. These broths are best prepared by simmering one pound of lean meat, in a quart of water, for half an hour.

Whatever the food may be that is employed, it must be free from all lumps or inequalities. This may be secured by passing it through a coarse sieve. The consistence of all these forms of food ought not to be thicker than that of rich cream; for it must be obvious, that no nourishment of a solid nature is requisite, till the infant is provided with teeth for mastication. Coarse and lumpy food generally irritates the delicate stomachs and bowels of infants, intended, as they evidently are, by nature, to be supplied with the most mild and simple kinds of nourishment only.

In the first months, the food is to be given

from a sucking or feed-bottle. A cow's teat,* or a teat made of linen, soft leather, or of parchment, with a small hole in the end of it, is to be tied upon the outlet of the bottle, and thus made, although imperfectly, to resemble the mother's nipple.

It is of considerable importance that the child should be obliged to receive its food in this manner, instead of from a spoon or boat, as it causes it to take the support slowly, thereby giving time for the stomach to be satisfied before it is overloaded; and also, because the food becomes mixed with more saliva than if swallowed hastily, without the natural action of the jaws. The saliva assists materially in the process of digestion.

The feed-bottle and teat should be washed after each meal. And the food ought to be prepared at least every night and morning, that the infant may not be exposed to the injurious effects of sour food, which, from the want of this precaution, is sometimes the case.

* A small cow's teat is to have the whole of the inside carefully cut out with a penknife. It is then to be soaked for twelve hours in water, which is to be renewed several times. The teat is then to be put into spirit of wine, and there kept, in a well corked phial, till wanted. A teat, thus prepared, will continue good for many years. Before it is used, the spirit is to be washed out, by letting it remain in water for half an hour.

At no meal ought the stomach of an infant to be overcharged ; and notice should be taken whether this has occurred. Generally, if too much food has been given, either a portion of it will be returned, or the child will appear restless and uneasy.

But besides attending to the quantity, attempts should regularly be made, to discover whether the quality is suitable. If the infant appears gradually to increase in size, and is cheerful, and has regular and comfortable sleep, and if its bowels, too, are properly active, it may fairly be presumed that such is the case. But if a degree of heaviness or drowsiness is observed, with a palid or sallow complexion, disturbed sleep, irritable and irregular bowels, peevish temper, and a want of proper growth, then there can be no reasonable doubt that the food is wrong, either in quantity or quality ; that indigestion prevails, and that proper support is not received into the system. Of course, an immediate alteration in the diet should be attempted, as there is much cause for apprehension.

If all the common forms of artificial food fail to produce the desired effect, asses' milk should be procured, if possible ; or, what in many instances is far preferable, a wet-nurse. And as the milk of different women varies very much, the quality of one may disagree, whilst that of

another may agree very well; consequently, should one not succeed, it will be advisable to make trial of another.

After a few months, it will become necessary to add to the above food, such articles as light puddings of various kinds, which may be taken twice daily. When the mouth is supplied with a sufficient number of teeth for mastication, animal food is to be given once daily, in the form of minced chicken, veal, game, or mutton. And as the child advances in age, the diet should consist of such articles as are easily provided, of a plain nutritious quality: not forgetting that children require a less proportion of animal food than youths, or adults; and that all descriptions of rich, spiced, or stimulating food, are to be avoided; being not only unnecessary, but highly prejudicial, often bringing on inflammatory and other disorders.

It cannot be too strongly impressed upon the minds of those intrusted with the care of children, that over feeding is productive of the most serious evils. It not only enfeebles the stomach and other digestive organs, but frequently brings on the most troublesome disorders; as insatiable appetite, vomiting, purging, diseases of the skin, convulsions, various descriptions of fits, and a long list of other affections, which produce immediate inconvenience, and also lay the founda-

tion of miseries which most probably will cease only with life.

When a child has a tendency to over feeding, it will be proper to give it, at regular times, plain wholesome food, and to refrain from such as is apt to excite an inordinate appetite. It should also be made to eat slowly, that the stomach may have time to experience the feeling of satiety before too much food has been taken to be properly digested.

With regard to the most suitable times for feeding children—as a general rule, infants, whilst supported by the mother's milk, may be placed at the breast whenever they give the usual indications that they require food. They should not, however, be permitted to take too much at once.

When children have been weaned, it will seldom be necessary to feed them during the night. When they take food of a very nutritious kind, they are to be fed about four times daily; but some will require it more frequently. The last meal should be light, and not immediately before retiring to bed, that the stomach may not be irritated by its contents, and bring on restlessness and heat.

It can scarcely be requisite to state that every description of strong or stimulating drink is to be forbidden, unless as a medicine. Milk and

water, toast water, or plain water, will be sufficient for every child in tolerable health. At dinner, children should not be encouraged to drink more fluid than is necessary to satisfy thirst; for much liquid interferes with the digestive process. When children are thirsty between their meals, they may be permitted to drink, but they should be instructed to do so slowly, otherwise they will frequently take more fluid than is necessary to allay their thirst, and will distend their stomachs beyond what is conducive to health.

As it is occasionally necessary to substitute the milk of a wet-nurse for that of the mother, the following chapter is devoted to directions relative to her selection and duties.

WET-NURSE.

WHEN it is found absolutely necessary to have recourse to the milk of a nurse instead of that of the mother, it must be done with much care and circumspection ; as it has not unfrequently happened, that a child has been brought up in the most satisfactory manner with the milk of one woman, though it was gradually declining whilst fed with the milk of another. In every case, therefore, where a child does not prosper when suckled by one wet-nurse, it is very desirable another should be provided in her place. The difficulty, just alluded to, will only be met with in some rare instances ; so that, where a woman of good constitution, and having a plentiful supply of milk, is selected, the probability is that all will be right.

When a wet-nurse is to be employed, it is better, if possible, to select one, the age of whose infant corresponds, within one or two months, to that of the child she is to nurse ; for not only does the quality of the milk gradually alter from the time of birth, to that of weaning, but it will be found, that when the nurse has suckled her own child for several months previous to taking charge of another newly born, she will not be able to supply a proper quantity of milk for

the requisite length of time. It is desirable also, that she should be under, rather than above, the age of thirty; free from all disorders, and having the breasts and nipples well formed. She should also be free from an irritable or bad temper; not only because such a temper renders her ill qualified to act the part of a kind and attentive nurse, but because it materially alters the quality of the milk. In short, health, activity and good humour, and an abundant supply of good milk, constitute the most valuable properties of a wet-nurse; for these properties, the Irish women are particularly distinguished.

Nutritious human milk is of a colour inclining to blue, and similar to common milk and water. When it has been allowed to stand in a vessel for a few hours, it is covered by a rich cream, of a pale yellow colour.

The diet of a wet-nurse must be plain and nutritious, and such as she generally finds to agree with her the best. She may take animal food once daily, or twice, if the digestive organs are vigorous. Amongst other forms of food a moderate quantity of vegetables, and of the most easily digested fruits may be eaten. In some instances, the more simple the beverage the better; milk, or milk and water, will occasionally be found more conducive to health, and a good supply of nutritious milk, than any fluid of a stimu-

lating character. But generally, half a pint of ale or porter, once or twice a day, may be taken with advantage. In general, home brewed ale is to be preferred, from its greater freedom from acidity.

If the nurse's milk is too abundant, and not sufficiently rich, the quantity of vegetables and fluid must be diminished. And when it is found that vegetables and fruits cause the milk to gripe the child, they must be disused, either wholly or in part. This privation, however, should not be required till after careful investigation; for it may be considered a principle, that where the diet agrees with the nurse, it will generally ensure the production of such milk as will agree with the infant.

THE CLOTHING OF CHILDREN.

ALTHOUGH, in a work like the present, it would be quite out of character minutely to enter into the philosophy of heat and cold, yet it is desirable to notice the principles on which the proper temperature of the body is preserved, as when correctly understood, they are of more real service than rules, however extended, can be without them.

Most persons are aware, that the heat of the body is produced and kept up by its vital energies, and that the degree of it materially depends upon exercise, and a proper circulation of the blood.

It is also very generally known, that the atmosphere, by which we are surrounded, is usually much lower in temperature than the human body, and that, on exposure to its influence, without the intervention of clothing, the body would shortly be reduced to a temperature too low to maintain health. Hence arises the use of clothing, not that it contains in itself any positive heat, but that it has the valuable property of checking the rapid escape of that heat which has been already produced by the vital powers ; and thus of preserving to the body, a temperature congenial to health.

Clothing then, may be described as the art of adapting and using the materials of nature, so as to keep the body at a moderate and comfortable temperature. And it is nearly as useful when the body is exposed to a temperature much greater than its own, as it is when exposed to one considerably less than its own. Thus, the woollen dress of the fireman, that protects him from the influence of the scorching flames which he is called upon to extinguish, is as serviceable, as that of the watchman, which protects him from the chilling influence of the frosty night.

It will be evident, from what has been now stated, that the quantity and quality of clothing must be varied according to the seasons, and also according to the constitutional powers of different children; that in regulating the temperature of the body, exercise should on no account be overlooked, and that extremes of temperature should be avoided, as alike injurious.

In warm weather, fine calico will be sufficient for the dress next the skin; in the cooler seasons, soft flannel should be substituted, particularly for feeble children. Cotton stockings will be proper for summer; those of woollen for autumn, winter and spring, and they should be sufficiently long to cover the knees.

The chest and feet, especially, require preserving at a comfortable temperature. Inattention

to these particulars, though apparently of little moment, frequently gives rise to the most troublesome and serious disorders. It is next to impossible for a child to be long in a state of health, whose chest and feet are frequently permitted to become very cold. The hands, in cool weather, ought always to be prevented being cold, for any length of time, and woollen gloves should be worn when out of doors.

Children should, therefore, constantly wear clothing which will keep them warm when in the house, without over-heating them, and just as much additional clothing should be used when they are taken into the open air, as will allow them to experience the bracing effects of the atmosphere, without being chilled. To attempt more, with a view to harden the frame, is most prejudicial and dangerous.

It is of much importance that the clothing of children should be perfectly easy, as all restraints to their tender and growing structure are most injurious. For this reason it is, that tight stays, bands, garters, &c. should never form parts of their dress.

The mischief is incalculable which arises from the use of tight stays, or such as have bone or steel in them ; for not only do they impede the regular growth of the trunk of the body, but they compress most of the vital organs, and

thereby interfere with their actions. Hence the chest cannot expand sufficiently to admit of freedom in breathing, and the heart is embarrassed in its movements. And besides impeding the circulation of the blood through the large internal blood vessels, they even obstruct the healthy action of the stomach and bowels, and other important organs, and thus induce indigestion. But this is not all, for, besides those injurious effects, there are, if possible, others of a still more formidable description. For these very stays, intended as they are to support the body, become its greatest source of weakness; for, wherever means are adopted to spare the muscles the exertion requisite to keep the body in its proper attitude, it is found that debility and a diminished size of those muscles is the result. So that, generally, from the time that bone or steel plates are used to uphold the trunk of the body, an enfeebled state of the muscles of the back, loins and chest comes on, which never would have been experienced had not such means been adopted. Therefore, if stays are to be worn, they certainly ought to have neither bone nor steel in them, and they should by all means be so contrived, as never to produce undue pressure. At the present day that is easily accomplished by the use of stays with elastic springs in every part, which are capable of increasing or diminishing in their circumfer-

ence, and thus adapting themselves to the expansion and contraction of the chest in breathing, to the distention of the stomach after eating, or to the various movements of the body.

Besides the injury arising from undue pressure, above mentioned, there is much mischief produced by tight or uncomfortable dresses, as they frequently cause children to keep their bodies or limbs in such positions as tend to bring on deformity.

The unpleasant sensations of a tight shoulder strap, have, in many instances, been the means of inducing a child to depress the shoulder, and thereby produce curvature of the spine, which has terminated in considerable permanent deformity.

Careful attention to the shoes of children is of great importance. They should be quite easy, and not only sufficiently long, but so wide as to prevent all possibility of the toes being pressed against each other; for if otherwise, the feet, and especially the toes, cannot grow in the particular shape intended by nature, and deformity is the result. This, more or less, affects the comfort of the individual throughout life, and is not unfrequently accompanied by corns, the very common attendants of continued pressure.

With regard to the clothing requisite for the head of a child. If the child is tolerably strong

and healthy, it may be allowed, after the earliest part of infancy, to go, during the day and whilst in the house, without any clothing on the head. But, during the night, a cap of such material may be worn, as is calculated to prevent the head becoming cold. Indeed, vigorous children will, in mild weather, often do better during the night without any. As a general rule, whatever is worn on the head, should be such as is calculated to keep it moderately warm only.

Damp or wet clothing is never to be permitted to remain on children, and special attention ought to be paid to keep the feet perfectly dry.

When the dress is wet, it not only ceases to have the valuable property of dry clothes, that is, of obstructing the passage of the heat from the surface of the body, but it even becomes, to a certain extent, a conductor of that heat from its surface. If, under such circumstances, a child be allowed to remain in a state of inactivity, it is probable that the temperature of the skin will be reduced to a degree that may render the child liable to numberless disorders. But if it be healthy, and be required to take vigorous exercise, so as to prevent its becoming chilled, inconvenience will seldom be experienced. In short, if the surface of the body in childhood is not kept warm, the circulation of the blood in the vessels of the skin is diminished, and

the perspiration is also checked; the consequence of which is, that an undue proportion of the blood is caused to remain in the vessels of the internal and vital organs, whereby the most unpleasant, and often serious effects arise. It must, therefore, never be forgotten, that by clothing suited to the season, and to the constitutional vigour of the child, aided by proper exercise, the skin is to be maintained in a state of comfortable warmth.

CLEANLINESS OF CHILDREN.

CLEANLINESS is a valuable habit in every stage of life, inasmuch as it materially conduces to health and comfort. In infancy, the vigorous action of the whole system essentially depends upon it.

The skin, a most important, and certainly the largest organ of the whole body, by means of minute pores which pervade its surface, is, in health, constantly exhaling a vapour, which is called insensible perspiration when it flies off without being condensed upon the skin, and is termed sensible perspiration when it does not escape in such manner, but remains, so as to moisten the surface of the body.

The skin also pours forth over its own surface, an oily fluid, which renders it soft and pliable; besides which, it takes in, through other parts of its structure, considerable quantities of moisture, &c. from the atmosphere.

There is, too, a mutual feeling or sympathy, and that a very powerful one, existing between the skin and the other organs of the body.

Now, in infancy, the actions of the skin being readily disturbed, and the sympathy existing between it and the various other organs being very intimate, the disturbed action of the one, is

speedily followed by derangement of the others. Hence the importance of securing, as far as possible, the healthy action of the skin of infants. And, as there are probably no means more conducive to the attainment of this healthy action, than a scrupulous attention to cleanliness, its importance must be most obvious.

To be more explicit, when the skin is permitted to remain in an unclean state, it will be more or less liable to ulcers, excoriations, and numerous eruptive diseases. And, from the sympathy existing betwixt the other organs of the body and the skin, it not unfrequently happens, that they too suffer, and bring on a disordered state of the general health, and that to an alarming extent.

Every child should be washed all over, daily, with a sponge and mild soap and water. For the first week at least, the water ought to be warm, but it should after that time be reduced in temperature, till it is cold. After each washing, a cloth, of not very fine texture, is to be employed to thoroughly dry the skin. When the bath is used daily, other washing may be chiefly dispensed with.

If any disposition to redness or excoriation is observable, where portions of skin rub against each other, as under the arms, the neck, the thighs, &c. such parts are to be dusted with pow-

dered starch, hair powder, or calamine powder, after each washing.

The child ought never to be permitted to remain in a wet, damp or soiled state, consequently, whenever the cloths require changing, they should be removed immediately, and the moistened or soiled skin should be carefully washed and dried. A neglect of this treatment will not unfrequently bring on inflammation or excoriation of the skin.

The cloth may soon be disused during the day time, by carefully instructing the child to form regular habits. Experienced nurses will inculcate and establish such habits, in most instances, by the time the infant is four months old, and often so effectually, that the cloth will be found no longer necessary even during the night.

The body clothes are to be frequently changed, otherwise they will become impure from imbibing the perspiration which, during infancy, is often profuse.

Should any part of the head be affected with scurf or incrustation of a simple character, it may be readily removed by rubbing the part with lard or pomatum for a few times previous to each daily washing. It should not, however, be cleared away hastily, or the skin underneath the scurf would be left tender or excoriated.

If the skin of the face or other parts, is render-

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ed rough by regular washings, it should be more carefully dried, and a little pomatum applied once or twice daily. This application is most valuable in cold weather, as it prevents the skin from becoming sore.

BATHING OF CHILDREN.

IT is generally admitted that bathing is highly conducive to the health and comfort of children, provided it be employed properly, as, independent of cleanliness, it excites a degree of healthy action in all the important organs of the body. Bathing then, whether warm or cold, by producing more active circulation of the blood in the minute vessels of the skin, rouses the vital organs of the body, which have an intimate sympathy with the skin, and brings them into a more energetic state. It is thus, that bathing produces increased energy of the mind as well as of the body.

Whenever bathing is properly effective, a healthy glow comes on, accompanied by exhilaration of the whole frame. Where, on the contrary, the skin remains palid, the body or extremities cold, the spirits dull or depressed; or where a heavy or drowsy state appears, or head-ach comes on, the bathing is injurious. By attending to these simple indications, error will seldom occur relative to the propriety of persevering in its use.

It is always better to commence with warm water, and gradually to reduce its temperature, so as not to produce any violent shock upon the system, as such shocks have not unfrequently a

bad effect upon the health, and a tendency to cause the child to dread the bath for a length of time afterwards. In some instances, it has this effect to such an extent as to render perseverance impossible.

If the infant be healthy, warm water, of about ninety-six degrees will be proper at first. Into this water, every morning of the first week, the child should be just plunged and taken out. The warmth of the water, after a week has elapsed, may be gradually reduced, so that, by the time the child is two months old, its temperature may not be more than sixty or sixty-five degrees.

The shower bath, if thought more convenient, may be substituted for the cold bath, when the child is old enough to run about.

Where cold water is employed, merely plunging the child over head, or using the shower bath for a few seconds, will be sufficient. The child is immediately afterwards to be wrapped in a flannel, and well dried with a towel. The towel, for a very young infant, should be fine; and, as the age increases, a coarser one may be used; and friction by the hand, a flannel, or by a soft flesh brush, ought to be had recourse to. If the child is old enough, it is, when dressed, to be permitted to run about, in order to excite the action of the whole system.

It is always improper to use the cold and

tepid baths, when a child is either in a heated, or chilled, or fatigued state; and no kind of bathing should be employed within an hour and a half, or two hours after a meal. Upon the whole, it is decidedly the best, to accustom children to bathing every day, immediately upon rising from bed in the morning, as they are generally at a proper temperature at that time, and free from fatigue.

When the season is very severe, and when children are feeble, or diseased, or disordered in the stomach or bowels, the cold and tepid baths are frequently found injurious; and the warm bath, varying from ninety-six to one hundred degrees, is decidedly to be preferred. It should not, in general, however, be used oftener than every second or third day, and then for about five minutes at a time only.

The addition of from one quarter to half a pound of common salt to each gallon of water, will frequently be attended with advantage to delicate constitutions, or where the skin is palid or diseased, or the bowels irregular. There are also many eruptive disorders which are greatly relieved by the warm bath, whether of plain or salt water; but it is unnecessary to give minute directions upon this subject, as the propriety of using it, must, in most instances, be submitted to the decision of the medical attendant, in conse-

quence of the cases, whether of debility or disease, varying so much, that what would be proper for one, would be prejudicial to another.

Although it is injurious to plunge a child into cold or tepid water, whilst it is in a cold or chilly state, such is not the case with regard to the warm bath.

EXERCISE OF CHILDREN.

It is essential to the health of infants, even in the earliest part of their existence, that they should have frequent exercise. At first, this must be secured chiefly by having them dandled by the nurse, in such manner as to bring all parts of the body and limbs into active motion. This should be done often, and without producing alarm, or over-straining the child.

A substitute for exercise, in the earlier months, is friction over the whole skin. This may frequently be had recourse to with advantage, and should be performed by the hand simply, or by a flannel, or a soft flesh brush.

As soon as an infant is capable of creeping upon the floor, it may be permitted to exert and enjoy itself in that manner. By this means, its muscular power will be increased, and it will gradually proceed, of its own accord, from creeping to walking, better than if taught by leading strings, or other contrivances, which often induce infants to endeavour to walk before their powers will permit them to do so with advantage or safety. And though much mischief is often done by compelling children to walk too early, yet no injury can arise from giving them abundance of time to learn to walk of themselves. When,

however, an infant is sufficiently strong, there can be no impropriety in assisting its attempts to walk, by placing it upon its feet, and encouraging and aiding it to stand and to move to short distances.

Whilst infants are so young as to require to be constantly carried, they should not be invariably supported on the same arm of the nurse, for if they are, they will become distorted, from being continually twisted in one direction.

When children are strong enough to walk and run about, they should be encouraged to do so frequently; and to depend chiefly upon their own exertions, for exercise; at least, so far as it can be permitted without danger, and without producing very much fatigue.

Free and active exercise in every age of infancy is to be secured, proportioned to the strength.

It is not advisable, however, that active exercise be taken directly after meals, as it interferes with digestion.

Violent exertion, is, on all occasions, to be avoided, as it only tends to exhaust and debilitate.

When the health permits, and when the weather is not very damp, cold or inclement, children are to be taken out of doors once or twice daily, and oftener when the season is favourable.

When old enough, they are to be encouraged to play at the various games of youth, provided

such games are not of a nature to cause over exertion, or much fatigue. For when the frame is growing rapidly, and when the vital powers are soon exhausted, it is but reasonable that every measure at all calculated to promote bodily vigour should be adopted.

If parents were aware of the multitudes of promising children which have become the victims of too early application to study—of the many constitutions that have been rendered feeble by it: if they were aware of the numbers of delicate females who have been introduced into the world, totally inadequate to undertake the duties of life, in consequence of too close confinement to mental accomplishments: they would, it is to be presumed, feel it a more imperative duty than they now do, to watch more carefully over the animal powers of their interesting charge.

Close application to mental pursuits, even in maturer years, is trying to the constitution, and frequently productive of much bodily disorder, especially of the stomach and digestive organs; giving rise, in many instances, to the most distressing consequences. How much more injurious then, must such, or even less vigorous efforts of the mind be, in the youthful periods of life, when so great a portion of the energies of the system is required to produce an increase of

size in the individual, and when the mind itself is comparatively in a feeble state.

These observations are by no means intended to interfere with the necessary instruction of children; but merely to guard anxious parents against the lamentable error, unhappily far too prevalent in the present day, of exacting from the mental powers of their tender offspring that degree of continued exertion, which must inevitably injure the developement of their bodily powers, on which so much of their future comfort and well being necessarily depends.

SLEEP OF CHILDREN.

It is impossible to lay down exact rules relative to the time a child should be permitted to sleep. In the first days of its existence it sleeps much, waking seldom, except when roused by feelings of hunger. This disposition to drowsiness needs not be interfered with till after the first week, when the child is to be kept awake so long as much fatigue is not produced ; this is to be effected by playing with, and gently exercising it till it becomes sleepy, when it may be indulged with repose, but it should not be permitted to sleep for very long periods during the day, otherwise the sleep will be interrupted, or shortened in the night.

Perhaps an hour's repose at a time, at intervals through the day, will, in most cases, be found sufficient. The intervals being lengthened as the age of the child increases.

When a child is laid down to rest, it should be placed upon its right side, being the position in which most animals repose with the greatest ease. Lying on the back is an uncomfortable position for infants.

Whenever it is practicable, a child should be taught to sleep without being rocked either in the chair or in the cradle ; but if it proves highly

irritable and watchful, rocking must be had recourse to: that, however, should never be permitted till a long and fair trial has been made to do without it. For if the practice is once begun, not only does the infant require the indulgence every time sleep is necessary, which is very inconvenient, especially during the night; but, when used constantly, it has a tendency to bring on unpleasant affections of the head, and of the digestive organs.

It is scarcely requisite to observe, that the old custom of singing, in order to lull children to sleep, is altogether unnecessary, and entails much trouble upon the nurse. It should, therefore, be entirely omitted.

In almost all instances it will be found, that, provided children are laid down quietly in the place they are accustomed to, they will fall asleep at their usual hours, without the adoption of any artificial means.

TEMPERATURE AND AIR SUITED TO
CHILDREN.

THE adaptation of the clothing of children to their constitutions, and to the varying seasons, so as to preserve a comfortable warmth, has been already noticed in the Chapter on Clothing. And in making a few remarks on the subject of temperature and air, it may be observed, that the room in which children live, should, as far as circumstances will permit, be spacious and lofty ; supplied with abundance of moderately warm air, varying from fifty-five to sixty degrees, and pure. For if of a temperature greater than this, it is calculated to produce debility ; and if much less, it is apt to cause chilliness. It is desirable that the air, in all the apartments to which they have access, should circulate freely, and yet without producing draughts ; for thorough ventilation is most essential to health.

It is impossible to speak too strongly upon the importance of rooms being large, moderately warm, and supplied with abundance of pure air : as small, heated, and ill ventilated rooms are decidedly amongst the most fruitful sources of illness ; frequently bringing on a feeble and delicate state of constitution, which remains, in many instances, throughout life.

As soon as an infant is able to bear exposure to the open air, it is to be taken out, clothed according to the season, so as to prevent chilliness. As it increases in strength, it may be gradually inured to the cold. This, however, must be done with caution, as reason and experience clearly indicate the propriety of adopting a middle course between the incautious hardening method, by exposure to severe cold, and the debilitating plan of keeping up constant heat of the body: both extremes are very injurious, and tend to produce disease. Therefore, when a child is taken out of doors, it may be allowed to undergo the moderate bracing effects of cold air, but it is to be brought to bear this gradually. And as a guide, whenever it is found that exposure to a low temperature is not soon followed by a glow of healthy warmth, it has been too severe to prove beneficial.

By proceeding cautiously in this manner, and recollecting that as children become older they are able to endure a greater degree of cold, the feeble may be rendered more vigorous, and the strong, robust.

If the weather and their health permit, they should go out of doors several times daily.

GENERAL INDICATIONS OF DISORDERS OF
CHILDREN.

THIS part of the work, which professes to treat upon the disorders of children, must be understood to include such disorders only, as most frequently come under the observation of the parent, or nurse; and such as may be relieved with safety without applying for the assistance of a medical practitioner. Of course they will be few in number when compared with what would occupy the pages of a strictly professional work.

Experienced nurses easily discover when an infant is labouring under indisposition, by what is aptly termed the language of nature; but as this language requires some degree of attention from those unaccustomed to infants, before it can be correctly understood, perhaps the following remarks may not prove useless.

The general indications of pain are crying, restlessness, and sudden motions of the different parts of the body and limbs.

When there is pain in the head, there is usually more or less of distress and anxiety expressed in the countenance, the eyebrows are often contracted, so as to give the appearance of a frown, the head is rolled about, or from side to

side, and there is a general restlessness of the whole system, not unfrequently attended with violent crying.

When the pain is in the chest, there will, in addition to the crying and restlessness, commonly be a difficulty of breathing.

When pain exists in the bowels, it is generally denoted by an appearance of uneasiness, accompanied by sudden fits of crying, and by the knees being frequently drawn towards the bowels.

If there be pain in any other part of the body or limbs, it will be accompanied by the usual restlessness and crying, and, in most instances, the crying will be increased if the painful part be handled or moved.

Whenever a child cries, or appears in pain, without any assignable cause, it is always right to remove the whole of the dress, and carefully to examine the skin, in order to ascertain whether such pain arises from a bruise, a scratch, or the prick of a pin.

Where illness exists, it will generally be evident, from the presence of some of the following symptoms, which may, or may not, be accompanied by pain : Wakefulness, general feverishness, hot and dry skin, loaded tongue, rapid pulse, hurried or difficult breathing, startings and alarms during sleep, loss of appetite, palid skin, dulness, peevishness, irritability, emaciation, va-

rious eruptions of the skin, distended, costive, or purged bowels, the evacuations being of an unhealthy colour, such as white, green or dark; and often slimy and offensive.

Of course it will not be expected that all the symptoms above enumerated will be met with in one case. They are those to which the attention should be directed, and when any of them are discovered, the next step is, for the mother to decide whether any disorder has taken place of a character requiring medical assistance, or whether it is of a nature admitting of simple and easy treatment, such as properly falls under her own superintendence.

To distinguish health from disorder, and to prevent unnecessary alarm, every one, having the care of infants, should be made acquainted with the fact, that the pulse of an infant is generally very much more rapid than that of an adult; that food, exertion, or excitement, of any kind, quickens it very materially. When, therefore, there is a wish to ascertain its state, care should be taken that the examination be not made immediately after a meal, or after excitement of any kind, but that due time be allowed for the system to become quiet. When a child is in a tranquil state, the pulse, during the first few days of its existence, beats, in most instances, from one hundred and thirty to one hundred and

forty in the minute. At two months old, it has generally diminished in speed to about one hundred and twenty. During the first year it usually varies from one hundred and twenty to one hundred. In the second year the pulsations are commonly from one hundred to ninety, and when arrived at the age of eight or nine years, the pulse is about eighty or eighty-five.

The pulse of a healthy infant will, however, sometimes be found, for the first week or two, as slow as eighty.

During illness, the pulse generally becomes more rapid, and where inflammation or fever prevails to a considerable extent, it is not uncommon for it to be increased from thirty to fifty beats in a minute.

When a child is in good health, properly fed, and well nursed, there is an expression of comfort, and sprightliness in its countenance and whole appearance. The eyes are animated, the complexion neither palid nor very florid, the skin soft, the flesh not fat, but plump and solid, the abdomen not distended, the tongue clean, the breath free from all unpleasantness, and the respiration easy and regular. During the hours of wakefulness, the child is cheerful, and during those of sleep, the whole system is tranquil, and evidently comfortable.

Where deviations from these appearances are

observed to any great extent, although no marked symptoms of illness can be discovered, there is something in the state of the infant requiring investigation and correction.

**DISORDERED DIGESTIVE ORGANS OF
CHILDREN.**

THE first irregularities in the health of children generally arise from disorders of the stomach and bowels, and other digestive organs, consequently such affections are entitled to stand foremost in the list of infantile maladies.

There can be no doubt that due attention to these organs forms by far the most important part of the management of the health of children, not only on the part of the mother and nurse, but also on the part of the medical attendant.

Although the general management of the digestive organs stands high in importance, and cannot be said to be complicated, yet few persons attend to it with the care it deserves, and still fewer, perhaps, are fully aware of the degree of importance that really attaches to it.

It is essential that every one, having the care of children, should be well acquainted with the principles which ought to guide them in this part of their duty ; for, by proper attention, not only will the most painful part of nursing be avoided, but innumerable forms of illness and suffering, and often death itself averted from the objects of their most anxious care.

Children, whose digestive organs are mismanaged, almost invariably suffer more or less during infancy; and disease is not unfrequently established, which accompanies each individual throughout life, and often leads to years of both bodily and mental distress.

Indigestion may be of a temporary or of a protracted nature. Where temporary, its effects vary from trivial to the most alarming indispositions. It may merely give rise to irritability, sickness, purging, constipation, pains in the head, the stomach, the bowels, or to slight inflammatory affections of the skin; or it may give rise to affections of the head, accompanied by insensibility or convulsions: it may also cause loss of motion of one or more of the limbs for a few hours, or even days, as well as other distressing maladies. Thus liability to disorder in the other parts of the body, greatly depends upon the sympathy which exists between them and the stomach, bowels and other digestive organs, and which, during infancy and childhood, is greater than in maturer years.

Under long continued indigestion, marked and serious disorders frequently take place. The infant loses its healthy and sprightly appearance; it becomes dull, or else irritable, looks pallid or sallow, with occasional flushings. The skin feels dry and flabby; the appetite is capricious, there

being at one time but little, and at others an immoderate desire for food, and often accompanied by much thirst; the stomach frequently rejects a portion of what has been taken; the bowels become irregular, being either confined, or too active; the stools are white, green, or dark, and often slimy and offensive; the abdomen becomes distended, and not uncommonly, after a few weeks, resembles an inflated bladder; the tongue is white; the breath offensive, generally having a peculiarly earthy smell; the urine is usually scanty, and high coloured, and the stomach and bowels are distended with air. After the whole, or a part of these symptoms have continued for a time, emaciation begins and goes on, till the skin eventually hangs loosely over the whole frame, especially on the limbs.

In short, when the digestive organs are allowed to remain long disordered, they may give rise to an almost endless variety of diseases. Hence the importance of early attention to the affections of these organs, whilst under the control of diet and general management. Although it is very desirable that the appearances of the *more serious disorders of the digestive organs* should be well understood, their treatment cannot, with any propriety, be intrusted to the unprofessional attendant; in such cases, therefore, nothing remains

for the parent but promptly to call in medical aid.

The most common causes of disorders of the stomach and bowels, or of the digestive organs generally, are improper diet, exposure to cold or damp, want of exercise, impure air, and, amongst the poor, deficiency in cleanliness.

In the regulation of the diet, great attention must be paid to the quantity of the food as well as to the quality of it; for it is impossible the digestive organs can continue long in a healthy condition, if the quantity of food be so great as to overload and distend the stomach, or if its quality be such, as constantly to keep up a state of irritation.

When more food is given to a child than is necessary for its proper nourishment, the superfluous portion will either be ill digested, or it will require a considerable effort of the stomach to digest it. If ill digested, the system is not strengthened by it; and if this effort of the stomach is called into action repeatedly, the probability is, that the stomach and digestive organs will be enfeebled, and, that through their debility the whole system will suffer. And, on the other hand, if too small a portion of food is given, with a view to avoid oppression, the system will equally suffer. For the frame, and, of course with it, the digestive organs, becomes feeble from

a deficiency of nourishment, and this debility will induce disease. Thus too much food as well as too little, by bringing on debility, tends to produce disease.

It is, perhaps, almost unnecessary to observe, that, besides attending to the quantity of food, it is essential to secure its containing a fair proportion of nutrition, otherwise the stomach will be overloaded in the attempt to obtain sufficient support.

The varieties of nourishment best adapted to children have been treated upon in the article on Food. The next point to be considered is the mode of giving it. Whether a child is brought up at the breast, or by the hand, it should never be permitted to swallow what it takes, hastily, for, by so doing, more food will be received by the stomach than can be digested with ease. If the child is made to take its food slowly, not only will the cravings of hunger be satisfied before the stomach is loaded, but a greater quantity of saliva will be produced, which, being mixed with whatever is swallowed, will assist greatly in the first process of digestion. If due attention be paid to this part of feeding, the length of the intervals between the meals will easily be determined by the child's restlessness, crying, and such other signs, as will soon be understood by the mother. As a general rule, children in

moderate health should not be fed till they are hungry. In illness, if craving comes on immediately after a meal, it is not to be relieved by feeding, time must be allowed for the food in the stomach to be digested before more is given.

COSTIVENESS OF CHILDREN.

COSTIVENESS is generally the consequence of debility of the bowels. This debility is either constitutional, or arises from mismanagement. When it has appeared, it will, with the best regulated diet, generally be necessary to assist the bowels, to enable them to assume a healthy condition. The most effectual means are, frequent friction over the abdomen and loins, accompanied by moderate pressure with the hand; bathing in the warm, tepid, or cold salt bath;* and injections of warm water; or, if that is not sufficiently active, a tea-spoonful of common salt may be dissolved in the water. The quantity of fluid for an infant two or three months old, is about half a small tea-cupful, and should be gradually increased as the age advances. These injections may be used once or twice daily, according to the state of the bowels.

Another simple mode of gently exciting the bowels to expel their contents is, by introducing a small piece of greased linen rolled up to such a thickness as easily to pass a couple of inches up the lower intestine, and allowing it to remain a

* For directions on this point, see the Chapter on Bathing.

few minutes, till the bowel is made to contract, as if an injection had been used.

In addition to these means, gentle aperients will occasionally be requisite. The best medicines of this class are manna, magnesia, magnesia and rhubarb, castor oil, senna, and sometimes aloetic aperients.* These may be given occasionally, or daily, according to the necessities of the case.

Aperients should be used when they are really required and then only; for if they are given habitually, and in considerable doses, the bowels will be enfeebled, and eventually cease to act, unless when such means are employed.

A habit of regularly emptying the bowels as soon as the inclination is felt, should always be taught to children. As they advance in age, this inclination may be controlled so as to occur at stated periods: and immediately after breakfast is the most suitable time.

* The dose of manna is from one to three drachms, which may be given in the food or in any liquid; of magnesia, from four to ten grains, in milk or water; of magnesia and rhubarb, when combined in equal weights, from four to ten grains, in milk or water; of castor oil, from one to three drachms; of infusion of senna, commonly called senna tea, from two to six drachms, or from two to six small tea-spoonfuls; of compound decoction of aloes, from one to two drachms, or from one to two small tea-spoonfuls, in a little water.

When infants are in health, they have, during every twenty-four hours, two or three motions.

These, at first, are of a pale yellow colour, and, as the age increases, the yellow becomes darker.

Children a few years old, ought to have at least one motion daily. They are never to be permitted to go much longer than twenty-four hours without having the bowels relieved, either naturally, or by a mild injection, or some simple aperient.

In investigating the regularity of the action of the bowels, it is not enough to notice that there has been a motion ; but it is requisite to ascertain, from time to time, that it has been sufficient to empty the lower intestine.

VOMITING IN CHILDREN.

IT may be advantageous to enumerate the most frequent causes of vomiting, in order to induce watchfulness in attendants upon infants; for vomiting always demands prompt professional assistance, except where it arises from the food having been given in too great quantity, or from its having been of an improper quality, or from simple irritability of the stomach.

Vomiting may be excited even in a healthy stomach by over distention from food, or by food of an improper quality.

It may arise from the stomach being in such a state of irritability as renders it incapable of retaining food, although of the most digestible kind, and even when given sparingly.

Vomiting may also take place in consequence of the stomach sympathizing with the disordered parts of the system. Thus it is frequently brought on by disorders of the bowels, eruptions of the skin, affections of the head, the chest, and by teething: or its origin may be in inflammation, or in other diseases of the stomach.

Where infants, in good health, throw up, with little effort, a portion of the milk or other food which they have just taken, and immediately be-

come relieved, it simply indicates that too much food has been given ; and if, after the child has been fed with milk, pieces of curd should occasionally be returned, it must not be considered as any proof of digestion having been carried on imperfectly, as the stomach, in health, always separates milk into curd and whey, and often throws up the curd in tough masses. If there be bile or any other colouring matter in the stomach, that which is rejected will not be white, but will vary in appearance according to the tinge of whatever it has come in contact with. In the above cases, giving the food in smaller quantities at each meal, will be all the treatment requisite.

Where vomiting is suspected to arise from improper food, the fact will generally be easily ascertained from the contents of the stomach appearing green, or having a sour or offensive smell, and from the child not unfrequently parting with considerable quantities of air. In such instances the food must be varied according to the directions in the Chapter on Food ; and carbonate of soda, magnesia, or chalk mixture* is to be given ; the bowels are to be

* The dose of carbonate of soda is from five to ten grains, in water, or any simple liquid ; of magnesia, from four to ten grains, in water or milk ; of chalk mixture, from one to three tea-spoonfuls. Any of the above may be taken, if necessary, two or three times daily.

carefully regulated, and purging or costiveness avoided, as recommended in the chapters on those subjects.

If the stomach is oppressed with food, it will be indicated by a pallid, or flushed countenance, and by restlessness and retching. And if it is not relieved by free spontaneous vomiting, it will be necessary to unload the stomach by giving warm water, or chamomile tea, or a gentle emetic of ipecacuanha wine, in the dose of from one to two tea-spoonfuls; having first given a small tea-cupful of common tea or of chamomile tea. In some instances vomiting may be brought on by tickling the upper and inner part of the throat with a feather, or the end of the finger.

These remedies need only be employed where the oppression is great, or where it continues long.

After having unloaded the stomach, the child is to be allowed very little, if any food for a few hours, in order that the enfeebled stomach may have time to rally.

When vomiting arises merely from an irritable state of the stomach, it is distinguished from disorders of a more formidable nature by the absence of fever and inflammatory symptoms. The treatment should be, to give the food more frequently, but in smaller quantities, than in

health, and to find out, by experience, what kind of food agrees best with the child, which should be carefully adhered to. The bowels are to be kept gently active by mild aperients;* and if the sickness is obstinate; a piece of linen, about the size of the palm of the hand, moistened with brandy; or with hartshorn, oil, and laudanum;† may be applied to the pit of the stomach for a short time. It must only remain so long as the child can bear the application without experiencing much pain.

In addition to the above, one or two drops of laudanum, given in a tea-spoonful of any liquid, will often be found to produce great relief. The last remedy may be repeated, if necessary, in three or four hours; or sooner, if the first dose be rejected immediately after it is taken. This part of the treatment, however, is only to be had recourse to occasionally, as the habitual use of laudanum is very injurious.

Whenever children are troubled with sickness whilst cutting their teeth, the gums are to be lanced; for it will not unfrequently relieve the disordered stomach immediately.

* The aperients may be such as are recommended in the Chapter on Costiveness.

† Hartshorn two drachms; olive oil, one ounce; laudanum, half an ounce; to be mixed and kept in a bottle.

Whilst infants are subject to vomiting, they must never be excited, or played with soon after taking food. In fact, if the sickness is very troublesome, perfect rest should be secured for half an hour, or even an hour, after each meal.

FLATULENCE IN CHILDREN.

FLATULENCE or wind, arises from food fermenting and liberating air, which distends the stomach and bowels; and it is very common for children to suffer from it. In slight cases, relief will be obtained by giving a little anise seed, dill, cinnamon, or peppermint water, in the food. But this treatment should not be persevered in long, as it has a tendency to enfeeble the stomach and bowels. The abdomen is to be well rubbed with the hand, or with a flannel, or a soft flesh-brush. The bowels are to be kept open by mild aperients, as manna, magnesia, castor oil, &c. or by injections, as recommended in the Chapter on Costiveness; and the diet is to be carefully regulated, according to the directions in the Chapter on that subject.

Where the case is of a more severe character, the plans laid down in the Chapters on Indigestion and Colic or Gripes, are to be carefully attended to; not with a view to subdue the troublesome affection in a temporary manner only, but as far as possible to prevent its recurrence, by removing the cause, which is an imperfect action of the digestive organs.

PURGING IN CHILDREN.

PURGING may arise from various diseases of the bowels; from irregularity in administering the food; from the food not being adapted to the constitution; from exposure to great heat, or cold, or damp; from an unhealthy state of the atmosphere; or from the irritation of teething.

Where this disorder is of a permanent, or active character, the medical attendant should be consulted; as it is impossible for any one, who is not in the constant habit of witnessing the diseases of children, to decide what the affection results from, or what should be the treatment; and especially, as it is one of those disorders, which, if not soon relieved, frequently proceeds to an alarming, and sometimes fatal extent.

When this state of the bowels has been coming on gradually, and is moderate, much relief may be afforded by carefully keeping up comfortable warmth; and, if the child is old enough to be fed; by administering suitable food; such as rice gruel with milk; beef tea with nutmeg or cinnamon; starch water, containing isinglass, or thickened with baked flour; or with flour which has been tied up tightly in a cloth and boiled for three hours, and then grated; and also by refraining from vegetables and fruits.

If the purging does not soon abate, one or two tea-spoonfuls of chalk mixture,* or from fifteen to forty drops of the anodyne mixture, recommended in the Chapter on Colic or Gripes, may be given night and morning.

If the bowels are distended, and fever or heat exists, it will be better to commence by clearing the intestines with a mild dose of castor oil, or magnesia.†

Where the teeth appear to be coming, and to irritate, the gums should be lanced, and care taken that the lancet cuts quite down to the teeth, otherwise it is of little use.

When teething is discovered to be the cause of purging, as it very frequently is, it should be partially checked only ; for a freely open state of the bowels during teething, tends to keep down fever, inflammatory action and other affections, and is therefore very beneficial.

If the bowels are painful, fomenting the abdomen will be serviceable, especially with flannels wrung out of hot brandy.

If there be no fever, and particularly where there is a cold and pallid skin, the warm bath

* Chalk mixture is made by mixing prepared chalk, white sugar and powdered gum-arabic, of each two drachms, with half a pint of cold water.

† The dose of castor oil is from one to two tea-spoonfuls ; of magnesia, from four to ten grains.

will prove beneficial. The water should be such as is comfortably warm to the hand, or from ninety-four to ninety-eight degrees. The child may remain in the water from five to ten minutes. To prevent chilliness on removing it from the bath, care should be taken to wrap it instantly in a warm dry flannel, and to rub it rather briskly with a towel.

The addition of a quarter of a pound of common salt to each gallon of water, will often render the bath much more efficacious, especially where the child has an inactive or feeble constitution.

The bath may be employed every morning in most cases : in some instances, however, it will be found to debilitate when used daily ; it must then be had recourse to every second day only.

COLIC, OR GRIPES IN CHILDREN.

COLIC, or gripes, is the most usual kind of pain to which an infant is subject. It is generally soon discovered by the child crying suddenly, and often with great violence, without any apparent cause ; and from its becoming restless, and drawing up the knees towards the body. In severe attacks, the muscles, covering the bowels, feel hard and uneven to the hand when laid upon them. Occasionally there is a temporary stoppage of the urine, and sometimes vomiting occurs.

After the child has remained in a state of pain, indicated by the marked symptoms above described, it becomes tranquil for awhile, and appears free from suffering, provided there is no permanent disease accompanying the affection. The attack, however, generally soon returns. This disorder is usually brought on by the food being either too great in quantity or of an improper quality, or by exposure to cold or damp, or by sudden transitions from one temperature to another.

The methods of relief consist in placing the sufferer in a relaxed position, having the thighs bent towards the body ; applying warmth to the bowels, by means of heated flannels, hot fomen-

tations,* or the warm bath, and friction with the hand over the whole surface of the abdomen and loins. In severe cases, a soothing embrocation† may be used at the same time with much advantage.

If the above treatment does not soon afford relief, the injection of a small tea-cupful of warm water, or warm gruel, containing two tea-spoonfuls of common salt, or a dessert-spoonful of castor oil, into the bowel, will often be very beneficial, by dislodging all hardened or irritating substances, as well as air, which is frequently abundant.

If this does not cause complete relief, it must be ascertained whether the child is costive or purged, and the plans respectively recommended in the Chapters on Costiveness and Purging are to be adopted.

If, after these means have been tried for a moderate length of time, the child continues in

* The fomentations may be of hot water, or of decoction of poppy heads, or of laurel leaves. The decoctions are prepared by boiling two ounces of white poppy heads bruised, or four ounces of green laurel leaves, in two pints of water for a quarter of an hour. The liquor is then to be strained off for use.

† The embrocation to consist of one drachm of camphor dissolved in an ounce of warm olive oil, combined with a quarter of an ounce of laudanum; of which, about a tea-spoonful is to be rubbed over the abdomen for ten minutes at a time.

pain, a minute investigation of the cause must be instituted, as the malady may arise from some diseased state of the intestines, which, if neglected, might lead to serious consequences.

Where a child continues to be attacked with gripes after proper attention has been paid to warmth, diet and medicines; some anodyne should be administered, to diminish the too sensitive state of the bowels; such as anise seeds, caraway or cinnamon water, or tincture of asafoetida,* which will be especially efficacious where the bowels are distended with air; but the anodyne mixture,† in the form given below, will generally be found the most beneficial.

Should there be purging, the anodyne mixture will generally be sufficient to check it; and if costiveness exists, a mild injection, or an aperient must be employed with the anodyne, so as to keep the bowels moderately active.‡

* From one to three tea-spoonfuls of anise seeds, caraway or cinnamon water may be taken for a dose in any liquid, or in food. From ten to thirty drops of tincture of asafoetida may be given for a dose in any liquid.

† Anodyne mixture.—Oil of anise seeds twenty-five drops, powdered gum-arabic, prepared chalk, red Armenian bole, laudanum, of each two drachms, water half a pint: mix, and keep in a bottle. The dose to be increased gradually from fifteen to forty drops, which may be taken occasionally, or night and morning, if necessary, in water or in milk.

‡ The aperients requisite in these cases are given in the Chapter on Costiveness.

If some suitable treatment is not adopted, the child, in many instances, will continue to suffer so much pain and disorder from the irritable state of the stomach and bowels, that permanent disease of an intractable nature may be established; or the child may be gradually reduced in strength, so as to endanger life.

Perhaps there is no disorder incident to children, which deserves more minute attention from the mother or nurse than this; and none which admits of greater relief from judicious treatment.

TEETHING.

THE time of teething abounds with more difficulties than any other period of infancy ; for, as, during infancy, the most intimate sympathy exists between all the various parts of the frame ; if one portion be injured, or irritated, or disordered ; others will suffer more or less. And to such an extent does sympathy act, during the growth and cutting of the teeth ; that there is no organ, or part of the body, which is not liable to be disordered through it. In some instances the stomach and bowels become disordered ; in others, the nervous system is disturbed, or more or less fever, or inflammation arises. The degree of disorder varies from a mere irritable or peevish condition, to the most troublesome maladies. It is difficult to determine which class of children suffers most, the delicate, or the robust ; for although the feeble are still more debilitated by the process of teething, they are not so liable to the active inflammatory, and convulsive affections, as the strong. Indeed the very delicate frequently cut their teeth with little inconvenience.

Perhaps there are no parts of the frame which are subject to so many varieties in their formation and growth, as the teeth. They are irregular as regards the time and order in which they

appear. Feeble children are generally later and longer, in cutting their teeth, than the more vigorous.

The first or temporary teeth generally begin to be visible between the sixth and ninth months : most commonly from about the seventh they appear in succession, till the child is nearly two years old. In some cases they are all cut by the sixteenth month ; in others, not before the end of the third year.

Occasionally, children are born with some of the front teeth imperfectly formed and loosely fixed in the jaws.

The above variations are of very little importance ; nor is there any just ground for anxiety, though the teeth should not begin to appear before the twelfth or fourteenth month.

The order in which the teeth are usually cut is as follows : first, the two front teeth in the lower jaw ; in a few weeks the two front teeth in the upper jaw ; next, a tooth on each side those in the under jaw ; afterwards, the corresponding two in the upper jaw ; about the twelfth or fourteenth month, the first grinder or double tooth on each side of the lower jaw ; shortly afterwards, those in the upper are visible ; next, the spaces between the front and grinding teeth are filled up by the eye teeth ; after which the back grinders come in succession ; making up

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twenty temporary teeth : some children, however, have but sixteen. Occasionally, the teeth in the upper jaw appear first.

About the seventh year, the first or temporary teeth begin to be shed, and make room for permanent ones. This process lasts six or seven years. By the thirteenth or fourteenth year, the permanent teeth have all appeared, except the last four grinders, called the wise teeth. These are generally cut by the eighteenth or twentieth year ; sometimes they have not all come before the thirtieth or thirty-fifth year. When the whole set is complete there are thirty-two.

The most common symptoms which accompany teething are, general irritability, restlessness with startings during sleep, fever, inflamed and swelled gums, increased flow of saliva, irregular state of the bowels, which are generally purged and griped. The stools, which ought to be of a pale yellow, are often green, or of an unhealthy hue ; at other times, they are very light coloured, or even white.

In some instances, the bladder and urinary organs are so affected, that much pain is experienced in voiding the urine, which has a deep tinge, or is loaded with slimy mucous.

When much irritation exists about the gums, the child frequently rubs them with its fingers, or any substance that it can force into its mouth.

These are the most usual indications of teething ; and though, as already observed, some children do not experience much perceptible inconvenience, others have an almost endless variety of affections, such as eruptions of the skin, disorders of the chest, stomach, bowels, or liver ; or disturbances of the nervous system, giving rise to disorders of the head, convulsions, &c.

From what has been stated, it is evident that a large portion of the maladies to which infants are liable, may be brought on or increased by teething ; that the best methods should be adopted to mitigate the irritation arising therefrom ; and that the strictest attention should be paid to the general health.

The plans to be pursued in the first instance are simple, but they must be decided.

When a tooth is beginning to grow in the socket, it presses upon a membrane or skin in which it is enclosed. In troublesome cases this membrane does not readily give way, but remains firmly drawn over the tooth, and becomes inflamed. The gums also suffer from inflammation, and are swoln. But the most serious disorders arise from that state of the membrane which precedes the fulness or increased redness of the gums.

The mode of giving relief is, to have the gum freely lanced. The lancet should be sharp and

pointed, and should be brought thoroughly in contact with the tooth. It should also be passed over a sufficient length of the jaw to ensure the division of all the irritated portion of the membrane ; for if a small part be left uncut, the unpleasant symptoms will frequently remain. On the other hand, when the lancet is used judiciously, the relief is often almost instantaneous, and complete. And though, when the gums are lanced early, it may occasionally be necessary to lance them again, it should never be forgotten, that early lancing, and that quite down to the tooth, is of the utmost importance in numberless instances, not only as it regards the comfort, but even the life of the child ; and that, when properly performed, it gives but little pain, and is productive of no injury whatever.

Whilst infants are cutting their teeth, they receive much relief from rubbing the gums with solid, or elastic substances. The best are ivory and Indian rubber. If ivory is used, it should be in the form of a ring, sufficiently large to prevent the child pushing it into its throat. A large ring is preferable to other shapes also, from its being less likely to inflict injuries upon the eyes. Indian rubber, in the form of a ring, or in any other convenient shape, is well suited to relieve the gums. It is perhaps the best material that can be employed ; but care should be

taken to prevent any portions from being torn off and swallowed.

The habit of giving children bones, crusts of bread, biscuit, &c. to chew, is to be reprobated, as portions of them sometimes lodge in the throat, and bring on suffocation.

From what has been said, it must be obvious, that infants should never be allowed to play with any toys with which they can rub their gums, except such as are incapable of giving rise to the evils above named.

After relieving the irritated parts in the immediate neighbourhood of the teeth, the next object is to allay any general disorder of the system.

In most instances this will be effected, where feverishness and inflammation are moderate, by giving a less nutritious diet than usual, and by having recourse to mild aperients,* when the bowels are not sufficiently active.

Where difficulty in passing the urine is observed, or where it is scanty, and high coloured, a soothing mixture† ought to be given every four or six hours, and the drink should be plentiful

* See the Chapter on Costiveness, in which the aperients and their doses are given.

† The mixture to consist of one drachm of nitre, one drachm of nitrous æther, two drachms of sirup of white poppies, and two ounces and a half of water. The dose to be from one to two tea-spoonfuls.

and mucilaginous, such as gum water, or barley water.

The body is to be carefully preserved at a moderate temperature, and where no eruption is present, sponging the whole skin with cold water, or using the tepid bath daily, will be found very beneficial.

When there is a disposition to eruptive affections, sponging with warm water, or using the warm bath daily, will be useful, particularly if care be taken that the skin be not exposed to cold.

The head should be kept moderately cool, both by day and by night. And whilst the child is sleeping, the head is not to be permitted to lie low, but is to be raised as high as comfort will permit, either by elevating the bed at one end, or by using a thicker pillow than usual.

If much fever is present, from five to ten drops of antimonial wine may be administered every four or six hours in a little water or other liquid.

If there is much griping, without active inflammatory symptoms, the anodyne mixture, recommended in the Chapter on Colic or Gripes, may be given; at the same time care should be taken that the bowels are kept freely open.

When a feeble infant suffers much from debility whilst cutting its teeth, provided fever and inflammation are absent, the food ought to be as

nutritious as can be digested with moderate facility. And if it has been recently weaned, it should be again applied to the breast, if there be any nutritious milk remaining.

Whether the infant be strong or feeble, the bowels must always be strictly attended to. They should be freely open several times during every twenty-four hours. And whether fever or inflammation be present or not, if they become confined, they must be relieved by aperients or injections.

If the bowels become purged, so as to debilitate, and strict attention to diet does not prove sufficient to check the disorder, more decided treatment ought to be adopted. But as this state of the bowels may arise from various and even opposite causes, it will be well for the professional attendant to be consulted.

THRUSH.

THRUSH is a disease which very frequently affects infants. It is most commonly met with during the first or second month, although no period of life is exempt from it. In mild cases, this disorder appears in the form of white patches on the membrane or skin lining the mouth and tongue. The stomach and bowels are generally disturbed. The stools are often green, pale, or dark, or sour and offensive. The child is fretful and restless, and there are evident indications of indigestion. In this kind of thrush but little fever appears. It generally arises from exposure to cold or damp, or from an improper quantity or quality of food, and soon disappears under careful management. The treatment consists in keeping the child properly warm and dry, and in regulating the diet. If the bowels are costive, or if they are purged, the plans recommended under those heads are to be adopted. Most commonly the system of gentle purgatives, pursued in the manner given in the Chapter on Costiveness, will be found effective; as an aperient, perhaps magnesia and rhubarb combined, will be found to answer the best. As a local application, nothing is better than one part by weight of powdered borax, mixed with six or eight parts of

honey, and applied to the mouth several times daily with the end of the finger, or with a piece of very soft linen.

The above relates to the mild thrush, which is not to be considered as a complaint of importance.

There is a form of the disease which is of a much more serious character, and the symptoms which distinguish it from the former are these: the patches in the mouth are so numerous as to run into each other; the stomach and bowels are tender when pressed upon; and besides the presence of fever, with loss of appetite, there are vomiting and purging to a considerable extent; accompanied by redness and excoriation of the seat and skin surrounding it. Besides which, this affection is frequently attended with drowsiness, much difficulty in breathing, and great debility.

Where such appearances arise, the medical attendant should be consulted speedily, as the most decided treatment is necessary.

It is not uncommon for thrush, whether of the mild or severe kind, to produce soreness of the mother's nipples. This soreness, however, generally soon subsides, under the simplest treatment, when the child recovers.

RED GUM.

RED gum is a rash, or eruptive disease of the skin. It very often appears within the first month, and not unfrequently in a few days after birth. It assumes various forms. Sometimes that of red patches on the face and neck, and occasionally extending over the body and limbs : in other cases, instead of mere inflammatory patches, it shews itself in innumerable, small, and elevated points on the skin, which, in some instances, do not contain any fluid, and, in others, are filled with what either resembles water or matter.

Much mischief might arise from these affections being mistaken for small pox : but a little attention will prevent the occurrence of an error of this kind, as the eruptive spots of red gum are much smaller than those of small pox, and there is generally less fever preceding their appearance.

Red gum is commonly a simple and inoffensive disease. The treatment consists in keeping the skin from a cold or damp atmosphere ; the bowels properly regulated ;* and the diet suitable.

* If costiveness, or purging is present, the treatment given in the Chapters under those heads is to be pursued ; always recollecting that the bowels are to be kept moderately active.

Where one sort of food does not agree, another must be substituted. Every kind of acid food, as well as that which is lumpy, is to be carefully avoided. In short, the diet is to be simple, bland, and moderately nutritious. Besides the quality, the quantity of nourishment is to be properly adjusted; for over feeding often brings on this disorder, or protracts its duration if it has been established by any other means. If no important symptoms appear, attention to the above will be all that is requisite.

SORES BEHIND THE EARS OF CHILDREN.

AN inflamed and excoriated state of the skin behind the ears of infants, is a very common affection, and is often accompanied by enlargement and tenderness of the glands in the neck, and under the lower jaw. This disease is most frequently met with during the time of teething. Where it is not extensive, and does not appear to be increasing rapidly, little needs be done, as it gives relief to the system, at a time when considerable fever and inflammation are prevailing.

After the teeth, which give rise to the disease, have been cut, it almost always subsides; but similar attacks not unfrequently recur during the cutting of other teeth.

The treatment, in mild cases, should consist in applying a lotion* to the sores several times daily; and in keeping the bowels open, if necessary, with a mild aperient, as senna, magnesia, castor oil, &c. as recommended in the Chapter on

* The lotion to be composed of four drachms of oxide of zinc and three ounces of rose-water. After the application of this lotion, a white powder will remain upon the parts where it was used, which is to be washed off daily with warm milk and water.

Costiveness. The aperient may be given every night, or every second night.

When the bowels are very irritable, and the aperients produce inconvenience from their too speedy action, the medicines may be given in the morning, instead of at night.

If the child has a very feeble, or highly inflammatory constitution, and the disease appears to produce much local, or constitutional disturbance; more active treatment should be adopted without loss of time.

INFLAMED EYES OF CHILDREN.

WHERE the eyes of children are affected with slight inflammation, they should be bathed several times every day with warm milk and water ; and any thickened discharge, which may have accumulated under the lids, is to be washed away, by gently pouring tepid milk and water into the eyes.

When it is difficult to open the eyes, the best plan is to inject the milk and water underneath the eyelids with a small syringe.

During the time the inflammation exists, the bowels are to be kept moderately active, by infusion of senna, magnesia, or magnesia and rhubarb.* If this treatment is not sufficient to diminish the inflammation, it will be right to administer a dose of calomel and scammony ; † and to moisten the eyes frequently during the day with Goulard's lotion combined with laudanum. ‡

Should these remedies also prove ineffectual,

* The doses of the aperients are given in the Chapter on Costiveness.

† When an infant is three months old, two grains of calomel and the same of scammony may be given as a dose, which may be increased gradually to double that quantity by the time the child is three years of age.

‡ To five ounces of Goulard's lotion add half an ounce of laudanum.

more decided treatment should be pursued under the guidance of the medical attendant.

It is well for unprofessional persons never to undertake the treatment of diseases of the eyes of infants, unless of a mild character ; as such affections require the greatest caution and attention. Indeed, it not unfrequently happens, that if not promptly relieved, they speedily run on to the most troublesome extent ; often becoming tedious and very difficult to cure.

EARACH OF CHILDREN.

INFANTS sometimes suffer severely from earach, and that when too young to speak. When the child starts suddenly, and cries violently, without the usual indications of the pain arising from disorder of the bowels; such as the knees being drawn up to the body, &c. as described in the Chapters on Disorders of the Bowels; and also when the child rolls its head about, the earach may be suspected; and particularly if, on examination, the ear be found hot, and unusually sensitive when touched.

In most cases, great relief is given by the application of heated flannels to the ear. Pouring one or two drops of laudanum into the ear, not unfrequently produces decided benefit. When these remedies fail to prove serviceable, pouring a little cold water, or cold cream, into the ear, will often mitigate the suffering. If the pain continues after the above treatment has been adopted, a soft bread and milk poultice, in a muslin bag, should be applied, as it is probable the ear will gather.

Warm fomentations of poppy heads boiled in water, may also be employed. Should matter form and be discharged, the ear should be gently washed out several times daily with a syringe

and tepid milk and water. This is to be continued as long as the matter appears. In all cases, the bowels are to be kept moderately active, by aperients ; as senna, magnesia and rhubarb, castor oil, &c. : senna is the best form, and may be sweetened with a tea-spoonful of manna. The doses of these aperients will be found in the Chapter on Costiveness.

After earach, there is generally more or less of deafness, but this is seldom of importance, as it commonly lasts for a short time only.

SWELLED BREASTS OF CHILDREN.

THE breasts of children occasionally become swelled. This occurs in some cases before birth, in others shortly after it.

If lightly pressed, a milky fluid oozes from the nipples ; but no force ought to be employed to squeeze it out. By gently rubbing them twice or three times daily, with a little oil, or oil and hartshorn, the swelling will generally subside.

If inflammation, accompanied by tenderness of the breasts, comes on, simple poultices are to be applied two or three times daily.

This is not a disorder of importance.

CONVULSIONS AND FITS OF CHILDREN.

THE convulsions and fits of infants are not unfrequently symptoms of important diseases, as affections of the brain, spine, &c. They are, however, readily brought on by irritation of any kind. Where they arise in consequence of some serious malady, which will generally be ascertained by the child having previously suffered from marked internal disorder, immediate medical assistance must be had recourse to. And though it is most prudent to take the opinion of the professional attendant in every case where convulsions, or fits, are discovered; for, as it is generally difficult to determine the exciting cause, the proper treatment will not be very obvious: still it is well for all who have the care of children, to be aware of the most common sources of convulsions and fits.

When they come on suddenly, that is, without previous illness having been detected, they usually arise from the irritation of teething, or from disorders of the stomach, or bowels. Where the condition of the gums renders it probable that the teeth are the exciting cause, the gums should be immediately lanced freely down to the teeth. Where the bowels are supposed to give rise to convulsions, or fits, they are to be regu-

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lated. If costive, or if purged, they are to be treated according to the plans laid down in the Chapters on Costiveness and Purging. Most commonly a loaded state of the bowels is the cause of the disorders in question. In such case, aperients and clysters are to be used without delay. When a disordered condition of the stomach is the cause, the tongue is white, the breath unpleasant, and a disposition to sickness is generally observed. Under such circumstances, a gentle emetic* will often give instantaneous relief; but previous to administering that, which it is often very difficult to give in consequence of the incapacity to swallow, attempts should be made to bring on vomiting, by introducing the end of the finger into the commencement of the throat, and tickling that part by gently moving the finger. Or the tickling may be effected by means of a feather. Either of these methods will, in most cases, cause the stomach to expel its contents without any further measure being adopted.

* Before giving an emetic, it is well to let a small tea-cupful of tea be drank if possible. To an infant two months old, rather more than half a tea-spoonful of ipecacuanha wine may be administered as an emetic, and repeated in a quarter of an hour if vomiting is not produced. For an infant one year old, the dose may be doubled, and increased gradually as the child becomes older.

Whilst this is doing, the stomach should be well rubbed, or gently pressed upon; for external pressure is very efficacious in making it contract and throw off whatever is irritating it. In like manner, when a clyster has been given, the bowels should be rubbed, pressed, or gently kneaded with the knuckles. The mechanical pressure of the sides of the stomach or bowels against each other, or against their contents, urges them to vigorous action, and should always be used as a valuable auxiliary to other measures. In fact, it is not unfrequently enough of itself, to cause those organs to empty themselves without the aid of internal remedies.

Besides the foregoing causes of fits, there are others; amongst which may be enumerated worms, and the sudden transfer, to some internal part, of such inflammation as had produced rashes or eruptions of the skin. This transfer usually takes place from exposure to cold or damp, and requires the immediate use of the warm bath, with gentle friction, aperients, and clysters. By the use of the bath, the eruption which had disappeared will sometimes return to the skin, which, in all such cases, is greatly to be desired.

Though the presence of worms cannot, in many instances, be positively known, yet where they are suspected, and where no other reason can be assigned for the fits; the remedies recom-

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mended in the Chapter on Worms should be employed. And as the symptoms which lead to a supposition that worms are in the bowels are given in that Chapter, it is unnecessary to mention them here.

Where the skin is pallid, dark, or cold, and where there are no decidedly inflammatory symptoms existing, in addition to the respective remedies already directed, the warm bath, of about ninety-six or ninety-eight degrees, should be promptly used, for five or ten minutes; taking care that the child is immediately afterwards rubbed dry and wrapped in warm flannel.

During an attack of convulsion, it will be right to pour cold or hot water upon the head, from a considerable height: cold water should be used when the child is not in a depressed and chilled state; but when that is the case, water as hot as the skin will bear, ought to be had recourse to.

The foregoing observations are intended to point out the remedies to be adopted where medical assistance is not at hand; but as the after-treatment varies according to the nature of the fits, and the constitution of the child, and requires much nicety in its adaptation, it has been omitted.

Whenever infants are known to be subject to fits, arising from disorders of the stomach and bowels, the strictest attention should be paid to the quantity as well as to the quality of the food.

The quantity should be such as will not oppress, and the quality such as will not irritate.

Their food should be free from lumps, and in most instances not thicker than cream.

The different forms of food best suited to infants have been dwelt upon in the Chapter on the Food of Children.

Although convulsions and fits very frequently disappear, leaving no unpleasant state of the system ; still the endeavour to guard against them must always be considered as worthy of the strictest attention.

WORMS IN CHILDREN.

WORMS occasionally exist in the stomach and bowels of children when those organs are in an unhealthy state. And they are usually, if not always, the consequence and not the cause of such disorders.

Great varieties of worms are found in the stomach and bowels, but the kinds most common during infancy, are the long round worm, which much resembles the earth worm, and varies from five to ten inches in length. It is about the thickness of a quill, and its colour is a pale red. Another sort is the long thread worm, about two inches in length. The greater part of it is almost as thin as a horse hair, having the body of the thickness of a knitting-needle, and the colour white. A third description is the short seat worm, which is from half to three quarters of an inch in length, and rather flattened. Its colour also is white. The fourth is the tape worm, which is frequently many feet long, and composed of small flat portions, of from a quarter of an inch to an inch in length, which are united to each other by joints. This worm in its broadest part, is about one-eighth or one-sixth of an inch, and the colour is nearly white.

Where worms exist, there is an unhealthy,

pallid, or rather leaden appearance of the countenance, a dark colour of the skin round the eyes, swelled lips, particularly the upper lip, distended abdomen, more especially towards evening; and the breath has an unpleasant and earthy smell. The stomach is much disordered, producing indigestion, and an appetite which is never satisfied, the child desiring food almost as soon as it has eaten a full meal. It often longs, also, for peculiar substances to eat, such as soil, coal, &c.

The bowels are often painful and disturbed with frequent purging, when a considerable quantity of slimy mucous is discharged, mixed with undigested food. There is much irritation and itching about the seat. The nose, too, is very irritable and dry, and the child rubs or picks it frequently. There is usually a short dry cough, and feverishness several times daily. The sleep is evidently disturbed, for the child frequently starts and awakes in a state of alarm, and often grinds its teeth against each other.

In some cases, convulsions are produced by the irritation of worms.

The above are the more marked symptoms, but it is not to be expected that they are all to be met with in any one case. Some of them may commonly be discovered.

Where the child is not too feeble to admit of it, the treatment consists in giving active purgatives,

and afterwards invigorating the system by proper nutritious diet, air and exercise, and by administering such medicines as are calculated to restore the energies of the stomach and bowels, and other organs connected with digestion.

Where the long round worm, or the long thread worm, is discovered, calomel and scammony* should be given at bed-time, and repeated once or twice, with an interval of two days between each dose. After which, if fever is absent, an infusion of calumba with iron† is to be administered. If fever is prevalent, mild aperients of senna, or rhubarb and magnesia,‡ are to be given daily, till the febrile symptoms disappear. The diet is to be plain and nutritious, and free from

* Two grains of calomel and two grains of scammony may be given to an infant six months old; and the dose may be gradually increased till the child is four or five years old, when it may consist of four grains of calomel and four of scammony.

† From one to two tea-spoonfuls of infusion of calumba and three drops of the tincture of muriate of iron may be given twice daily, to an infant six months old; the dose is to be increased gradually to three times that quantity by the time the child is three years old. This medicine may be continued for two or three weeks when necessary.

‡ From one to two table-spoonfuls of infusion of senna, commonly called senna tea, may be given as a dose. From three to six grains of rhubarb combined with from five to ten grains of magnesia, may be given for a dose, in water, or any bland liquid.

much fruit or vegetables. Good broths will be better than solid animal food till the digestive organs have resumed their energies.

Where there are seat worms, injections, containing aloes,* will generally soon remove them. Indeed this treatment may be adopted in cases where the long thread worm is found, in conjunction with the treatment previously recommended. The injections may be repeated once or twice, allowing an interval of two days; and mild aperients should be given daily, as senna, rhubarb and magnesia, &c.

The tape worm is usually discovered by portions of it coming away with the stools. Sometimes it is suspected from a severe pain experienced in the region of the stomach and bowels, which cannot be accounted for otherwise. This worm is rarely found in children before they are four or five years old. The remedy is spirit of turpentine.† It may be taken in a little gruel, or any other liquid; and the dose may be repeated in two or three days, if the first does not bring away the worm. The stools should always be

* From half a drachm to a drachm of powdered aloes is to be mixed in a small tea-cupful of milk for an injection.

† The dose of spirit of turpentine is, for a child four years old, two drachms; and for a child six years of age, three drachms.

examined; to ascertain whether the worm has passed from the bowels.

It will, in most cases of worms, be found very beneficial to children to let them have plenty of salt in their food.

The above contains a general description of the symptoms and treatment, where worms exist; but if the health is much disordered, or if the child does not soon improve under the care of the unprofessional attendant, it will be well not to delay calling in a medical practitioner.

DISEASES OF THE NAVEL OF INFANTS.

OCCASIONALLY when the navel string comes away, there is a small sore left, upon which is shortly formed a fungus, of a bright scarlet colour. If this is small, the application of a piece of dry lint to it will frequently cause it to disappear in a few days. Should the lint, however, not succeed, a little powdered alum may be dusted upon it every morning; or the surface of the fungus may be touched slightly with nitrate of silver, commonly called lunar caustic, every second day, and afterwards dressed with white lead ointment spread upon lint.

Another form of disease of the navel is, inflammation of it and the surrounding parts. The treatment is, to apply poultices of bread and water, with a little lard or oil in them, twice or three times daily; and when the inflammation begins to subside, the white lead, or the spermaceti ointment on lint, is to be kept constantly to the inflamed surface. Whilst the local treatment is employed, the bowels must be made to act freely by aperients, as senna and manna, or magnesia and rhubarb.*

* A dessert-spoonful of infusion of senna, sweetened with manna, may be given for a dose. Three grains of rhubarb and five grains of magnesia may constitute a dose. Either of which aperients may be taken daily if necessary.

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Should the above remedies fail to check the diseases of the navel, professional assistance should be obtained, as serious consequences might arise.

When the navel projects further than it ought to do, a small circular pad, one inch and a half in diameter, made of cork covered with flannel, is to be kept upon it by a bandage passed round the body; but the pressure should on no account be great.

PROTRUSION OF THE LOWER INTESTINE OF
CHILDREN.

CHILDREN are occasionally liable to protrusion of a portion of the lower intestine.

Straining, whilst having an evacuation, is generally the cause of this affection, though it may arise from a debilitated and relaxed condition of the bowel. Where it arises from straining, the mode of cure must depend upon the removal of whatever produces it; such as costiveness, frequent purging, and all sources of irritation to the intestines, as worms, &c. The treatment in these cases is given in the Chapters on those subjects. But where the protrusion is in consequence of a relaxed state of the intestine, an astringent lotion will be necessary. The decoction of oak bark* is the best and safest. With this decoction, the protruded part may be bathed; or one or two table-spoonfuls of it may be injected with a syringe into the bowel once or twice daily.

In all cases, whenever the part descends, it is to be carefully returned as soon as possible, without using force. If it remains up of itself, no external support need be used; but if it has a tendency to appear without straining, or with

* Boil one ounce of bruised oak bark in two pints of water down to one pint, and strain off the liquor.

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the least exertion, a soft pad of linen, spread with pomatum if the irritability of the part requires it, must be kept constantly to the seat, by means of a bandage passed between the thighs, and fastened before and behind to one passed round the waist.

If there is any difficulty in replacing the intestine, tepid or cold water is to be applied to the part for a short time; after which, one side of the bowel is first to be gently pressed up, which will generally enable the remainder to pass into its proper place with facility. Should this prove ineffectual, it will be well to inject a table-spoonful of cold water, containing five drops of laudanum; and if, after allowing the part to remain undisturbed for an hour, it has not returned of itself, a little gentle pressure is to be employed, as before advised.

Where there is a tendency to descent of the intestine, the child is not to be permitted to remain long at stool.

In almost all instances, this affection is overcome by the above treatment; and though at times the cure may be rather tedious, there is little cause for anxiety.

BURNS AND SCALDS.

IT is only where burns or scalds are slight, that the management of them should be undertaken by unprofessional persons ; for, if the injury is such as to have affected the skin to any considerable depth, sloughing of the parts will take place ; the treatment of which will require much attention from first to last. Indeed, much danger may arise from burns or scalds over the chest or bowels, even though not extensive ; and great nicety in the treatment is requisite. Generally, burns are of a more serious character than scalds, as the heat has commonly been greater where the parts have been burned.

In simple burns and scalds, the application of cotton wool to the injured parts, will frequently give almost instantaneous relief. The cotton is to be kept to the skin by means of bandages.

If the wool does not give ease, an embrocation, containing spirit of turpentine,* is to be applied to the part, either with a feather or with linen soaked in it, as often as it becomes dry, or when the pain increases. After the pain has disap-

* The embrocation to consist of four ounces of lime water, mixed with two ounces of linseed oil, and two ounces of spirit of turpentine.

peared, the skin, if sore, is to be dressed every night and morning with spermaceti, or with white lead ointment spread upon linen. For the first few days it will be well to add a little spirit of turpentine to the ointment.

If the sore does not heal under the above treatment, a little lint soaked in some stimulating lotion* should be kept constantly applied to the part; and a piece of oiled silk should be laid over the moistened lint to prevent it becoming dry too speedily from evaporation.

If the burn or scald is not very trifling, an aperient† is to be given.

* The lotion may consist of half a drachm of solution of acetate of lead, commonly called extract of lead, half a drachm of sulphate of zinc, and half a pint of water.

Or, instead of the above, one ounce of solution of chloride of lime mixed with half a pint of water, may be employed.

† From one to three table-spoonfuls of infusion of senna, usually termed senna tea, may be given as an aperient, and repeated in six hours if the first dose does not act freely.

VACCINATION.

IT is the decided opinion of the most eminent practitioners, that vaccination should be universally employed. In most instances where it has been adopted, the constitution has been rendered secure against small-pox. And though small-pox does occasionally appear after vaccination; with very few exceptions, it is of a mild character, and runs through its course in a shorter time than where it is taken naturally, or by inoculation.

The facts relative to small-pox stand thus. If the constitution is not protected, either by inoculation, or vaccination, it is left liable to a disease not only productive of the most dreadful suffering and deformity, but which is one of the most destructive this country has ever known.

If inoculation for small-pox be had recourse to, there is some hazard of the disease running through the same course, and producing as much mischief as if taken naturally; and a facility is also afforded to the spread of the disease.

On the other hand, if cow-pox is introduced into the system by vaccination, it generally proves a complete protection to the constitution; and even where it does not succeed perfectly, the small-pox, which may possibly follow

it, is almost always rendered mild, and of shorter duration than in ordinary cases.

Severe small-pox has appeared in a few instances after vaccination ; but these cases are not more numerous than those where small-pox of an unfavourable character has occurred a second time.

Much has been said relative to the length of time vaccination secures the constitution, but upon that point no satisfactory conclusion has been formed ; as the small-pox has been known to attack infants and sometimes persons of more advanced ages shortly after vaccination.

It has been proposed to repeat the vaccination every five or seven years, that, in case its protecting influence had ceased, the constitution might again be replenished with it. And though experience has not by any means established the advantage of this repetition, yet, as it is innocent in its effects, and as it may be beneficial, persons who are fearful may safely adopt such plan.

And notwithstanding the fact of vaccination never conveying other diseases, has, after minute investigation been established, it is always right, for the sake of preventing unpleasant reflections on the part of parents or friends, to select matter from the arm of a healthy child.

Perhaps nothing shews more decidedly the effect of vaccination in subduing the virulence of

small-pox, than the greatly diminished number of persons who are marked by that disease ; for at the present day, almost all who are in any degree disfigured by small-pox have not been vaccinated.

The bills of mortality prove beyond all doubt, that the deaths from small-pox are greatly diminished since the introduction of vaccination. And there is no doubt, if it were universally adopted, very few deaths from that malady would occur.

The best time for an infant to be vaccinated is, when it is a month or six weeks old. It should never be performed when the child is labouring under fever, or eruptions of the skin, nor when suffering much from teething, as such states tend to prevent the constitution from receiving the effect which vaccination is intended to produce.

About the third or fourth day after a child has been vaccinated, a small speck appears upon that part of the arm where the matter was inserted ; by the eighth day this speck, which is termed a pock or vesicle, has become as large as half a pea, and contains fluid. In two or three days after that time, the pock begins to turn brown. Eventually, a dark coloured incrustation is formed, which falls off, leaving a permanent scar. This takes place from a fortnight to three weeks after vaccination. During the middle and latter part of the time that the pock or vesicle remains upon

the arm, the skin surrounding it, is inflamed and red; in the first instance pink or florid; afterwards, it gradually assumes a darker tinge.

During the continuance of cow-pox, the bowels are to be kept moderately active. If the skin surrounding the pock becomes very much inflamed and painful, the frequent application of cloths wet with cold water, or Goulard's lotion, will give much relief. If the arm is sore after the incrustation is separated, it should be dressed with wax and oil; or with spermaceti ointment spread upon lint; and either of these applications may be repeated twice or three times daily till the part is healed.

The employment of vaccination is of such vast importance to the public at large, that whilst the higher and middle ranks of society secure for themselves its beneficial influence; they should endeavour to impress its value upon the minds of the more humble classes of the community, who, either from inattention or prejudice, frequently neglect its advantages.

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