COMING MOTHERHOOD

PRACTICAL SUGGESTIONS
RELATING TO

MATERNITY

AND THE

Care of Infants and Children

THE MOTHER

Milestones to Health
Signs of Pregnancy
Duration of Pregnancy
Changes in Pregnancy
Reflex Disorders
Painless Labor
Preparation of Woman's Bed
Preparation of Woman
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THE BABY

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Feeding
Diet
Weaning
Cuisine

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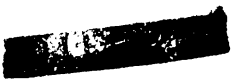
INTRODUCTION

This little book is designed to assist mothers, especially young mothers, with a few words of advice relating to maternity, and the proper care of infants and children. It is a thoroughly practical guide and contains only such advice as a long experience in this field of endeavor has proven, mothers require.

Well meaning neighbors are always ready with advice to the young mother, each with conflicting opinions, resulting in the complete bewilderment of the anxious parent. To solve some of the problems and relieve the troubled mind, is the earnest mission of these few pages.

It is not my purpose to instruct mothers in the art of dispensing medicine, or to note a series of symptoms, and point out what they indicate, and the treatment thereof.

The practice of medicine is an art that requires long experience to enable one to intelligently minister to the sick; therefore the best advice that can possibly be given, is, send for your doctor; upon him shift the responsibility on the slightest manifestation of ill health. Have in attendance one whose life work it is to accept such responsibility and meet each condition as it arises, with a full knowledge that he is able and anxious to bring to bear all the resources known to medicine.



THE MOTHER

MILESTONES TO HEALTH

Don't worry.
Don't hurry.
Simplify.
Spend less nervous energy each day than you make.
Work well while you work, but don't be a slave.
Avoid passion and excitement.

Associate with healthy people; health is contagious as well as disease.

Don't carry the world on your shoulders; let others share the burden.

Be cheerful; laugh.
Think only healthful, kindly thoughts.
Never despair; hope; hope always.

Eat plain food only; refuse all food which usually disagrees with you. Eat mirthfully, moderately, regularly, slowly, and masticate perfectly. Be very sure you do not eat too much. All food eaten more than is necessary to repair the daily waste of the body, does great harm to your health. Always leave the table just a little hungry.

Drink nothing but pure water. Always between meals, on rising in the morning and on retiring at night. Never with meals.

Take a friction bath with a coarse towel, or a tepid water sponge bath every morning, or after any exercise which has caused perspiration.

Breathe freely night and day of the purest air possible. Spend all the time you can in the open air. Sleep in a well ventilated room. Take daily breathing exercises.

Take a few moments to exercise several times daily, particularly in the morning upon rising; spend at least an hour daily in some out-of-door pastime, such as walking, riding, boating, or in other sports or games.

Regularly spend a portion of your time in reading, or studying the subject you like the best. Carry on some line of self-education. Neither the mind nor the body can remain healthy without regular exercise.

Make up your mind that life is worth living. Cheerfulness and contentment are wonderful factors in promoting good health. These important qualities of character are to be had by desire and continuous effort.

Sleep regularly eight hours each night, or more if you can without once waking. Use a fairly hard bed with light covering. Put yourself to sleep by emptying your mind of all ideas save a silent, drowsy counting of your breaths. Count rows; begin at one and count each row one higher as:—1, 2; 1, 2, 3; 1, 2, 3, 4; etc.

Regularly force yourself to engage in all the innocent and harmless recreation available to you, including light reading, visiting, and family and social pleasures, amusements, and games. These will help to keep you well.

Force yourself to rest whenever you find that you are tired. Learn to relax. Worry is only a method of suicide. When you are taking a rest, literally, "take no thought for the morrow", or anything else, but train yourself to stop thinking altogether. Learn to relax. That is, devitalize the body and mind at the same time. Lie flat on your back or in any other comfortable position, in a comfortable place, and relax every muscle under the control of your will, and at the same time literally stop thinking for from one to five minutes, or longer. This is a perfect way to put yourself to sleep, and when the art is once acquired it is a good cure for insomnia. One can never know what perfect rest is until he or she has learned to relax perfectly. This forced quiet is not a mere mental dawdling over the events of life, or even mere reverie, but it is the intentional, conscious stopping of reverie, as well as all other thinking.

THE SIGNS OF PREGNANCY

The state of pregnacy produces certain changes and manifestations, some of which require the skilled physician to elicit: Others are seen and felt by the woman herself. These latter are:

1. Suppression of the Menses.
2. Morning Sickness.
3. Morbid Longings and Dyspepsia.

4. Changes in Breast and Nipples.
5. Active Motions of the Child.
6. Violet Color and Swelling of Inside and Lips of Vulva.
7. Changes in the Size and Shape of the Abdomen.

SUPPRESSION OF THE MENSES

Menstruation as a rule ceases during pregnancy; this occurs because the blood which ordinarily flows away is needed for the development of the child and reproductive organs. In exceptional cases menstruation does not cease during pregnancy, but may occur at regular or irregular intervals during the time.

Menstruation may cease from other causes than pregnancy, as in lactation, when the nursing mother does not usually menstruate, or the menses may be absent by reason of disease, as in Anæmia, Debility, Cold, or Mental Emotion.

MORNING SICKNESS

This usually begins about the fourth or fifth week, and lasts until the end of the fourth month, or even later. Sometimes it comes on a few days after impregnation and continues throughout pregnancy. It may be simply a feeling of nausea, with or without vomiting, on rising in the morning, or after breakfast. Sexual excitement after conception is a factor in the production of morning sickness.

MORBID LONGINGS AND DYSPEPSIA

At about the time that morning sickness occurs, the woman often develops an unusual desire for indigestible and strange articles of diet; as salads prepared with vinegar, sour apples, and fruits, and drinks, slate pencils, chalk, ashes, lime, charcoal or clay.

Often there is an entire loss of appetite, or a disgust for some particular article of diet. The dyspeptic symptoms are heartburn, burning pain in the stomach, with eructations of gas, flatulence and passing of gas by bowel.

CHANGES IN THE BREASTS AND NIPPLES

The breasts become larger, firmer, and more moveable, the blueness of the veins is more pronounced; sensations of weight, tingling and pricking are felt at about the second or third month. There

are also a few light-colored, silvery lines noticeable on the breasts near the end of pregnancy.

The nipples become somewhat enlarged and erect and a thickish fluid oozes from them and dries in scales.

The disk, surrounding the nipples, gradually becomes darker in color, varying from the lightest brown to black. Upon the surface of the disk are seen a dozen or more little pimple-like bodies.

On the white skin, just outside, but immediately surrounding the darkened disk, a second coloration appears later, consisting of round elevated spots of a lighter color than the surface on which they rest; this appears about the fifth or sixth month.

In rare cases milk comes from the breasts as early as the third month of pregnancy.

ACTIVE MOTIONS OF THE CHILD

These may be felt at about the middle of pregnancy, or four and a half months, and are due to active muscular motions of the child's limbs, or body; they are described as "fluttering," "creeping" or "feeling life."

This activity continues throughout pregnancy and becomes more violent as time progresses.

VIOLET COLOR AND SWELLING OF INSIDE AND LIPS OF VULVA

This is due to venous congestion. It begins early and continues throughout pregnancy.

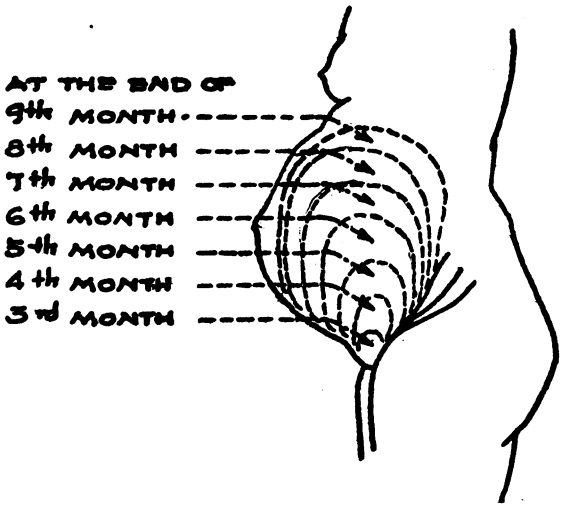
CHANGES IN THE SIZE AND SHAPE OF THE ABDOMEN

During the first two months of pregnancy the abdomen is really flatter than before. This is due to the enlarged womb sinking down and drawing upon the bladder, which in turn draws upon the navel by reason of its attachment to it.

By the third month the womb can be felt by the hand placed at the lowermost part of the abdomen. At the sixth month it has reached the navel.

At the thirty-eighth week the womb almost touches the lowermost part of the breast bone.

About two weeks before delivery, the womb sinks down a little, and the abdomen appears smaller in size.



Size of the womb at periods of pregnancy indicated

PHYSIOLOGICAL CHANGES IN PREGNANCY

The physiological changes which occur in pregnancy, are most astounding. In a few months the womb increases in size, from three inches to twelve in length, and from two inches to nine in width; from about an ounce to about two pounds in weight, not including its contents. The capacity of its cavity is enlarged 520 times. The area of its external surface is increased from 16 square inches to 340 square inches. All of its tissues, its muscles, ligaments, arteries, veins, lymphatics and nerves, become tremendously increased and enlarged.

With these local phenomena must necessarily take place an extensive modification in the entire system, especially with reference to the general nutrition.

The nutritive material must be provided by which the growing organs are sustained, and by which the child, with its appendages and bag of waters, is built up. Therefore, more blood must be formed, more food digested and the activity of her excreting and secreting organs increased. The extra blood must be properly circulated through all the parts concerned; therefore, there is a normal enlargement of the left side of the heart which disappears after delivery.

With the varied and numerous structural and functional changes, and with the necessary increase of work imposed on the general nutritive system, it is scarcely to be expected that pregnancy (especially in women, whose lives and habits are artificial and unnatural in many respects), should be altogether free from unpleasant symptoms, if indeed it be unaccompanied with serious disease. The wonder is, rather, that suffering is not greater and disease more frequent and severe than we find it.

There is much that can be done by the woman herself to lessen the sufferings of pregnancy and child-birth, and insure the birth of a healthy child. She should breathe fresh, pure air. Rooms should be well ventilated, by having one or more windows down, even if very little, from the top, or using the board ventilator spoken of elsewhere.

Crowded apartments, theatres, and churches should be avoided. Many pregnant women become peculiarly sensitive to disagreeable odors, as if nature had provided them with a special instinct to detect and escape from infected atmosphere.

Corsets should be discarded altogether during the later months, or worn loosely. The most desirable style of corset for this period is made with elastic bands between the ribs, or what is known as a maternity waist.

Avoid waist bands and girdles around the abdomen; let the weight of skirts be supported by suspenders from the shoulders, as far as practicable. Tight garters are to be avoided as they are apt to cause swelling of the legs and varicose veins. The best kind are those which have been cast aside as worn out and useless, they should be made to encircle the leg below the knee. If long garters are preferred they should be so worn as to not make pressure upon the abdomen.

Avoid high heeled shoes, they impede locomotion and may cause stumbling, with a fall, and its sometimes serious consequences.

All clothing should be comfortably warm, the lower limbs especially being protected from the cold.

When the fact of pregnancy is established it is important that the urine be examined once a month until the last 6 weeks and then once a week. The time of taking the urine, whether first thing in the morning or for the whole 24 hours, may be determined by the physician. This is necessary in order to be sure that the kidneys are in a healthy condition.

Exposure to cold and wet, especially when over-heated, may lead to inflammation of the kidneys, which is always a serious condition in the pregnant woman. Weather permitting, a part of each day should be spent in the open air, even up to the very day of lying-in.

Walking is the best possible form of exercise, but must be kept within the limit of moderate fatigue. It increases respiration, appetite and digestion, and promotes sleep. Violent exercise, and muscular strains such as lifting, must be avoided. Carriage-riding over smooth roads is advisable. Riding a bicycle or running a sewing machine is not, as a rule to be done. Trolley car and railroad travel may or may not be harmful; much depends upon the temperament of the woman. One person may be subjected to almost every sort of jolting and rough usage without ill effect, while another, more nervous and excitable, will suffer, even to the extreme of abortion. Hence it is wise for all women to be careful throughout pregnancy, and particularly, to avoid travel during the last few weeks.

There is no good reason, why, as a rule, a healthy, pregnant woman should make any change in her ordinary diet, of course presupposing that this ordinary diet be a wise one. With fresh air, exercise, mental diversion and unrestricting costume, her appetite may be good during most of the period. Morning sickness may interfere with breakfast early in pregnancy, and pressure on the stomach by enlarged womb, later, but as a rule most women assimilate enough food to supply the needs of their own system and that of the growing child, indeed many take on an excess of flesh.

The natural tastes as regards ordinary foods may usually be indulged with advantage. Malt and spirituous liquors, tea and coffee, should be taken with great moderation. Ripe fruits of all kinds, and dried fruits, such as prunes, are of service in correcting constipation. Milk and chocolate may be taken freely, but the one drink; the most important drink; the most neglected drink; is water, ordinary pure, fresh water, or boiled or filtered city water. Water is essential to every function of the body, and should be taken freely, at all times during the day, except at meals.

The skin must be kept clean and active by warm baths (about 96° F), not hot or cold, taken at least three times a week. Sea baths as a rule, should not be indulged in, yet some women take them without injury.

Later in pregnancy, when it is undesirable for a woman to get into the tub, sponge baths should be taken.

The external genitals should at all times be kept clean with warm water and soap. A daily douche may be used, given with warm water in which common salt is dissolved, a tablespoonful to two quarts water. This should be done gently without any force. During the later weeks of pregnancy the nipples should be kept clean with borax water, a teaspoonful borax to a teacupful water, dried off, and anointed with cocoa-butter to soften. They should be kept free from pressure.

The pregnant woman should sleep at least eight hours every night, retiring early and occupying a bed by herself if possible. In addition to the eight hours of regular night sleep, a little nap of ten or twenty minutes after each meal is very desirable.

Sexual excitement should be avoided, and coition prohibited to as great a degree as possible, after impregnation. Over-indulgence is liable to cause abortion.

REFLEX DISORDERS OF PREGNANCY

Although pregnancy is a perfectly physiological condition, the rapidity with which the womb grows, causes so heavy a drain upon the system of the mother, that various disorders arise, due to sympathetic nerve disturbances, or to pressure.

All the reproductive organs, as well as the other organs of the body, are intimately connected by a chain of nerves, known as the sympathetic nervous system. An irritation of one part will be transmitted over the entire system, and if every part is working properly, little injury follows, but if one part is weakened, it will not be able to stand the increased stimulation, and will be injuriously affected.

In the case of the impregnated womb, because of its great activity, we have a source of constant and wide-spread irritation of various organs, particularly those which are predisposed to be weak, or those which are most intimately connected with the reproductive organs by means of the sympathetic nerves—for instance:

Constant dribbling of saliva from the mouth, which occurs early in pregnancy, is an illustration of this close connection.

Toothache and the formation of cavities in the teeth is widely known as being attendant upon child-bearing. The reason for it is that

the nutritive material, such as the lime-salts, which ordinarily supply the teeth, have been diverted to the growing child.

Neuralgia of the face, and headache, are due to either a depletion of the blood, owing to demands of the growing child, or to excessive nerve irritation.

Derangement of the stomach is another example of the connection between organs through the sympathetic nervous system. Not only from an irritated womb due to pregnancy do we have a sick stomach, but in irritation of this organ due to disease, the stomach shows the connection by vomiting, nausea, or dyspepsia.

Constipation is common in pregnancy, and is due to both sympathetic affection and to pressure.

Irritability of the bladder is manifest by the frequent voiding of urine; it is caused by sympathetic disturbance and pressure.

Swelling of the legs, and the formation of enlarged veins, and hemorrhoids, is caused entirely by pressure.

Itching all over the body, or at the vulva, is purely nerve-irritation.

The disorders here given, form a large part of those which occur in the pregnant woman. Few of them are permanently dangerous to health, yet all are productive of much annoyance and discomfort.

A careful observation of the few rules herein given, relating to cleanliness, walking, sleep, eating, drinking, clothing, avoidance of excitement, breathing of fresh air, etc., will be of much service. In cases however, where any of these disorders are of a most pronounced character, medical treatment is desirable. The best form of this is that which is mechanically administered. Most of the disorders of pregnancy are due to mechanical disturbances, occasioned by the great draught made upon the system of the mother, for the needs of the growing womb and contents, thus affecting her circulation, nutrition and nervous system; also the enlarged womb, pressing upon the veins, bladder and bowels, indicate the need for some form of treatment that will overcome the ill effects of this pressure, and reflex disorders.

This mechanical treatment should be given by a skilled operator who will vibrate and manipulate the entire length of the spine, thus sending nerve impulses to the internal organs, whereby their nutrition, circulation and nerve supply is much improved. Further mechanical treatment will consist of a kneading or stroking movement to overcome

the effects of pressure; thus enlarged veins of the legs can be emptied by a manipulation which begins at the groin and extends to the foot. Space here does not warrant detailed information regarding this very important form of treament, but in a general way we may say that when a skilled operator is not available, some member of the family, should daily stimulate the spinal nerves by a frictional rubbing of the entire spine, particularly over what is known as the small of the back; here the cerebro-spinal nerves branch off, which go to the womb, and pain at this point, merely points to nerve irritation caused by womb activity. This frictional rubbing should be given for ten or fifteen minutes daily.

The home treatment of the legs should consist in elevating them on two pillows, the patient lying upon the back. Then with the hand at the thigh give a series of deep upward strokes toward the body, thence to the groin and extend to the foot, thus emptying large veins of thigh first. This should be done once or twice daily, or every other day as is needed.

The vulva or external organs are often very much congested and swollen, this is due to pressure and may be relieved by the woman herself stroking the parts firmly and strongly with a sort of lifting motion, towards the body. This is to be done twice daily for ten minutes at a time, patient upon back.

PAINLESS LABOR

This is one of the most interesting subjects that could be brought to the attention of womankind. From time immemorial, child-birth has been the most dreaded period of woman's career, because of the suffering attendant thereto. That an absolutely painless labor may be had, is impossible, because the forces of nature are directed to the expulsion of the child from the womb, by means of powerful contractions of this organ. These contractions are brought about by nerve impulses which cause the muscular fibres to contract. The entire nervous system is employed in this process. The sympathetic system, through the renal, hypogastric, spermatic, and aortic plexuses; and the cerebro-spinal system through branches, derived chiefly from the second, third, and fourth sacral nerves. With our present knowledge of the nerve supply of the womb, we are enabled to lessen the pains of labor to a very marked degree. During the first stages, pressure is made with

the fingers on the terminal filaments of the sympathetic nerves in and around the clitoris. The index and middle fingers are placed, one on each side of this organ, and firm, moderately hard pressure is made against the bone with the direction of the pressure upward toward the abdomen; this is done by the attending physician, the nurse, or by the woman herself. A reflex result occurs, in which contraction of the womb follows; its mouth dilates, normal propulsion pains ensue, and labor proceeds naturally, all unnecessary flying pains cease. In the later stage when labor has gone on for some time and the back becomes very painful, feeling as though it would almost break, the pressure is then made at this point, the small of the back, for it is here that the cerebro-spinal nerves, which supply the womb, branch off. Pressure here is made by the physician, or nurse; it is done by placing the thumb of each hand on either side of the spinal column and clasping the hips for support with the fingers. That this may be done, the patient stands on the floor, hands resting on foot board of bed for support, or if lying in bed this point can be reached by the fingers of the physician on one side, and those of the nurse on the other.

THE DURATION OF PREGNANCY

Labor usually occurs at about 280 days after impregnation, or ten monthly periods, or nine calendar months with a few days added. For predicting the date of delivery, several methods are in use, probably the easiest is that of counting ahead nine calendar months from the day on which the last menstruation ceased, and adding seven days. In cases when the date of last menstruation is unknown, we may approximately arrive at date of delivery by calculating ahead four and one-half months, from date on which quickening is first felt.

THE DURATION OF LABOR

The average length of labor is about ten hours, yet it may be over in two, or last for twenty-four hours, or even more, without any serious consequences.

PREPARATION OF THE WOMAN'S BED

Have the bed so set in the room that the patient may be reached from either side. Use a firm mattress and cover with a rubber sheet, over this, place bed sheet, which fasten to mattress by safety pins; this

is not removed after labor, but over them are placed a newspaper pad, or wadding pad, and a second sheet, which is to be removed after labor, leaving the first set clean and dry. The sheet of the second set should be turned down from above, to below the woman's shoulders, to facilitate its removal when labor is over. During the period of labor, a newspaper pad, or wadding pad, is placed beneath the woman's buttocks, to receive all discharges. All the bed coverings with the exception of the rubber sheet must be sterilized by folding and heating in the oven. The rubber sheet may be sterilized by washing off with bichloride solution 1-2000, or carbolic acid solution, two teaspoonfuls to a teacupful of water. When labor is over, the upper sheet with the pad and all its contents, may be easily dragged off at the side of the bed, leaving the patient resting upon a clean sterile pad.

PREPARATION OF THE WOMAN

The hair should be thoroughly brushed and parted down the centre, then braided in two plaits. By so arranging the hair, it makes it more comfortable for the patient, and keeps it from getting tangled.

At the beginning of labor the woman is given a tepid bath and well scrubbed all over with soap and water. Then an enema of soap and water is given to empty the bowel; after the bowels have moved and the urine freely voided, the external genitals, thighs, and buttocks are carefully washed off with the bichloride solution 1-2000, or carbolic acid solution two teaspoonfuls to a teacupful of water.

THE DRESS

Probably the best way to dress a woman for the lying-in-bed is in short undershirt or undervest, shirt waist and a skirt or petticoat, warm stockings and bed-room slippers. The supreme advantage of this method of dressing, lies in the fact of the easy removal of the soiled garments. When labor is over, the skirt or petticoat is removed over the feet, the shirt waist taken off, and a clean night gown put on. Another method is to put on the night gown before labor, and roll up its skirt to nearly the level of the armpits, while a petticoat or skirt covers the parts below the waist. When labor is over, the soiled garment is removed over the feet, and the dry night gown then pulled down. This would be an excellent way, were it not for the fact, that in the majority

of cases, the night gown would become displaced, and when labor was over we would find it thoroughly saturated.

ANTICIPATING BABY'S ARRIVAL

The mother should have as complete an outfit, as circumstances will permit. The following is a list of the articles deemed necessary; this is of course subject to variations, and can be added to, or changed, according to individual taste.

Jar vaseline.
Bottle of sweet oil.
Four sterilized basins or bowls.
Two very small bowls.
One large pitcher of boiled cold water.
Two large sterilized pitchers.
A new nail brush.
Two ounces of tincture of green soap.
Bottle of bichloride tablets.
One ounce of carbolic acid.
Whiskey or brandy.
Several yards of gauze or cheese cloth.
Ice.
Hot and cold water.
Fountain syringe.
Bed pan.
Pail or slop jar.
Drinking glass and spoon.
Piece of fine white castile soap.
Soft sponge.
Box talcum powder with shaker top.
Quarter pound boric acid.
One pound of borax.
Two yards grocer's strong white cord, or spool of heavy white embroidery silk.
Soft hair brush and comb.
Large and small safety pins.
One pair of blunt pointed scissors.

Several soft towels (about one dozen).

Four ounce box absorbent cotton.

One and half yards of strong unbleached muslin, which can be torn lengthwise and will make two blinders for mother, or if preferred the abdominal binder may be made, full description of which will be found on other page.

Four pads for bed, about one yard square, made of wadding covered with white cheese cloth and quilted.

Two or three dozen old soft white cloths, such as old sheets will make.

Old white blanket or anything warm and soft to lay the baby in.

Four quilted newspaper pads, made twenty-four sheets thick, or a rubber blanket.

Two dozen diapers (at least) of canton flannel, or stockinette, or birds eye linen; have them washed and boiled, but not blued, stockinette preferred. A part of the diapers, about half a dozen should be cut diagonally, thus making twelve triangular diapers to be used for a very young infant; they are less bulky, than the square ones.

As many dresses as the mother chooses.

Six bands each six inches wide, made of cotton and wool flannel that will not easily ravel, as they should be torn lengthwise of the cloth. As the child grows an inch can be torn off from time to time until the band in that shape is discarded.

The Arnold garments for babies are the best, but those made by the mother will answer if preferred.

The articles of clothing necessary are

6 plain slips of Lonsdale cotton or cambric.

3 white skirts with waists or bands.

2 flannel day skirts (cotton and wool) 27 inches long, to be made in one piece the waist to be made by goring the upper part.

Also two for night of cheaper flannel.

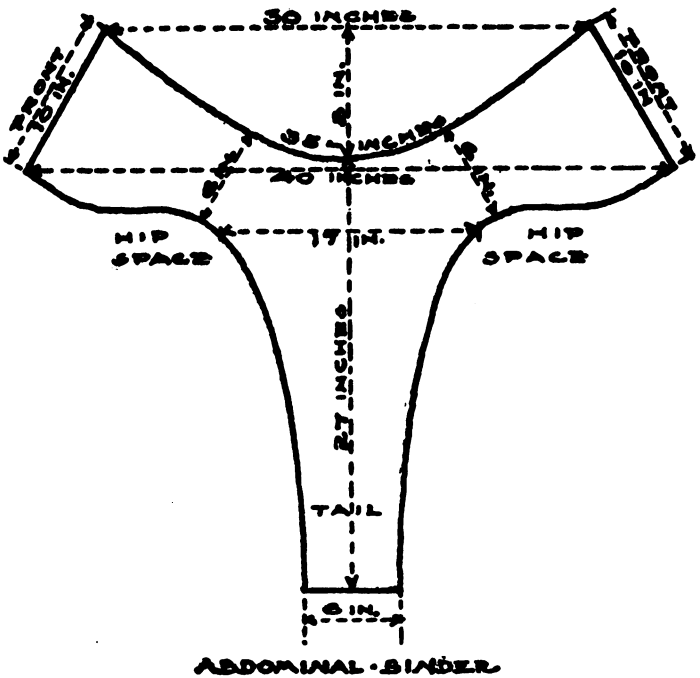
3 Arnold night gowns with drawing strings in hem, weight to be determined by time of year.

3 each of Arnold shirts and bands.

2 flannelette wrappers buttoned in front.

Several pairs of knitted socks.

THE ABDOMINAL BINDER



This is designed to support the stretched walls of the abdomen, compress the womb, and at the same time hold the dressing in place.

To make, two and one quarter yards unbleached muslin, one yard wide, is required.

It is cut along lines as shown in diagram, allowing half inch all around for seams, all parts to be made double for strength.

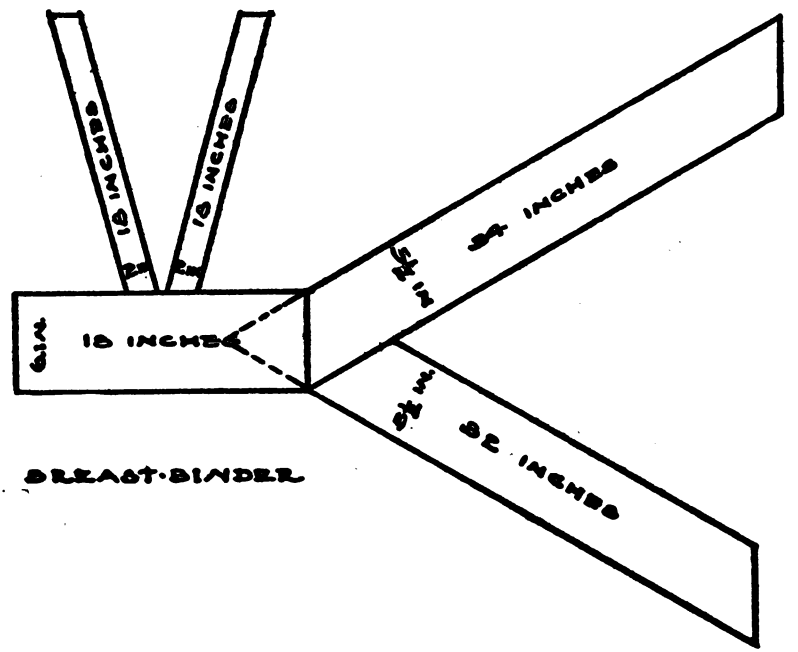
The size of the pattern given is large enough for a person measuring forty inches around the hips; to make larger, allow on the front the required number of inches, also add to tail.

To use, the two flaps are brought tightly together in front, and pinned as low down as possible. The tail is pulled down smoothly in the back and brought up between the legs to be fastened to front, by a

safety pin, the dressings, to catch the secretions, being previously put in place.

The advantages of this binder are, that it remains securely in place, no matter what position the patient occupies, and for the purpose of cleansing, or stool, the removal of one pin and lifting tail, is all that is necessary, the abdominal part remaining in place.

BREAST BINDER FOR NURSING MOTHER



All pieces are made double. Make a belt of soft unbleached muslin, eighteen inches long by six inches wide, to one end of which attach two strips, each five and one half inches wide, top one thirty four inches long, lower one thirty-two inches long, cut and join to belt so that all form a Y bandage or suspender. At the top border of belt portion, are sewed two shoulder straps eighteen inches long and two inches wide.

Where they attach to the belt, they are placed as close together as possible, and so sewed as to form the point of a V at the attachment; separating wider as they continue, they go over the shoulders. To use the belt, it is placed on back at shoulder blades, the pad portion (resulting from the sewing of the two strips to belt portion), comes to right shoulder blade, the lower strip goes under breasts and is pinned to belt at left arm-pit, and acts as support for breasts; upper strip crosses above breasts and is attached by safety pins to belt portion at left arm-pit, meeting lower strip here. The shoulder straps pass from belt at back and are pinned to upper strip in front. This binder is a very desirable one, acting as a support for breasts; it permits nursing to be done without removal or detachment of any part. In placing the binder, it is so done that the nipples come between the two strips, with a piece of gauze or old linen placed over them.

RECEPTION OF THE NEW BORN CHILD

The navel cord is securely tied by the attending physician and cut; thus separating the child from the mother.

The new born child should be wrapped in a woolen blanket, or large soft turkish towel and handed to the nurse, who will place it safely on one side of the bed, or in a crib, until such time as is convenient for the bath. All necessary attention having been rendered the mother the child is taken up and its initial bath given.

The baby should be placed on its right side or back.

First cover the baby with sweet oil or warm vaseline, using a bit of flannel for this purpose; this application of oil is for the purpose of removing the greasy coating of cheese-like material. Now use a lather of castile soap and warm water, applied with a soft sponge; finally complete the bath by immersing the entire body in warm water for one or two minutes. Baby being taken out is dried thoroughly with a soft towel.

The stump of the cord is dusted with talcum and wrapped in soft linen or absorbent cotton; the folds of the skin, under the arms and between the thighs, are also dusted with talcum. The binder is now put in place; it should be of soft flannel, wide enough to extend from the hip bone to the ribs, and long enough to lap over, being secured in place by safety pins. Make sure that it is not too tight.

The diaper is now put on, and the baby's toilet completed by the clothing, which should consist of four garments, a shirt, a petticoat, an outside dress and socks.

The shirt should fit loosely and extend from the neck to the lower edge of the binder. It may be made of merino, or of soft flannel, and have long sleeves. It is fastened in front by tape or buttons. A very satisfactory shirt is made, known as Ruben's Infant Shirt. It has the very great advantage of being adjustable, without putting on over the head.

The petticoat is made by sewing a muslin body for the waist portion to light-weight white flannel for the skirt portion. The band portion extends from under the arm-pits to the hips, six to eight inches deep, and must lap over in front to allow for growth of infant. The skirt portion, extending from waist to below feet, should be about twenty-seven inches long.

The dress is usually made of fine white cambric, nainsook, or long cloth, made rather plain around the neck and shoulders, as ruffles are annoying to the baby.

Shorten baby's dress at from four to six months, depending upon the season, and size, and health of the baby.

The socks should be knitted ones, silk is the best, knitted closely so that the toes do not slip through.

WARNING

It is most important that the mother have her baby examined early in infancy to determine the condition of the sexual organs, for, by proper treatment at this time, much distress and suffering later in life is prevented. We know the close connection of the penis in the male, and the clitoris in the female, through the sympathetic nervous system, with the other organs of the body. Hence irritation at these points causes reflex disorders all over the body Much of the hysteria and nervousness in women, is due to the fact of a neglected clitoris in infancy. In the case of the male due to this neglect in infancy, we see on all sides disease and weakness, mental, moral and physical.

The treatment of these organs in infancy is simple, the attending physician, in the case of the male, with a blunt instrument separates the foreskin from the head of the penis and pushes it back. With the female baby the treatment is much the same, the hood is merely gently

separated from the clitoris and pushed back. After this little proceeding in either case, the treatment consists merely in keeping the parts clean; this is done with soft cotton or linen and borax water (teaspoonful borax to teacupful warm water), daily at time of general bath.

THE BABY

DISCIPLINE

Who has not heard a parent exclaim on the occasion of an exhibition of temper by a child, that it has a will of its own; the fond parents believing that nature is responsible for the sad fact of the bad passions displayed, fail utterly to realize that they themselves, lacking in experience, are entirely to blame for the ill conduct of their offspring. They begin by either making the child a master or slave, or sometimes both; allowing the child to govern for a time, then realizing that things are getting beyond their control, they veer completely around and become the tyrant, ruling with a rod.

Children should be **governed always,** but with an even, gentle and loving hand. They should early be taught the dignity of self control, and absolute and continued obedience to a power, which they must recognize by its firmness and which calls for great gentleness and self control on the part of parents. Children must see nothing of fretfulness, or anger in the home; repression of these emotions, on the part of parents, and an atmosphere of loving gentleness will cause a child to be cheerful and happy, and develop a loving, confiding disposition.

Children should early learn that mother is the natural confidante. This established, to her they will go with their little troubles and worries, which to them seem most formidable, and must be accepted by the parent as seriously as they appear to the child.

Children are very sensitive to ridicule, and it should be guarded against with much care. The story should be heard in all its detail, and the little one set straight, with a clear understanding of both sides of the question.

SOME INTERESTING FACTS

SIGHT

The muscles of the eyes of the newly born infant do not act in harmony until about the end of the third month. The recognition of objects seen is usually evident in the sixth month.

HEARING

For the first twenty four hours after birth, infants are deaf. But during the early months of life hearing is very acute. The child starts at the slamming of a door, and even moderately loud noises will waken it from sleep. By the end of the third month it will turn its head in the direction from which the sound comes. The voices of parents are recognized at three and a half months. The brain is very sensitive to sound in infancy, very loud noises causing great fright and sometimes convulsions.

TOUCH

At birth sensibility is acute only in the lips and tongue, for the purpose of sucking. Sensibility to painful impressions is more fully developed in later childhood. Temperature is keenly recognized by the tongue. A young infant will often refuse to take the bottle because the milk is only a few degrees too cold or too warm.

TASTE

This is highly developed from birth. The ability to distinguish sweet, sour and bitter, exists in the newly born child. Sweet causes sucking movements. A young infant detects the slightest variation in the taste of its food. The smallest difference is often enough to cause it to refuse the bottle altogether.

SMELL

The sense of smell is not fully developed until quite late in childhood.

SPEECH

There is considerable variation in the age at which children acquire the faculty of speech. Girls as a rule begin to talk much earlier than boys. Toward the end of the first year the average child begins with some little word that it has been taught, as "Papa" and "Mama." At the end of the second year it is able to put two and three words together.

If a child of two years makes no effort to talk, some mental defect is probable.

MUSCULAR DEVELOPMENT

In the fourth month an infant will attempt to grasp an object placed before it. During this month the head will be held erect when the trunk is supported. At seven months a healthy child will be able to sit erect for several minutes. In the ninth or tenth month the child will first attempt to bear weight upon the feet, at the tenth or eleventh month a child stands with some little assistance. The first attempts at walking are usually made in the twelfth or thirteenth month. The average age at which children walk alone is the fourteenth or fifteenth month. Apparatus for teaching infants to walk is unnecessary and often injurious.

Infants should be allowed complete freedom in the use of their limbs, but not unduly encouraged to use them. A healthy child will stand or walk, when its muscles are strong enough to do so. Girls develop more rapidly than boys; the later children of a family learn to walk and talk earlier, having the force of example set them by the older children.

TEARS

These are first seen about the third or fourth month.

SALIVA

The saliva is present at birth, but is greatly increased in quantity about the fifth or sixth month.

FONTANELLES

The fontanelles are spaces left in the skull where the bones fail to meet. The anterior fontanelle is lozenge shaped, with long angle pointing to forehead and nose; it is covered over by the scalp, through which the pulsations of the arteries of the brain can always be felt and seen. It is completely closed about the eighteenth month.

The posterior fontanelle is much smaller in size, being simply a triangular depression at the back of the head, it usually closes during the second month.

INFANCY

Is that period between birth and the complete eruption of the milk teeth, or two and one half years.

CHILDHOOD

Begins at the point where infancy ceases and extends to puberty or about fourteen years.

TABLE OF AVERAGE WEIGHT, HEIGHT AND CHEST CIRCUMFERENCE

Weight	at	Birth	7¼	lbs.,	Height	19	in.	Chest	13½	in.
"	"	3rd day	6¼	"	"	16½	"			
"	"	10th "	7¼	"	"	19½	"			
"	"	15th "	7½	"	"	19½	"			
"	"	20th "	7¾	"	"	20	"			
"	"	30th "	8	"	"	20½	"			
"	"	2nd month	10	"	"	21	"			
"	"	3rd "	11	"	"	22	"	"	15	"
"	"	4th "	12½	"	"	23½	"			
"	"	5th "	14	"	"	24	"			
"	"	6th "	15	"	"	25	"	"	16½	"
"	"	7th "	16½	"	"	25½	"			
"	"	8th "	17	"	"	26	"			
"	"	9th "	17½	"	"	27	"	"	17¼	"
"	"	10th "	18	"	"	27½	"			
"	"	11th "	19	"	"	28	"			
"	"	12th "	20	"	"	29	"	"	18	"
"	"	18th "	22½	"	"	30	"	"	18½	"
"	"	2 years	26½	"	"	32½	"	"	19	"
"	"	3 "	31	"	"	35	"	"	20	"
"	"	4 "	35	"	"	38	"	"	20½	"
"	"	5 "	41	"	"	41	"	"	21½	"
"	"	6 "	45	"	"	44	"	"	23	"
"	"	7 "	49½	"	"	46	"	"	23½	"
"	"	8 "	54½	"	"	48	"	"	24	"
"	"	9 "	60	"	"	50	"	"	25	"
"	"	10 "	66½	"	"	52	"	"	25½	"
"	"	11 "	72	"	"	54	"	"	26	"
"	"	12 "	79	"	"	55	"	"	27	"
"	"	13 "	88	"	"	58	"	"	27½	"
"	"	14 "	99	"	"	61	"	"	28½	"
"	"	15 "	110	"	"	62	"	"	30	"

DIAGNOSIS OF DISEASE

This is usually thought to be extremely difficult in infancy, because the little sufferers cannot explain their symptoms by speech. As a matter of fact the diagnosis of acute disease in infancy presents few difficulties to the experienced. A close observation of the following points will aid us in determining the nature of the trouble.

POSITION ASLEEP OR QUIET

Whether the child lies upon the back, the side, or upon the face; whether there is bending of the body backward, or contraction of the limbs.

CHARACTER OF THE SLEEP

Whether it is peaceful, or disturbed, whether there is restlessness, tossing and grinding of the teeth.

BREATHING

Whether it is regular or irregular, rapid, slow, easy, natural, or whether there is snoring and mouth breathing, due to Tonsillitis, Diptheria, Scarlet fever or Adenoid growths. Difficult breathing is manifested by sinking in of the spaces between the ribs and above the collar bone, accompanied by dilatation of the nostrils.

PULSE

Whether rapid or slow, full and strong, or soft and compressible.

SKIN

Whether dry and hot, or covered with perspiration. The color, as paleness, blueness of the lips and finger nails. The feeling to touch of limbs, whether they are warm, or cold and clammy.

EXPRESSION

Whether face is calm and peaceful, drawn and anxious, intelligent, or stupid, or whether the features are contracted from time to time as if from pain.

CRY

The cry of a child is the principal means by which it expresses pain, discomfort, hunger, temper or displeasure; it is therefore very important to interpret the cry correctly.

THE CRY OF HUNGER

This is a cry that is not sharp and piercing like the cry of pain, but is a worrying, fretful cry, accompanied by vigorous sucking of the fingers. It ceases immediately when the breast or bottle is given.

THE CRY OF INDIGESTION

Might be easily mistaken for that of hunger, because the crying will cease a few minutes after taking food, from the temporary relief that it gives, but soon returns as vigorously as before;—right here a word of warning is needed. Do not feed or nurse under these cicumstances; over-feeding is the probable cause of indigestion and each feeding aggravates the condition.

THE CRY OF PAIN

The severity of the pain will determine the nature of the cry. A sharp and piercing cry accompanied by contraction of the features and drawing up of the legs, usually indicates an acute pain like that of colic or earache. In pain of less severity there is usually moaning, rarely a sharp cry. We should remember that children cry from every sort of discomfort, as uncomfortable clothing, cramped position, cold feet, wet diapers, also, when tired and sleepy.

THE CRY OF WEAKNESS

It is usually a low feeble whine or moan, nearly constant, except when the child is asleep.

THE CRY OF TEMPER

It is usually accompanied by stiffening of the body, throwing back of the head, and by vigorous kicking. It is loud, violent, and prolonged. It is not usually heard before the fifth month.

THE CRY OF HABIT

This is a cry for which the mother is entirely responsible, and it is formed by indulgence. Some children cry to be held, some to be rocked, some to be carried, etc. The fact that the cry ceases when the child gets what it wants, makes the diagnosis complete. To cure the cry of habit let the child "cry it out" once or twice, then the habit will be

broken. There are some diseases in which the cry is peculiarly characteristic, for instance.

The cry of Pneumonia is short, catchy, suppressed.

The cry of Tuberculous Meningitis and chronic bone disease, is a sharp piercing night cry.

The cry of Hereditary Syphilis is hoarse and nasal.

The cry of Acute Intestinal disease is a low moan.

The cry of Marasmus is a feeble whine.

While the cry of an infant is important in the diagnosis of disease, it has not the value of information obtained by physical examination. This, however, must be conducted by the physician.

TAKING TEMPERATURE

This is simple and should be understood by all having the care of children; for this purpose the Clinical Thermometer is used by inserting under the tongue, in the rectum, or in the arm-pit.

The temperature of a child in health, per rectum is 98.5° F.—99.5° F.; in arm-pit is one degree lower, 97.5°F.—98.5° F. In mouth half degree lower than rectum as 98° F.—99°F. The temperature by mouth can only be taken in older children.

FECES OR STOOLS

The bowel discharges at birth are of a dark brownish green color, semi-solid, and usually occur four or six times daily, during the first two or three days. On the third day the stools begin to change, and by the fourth or fifth day they have usually the appearance of healthy milk-feces. The milk-feces have the color of the yolk of egg, they are smooth, of a soft mushy consistency, and the average amount discharged daily, is from two to three ounces. The number of stools during the first two weeks is from three to six daily. After the fourth week two movements a day are the average. At the end of the first year, they come to take on the character of the adult in color, and odor, though remaining softer.

URINE

The urine of the newly born child is usually highly colored. Later in infancy it is pale and often turbid, owing to presence of mucus. In the first two years, urine is voided with great frequency, usually twice an hour, but retained from two to six hours during sleep; by the third

year the urine is passed at from two to three hour intervals, but may be held during sleep from eight to nine hours. The child can be taught this control of the bladder earlier than the third year. Frequently as early as the 18th month.

Average quantity of urine passed by an infant daily.

First	24 hours	2 ounces.
At	7th day	8 "
At	2d month	13 "
At	6th month	1 pint.
At	2 years	1½ "

VOMITING

Vomiting is very frequent in infants and young children; it may occur from innocent causes, or mark the onset of serious disease. Overfeeding is probably the more usual cause of vomiting in infancy. The stomach being small, more milk is taken in than it can retain, and it simply over-flows at the mouth, unchanged in character, without any effort, and no distress. In disease, the character of the vomiting is different, in that the contents of the stomach are forcibly expelled, changed in character and with effort and distress.

BATHING

The bath should be made a thing of pleasure to the child, and not an ordeal that will cause crying and pain.

The nurse should wear a flannel apron. Lay upon the lap a piece of old, soft blanket, under the naked baby. Now first do all the particular cleaning of scalp, eyes, ears, nose and mouth, then soap the body all over, then lift baby, **blanket and all,** and lay it gently in the tub of warm water. After the sponging in the tub lift the child out onto a soft turkish towel laid in the lap and thoroughly dry it.

The flannel can be rinsed and dried for the next bath.

It is important to keep a child's nostrils free and clear so as to prevent it breathing with the mouth open. In order to do this, at the time of bathing take a small piece of absorbent cotton, twist it, moistened, in the fingers and insert the end gently up each nostril as far as it will go. If there is any sticky accumulation of mucus a little liquid petrolatum may be used. A few drops put in each nostril with a medicine dropper will enable a child to breathe freely.

For the first few months the bath should be given at about the temperature of the body, that is 98° F. The room should be warm, the bath short, and the body dried quickly, without hard rubbing. By the sixth month the temperature for healthy infants should be lowered just a few degrees, to about 95° F., and by the end of the first year, to 90° F. Older children who are healthy, at the end of the warm bath should be sponged for a moment with water that has had the chill taken off, that is about 65° F.

During childhood, after two and a half years of age, the warm bath should be given at night, not every night, but several times a week; but the cold or cool bath given every morning. This should be given in a warm room, and while the child stands in a tub partly filled with warm water, the body sponged quickly with sponge wet with water not too cold, the whole body gone over in one half minute, and be followed by a brisk rubbing with a soft towel.

The above method for bathing, should only be used for healthy infants, and children, as will be shown by the reaction; if the bathing and drying causes the body to be in a glow, the bath is beneficial, if, however, children become pale, blue about the lips and under the eyes, we know the bath is draining the child's vitality, and doing harm, and for this child, tub baths cannot be given.

TEMPERATURE OF BATHS

Freezing baths	. . . . .	32° F.
Cold "	. . . . .	45° F.
Cool "	. . . . .	66° F.
Temperate "	. . . . .	78° F.
Tepid "	. . . . .	86° F.
Warm "	. . . . .	96° F.
Hot "	. . . . .	105° F.

SPECIAL BATHS

MUSTARD TUB

One half to one tablespoonful mustard.
Two to four gallons water, hot as can be borne.
This is very useful to produce sweating and will check convulsions.

BAKING SODA TUB

One tablespoonful baking soda.
Four gallons warm water.
Useful in sunburn or other skin irritation.

BRAN TUB

Tie up a pint of bran in a muslin bag, boil in a quart of water, for an hour. Squeeze bag while mixing with four gallons warm water. Used for same purpose as above, also in skin diseases.

SALT WATER TUB

One quarter teacupful rock salt.
Four gallons water (warm or cold).
Useful as a daily bath in debility, Scrofula and Rickets.
The child must be thoroughly dried with soft towel after this bath, and friction given to the skin with the palm of hand, especially along the spinal column.

THE ICE BAG

In cases where there is high temperature and restlesness, an ice-bag placed on the head, with a hot water bottle at the feet, is most soothing. It may be applied continuously, or at intervals.

TEPID SPONGING

Water with the chill taken off, equal parts of alcohol and water, or equal parts of vinegar and water may be used. All clothing should be removed and the child laid upon a blanket. The body should be sponged from ten to twenty minutes, and then wrapped in a blanket without dressing. This must be done at frequent intervals to be effective; it is of service in allaying fever and nervousness.

THE COLD PACK

This is a most effective and simple means for reducing high temperature. A rubber sheet or mackintosh is laid upon the bed, upon this is placed a blanket and the child stripped and laid upon it. The entire body is then enveloped in a sheet wrung from warm water. At the feet is placed a hot water bottle, on the head an ice bag. The entire body both in front and behind is then rubbed over with ice, through the sheet, for from five to thirty minutes, as required. After this the child is to be rolled in a blanket, upon which he is lying without removing the wet

pack, and allowed to remain thus for from one to twenty four hours according to circumstances. The method does not cause shock, or fright.

TEPID BATH

The child is put into a hot bath at a temperature of about 100° F., and the temperature gradually lowered by the addition of cold water or ice, to about 85° F. This should continue for from five to twenty minutes, the body being rubbed the while and cold water applied to the head. The child is then removed from the bath, quickly dried, and wrapped in a warm blanket.

DRY HOT PACK

Undress the patient completely, and lay between two blankets.

Have ready seven bottles and one rubber bag, filled with hot water.

Place rubber bag, not too hot, and moderately full, at small of back, so that the patient lying upon the back rests upon it.

Distribute the hot bottles down each side and at the feet. These to be placed on outside of the upper blanket and not close enough to the body to burn.

Now cover all with several blankets and comfortables and tuck in well to shut out all draught.

Place cold water cloth or ice bag at the head.

Give hot or cold drinks as preferred.

Leave patient in this position until in a profuse perspiration which will require from thirty minutes to two hours.

When the patient has become thoroughly wet with perspiration, remove a few of the outer comfortables to reduce weight, and dry off quickly with coarse towels, first face, then arms, then chest, back and lower limbs.

This drying is to be done by hard rubbing, under blankets, and as quickly as possible. Follow with a thorough alcohol rub, then remove under and over blankets leaving patient between dry and warmed sheets with proper bed covering.

Clothe with warmed undershirt and night gown.

ALCOHOL HOT PACK

To give the hot pack, you require from eight to twelve thoroughly heated bricks (this can be done in an oven), and from eight to ten blankets; less will answer if you use comfortables, but the blankets

are lighter in weight, and from the number required, are less oppressive. One rubber blanket or sheet, from one to two pints of alcohol, a basin containing ice water, and cloths for compresses on head. Old cloths (cotton) in which to wrap each brick, and paper to place beneath, to protect blankets and mattress from scorching. When you have all in readiness, strip your patient, place on the back, arms close to sides, between blankets, over the top blanket or cover, then put the rubber sheet, rubber side down and more blankets. Put cold compress on patient's head, and close to body, arrange the bricks on the papers from shoulders to feet, between first blanket and rubber sheet, (from four to eight inches is the usual distance, depending upon how hot they are); instruct the patient how very important it is not to move, or in any way disarrange the covers which are tucked close to the body, and now with one hand carefully uncover one brick at a time, and pour sufficient alcohol on each to steam well; do this quickly in order to confine steam under the covers, watch the pulse closely, note the time, change the compresses frequently during the pack, note carefully when first sweating appears on chest and arms, the pack usually lasts from twenty to thirty minutes after profuse sweating has begun. It may be necessary to stimulate before and after pack, depending on condition of the pulse. A generous drink of cold water just before the pack will give good results. To end pack remove the bricks one at a time, draw out the rubber sheet and using a warm towel, gently rub the entire body dry, being careful not to expose any part while doing this, or a chill may result. When sweating has ceased, remove compress from the head and gradually reduce number of covers to those in ordinary use, and place the patient between well warmed sheets, and put on the night dress; be sure all is well warmed and thoroughly aired and dry. The pulse should be taken before the pack and twenty minutes after.

THE HOT PACK

The child should be stripped and covered with towels wrung from water of about 100° F. then rolled in a thick blanket. These applications should be changed every twenty or thirty minutes until perspiration is produced.

THE HOT BATH

The patient should be put into water of about 100° F., and the temperature gradually raised five or ten degrees. Cold to be applied to the head, and the body thoroughly rubbed while in the bath.

INHALATION OR STEAMING APPARATUS

A very simple device for the purpose of inhalation, or the inducing of perspiration, may be made by using an ordinary tea-kettle and small gas or oil-stove. In all affections of the respiratory tract, inhalations are of great service. To properly employ, the child is placed in its crib, and two strings run from the head board to the foot board, for the purpose of keeping in place a sheet or rubber blanket or mackintosh, which is simply thrown over the top of the crib, to form a tent; the child underneath this should be covered with the usual bed-clothes.

The oil or gas-stove should be placed upon the floor or a box beside the crib and on it set an ordinary tea-kettle filled with water to just about the lower part of spout. It is of advantage to use a tea-kettle with spout high up, and it will require refilling less often, as it boils rapidly away. The spout of the kettle enters beneath the sheet or rubber blanket, and is so directed that the air in this space is saturated with the steam. This steam is usually medicated by adding to the boiling water, at two to three hour intervals, a teaspoonful of any of various drugs, such as Oil of Tar or Eucalyptus, Tincture of Benzoin, Phenol and Turpentine. The medicine to be used is however better left for the physician to decide.

To use steamer for the purpose of inducing perspiration, it should be set up in the manner described above, no medicine being used. Omit the sheet or rubber blanket tent, roll the child in a woolen blanket, with another blanket or mackintosh over it, the farther side of which is tucked between the sides of the crib and child, and then elevate so that the side nearest the steamer falls over the top of the side rail of crib, to enclasp the spout of the kettle. This will usually induce free perspiration in about twenty minutes. A cold cloth is kept at patient's head while steamer is being used.

MUSTARD PLASTER

Mix one part ground mustard, with six parts of flour and add sufficient warm water to make a paste. Spread between two layers of old linen. Apply and allow to remain until redness of the skin is produced, usually about five or ten minutes. This may be repeated every three hours, and continued for a week if necessary, without blistering.

MUSTARD PACK

One tablespoonful of mustard is mixed with one quart of warm water. In this a towel is dipped, and while dripping is wound around the child's naked body. The patient is then thoroughly enveloped in a blanket, and allowed to remain thus for ten or fifteen minutes.

TURPENTINE STUPE

Wring a piece of flannel out of water as hot as can be borne by the hands, upon this sprinkle ten or fifteen drops of spirits of turpentine. Apply to the body and cover with oiled silk or dry flannel. This is useful in abdominal pains or inflammation.

STIMULATING FLAXSEED POULTICE

Camphor two teaspoonfuls.
Ground mustard half tablespoonful.
Ground flaxseed one pound.
Mix with enough boiling water to form a paste, and put into a muslin bag. The poultice should be covered with oiled silk or cotton batting, to retain its heat. Fresh poultices should be applied at frequent intervals.

HOT FOMENTATIONS

These are used in place of poultices, and are to be preferred as a rule because they are more cleanly, and more easily changed.

Good foments are made by quilting together five or six layers of old flannel blanket; twelve or fourteen inches long, and five or six inches wide are right for the spine, but should be wider for the stomach or abdomen. Take a yard of heavy Russia crash, hem each end wide enough to insert a piece of broom handle. Lay the crash straight in the bottom of a wash bowl with the foment on top. Now pour water almost at the boiling point on the foment. Wring the crash by means of the handles in the hems and you have the hot foments ready to use without burning your hands. This apparatus is easy to make and very useful to have in the house.

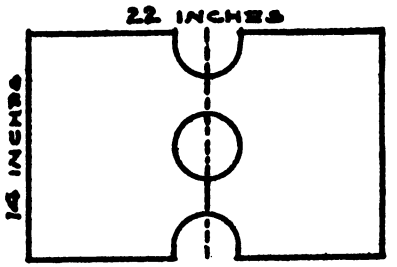
OILED SILK JACKET

For use in all forms of inflammation of the chest, such as Pneumonia, Pleurisy, and Bronchitis; it is superior to a poultice in that it keeps the skin at a uniform temperature and gives the patient much comfort.

Where more counter-irritation of the skin is desirable than is afforded by this jacket, drugs are used in connection with it, such as Camphorated Oil, or Camphorated Oil and Turpentine rubbed into the skin hot, before applying the jacket.

The jacket may consist of two or three layers; if made with two layers oiled silk and wool are used. If made with three layers, oiled silk is used for the outer layer, cotton batting for middle layer, and cheese cloth for inner layer. To keep the layer of cotton in place, the middle and inner layers must be sewed together. The jacket of two layers serves every purpose, and is far more simple.

To make a jacket for a child of one year (older children in proportion), cut together a piece of oiled silk and a piece of flannel each fourteen by twenty-two inches. A piece of old flannel underwear will serve this purpose very well. The material is now folded once cross wise and on the folded edge a piece is cut out for the neck, and pieces are cut out on the sides to form arm holes. At the shoulder fold, from neck to arm-opening on the side, a slit is cut that the jacket may be easily adjusted. It is held in place by pinning under the arms with safety pins. The slit over shoulder is lapped slightly and fastened by a safety pin.



OILED SILK JACKET
DOTTED LINE INDICATES FOLD

HOME-MADE INCUBATOR FOR PREMATURE BABY

A good sized, flat bottomed, clothes basket, is placed upon two chairs that are pushed against the wall, with their backs away from the wall, and in a position which will be free from draughts.

Now line inside of basket with a heavy comfortable, so that it completely covers the bottom and comes up over the sides, then place on this, in the bottom, a pillow and six "Mason jars" filled with hot water.

Jars are arranged along the sides of the pillow, in such a way, that their bottoms, rest upon the bottom of the basket, and are kept in position, by the pillow crowding in between them.

Wrap the baby in a blanket and lay upon the pillow, pulling the comfortable up well around the sides, to cover infant. Now fill a hot water bottle and place at the feet.

The temperature of the room should be comfortably warm about 72° F., to 75° F.

The bottles of hot water must be refilled from time to time, as they cool off, to keep the baby surrounded by an even warmth.

The baby is to be given a daily bath and cleansed in the ordinary way.

The best diet at this time, is probably Borden's condensed milk, made by dissolving one teaspoonful of condensed milk in two ounces of warm sterile water. Use a two ounce drug store prescription bottle, with a nipple. Feed every two hours, letting the baby take all that it will at one feeding, and make fresh for each time.

CLOTHING

The clothing of infants should be warm, non-irritating to the skin, light in weight, and loose enough to allow free motion of the legs and arms.

The bands around the body should not be pinned so tightly as to restrict the movement of the chest and abdomen.

The chest should be covered with a woolen shirt, having long sleeves and coming high up in the neck.

The petticoat should not be supported from waist, but from shoulders.

Do not use linen diapers, but stockinette or canton flannel. Stockinette is the better, but both are soft and pliable.

Always keep baby's feet warm.

If the circulation is not good, a bag of hot water should be applied while asleep, many attacks of colic and indigestion are caused by cold feet.

The bandage around the body is usually worn during infancy. It is not a necessity after the first few months, excepting in cases of very thin infants, whose supply of fat is not sufficient protection to the bowels and organs. For the first few months use a band of plain flannel, later a knitted band with shoulder straps.

During the summer the outer clothing should be light and the underclothing of thin flannel or gauze. The changes in temperature of the morning and evening may be met by extra wraps.

The night clothing of infants should be similar to that worn during the day, but should be even more loose.

Older children at night should wear a thin woolen shirt and a union suit, with waist and trousers having feet, if there is a tendency to get outside of coverings.

Do not overload children with coverings at night, which often causes restlessness.

CARE OF THE EYES

During the first few days, the eyes should be cleansed by wiping the lids and corners, with absorbent cotton wet in boric acid water, made by adding a teaspoonful boric acid to a teacupful warm water, made fresh each day.

The eyes should be protected from strong light during infancy; never let a young infant face the light.

All children should sleep in a darkened room.

CARE OF THE MOUTH AND TEETH

The mouth of the infant from its first bath, should be gently cleansed with borax water and absorbent cotton, using no force, but go thoroughly around gums and inside cheeks, this should be done daily.

When the teeth appear, cleanse them daily, using a soft toothbrush. Too much care cannot be given the teeth.

These little teeth should be kept clean and filled just as carefully as permanent teeth. One of the most obvious reasons is to spare a tiny child any unnecessary pain. One sleepless night spent in the care of a child suffering with the toothache is more than enough to convince a mother. Filling the tiny cavities that a dentist finds in such teeth does not give a child pain. The bit of soft filling stops the decay, and the tooth is thus kept in its position in the jaw until thrust out by nature.

A child's first tooth should not be pulled until it fairly drops at the touch. If it is taken from the jaw before the permanent tooth is well formed, the jaw shrinks, and when the permanent tooth appears, being larger than its predecessor, it does not find the proper room which growth of the jaw would otherwise give, and the results are those ugly overlapping teeth, so disfiguring, so painful, and so costly to remedy.

A large well curved jaw is the first preparation for handsome teeth, but the size of the jaw is not within the scope of parental care. The

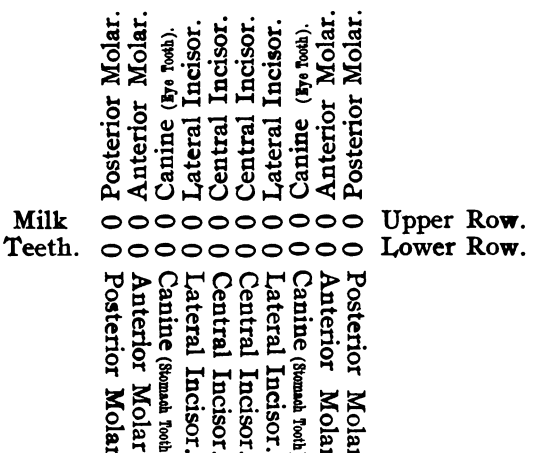
best that can be done is not to decrease its size by untimely removal of the teeth. The new tooth absorbs a part of material for its own use from the small roots of the first one. Any one who has looked at the entire absence of roots on a first, shell-like tooth which drops out by nature's push, will recognize this, and readily understand that to have pulled the tooth too soon would have robbed the new tooth of its needed material, and made it just so much less strong and healthy. Watch the child's teeth and have them regularly inspected by a competent dentist.

First or Milk Teeth are cut about as follows:

1st. Two lower Central Incisors, are cut from 6th to 9th month.
2d. Four Upper Incisors, " " " 8th to 12th "
3d. Two Lower Lateral Incisors and four Anterior Molars } " " " 12th to 15th "
4th. Four Canines { Eye teeth / Stomach teeth } " " " 18th to 24th "
5th. Four Posterior Molars, " " " 24th to 30th "

A 1 year old child should have 6 teeth.
" 1½ " " " " " 12 "
" 2 " " " " " 16 "
" 2½ " " " " " 20 "

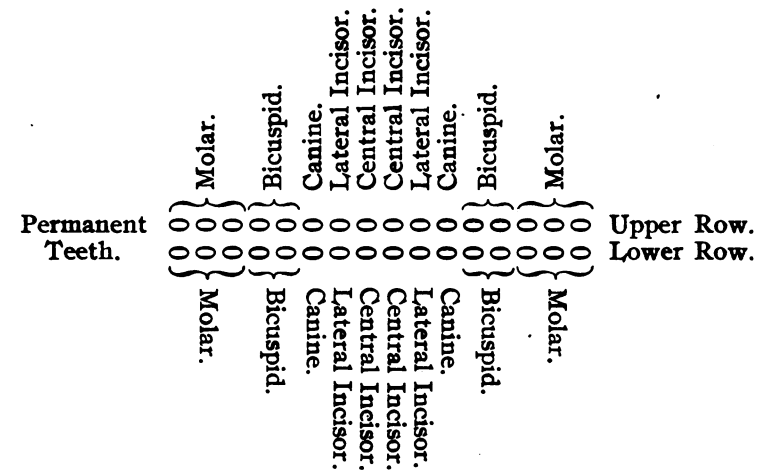
Twenty is the full number of Milk Teeth.



Second or Permanent Teeth appear at about the following ages:

First Molars,	6 years.
Incisors,	7 to 8 "
Bicuspids,	9 to 10 "
Canines,	12 to 14 "
Second Molars,	12 to 15 "
Third Molars or Wisdom,	17 to 25 "

Thirty-two is the full number of permanent teeth.



CARE OF THE SKIN

The skin of the young infant is very delicate. Bruises, eczema, and various skin diseases are quite common, being more easily prevented than cured.

The most important preventive is cleanliness through the bath. In the bath do not use other than castile soap, and in drying rub gently.

Diapers must be removed as soon as soiled or wet. Some mild absorbent powder should be used, like starch or talcum powder, in all the folds of the skin, in the neck, between the legs, under the arms, in fact over entire body, particularly in fat children.

If plain water causes irritation of the skin, use one of the special baths, given on other page.

TRAINING THE CHILD TO CONTROL BOWEL AND BLADDER

Much can be accomplished by well directed efforts. An infant of five months can frequently be trained to have its movements from the bowels, when placed upon a small chamber. This accomplishes the double purpose of saving the washing of napkins, and having the bowels move at regular times each day.

Begin when the infant is about five months of age, placing it upon the chamber, after each feeding; thus will be established a habit that will probably continue through life. The training of the bladder is not so easy, nor is it so important, but a child of about one and a half years can be taught to indicate a desire to empty the bladder, thus napkins can be dispensed with during the day.

THE NERVOUS SYSTEM

The brain grows more during the first two years than in all the rest of life. For healthy growth of the nervous system, rest, quiet, peaceful surroundings are absolutely necessary. Playing with young children, tossing up on hand, tickling, will cause the child to laugh and crow and apparently enjoy itself, but the harm done can never be corrected. Especially at night is this harmful, but a good rule to follow, is never romp or play with an infant during its first year, if this were generally done we would see less convulsions, Epilepsy, and St. Vitus's Dance.

Never kiss a child on the mouth, nor permit anyone to do so.

SLEEP

For the newly born infant, sleep is nearly continuous for the first two or three days. The sleep of early infancy is quiet and peaceful, but not very deep after the first month. After the third year, the heavy sleep of childhood is seen. An infant during the first few weeks should sleep twenty to twenty-two hours out of the twenty-four, waking only from hunger or pain.

During the first six months an infant should sleep from sixteen to eighteen hours a day. The waking periods being only from half an hour to two hours long.

At the age of one year a child should sleep 12 to 15 hours out of the 24, from eleven to twelve hours at night, and two to three hours during the day, in two naps.

When two years old, thirteen or fourteen hours sleep are necessary, eleven or twelve at night, and one or two hours during the day, in one nap.

At the age of four years, children require from eleven to twelve hours sleep. It is always advisable to keep up the daily nap until children are four years old, at least, six is better.

From six to ten years the amount of sleep required is ten or eleven hours.

From ten to sixteen years, nine hours sleep should be the least amount.

Training to proper habits of sleep should be begun at birth. From the beginning an infant should be accustomed to being put into its bed while awake, to go to sleep of its own accord.

Rocking and all other habits of this kind are senseless and harmful.

An infant should not be allowed to sleep on the breast of the mother or nurse, nor with the bottle nipple in its mouth, or a rubber ring; all these methods are injurious, as a means for inducing sleep, for the child soon learns to expect them, and will not go to sleep without. The proper way is not only easier, but of decided benefit to the child. See that the napkin is dry, that the child has had food enough, have the bed warm, and comfortable, darken the room, and keep it quiet; this is all that is needed for a healthy child.

The period of sleep in young infants is usually two or three hours in length, excepting once or twice in twenty-four hours, when a long sleep of five or six hours should be given. Train the child to take this long sleep at night, by wakening it regularly every two or two and a half hours during the day for feeding and permitting it to sleep as long as possible during the night. This training accomplishes regular habits of feeding and sleep, and are easily formed, if the plan is systematically carried out from the beginning.

By the sixth month all feeding between 10 P. M. and 7 A. M. should stop. If this is done, the infant can be trained to sleep all night. Regularity in sleep and feeding is not only important for the health of the child, but makes its care very much easier. When the child wakes at night, do not light the room, take it up, or rock, or pet it, but in the dark room, give it a teaspoonful of cold water, or do nothing but change its position slightly in crib, turn it over, see that the feet are warm, smooth pillow, and it will quickly fall asleep. The causes of disturbed sleep in young infants, are usually hunger, over-feeding, or indigestion. In nursing infants, it is usually the former, in those bottle fed, the latter; proper rules for feeding will be given later on.

EXERCISE

This is a very important subject and it is desirable that every one who has the care of children should understand it. In early infancy nature intends that the little muscles shall be developed, the lungs expanded and general nutrition promoted. The infant should get its exercise in the movements which follow the cool sponging, previously spoken of; at this time it will kick its legs about, wave its arms, and cry lustily, thus exercising the entire body and expanding the lungs. Let an infant toss about at all times; tight, confining clothes should not be permitted.

Infants who are old enough to creep or walk, should be allowed all the exercise they will take, and encouraged by having every facility furnished, as a mattress, or thick comfortable placed on the floor in a warm room, on which youngsters can roll and tumble to their hearts content.

In older children every form of out of door exercise should be encouraged, walking, running, games, ball, tennis, bicycle, tricycle and horse-back riding, swimming, coasting and skating. Up to the twelfth year no difference need be made in the exercise of the two sexes. Companionship is very essential for the proper development of all children, they must be encouraged to seek it. Children who are brought up without the companionship of children of their own age, not only do not have sufficient exercise, but their development is retarded in other directions. The amount of exercise allowed delicate children should be regulated and carefully watched; violent exercise should not be permitted, as jumping rope, unless the parent is absolutely sure that the child will not carry it to the danger point. Rope-jumping out of doors is an excellent means for muscular development, but in this, as in other competitive games, if unrestrained, the boy or girl is apt to carry it to the degree of exhaustion, then it is positively harmful, and what should have been of service, results in detriment. All exercise may be indulged in to the degree of moderate muscular fatigue, but never to muscular exhaustion. Exercise should have for its object, the symmetrical development of the body as a whole, but where such deformities exist as round shoulders, slight lateral curvature of the spine, narrow chest, and weak chest muscles, special carefully regulated exercises should be given, in addition to the out of door exercise. Indoor exercise can never take the place of out door, but has its uses; two points that should be observed in the indoor exercise, are first, a cool playroom, 63° F. to 68° F., secondly, all clothing should be light enough and loose enough to allow free motion of the body.

FRESH AIR

For the welfare of the child, fresh air and sunshine are very essential. Begin early; in summer an infant of two weeks should be taken out and kept in the open air as much as possible during the day, but in the fall or spring, do not begin before the infant is six weeks old, and then only when the out of door temperature is above 50° F. Remember always to protect an infant's head from the wind, and its eyes from the sun.

The duration of the outing, at first, should be twenty minutes to half an hour, the time being gradually lengthened to two or three hours; it is well to gradually accustom the child to changes of temperature, by opening the windows wide for a few minutes each day before it is taken out of doors, the child being well covered. Especially is this valuable in the case of children born during winter months; it is necessary, however that the change be made very gradually, both as to the length of the airing, and to the temperature. When four or five months old there is no reason why a healthy child should not be taken out on pleasant days, if the temperature is not below 20° F., but children should not be taken out in a high wind or in an atmosphere of melting snow or rain. The health and comfort of an infant, taken out in its carriage, during the winter months, may be preserved by the use of hot water bottle or rubber bag, filled with water moderately hot and placed between the blankets on which baby's feet rest.

Delicate children must of course be more carefully guarded during the cold season, and fresh air obtained for them by airing the room.

THE NURSERY

It should be as large a room as possible, never less than ten feet square, it should be the sunniest and best ventilated room in the house. Remember the importance of sunshine and fresh air. The room should not be on the north side of the house, and should be in second story if possible. Nothing which can in any way contaminate the air should be permitted. There should be no drying of clothes or napkins, and no sinks or water-faucets. No food should be allowed to stand about the room. The gas should not be allowed to burn at night. A small wax night light may be used if necessary. The room should be heated by open fire, or hot water radiators, not by coal stove, steam radiator or gas stove, if it can be avoided. If possible have the child spend the day in one room and sleep in another for its naps and at night.

The temperature of the room during the day should be 70° F. At night for the first few months, the temperature should be about 66° F. After the first year, the night temperature may fall to 60° F., or even slightly lower. Every nursery should have a thermometer, and this be the guide in regulating the temperature of the room, and not the sensation of the parent. It is too often the case that the nursery and sleeping rooms of children are overheated. See that free ventilation is obtained without draughts; this is accomplished by ventilators in windows, or an excellent method is, to place a board four inches wide, sawed to width of window, above the upper sash; this will cause the lower sash to overlap upper sash, and an indirect current of air will enter between the two. While the child is absent from the room, the windows should be widely opened and the room thoroughly ventilated; also do this at night, before the child is put to bed. The furniture of the nursery should be as simple as possible, heavy curtains, or upholstered furniture should not be used, and for the floor a rug is better than carpet and should be often taken up and shaken and aired.

The child whenever possible should have a separate bed, and so should the newly born infant for several reasons, the danger of being rolled upon by the mother, and to avoid possibility of too frequent night nursing, which is injurious alike to mother and child, and the fact of pure air of single bed. Separate beds for the older children will prevent the spread of disease from ailing child to healthy. Do not permit child to sleep in a rocking cradle. Do not rock a child to sleep. It is a bad practice, and should never be begun. The mattress should be of hair or fibre and quite firm. The pillows should be of feathers or hair and quite firm and small. The position of the sleeping child should be changed occasionally from side to side and to back, or on the stomach, arms outstretched.

VACCINATION

All children should be vaccinated, either before seven months old, or after two and a half years of age, but not during the eruption of the milk teeth.

THE STOMACH

These illustrations, represent the actual life size, and capacity of the stomach, at different periods of infancy.

They are shown, that mothers may realize, how very small the stomach actually is, and thus guard against over-feeding.

FOOD

The subject of nourishment, the giving of proper foods, in proper quantities and at proper times, is the most important and vital question with which a mother has to deal, in the bringing up of a child; all other subjects, however, important, are merely secondary to feeding. At no time in life is this so important as during the first three months. The question whether a child will be strong and robust, or weak and ailing, is often decided by the methods employed in these early days. It is not merely a question of saving the child's life during the perilous early period, but to adopt such means as will during infancy, tend to the healthy growth of the child, so that the organs of the body will have their normal development instead of diseased structure and deranged functions, the ill effects of which last throughout childhood, and even life.

All human beings require food made up of five elements; proteids, (Albuminoids), Fats, Carbohydrates (Starch, Sugar), Mineral Salts, and Water. Infants require the same elements of food as the adult, but they must be furnished in such proportions, and quantities as will be readily assimilated to repair the body waste, and to make the great advance in weight possible. The child's body increases to three times its original size and weight in the first twelve months. A very common error is to suppose that a very fat child is a healthy one, or that an apparently healthy one is really so. The child's strength and resistance to disease is a proper test; a very fat child may offer very little resistance to disease, and the body weight in these cases should be reduced by reducing the fat-producing elements of food.

PROTEIDS (Albuminoids)

The proteids are necessary to life, because they constitute the only kind of food which has the property of replacing the continuous waste of the cells of the body. The digestion and assimilation of other food-elements depend upon the healthy condition of these cells. The proteids are furnished by the caseine and other albuminoids, present in the mother's milk and cow's milk, in the white of eggs, lean meat, gluten of wheat, etc. The proteids most easily digested by the infant are those of the mother's milk. The great difficulty we experience in artificial feeding is to properly adjust the proteids to human needs. It is the difference in the digestibility of the proteids of cow's milk that causes trouble when we substitute cow's milk for the mother's. Insufficient proteid feeding

will manifest itself by the child becoming pale, with poor circulation, loss of strength, and flabbiness of the tissues.

FATS

The uses of fats in the body are closely associated with those of the proteids. Fat has the property of saving nitrogenous waste, so that when it is supplied in proper proportions, the efforts of the proteids may be applied to the growth and nutrition of the cells.

Fat is also a source of animal heat. It is also needed for the growth of nerve-cells and bone. Fats are a natural laxative to a child, so that when a child is constipated we may be sure it is not getting sufficient fat. The fat of infants food is contained in the mother's milk, cow's milk, and cream. Fats are a very essential part of a child's food, and should be supplied throughout childhood.

CARBOHYDRATES (Starch, Sugar)

Are important aids to the proteids, but do not replace nitrogenous waste, although they are converted into fat in part, and thus increase the weight. They are an important source of animal heat. The form in which carbohydrates are furnished the infant, is milk-sugar of the mother's milk or cow's or cane-sugar of starches or cereals. A diet consisting of an overabundance of carbohydrates causes a too rapid increase in weight without proportionate increase in strength.

MINERAL SALTS

These are of considerable importance in infancy because of the requirements of the bony structure of the body, which is increasing so rapidly, and of which the mineral salts form so large a part. They are furnished in the mother's milk and cow's milk.

WATER

This important article of diet is needed for the solution of other parts of food and the elimination of waste matter. During the first year an infant requires about five times as much water in proportion, as an adult, and it should be given freely at all times during childhood, particularly between feedings; but while a child is on an exclusively liquid diet, additional water, in small quantity only is needed, given by teaspoonfuls between feedings.

MOTHER'S MILK

This is the food of all others that should be given to every infant when possible. It is nature's own method of supplying nourishment to the babe and nothing else can quite take its place. We have various substitutes for it, as cow's milk, condensed milk, evaporated cream, and the many proprietary infant foods. All of these substitutes have their uses, however, and in cases where the mother's milk cannot be given, some of those will be required.

Nursing by the mother is desirable when possible, but under certain conditions it should not be attempted. No mother who has tuberculosis should nurse her infant; it will hasten the progress of the disease in herself and expose the child to the danger of contracting it. The healthy mother should begin the nursing of her infant on the first day, which accustoms both the child and mother to the procedure, assists the womb in regaining its normal size, and empties breasts of the colostrum, which nature has placed there to act as a physic to the child. Put the child to the breast on the first day, once in six hours, beginning about five hours after birth; on the second day once in four hours. It is unnecessary to do so more often. The child gets from the breast only about four or six ounces a day, during the first two days.

The milk appears on the third day, but if it should fail to appear, artificial feeding should be begun. Don't give the child catnip or peppermint tea, sweet oil, or any other concoction because it cries and your neighbor says it has the colic. A certain amount of crying is necessary to expand the child's lungs, but if the child cries very much, and appears to be very hungry, a little sweetened warm water will usually satisfy it, two to four teaspoonfuls at a time being sufficient; when this does not satisfy, as in the case of a particularly healthy infant, regular feeding should be begun on the second day. If mothers would but realize that good habits in nursing are as easily formed as bad ones, much trouble for all concerned would be avoided. Regular meal hours are even more important in infancy than in adult life and must be maintained by perseverance, for infants are such creatures of habit that after a short training, they will awaken and expect food at regular intervals. A very common error on the part of the mother is to resort to feeding every time a child cries, for both mother and child have learned that the feeding temporarily relieves pain. It does so just as any warm fluid would do, so instead of giving the food, give warm water, gradually reducing the number of nursings and lessening

the time of lying on breast; but of course a babe may cry from hunger, and a mother should quickly learn the difference between the cry of hunger and that of colic. The cry from hunger begins usually after sleep and stops at sight of breast. The cry of colic is violent, and the face wears an expression of suffering; the abdomen is hard and distended; the legs are drawn up, with hands and feet cold. If pain is due to indigestion the skin is hot and breath sour.

After the third day, for the first month, ten nursings in the twenty-four hours, are plenty and no more should be given. An infant of less than a month old should take at least one long nap of from four to six hours during the twenty-four; for the rest of the day it may be awakened at the regular nursing times and put to the breast, up to ten o'clock at night, then it is to sleep as long as it will, with but two nursings between this hour and seven in the morning. In the course of two or three weeks a healthy infant will be trained to nurse and sleep with perfect regularity, and often when a month old will go six hours at night without feeding. This plan is of advantage to the child, in that it produces regular habits of feeding and sleep, also regular evacuations of the bowels which usually follow, all of which has much to do in preventing stomach and bowel troubles. The mother gains, in that she is permitted a quiet undisturbed night, which is a very important factor in increasing her milk supply.

TABLE FOR BREAST NURSING

AGE	Number of nursings in 24 hours	Interval between nursings during the day	Night nursings between 10 P. M. and 7 A. M.
First day	4	6 hours	1
Second day	6	4 "	1
Third to twenty-eighth day	10	2 "	2
Fourth to twelfth week	8	2½ "	1
Third to fifth month	7	3 "	1
Fifth to twelfth month	6	3 "	0

To give the breast properly the infant must be held partly on its side on the mother's right or left arm, according to the breast to be used, and the mother is to bend her body slightly forward, so that the nipple will fall easily into the child's mouth, steady the breast with

the separated fingers of the opposite hand, placed each side of the nipple; thus the flow can be controlled, and if too free, gentle pressure will check; or if not free enough, a slight milking motion will increase.

The child should be allowed to keep the breast until satisfied, when it will stop of its own accord, release the nipple and fall asleep.

The breasts are to be used alternately. The contents of one is usually sufficient for one feeding.

Sore nipples occur too often in breast nursing, and may be prevented by proper attention before confinement, beginning several months before labor. Loose clothing is to be worn over breasts, in some cases a wire netting used to prevent pressure, and nipples should be washed thoroughly with hot water every evening, and anointed with cold cream in the morning. If the nipples are small and sunken, they must be drawn out with the thumb and finger; this process will give size and shape and bring the skin into good condition without hardening it.

WEANING

Sudden weaning is apt to cause an attack of indigestion, therefore, it is better for both mother and child to wean the child gradually. Weaning should not be done in hot weather, if it can be avoided but ought to begin about the ninth month, by the gradual substitution of other food for the breast milk. Simple water in nursing bottle, or very much diluted cow's milk are the articles of diet with which to commence weaning. In fact it is a good plan in breast feeding to give one feeding of water or diluted cow's milk from the bottle every day from the third week, thus relieving the mother somewhat, and when the time comes to wean, it can be done more easily, and in the event of the necessity for sudden weaning, it can be done without danger, or if the mother's health begins to suffer, the bottle could be resorted to more frequently.

NURSING BOTTLES AND NIPPLES

The nursing bottle with long rubber tube, has fortunately, now gone almost entirely out of use.

We have in its place the round and conical ones on which a nipple is attached; these can be easily cared for and should be always clean and sweet.

Several bottles should be always in use; when one has been emptied by the infant, it should be washed with boiling water, then filled with baking soda water, (half teaspoonful baking soda to bottle hot water) and set aside until required; when needed for use, empty soda water and rinse with plain water several times.

The nipples should be black rubber, either The Davidson, The Anticolic, The Barclay, or The Mizpah. There should be two in constant use, soaking in separate glasses of cold boiled water between feedings. At the end of a feeding the nipple should be thoroughly scrubbed with a brush both inside and outside, then dropped into its glass of water.

ARTIFICIAL FEEDING

There are several principles which must be borne in mind in feeding. The food must contain the same constituents as mother's milk, Proteids, Fats, Carbohydrates, Mineral-salts and water, and must be in about the same proportions. The more usual substitute for mother's milk is cow's milk, which contains all the elements of mother's milk, but not in the proper proportions; it must therefore be diluted and otherwise modified, to suit each individual case. It sometimes occurs that cow's milk does not agree with the child and after various modifications of it have been tried, we have to resort to some one of the prepared foods, or condensed milk. But cow's milk is our chief reliance as a staple food for nearly all young children, and every precaution must be taken to ensure the purity of the supply. In towns and cities this is not so easy, but the very life of the child depends upon it, hence the necessity for the following essentials.

1st. It must be fresh. There are certain changes which take place in cow's milk in the twenty-four to forty-eight hours, which will often elapse between the time it is drawn from the cow, and when it is used. These changes are such as affect the composition of the milk, and interfere with its digestibility.

2nd. Buy only milk that has been sterilized and is in bottles, having been bottled and sealed at dairy and kept on ice from time of being drawn to time of using.

3rd. Use the milk of a mixed herd, not one cow's milk. The mixed cow's milk is more apt to be uniform, while that of a single cow is subject to variation from day to day. A child fed on one cow's milk is often made ill by changes in milk, caused by change in cow's food, or illness of cow, or other disturbance of the animal.

TABLE FOR FEEDING HEALTHY INFANTS DURING FIRST YEAR

	Number of Feedings in 24 hours	Intervals between feedings by day	Night feedings from 10 P. M. to 7 A. M.	Quantity for one feeding in ounces	Quantity for 24 hours in ounces
Third to seventh day	10	2 hours	2 or 3	1 to 1½	10 to 15
Second and third weeks . . .	10	2 "	2	1½ " 3	15 " 30
Fourth and fifth weeks	9	2 "	1	2½ " 3½	22 " 32
Sixth week to third month . .	8	2½ "	1	3 " 4½	24 " 36
Third to sixth month	7	3 "	1	4 " 5½	28 " 38
Sixth to seventh month. . . .	6	3 "	0	5½ " 7	33 " 42
Eighth month to one year . .	5	3½ "	0	7½ " 9½	37 " 48

A large child should receive the maximum quantity and sometimes even a little more; a small child should receive the smaller quantity. The hours for feeding should be kept as indicated.

A large child or one with a strong digestion may be able to pass from one formula to the next, more rapidly than in the time indicated; a delicate child, or one with a feeble digestion will often require a slower increase.

The modification of cow's milk for healthy infants during the first year must be largely experimental; we begin by bearing in mind the various constituents of mother's milk and the relationship borne to it by cow's milk. The reduction of the proteids is the first step, which is accomplished by the addition of water to the cow's milk. The fat is then to be increased by adding cream, and the sugar increased by adding milk sugar or cane-sugar; milk sugar is preferred, because it is less liable to ferment. There is a tendency in the caseine of cow's milk to coagulate into large masses in the stomach of the infant, which can be overcome by the addition of lime water or some thickening substance, as barley water, gelatine, Horlick's Malted Milk, or Mellin's Food. Lime water acts by neutralizing the acidity of the milk, and in larger quantity, the gastric juice. The thickening substance acts mechanically by separating the particles of caseine. The following dietary will serve as a working guide in the preparation of cow's milk for infant feeding.

DIET FROM THIRD TO SEVENTH DAY

Cream or rich milk two teaspoonfuls.
Water six teaspoonfuls.
Milk sugar one-third teaspoonful.
This makes about one ounce and is for one feeding, to be given

every two hours from 7 A. M. to 10 P. M. and two or three times during the rest of the night, amounting to twelve ounces per day.

SECOND AND THIRD WEEK

Milk one tablespoonful.
Cream two teaspoonfuls.
Water two tablespoonfuls.
Milk sugar one-third teaspoonful.

This makes about one and three quarters ounces and is for one feeding, to be given every two hours, from 7 A. M. to 10 P. M. with two feedings at night before 7 A. M. Total amount per day being seventeen ounces.

FOURTH AND FIFTH WEEK

Milk one and one-half tablespoonfuls.
Cream three teaspoonfuls.
Water three and one-half tablespoonfuls.
Milk sugar one-half teaspoonful.

This makes about three ounces and is for one feeding, to be given every two hours from 7 A. M. to 10 P. M. with one feeding at night before 7 A. M. Total amount per day being about twenty-six ounces.

SIXTH WEEK TO THIRD MONTH

Milk four tablespoonfuls.
Cream one tablespoonful.
Water two and one-half tablespoonfuls.
Milk sugar one-half teaspoonful.

This makes about three and three quarter ounces and is for one feeding, to be given every two and one-half hours, from 7 A. M. to 10 P. M. with one feeding at night before 7 A. M. Total amount per day being about thirty ounces.

THIRD MONTH TO SIXTH MONTH

Milk six tablespoonfuls.
Cream one tablespoonful.
Water two tablespoonfuls.
Milk sugar one teaspoonful.

This makes about four and one-half ounces and is for one feeding, to be given every three hours from 7 A. M. to 10 P. M. with one feed-

ing at night before 7 A. M. Total amount per day being about thirty two ounces.

SIXTH AND SEVENTH MONTH

Milk eight and one-half tablespoonfuls.
Cream one tablespoonful.
Water three tablespoonfuls.
Milk sugar one teaspoonful.

This makes about six and a quarter ounces and is for one feeding, to be given every three hours from 7 A. M. to 10 P. M. with no feeding at night. Total amount per day being about thirty eight ounces.

EIGHTH MONTH TO ONE YEAR

Milk twelve to fifteen tablespoonfuls.
Cream one tablespoonful.
Water three tablespoonfuls.
Milk sugar one teaspoonful.

This makes about eight to nine and one-half ounces and is for one feeding to be given every three and one-half hours from 7 A. M. to 10 P. M. with no feeding at night. Total amount per day being about forty to forty eight ounces.

At this age it is well to begin adding from two teaspoonfuls to one tablespoonful of one of the prepared infant's foods, as Mellin's Food, or Horlick's Malted Milk, to two or three of the feedings each day. Dissolve the food in hot water and add this to the previously mixed milk and cream.

At about the end of the first year, that is from nine months on, a child usually requires a more varied diet. This is accomplished by giving for the second or third meal of the day a cupful of plain milk, or the yolk of an egg soft boiled, with stale bread crumbs added, or on every other day, a teacupful of broth, chicken, beef or mutton, with stale bread crumbs, or some form of starch food may be used, as a gruel made of barley, oatmeal, arrowroot, rice or corn starch. The influence of the cereals and foods must be watched, as, if there is tendency to constipation, oatmeal may be used, or if diarrhoea, barley should be employed. Beef juice plain or added to the milk, makes an excellent article of diet for a child of nine months or more, and will frequently be retained when other food is vomited, even in younger infants.

The foregoing diet tables apply to the proper feeding of healthy infants, during first year, but many children will require a modification of the formula given, and others will perhaps, require other foods;

but since cow's milk in some form is the best substitute for mother's milk, we must try it in various combinations before resorting to anything else. Other foods are, however, sometimes of great service and babes who do not thrive upon cow's milk will often do well on condensed milk, Horlick's Malted Milk, Mellin's Food, Fairchild's Milk Powder, or Peptonized Milk. Our guide in this matter must be of course the general condition and appearance of the child. If it is thriving on the food given, it will increase steadily in weight and present in various ways evidence of health. That its food is not the proper one for the infant is shown by the fact of losing weight, or the manifestations of indigestion, as stools containing lumps of undigested food; or there may be constipation or diarrhoea, with vomiting and restless sleep, the waking hours being marked by fretfulness.

Excess of sugar is liable to give rise to colic, and thin, green, and very acid stools.

Excess of fats produces regurgitation, vomiting and diarrhoea, with fat in the stools.

Excess of caseine causes colic, constipation and hard, white curds in the stools.

Remember, however, that this may be temporary and due to some indiscretion in feeding and calls for a substitute food for only a short period. We may resort to lime water, or barley water, using the full quantity of either to replace the water given for infants of that age, cutting down the milk by half, for instance:

Make each feeding for child of sixth to seventh month:

Milk four and a quarter tablespoonfuls.
Cream one tablespoonful.
Milk sugar one teaspoonful.
Lime water three tablespoonfuls.

Or

Milk four and one quarter tablespoonfuls.
Cream one tablespoonful.
Milk sugar one teaspoonful.
Barley water three tablespoonfuls.

Or try the expediency of boiling the milk before adding it to the other ingredients. Or try

Condensed milk two teaspoonfuls.
Cream one tablespoonful.
Hot water seven tablespoonfuls.

These methods failing we have recourse to peptonizing the milk or to the preparations sold by druggists, as Fairchild's Peptogenic Milk Powder, Horlick's Malted Milk, or Mellin's Food. Any of these preparations may be used, and experience has taught that one will be of service where the other has failed. The directions for use are in every package, and a feeding is easily made, in fact too easily, for many resort to this method of supplying food to an infant without trying cow's milk.

STERILIZATION

This most important matter is one not fully appreciated by those having the care of infants, as is evidenced by the fact that so many will declare that the trouble it gives and the additional work necessary add so much to the care. The labor put into sterilization saves much worry and distress in other directions, for by it alone can disease be prevented. Milk unsterilized should never be fed as a permanent diet to a young infant, nor indeed to an older one. After six months an occasional cup of unsterilized milk may be given.

Boiling is not sterilizing, boiling alters the milk, so that its constituents are changed, and its taste objectionable to many infants.

By sterilizing is meant heating the milk to a temperature sufficient to prevent fermentation and destroy such disease-producing germs as may be present. Sterilization or Pasteurizing at a low temperature (150° F) is all that is required. A very simple and effective device is, an inverted tin pail lid, or saucer set in a pot of cold water; on this place the bottle of food to be sterilized, with a piece of absorbent cotton used as cork, and keep it there ten minutes after the water has been brought to the boiling point, when it may be removed and permitted to cool to a temperature at which the child can take it. The full quantity for the day's use may be mixed as given in the table. It must be mixed and put in separate bottles, and after sterilizing, corked with absorbent cotton and put on ice. When needed it is to be heated in the bottle by the same method, but to a temperature that is just sufficient to warm it through. Milk after being sterilized and put on ice will separate, that is the cream will come to the top, merely shake it, warm as directed and feed. Always use fresh absorbent cotton to cork the bottles, to insure perfect cleanliness.

Another way is to prepare food for each feeding and sterilize as needed. By this method the milk and cream are kept separate on ice,

mixed as given in table, sterilized, cooled off to right temperature and fed to infant.

There are various sterilizers obtainable at druggists, at a low price, and their use is so simple, that one should be in every household where there is a young child, but the preceding method will be found to serve every purpose.

CONDENSED MILK

This is a preparation of cow's milk that has been boiled to destroy the germs and then evaporated at a low temperature, away from contact with the air, to about one quarter its volume. It is usually preserved in tin cans, by the addition of sugar in the proportion of six ounces to the pint. Fresh condensed milk may, however, be obtained in most of the large cities, without sugar. In using, sugar must be added.

The method of using canned condensed milk is very simple, it is diluted with boiled water which is used in variable proportions, according to the age of the infant.

For an infant under one month.

Condensed milk one teaspoonful.
Hot water three to five tablespoonfuls.

For an infant over one month.

Condensed milk two teaspoonfuls.
Hot water three to five tablespoonfuls.

Or if there be constipation.

Condensed milk one teaspoonful.
Cream one tablespoonful.
Hot water five tablespoonfuls.

Use hot water, mix thoroughly, and let temperature fall to ordinary heat before feeding.

As a temporary food, condensed milk is very useful, for several reasons; it has been sterilized, the caseine has been reduced by dilution to a point where a weak digestion can assimilate it, while it contains abundance of sugar which is easily digested. During the first few months it is serviceable for these reasons, also for the ease with which it is prepared. As a permanent diet it is not without danger to the infant, chiefly because it is lacking in fat, which can be overcome by the addition of cream; but where good fresh cow's milk can be obtained, it is preferable

to any preparation of condensed milk for continued use. In attacks of indigestion its temporary use is recommended, or while traveling it is perhaps the best food to use as, it is convenient and being sterile is safe.

The fresh condensed milk contains no sugar, and requires the same modification as cow's milk, dilution with from eight to twelve parts of water, with the addition of sugar and cream if possible.

Many will say that they have seen babies who have been reared exclusively upon condensed milk, and they are apparently healthy, lusty youngsters. They are only apparently so, for they are apt to be fat and large, but they are really pale and flabby, and although large are not strong, have little power to resist disease, often cut their teeth late and usually show more or less evidence of rickets.

KUMYSS

Kumyss has been used for centuries both as a food and a beverage. It was originally made by the Tartars, by fermenting mare's milk. It is made in this country from cow's milk by the following formula.

One quart of fresh milk.

One-half ounce of sugar.

Two ounces of water.

Piece of fresh yeast cake, half an inch square.

Mix in a half gallon wicker-covered demijohn, wire in the cork securely. Keep at a temperature between 60° and 70° F. for 36 hours, shaking several times a day. Then put upon ice.

Kumyss can be purchased at the apothecary's in the large cities cold and ready to drink. It has a peculiar buttermilk like taste, which is often at first objected to, but a fondness for it is soon acquired. It is more useful for older children than for infants. It is very valuable in acute and chronic indigestion, and will often be retained when milk in any other form is vomited.

For infants Kumyss should be diluted with an equal part of water. It should be given cold in tablespoonful doses every half hour. Let it stand a few minutes for gas to escape. In purchasing Kumyss make sure of obtaining a reliable article.

FEEDING OF HEALTHY INFANTS DURING THE SECOND YEAR

The average mother has an idea that an infant after it has outgrown an exclusive milk diet, can be given regular table food. The giving of solid food at this period is an error. Milk should form the

basis of the diet, judiciously combined with some farinaceous food, as gruel or Horlick's Malted Milk, etc., bread, beef juice, a small amount of beef or mutton, eggs and fruit. The milk used should be modified by the addition of cream, water and sugar about as follows:

Milk six to eight ounces.
Cream one-half to one ounce.
Water one and a half to three ounces.
Sugar one to two teaspoonfuls.

This formula is subject to further modification as determined by the character of the stools. To modify, the cream is increased or decreased, and instead of plain water, lime water, barley water, or oat-meal water or barley gruel, or oat-meal gruel, or one of the prepared foods, as Horlick's, Mellin's, Nestle's, or Eskay's, may be used.

Children can be taught to drink from a cup at about the twelfth month. The milk should be sterilized or Pasteurized, the same as during the first year.

The daily quantity of fluid food, for the second year, should be from forty to fifty-five ounces given in five feedings, four of equal size, one, the middle feeding which is given in connection with other food being smaller.

THE MIDDAY FEEDING MAY CONSIST OF

The reduced quantity of milk, with
Beef juice one to three ounces (daily)
Or rare scraped beef one tablespoonful (daily)
Or rare scraped mutton one tablespoonful (daily)
Or a soft boiled fresh egg (once or twice a week)
A small piece of stale bread dried in the oven,
Or a piece of Zwieback, may be given once or twice daily, after the child has most of its teeth.

FRUIT

Beginning at the fifteenth month, fruit should form a part of the daily diet.

Orange juice from half an ounce to two ounces, or
Baked apple pulp, one to two tablespoonfuls, or
Stewed prunes, two or three.

The apple and the prunes should be cooked soft, the apple given without sugar, and the prunes should have skins and pits removed

by passing through a sieve. The best time for giving fruit, is about midway between two milk feedings.

WATER

Water may be given frequently, but always between feedings, and in small quantities at a time.

FEEDING OF HEALTHY CHILDREN FROM THE THIRD TO SIXTH YEAR

A child must be taught to eat slowly and to masticate thoroughly. The food must be cut up very fine. Children should not be urged to eat when they are disinclined to do so, or indigestible things given to tempt the appetite. Food should not be allowed between meals when it is refused at regular meal time. Four meals should be given daily at regular intervals. During the heat of the summer, solid food should be reduced and more water given.

FOOD ALLOWABLE

Water—Freely between meals.

Milk—This should be the basis of diet. Most children will consume about a quart daily. It is preferably given warm.

Cream—This is of especial value when there is tendency to constipation. From a tablespoonful to half a pint may be given daily. It may be used by mixing with milk, or upon cereals, or potatoes or in broth.

Eggs—Not more often than every other day. They should be fresh, and poached or soft boiled.

Cereals—Must be thoroughly cooked. If the grains are used they must be soaked several hours, and cooked for two or three hours. Add a little salt, and serve with cream or milk, and little or no sugar. Almost any cereal may be used, as oat-meal, wheaten grits, rice, hominy, farina, and arrowroot. Other cereals which require little or no preparation are Pettijohn, Force, puffed rice, etc.

Meats—Some form of meat should be given once daily, as rare roast beef, rare roast mutton, rare broiled beefsteak, rare broiled mutton chop, well done roast lamb, well done lamb chop, white meat of chicken, and broiled or boiled fresh fish.

Vegetables—Potato, (baked or mashed), with cream or meat juice, asparagus tops, spinach, kale, beet-tops, string beans, and fresh peas.

One of these vegetables should be given daily, always well cooked and cut up fine.

Broths—Nearly all kinds of broths may be given, preferably the meat broths. To increase the nutritive value they may be thickened with corn-starch or arrowroot, or cream, or milk may be added. One to three ounces of beef juice may be given daily.

Crackers—In some form these may be given with every meal, butter may be spread upon them, in small quantity.

Bread—Should be stale, and may be made into dry or milk toast. Zwieback is usually liked by children and is an excellent form of bread.

Desserts—The only kinds of desserts allowable up to the sixth year are junket, plain custard, rice pudding, cornstarch, farina and occasionally ice cream.

Fruits—Some form of fruit should be given every day. The most desirable are oranges, grape-fruit, baked apples, and stewed prunes. Peaches, pears and grapes (with seeds removed) may be given occasionally when thoroughly ripe and fresh. Berries and raw apples should not be given before the seventh year.

FOOD FORBIDDEN

Meats—Ham, sausage, pork, salt fish, corned beef, dried beef, goose, duck, game, kidney, liver, bacon, meat stews and gravies.

Vegetables—Fried vegetables, cabbage, carrots, potatoes, (except when boiled or roasted) raw or fried onions, raw celery, radishes, lettuce, cucumbers, tomatoes, raw or cooked unless strained, beets, egg plant and corn.

Bread and Cake—All hot bread, rolls and biscuits, buckwheat and all other cakes, and all sweet cakes.

Desserts—All pastry, candies, nuts, salads, jellies, syrups, and preserves.

Drinks—Tea, coffee, cocoa, beer, wine and cider.

Fruits—All dried, canned and preserved fruits.

INFECTIOUS AND CONTAGIOUS DISEASES

PRECAUTIONS TO BE OBSERVED BY PATIENT, FAMILY AND NURSE

General Information—In Small-pox, Chichen-pox, Scarlet Fever, Measles and Erysipelas, the scabs and scales are infectious.

In Diphtheria, Scarlet Fever, Measles, Whooping Cough, Tuberculosis, Typhoid and Typhus Fever and Pneumonia, the sputum is infectious.

In Typhoid Fever, Asiatic Cholera and Yellow Fever, the discharges from the bowels, urine and vomited matter are infectious.

A mild form of any of these diseases may give rise to a severe form in another person.

Duration of Quarantine—Small-pox, Chicken-pox, Scarlet Fever, Measles, and Erysipelas, until every scab or scale has fallen off. Diphtheria until throat and nose are free from the germs of the disease as determined by bacteriological examination. Typhoid Fever, Typhus and Yellow Fever and Cholera until one week after termination of fever.

During Quarantine Period.—1. The sick room should be isolated (if possible at the top of the house), sunny, freely ventilated and maintained at an equable temperature.

2. All unnecessary furniture, curtains, hangings, or draperies should be removed.

3. All bed linen, garments, towels, handkerchiefs, etc., worn or used by patient should be immersed, for one hour, in carbolic solution, 5 per cent., (tablespoonful of carbolic to one pint of water) and subsequently boiled, aired and sun-dried.

4. Dishes, cups, glasses, trays, eating utensils, etc., should be similarly immersed and boiled. Remains of food should be burned.

5. All discharges from nose, throat, eyes, or ears, (especially in Diphtheria and Tuberculosis) should be received in corrosive sublimate solution 1-1000, and stand for one hour before throwing out.

6. In Typhoid, Typhus and Yellow Fever and Asiatic Cholera, the urine, evacuations from the bowels, and vomited matter should be similarly received, thoroughly mixed and allowed to stand one hour before throwing out. Wash water closet (seat, pan and pipes) with 5 per cent carbolic solution once a day.

7. All exposed persons, including nurse, should gargle the throat frequently with an efficient but non-poisonous germicide.

8. During the peeling stage of Scarlet Fever, the patient's skin should be bathed each day with a mild germicidal solution and anointed with a bland antiseptic oil to prevent flying scales.

9. The nurse should wear only washable garments, and short skirts,

10. In the hall-way should be soap, water, nail brush, carbolic solution, 2½ per cent.; for hands and antiseptic solution for gargle; here also should be kept gown, overshoes and hood for use of those compelled to enter or leave the sick room.

11. All persons exposed to Small-pox should be immediately vaccinated.

12. The advisability of administering a protective dose of antitoxin to persons exposed to Diphtheria should be determined by the physician.

After Quarantine Period. Burn all toys, books, or valueless articles used by the patient. The convalescent patient should first be sponged off with an efficient but non-irritant, antiseptic solution, then have a warm soap and water bath accompanied by a shampoo. Gargle the throat with an antiseptic solution. Every article of clothing must be absolutely clean and free from infection.

The nurse should receive the same treatment as the patient after the sick room has been prepared for disinfection by removing all articles which require disinfection by some other process. All apertures, crevices and keyholes of the room should be sealed.

Instructions for fumigation and disinfection of apartments should be obtained from health authorities.

For an efficient, non-irritating antiseptic solution, either of the following may be used:

Liquor Antisepticus (U. S. P.), Liquor Antisepticus Alkalinus (N. F.), or Dobell's solution. They are obtainable at druggists.

If preferred an antiseptic solution may be made by mixing together Powdered Borax two tablespoonfuls, Essence Peppermint one teaspoonful, boiling water one quart Use when cold.

THE CUISINE

An effort has been made in the preceding pages to impress upon those having the care of children, the importance of milk as a basis of diet, and this should be the rule from early infancy to the later years of childhood; but other foods are of value and must also form a part of the diet of the child, in health, as well as in sickness.

To broaden the field of dietetics, a few formulae are here appended. Remember that all farinaceous foods should be thoroughly cooked. Thus prepared they are very nourishing, while if underdone, labor is given to the digestive organs which they cannot perform.

ALBUMIN WATER

The white of a fresh egg.

Half pint of cold boiled water.

A pinch of salt.

One teaspoonful of either brandy, good whiskey or blackberry brandy. Shake thoroughly, and feed without warming. A little sugar may be added.

Useful in diarrhoea and indigestion.

TOAST WATER

Several slices of toast, well heated through and browned, but not burned; enough boiling water to cover them. Cover closely and let steep until cold; strain, using only the water. Add salt or sugar to the taste, salt is preferable. Put into bottle or glass and set on ice until palatably cool.

Useful in diarrhoea and indigestion.

APPLE WATER

One large juicy apple, the most finely flavored possible.

Three cups of cold water.

Pare the apple and cut into quarters, but do not remove the core. Put it on the fire in a saucepan with the water and boil, closely covered until the apple stews to pieces. Strain the liquid **at once,** pressing the apple hard in a coarse cloth. Strain this again through a finer cloth and set on ice to cool. Sweeten to taste.

Useful as a refreshing drink.

BARLEY WATER

Put one tablespoonful of washed Pearl barley into a saucepan, with one pint of cold water and boil slowly down to two-thirds of a pint. Strain through coarse muslin; add salt or sugar to taste. It is of advantage, but not necessary, to soak the barley in cold water for several hours before using, but do not use the water in which it has soaked.

BARLEY WATER No. 2

One even tablespoonful Robinson's barley.

One and one-half cupfuls water.

Add salt or sugar as preferred.

Cook for fifteen minutes.

Barley water is useful either alone, or in combination with milk, as a food for a child of eight months. Or by diluting with water, it is of service in allaying an irritable stomach or in checking diarrhoea.

OATMEAL WATER

May be made by either of the methods given for barley water, or by taking:

One tablespoonful of oatmeal porridge.

Add to one pint of cold water, and with constant stirring bring to the boiling point. Strain. Add salt or sugar.

It is useful when there is a tendency to constipation.

LIME WATER

Piece of unslaked lime, the size of a walnut.

Two quarts of clear, cold water.

Mix thoroughly in earthen jar, stirring for several minutes; allow to settle; pour off this liquid; add two more quarts water, stir, allow to settle and it is ready for use. Use only the clear portion on top and as this diminishes add fresh water from time to time with a little stirring, until lime is consumed.

RICE WATER

Two tablespoonfuls of rice.

One quart of water.

Have the rice thoroughly washed, add to the water, set in warm place to soak, for about two hours. Then boil slowly until reduced to about one-half and strain. Rice water has about the same value as barley water and may be used with milk, in cases of diarrhoea.

ANISEED WATER

May be made quickly and easily by having on hand a small bottle of Essence of Anise, obtainable at any drug store.

To use, add from five to ten drops, to from one teaspoonful to one tablespoonful, of sweetened hot water.

Useful in colic.

ANISEED TEA

One teaspoonful of aniseed.

One teacupful of hot water.

Let steep and strain. May be given freely, in attacks of colic.

TAMARIND WATER

One tablespoonful of preserved tamarinds.

One cup of boiling water.

Pour the water over the tamarinds, allow to stand one-half hour, strain and serve.

This is an excellent laxative.

JELLY WATER

One teaspoonful current or cranberry jelly.
One glass of ice-water.
Stir well until dissolved. Is very grateful in tablespoonful quantities to a child with fever. By using wild cherry or blackberry jelly a refreshing beverage is made. Useful in diarrhoea and colic.

FLAXSEED LEMONADE

Four tablespoonfuls whole flaxseed.
One quart of boiling water, poured upon the flaxseed.
Juice of two lemons, use none of the peel.
Sweeten to taste.
Steep three hours. Use either hot or cold.
Is serviceable in coughs.

DRY TOAST

Pare off the crust from stale wheat or Graham bread. Slice one-half inch thick and toast quickly over a clear fire. The slices of bread may be dried slightly in oven before toasting.

MILK TOAST

Take dry toast, dip each slice as it comes from the toaster in boiling water, butter, salt slightly, and lay in a deep covered dish. Pour enough boiling milk over to cover well, cover closely and let stand five minutes, then serve.

RICE FLOUR MILK

One cup of boiling milk.
One tablespoonful rice flour wet with cold milk.
One tablespoonful sugar.
Boil ten minutes, constantly stirring. Flavor to taste.
Serve warm with cream.

SAGO MILK AND TAPIOCA MILK

One tablespoonful of sago or tapioca, soaked one hour in enough cold water to cover.
One cup of boiling milk.
Mix and simmer slowly half an hour. Sweeten and flavor to taste. Eat warm.

BOILED RICE

One-half cup whole rice, boiled in just enough water to cover.
One cupful of milk.
A little salt.
One egg beaten light.

When the rice is nearly done, turn off the water, add the milk and simmer until it boils up well, taking care that it does not scorch.

Salt, and beat in the egg.

Eat warm with cream, sugar and nutmeg.

PANADO

Three Boston crackers, split.
One teaspoonful sugar.
A pinch of salt and a little nutmeg.
Enough boiling water to cover the crackers well.

Split the crackers, and pile in a bowl in layers, salt and sugar scattered among them. Cover with boiling water. Set on the back part of the stove, with a plate covering bowl, for at least an hour. The crackers should be almost as clear and soft as jelly, but not broken.

Eat from the bowl, with more flavoring and sweetening if desired.

PANADO No. 2

Four soda crackers.
One and one-half teaspoonfuls sugar.
One-half cup boiling water.
One-half cup of milk.
A little nutmeg.

Break the crackers up in a bowl, and pour the boiling water over them, add the sugar and nutmeg, then pour the milk on, and serve.

BREAD JELLY

Remove the crust from several slices of stale bread and toast brown without burning; pile in a bowl, sprinkle sugar and a very little salt between; cover well with boiling water, and set in a pan of boiling water. The bowl must be well covered. Simmer gently until the contents of the bowl are like jelly.

Eat warm with powdered sugar and nutmeg.

ARROWROOT CUSTARD

Two cups of boiling milk.
Three heaping teaspoonfuls arrowroot, wet up with a little cold milk.
Two tablespoonfuls of white sugar, beaten with one egg.

Mix the arrowroot paste with the boiling milk, stir three minutes, take from the fire and whip in the egg and sugar. Boil two minutes longer. Flavor with vanilla or nutmeg and pour into moulds.

LAPAZ

One teacupful of tomatoes.
Three tablespoonfuls rice.
Boil the tomatoes twenty minutes and strain. Wash rice several times, and boil until soft in an abundance of water; strain off water and add rice to tomatoes and boil for five minutes, stirring constantly.
Serve with salt and pepper.

DEXTRIN BALL

One cup of wheat flour (the unbolted is preferred), tied in a stout muslin bag, and dropped into cold water, then set on the fire and boil three hours steadily. Turn out the ball and dry in a moderately hot oven without shutting the door.
To use it, grate a tablespoonful, wet it up with a little cold water, stir into a cupful of boiling milk and water, and boil five minutes.
Flavor with salt.

BREAD AND MILK

One cup of milk, heated well but not quite to the boiling point.
One-half cup of stale Graham bread.
Break the bread into small bits, add to the milk.
Sweeten to taste and feed with a spoon.

GRAHAM OR RICE FLOUR PUDDING

One cup of Graham flour, or two heaping tablespoonfuls rice flour.
One cup of boiling water.
One cup of milk.
Small pinch of salt.
Wet the flour with cold water, add the paste to the boiling water slightly salted, boil ten minutes stirring constantly. Add the milk, stir and cook for about ten minutes longer.
Set aside to cool; serve with cream or milk, and sugar.

FARINA MILK

One cup of boiling water.
One cup milk.
One tablespoonful ground farina, wet up with cold water.

Two teaspoonfuls sugar.

A pinch of salt.

Stir the farina paste into the boiling water (slightly salted), in a double boiler. Boil fifteen minutes, stirring constantly until well thickened. Add the milk gradually, stirring, and boil fifteen minutes more; sweeten.

Can be fed when cool enough, or if fed later can be heated up with a little warm milk.

ARROWROOT MILK

One cup of boiling water.

One cup of milk.

Two teaspoonfuls ground Bermuda arrowroot.

Small pinch salt.

Two teaspoonfuls sugar.

Wet up the arrowroot with cold water, and stir into the salted boiling water; boil, stirring constantly, for five minutes, or until clear; add the milk, in which the sugar has been dissolved, and boil ten minutes, stirring all the while.

CRACKED WHEAT GRUEL

Four tablespoonfuls cracked wheat.

One quart of boiling water.

One cup milk.

Pinch salt.

Soak the cracked wheat in a little cold water for one hour, then add the boiling water with salt, and boil one hour, stirring occasionally; add the milk and boil half an hour longer. Sweeten to taste.

Serve with cream or milk, and sugar.

This should not be given a child under one year of age. It is of service, however, for older children, when there is a tendency to Constipation. It is still more laxative if milk is omitted.

HOMINY AND MILK

One-half cup hominy.

One quart cold water.

Pinch salt.

Mix, boil one hour, stirring. Keep hot, stir some to a paste with milk. Sweeten and feed with a spoon. This is an excellent laxative.

INDIAN MEAL PORRIDGE

Two tablespoonfuls of Indian meal, sprinkled dry, from the hand into two cups of boiling water, salted to taste. If sprinkled carefully in, the meal will not lump. Cook two hours in a double boiler or on the stove where it will not burn. Serve with milk or cream; sugar if desired.

MUSH AND MILK

Sift the meal enough from the hand into boiling water to make it as stiff as desired. Salt to taste. Stir constantly to prevent lumping.

Cook in a double boiler, or on the stove where it will not burn, for at least two hours, stirring occasionally.

GELATINE

A bunch of shredded gelatine, the size of a small walnut, put into a teacup with enough cold water to cover; let it stand thirty minutes, add enough boiling water to fill cup, stirring; when cold it is ready for use.

One or two teaspoonfuls added to milk prevents formation of curds, or if it is desired to make a jelly, add two tablespoonfuls sugar to the boiling water and one tablespoonful lemon juice, or two tablespoonfuls of orange juice.

OYSTER STEW

One cup milk.
Seven small oysters and their juice.
A small piece of butter.
Salt and pepper.

Scald the milk, cook and strain the oyster juice, then add the oysters previously washed and cook only a few minutes or until the edges begin to curl.

Add the seasoning, butter and hot milk.
Serve at once.

CLAM OR OYSTER JUICE

Cut clams or oysters into several pieces, and heat for a few minutes in their juice. Strain through muslin and serve hot. Care must be taken in straining that sand does not pass through the muslin. If the juice is too strong water may be added.

This broth may be frozen for those who cannot take it hot.

PEPTONIZED OYSTERS

Six oysters and juice.
One-half pint of water.
One-half pint of milk.
One peptonizing tube.

Boil oysters, juice and water in a saucepan for a few minutes, briskly. Pour off the broth, and set it aside. Chop up the oysters fine in a wooden bowl, and reduce to a pulp with a potato masher. Now mix together the broth and mashed oysters in a glass fruit jar with the contents of one peptonizing tube. Set the jar in water that is kept hot, but not boiling, for about one and one-half hours. Then pour into a saucepan with the milk, salt to taste and serve hot.

CLAM BROTH

Six large clams in shell.
One cup of water.

Wash the clams thoroughly with a brush, and place them, with the water, in a kettle over the fire. As soon as the shells open the broth is done. Strain through muslin and serve with a little red or black pepper.

COFFEE SUBSTITUTE—Formula

Three quarts of bran.
One cup of molasses (Orleans).
One egg.
One-quarter pound of well flavored coffee (ground).

Mix the bran, molasses and egg thoroughly in a roasting pan. Put in a slow oven on the middle shelf and stir occasionally until thoroughly dry. Then increase the fire and stir constantly until as brown as coffee. For the entire process about two and one-half to three hours time is required. When desired color is reached, remove from the oven and add coffee and mix all thoroughly. Keep in tight covered fruit jars.

To make up the drink, use about a tablespoonful for each cup wanted. Add sufficient water and boil slowly or simmer for fifteen or twenty minutes. It will settle at once and pour off clear.

Serve with milk and sugar as desired, the same as coffee. This makes an excellent, healthful substitute for coffee, and is much to be preferred to it, for children or even adults.

LEMONADE—Plain

Juice of one lemon.
One or two tablespoonfuls of sugar.
One cup of water.

Roll the lemon, squeeze the juice from it, add the water and sugar, using hot or cold water as preferred.

LEMONADE—Effervescing

One lemon.
One or two tablespoonfuls sugar.
One cup of water.
One-half teaspoonful of bicarbonate soda.

Roll the lemon. Rub the rind well into the sugar, to extract some of the oil, squeeze the juice over the sugar, add the water, then the bicarbonate of soda and serve while effervescing.

ORANGEADE

Rind of one sour orange.
One cup of boiling water.
One tablespoonful of sugar.
Juice of one orange.

Cut the rind carefully from the orange, and pour boiling water over it. When cool add the sugar and the juice of the orange and strain. Lemon juice may be added if desired.

Cool before serving.

MILK LEMONADE

Take a glass one third full of cracked ice.
Squeeze on it the juice of a lemon.
Dissolve one or two tablespoonfuls sugar in it.

Then fill the glass with completely peptonized milk, stirring well. Or it may be made by using half effervescent water and half completely peptonized milk.

CORN STARCH

Two tablespoonfuls corn starch.
One cup of boiling milk.
Sugar.

Make a paste of the corn starch with a little cold water, and pour into a cup of boiling milk, stirring briskly. Let it boil till thick.

Sweeten to taste.

CRACKER GRUEL

Four tablespoonfuls powdered crackers.
One-half teacupful boiling water.
One-half teacupful milk.
One-quarter teaspoonful salt.

Brown the crackers and roll to powder, mix with salt. Add the water, then the milk, stirring, cook all for a few minutes.

Add more milk and salt, if desired, and serve.

FLOUR GRUEL

Two tablespoonfuls flour.
Two cups boiling water.
One-quarter teaspoonful of salt.
Cinnamon or sugar.

Mix the flour and salt, and make it into a thin paste with a little cold water. Add the boiling water, stir until smooth, cook until it has become palatable, sugar is sometimes added, or a piece of stick cinnamon is cooked with the gruel.

MILK PORRIDGE

One pint of milk.
One tablespoonful flour.
Four raisins or a little nutmeg.
One-half teaspoonful of salt.

Rub the flour to a thin paste with enough of the cold milk, heat the balance of the milk, and stir in the paste, boiling one-half to one hour, until the raw taste has disappeared. It must be constantly stirred while cooking, unless it is cooked in a double boiler. Strain and serve with cream or milk. If raisins are used tear them into quarters and cook in the milk, or if nutmeg a small pinch is needed. The raisins make this slightly laxative.

OATMEAL PORRIDGE

One quart of boiling water.
Two tablespoonfuls oatmeal or rolled oats.
One-half teaspoonful salt.

Put the water, salt and oatmeal into the upper part of a double boiler and cook directly over the range for one hour, or until the raw taste is gone; strain, and add milk and salt if needed and serve. Sugar may also be added. If rolled oats are used less time will be required for cooking.

OATMEAL GRUEL

One tablespoonful rolled oats.
One pint of hot milk.
One-quarter teaspoonful salt.

Mix the oatmeal and salt in enough cold water to moisten the meal, add the hot milk and cook in a double boiler for one hour or more, strain. Serve with cream and sugar.

ALBUMENIZED MILK

White of one egg.
One cup of milk.

Mix in a glass fruit jar, screw on the top, shake the jar until the ingredients are thoroughly blended, sweeten and flavor to taste.

One or two tablespoonfuls lime water may be added.

STEAMED CUSTARD

One cup of milk.
One egg.
One-quarter teaspoonful salt.
One tablespoonful or more sugar.
Nutmeg or a few drops extract vanilla or lemon.

Beat the egg slightly and add the sugar and salt, then the milk, slowly, stirring constantly, strain, flavor and steam in bowl over water, which is boiling gently.

When the custard sets and is firm it is done.

GLUTEN WAFERS

One third cup gluten flour.
One-eighth cup cream.
One-eighth teaspoonful salt.

Add the salt to the cream, and then enough gluten flour to make a very stiff dough; knead it until smooth, roll until it is so thin that the grain of the board can be seen through it, mark with a lemon grater, or pick with a steel fork to keep the wafer flat. Cut into round or oblong pieces, and bake in a moderately hot oven until the wafers are a delicate brown.

MRS. DUNNING'S GRAHAM BREAD

Take three level cups of graham flour, or graham meal, and three cups of white flour. Three teaspoonfuls of salt, three tablespoonfuls of granulated sugar and three heaping teaspoonfuls of lard. Mix it up

soft with the hand or in a bread mixer, with either warm milk or milk and water in which is dissolved a cake of compressed yeast. This will make three or four loaves. Let it rise over night. In the morning make it up into loaves; let it rise again and bake in a moderate oven one hour and a half.

COCOA

One-half to one teaspoonful powdered cocoa.
One cup of hot milk.

Make a paste of the cocoa with a little cold milk, add the hot milk, and stir well, cook five minutes, and serve; sweeten to taste.

TOAST COFFEE

One cup of brown bread crumbs.
Two cups of hot water.

Break slices of toasted brown bread into small pieces, cover them with hot water, cook fifteen minutes.

Strain, and serve with milk and sugar.

CHOCOLATE

One cup hot milk.
One cup of hot water.
One square of chocolate.
One and one-half teaspoonfuls sugar.

Cut the chocolate into small pieces, and put it with the sugar and a little of the water, into a saucepan; stir over the fire until smooth, add the remainder of water gradually, then the milk. Serve at once. This may be made with more chocolate, and sugar may be increased, or decreased, according to taste.

SOFT BOILED EGGS

Drop the eggs in boiling water and let them boil one minute, then cover the pan and set aside for five minutes, then remove the eggs from the water. This method gives time for the heat to penetrate and cook the yolk, while the white is rendered soft, creamy and digestible.

BOILED EGGS No. 2

Put the eggs in cold water and bring the water to a boil; if the eggs are desired very soft, they should be removed from the water when it commences to boil; if permitted to boil one minute they will be much firmer.

POACHED EGGS

Have the water in the pan about one inch in depth; add a little lemon juice or vinegar, which will prevent the egg spreading.

Break each egg carefully in a saucer and pour it in the water while it is boiling violently. As soon as all are in remove the pan to a part of the stove where the water will merely simmer; cover the pan and cook from three to five minutes. Dip out the eggs with a wire spoon, and lay them on slices of dipped milk toast or buttered toast, with salt and pepper, and a little butter on each egg.

CREAMY EGG

One-quarter cup hot milk.
One egg.
One teaspoonful butter.
One-eighth teaspoonful salt.
Small pinch pepper.

Beat the egg slightly, add the butter, salt and pepper; add the hot milk gradually, stirring until smooth and creamy.

This is prepared in a double boiler. Serve on toast.

CUP CUSTARD

One quart of milk.
Four to six eggs.
Half cup sugar or less.
One-half teaspoonful salt.

Heat the milk, and the sugar and salt. Beat the eggs and pour the milk slowly over them, strain. Divide the custard into three parts, flavor one with lemon, one with vanilla, one with rose water. Fill custard cups, steam over water which is boiling gently; when the custards are firm they are cooked. Keep on ice and serve cold.

SOFT CUSTARD

One egg.
One tablespoonful sugar.
One cup of milk.
One tablespoonful sherry wine.
Pinch of salt.
Four drops of lemon or vanilla.

Beat the egg with the sugar, salt and milk. Heat in a glass or other dish over hot water, stirring to prevent cooking unevenly; as soon as

the mixture thickens remove from the heat; when cool add wine and flavoring. The dish used to cook it in must rest on a saucer or tin plate in the pan of hot water.

OMELET

Two eggs.
Two tablespoonfuls milk.
One teaspoonful butter.
One-eighth teaspoonful salt.
Pinch of red or white pepper.

Beat the yolks of the eggs until light and creamy, add the milk and seasoning; beat the whites until stiff, cut them into the yolks. Heat an omelet pan and rub it all over with the butter, using a knife; turn in the omelet, spreading it evenly on the pan; when the omelet is set, put it into the oven for a few minutes to dry. Fold it and turn upon a heated dish. Serve immediately. Chopped parsley, meat or jelly may be placed in the centre before it is folded, or before the whites are cut in. An omelet must be cooked by moderate heat.

OMELET No. 2

Four eggs.
Four tablespoonfuls milk.
One teaspoonful butter.
One-quarter teaspoonful salt.

Beat eggs until well mixed, but not very light, add the salt and milk. Heat an omelet pan and rub the butter over the bottom and sides; when hot, turn in the eggs; as it cooks lift it and allow the softer part to run under. Roll the omelet half over, and allow it to stand for one minute to brown. Serve immediately. Remember to use only moderate heat in cooking an omelet.

BREAD OMELET

Two tablespoonfuls bread crumbs.
Two tablespoonfuls milk.
One egg.
One-half teaspoonful butter.
Pinch of salt and pepper.

Soak the bread crumbs in the milk for fifteen minutes, then add the salt and pepper, separate the yolk and white of the egg, and beat each until light; add the yolk to the bread and milk, and cut in the white.

Cook in the same way as ordinary omelet.

SCRAMBLED EGGS

Two eggs.
One teaspoonful of butter.
One tablespoonful cream.
Pinch of salt and pepper.

Melt the butter in the pan. Beat the eggs just enough to blend the yolk and white, add the cream, salt and pepper, pour this mixture into the melted butter and stir it continually while cooking, in a double boiler.

EGG BROTH

One egg.
One cup of hot milk.
One-half teaspoonful sugar.
Pinch salt.

Beat the egg, add the sugar and salt, and pour slowly over them the hot milk. Serve at once.

CRISP CRACKERS

Split crackers having a soft centre.
Brown in a hot oven.

Oysters may be served on these brown crackers. Place one oyster on each crisp half of the cracker and return to the oven, the heated juice of the oyster flavors the crackers and it is ready to serve when the edges of the oyster curl. A little pepper and a small bit of butter may be added to each oyster.

ZWIEBACK

Cut baker's bread into slices one-half inch thick. Place them in a shallow tin plate and bake in a hot oven until they are a delicate brown on both sides. Baker's rolls are still better, prepared in the same way.

ALCOHOLIC STIMULANTS

These formulas for alcoholic stimulants call for greater quantity than is intended to be given at one time, but can be made up as directed and administered in doses of from one teaspoonful to several teaspoonfuls, according to the age of the patient; or the proportions may be changed to suit each case.

BRANDY MIXTURE

Yolks of two eggs.
Two teaspoonfuls of sugar.
Three-quarters cup cinnamon water.
One tablespoonful brandy.

Beat the yolks, add the sugar and gradually the cinnamon water, then the brandy.

COLD EGG NOG

One egg.
One-half cup milk.
Sugar.
One tablespoonful brandy or wine.

Beat the egg, add the milk, sweeten to taste, and add brandy or wine, also a little nutmeg.

HOT EGG NOG

Yolk of one egg.
One cup of hot milk.
One teaspoonful sugar.
One tablespoonful brandy or wine.

Beat the yolk of the egg, add the sugar, pour the hot milk over them, add the brandy or wine; flavor with nutmeg if desired.

WINE WHEY

One cup of boiling milk.
Four tablespoonfuls sherry.
One teaspoonful sugar.

Pour the wine into the hot milk, and allow it to stand about ten minutes, or until the curd separates from the whey. Do not stir; strain and sweeten to taste.

Serve hot or cold.

EGG CORDIAL

White of one egg.
One tablespoonful cream.
One tablespoonful brandy.
One teaspoonful sugar.

Beat the white of the egg, but not to a stiff froth, add the cream and beat them together, then add the brandy and sugar.

MULLED WINE

One-half cup hot water.
One inch stick cinnamon.
Three whole cloves.
One cup port wine.
Two tablespoonfuls sugar.
Pinch nutmeg.

Cook for ten minutes all the ingredients, except the port wine and sugar, then heat the wine and sugar, mix all together and serve while hot.

MILK PUNCH

One cup of milk, ice cold.
One tablespoonful rum, whiskey or brandy.
One teaspoonful sugar.

Mix. Use a glass jar or two tumblers, or a shaker; shake until thoroughly blended and frothy. Twist a piece of lemon peel over to flavor, or add a few grains of nutmeg or cinnamon.

PEPTONIZED MILK PUNCH

Is made in the same way as above, using peptonized milk instead of plain milk.

DESSERTS

COFFEE CREAM

One-quarter box of gelatine (Nelson's).
One-quarter cup cold water.
One-half cup strong filtered hot coffee.
One and one-half cups cream or rich milk.
One-half cup sugar.

Soak the gelatine in the cold water until soft, then add the hot coffee and the sugar. When the gelatine is dissolved, strain the mixture into an earthen or graniteware dish. Place in ice water to cool. Stir occasionally; when it becomes like syrup, add the cream either plain or whipped; stir until it becomes thick, but not hard, then pour it into a glass dish.

EGG CREAM

Two eggs.
Two tablespoonfuls sugar.
One-half lemon, juice and a little grated rind.

Separate the yolks and whites of the eggs, and beat the sugar with the yolks until well mixed; add the lemon to this, and stir slowly over hot water until the mixture begins to thicken, then add the beaten whites and stir until the whole resembles very thick cream; stir occasionally until cool, then pour into a glass dish.

CHOCOLATE CREAM

One pint of cream or rich milk heated.
One-half ounce Baker's chocolate.
Four eggs.
Two tablespoonfuls sugar.

Cut the chocolate into small pieces, and place it in the upper part of a double boiler; when the chocolate melts, add gradually the hot milk or cream. Separate the yolks and whites of the eggs, and beat them until light; add the sugar to the yolks and pour the hot mixture slowly over them. Cook over hot water until the mixture thickens like a custard, then remove from the hot water, and when partially cool cut in the whites.

PEACH FOAM

Peel and cut into small pieces three or four very ripe peaches, so that when done there will be a cupful. Put them into a bowl with one-half cup powdered sugar and the unbeaten white of one egg. Beat until thick and smooth, like a meringue. Chill before serving.

APPLE WHIP

Two apples.
White of one egg.
One tablespoonful sugar.

Cook two small apples until soft with a little water. Drain and rub them through a hair sieve. Beat the white of the egg, add the sugar, and beat in the strained apple gradually.

The apples should be cool. Serve with cream.

BAKED APPLE

Wipe and core sour apples.

Place them in an earthen or agateware baking dish, and fill each centre with sugar.

Measure one tablespoonful of water for each apple, and pour it around, not over them.

Bake until the apples are soft, from twenty to forty-five minutes, basting them once in ten minutes; place them on a dish and strain off the juice. Add one-third of a cup of sugar for each one-half cup of juice. Boil the syrup five minutes, skim and pour it over the apples; when cold they may be served with or without cream or milk.

RICE PUDDING

One tablespoonful rice.
Three cups milk.
One tablespoonful sugar.
A little nutmeg or mace.

Put the cold milk into a small baking dish with a little salt and the washed rice. Set it on the back of the stove, or in a cool oven and let it heat gradually, stirring occasionally, until the rice is swelled to its full size. Then add the sugar and nutmeg and bake slowly, stirring occasionally until it is the color of rich cream. If it bakes down too thick add a little cold milk. If it is in too hot an oven it will curdle, which should be avoided.

STEWED PRUNES

Wash one-half pound of prunes, then soak them in one quart cold water for several hours; cook slowly until tender, in the water in which they were soaked. Add one tablespoonful sugar, and also a little lemon juice. Cook five minutes longer and set away to cool.

BROTHS

GENERAL RULES

The meat should be cleaned with a damp cloth.

Remove all fat and cut the meat into small pieces. Bones should be separated and broken.

The meat should be soaked in cold water before cooking.

Fat may be removed from hot broth by using blotting paper.

When broth is reheated, the temperature must not be high enough to harden the albumen.

A weak broth may be made more nutritious by adding one or more eggs just before serving. The eggs should be slightly beaten and the hot broth poured slowly over them, stirring well.

The cover of fat which is over cold broth must not be removed until the broth is to be used, as it keeps it from spoiling.

Every particle of fat must be removed before a broth is served.

Remove small globules of fat from cold broth with a cloth which has been wrung in boiling water.

The same amount of meat, bone and water may be used for beef, mutton or chicken broth.

One pint of water to one pound solid meat makes a very strong broth.

One quart of water to one pound of meat makes a good broth.

One pint of water may be used with one-half pound of meat, and one half pound of bone.

BEEF BROTH

One pound of lean meat.

One pint of cold water.

Cut the meat very fine and put it into the cold water. Allow it to soak for one hour. Cook over hot water, stirring to prevent meat in lower part of the kettle from hardening too rapidly. When it is hot enough or before it reaches the boiling point, remove from fire, and strain through a coarse sieve. Add salt and serve. Do not strain out the soft brown flakes; these contain the nutriment.

MUTTON BROTH

STRONG	WEAK
Two pounds of neck of mutton.	One pound neck of mutton.
One quart of cold water.	One quart of cold water.

Cleanse the meat with a damp cloth, remove the skin and fat. Cut the meat into small pieces, break the bones. Place the meat and bones in a stew pan, and add the cold water; let stand one hour. Heat gradually to a good heat, but not to the boiling point, and keep at that temperature for two hours. Strain through a coarse sieve, that the reddish brown particles of albuminous matter may not be lost.

MUTTON BROTH No. 2

Cut in small pieces one pound of lean mutton. Put it in one quart of cold water, and boil it, keeping it closely covered until it falls to pieces. Strain it and add one tablespoonful of rice or barley that has been soaked in a little warm water. Simmer for one-half hour, stirring often, then

add four tablespoonfuls milk, salt to taste, and simmer again five minutes, stirring constantly.

HAMBURG STEAK

Two ounces of rump or round steak.

Scrape the meat to obtain two or three tablespoonfuls scraped beef, add a little salt. Form into a cake and brown in a hot pan, sear thoroughly on each side, turning every few seconds, and cook from three to five minutes.

PAN BROILED CHOP

Remove fat and wipe the chop with a damp cloth. Heat a frying pan very hot, without any fat. Cook for five minutes if desired rare, or longer if wanted well done. Pour off any fat which collects in the pan.

BEEF TEA

Remove all skin and fat from one pound of good beef. Chop up fine and pour upon it in an earthen jar, one pint of cold water. Stir and let stand for one hour. Then place the jar in a moderate oven for one hour, or place the jar in a sauce pan of water and allow the water to boil gently for an hour. Strain through a coarse sieve and allow it to get cold. When wanted remove every particle of fat from the top, warm up as may be required, adding a little salt.

ESSENCE OF BEEF

Remove all skin and fat from one pound of good beef, place in a wooden bowl, and chop up fine, then add three tablespoonfuls water, and pound it well; let it soak for two hours. Then put it with a pinch of salt in a fruit jar and screw down the top tight. Place the jar warmed so it will not crack on a plate in a pot that is half filled with boiling water, and keep the pot on the fire simmering for four hours. Strain off the liquid essence through a coarse sieve into a teacup. It will more than half fill the teacup. A teaspoonful at a time is sufficient for a young child.

QUICK BEEF TEA

Scrape one pound lean beef into shreds, and place in a clean saucepan and pour one-half pint of boiling water upon it; cover closely and set by the fire for ten minutes; strain into a teacup, place the teacup into

a basin ice water, and when the fat forms on top remove with a spoon, and piece of blotting paper, or a piece of bread. Then pour into warmed cup and heat to temperature for drinking.

CHICKEN BROTH

Take an old fowl, cut it up and put it, bones and all, in a saucepan with three pints of cold water; add a little salt, and a very small chopped onion. Let simmer gently until the meat is tender, which will take about three hours, skimming all the while. Strain carefully and set aside to cool. Remove any fat that forms. Then heat again, and serve.

RAW MEAT

Remove all fat from a piece of tenderloin or sirloin steak, then chop fine and put through a sieve; season with salt, serve on little toasted seafoam crackers. Give a teaspoonful of this meat three or four times daily to a child of one year or older. It is useful in diarrhoea.

EGG SOUP

The yolks of two eggs.
One-half pint of water.
Beat up together over a slow fire, adding the water gradually. When it begins to boil pour backwards and forwards, between two saucepans until smooth and frothy. Flavor with salt.

BEEF JUICE WITHOUT COOKING

One pound of finely chopped lean beef.
One teacupful of water.
Mix in a jar and allow to stand on ice from six to twelve hours. Then squeeze out the juice by twisting the meat in cheese cloth, or coarse muslin. Season with salt, and give warm or cold. This juice is not very palatable, but makes an excellent preparation for adding to milk in the proportion of two or three teaspoonfuls to each feeding. In this way it is not tasted. Milk should be heated to proper temperature for drinking before adding beef juice. A stronger beef juice may be made by adding only half the quantity of water and is better for all, except young infants.

BEEF JUICE

Take a slice of round steak, remove the fat, wipe with a damp cloth, broil slightly for a few seconds on both sides, over a clear fire to start the juice. Cut into small squares and press out the juice with lemon

squeezer, or meat press. One pound of meat should yield two or three ounces of juice. Season with salt and give warm or cold. In heating be careful to just warm; a greater heat will coagulate the albumin.

PEPTONIZED FOODS

Are prepared by the use of an animal ferment, that will partially or entirely digest the food, thus producing a valuable article of diet for anyone with impaired digestion. The preparing of peptonized foods is made simply by the use of Fairchild's peptonizing tubes. Milk is partially or completely peptonized at will. The purpose for which it is desired and the condition of the patient's digestion determine this.

PEPTONIZED BEEF TEA

One-quarter pound of lean, raw beef.

One pint of cold water.

Chop the meat fine, add one-half pint of water, cook over a slow fire, stirring until it has boiled a few minutes. Pour off the liquid and rub the meat to a paste and put in a glass fruit jar with one-half pint cold water, adding the first liquid. To this mixture add a powder obtained at a druggist's, consisting of twenty grains Extract Pancreas, and fifteen grains Bicarbonate of Soda, rubbed well together. Now shake the jar well and set aside in a warm place at about a temperature of 110° to 115° F. for three hours, shaking occasionally. Then boil quickly, strain, season with salt, keep on ice, heating the amount that is required for each time.

PARTIALLY PEPTONIZED MILK

Put two tablespoonfuls of cold water into a goblet or glass, dissolve in this the powder contained in one of the Fairchild's peptonizing tubes, then add fresh cold milk to fill the glass; stir this mixture thoroughly and drink immediately, sipping slowly. Warm milk may be used instead of cold.

This is useful in cases of weak digestive power, or when it is desirable to return from predigested to ordinary milk. When milk thus prepared is not well borne, or is not properly digested, it should be partially peptonized by second method.

PARTIALLY PEPTONIZED MILK—Second Method

Put into a clean agateware or porcelain-lined saucepan the powder contained in one of the Fairchild's peptonizing tubes, and an ounce of

cold water; stir well, then add a pint of cold, fresh milk. Heat to boiling point, with constant stirring. The heat should be so applied that the mixture will come to a boil in ten minutes. When cool pour into a clean bottle, cork well and keep in a cold place. When needed, shake the bottle and pour out the required portion.

Milk so prepared will not become bitter, but the taste may be slightly changed, and will be improved by adding sugar, or half filling a glass with this milk, completely filling it by squirting into it with force Seltzer water from a syphon.

COMPLETELY PEPTONIZED MILK

Mix thoroughly in a quart bottle the contents of one peptonizing tube with an ounce of cold water; add a pint of fresh cold milk and shake well. Place the bottle in water so hot that the whole hand can be held in it without discomfort. Keep at this temperature and allow the bottle to remain in it for one hour, then pour into a saucepan and heat to boiling. It is now completely peptonized and ready for use in making jellies, punches or lemonade.

COMPLETELY PEPTONIZED MILK—Second Method

This is more palatable and the way of preparing more simple. It is useful for feeding in cases where the partially peptonized will not serve. Mix thoroughly in a quart bottle the contents of one peptonizing tube, with one ounce of cold water; add a pint of fresh cold milk and shake well. Place the bottle in water so hot that the whole hand can be held in it without discomfort. Keep the bottle there for fifteen minutes, then place immediately against the ice, to check digestion and preserve the milk.

Thus prepared, peptonized milk is slightly bitter, and may prove objectionable to an infant at first, but the taste for it is soon acquired. After the second or third bottle, no objection to its use will appear.

For older children the taste may be improved by lemon juice and sugar, or grated nutmeg, or any one of the effervescent waters, as Vichy, Seltzer or Apollinaris.

Peptonized milk is to be diluted, according to the age of the child. It is well, usually, in the case of infants who are being fed by bottle, to dilute the milk and cream mixture with the proper amount of water and peptonize. Peptonized milk is of service in acute and chronic indigestion. In acute attacks, completely peptonized milk is preferred to

that which has been only partially peptonized. A return to ordinary milk is to be gradually brought about. First the peptonized, then the partially peptonized, then the ordinary milk. It is well not to continue the use of peptonized milk for a long time, for as it does the work of the stomach, that organ, when not called upon to perform its labor, will have its power diminished. At the most, a month or two should be long enough to enable one to get back to the regular feeding.

PEPTONIZED MILK JELLY

One-half box Cox's gelatine, set aside to soak in a teacupful of cold water. Dissolve one-quarter pound of sugar in one pint of hot completely peptonized milk, next add the gelatine, stir until dissolved. Pare one fresh lemon and one orange, and throw the rinds into the hot peptonized milk. Squeeze the lemon and orange juice into a glass, strain and mix it with two or three tablespoonfuls best St. Croix rum or brandy. Then add the juice and spirits. Strain all through a jelly bag and when cooled to a thick syrup, almost ready to set, pour into tumblers or jelly moulds, and put in a cold place. This jelly has a delicious flavor, and is very acceptable to invalids at a period when they tire of liquids and crave more substantial foods.

PEPTONIZED GRUEL

Make a paste of one heaping teaspoonful of wheat flour, or arrowroot with enough cold water, then mix with one-half pint of cold water. Then heat with constant stirring until it has boiled briskly for several minutes. Mix with this gruel one pint of cold milk and strain into a glass jar and immediately add the contents of one peptonizing tube. Mix well; let it stand in hot water or warm place for thirty minutes, then put in a clean quart bottle and place on ice. The flavor of this gruel is very agreeable; it has none of the bitter taste of peptonized milk. The flour or arrowroot being digested, disguises the taste of the milk.

Note.—All porridge or gruel of oatmeal, rice, hominy, etc., may be taken with peptonized milk, instead of ordinary milk, it aids the digestion of these foods and supplies the milk in a form especially adapted for children with defective digestion.

WHEY

Put one pint of fresh milk into a saucepan and heat it lukewarm (not over 100° F.). Then add two teaspoonfuls of Fairchild's Essence of

Pepsin, and stir just enough to mix; let it stand until firmly jellied then beat up with a fork until it is finely divided; now strain and the whey (liquid part) is ready for use. Keep in a bottle near ice.

Whey is valuable for infants suffering from acute indigestion. It may be given in small amounts, frequently repeated, and will often be retained when everything else is vomited. It should be given cold. Wine whey is especially valuable and may be made by the addition of sherry wine, one part to sixteen parts whey, or by formula under Alcoholic Stimulants.

LEMON WHEY

One cup milk.
Two teaspoonfuls sugar.
One small lemon.

Heat the milk in a double boiler, add the juice of the lemon, cook until the curd separates, then strain through cheese cloth. Add the sugar. Serve hot or cold.

JUNKET

Put one-half pint of fresh, cool milk into a clean saucepan and heat it lukewarm (not over 100° F.). Then add one teaspoonful of Fairchild's Essence of Pepsin, and stir just enough to mix. Divide quickly into two coffee cups and let stand until firmly jellied. It is now ready for use, alone or with sugar and nutmeg. If so desired it may be placed on ice and taken cold. Junket is useful in the feeding of older children, but should not be given to infants.

JUNKET AND EGG

Beat one egg to a froth, and sweeten with two teaspoonfuls of sugar. Mix with one-half pint of milk and proceed as for plain junket.

COCOA JUNKET

Put an even tablespoonful of any good cocoa and two teaspoonfuls of sugar, into a saucepan, scald with two tablespoonfuls of boiling water; rub this paste smooth, then stir in thoroughly one-half pint of fresh, cool milk. Heat this mixture lukewarm (not over 100° F.), then add one teaspoonful of Fairchild's Essence of Pepsin, and stir just enough to mix. Divide quickly into two coffee cups, and let stand until firmly jellied. It is now ready for use, alone or with bread and butter, or crackers or cake. If desired, it can be placed on ice and taken cold.

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