

The mother's guide in the management and feeding of infants / by John M. Keating ; in great part re-written, and revised throughout by Armand Semple.

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THE
MOTHER'S GUIDE

—
THE MANAGEMENT & FEEDING
OF INFANTS
—

ARMAND SEMPLE,
M.B. CANTAB, M.R.C.P. LONDON



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THE
MOTHER'S GUIDE

TO THE
MANAGEMENT AND FEEDING
OF INFANTS.

BY
JOHN M. KEATING, M.D.

IN GREAT PART RE-WRITTEN, AND REVISED THROUGHOUT
BY

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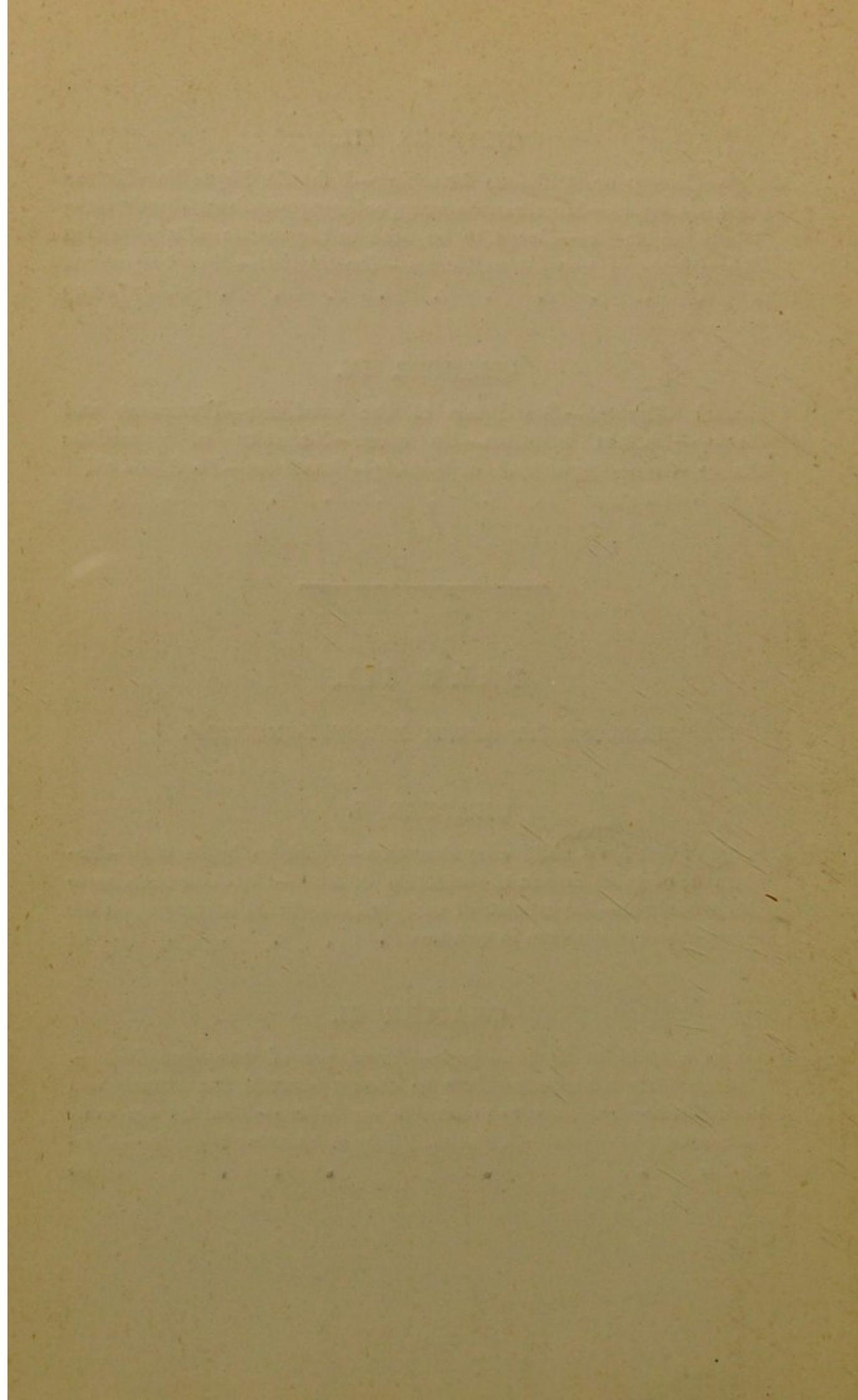
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INTRODUCTION.

THERE is a strong and growing feeling among thoughtful parents of English children to the effect, that while gradually disabusing ourselves of the follies of the past we are fast endangering the future, mainly by postponing to the morrow cares that ought naturally to form part of to-day's worries. In one particular is this fact especially and painfully noticeable, in connexion, namely, with the relations which many mothers—the majority of English women, it might almost be said—maintain towards the first offspring of their marriage. They have been carefully kept in ignorance of the demands that babyhood will make upon them; unless they retain very recent recollections of arrangements remembered during the infancy of brothers and sisters, they can hope for no material assistance towards obtaining that knowledge of managing children on which the lives of all that may be born to them must depend. There are no means of instruction open to unmarried women in this country, except such fragmentary and unsatisfactory aids as the humours and vagaries of uneducated nurses may present. In this respect, indeed, we cannot but regret that the difficulties evoked by our social system, difficulties arising solely out of false considerations of delicacy, have so far served to prevent that regular instruction of women in matters associated with the treatment and rearing of children which, in an ideal state, should form part of the essential education of every adult female.

It is distressing to reflect on the number of lives

lost year after year for the simple reason that no appropriate means of preserving them is attempted. The undoubted ignorance among mothers on all points relating to the care and feeding of infants met with by hospital physicians is appalling ; and it is in the hope of in some measure remedying this defect in our national existence that the present work has been undertaken.

Ungenerous as it may appear to speak disparagingly of them, it cannot be said that average nurses are of much value except during the immediate lying-in period. In the subsequent management of the child the mother's voice and will should rule paramount.

In order that she may be in a position to exercise this natural and necessary authority, the following guide has been especially written.

The subject of diet is often the most perplexing, but is always the most important in rearing children. Better than a hundred chapters on food is a single reliable table such as has been tested by long experience and in numerous instances.

At the North Eastern Hospital for Children, Hackney Road, very satisfactory results have long been obtained with the following dietaries, which may be safely relied on for all ordinary cases. The treatment of every case that is not ordinary falls within the province of the medical attendant, to whose directions implicit obedience must be rendered if the life he seeks to save is to be preserved. Of the following tables, the first is given to the out-patients, and the other is in use with the in-patients of the above mentioned institution.

ARMAND SEMPLE.

8, Torrington Square, W.C.

April, 1883.

I.—GENERAL MANAGEMENT TABLE.

How to bring up Babies.

(1.) Keep them warm; let the clothing be warm but not tight.

Give them plenty of fresh air.

Open the windows freely at least twice every day, and send the children out whenever the weather is fine.

Wash the child all over with warm water and soap *daily* (if there be any skin eruption, tar soap should be used), wiping it thoroughly dry afterwards.

Nourishment : Under Seven Months.

(2.) The mother's milk is the most natural, and therefore the proper food for infants. Let her, therefore, suckle her child, if she have plenty of milk, and give it *nothing else* until it is seven months old.

If the mother have only a little milk, let the child have it, and give it also cow's milk and water, as directed in (3.)

Begin to wean the baby when it is from seven to nine months old.

How to Bring Up "By Hand."

(3.) If the child *must* be brought up by hand, it should be fed with warm milk and water out of a bottle.

The infant should take at first *equal parts* of milk and water; but when it is a month old, *two* parts of milk should be mixed with *one* of water. Each bottleful should have a small lump of sugar put into it.

When good cow's milk cannot be obtained, use the Swiss condensed milk. Begin with a small tea-spoonful in half a

feeding bottleful of warm water for a meal; increase the quantity gradually; two tea spoonsful for a meal is enough for a baby three months old. No sugar should be added. *Give the baby no other kind of food whatever.* Most of the deaths from hand feeding are due to the practice of giving gruel, arrowroot, cornflour, and other unsuitable kinds of food, which contain no proper nourishment. While the baby is under a month old do not give it more than half a bottleful of milk and water for one meal. The bottle should draw easily. It should be rinsed out with warm water every time it is used. It is a good plan to have two bottles, using them alternately, so that the one not in use may be soaking in soda water till required, when it is simply necessary to rinse it well with clean cold water. The tube and cork should be kept in clean cold water. If the bottle be not quite clean the milk will turn sour, and the child suffer in consequence.

Importance of Regular Feeding.

(4.) During the first six weeks the child should be put to the breast regularly *every two hours* during the day. After that age, about every three hours. During the night it does not require to be fed so often. If the child be brought up by hand, it should be fed regularly in the same way.

Food, when over Seven Months.

(5.) When it is *seven months old*, the child should have an occasional meal of Nestle's Milk Food, or its milk may be thickened alternately with arrowroot and Nelson's Patent Gelatine.

When *nine months old*, it should have one or two meals a day of milk thickened with Robb's Biscuit, Hard's Farina-

ceous Food, Liebig's Malted Food, or good well baked bread. This should be given by a bottle, and be made thin enough to pass through a sieve or strainer. The child should still have, in addition, plenty of milk.

When nine to twelve months old, the child should be completely weaned.

At ten months, it should have a little broth or beef tea every day.

At a year and a half, it may take a little meat every day, cut up fine or pounded; but even then milk should constitute its chief food.

Improper Food.

(6.) *Beer, Wine, Spirits, and all other Stimulants*; tea, cheese, pastry, and other food such as grown up people take, should never be given to young children. *Sleeping-draughts, cordials, and other kinds of medicine should never be administered without medical advice.*

II. DIET TABLE.

	MILK DIET.	FISH DIET.	FULL DIET.
BREAKFAST. 7 o'clock, A.M.	MILK, $\frac{1}{2}$ pint. BREAD, 2 oz. with BUTTER.	MILK or COCOA, $\frac{1}{2}$ pint. BREAD, $2\frac{1}{2}$ oz. with BUTTER.	MILK or COCOA, $\frac{1}{2}$ pint. BREAD, $2\frac{1}{2}$ oz. with BUTTER.
DINNER. 12 o'clock.	MILK, $\frac{1}{2}$ pint. RICE, or other MILK PUDDING.	FISH BOILED, $2\frac{1}{2}$ oz. POTATOES, MASHED, 3 oz. BREAD, 1 oz. MILK PUDDING.	ROAST, BOILED, or MINCED MUTTON, or ROAST or MINCED BEEF, $2\frac{1}{2}$ oz. MASHED POTATOES, 4 oz., to al- ternate with Green Vegetables. BREAD, 1 oz. MILK PUDDING.
TEA. 3-30 o'clock.	MILK, $\frac{1}{2}$ pint. BREAD, 2 oz. with BUTTER.	MILK, $\frac{1}{2}$ pint. BREAD, $2\frac{1}{2}$ oz. with TREACLE or BUTTER.	BREAD, $2\frac{1}{2}$ oz. with BUTTER, TREACLE, or DRIPPING. MILK, $\frac{1}{2}$ pint.
SUPPER. 6 o'clock.	BISCUIT, or Slice of BREAD and BUTTER.	BREAD, 2 oz. with BUTTER, or BISCUIT.	BREAD, 2 oz. with BUTTER or, BISCUIT.

NOTE.—The DIET for FEVER Patients to consist of MILK and BEEF TEA, given at stated intervals, as directed, to the extent of $\frac{1}{2}$ pint to 1 pint of Beef Tea and 2 pints of Milk in 24 hours. The Beef Tea should be made as follows:—Using 1 lb. of Beef to 1 $\frac{1}{2}$ pints of water. The Beef, cut up very small, to be placed in a vessel with cold water for 2 to 4 hours, and then stood in another large vessel of boiling water for an hour or more; afterwards, strained and squeezed through muslin, to be thickened with gelatine if so ordered.

All EXTRAS, as Chicken, Eggs, Jelly, Essence of Meat, Wine, Spirit, Oranges, Lemons, etc., to be ordered by the Medical Officers as they may think necessary.

The above Diets are calculated for the average age of 7 years, and are to be modified for each Patient according to age and requirements.

THE MOTHER'S GUIDE.

PART I.

GENERAL MANAGEMENT FROM BIRTH TO DENTITION.

CHAPTER I.

Care of the infant after birth—Its washing—Attention to the navel—Treatment of ulceration of the navel—The clothing of an infant—Appearance of a healthy new-born babe—The early training of an infant—Its nursing—The mother's milk—The importance of paying attention to the quality of the milk—Injurious effect of alcohol when used habitually to produce milk—Laxatives for mother and child—Wet-nurses, the cases in which they are a necessity.

IMMEDIATELY after the birth of a child, it should be wrapped in a warm soft blanket, placed on its right side, and after the superficial glance given it by the doctor has shown its appearance to be satisfactory, it may be given to an attendant while the nurse is busy with the mother. Care should be taken to wash out of its mouth any accumulated mucus, and it is necessary also to wash the face, especially the eyes, with a soft sponge and tepid water to prevent the secretions that have collected giving rise to catarrhal affections which

are so troublesome to treat in infants. After the mother has been made comfortable, and everything has gone on satisfactorily, the child should be taken by the nurse into the adjoining room which has been previously warmed, and then carefully examined by the medical attendant before he leaves the house. The navel string, if this operation has not been previously performed, should be freed from gelatinous matter and securely re-tied. It is then to be thoroughly cleansed, vaseline or oil being used to remove the caseous secretion that envelops it, no crack or crevice being allowed to retain a trace of this secretion; the hair, the ears, and the folds of the joints should be lubricated in their turn, after which a good washing with the best white Castile soap and warm water will leave the skin soft and clean. It is necessary then to dry the child thoroughly with a soft old linen towel, and powder it well with either plain starch powder, or starch powder scented with a small quantity of orris-root. The navel string must then be enveloped in a small linen rag greased with benzoated oxide of zinc ointment, turned upwards upon a compress and kept in position by means of a flannel binder, which should not be made too tight. The object of the binder is to give support as well as warmth, and when it is not too tightly applied it is certainly of great value. It is not an absolute necessity; many physicians, indeed, do not advise its use, and some believe in its application only for a few days after birth.

The navel string usually separates in about a week, but sometimes it takes longer. It should be allowed to drop off, and if in the mean time it is offensive, a drop or two of carbolic acid may be mixed with the water used for its washing.

It is well to retain a compress over the navel until it is entirely healed, using the slight pressure that the binder affords. In this way may be avoided the rupture which is

liable to be caused by straining or coughing, and also that most tedious and sometimes dangerous affection, an ulcerated navel. After the navel string separates, should there still be some discharge, the nurse must seek its cause, and if it be due to an ulcerated subjacent surface, however small, this should be touched daily with a pointed crystal of sulphate of copper (*blue stone*). The compress should be well greased with zinc ointment. In this changeable climate it is certainly well to use a small and thin flannel binder for at least some months, for the one essential point in the management of infants is to keep them comfortably warm, especially about the body, as they are not possessed at that early period of the heat-making qualities of older children. It is most important that the infant's clothes should be light in weight, warm and loose; especially should looseness be attended to as regards the abdomen, for no doubt many infants are forced to vomit after suckling from the pressure of tight bands and clothing.

It seems scarcely necessary to state that ordinary pins should no longer be used with children; safety pins of all sizes and kinds can now be had, and they can be replaced by stitches when necessary.

Every one is familiar with the soft, peach-like feeling of the skin, and the scarlet appearance of a healthy new-born child after good washing and drying have established the skin circulation. This redness of the skin gradually disappears in a few days, and often when it has been well marked (a sign of a delicate skin in a child) a rash will be left, which is, however, of no consequence.

Vogel states that, "as regards the attitude and movement of the child, the new-born is always apt to assume that bodily position which it occupied in the uterus. The back is bent a little outwardly, the head flexed upon the chest, and the limbs are bent upon the body. When a child

lies quietly, sleeps soundly and uninterruptedly, and is tolerably active when awake, then it may be satisfactorily concluded that it is in excellent health.

If possible, the mother should be allowed to sleep for several—perhaps three or four—hours before she again undergoes fatigue, viz., that incidental to nursing. It is not advisable during this short period to feed the infant, but it is better to await its application to the breast; the habit of giving a little “sugar and water,” cannot be too forcibly decried. It establishes a precedent which will entail hours of wakefulness upon those surrounding the new arrival; for an infant is a creature of habit, and unless it be taught from birth to feed by the clock, and to become accustomed to the monotonous routine of the nursery, the household will know no peace. Have a clock in the room and teach, from the *hour of its birth*, the infant to sleep until each nursing hour arrives, and do not under any circumstances allow it to expect a “little more” to keep it quiet if it has not taken its full supply at the time prescribed. A little firmness early in life will establish a golden rule to which there are no exceptions.

At first, of course, the mother may have no milk, but the watery substance early secreted acts as a purgative to the child, and will discharge from its intestines any accumulation there, and in this way prepare for the digestion of matters to come. There is no fear of a child being starved to death should its food be scanty for a day or two, as some mothers imagine. It is well also from the commencement to teach the babe to suck less frequently during the night, since in this way there will be a period of rather longer duration in which the digestive organs can rest from their labours.

The importance of sleep to the mother, in its bearing upon her health, and consequently upon her milk, both in its quantity and in its quality, cannot be overrated, and on

that account the babe should be kept by the nurse in a room close by, and brought to her at the stated hour for nursing ; directly after birth it will have to be nursed more frequently—perhaps every two hours, or even every hour and a half—also during the night, as it gets very little at a time, and it will help to excite a good flow of milk. But in a few days, when the supply becomes equal to the demand, it is well to have the infant brought to its food about eleven p.m., after the mother has taken a good bowl of gruel, or a full glass of milk, and then it should not be allowed to return till two o'clock, and again at six. The child should be made to suck the breasts *alternately*, for no habit is more easily acquired, or attended by more suffering to the mother, than the refusal of an infant to suck from one side ; and after each nursing the nipples should be washed with a weak solution of soda, and thoroughly dried.

Few mothers seem sufficiently impressed with the influence of their own condition upon the character and quantity of the milk supplied to their infants. Milk is not a fluid that remains for ever the same, notwithstanding the material out of which it is made ; it resembles the blood itself in the fact that it is nutritive or otherwise according to the supplies provided for its manufacture, to proper elaboration of the food, and to nervous influence. Convulsions in babes have followed immediately after their application to the breast of a mother, or nurse, who has received some sudden shock, or who has been unduly excited by anger or grief. Then, again, certain kinds of food give the milk qualities not naturally its own ; or the condition known as “biliousness,” which means the retention in the blood of certain poisonous materials which should be thrown off as bile, will impart to the milk its properties, and make it act as a purge or emetic upon the nursing babe. Frequently the child's digestion is said to be at fault, when, in reality, it is the mother who is to blame.

Dr. Day, in his late work on children, speaks forcibly of the necessity for mothers to remember their duties towards their offspring. "Late hours lead to fatigue, to excitement, and to stimulating and improper diet, which are sure means of causing them to have unhealthy offspring," and he might have extended this remark to nursing mothers in its bearing upon their milk.

As the habit seems so prevalent of taking stimulants—as beer, porter, or wine—to "give milk," it may not be out of place to quote the following from an excellent article recently written on this subject.*

"Alcohol, beer, porter, and wine are largely used, under the belief that the lacteal secretion is increased by their influence; but increase in quantity does not mean improvement in the nutritive properties of that secretion upon which the child depends.

"There can be no greater mistake than to imagine, because a woman is nursing, she ought, therefore to live freely, and that porter or fermented liquor should enter into her diet. And I may lay down as a general principle, that the mother who requires porter or beer to stimulate her for her duties had better dispense with the office. . . . The milk is rendered irritating to the child; it is no longer the bland nutritious food it should be, and the weak, delicate stomach of the nursling suffers from the introduction of a foreign substance."

The author tells us that the true way of encouraging the flow of milk is not by spurring it on by false stimulation, but by supplying those materials from which it is formed. Milk, the ideal food, should be used freely in a nursing woman's diet; gruels, chocolate, eggs, and vegetables of all kinds

* *London Practitioner* for February, March, April, and May, 1881. Article by Thomas M. Dolan.

may be allowed, but vinegar, tomatoes, and acid fruits are best avoided, unless experience has proved them harmless. Frequently, if there be exhaustion attending nursing, an egg beaten up with sherry, in a glass of milk, will help to tide over the day, if taken at lunch time. But after all, a healthy appetite, brought about by exercise in the open air, followed by a hearty meal of bread, butter, and milk, is the true secret of health in both mother and child.

It is well for nursing women occasionally to take an aperient, such as a teaspoonful of fluid magnesia, or the effervescing citrate of magnesia, to keep themselves regular, or to eat freely of vegetable diet and take exercise instead of medicine. More active purgatives, such as most of the pills, and even castor-oil, may act on the child through the milk, and give rise to colic. An enema is in many instances very valuable; or even a glass of cold water after rising in the morning.

It may be necessary to give to the new-born child a laxative, should the early milk of its mother not have (as it should) the proper effect, and for this purpose a teaspoonful of sweet-oil or castor-oil and glycerine, half a teaspoonful of each, is a useful remedy; or a little brown sugar, in peppermint water, may be substituted.

All mothers should suckle their children. If, perchance, this cannot be accomplished, the family physician is the proper person to decide the matter, and to declare what other means should be adopted.

This brings us to an important subject, one which calls for special attention and is a difficult one to decide, viz. : the question of a wet-nurse. There is no doubt that after the mother's milk nothing can act as a substitute better than that of a good wet-nurse. But, unfortunately, the latter is, as with all treasures, hard to find. There are so many other considerations connected with her

choice, that from the outset great difficulties arise. As a rule, she is obliged to accept the position for poverty's sake, and the sudden transition from her lowly surroundings and meagre diet to the position of the most important personage in an affluent household, will soon destroy the very great merits that have caused her selection. Her milk must agree with the child; and there are as many kinds of milk as stomachs to receive it. She must be about the mother's age, and therefore naturally is about as inexperienced; she must be watched and guarded as the sacred cows in India; watched in her diet, in her habits, in the control of her feelings; and the question often arises whether or not it is better to have an experienced nurse at once, and feed from the bottle, than to trust to one who requires so much supervision in the many duties that devolve upon her.

If the child is born in the autumn, and can be taken to the seaside or the country before the heat of the following summer, and a good, reliable, experienced nurse can be obtained, the balance would certainly be in favour of hand-feeding; but if, on the contrary, the child should be obliged to remain in town, and suffer from the early summer heat before it is well started in life, and especially when there is a question as to the freshness of the milk it is likely to obtain, there seems to be a strong argument in favour of the wet-nurse. The doctor is certainly the proper person to decide, and such matters should be placed in his hands. With delicate children, or those who inherit a tendency which it becomes the duty of the parent to eradicate from the commencement, without doubt a wet-nurse is not only an important person, but a necessity, and no consideration should stand between the comforts of a household and the requirement of the child. Bear in mind the old adage that the "boy is the father of the man"; the neglected taint of the babe may be the seed of disease for generations to come.

Under no circumstances should a mother attempt to choose for herself a wet-nurse ; there are so many considerations involved—diseases that may be transmitted, taints that may be intensified. The quality of the milk has to be tested, its quantity, and the condition of the woman's child ascertained ; these points the doctor can only properly decide. To him alone should such matters be intrusted, and therefore it is unnecessary to spend time upon a subject which properly does not belong to this book. So many children thrive upon bottle-feeding, if care is taken, that I am firmly impressed with the view that only in exceptional cases are wet-nurses desirable : these are with delicate infants, those who are born before their full term, where the mother's condition has given them feeble constitutions, or where previous children have proved the existence of an hereditary taint.

CHAPTER II.

Bottle-feeding—The choice of milk—The great importance of the milk being fresh—How to keep it so—Milk can become a carrier of disease—Greater care required during the hot weather—The preparation of the milk for food—The use of gelatine—The use of farinaceous food—Its preparation—The choice of foods—The child kept regular by their alternation—Condensed milk—The importance of water for infants.

HAVING decided to attempt bottle-feeding, or, at least, to associate bottle-feeding with nursing, should the mother's milk be deficient, the details must now be considered that will make the trial a success. As a rule, it may be safely asserted that if, after the child has reached the age of three or four months, that is to say, is well started in life, it

becomes necessary to supply its demand by bottle-feeding, it is better to wean it at once. It will thrive better, and its food will be less apt to disagree. It is unnecessary for young mothers to know what is the composition of milk, or in what particular this variety differs from that. In this country we use only cows' milk, and therefore asses' milk and goats' milk scarcely deserve the space their discussion would occupy. Let me imagine that the reader is a young mother, with her first babe, a child which seems ordinarily strong and active ; the mother has not an abundant supply of milk, and the doctor tells her that she had better partly feed her child, especially at night. She must provide herself with a nursing-bottle holding about eight ounces, the half of which is a large meal for a child of from four to six weeks old ; the black rubber nipple is to be preferred, and there should be several in the house, so that they can be kept thoroughly soaked and clean. The next important step is to select the milk. The principal qualification—I was about to say the only one of importance—is that it should be *fresh*.

To all cities fresh milk can be very readily supplied, since large and well kept dairies are soon brought in contact with us by means of the perfect railroad facilities. But, unfortunately, the worst thing that could happen to milk, as far as the delicate stomach of an infant is concerned, is the jolting and churning it gets in transit, which often gives it a cheesy flavour but a few hours after it has left the dairy. A young mother lately stated when inquiry was being made particularly about the milk—and when the cause of her infant's vomiting seemed unaccountable—that the milkman was particularly reliable, and one most firmly impressed with the importance of pure, fresh "one cow's" milk for the child, but that, nevertheless, the milk had often a buttermilk smell ; upon testing with litmus, it was found to be acid. In

summer it is impossible in many cases to keep it perfectly sweet until it reaches town, notwithstanding the greatest care, unless it be sealed in air-tight jars, which precaution is now carried out with excellent results. But even when this is done, it has been known it to turn ; and especially is this the case when too much reliance has been placed upon the exclusion of air, and the jars have been kept too long. All good, fresh, country milk from grass-fed cows, or from those who have been carefully fed during the winter months on proper food, should be sweet, that is, alkaline ; and if it seems advisable to bring up the child by the bottle, each bottleful should be tested with blue litmus paper (to be obtained at any druggist's) and tasted by the mother before giving it to the child. The blue paper should retain its colour, and should not turn red. Upon this fact depends the success of hand-feeding children ; it is the one rule that must be constantly borne in mind.

If your babe is worth anything to you, no labour on your part to be watchful in this particular will be wasted. You should know your milkman, and interest him specially in you and your child. Your husband should manage to visit his dairy, see the cows, and question as to their feeding ; see that they have clean and comfortable quarters ; that they do not obtain their water from stagnant ponds or streams into which the drainage of the yards passes. If the milk of a single cow can be kept for you, let this be done, by all means. But this matter is not nearly so important as that the milk should be kept in a milk-house supplied by a fresh stream, and in pails which have been carefully scoured. Some cows are noted for their milk agreeing with infants, and should the farm from which your milk supply comes have such a one, try and secure that for your own use. Do not be economical in this matter ; a few extra shillings expended during the few months of early feeding in securing

this end will save you many a sleepless night, and many a heartache.

The milk should be kept in cans used especially for that purpose, and they must be thoroughly scoured. See that the milkman has such, and also be careful that your own are scalded and washed daily with a little soda or potash. Another problem now arises: that is, how you should treat the milk after you get it. If supplied to you once daily in the morning, it is wise to see that it is as sweet as it should be, without being skimmed; to be sure that it is the morning milk of that day, and then at once to make pure food for the day's use, keeping it in a cool place, apart from any danger of contamination by cellar-smells or gases of any kind. It should be kept apart from meat and vegetables. Milk has a wonderful property of absorbing deleterious matters, and when thus tainted will impart to those who drink it the germs of disease. It is only necessary to glance over the medical journals of the day to see how frequently scarlet fever and typhoid fever have been transmitted from one household to another simply through the absorbing properties of milk. That which has come from farms where the farmer's family has suffered from these diseases has often transmitted the infection to children in the city, and often the bad drainage of milk-houses, or where their water-supply has been infected by the sewage of the dwelling where typhoid has occurred, has carried the contagious germs of this disease. In the early spring, even before the severe heat of summer has set in, it is well to make the food from the milk as soon as it arrives. Of course, in mid-winter this is not so obligatory. Let me again pause to impress a most valuable point: do all things gradually with infants; never make an abrupt change, unless some urgent cause exists; but if you wish to alter the diet or the character of the clothing, do so with as little shock as possible. The sudden change

from cow's milk to condensed milk might be hurtful, or from long clothes to short ones.

It must be constantly borne in mind, and especially by those who imagine that all the little details of a work of this sort are superfluous, that a *single* curd may give rise to inflammation of the lining membrane of the stomach and intestines, and may cause death in a few hours, or in a teething child may produce a convulsion that will not take long to prove fatal. The greatest heats begin about the 10th or 15th of May, last a few days, then a cool wave—probably a storm—sets in, and a return, with all the intensity of a hot summer, about the 1st of June; from this time, until the cooler nights of August, the bottle-fed child will require the greatest care. At that time its digestion will be weaker, its powers of resistance less; its secretions will be more easily disturbed, and what would merely cause slight vomiting in mid-winter, might, from the almost paralytic condition of the nervous system, cause a fatal diarrhoea.

Children, whose parents are watchful, often thrive upon artificial feeding during the summer weather, if they are kept cool by proper clothing and frequent washing, are not over-fed, and the food they receive is prepared with extreme care. Until a child has reached the third or fourth month, the diet should consist of nothing but milk. Arrowroot, corn-flour, prepared wheat, and all other preparations of the cereals, should be avoided as a *diet*, because, owing to the peculiarities of the digestive organs of infants, the secretions in the intestines that are used to digest such substances, and also those of the salivary glands having the same action—ferments that change them into grape-sugar—are wanting in infants of this tender age, and it is only later, during early dentition, that these secretions are formed gradually in small amounts.

In very young infants, who are from the first bottle-fed,

the food should consist simply of milk, diluted with about one-third the amount of water, and a small quantity of white sugar; and should there be any evidence of indigestion, such as vomiting of curds, or if a sour smell be observed, a teaspoonful or two of *lime-water* to the bottle will correct it. Of course, you must satisfy yourself that the milk has not been diluted beforehand; or again, should its appearance show it to be over-rich in cream, it is well to add, for very young babes, an extra quantity of water.

As soon as the morning milk arrives, it is well to prepare the food for the day; to do this for an infant of the age about which we have just been speaking, add a pint of *boiling* water to a pint of the milk; put in a small pinch of table salt, and slightly sweeten with pure loaf sugar, and strain. Put this food, now prepared, away in the refrigerator, in a clean pitcher, well covered, and at each feeding time take from it the quantity required, put it into the nursing bottle, with a teaspoonful of lime-water, and then place the bottle in hot water, and allow the milk to be heated for the child.

The food should be always given at the same temperature, and on this account, and also to find out whether or not it runs readily from the bottle, each bottle should be tasted before it is given to the child. A couple of inches square of sheet gelatine, previously soaked in cold water, can be added to the boiled water, or isinglass can be used in its stead, though it is much more expensive.

I quote the following from the otherwise excellent little book of Chevasse; it is *bad* advice, and should not be followed. "A good plan is for the nurse-maid to have a half-pint bottle of new milk—which has been previously boiled—in the bed, so as to give a little to him in lieu of the breast. The warmth of the body will keep the milk of a proper temperature, and will supersede the use of lamps, of candle-flames, and other troublesome contrivances." Advice such

as this only leads to mischief; a child needs no food during the night, except its regular meal, and the giving of a "little, in lieu of the breast," is simply to encourage a habit which is most pernicious. Get a small sick-room refrigerator, or, if you cannot afford that, make a covered basin serve the purpose; put it in the window of the next room, and when the babe needs a bottle, do as was done in the daytime, heat a fresh one for each feeding.

The food should be made up fresh each time, and no bottle should ever, under any pretext, be heated a second time; four ounces, or one-half of an ordinary nursing bottle, is sufficient for one meal, and the nurse or mother should always taste the food, to see that it is in good condition, and also that the nipple is not stopped up, before giving it to the child.

If a child is to be entirely bottle-fed, it can be fed at first every *two hours*, and then it is well to increase the amount of water to a little more than one-half, gradually increasing the quantity of the milk, as the digestion improves, and the child gets stronger. Let me impress another fact, which is constantly overlooked: after a child has been nursed, it should be placed upon its *right* side or upon its back and kept *perfectly quiet*; if placed on its left side, the weight of its liver pressing upon a full stomach will often cause it to vomit, and if tossed up and down in the arms or exhibited to admiring friends, its motions will certainly be unhealthy, probably green, knotty, and highly offensive. As cow's milk coagulates in large, and therefore indigestible, curds, thus differing from mother's milk, it is customary to delay this process by adding lime-water or a little bicarbonate of soda or potash to the bottle. A teaspoonful of the former is enough for one feeding, or a couple of grains of either of the latter. It is also necessary to allow the child to suck slowly.

Dr. Eustace Smith recommends the following: "A useful

addition to the breast milk, where an addition is required during the first few weeks of life, is a mixture of cream with diluted whey; one tablespoonful of fresh cream is added to two of whey, and the mixture is diluted with two tablespoonfuls of hot water. This mixture may be given from the feeding-bottle every three or four hours. The whey should be made fresh in the house, as required, by adding prepared rennet to new cow's milk, in the proportion of a teaspoonful to a pint of milk, after which the curd is removed by straining through muslin."

It has been stated a few paragraphs back, that the only true food for infants is *milk*, and the importance of avoiding farinaceous food as a diet has been urged. This has been said advisedly, because we so often hear of the attempts at feeding babes with corn-starch and such like, with very bad results. We are taught in our works on physiology that to feed an infant exclusively on starchy food is little better than to expect it to thrive on saw-dust or shavings; and the daily experiments that are made in our poor-houses and alleys prove this reasoning to be pretty nearly correct. At the same time I must make a statement that will be an apparent contradiction, viz., that it is necessary, after a child is a few weeks old, to add one of these very substances, indigestible in itself, in small quantities, to make the food easier of digestion, just as the ostrich eats stones, and smaller birds sand, for the purpose of trituration. It is well known that this tendency of cow's milk to form large curds can be obviated by adding some substance which, thoroughly distributed throughout the milk, will prevent its coagulating in large pieces. Arrowroot, barley-water, or oatmeal-water, and, in fact, various other substances of a like nature, will be useful for this purpose.

It is well to pause here, and dwell upon the preparation of these foods and their choice. Perhaps the best one to

begin with is the *barley*. Get a package of barley, finely powder some of its caked contents, and take a teaspoonful ; thoroughly mix this with a little cold water, so that it will not become lumpy, add a pint of water, and set it to boil. Do this in the morning, as was done with the first mentioned milk food. Let it boil for at *least half an hour*, even an hour, over a fire so regulated that in that time it will have boiled down to half-a-pint ; then strain, and add, stirring carefully, to a pint of the fresh milk, a pinch of table salt, a little sugar, and put in the cold to use, warming up each bottleful as it is required. If the bowels of the child are inclined to be loose, you may substitute *rice*, which has also a constipating effect, soaking a full teaspoonful of rice in cold water for half-an-hour, draining it off, and then adding the water to boil. If, on the contrary, the bowels are costive, you may use oatmeal. In most cases, the choice of food is an experiment ; with one child barley food will agree best ; with another oatmeal ; with some, the cracked wheat, or the prepared wheat. The test is, if it remains sweet upon the stomach ; if, on the contrary, the child frets soon after food, it is a sure indication that it fails to agree. An experienced nurse can regulate a child's bowels by its food in this manner, and by thus maintaining control of the balance dispense with the injurious effects of laxatives, injections or astringents, which are both physically and morally irritating.

Mothers should learn that milk has to curdle in the child's stomach ; it is in this way that it is digested, and therefore they must not be alarmed, and consider it a sign of disease, when, from some such cause as over-feeding, or tight clothing, or jolting, the child regurgitates in small flakes what it cannot retain ; to loosen the clothing, and to keep the child quiet, are all that are necessary, care being taken next time not to let it take "too much." But if the food is

vomited in large curdled masses, and there is wind and hiccough, and the child seems to suffer from colic, and especially if the bowels show irritation by straining, or by the passage of curds, or diarrhoea sets in, then at once the food must be changed.

In this country, and also abroad, the use of condensed milk has gradually received the sanction of those who have been interested in the feeding of babes. Owing to the difficulty of obtaining sweet milk for those who remain in town in summer, condensed milk is very valuable; and in many ways it is often more easily digested by infants than the fresh cow's milk. The great mistake so often made is to prepare it *too strong*. Remember it is a very concentrated preparation, and experience has shown that a small teaspoonful is amply sufficient for a meal of four ounces of "bottle." It does not curdle in large masses, and therefore more closely resembles the mother's milk; and when it is kept cool and well closed, it will agree well. It needs no sugar, but sometimes it may be advisable to add a tablespoonful of cream to the bottle, if the child does not seem to thrive well. The condensed milk may be diluted with weak barley-water, prepared as before directed.

As the child grows older, a change of food will frequently become a necessity. In many cases, when an infant is feeble, and does not seem to thrive properly upon the various preparations that have been recommended, it becomes important to make use of other means for its nutrition. As for the choice of the many babies' "foods" that are found in the market, much depends upon the medical attendant. The experience of one may have taught him to use "Ettli's," another will suggest "Ridge's." In some cases, "Nestlé's" will agree well, when used to thicken the milk slightly, and in others the various well-known preparations of the cereals, as prepared wheat, farina, and the like, will do better.

Savory and Moore's infant food has received high encomiums. They can all be used according to the directions sent with them, but it should be remembered that, for young infants, those between two and five months, the bottle food should be of the consistency of cream; after that age, it is well to make it gradually thicker until it resembles gruel, but still to let it run freely from the bottle. A child fed upon one of these foods may make of it two meals a day; the other, and the last bottle, at night, should be of milk and barley-water.

Probably the best of all these "foods" is that known as "Mellin's Infant Food," made after the formula of Liebig.

This food is very valuable for an infant at any age; a teaspoonful in the bottle of milk that has been scalded by boiling water can be used for delicate children, and will often prove an important addition.

If a mother cannot bring up her child on cow's milk or condensed milk, she must depend upon the advice of her physician in the choice of what to resort to next; she should not undertake further responsibility.

Before closing this chapter, I wish to state the importance of giving a child water to drink. Frequently, a child seems to crave for water; it forms the greater part of its food, and a teaspoonful of it, occasionally, will often satisfy a fretting babe. Water serves as many purposes to the child as to the adult; it aids the functions of secretion and excretion; it acts for the body internal as for the body external; it cleanses, dissolves, and thereby purifies. But it should be pure of itself. It is well for all households to have a large filter, from which all the drinking-water should be taken.

No child is by nature cross or fretful. The placidity of infancy, and the happy disposition of childhood, are evidences of good health.

Every mother may rest assured that what is usually

attributed to *temper* is in reality the expression of pain, and a cause will assuredly be found, if carefully and intelligently sought. Irregularity in nursing, or faulty management, may make an infant irritable.

CHAPTER III.

The bathing of infants—The temperature of the water—Its value in summer—The skin—The mild eruptions—The character of clothing.

As this little work is mainly written for those who are desirous of informing themselves of details that only very lengthy visits from their doctor would permit him to impart, and also for those who are desirous of gaining all the knowledge possible in a nutshell, I shall endeavour to take up *seriatim* all the aspects of the subject, and will now proceed to discuss the bathing and washing of infants.

The washing of the new-born babe has been considered with care, for the same scrupulous cleanliness is required throughout the infant's life. Every child should be thoroughly washed twice a day, viz., in the morning and in the evening.

It is customary to give the morning bath about nine or ten o'clock, in summer earlier, after the digestion of the early suckling has been completed. It is necessary to have a small tub or a large china basin, well filled with tepid water; the room should be warmed to summer heat, and carefully protected from draughts.

It is advisable to wet the head first, and then to use freely soap, either the best white Castile or the best yellow soap, washing, with a soft sponge or piece of flannel, every hidden crease and crevice, since the retention of materials that are so

apt to collect, is frequently the cause of many of the eruptions or roughnesses of skin in young children. The infant should be placed *in* the bath, since undoubtedly by this means a certain amount of absorption of water takes place, to supply in part the demand which nature is constantly calling for. As the child grows older, it should remain longer in the bath, and when withdrawn should be thoroughly dried—not fiercely rubbed—and carefully powdered. Many think it only sufficient to sponge a child, but this is incorrect; a child will thrive better and grow stronger and healthier by the use of the *daily bath*.

It is not judicious, nor, in fact, admissible, to use cold water. An infant is too tender and delicate to bear any shock, especially of this kind. But, once more, I would impress the necessity of gradually accustoming it to cooler water, until, when it reaches the age of two years, it will bear, with pleasure, its plunge in water, at the ordinary temperature of the room. Never force a child, even a babe, if it dislikes the water; place it in a light blanket, and allow it gradually to become thoroughly immersed, for in this way babies will learn to delight in their bath, which will make them vigorous, and improve their digestion. After its bath, the little one should be nursed or fed, and then allowed to sleep—a sleep which will be sweet and sound.

If possible, I would advise every mother to bathe her own child; this proceeding is beneficial in many ways: it teaches the mother the tastes, habits, and peculiarities of her offspring, and it teaches the child, from its very birth, to rely upon her, and it shows the extent of her affection for it. The washing at night need not amount to a bath, a *thorough* sponging will be quite sufficient.

In the heat of summer it is well to sponge the child frequently during the day, and for this purpose a small quantity (perhaps three or four tablespoonfuls) of ground salt, sea

salt, which comes in boxes for the purpose, should be thrown into the water. If the infant be feverish, half a teacupful of good cider, vinegar, or some Eau de Cologne in the bath, will be of service ; but the child must never be allowed to soak in the water bath ; it is then weakening ; sponging is all that is required. Allusion here has been made to infants in the enjoyment of perfect health, or those who are slightly debilitated by the heat of summer. Should the child be ill, omit the bathing—especially if it has taken cold—or if there is any tendency to diarrhoea from indigestion or cold. Under these circumstances, it should be well cleansed, and then thoroughly dried and rubbed into a glow by the hand.

Cold baths for infants have been recommended for cholera infantum, but as their use is never indicated until this dreaded disease has resisted all other treatment (and in all such cases the doctor should be at hand), it will not be necessary to enter into their discussion.

The function of the skin in infants, as well as in adults, has a most important bearing upon the health : although a healthy child perspires very little, its skin should be soft. The washing of a child is not merely important for cleansing purposes, but the tonic effect to the nervous system which the slight irritation affords is very valuable ; and also the reddening of the surface aids the free circulation of the blood, and helps it to carry the impurities that accumulate to the organs that excrete them, since the blood is the carrier of the cinders that result from the burnt-up tissues, as well as the transmitter of the fuel which keeps up the fires of life.

The red gum (strophulus) which occurs in blotches, and what is ordinarily known as nettle-rash (urticaria), are the usual and frequent eruptions which are found in infants, and are due to some derangements of the digestive organs. Of

course, their appearance is not alarming ; they may be simply looked upon in many cases as "cautionary signals," suggesting a change, for a day or so, in diet, or attention to the child's secretions. Instead of the powder after its bath, a little vaseline may be substituted, but not enough to come off on the clothing. The flannel shirt, which every infant should wear throughout the year in a changeable climate, will frequently keep up the irritation ; and if this be the case in midsummer (the time of year when such eruptions are more likely to be present) a fine linen undershirt should be worn beneath the flannel gauze.

CHAPTER IV.

Choice of a nursery—The temperature of the room—Evil effects of cold—Ventilation—Importance of personal contact with the mother—Light and sunshine—Importance of good plumbing—A child should live in fresh, pure air—Care of an infant when out of doors—Precautions to be insisted upon—Importance of a reliable child's nurse.

NOT the least important consideration in the management of young children is the choice of a nursery or sleeping-room. For an infant, it is well to have it as near as possible to the sleeping apartment of the mother ; it should be light and airy, and the furniture so arranged as to preclude draughts.

It is well, if possible, to provide a sleeping-room for a child where the most sunshine can penetrate. If possible, ventilate through another room.

An opening for ventilation, near the ceiling, is a most important addition to a nursery, or if this arrangement cannot be obtained it is well to keep one of the windows

open from the top, a couple of inches, day and night. Every nursery should have a thermometer placed in a conspicuous place, not near a door or a window, nor, again, near the heater ; the nurse should always keep the temperature of the room about 60° or 65° Fahr. Of course, there is no trouble about keeping a young babe warm, and as the child grows older, it is well to adopt some means that will insure its being kept covered, and not to depend upon the nurse waking in the "small hours," when nervous depression, lowered vitality, a nude child, and bitter cold will exert their combined influence.

In speaking of a sleeping-room for an infant, the above remarks have reference to one who is bottle-fed at night ; a nursing child should be kept in the room adjoining that of the mother, or by her bedside. I believe that the warmth of the body aids sleep, and that children should be most judiciously clothed both by night and by day. Dr. Tanner tells us : "the maxim which says 'keep the head cool, and the feet warm,' should be borne in mind." Also, "of all predisposing causes of disease, there is probably none more powerful than cold," but the clothes should be "sufficiently loose to allow of perfect freedom of motion."

How often will the warmth of a nurse's arms lull a babe to sleep, when an obstinate and irritated nervous system has rebelled against the cruelty of loneliness and neglect ! Mothers should bear in mind that many a child pines away for want of the warmth afforded by contact with the body of its healthy nurse or mother. Nature requires this coddling of the young ; and when art steps in to make unfashionable what it demands, the battle that is fought can end but in one way. This has been truthfully asserted as one of the many causes of the enormous mortality amongst foundlings and illegitimate children. Caress and fondle your babe ; give it the warmth of your own body ; lull it to

sleep when its sleep time comes, and teach it from its birth that the pains of early life are assuaged by warmth of love in its mother's lap, and that those of its later years are soothed by its memory. The mother, who hushes her babe to sleep, gives the only anodyne that nature intended for it, and to put it in the cradle and let it cry itself insensible, in order to avoid "spoiling," not only spoils the child, but also the future man.

A well ventilated room is not necessarily a cold room ; there seems to be an impression that fresh air and warm air are incompatible. Such is by no means the case, and it is a fatal mistake so to chill the room of a sleeping infant as to give it colder air to breathe at night than that which entered its delicate lung tissue by day, a mistake that may often give rise to fatal catarrh. Vitality, that is to say, the heat-making properties, are below the normal standard while the infant sleeps ; its pulse is slower, its respirations are fewer in number, and when there is superadded the peculiarity of the night atmosphere, or that of the hours just preceding dawn, a something—what it is, we know not—that depresses the nervous system to its lowest point, it makes the importance greater of good warm clothing, light in weight, but warm in texture, and a careful regulation of the room temperature at that time. Crises in illness occur most frequently in the night hours, in which also are recorded the greatest number of births and deaths. Do not, on the other hand, make your child too warm, as the sudden checking of perspiration is a frequent cause of catarrhal affections and diarrhoea.

Every nursery should be well aired daily, well dusted, and carefully swept.

It is well to have as little furniture as possible in an infant's sleeping-room, as the more there is in the room, the more points there will be for dust to collect upon ; and these impurities, containing we know not what, are exceed-

ingly injurious to the delicate mucous membranes of children. To see how much evil dirt can do, it is only necessary to visit some of the alleys and courts where the poor are huddled together ; sore eyes and sore mouths innumerable are warnings to those who are apt to under-estimate the value of soap, water, and brooms.

A child should live in the fresh, pure air ; if the climate is such that its great variation precludes an out-door life, science has taught us how to turn our abodes into conservatories for these delicate young plants ; we can give them a pure, well-tempered atmosphere, and keep it constantly changing, with plenty of light and sunshine.

There is one important matter which deserves so much attention as to demand consideration in a little work of this kind. It is that of the proper drainage of houses.

Whether or not bad drainage is *a* cause, or *the* cause of typhoid fever, is not for us to decide ; but that improper plumbing, with its result, the escape of gases and sickening odours, does vitiate the atmosphere, in which a babe and its nursing mother live and depend upon for their health and strength, is a fact which no one will attempt to deny. A bad odour may not in itself be a deadly one, but it will nauseate and sicken, and thus be a destructive agent ; it will retard growth and development ; it will prevent the proper digestion of food ; it will act as an irritant to the nervous system, and it will render a child, even an infant, as well as an adult, susceptible to the deadly influence of hereditary taints, or of acquired diseases. By lowering vitality, you disarm a child in the presence of disease and disorder ; you take from it its power of resistance, and you become responsible for the evils that befall your child by the neglect of those precautions which should be essential accompaniments of all the arrangements that are obviously introduced for your own comfort. Every parent should

personally interest himself in the drainage and ventilation of his own house ; should study the requisites for the proper introduction of fresh pure air, and the exclusion of that which is foul ; this is the one and only way to keep disease from his door, and he may rest assured that if he does not do it himself, no one will do it for him.

While speaking of the effect of fresh air and its great importance, it is appropriate to say a few words about the taking of children out into the open air. After a child has reached the age of about six weeks or two months, it is well to wrap it up warmly, and let the nurse take it out for a walk. I mean by this that the nurse should carry the child, and not use a baby-carriage or perambulator. Of course, after the spring weather has well set in, and the child is old enough to be kept out of doors several hours of the day, there will be no objection to the baby-carriage. The warmth of a nurse's arms, and the gentle exercise that the child gets by the slight motion, will be greatly beneficial. But I must confess that I do not believe, speaking for the winter months, that the walk is good for infants who have a bright and well-ventilated nursery, except when the weather is still and clear, and not too cold, and then care should be taken to cover the child's face with a veil, that the air received into its lungs may be somewhat warmed. It is a mistake to think that, never mind what weather, unless it be stormy, an infant should be taken out daily, to get "*hardened*." The time for the hardening process will come to all children soon enough ; it is better to be sure that, when such time does come, the foundation-structure is of a healthy kind, viz. : sound lungs, good muscles, and a thick covering of fat. A child that breathes fresh pure air, drinks heartily of good sweet milk, and sleeps soundly, is gradually accumulating the power to resist disease, and is far healthier than one who is dragged out day after day, to withstand changes of

temperature, to inhale air saturated with moisture, and to run the risk of laying the seeds of catarrhal diseases. No child is made healthy by such exposure ; healthy children are often made delicate by it, and when exceptions do occur, it is when an infant has been blessed with a remarkably healthy inheritance.

Let it not be understood that a child should not live out-of-doors in certain months of the year ; the remarks just made were intended for infants up to the fourth or fifth month ; and reference has only been made to those particular months which are proverbially accredited with the production of catarrhal troubles. The catarrhs of childhood are caused by sudden changes of temperature, of clothing, and of the moisture in the air which they breathe ; now all these conditions can be brought about as well in-doors as out ; and, therefore, let no mother imagine that, because she keeps an infant in the house it will not catch cold ; carelessness will always be followed by evil effects, and it is only the careful and thoughtful mother who sees her child grow up free from disease.

We have a very trying climate to deal with, and the great uncertainty and rapidity of the weather changes makes it difficult to guard against them.

I have seen, on a cold, rainy afternoon, during winter, a woman taking her babe in her arms to a Children's Hospital, ostensibly for treatment. She was well covered herself to protect her from the rain, but the little one was left out in the wrapping, as the shawl was not big enough to go around two. Mothers will read this about the heartless woman, and blame her for her thoughtlessness, and yet how often have we seen, in the bitter days of mid-winter, the nurses who are in charge of the infants, probably of those of the readers of this little book, collected together in a public park or square, discussing some interesting piece

of gossip, while the baby-carriage, with its tender little occupant, stands, by the half hour, braving the cold winds. That is the reason why I object to baby-carriages in winter, for if the nurse were obliged to carry the child, matters would undoubtedly wear a different complexion. I have no doubt that many an apparently unaccountable case of inflammation of the throat, bronchitis, or pneumonia, and many a sudden death from congestion of the lungs in a child—the idol of its mother—would be explained, could the trees and branches tell the tale.

There is another matter that is fitting to this chapter, and one which is over and over again neglected. When a nurse, during her walk, takes the babe to visit some of the elderly ladies of the family, all of whom are interested in the child, and in its mother, and thereby prolong the visit by asking innumerable questions, and endeavouring to discern resemblances, she is apt to remain in the overheated house (and many houses are so in winter), with the child swaddled in wraps without number; this is a grievous error. The infant should be unwrapped, its cap taken off, and if the visit be even for a short time, great risk will be avoided. But after all, though I have endeavoured to point out to the careful mother to what points her attention should especially be called, the summing-up of advice upon this subject, is to be careful in the selection of the nurse to whom you entrust your child. How often do we see an infant guarded like the tenderest flower, watched at every breath, protected from draughts and contagious diseases, given to a young giddy girl to take out daily, heedless of consequences, to carry where she will. She may stand talking with a newly turned up cousin in the street, over a sewer-inlet. She may join a party of girls from her town in the Square, who have come to “air” a family with whooping-cough, or for aught the mother knows, she may

(and often does) visit in the neighbouring alley some friend whose children have just recovered, or died, from a very severe attack of scarlatina, measles, or smallpox. Be as careful in the selection of your child's nurse as you were of your monthly nurse. Choose a woman of middle age always for your first baby; after that your own experience will supply the deficiency; get one with the best recommendation for truth, cleanliness, and conscientiousness, and one, if possible, who has had children herself, or who has had some experience with them. Having once secured such an one, repose your entire confidence in her, treat her well, and economise in whatever else you may, but pay her well. A good table and a good nurse form the great lubricators of a household; they will bring strength, health, and happiness to all; and it is in these that the best economy lies.

CHAPTER V.

The *changing* of infants—The character of healthy motions—Use of ointments—Action of the kidneys—Looseness of the bowels—Improper diet or over-feeding often the cause of sore mouths—Attention to the breasts—Treatment—Intestinal catarrh—Symptoms—Use of castor oil—Nasal catarrh.

To young mothers, one of the most difficult, and at the same time important, duties to attend to, is that connected with *changing* their infants. It is well for them to know beforehand the character of the motions of a child, what constitutes their healthy appearance, and how far deviations from this condition can be compatible with health. The motions of a healthy infant are at first dark, from the discharge of those matters that have accumulated in the

intestines. The early milk will purge them of this, and then their appearance will gradually assume a yellow colour; the motions will not be formed until after two or three weeks, when they will begin to become so, in part, by degrees. An infant, up to three or four months old, usually passes from four to five motions in twenty-four hours. Of course, the amount passed greatly depends upon so many conditions, its food, its condition in life, the time of year, etc., that the only test is the condition of the child itself; if it remains strong, with firm flesh; if it sleeps and sucks well; in fact, if it thrives, no uneasiness need be felt in regard to more frequent motions. They may change in colour, and become greenish, without being disordered, but they should not become liquid. They should have but little odour, no mucus, and no curds. Occasionally an infant may, from a slight cold, or from a little indigestion, pass a motion containing either mucus or curds, or both, and the next motion may be perfectly natural. No treatment is required for such cases, except perhaps in a bottle-fed child, it may be well to change its food; for instance, if barley-water be used in its food, let a small quantity of the wheat food be added to it; do not, however, do this unnecessarily, but *watch* the child in order that a change may be made, if the condition persists.

An infant must be changed at once, or it will become chafed, and especially is this the case if the bowels are free, or if the water it passes is highly coloured; the brick-dust deposit which infants frequently pass gives rise to great irritation. The cry of an infant that is thus *scalded* is peculiar, resembling the sudden sigh produced by the shock of cold water. If chafing exists, and even if the motions are numerous, it is well not to *wash* an infant every time it is changed; dry it well, and thoroughly grease with vaseline, or well-prepared mutton tallow, or zinc ointment. It is

advisable anyhow to do this always at night. A few hours treatment of this sort will save much pain and trouble. Avoid, if possible, using waterproof or rubber-sheeting in the diapers for habitual use—it will act on a child as *rubber* boots on a man, causing an excessive secretion of perspiration, and keeping the parts soaked in it. Another important point is never to allow soda or indigo blue to be used in the diapers, as they both greatly irritate the skin.

Remember the importance of the kidneys acting properly in a child ; these organs frequently get clogged by the brick-dust material, and will need the immediate attention of the doctor, when an absence of secretion is noticed. In the absence of a physician, three or four drops of sweet spirits of nitre, in a tablespoonful of water, will be serviceable.

Having studied the condition of an infant in health, it is well to consider also those conditions that give rise to disorder of the bowels ; how to recognise them, and how to treat them. Dr. Chevasse tells us that looseness of the bowels in infants is due to “improper food, over-feeding, teething, cold ; the mother’s milk, from various causes, disagreeing, namely, from her being out of health, from her eating unsuitable food, from her taking improper and drastic purgatives, or from her suckling her child when she is pregnant.”

Dr. Ellis speaks of the great importance of diet as a cause of the various digestive disorders of infants, and impresses upon mothers the importance of care as a preventive of them. He merely repeats the advice given by all writers. Cow’s milk is a no more potent cause of catarrh of the intestine than mother’s milk, which has been poisoned by her own faulty secretions. Very often the cause lies in the want of proper caution on the part of the mother, not only as to the milk she gives her child, but as to the breasts themselves which it sucked. Soreness of the nipple will often

produce the same condition of the mouth of the infant, and a neglected sore mouth, of however little importance at the outset, may be, and often is, a sure cause of sour stomach and intestinal catarrh. The mother should not only see that the child's mouth is kept thoroughly cleansed, washing it, if there is the least evidence of white deposits, or small ulcers, with a solution of borax in rose water, but she should also thoroughly wash her nipples before nursing with a very weak solution of bicarbonate of soda, and do the same after nursing, drying them *well* with a soft towel. If from any cause the nursing hour is passed, and the breasts have been allowed to remain well filled for some time, it is well to press out the first milk that comes, and not to give it to the child; the newest made will be the richest and the best. These statements just enumerated, together with the others quoted, are the most frequent causes of slight diarrhoea in children at this tender age.

A child that passes curds by the bowels, should be watched with caution. Its food should be changed, and given more diluted, and less frequently; and if the conditions persist, the undigested material that remains should be expelled from the intestines by some slight laxative. The condition may arise if the child seems to be weak and drooping from sheer debility, and especially is this the case in summer, or in children constitutionally weak. If such be the cause, the infant will show it by languor; there will be no evidences of acute catarrh, no fever, and no violent pain. A small pinch of pepsin (the best obtained from a reliable druggist) in a tablespoonful of water, with four or five drops of the best *port wine*, given about ten minutes before nursing, will often be a great service. Remember the importance of regulating the diet. If a child does not seem to desire its food, do not press it, but let nature work

her own cure. A healthy child will have a healthy appetite ; if it refuses its food, it is not in a condition to digest it. Then try another preparation for a bottle or two, it may take that, watch the result, and thus the use of medicines, which should only be last resort, is avoided.

Before having recourse to aperients, try a teaspoonful of lime-water, or a little bi-carbonate of soda.

If from sour stomach or acid and curdled motions, it is deemed well to use a laxative, and especially if whitish fur is observed upon the child's tongue, you may use a teaspoonful of fluid magnesia, repeated once or twice, watching its effects. It will counteract acidity, and relieve the intestines of their unhealthy contents ; but occasionally from some change in the milk, it may be from a change in pasture of the cow, or some slight functional disorder of the child from cold, there will be colic, with a change in the character of the motions ; they will be more watery, curdled, and contain slime. This is an evidence of intestinal catarrh. There is pain and the child is restless ; there may be some fever, or the skin will be dry, and the child will cry and draw its knees up. The attitudes will show that the pain is intestinal. Let a teaspoonful of castor-oil float upon some hot water, and when it has cooled sufficiently, skim off the oil, and give it by the spoon. Should the motions be white or greyish, it is better to make the following, and give it instead :—

Take about as much of the powdered rhubarb, or grate it yourself from the *lump* of rhubarb, as will cover a sixpence, and add it to a tablespoonful of boiling water, with a drop of essence of peppermint and a little sugar, strain through a handkerchief and cool it sufficiently, and give a teaspoonful of this every half hour till two or three doses have been given. You may also make an *allspice* poultice for the babe's abdomen. Soak its feet in warm water, and

diminish the nourishment, or at least do not let the bottle be given for some time after the medicine.

If you are in the country, a little syrup of rhubarb will answer equally well. It is better to give your child a small dose, and repeat it if necessary, than, by giving large doses, add to the irritation present, and thus take days again to recover the balance. After an attack of this sort, especially in warm weather, it is well to give the pepsin tonic before mentioned for several days: and if you find that the milk still disagrees, try small quantities of condensed milk well diluted with the barley, rice, or flour food. I am opposed to giving meat juice or broths to infants of such a tender age, unless they are specially ordered by the doctor; he alone will understand the requirements for their use, and he will give the necessary directions about them. If your child is ill enough to need them, the doctor should be called at once. A little weak gum-arabic water is often, for a day, an excellent substitute for milk in cases where dieting is required to check a watery diarrhoea, or even toast-water in many cases is invaluable, especially in older children.

Slight colds are so frequent in infants in this climate, whether from the rapid changes of temperature or the overheating of our houses, that a few words of advice concerning them will not be out of place.

In infants the commonest variety is that of nasal catarrh. Mothers forget that the delicate skin of the scalp is as easily influenced by outside impressions as that of the body; and whilst they will envelop the child thoroughly in numberless wraps, they will let its head receive the draught from an open door; or in passing from one room to another, to gratify a few intimate friends by a sight of the baby, the little one will receive a fever-chilling blast. The result is that its breathing through the nose will become difficult; it will have to breathe through the mouth, and so in suck-

ing there will be constant threatening of suffocation. Of course the sense of hunger will cause it to cry, and the difficulty will be aggravated. The treatment is simple. The advice of Dr. Meigs should be followed : let it wear a flannel cap at night, there is nothing better. Grease its nose well with a little vaseline, mutton-tallow, or goose grease, and if there is much stoppage, a little sweet oil or glycerine will be found serviceable to the nostrils. If the bowels show that the condition is not limited to the nose, but the stools contain a little slimy mucus and are unhealthy, a small dose of castor-oil will be indicated. A warm foot-bath and a good rubbing of the surface of the body with the warm hand will give great comfort.

In children, the eyes form the great index of their condition of health. They are unusually bright and clear when fever is present, or they may be dull and drooping during the existence of serious disease. Their appearance in all cases should always be watched and carefully noted.

PART II.

GENERAL MANAGEMENT DURING DENTITION.

CHAPTER I.

Dentition the most important period of a child's life—Time of cutting the teeth—Lancing the gums—Importance of fresh air, and purity of food.

ALTHOUGH we may, for the sake of more thoroughly exhausting our subject, and rendering more explicit the advice for the management of children, divide the periods of an infant's child-life into three parts, viz. :

- (1) that before dentition,
- (2) that during dentition, and
- (3) that period when they may discard the bottle and substitute table food ;

yet, in reality the division cannot be made as regards a definite number of *months* ; the time of dentition is so uncertain.

In the majority of cases, and, where exceptions exist, the accompanying conditions are the same, the first teeth make their appearance about the sixth or seventh month, and by the time the child has reached the age of two and a half years, it has cut the entire number of its early teeth—viz. :—twenty. Dr. Chevasse tells us that “dentition is the most important period of a child's life, and is the exciting

cause of many infantile diseases ; during this period, therefore, he requires constant and careful watching."

It is this "constant and careful watching" on the part of the mother that will secure for her child the ineffable blessing of passing a period of so much risk, with a constitution unaffected by the dangers that threatened it, of beginning the early battles of childhood with a nervous system strong, hearty, and resisting, and with digestive organs capable of receiving the stronger food which its rapid growth and muscular development demand.

About the seventh month it will be noticed that the child becomes occasionally fretful ; it is restless, and easily irritated ; it will seize with avidity the nipple, and then as suddenly reject it, with evidence of pain ; it will now refuse the bottle, now cry from hunger at the sight of it. Its sleep will be disturbed, it will suddenly cry out in it ; in fact, it will exhibit a marked degree of irritation which previously was foreign to it. By this time the secretions will have been established, the tears, the saliva, and the secretions destined for the digestion of starchy or farinaceous food, will also to some extent have appeared.

As it is usual for the two lower front teeth to appear first (although this is not invariably the case), the gums will be found red and angry, and the child, after seizing upon the fingers and finding the pressure painful, will refuse to allow its mouth to be examined. If there is little or no constitutional disturbance, *i.e.*, fever, present, the child's mouth will be moist, or even wet, and at times the secretion will be so excessive as to require a constant changing of the *bib*. In a few days the child may again be quiet, suck and sleep well ; and once more the angry gums will swell, and the child become fretful and irritable. This is indeed a most anxious time for young mothers, and the advice given to be "constant and careful in their watching" seems to them mean-

ingless and cruel. What is to be done? Remember that nature's mode of relief in such cases is to cut the gum from beneath outwards, and that, while the child seems to seize frantically upon the nearest object, and bite hard upon it, its frantic effort tends towards its own relief by pressing the inflamed gum upon the sharp tooth that is pointing upwards. In a few days the inflammation will subside, and a minute hole or pin point will be seen, and through it will appear the pointed edge of the tooth. In the great majority of cases (in fact, the exception is so rare that it passes from the domain of such a work as this), the gums will need no lancing. If the babe is healthy and vigorous, and has reached this period without drawback, with only the little assistance that can be given by a watchful mother, it will cut its teeth, perhaps in pain, but with no more serious disturbance. Remember nature's mode softens the gum, and keeps it well soaked in the secretions, and gives pressure, not constant and irritating, but firm and occasional. There are several methods of relieving the irritation—plenty of fresh air; if the bowels are rather inclined to be loose, allowing them to continue so slightly, unless the diarrhoea should become excessive; the soothing influence of a warm bath at night; and careful guarding of the diet.

Much has been said and written about lancing the gums. It is decidedly in many cases not only valuable, but absolutely important, and especially is this the case when a child is cutting its large teeth. The tooth is covered by a dense covering or capsule which impedes its progress and causes the sharp under surface of the tooth to press upon the delicate mass of nerve tissue that lies beneath. A free incision, which may be repeated as often as the irritation shows itself, will certainly relieve the pressure by opening the capsule, and giving the tooth an opportunity to make its appearance.

on the other hand lancing may do harm, causing a scar wh. will divert the tooth in its course. This is when the lancing has been performed too soon.

Fresh air is in all respects most important for a teething child ; it will give it vigour and power of resistance. If you live in the country during such a period—and it is to be hoped you do, for the child will certainly thrive better—keep the little one out in the air as much during the day as possible. If you remain in town, avoid the hot streets during the hottest hours of the day, but take your child to some public square, or to some suburban spot, or take it for a drive ; it is essential, and no one realises the wonderful influence exerted by such a change till they come to test it. A daily breath of air thus obtained will often enable a teething babe to pass a summer, even in a close, ill-smelling city, when keeping it in the house, be it ever so cool, will only tend to aggravate its condition. Keep its skin active by frequent sponging, and by all means dress the child to suit the weather, watching its changes.

In the discussion upon the artificial feeding of children, enough has been said to show how important is the most scrupulous care in the regulation of its diet. As the child has grown, and now demands food more suited to its requirements, it is necessary to increase gradually the strength of the preparation of its food. For instance, in the preparation of the barley-water, two spoonfuls instead of one should be added to the food required for the day ; and if the child can digest it, two-thirds of milk may be used in its preparation, instead of one-half. If the *bowels* should be too free, you can take a quantity of flour, wrapped in a linen bag, and boil for several hours, until it is quite hard ; take a teaspoonful, which must be grated fine, from the interior, and use it instead of the barley with the milk, always adding the water which contains it, boiling, to the new sweet milk that has been left by your milkman. Should the child's digestion be weak, Cettli's or Nestlé's food, in small quantities, may be given with condensed milk, and especially

should this kind be used if you have the least suspicion that the cow's milk is not of the proper kind.

Nature's mode of relieving the brain congestion which follows the irritation of a teething child, is by relaxing the bowels ; this is the great safety-valve, and all mothers should know this fact, that they to some extent may encourage, rather than absolutely check, such a condition.

Teething once begun is generally rapid, and one after another, usually in pairs, will the teeth appear ; first the lower two, then the upper two, then the outside pair above and those below, and finally skipping for a time the space for the eye-teeth above and the stomach-teeth below, the larger ones will come in their turn. Usually from the sixteenth to the twentieth month a child will cut its eye and stomach-teeth. The object of a child in sucking its thumb is to increase the secretion in the mouth, and thus to soften the gums ; for this purpose, it is valuable, but not otherwise, as it will simply, if persisted in—and it is a most difficult thing to check—cause the teeth to project as the child grows older. If possible (it is often a difficult thing to do, as it seems hereditary), let the child be taught to substitute something for the thumb, such as a rubber-ring, or a chicken bone, or, even better, the small bone of a boiled ham, which is slightly salt, and, therefore, will be in great demand, or even a wet Turkish-towel wash rag, which is rough, will supply the water a child craves, and keep it quiet as long as there is any moisture left in it to suck. Occasional pressure by the finger will often greatly aid, and spare the infant many days of pain. If there be much inflammation, a piece of ice, wrapped in a napkin, will please the child ; but, as a rule, the intense cold causes its refusal. The child requires plenty of water ; its food is thicker than it was before, and the secretions that are fully established leave a demand for water by depriving the tissues of it. It has been

recommended to give the child a piece of tough raw beef to bite upon ; but this will invariably sour its stomach, and it is well to avoid it ; it is far better to give a hard crust of bread, or a piece of well dried toast.

A very bad habit, but one which is occasionally permitted, especially when a child has not been well trained from the beginning of its early career, and thereby has acquired an irritability of temper not its own, is to allow the child to cut its teeth upon the mother's breast ; to allow it to sleep by its mother's side throughout the night, that it may satisfy itself whenever sufficiently conscious either to draw the breast, or to make use of the mother, in lieu of its thumb. Such a habit, it seems scarcely necessary to say, should not be tolerated for one moment ; it is injurious to the mother, and equally so to the child. An infant should *never* sleep in the same bed with its mother, unless under the sanction of the doctor, and then for reasons of which he is the better judge ; it should have, if the mother keeps it in her own room, its own crib or cradle next to hers.

It is important for a mother to remember that a child's cry does not always proceed from pain, or from hunger. Uncomfortable positions, badly arranged clothing, or flies in summer, are as irritating to infants as to us, if not more so. They are powerless, poor little things, and their cry is nature's call for relief. If a child cries in its sleep, turn it over upon the other side, or on its back ; smooth its clothes, and the chances are that, what you mistook for colic was nothing but a want of change of position. An infant that cries from teething, will soon show by its actions that the suffering part is in the gum ; one that suffers from colic will not let you be long in ignorance of the situation of its ache, if you watch it carefully. Its face will be drawn up, and become red and congested ; its hands will be firmly clenched, and its knees will be bent upon the body, its

breath will be sour, and the force of its cry will cause a watery secretion, with small flaky curds, to dribble from its mouth, the sourness of which will be partly the cause of the distorted countenance. The custom of invariably feeding a child as soon as it cries cannot be too strongly condemned: a mother should watch her babe, study its cry, and interpret from it and its gestures the true cause, that she may at once give it relief. Unfortunately, there is nothing that will at once give ease to a painful gum except the lancet, but unless the irritation is very great, and the child is prevented from sleeping and taking nourishment through it, and its digestion is greatly disturbed, it is better to wait, and leave it to nature. Some mothers find that they can soothe a child by rubbing the painful gum, and that by dipping the finger into a little syrup or glycerine, the child may permit them to do so; but hard rubbing, which one is most tempted to give, seems only to add to the inflammation, and it is better to use the glycerine, which helps to moisten, and let the child suck or bite the finger at its will. A warm foot-bath, or a teaspoonful of water, with a few drops of glycerine, or probably a soft rag soaked in water slightly salted with a few grains of table salt to suck, are the simplest and best palliatives that a young mother can employ.

CHAPTER II.

Importance of noting the symptoms with care, and of recording them
—The use of medicines—Recourse to drugs in the absence of a physician—Restlessness and sleeplessness of a teething child—Opium in every form to be avoided—Convulsions—Their treatment.

THERE can be no greater mistake than the constant recourse to family medicine chests upon the slightest

excuse. If the child is ill enough to need medicine it is time to send for the doctor, and one visit from him may often save great anxiety, and possibly save the child's life. A teething child is a study in itself. Everything, however little it seems in itself, bears directly upon so important a point as a correct diagnosis; parents should remember that the carefully-recorded observations on their part, together with the appearance and condition of the child at the time of the physician's visit, are what he depends upon for his diagnosis and treatment. The physician must know the character of the motions, their number; the condition of the child's skin, whether it always remains as it is at his visit, or whether its head perspires at night (a sign of debility); whether it cries out suddenly at night; whether or not it rolls its head from side to side. If so, its gums must be lanced at once; all these matters are often questions of vital importance, and if the mother be constantly and truthfully watchful, she may by it save her child. It is often difficult, indeed, for a mother to tell when her child really needs medicine, unless she has had the experience of other children,—not so much with the use of purgatives, but such as are directed to allay nervous irritation. Symptoms may often appear of great severity, when, in reality, they are matters of little consequence, and will pass off readily with only a little care. The child will be frequently feverish, in which case a few drops of spirits of nitre in water given occasionally will be all that is required; or a small dose of oil or magnesia will relieve it by the following day.

When you are in the country, or even at a distance from a doctor, it is well for you to have always several articles which may be needful. Get your druggist to put up a half-dozen or more *one-grain* bromide of potassium powders. Get also some powdered alum, and a half-dozen *one-grain* calomel powders. Of course, from what has been said in

the previous chapters, you have already supplied yourself with a quantity of lime-water, which may be useful. Some bicarbonate of soda, together with mustard, castor-oil, rhubarb in lump, essence of peppermint, and magnesia ; all of these are essential in every household. Have a bottle of glycerine ; it is useful for many purposes ; also some of the best pepsine which your druggist can get for you, and if you go to the seaside, or at a distance from home, be sure to have a good stock of the packages of "food" already mentioned. Get some syrup of squills, ipecacuanha wine, and a large bottle of *vaseline*, which must be kept in a cool place. As we study some of the disorders that are consequent upon teething, or at least those that are frequent at this age, we shall speak of the value of the above, and how and when to use them. Let us take an example, and endeavour from it to form a guide in cases that may be similar ; but I may premise by saying that the most important quality for a mother to possess is *judgment*—never to do too much ; best to do too little, and what she thinks best at the right time. This knowledge can only be gained in the rough school of experience. Suppose your child is cutting its first teeth, and has become irritable and sleepless, and you have tried everything with patience, and still have failed to give relief. You have daily taken it out into the fresh air, kept its nursery bright and cheerful by day, and still have failed to promote sleep. You have given a warm bath at night, rubbed it, but still the child cannot be pacified. You may then try one of the bromide of potassium powders ; a grain of the salt dissolved in a teaspoonful of water, and repeated, if its effect has not been decided in a couple of hours. For a child of about seven or eight months' old, who has not been accustomed to the use of medicine, this will have a very quieting effect. When you finally get the child sleeping quietly in your lap, gently introduce your

finger into its mouth, feel for the most swollen portion of the gum, and by gradual, but firm pressure, endeavour to aid the tooth that is trying to force its way up ; a little strategy will thus save much pain the following day.

A half teaspoonful of camphor-water, or ten drops of a reliable solution of the valerianate of ammonia, can be added to the above, or given separately, in a tablespoonful of water, if the child is very restless ; but be careful you do not disorder the stomach. Do not use *opium* in any case, unless specially ordered by your doctor ; there are at times strong reasons why it is injurious, and no mother is capable of judging. Even a few drops of *paregoric* are most injurious, for two reasons : the one that its use, once begun, will have to be kept up ; and the other, any thing that will tend to dry up the secretions, as *opium* does in any form, will increase the disorder, instead of diminishing it. Nevertheless, your physician may find that opium in one form or another is necessary for the child, and you must therefore not think that because most books say imperatively that it must not be given that it is *always* harmful ; it is a dangerous drug in the hands of the ignorant, and a most potent weapon in the fight against disease, when properly handled. I have dwelt at length upon this, because I have seen the effect of merely mentioning *opium* or *calomel* in the presence of one who is well read in popular medicine. Choose your doctor with care ; give him your entire confidence, and allow him to guide you and your children through life, thoroughly knowing your constitutions and peculiarities, and you will certainly fare better than one who is constantly changing from one doctor to another, and placing no confidence in his opinion, and utterly disregarding or interfering with his directions.

The early teeth—the front teeth—do not usually give rise to such severe nervous irritation as do the molars. Fortunately, by the time—perhaps at the age of one year

—that the back teeth begin to show themselves, you have had sufficient experience to understand the temperament of your child, or at least you will know whether or not it cuts its teeth hard. If it has suffered much with the front teeth, and seems to be of an intensely nervous or excitable temperament, it is well to tell your physician when you can feel the gum rising in any part, or getting tender, in order that he may lance it early. It makes little difference if these back gums have to be lanced several times; if the child seems to be much worried, it is certainly better to have it done; it will relieve the congestion, if it does nothing more. In such cases, the “ham bone” will often do wonders, and as a child at this age will enjoy its toys, it should have an abundance of them, such as large round shells, reels strung on a single string, and such things as can be sucked and bitten at pleasure, without harm; it will be its own doctor in most cases.

It is well for a mother to know that her child is more liable to certain affections during the period of dentition than at any other time, and that the disorders that then occur are likely to show themselves by the rapid production of symptoms referable to the nervous system, the lungs, or the bowels.

Some of the principal effects upon the nervous system have already been mentioned, and due stress has been laid upon their relief, viz. : great irritability, sleeplessness, and impairment of its nutrition from the want of food, or the improper digestion of that which it has taken. But the evil effects may proceed still further, and, with a suddenness that makes it all the more alarming, give rise to a convulsion.

A convulsion in a child at this age is an evidence of some local irritation, such as the presence of something indigestible in the stomach or bowels; or it may be due to

the severe tension that has been caused by the passage of a tooth through a hard and resisting gum ; it is like an explosion which comes on suddenly, and may pass off with little evil consequences. In an older child, it is similar to a chill in an adult, and may be the starting point of some eruptive fever. Whatever may be its cause, the treatment must be immediate. As soon as you see a child which has previously been, to all appearances, in full health, but perhaps slightly irritable, begin to twitch about the forehead, and turn its eyes upwards, with that never-to-be-forgotten side-stare,—plunge its body in hot water, clothes and all, if you have no time to strip it, but see that the water is not too hot ; test it with your hand ; apply cold to the head. If the tongue is coated in the least degree, give at once a *calomel* powder, or you may do this earlier, even while the bath is being prepared. Be careful about giving an emetic ; the question of its use is one of the most difficult matters to decide upon. If you recall that your child has been slightly nauseated ; if there has been any hiccup previously, or if you know of anything having been swallowed that would give rise to irritation ; then an emetic, such as twenty drops of the ipecacuanha wine may be given at once, and repeated every ten minutes, if the child can swallow, or with your finger tickle the back of the throat, and this measure may save its life ; but if this treatment be used for one who has no such cause, it will have no such effect, the vomiting will only increase the trouble. Feel the child's gums, and if you find that pressure upon one part gives rise to an aggravation of the attack, that spot should be lanced at once. But in all cases, the hot bath, the calomel powder, and the cold to the head will be of great service, and will not interfere with the treatment of the doctor when he arrives. If the doctor does not come at once, you can give the child, after you have taken him out of the bath (five or

ten minutes will suffice for the immersion), an enema of a small rubber syringeful, holding a couple of ounces of soap and water, and repeat the *calomel* every half hour until four doses have been given.

Wrap the child in a blanket after its bath ; surround it with hot bottles, or get the cover from your kitchen range, wrap it up well in flannel, and place it at the back ; be careful that you do not overdo it, by using too great heat. As soon as the child recovers from the attack, give at once a powder of bromide of potassium, or if the babe is a year old, you can give *two* at once, of *one grain* each. A free action of the bowels will follow the calomel, which may help to save the child. It is well to add a tablespoonful of mustard-powder to the bath, as it will aid its action. If the child has become concious, you can get its skin into a glow by rubbing ; but you must remember that its digestion has been greatly weakened by the shock, and therefore be very careful of its food ; it is better to give as little as possible for some hours ; let it have water if it wishes it, or you can dissolve the white of an egg in a tumblerful of water, add a little sugar and a dessertspoonful of orange-flower water, and give that as the only drink until the child is decidedly out of danger of relapse.

CHAPTER III.

Croup—Croupy or stridulous breathing—Infantile laryngitis—Laryngismus stridulus—Membranous croup or laryngo-tracheal diphtheria—The use of emetics—Drugs to be used in the absence of a physician—Avoidance of popular medicines—Constipation—How to prevent it.

NOTHING is more common in the daily practice of Hospitals and Dispensaries than to hear a mother say that her child

has had croup. This term is made to do duty for at least three separate diseases; what the mother really means is that her child has been subject to attacks of croupy, or, more properly, stridulous breathing.

The sound is peculiar, it is hard and somewhat metallic in character, and is conspicuous for the absence of moistness.

Croupy, or stridulous breathing, may occur in three different diseases. It may be an indication of inflammation in the larynx (acute infantile laryngitis or inflammatory croup), or it may be caused by simple spasm of the vocal cords (laryngismus stridulus or spasmodic croup), and again it may be expressive of membranous croup (laryngo-tracheal diphtheria, or diphtheria confined to the larynx and trachea), in which a distinct membrane is formed. The causes and symptoms of these three forms of throat disease are very different. One is distinctly inflammatory, another is characterised by a membrane, and the other is merely a spasm.

Children about the age that covers the period of dentition are most liable to attacks of croupy or stridulous breathing. In this climate, from its ever-changing character, there is a strong tendency to catarrhs the whole year round; but, as a rule, a special tendency seems to exist when the seasons change, at which period we often hear of some "prevailing" catarrh, or bronchitis, that all are suffering from. Its prevalence, no doubt, in great part depends upon the carelessness in regard to clothing, and the fashions that permit, or in fact imperatively demand, a refined sort of cruelty to be practised upon young children. A child who is put into short clothes too early in the spring, or one who is sent out, because the weather has become warm, in lighter clothes, or again one who has been ailing, or has been rendered specially susceptible through the depressing influences of the

fretting incidental to teething, or exposed to draughts or breathing of air which is chilling, or saturated with dampness, will most certainly, if any predisposition exists, suffer for this want of judgment. There is undoubtedly an hereditary disposition to such attacks, and it is stated that in families in which a consumptive taint exists, affections of the throat are most prevalent. Certain it is that in some families the children never suffer from this stridulous breathing, and that in others it occurs very frequently. An attack of such breathing in itself may be a harmless, though alarming affection; but it is the danger of a more severe catarrh—a bronchitis or pneumonia—that renders it so important a disease. A child that is teething may droop for a few days; it will show some slight evidences of cold, its bowels may be disturbed, or it will be restless at night, and slightly feverish by day. A watchful mother will note these conditions, and keep her child well guarded; she will regulate its bowels; she will see that its skin is kept well acting by warm clothing, and by frequent sponging; and she will also be careful that it does not get overheated. But occasionally the attack will be sudden; a child will wake in the night with a hoarse, dry cough, it will be restless and feverish, or the paroxysm will become intense, and require immediate relief. If such be the case, let a warm bath be given at once, or instead, saturate a large sponge in hot water, bearable to the hand, and place it upon the child's throat, renewing it frequently. If still no relief be obtained, give a few drops of ipecacuanha wine, and to this may be added as much glycerine. The nausea which will result may relieve the attack. It is well then, if possible, to examine the child's throat, and see if it be merely red, with no whitish deposit or membrane. Give it a dose of castor-oil, and during the night let it drink frequently from a tumblerful of water, slightly sweetened, containing a teaspoonful of sweet spirits of nitre. Should the cough be

clear and ringing, and not muffled and hoarse, the immediate relief of the symptoms will end the attack. Should it, on the contrary, be dull, muffled, and husky, send at once for your doctor. Rub the chest well with vaseline or tallow, and avoid the further use of ipecacuanha or squills till you obtain medical advice.

Ipecacuanha wine is certainly a very harmless remedy in most cases, and an exceedingly valuable one, but it is an irritant to the stomach, and it therefore nauseates, and causes immediate vomiting. Mothers forget this, and they will frequently, with very little cause, before adopting simpler means, give their children at once a dose of ipecacuanha or squills and ipecacuanha, if the least resemblance to a croupy sound reaches their ears. Squills have the same effect, and when these drugs are combined, they are, in appropriate cases, very valuable.

If your child seems inclined to be hoarse, or you notice that its voice becomes deeper and more sonorous with the approach of evening, give it a good rubbing, especially about the throat, with well-prepared mutton-tallow if you can get it or with vaseline. The odours of ammonia and turpentine, which substances are usually recommended in stimulating liniments, are not pleasant to an infant, and the irritability ensuing from their use will sometimes do more harm than good. If the child is about a year old, and you notice that there is an enlargement of the glands under the angle of the jaw, feeling like kernels, and the voice is thick, in all probability the tonsils are enlarged. To those who live in the country far from the doctor, I would recommend the addition of two articles to their medicine-chest, viz., tincture of aconite and the following liniment:—

R. Chloral hydratis ʒj.

Linimenti saponis fʒiv.—MISCE.

Signetur. For *external use only*. CHLORAL LINIMENT.

The *aconite* tincture should be labelled such, marked "poison" in large letters, and kept carefully by the mother under lock and key. Should the condition just mentioned be present in a babe of a year old or more, and as such a condition is usually found in children of about two years, *four teaspoonfuls* of water may have *one* drop of the aconite tincture added, and a *teaspoonful* given every *three* hours until the *four* are taken. This medicine is very efficacious; but as it must be given with great care, owing to its poisonous nature, no mother, unless she lives at a great distance from the doctor, should take upon herself the responsibility of its administration.

The *chloral* liniment is very soothing to children; a little of it rubbed about the neck in these cases, or a small quantity gently rubbed on the abdomen of a teething and fretful babe, will often quiet it when everything else has failed. A mother may notice that the attack of stridulous breathing fails to give rise to the very severe so-called croupy symptoms which have just been mentioned as so characteristic; the child will be languid and drooping, the voice will be muffled and husky, with an occasional croupy bark; there will be a laboured effort during breathing, and the respirations will become jerking and blowing, especially as the air leaves the chest. If you have lived near a railroad and have watched a locomotive engine pull a heavy load of cars up an incline, you will remember the almost lifelike laboured panting, with the last *puff* always prolonged. When a child breathes that way it is ill, and its danger is great; it shows that the catarrhal inflammation has settled deeper in the chest; it points to the first stages of a bronchitis, which in time—and it takes but a very short while—may proceed to a pneumonia. Immediately soak the child's feet in hot water with a little mustard, wring out flannels in water, the heat of which your hand can bear, and apply them to the

chest both front and back, and place over them a layer of oiled silk, and keep the child well covered. You can give the child half a teaspoonful of a cooling saline mixture (*liquor ammoniæ acetatis*) of your medicine chest, in a couple of table-spoonfuls of water, and repeat the dose in two hours—in fact every two hours till your doctor arrives. In these cases, unless the cough be very severe and racking, and the child seems to suffer greatly from its tightness, it is well not to give either the *ippecacuanha* or squills, for fear of disordering the digestion. Such a case may be protracted, and anything that will debilitate will have an evil influence on the disease. On the contrary, the greatest care should be taken that the child receives and digests what is most nourishing. If in these cases milk is found not to digest readily, a more concentrated food would be barley-water with cream; less of it is required, and the child should be allowed to drink plenty of water, or egg-water with some sweet spirits of nitre in it.

The bowels rarely escape in a catarrh so severe, and therefore a small dose of castor oil at the outset will be a valuable aid. In place of the hot flannels to the chest, a poultice may be used; it can be made of corn meal or flaxseed meal, very thinly spread, and covered over with oil-silk as directed. Never let the substance of the poultice come in contact with the skin, as is sometimes done, but use an old soft linen handkerchief. Two poultices should be made, one for the front and another for the back, with shoulder-straps to connect them, and a little mutton-tallow introduced into each poultice, to keep it soft. Change at least every three hours; never let it get cold or hard, as it then, in either case, would be worse than none. Let me impress upon all mothers the importance of avoiding the use of the various patent cough mixtures that are so freely sold for the little ones. They all contain substances that may imperil

the child's life; the too general custom of jumping at straws, and "just trying" what some one said cured her cousin's child, and which has brought with its recommendation that, if it "does no good, can do no harm," has sent many a little one to its long rest.

Before concluding this subject, it may be well to consider the cause of constipation in infants, together with its prevention and treatment.

As a rule, constipation is found more frequently in bottle-fed children, and it especially follows the use of condensed milk. In many cases, when this is not the cause, it is due to a want of the secretions of the intestinal glands, and a consequent hardening of the masses that ought to be expelled in a soft pulpy condition. An accumulation at times takes place low down in the bowels, owing to an anatomical arrangement peculiar to infants, and this can be relieved by an injection of tepid Castile soap-suds, with the addition of a small quantity of sweet or castor oil. Sometimes an injection of simply a tablespoonful of sweet-oil will be sufficient, or a small suppository of cocoa butter may be substituted. It is not only an unwise, but a bad practice for mothers continually to dose their infants for this condition; the constant use of purgatives, even when castor oil is used, will not only increase the derangement and debilitate the child, but will be invariably followed by a constipation more obstinate than ever.

If the babe be fed upon condensed milk, a teaspoonful or more of cream may be added to the bottle; if, on the other hand, the farinaceous foods be used, those which contain laxative properties, such as oatmeal or cracked wheat, should be given occasionally. Instead of lime-water, a little bicarbonate of soda may be used in the milk, or the fluid magnesia, before-mentioned, may be substituted occasionally. A substitute for this preparation can be made by adding

half-a-teacupful of boiling water to a teaspoonful of fluid magnesia, allowing it to settle and then strain ; the magnesia water thus made can be given in teaspoonful doses as required. The child's abdomen should be thoroughly rubbed and kneaded at least once daily, using firm, but gentle pressure ; at the same time a small quantity of warm sweet oil or cod-liver oil can be used in the rubbing. One of the most important points to bear in mind is that *regular habits* will frequently cure this condition ; when the child is old enough, it should be placed in its chair at the same hours each day, and it is well to begin this practice as early as possible.

CHAPTER IV.

Catarrhal diarrhoea—Description of the condition—Treatment and dietary—Cholera infantum—Its cause—Necessity of immediate change of air—Importance of bathing—Treatment—Food of a child in its second year.

THE disturbances of the bowels during the period of teething, are greatly dependent upon the time of the year. In winter, the disturbing cause may be a slight catarrh from cold, the evidences of which will be slimy motions containing mucus, accompanied by straining, and sometimes by pain. Under such conditions, should food of the same strength and character as has been given be still persevered with, it will undoubtedly remain undigested, and give rise to attacks of pain, or even to convulsions in a delicate child. Should such be the case, when you notice the change in the motions, at once give a small dose, a teaspoonful of castor oil ; rub the child's abdomen with mutton-tallow or vaseline, or, if the weather be severe, you can use a flannel binder

with great advantage. If the motions become *green and offensive*, or become mixed in their appearance, it is better to give the child a dose of rhubarb, in the manner previously explained, or to take one of the *one-grain* calomel powders, divide it into *six* parts, and place one of these on the child's tongue every half hour during the evening, followed by a dose of castor oil. The faulty secretions of the child will be improved by these remedies, and if you take care not to overload its stomach, but give sparingly of food for twenty-four hours, and freely dilute what you give, matters will be set right.

The heat of summer weather, aided by the evil effects of town air, which seems to be so harmful to a teething babe, will frequently cause it to have a number of very fluid motions, sometimes chiefly consisting of water, which will soak into its napkins, leaving only a spinach-like green material, in small flakes upon it; this state of things, when sudden and very severe, is what is called, ordinarily, cholera infantum. If such an attack threatens, take your babe at once out of the town,—to the seaside, if possible. A few hours may make all the difference in the world, and children who appear almost at death's door will often revive at once with the fresh breezes of the sea. Go to the country, if you cannot do this, or take your child upon the river, and keep in the open air all day. Change the diet to the preparation of *flour* food, as spoken of before in Part I.; let the child drink freely of rice water, or gum-arabic water, and allow it to have pounded ice, small pieces in its mouth at a time; give them frequently, as the child will crave for water, in order to supply that which is lost, and give a small quantity at a time. *Port wine* and *brandy* may be given, but well diluted; the former, if old and good, can be given in *ten-drop* doses every hour or every two hours, if the child rapidly grows weaker; the latter will require still more dilution, and must be slightly sweetened.

You must keep the skin active by frequent sponging with tepid water ; or if your babe has been previously healthy, you can use water at the temperature of that standing in the room. A quick sponging and a good rubbing are often very valuable. This condition seldom occurs in infants who are nursed by healthy mothers, but is usually one of the results of improper bottle-feeding ; or it is seen in children that are teething and possess little powers of resistance. These cases should be seen at once by the doctor. There is little time to be lost, and medical treatment can accomplish a great deal when the case is taken in hand early.

The rapid evacuation of water will cause a succession of symptoms which may be taken for brain disease, but the depression of the little diamond-shaped spot at the top of the child's head which before was scarcely, if at all, noticeable, will prove that the cause of the disorder is other than that which gave rise to the convulsion in the previous case. Such as these are the cases in which beef-juice in very small quantities will be needful, to replace the milk and farinaceous diet : a teaspoonful of the freshly-pressed juice given with a small pinch of pepsin and diluted with an equal quantity of gum-arabic water should be given every two or three hours, alternating with the port wine, till the doctor arrives.

After such an attack the digestion will be left greatly impaired, and it will be necessary to proceed cautiously with feeding until the cooler weather again sets in. In such cases the valuable preparation recommended by Dr. Meigs, of Philadelphia, will be found very useful : take two inches square of gelatine, soaking it well in cold water, and then allow it to boil from a pint to half that quantity ; add this while boiling to an equal quantity of milk and a tablespoonful of cream, slightly sweeten, and put away for the day's use ; or use with it a teaspoonful of arrowroot previously rubbed

smooth with a small quantity of cold water. I would recommend also that the child have a teaspoonful of the syrup of the lactophosphate of lime, given three times a day in its bottle, or separately if this mode of administration seems to agree better. For a teething babe who has struggled through the hot summer in town, I firmly believe in the nightly rubbing of a teaspoonful or more of cod-liver oil upon its abdomen, rubbing in till it leaves nothing upon the hand ; the result will compensate in every case for the disagreeable odour that it yields.

I have thus endeavoured to instruct the mother in the details of the treatment of her child, such as devolves upon her. I have purposely avoided giving prescriptions of the use of which only the doctor can be a proper judge ; her duties are totally distinct from his, and relate merely to the nursing of her child ; to him alone should be left the important question of drug medication, and he alone is capable of deciding the value and importance of symptoms as they arise. Those works that attempt to make doctors of the mothers will end in simply impressing upon all that "a little knowledge is a dangerous thing" ; whoever wishes to obtain that great knowledge which alone is valuable and available, must give a lifetime to its acquirement.

As regards the management of a child and its dietary, during these months of anxiety, a few words may be said. The milk which a young child receives is its true food, and upon it alone it can thrive. It alone will supply it with all that is necessary, not only for growth but for development ; therefore, as a rule, it may be dogmatically stated that no change in the diet should take place until the child is at least *two* years old.

There is a strong temptation at this period, when a little one is able to express its wishes and to insist upon their fulfilment, to give it table food, to let it drink from its father's

coffee-cup at the table, or to give it "just a taste of tea." Avoid this and you will see your child thrive. Let the child's meal-times be as regular as before ; give it an extra quantity of food if it desires it in addition to the quart and a pint it has taken in early infancy in the twenty-four hours ; you may increase the amount of milk, if necessary, and at the age of *two* years, if the milk be fresh and good, you can give it pure, without dilution or addition. Make your food stronger—that is to say, use more of the farinaceous articles, which have been previously well boiled and strained, in its thickening, but avoid the slice of bread, or even the bread and milk. Keep the child out of doors, and see that it gets in addition to a good night's rest the mid-day nap that it requires. At the age of seven or eight months the child should, at stated times, be lifted and put in its chair ; this will ensure regularity in its bowels, and teach it to be regular and cleanly in its habits. About the age of ten months a child will begin to feel its feet, and as soon as it is "shortened" it will occasionally make attempts to stand. Do not encourage this, but place your child on the rug on the floor and let it strengthen its muscles by its own endeavours, and when the bones are able to bear it and the muscles strong enough to aid in its support, it will make its own attempts to stand by a chair. This is the age when children are difficult to keep covered at night, and you should see that the ventilation of the room is such as to prevent draughts and yet give pure air. Your child will now be to you more than a mere living thing ; its intelligence will begin to develop ; it will lisp its first few words that are golden to you ; it will receive those early impressions from you that will mark its future career ; it is the real first dawn of day, and from this moment the mother ceases to be merely the nurse, and becomes to it the embodiment of all that constitutes perfection in its life.

PART III.

MANAGEMENT AFTER EARLY DENTITION.

CHAPTER I.

Change of diet for a child after dentition—What to begin with—Importance of great care in the selection of food—Out-door exercise to be encouraged—Importance of early training in its bearing upon the management of children in sickness.

THE positive assertion in the last chapter that children, during the teething age, should depend entirely upon child's food—milk—may seem arbitrary to those who have seen children table-fed from the time when they can walk, and apparently digest their food well. The mistake is often made to take the exception for the rule, and these cases are frequently brought forward into prominence, while those which suffer and droop are left unheard of. As it is impossible to lay down a definite time when children begin to cut their teeth, so it is equally impossible to say when they end the process, and therefore the children, whose management we shall now discuss, may be those who have not passed their second year. After a child has cut twelve

teeth, it may be well, at whatever age it is, to begin gradually to test its digestion of more solid food, never omitting the milk diet to which it has been accustomed, and upon which it should depend for its chief nourishment. Well-made broths of chicken, mutton, or beef, are valuable at this time as a change. One small meal of a finely-cut mutton chop, slightly seasoned, with the soft part of a slice of milk toast, or a soft-boiled egg, may be given at first, very sparingly, at the midday meal, or, better still, the wing-bone of a well-boiled chicken, with most of the meat, and all of the gristle cut off, which will amuse it, and pave the way. A small quantity of well-chopped white meat of a thoroughly boiled chicken, not more than a teaspoonful, may be tested, and this can be followed by a mealy well-roasted potato, seasoned with butter and salt, and well mashed. Some well-boiled rice, with gravy or beef-juice, will do well for some. Beware of other food ; a taste of this or that which happens to be upon the table, will only spoil the child, and give you great anxiety by the subsequent disturbance of the bowels it will occasion.

The class of readers to whom this little work is especially addressed, are usually not those who can transmit to posterity a digestion that is at all powerful. Dyspepsia, difficult digestion, or in reality digestive organs that are incapable of assimilating heavy food, is the inheritance of fathers and mothers whose brains have been their means of livelihood.

Those who earn their bread by the sweat of their brow, give to their progeny the same force and strength that will enable them to follow their parents' lead ; to draw comparisons from one rank of life to another is obviously erroneous. The child of a farmer, or of a labouring man, will eat its crust of bread and its potatoes with impunity, from the time it is able to toddle to the dinner-table. But not only is this

capability due to the powerful vigour of its inheritance, but to the fact that, in the great majority of cases, it has acquired powers of its own by the nursing of a healthy mother until it has passed through the treacherous period of dentition.

There is no greater mistake than to reason from the poor or labouring classes that great care in diet and management keeps a baby delicate, and that exposure and carelessness in feeding tends to "harden" it, and make it robust. The great axiom in the management of children is to give them *just enough* nutritious food, and to keep their digestive system in good working order; strength saved is strength gained in most cases; the stomach of an infant, like the muscles of an adult, can be encouraged to do good work, but will resist being forced. What is true of the digestion is equally true of the mind. "In childhood," says the late Professor Edward H. Clarke, of Boston, in his admirable little work on "Sex in Education" "boys and girls are nearly alike. If they are natural, they talk and romp, chase butterflies and climb fences, love and hate, with an innocent *abandon* that is ignorant of sex. Yet even then the difference is apparent to the observing. Inspired by the divine instinct of motherhood, the girl that can only creep to her mother's knees will caress a doll that her toddling brother looks coldly upon."

The age has now passed when the greatest tendency to convulsions exists; the teeth have been cut, and the child now only requires care in its food, fresh air, and plenty of it, good bathing in water that bears the temperature of its room, and plenty of chance to use its muscles by a play with its toys, and a romp with its father.

Should the bowels, from overfeeding or confinement to the house in very inclement weather, become disturbed, you can give a teaspoonful of water from magnesia which has been scalded. To a child that is sufficiently sensitive to the taste of medicines, it is always better to give them pure, with

no disguise, letting it know beforehand, and making the taking of them a matter of discipline. Children who have had powders given them in some favorite "preserve," will, when they grow up, associate the two together; besides, it will not only teach the child obedience to its parents' will, which it should feel to be a law, without exception, but it has often saved the life of many a little one who has only preserved a mastery over disease by the regularity with which the medicine was given and taken. If drugs can be disguised for children, do it with the distinct understanding that the disguise or vehicle will not again be met as part of its food, or found on the table as a dessert, the reward of good behaviour. Do not give magnesia with milk, or castor oil with some delicious syrup, or quinine on bread and butter. This deceit, if detected, which it surely will be, can only lessen the confidence of the child in its parents, and will weaken the force of their control in the future.

I have dwelt long upon this matter, because it is so important; mothers are inclined to consider it cruelty, and fathers apt to be weak, but when they see their child seriously ill, with the balance turning against it, and feel that its life, so precious to them, hangs upon the action of a drug which has to be given by force, the full importance of early training, which, in their weakness, has been neglected, adds—more than words can describe—to the intensity of their pain.

The gradual system of testing the digestion of solid food has now advanced so far that it will be safe, if the child is nearing its third year, and often by the time it has reached its second, to allow it to take two meals of solid food, such as before described, daily—in the morning, at breakfast, and at noon, or about two o'clock, at its dinner. For the former may be given some milk toast, with a soft-boiled egg, and a glass of fresh milk, while at eleven o'clock it should have its bottle of "food," then the nap, and after it

awakes and is dressed for the afternoon, its dinner of mashed potatoes, mutton-chop, or as before suggested.

As it grows older, it may again have a glass of milk, about six p.m., with some thinly-sliced bread and butter, and should it awake, as it will do, usually about five in the morning, another bottle of "food." A child of two-and-a-half and three years will eat a hearty supper of bread and milk, and will then require nothing more till about seven-and-a-half the next morning. A child at this age, whose supper has been a substantial one, should never be allowed to go to sleep at once, after eating it, but let at least an hour elapse, which can be occupied in preparing it for bed. Give it a good evening play, in which every child delights, and make its little mind happy, as the best preparation for a good sweet sleep. Regularity in eating is as important for the health of a child as for an infant, and the evil habit of allowing it, between meals, a crust of bread or some other like substance, will eventually give rise to stomach trouble.

At the second year a child's bowels are moved about twice a day, and it is well that regularity as to the hour should be insisted upon; this in itself is a most important matter, as it will prevent a tendency to constipation, which is so annoying and frequent in many children.

Let a child's play-room be stocked with health-giving plants; let it be bright and cheerful. The exercise that will develop and make strong a growing child comes from the muscular strain involved in its play; the girl will attend to the wants of her doll, rocking it to sleep; the boy will use his father's cane for a horse, and fatigue thus induced will be followed by healthy sleep, and a good appetite. Do not teach your children to be grown-up men and women before they have cut their back teeth,—to be learned before they are able to digest solid food,—to be prodigies before their brains have been sufficiently developed to stand the

consuming effect of an increased amount of over-stimulating blood. A child's education should come by intuition; its bricks, its pictures, will gradually develop its mind, its habits of order and regularity will early instil into it the necessity for practising the same as months or years go by. The little nursery rhymes will aid its memory, and the knowledge of the difference between right and wrong should come to it by the force of example and gentle reasoning.

CHAPTER II.

Food of a child in its third year—Avoidance of uncooked fruits—Change of air in summer—How to choose between the country and the seaside—The country preferable for infants—Benefits derivable from sea air in disease—A mother's duty is to nurse her babe—Conclusion.

IN the language of the nursery, a child that has reached its third year, is "raised." At this time it is no longer necessary to prepare for it bottle-food. It can even with regularity take its three ordinary meals a day, and if it breakfasts early, as it should do, a glass of milk, with some bread and butter, can be given as a luncheon before its mid-day nap. A child at this age should drink a quart, or a quart and a half, of milk during the day; and it is well to give it early in the morning, at breakfast, a cup of weak chocolate, made with milk, as a change. Simple vegetables, such as spinach, asparagus, &c., can be given at dinner, and a baked apple, if its bowels are in good condition, or if there is constipation, will make an excellent occasional

dessert. It is far better to make a rule never to give raw fruit to children at this age.

In conclusion, there remain but a few words to be said regarding the advantage of change of air for children, and the choice between the country and the sea. Very often it is a difficult matter to decide, since so many considerations must enter into the calculations of a household, especially the question of expense. It may be said that, ordinarily, an infant thrives better, and is more free from the various catarrhal disturbances that are brought about by sudden changes, when away from the coast. Certainly, for one under a year old, the place in which it is surrounded by the greatest advantage is in the country, where it can get the best of fresh milk, and where it can be out of doors, and take its midday nap in the cool shade. It is well to select a good farm, or an accessible boarding-house, in a healthy locality, and take the child there early in the season, before the heat of the latter part of June sets in. Should an infant, even at this age, be taken suddenly ill with diarrhoea, caused by the confinement and foul air of a large city, then the immediate change to the invigorating influence of the sea will at once help greatly to restore it. But ordinarily it is better to avoid the seaside and mountainous districts for very young babes; all they require is fresh air, shade, and fresh milk, and freedom from sudden variations in temperature that are found between day and night, both in the hilly regions and on the coast. For a child in its second summer, when the back teeth are coming through, it is well, but by no means important, to spend the month of July by the sea, returning to the country by the first of August. The cool nights of August are better spent inland, where there is less risk from the sudden changes of temperature, and the damp atmosphere of the coast. In choosing a place in the country, particularly for

the month of August, great care should be taken to avoid swampy or marshy districts, on account of the malaria prevalent in such places during that time of year. Young children are as susceptible to its influence as adults.

Pure air and a bracing climate, however, will be of no avail if the diet of the child is not of the proper kind. For an infant great care must be taken, especially at the seaside, to secure good milk, and if the least doubt is entertained about the nature and purity of that supplied, condensed milk must at once be used.

But, after all, it will be seen by those who have read this little work, that the disorders of infancy are far more frequent amongst those children that are bottle-fed. It was intended that the only food for a babe should come from the mother herself; her milk alone possesses every element for the requirements of her child. A mother's duty does not end with the birth of her child; it is as much her duty to nurse it as it is her destiny to bear it.

The best inheritance that a mother can give her child is health; to impart this, she must possess it herself. By thus attending to her own health, she will not only be the means of preventing disease, but she will impart strength to her offspring that will earn for her the gratitude of the generations to come.

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