

# Preparation for Motherhood

BY



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## INTRODUCTION

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THE preparation for motherhood should begin in early girlhood. It is the mothers of to-day who are training the mothers of the next generation. As they deal wisely, or unwisely, with the souls and bodies of their charges, the children of the future are helped, or hindered, in their equipment for the battle of life.

It has been the fashion to educate girls in total ignorance of the subjects that in coming years many of them will most require to be fully informed upon.

The structure of their own physical frames, the laws that govern the reproduction of the species, the proper care of children, before and after birth, demand and should have at least as much attention as the study of foreign languages, or the higher mathematics.

Motherhood is the natural lot, as well as the crowning glory of woman. Even if she did not at-

tain it herself, it would do the individual woman no harm to be thoroughly furnished with the necessary knowledge, and there are few who at some time do not have to care for the children of others.

There is nothing indelicate in the secrets of nature. We may look with pure and reverent eyes at her processes, as far as she permits their mysterious workings to be seen, and find only cause for awe and admiration. Unseen but ever present is the Lord and Giver of Life, in whom we live and move and have our being.

If the sacredness of life, even in its earliest stages, were more deeply impressed upon the minds of some women, it might lessen the tragedies of ruined health and burdened conscience that overshadow too many homes.

It is true that some women are laden with burdens beyond their strength to bear, and maternity from its too frequent recurrence becomes an oppressive weight, instead of the blessing it was intended to be. The remedy does not lie in the desperate woman taking the law into her own hands and staining her soul with crime by crushing the germ of the new life just begun. This is fraught with terrible consequences to body and soul alike. After the birth of the child, the best and wisest physician within

reach should be consulted and his advice implicitly followed in the future.

If mothers talked frankly yet modestly with their daughters, first informing themselves and then teaching their children some of the great central facts of life, there would be less unhappiness, suffering and ill health. The barrier between mother and daughter, that prevents the frankness and confidence that ought to exist between them, is often raised in very early childhood.

The little girl, as her curiosity awakens, comes to her mother with questions which should be truthfully answered, as far as it is possible to make the subject plain to her limited comprehension. Instead of this she is put off with some well-worn fiction, which she soon discovers to be untrue. Her absolute trust in her mother is shaken, never to be wholly restored, and she seeks from others who have no right to give it the information she should have had from the one whose duty it was to have imparted it.

Why should the mother, of all others, be the one to shrink from guarding the purity of her child's mind? Innocence is not ignorance, but reverent knowledge. It is the atmosphere which surrounds an object that gives it its coloring. The simple facts of physiology, properly taught, convey no

hint of impropriety. Viewed through the medium of a vulgar secrecy, as something only to be spoken of with bated breath, they acquire a fictitious immodesty which in no way belongs to them.

Many wise mothers have recognized their obligations to their children in this matter, but there are many, many others, who have neglected them. There are many, too, who would be glad to fulfil them if they knew the way.

Make this a principle in the elementary teaching, never tell a child anything that is not absolutely true. Draw illustrations at first from plant and animal life. Describe in simple language the wonderful structure of the pelvic organs. Tell how day by day the little frame grows until the child is perfected, and the tiny, helpless being comes into the world to be loved and cherished. Further details can be left until the inquirer is older, but there need never be silly mystery in the beginning.

A good text book of physiology for mothers is needed. Those in use in schools do not deal with the pelvis further than to say that it contains some important organs, which is not sufficient information for women. The text books intended for students of medicine are too technical for the ordinary reader and presuppose a knowledge that she does not have.

This being the case, it was thought that a chapter

devoted to this subject would not be out of place in this manual. It may be of use and interest to those who desire to know something of the anatomy of this region and yet have not time nor opportunity for more extended study.

The more vigorous, healthy and well-developed a woman is, the better chance she has of coming safely through the perils of child-bearing. It is true that delicate women do pass through them in safety, but their children are apt to have less vitality and strength of constitution than if the mothers had been physically finer specimens of womanhood.

Whatever then tends to build up and develop the frame of the girl prepares her the better to fulfil the function of motherhood. Good food, pure air, cleanliness, exercise, proper clothing, sufficient sleep, are all means to the end. From her daughter's early childhood the mother should bear in mind her possible future and strive to prepare her for it. In so doing she will greatly add to her capability for usefulness and to her happiness in life, whether she ever becomes a mother or not.

In a previous book, "The Care of Children," explicit directions are given for the care of children in sickness and health from their birth until their later youth, so that this subject has been only very briefly touched upon in the present volume.

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PREPARATORY

# FOR MOTHERHOOD

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## CHAPTER I

### THE PELVIC ORGANS

THE word pelvis is derived from a Greek term meaning a dish, or bowl. It is the bony basin forming the lower part of the body. The hip bones are the highest point on each side. From these it slopes down until in front there is only a comparatively narrow rim called the pubic arch. The side of the bowl below this is cut away, and it is under this arch that the child passes at the time of birth.

Stretching across the pelvis is a broad band, or ligament, dividing it into two parts, firmly attached to it on each side. This supports in the middle the uterus, or womb, where the child lives and grows from its earliest conception until it is born. Leading from each side of the uterus, at the upper part, are two tiny tubes, about four inches long, called the

Fallopian tubes. These are to convey the little egg from the place where it is formed into the uterus. They lie along the broad ligament, but one end is free and furnished with a delicate fringe. Below these tubes, also supported by the broad ligament, are two oval bodies called the ovaries. These contain the eggs which hold the germ of the future life. The eggs are so tiny that it would take one hundred and twenty-five of them to reach an inch.

In front of the uterus lies the bladder, behind it the rectum, or lower part of the large intestine, often called the back passage, and leading directly to its mouth is the vagina, or front passage, through which the child makes its entrance to the world.

The uterus is something like a pear in shape, with the broad end turned uppermost. It has thick walls, but is a very small organ in the virgin state. Then it is only about three inches long and two wide at the broadest part, and weighs from an ounce to an ounce and a half. When it contains a child new material is added to it, and it increases greatly in size. After delivery it gradually shrinks, but never quite regains its former dimensions.

If the newly-made mother stands and walks too soon, the weight of the uterus is apt to stretch the broad ligament, which, not being elastic like a piece of India rubber, remains in this state. The uterus,



not being properly held in place, descends too low, and the patient suffers from what is popularly known as falling of the womb. This is a very painful condition, giving rise to backache and many uncomfortable nervous feelings. It is very important that there should be rest in bed for nine, or ten, days, and great care should be exercised in walking, or standing, for some time, as the uterus does not return to its usual size for about six weeks. The motion of going up and down stairs is particularly injurious, and should be avoided as long as possible.

## CONCEPTION

At the time of menstruation an unusual supply of blood is sent to the pelvic organs. An egg on the surface of the ovary becomes ripe, bursts the shell, or envelope, that surrounds it, and falls into the free end of the Fallopian tube, the fringelike extremity of the tube resting below and against the ovary. The tube is lined with a delicate membrane, lined with hairlike filaments which beckon the egg towards the uterus. If it is impregnated, it lodges in the cavity of the uterus and begins to grow there. If not impregnated, it passes through the uterus and is carried off through the vagina.

The semen, or seed of the male, entering the uterus from the vagina, in which passage it is sup-

posed to remain for about twenty minutes, meets the egg, usually in the Fallopian tube. The passage of the egg through the tube occupies, it is said, from ten to fourteen days. After it is cast out from the uterus nothing remains to be impregnated until the next menstruation shows that another egg has ripened. It is said that the semen retains its vitality for eight, or ten, days, so that if it finds its way into the uterus, or tubes, within that time before menstruation, it may lie there awaiting the coming egg and stimulate it into life. There is thus about one week in the month when it is probable conception will not take place.

#### PUNISHMENT FOR DESTRUCTION OF LIFE

From the moment that the semen penetrates the egg and unites with it, life begins, and its destruction is a crime that can only be called by one name—murder.

In some States it is punishable by death if the mother herself is the guilty person.

When the crime is committed by another the penalty is imprisonment for twenty years.

#### GROWTH

The impregnated egg leaves the Fallopian tube and attaches itself to the wall of the uterus, usually

in the upper part, and its growth commences. It is soon surrounded by a covering of membrane, called the amniotic sac, which after a time is filled with a fluid in which the child floats. At the time of birth this amounts to about a quart. When the sac ruptures to permit the escape of the child, the liquid comes away, and this is known as the breaking of the waters.

The liquid protects the child from accidental injury from a sudden jolt, or jar, to the mother. It also defends the uterus from contact with the hard surface of the child. At the time of birth, when the mouth of the uterus begins to unclose, the bag of water slips into the aperture like a wedge and holds it open, preventing it from closing until it is fully expanded to permit the outward passage of the child.

During the time that it is within the uterus the infant receives air and nourishment through the umbilical cord, which is attached to its navel. This begins to grow at the end of the first month, and is about twenty inches long when finished. It contains two arteries and a vein, through which the child's blood is carried to the mother for purification and enrichment, and returned to build up the fast-growing frame.

At first the wall of the uterus, much thickened

and enlarged, contains sufficient blood vessels to supply the demands of the new organism. After a time more is required, and during the third month the placenta is formed. This is a flat, spongelike mass, growing on the inner wall of the uterus, filled with blood vessels through which the blood of the mother freely circulates. One end of the umbilical cord is attached to it, so that the blood of the child also flows into it. The two fluids never mingle, however, being separated by a thin membrane, the walls of the blood vessels.

Oxygen, the gas in the air which sustains life, and nourishment already prepared by the mother, pass through this thin dividing membrane, are absorbed by the blood of the child and carried back through the umbilical cord.

When the child has been expelled from the uterus, the placenta, having served its purpose, follows. It is commonly called the after-birth. It is about eight, or nine, inches long, six, or seven, wide, and weighs about a pound and a quarter.

The vagina, or front passage, through which the child enters the world, is a canal about five, or six, inches long, leading directly to the uterus, whose mouth opens into the upper end. The walls are very elastic and stretch to permit so large a body to pass through it.

The perineum, a part of which extends from the lower part of the opening of the vagina, backwards towards the rectum, is sometimes torn when the child is of an unusual size, or the parts are particularly unyielding. The doctor in attendance often puts in a few stitches at the time to repair the breach. If for any reason he thinks it best not to do so immediately, he will probably take advantage of the earliest opportunity to perform the operation. It is a comparatively slight one, and if left undone gives rise to unpleasant results. The perineum in women helps to support the vagina, uterus and bladder. Its rupture permits their displacement and causes much discomfort—sometimes serious inconvenience and suffering.

Close to the upper part of the opening of the vagina, outside, is a tiny orifice, the mouth of the urethra, or passage leading to the bladder. This canal is about an inch and a half long. After childbirth it is sometimes necessary to draw the water for a day or two, the mother having temporarily lost the power of passing it herself. This is not a formidable operation, and usually gives little, sometimes no, pain. A catheter, a flexible tube of rubber, or one of glass, made for the purpose, is gently inserted in the urethra and pushed on until it enters the bladder, when the water flows out through it.

## THE MAMMARY GLANDS

Although not situated in the pelvis, there are two other organs that have an important function in the process of reproduction. These are the breasts, properly called the mammary glands. The word Mamma is derived from the same Latin word.

Each breast is composed of fifteen or twenty lobes, in which the milk is secreted. Each lobe has a little duct which carries the milk to the nipple. The tiny openings can be seen on its surface when the milk is squeezed from it. The darker skin around the nipple is called the areola.

The breasts begin to enlarge early during pregnancy, usually about the beginning of the second month, to fit them for their office of secreting nourishment for the baby after its birth. They become sensitive and a tingling sensation is felt in them. The veins show more prominently on the surface. A little later the nipples become enlarged, darker and more sensitive. During the last three months a milky fluid can be pressed from them. The areola also swells and darkens.

Nature provides in every way possible for the safety of mother and child. The pelvis is broader and the bones lighter in women than in men. It is composed of several bones, and during pregnancy the connections between them become softened and

the bones slightly separate, so as to yield more readily to pressure and give as much room as can be obtained.

The soft parts also become more elastic and enlarge.

## CHAPTER II

### MENSTRUATION

THE increased supply of blood sent to the pelvic organs at the time of the ripening and discharge of an egg from the ovary causes tiny blood vessels in the lining of the uterus to rupture, and produces a flow of blood known as the menses. The term is derived from a Latin word meaning month, and the name is given because the discharge occurs about every twenty-eight days.

#### TIME OF APPEARANCE

The time of its first appearance varies very much in different persons and under different conditions. Girls who live in a cold climate and who are strong and hardy are not unwell as early as their more delicate sisters, or those whose home is in a warm country. Even in temperate latitudes the flow sometimes begins at eleven years of age, and it may not come until fifteen. If it is delayed longer than this a physician should be consulted.



Sometimes the opening of the vagina is closed by a membrane, called the hymen, which prevents the escape of the fluid, and it has to be removed to give it free passage. This is a very trifling operation, but the consequences of neglecting it are serious.

The discharge is at first pale, then becomes a bright red, and towards the last paler again. It lasts from three to six days, and from a quarter to a half pint is lost.

When a larger quantity than this is discharged, a physician should be consulted, as the drain is too great. Iron, or some other tonic, is needed to check the flow.

Some women menstruate slightly more often than every twenty-eight days. When it occurs oftener than once in three weeks, advice should be obtained. Others are only unwell once in two months and yet seem to be in perfect health.

#### NECESSITY OF CARE

Any disturbance of the menstrual function is sure to be attended with nervous symptoms, headache, backache, and sometimes pain in the abdomen. It is worth while for mothers to be especially careful of their daughters at this period, and to teach them to take care of themselves.

The details and meaning of the process should be

explained to a girl as she approaches the age at which it may be expected to begin. It should be invested with a certain dignity as the sign manual of her entrance into the duties and privileges of womanhood.

It is sometimes several months before the flow is properly established, and during this time it may be irregular; perhaps not taking place for two, or even three months, and then coming at too short intervals. No anxiety need be felt as to these irregularities during the first year. If it persists after that, it is well to consult a good physician.

#### DANGER OF COLD

Cold is a danger especially to be avoided at this time. Warm clothing should not be exchanged for light weight, even in hot weather. The change should be deferred until the flow has ceased. Getting overheated and then sitting in a draught is a fruitful source of cold.

The feet should be guarded with special care. If a girl has the misfortune to get them wet, they should be well rubbed with alcohol, spirits of camphor, or some stimulating liniment. Sitting in wet shoes and damp stockings at this time is suicidal.

While a girl should not be unnecessarily coddled and made to think too much about herself, she should be carefully watched, and if there is a ten-

dency to backache, or pain low in the abdomen, she should lie down often during the first days, and stay in bed if there is much discomfort.

#### BATHING

Bathing during menstruation requires to be carefully guarded. A plunge bath never should be taken, nor a cold bath indulged in, even if its use is habitual at other times.

There is need of exquisite cleanliness, and this can easily be attained by a warm sponge bath. Only a part of the body must be wet at once and rapidly dried, the feet being kept warm during the process. There should be local bathing with warm water every day. The feet should be washed with a cloth, not dipped into water, and well rubbed when they are dried. Sea bathing must be prohibited for the time being.

#### NAPKINS

A stock of napkins should be provided in readiness for the time of need. These may be made of twilled cotton or Canton flannel, half a yard square, hemmed on the edges, and folded into shape when they are put on. About a dozen are required, as they should be changed at least twice in the twenty-four hours.

When washing is a consideration, pads can be

made of cheap absorbent cotton, or cotton waste, and covered with gauze, or cheese cloth. They are nine inches long by three wide, and nearly an inch thick. A strip of gauze at each end fastens them to the girdle. They can be purchased ready-made, and cost about five cents each. They are burned after use.

The most comfortable girdle is made something like the yoke of a skirt, pointed in front and back, narrow on the hips, and fastened on one side with button and button hole. A double piece of twilled cotton is cut the desired shape and stitched around the edge. Some persons prefer an elastic girdle, and others, a wide, soft ribbon.

A girl should be trained to take pride in having all her personal belongings and the accessories of her toilet as neat and dainty as possible. There is a subtle want of self-respect in neglecting those that are seldom seen except by the wearer.

#### REMEDIES

If the flow does not begin when it is expected, and there are uncomfortable feelings, headache, a sensation of weight, or pain, in the abdomen, the girl may take a hot sitz bath, that is, sit immersed to the hips in a tub of hot water, soak her feet in warm water, and take a hot drink of ginger tea, or lemon-

ade, before going to bed. She should wear warmer stockings than usual the next day and not go out of the house.

It is the practice in some families to administer alcohol in some form, and even opium, for the relief of the excruciating pain that sometimes accompanies menstruation. This never should be done without the advice of a physician. It does not strike at the root of the evil, which might be reached by proper treatment, but only gives temporary ease, and has to be repeated each month. Habits may thus be formed which cause lasting injury to mind and body, and may end in rendering life unendurable.

When the pain is so severe that it will not yield to the simple domestic remedies of a hot drink and warm applications, as a hot water bag, hot fomentations, or a flaxseed poultice, to the abdomen, the case is one for a physician's prescription.

#### EXERCISE

Violent exercise, as skating, playing tennis, riding on horseback, bicycle riding, dancing to excess, and even long walks, should be interdicted at this time. The more quiet a girl can be kept the better, at least until she is old enough to be fully developed.

If possible, there should be no study in the even-

ing during the process of menstruation. The body is taxed sufficiently already, and the mind should not be permitted to make an extra demand upon it. This practice is a pernicious one at the best, and should be discountenanced by parents whenever possible. School is the place to study lesson books, and they should be kept there. The hours at home are too precious and needed for too many other purposes to be devoted to them.

#### INTERRUPTION

If menstruation is suddenly checked after it has begun, the same measures may be used to encourage its return. If these are ineffectual, nothing more need be done until the next period, unless there is very marked discomfort. There are several drugs and preparations which can be administered, but only a doctor can decide when it is proper to prescribe them.

A sudden fright, any excitement, or strong emotion, may produce the flow unexpectedly, or cause it to cease instantly. A chill from sitting in damp clothing, or wetting the feet, will often produce the latter result. The whole function seems to be so intimately connected with the nervous system that the mind has almost as much influence on it as physical causes.

If a woman has a special reason for wishing not to be unwell, it is ten chances to one that the unwelcome visitor makes its appearance on the very day its presence is least desired. If, on the other hand, she dreads that she may not become so, the very fear delays its arrival.

#### VICARIOUS MENSTRUATION

Sometimes delicate girls who do not menstruate regularly, or who have a very scant flow, have a discharge of blood from some other part of the body, as the nose, or mouth, at this time. This is called vicarious menstruation. There is seldom enough to render it alarming, and constitutional treatment is required to build up and strengthen the body, enrich the blood and give tone to the system. Nourishing food is an important factor in the result.

#### CESSATION

Usually the cessation of the menses is one of the first symptoms of pregnancy. Cases have been known where it has occurred regularly during the whole period.

It is normally absent in the nursing mother, yet some women menstruate even while nursing their children. It is then generally thought best to wean the child. The milk often does not agree with it

under these circumstances, and the double drain is too great a tax on the strength of the mother.

The nursing period is sometimes prolonged with the idea that, while the secretion of milk continues, there is less probability of conception taking place. This is often a futile hope. No baby should be nursed after it is a year old. The mother's milk does not supply suitable or sufficient nourishment after the teeth begin to develop. This is nature's indication that more solid food is needed, and it should be given.

#### THE MENOPAUSE

There comes a time in a woman's life when menstruation finally ceases. This is the sign that her power of reproduction is over; she can no longer hope again to become a mother. This period is known as the menopause, or, more familiarly, as the change of life.

The flow does not stop suddenly, but becomes irregular. There may be a great quantity discharged at once, almost amounting to flooding, and then none for three or four months. Gradually it ceases altogether.

This change is often accompanied by great disturbance of the system. The liver is out of order, the circulation interfered with, and the head affected. There are uncomfortable flashes of heat over the



whole body, the face is flushed at times, and in some instances the breasts and abdomen enlarge almost as in pregnancy.

These disagreeable symptoms disappear by degrees, and the function is at an end. This usually takes place between the ages of forty-five and fifty years.

Authorities differ as to the effect that the time of the commencement of menstruation has upon the date of its cessation. It is said, on one side, that women who menstruate early in life continue to do so until later than those with whom the process did not begin so soon. Others maintain that delayed menstruation in youth intimates that it will continue longer in old age.

A woman requires great care at this time, and if there is serious disturbance, she should have medical advice. Rest is essential; some hours of each day should be spent in lying down. Often there is indigestion, and the appetite is capricious. Nourishing food is very necessary, and delicacies should be provided to tempt the palate. If the regular meals are not eaten with relish, something should be taken between them, as a cup of cocoa, a glass of milk with the white of an egg shaken in it, or a bowl of good beef tea, or broth.

Now, more than at any other period of her life, it

is a woman's duty to spare herself, if she wishes for a useful old age.

#### ENDURANCE

The wise old preacher who exhorted girls to be brave and boys to be pure because each sex possessed the other virtue by natural endowment, emphasized a great need in the education of girls.

All women have many trifling ailments and uncomfortable feelings, vague sensations, scarcely defined enough to be dignified by the name of pain. Perhaps our more sensitive nervous organization renders us more susceptible to these influences than men are. It may be that the burden of petty worries and cares most of us have to carry, and the confined, monotonous lives many of us lead, open the door to these physical disabilities that often seem to us almost unbearably trying.

In training a young girl, or in dealing with ourselves, let us try as far as possible to ignore them; above all, not to speak of them and never to cherish them as if they made us particularly interesting and attractive. A brave effort to forget them, and to act as if they did not exist, sometimes ends in banishing them altogether.

#### RELIEF

When one is really unwell, it is the part of wisdom to get at the root of the trouble, find out, if

possible, what is the matter, and remove it. Very often constipation is at the bottom of the mischief. Sometimes not enough food is taken to supply the demands of the system, or it is not sufficiently nourishing. In other cases too much is eaten, more than the digestive organs can deal with properly, or the body needs.

It may be that the blood is impoverished; there are not enough of the tiny red globules that carry the life-giving oxygen, and some form of iron is required to increase them.

Insufficient sleep is a frequent cause of nervousness. The mother sits up late and rises early; the hours between are not long enough to give the rest demanded by the weary frame and tired nerves. She gets up feeling languid and unrefreshed, and this inevitably makes her fretful and fault-finding, or, if she has self-control enough to prevent this, sad and silent. Rest is essential to repair the fatigue of the day.

Many women are harder task-masters to themselves than they are to any other member of their households. It is the self-indulgent who make demands upon others and coddle themselves. The self-sacrificing spend their strength too lavishly, and will not see that proper care of themselves and a due

husbanding of their powers is a duty they owe to their families.

An hour a day spent in rest and sleep by women who are not strong would contribute more to the comfort of the home than any other use they could possibly make of the time. They would come fresh and bright to the duties of the evening, instead of being too weary and harassed to be cheerful companions. If the mother is to make the home the brightest spot on earth to husband and children, she must have a private store of sunshine to shed on it. She cannot generate this when body and brain are overtaxed with the strain of a long day of incessant work and anxiety.

#### THE HOME MAKER

The demands of modern life are very exacting. It is often most difficult to adjust properly the conflicting claims of charitable enterprises, social duties and business engagements. I think we women should remember that we are first of all home makers. None can take our place there. Not all of us have an opportunity to exercise our natural office, and then other duties assume a paramount importance. In this case we must follow where we are led. When we are the chief factor in a home, our first duty is to it, and we have

the right to give only such time and strength as we are abundantly well able to spare to matters outside of it. A wise choice of the duties that lie beyond it, and strict attention to the statute of limitation in the matter of strength and endurance, would save many from the terrible breakdown that is known as nervous prostration.

Fresh air is absolutely essential to keep one in health, but most women get sufficient exercise in moving about their households, and a long walk does not bring sufficient compensation for the fatigue it causes. Sitting on the piazza, or lying in the hammock, in summer, will often be more beneficial than keeping on one's feet to walk. In winter, wrapping up warmly and moving slowly about a room, with the window open, answers the purpose of a constitutional, and is not nearly as tiring. Driving is an ideal recreation for the woman who uses her feet sufficiently indoors, but not every one can indulge in it.

## CHAPTER III

### INDICATIONS OF PREGNANCY

**THERE** are a number of symptoms which taken together point almost conclusively to the fact that conception has occurred. Any one of them separately would not be positive evidence, because it might be due to other causes.

#### CESSATION OF MENSES

Usually the non-appearance of the menstrual flow is the first indication a woman has that she is pregnant. The oversupply of blood is directed towards the support of the child, the pressure on the capillaries, or tiny blood vessels, in the uterus is lessened, they do not rupture and there is no discharge. Menstruation sometimes continues until the fifth, or sixth, month and then ceases. As has been explained previously, its cessation may be due to cold, excitement, or other mental disturbance. Thus it appears that its presence, or absence, is not a positive sign one way or the other.

## MORNING SICKNESS

Morning sickness is a feeling of nausea that occurs as soon as the head is raised from the pillow, and often at intervals during the day, particularly after eating. It usually disappears during the third month, but in some cases persists until the end. If it is so serious that a proper quantity of food cannot be taken, or retained, the doctor should be consulted after domestic treatment has been tried in vain.

## ENLARGEMENT OF THE BREASTS

The enlargement of the breasts, accompanied by tingling sensations, is often noticed during the first month. This symptom, however, appears in some women at the time of menstruation, so it cannot be depended upon as an indication alone.

## OTHER SYMPTOMS

The navel, or umbilicus as it is properly called, appears to sink in during the first two months. Later it rises again, and in the ninth month often protrudes, or pouts, above the surface. During the early period the abdomen seems to be slightly flattened.

## QUICKENING

This usually takes place at four months and a half, or half way between conception and delivery. The uterus rises out of the pelvis higher into the

abdomen, and the mother first feels the movements of the child. It is a popular superstition that life is not present until these motions are perceptible, but it does exist from the moment that the egg is transfixed by the spermatozoid, or active part, of the male seed.

The sensation of quickening often causes a feeling of faintness. If it is first felt in church, or a public place, it is difficult to maintain the self-control. If it is possible to lie down for a few minutes, the unpleasant feelings gradually disappear for the time.

The movements of the child occasion more or less discomfort from this time on. The mother may remember for her comfort that they cannot do harm. The child is firmly enclosed in the amniotic sac, surrounded by fluid, and that in turn cannot escape from the uterus.

Some women never feel any motion and yet bear living children.

#### FALSE INDICATIONS

In some cases contractions of the muscles of the abdomen, or the presence of wind, or gas, in the intestines, are mistaken for the movements of a child, so that even these indications are not a certain sign of pregnancy, as they may be counterfeited. An examination by a physician is the only means of



positively proving it. The enlargement of the abdomen, which might be supposed to be proof positive, may be due to other causes, as the growth of a tumor. When this is the case, the general health is affected more seriously than it usually is in an ordinary pregnancy.

When the uterus contains a child, it enlarges at a certain recognized rate, increasing regularly in size. With the growth of a tumor the distention does not proceed according to any known law.

#### MEDICAL EXAMINATION

The doctor can give a well-founded verdict only after he has made an examination by touch, either internal or external, sometimes both. As the child develops, about the end of the fourth month, the beating of the heart can be distinguished through the wall of the abdomen if listened for with an instrument to assist the hearing called a stethoscope. The rapidity of the beat is said to be one of the signs by which the sex may be surmised. If over 134 a minute the child is probably a girl, under that number a boy. The rate is from 120 to 160 beats a minute. At birth the pulse is about 120. In a healthy adult it averages about 72.

#### SPURIOUS PREGNANCY

Nervous, hysterical women, those who very greatly

desire to have children, yet fear they will not, perhaps on account of advanced age, and those who are equally afraid of becoming mothers, are sometimes the victims of a false, or spurious pregnancy. Many of the signs are present, the enlargement of the abdomen, the swelling of the breasts, which may even secrete milk, and the cessation of menstruation. Imaginary movements are felt, the stomach may be disturbed, and at the end of the supposed period labor pains are experienced—all with no result. This is, perhaps, the most striking instance in physiology, of the influence of mind over matter.

#### DURATION OF PREGNANCY

It is difficult to calculate the exact day on which the confinement may be expected to take place. It is usual to reckon 280 days, or nine months and one week, from the end of the last menstruation, and give that day as the date. For instance: if menstruation ceased on the 26th of January, the confinement may be looked for on the 2d of November. It is said that the interval between conception and birth is 275 days. From this statement it might be supposed that the day of delivery could be accurately computed. That it is not so is due to the fact that it is uncertain how long a time elapses before

the semen unites with the egg. The interval is said to vary from a few hours to several days.

Pregnancy may be prolonged very much beyond the usual limit. In this country the law recognizes as legitimate children born after a possible pregnancy of 317 days.

On the other hand, it is possible for a baby to live, for a short time at least, very much earlier than is popularly supposed to be the case. At the end of the fourth month it may live for a few hours and the sex can be distinguished. A child born during the seventh month can be kept alive by the exercise of the greatest care. It lives in an incubator, is fed by means of a stomach tube, rolled in lambs' wool instead of being dressed, and disturbed no more than is absolutely necessary.

As soon as the twenty-first day after conception, the ears, eyes and mouth have begun to develop, and at the end of the first month the tiny beginnings of the limbs are plainly evident. It is no formless mass that is crushed out of existence if the operations of nature are interfered with, even thus early in her work.

#### TWINS

When two eggs are discharged from one or each ovary at the same time, or one egg contains two germs, as in the double-yolked egg of a hen, and both are

impregnated, twins are the results. This is said to occur once in every ninety births. The possibility of triplets is very much less, being only one in seven thousand.

When the uterus contains twins the abdomen is flat in the middle and more prominent at the sides. Sometimes there is a deep depression in the middle. Each child usually weighs less than when there is only one, and it is more likely that they will be born prematurely.

The doctor, by the use of the stethoscope, can determine whether there are two hearts beating, or not, and so settle the question.

#### SEX

It is strange that, with all our boasted advance in knowledge, it is not yet possible to predict positively the sex of a child before birth, nor to influence the forces that control what that sex shall be. Many theories have been formulated on the latter subject, but none has been found to be infallible. It is such an interesting and important matter, one would think that some bold explorer would by this time have succeeded in filching the secret from nature.

The time most favorable for conception is the week immediately succeeding the stoppage of the menstrual flow, and preferably the first day of this week.

It is said that if it takes place early in this period, the child will probably be a girl, if later a boy. Another theory is, that if the father is physically the stronger, more capable of impressing his personality, a daughter will be born ; otherwise, a son.

It is also said, that if the mother at the time of conception is excited, interested and anxious to bear a son, she is likely to attain her desire.

The age of the parents is supposed to influence the result. If the father is much older than the mother, it is considered probable that daughters will predominate in the family.

It was once thought that the eggs from one ovary produced females, and those from the other, males. Since it has been proved that women from whom one ovary has been removed by an operation, have afterwards borne children of each sex, this idea has been abandoned.

The whole subject is wrapped in mystery. It remains for some earnest student of the future to penetrate the darkness and discover the truth.

## CHAPTER IV

### THE PROGRESS OF PREGNANCY

*Preparation.* When a woman knows that she is to become a mother, she should prepare herself by every means in her power for her new duties and responsibilities. It is a time of waiting, not to be spent in despondency, nursing nervous fears, or making the most of bodily ailments, but in diligent cultivation of mind and body. Both mother and child will reap the benefit if an earnest effort is made to maintain the health of both at its highest standard.

A celebrated obstetrical physician, writing on this subject, says: "Women should be willing to train themselves in some degree for their labor, as an athlete would train himself for a race."

If the family doctor is a sensible, clever man, the expectant mother cannot do better than place herself under his charge as soon as she is aware of her condition. She need only see him two or three times, perhaps, during the nine months, so that the expense will not be great. He can give her judicious advice

on many points, and if unfavorable symptoms arise, he will be able to counteract them, and probably to relieve the condition which causes them by treating it in time.

Child-bearing is not a disease, but a natural process. In a healthy woman it should give rise to no disturbance of the health and to very little discomfort. Medicine should not be needed, and beyond a stricter attention to the laws of nature, no change should be necessary in the manner of living. Unfortunately, very few women approach at all near the point of perfection physically. They are burdened with weaknesses, inherited or acquired, which make this period a time of trial to them.

When this added strain is brought to bear upon an already overwrought nervous organization, when the vital forces, that are scarcely equal to the task of sustaining one person and keeping the system in working order, are suddenly called upon for double duty, they rebel, and their work is badly done.

If the mother with difficulty produces a sufficient amount of blood for her own use, there is sure to be exhaustion, pallid cheeks and disturbed circulation when she is forced to supply also the demands of the child.

The first consideration then is to remedy existing defects as far as possible, to husband the resources

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that are available, and to increase them by every means that can be used towards that end.

It is for this purpose that most women need the aid of a doctor. The function of a medical man ought to be not so much to cure his patients of disorders as to keep them in order. How to keep themselves in good health is a knowledge that too many women do not possess. If this is important under ordinary circumstances, it becomes doubly so when another being depends upon the mother to be nourished and perfected. She must then seek this information from some one who is competent to give it. As in many instances it is impossible for a woman to consult a physician constantly during this period, an effort has been made to embody in this little book the advice that is usually given on points of hygiene, and to call attention to the symptoms that demand immediate consultation with an experienced doctor.

POINT TO BE NOTED

While it is foolish to worry constantly over every unaccustomed feeling of discomfort, it is equally unwise to neglect indications which point to serious mischief that may be remedied by prompt treatment.

A woman passes usually about three pints of urine in the twenty-four hours. During this time



she should make certain that this quantity is not materially diminished. If she thinks it is falling off, she should drink more water, taking a glass between meals, and if there is no increase she should mention the fact to her medical adviser, and take him a specimen of it for examination.

The measuring can be easily managed in this way. Procure a large glass bottle, and paste on one side a strip of cotton about an inch wide. Get a small tin funnel, such as are sold for five cents, and a half pint measure. Pour half a pint of water into the bottle and mark on the strip of cotton the depth to which it reaches, add another half pint and mark, and so on until three pints, or two quarts, have been measured. The bottle is now prepared to record the amount of urine. This can be poured into it through the funnel after it is passed. The bottle should be tightly corked, washed and scalded every day. A daily memorandum should be kept of the amount.

In order to ascertain the quantity secreted in twenty-four hours, the urine should be voided at a given hour, say nine o'clock, and what is thus obtained thrown away. The succeeding amounts should be saved, and at nine o'clock, twenty-four hours later, it should be passed again and added to that already collected,

In preparing a specimen to be taken to the doctor, about a quarter of a pint should be put into a bottle previously well washed and scalded with boiled water. The cork, if not new, should be thoroughly scrubbed to cleanse it from any particle of foreign matter. Care in this respect is very important, as the doctor cannot be certain of the result of his examination unless the specimen is free from any outside impurities.

The urine ought to be a pale yellow, and clear. If it is very dark in color, or there is a sediment, soon after it is passed, or it seems thick at the time, or a deposit appears after it has stood for some hours, the physician should be informed. A departure from the normal in this discharge may be of no importance, and it may be an indication that requires attention; only the trained eye can decide.

#### IMPORTANCE OF FLUID

It is said that most persons habitually drink too little water. It is important that plenty of fluid should be supplied to the system at this time, and an effort should be made to take at least two quarts during the day. This means only about eight glasses. Water can be flavored with fruit syrup if it is disliked alone, and a part taken hot if preferred. Any good mineral water can be used if desired.

## TENSION OF SKIN

As the abdomen enlarges and the skin stretches, there is often an uncomfortable feeling of tension, which can be much relieved by anointing the surface every day after the bath with sweet oil. Olive oil, or salad oil, answers the purpose admirably. This not only gives relief at the time, but prepares the tissues to yield more easily when the child is born.

## • USE OF OIL

When the oil is used, its application should be extended to the perineum and all the parts between the thighs where most pressure is experienced, and which have to stretch during the passage of the child. This softens the skin and underlying tissues, and makes them more pliable and less likely to give way when distended.

Many expensive lotions are sold under high-sounding names which profess to render delivery easier, if not entirely painless. These deceive the unwary and enrich their makers, but none of them can do more than can be accomplished equally well by the persistent application of sweet oil, at one-quarter the cost.

It is a grave mistake for a woman to buy, or use, patent nostrums of whose composition she knows nothing. There is one chance in a thousand that

they may do good ; the remaining nine hundred and ninety-nine are equally divided between their being positively harmful, or utterly useless. No sensible person will waste her money when the possibility of benefit is so small.

#### BANDAGE

When the sensation of weight is very disagreeable, a well-fitting abdominal bandage is a great comfort. A pattern for one can be procured from any firm dealing in paper patterns, and it is not difficult to fit one without a guide.

Take a strip of stout, unbleached cotton, long enough to encircle the body, and lap about four inches. Fit this to the shape by taking up gores on the outside and pinning them. These can afterwards be sewed and the extra fulness cut off. The bandage should fasten on one side with buttons, or safety pins. It will be of little use unless it fits snugly to give the desired support.

#### CARE OF THE BREASTS

The care of the breasts is one of the most important duties of the expectant mother. Her child's well-being depends upon her ability to nourish it, and this she cannot do unless breasts and nipples are in good condition. Many women undergo agony

which is little, if at all, inferior to that borne during child-birth, because these have not been properly attended to. Neglect of them, either before or after the child is born, is apt to be followed by intense suffering, which judicious treatment would have entirely prevented.

As soon as the breasts begin to enlarge, they should be relieved from pressure. This is ensured by wearing a proper underwaist, with full, softly-gathered pockets in front large enough to receive the breasts comfortably. The dress must be widened across the front by the introduction of a full vest, so that there is at no time the slightest sense of constriction.

Every day they should be especially bathed with cool water, gently rubbed to stimulate the circulation, and anointed with a little sweet oil.

#### THE NIPPLES

The nipples also must receive particular attention. Sometimes a small quantity of milky fluid oozes from them. If this is allowed to dry and remain on the tender skin, disaster is sure to follow. They should be bathed at the same time as the breasts, and share in the inunction with oil. During the last six weeks they should be bathed twice a day with alcohol containing a pinch of alum. If the alcohol is pure, it should be diluted one-half with water.

They should frequently be gently pressed and rubbed between the fingers to toughen the skin and prepare it for the pressure of the baby's lips.

In some women the nipple is contracted, or inverted. Instead of standing out above the surface of the breast, a well-defined point which a baby can easily grasp, it is level with the surface and slips backward into the soft tissue at every attempt to hold it in a most exasperating manner.

A self-respecting baby generally remonstrates at this state of affairs, and expresses his feelings in indignant cries. He has a shrewd suspicion that his mother is responsible for the difficulties he experiences in obtaining his food, and he visits his displeasure on every one within earshot.

Nature is sometimes unkind and does not furnish the mother with well-formed nipples. Very often, however, the defect is due to their development during girlhood and young womanhood, having been prevented by undue pressure from tight-fitting corsets.

Whatever the cause, the expectant mother should seek to remedy the want of prominence by drawing out the nipple and trying to mould it into shape by frequent gentle manipulation with the fingers. In some cases this can be done with the hand alone, in others a special appliance is required.

A safe one that can be easily obtained is a pint bottle. Fill it with boiling water, empty this out quickly and apply its mouth tightly over the nipple. As the air in the bottle cools it condenses and the nipple is drawn out, or, more properly, pushed out, into the vacant space. The process can be hastened by wrapping a cloth wrung out of cold water around the bottle while it is in place.

After the bottle is removed the nipple should be held in the fingers and pressed into shape. This treatment should be begun early and persisted in until the nipple is a well-formed protuberance which can easily be taken into a child's mouth.

During the fifth month, the areola, or pale brown skin surrounding the base of the nipple, which has already become much darker in color, is encircled by a second ring formed of small, mottled spots of a paler shade than the areola itself. This appearance is most marked in women of dark complexion. The width of the band varies in different persons. As it does not occur except in pregnancy, it is one of the confirmatory proofs of that condition.

#### MOTION

Quickening has already been referred to as one of the symptoms establishing the fact that the uterus contains a living child. It may be felt at any time

after the third month, but usually is first experienced at the end of four months and a half. The sensation varies in intensity in different women. Sometimes it is so slight as to be merely a fluttering, sometimes so pronounced as to cause an hysterical attack.

Thirty drops of aromatic spirits of ammonia in water, repeated in a few minutes, relieves the faintness that sometimes accompanies it.

If the child's motions cause much discomfort later on, a well-fitting bandage helps to render them more bearable. Sometimes they are so slight they can only be felt by laying the hand on the abdomen over the uterus. In other cases they are so violent as to be visible.

#### INTERFERENCE WITH BREATHING

As the uterus increases in size it causes pressure on the diaphragm, or muscular partition separating the abdomen from the chest. This causes difficulty in breathing, as there is not room for the lungs to expand properly.

During the last two weeks the uterus sinks again into the pelvis, the pressure lessens, and breathing becomes easier.

#### MENSTRUAL PERIOD

The child is apt to be born at what would have been the tenth menstrual period counting from the



last one before conception took place. There is always more or less disturbance as this date comes round each month and the time should be carefully noted.

When a woman has previously been regular, she knows exactly when these days will occur. If there is any probability of her forgetting them, she should mark them in her calendar, as it is very important that she should be especially careful at this time.

#### EVACUATIONS

The pressure of the uterus against the bladder causes a desire to pass water frequently. Sometimes the effort is ineffectual. This need cause no alarm, as the inclination is excited simply by the pressure.

There is often difficulty in having a passage from the bowels for the same reason. An enema of warm water is better than a laxative to relieve them.

#### WALKING

Walking becomes more difficult and occasionally has to be relinquished at this stage, but it is best to continue the daily exercise as long as possible.

#### PAIN

Pains are felt in the limbs, back and abdomen. The latter may be quite severe, resembling colic, and are sometimes mistaken for true labor pains.

## THE NURSE

The expectant mother should have all her preparations completed long before this time. It is very unwise to leave them until near the last. She may be too unwell to be able to attend to them, or a premature birth may find her totally unprepared.

The nurse should be engaged early. Competent nurses usually have a long list of engagements and must be secured in time when their services are desired.

## SELECTION

It is always well to consult the physician in charge before speaking to the nurse. He knows from experience who are trustworthy and who are unreliable. The life of the patient often depends upon the trustworthiness of the nurse, so this is too important a matter to be left to chance. The doctor has means of knowing the capabilities of a nurse whom he has previously employed which no one else possesses.

It is not always safe to rely upon the favorable report of a previous patient. If a nurse has conspicuous faults, they will generally be mentioned, but from mistaken kindness they are sometimes concealed.

## ENGAGEMENT

In making the engagement talk frankly with the nurse, that there may be no misunderstanding later. Have the price that is to be paid definitely stated and also the length of time during which her services will be required.

Some nurses are willing to hold themselves in readiness for a week or two before a certain date, and they are usually paid half price for this waiting time. Others will only promise to be ready on a certain day, as they are engaged until then. In this case it is well to know of some one else who can be had if an emergency arises.

The nurse should be asked if she can stay for longer than a month if she should be needed.

## MEALS

It is usual to have a nurse's meals sent upstairs, when they should be eaten outside of her patient's room, or to have them prepared for her in the dining room after the members of the family have finished theirs. Some one must stay with the invalid while the family is at meals, and this person naturally is the nurse. Much depends upon the customs prevalent in the locality in these matters.

## DUTIES

The nurse should take the entire charge of the sick room, sweeping and dusting it. It is unusual now for her to do any part of the baby's washing. She should not be burdened with duties that require her to be long absent from her charge. If the cook is incompetent, she ought to be able to cook her patient's food, as so much depends upon her being properly nourished. Serving it is a part of her duty.

A good trained nurse well repays the extra expenditure necessary to obtain her. She is familiar with the best methods of managing mother and child. Should an emergency arise, she is ready to meet it. She will keep the mother in the best condition for speedy recovery and will not teach the baby bad habits.

When it is impossible to procure one, the next best that can be found must be selected. Absolute cleanliness and a willingness to obey the doctor's orders implicitly and unquestioningly are the two cardinal virtues most imperatively necessary. Many minor faults may be pardoned, or overlooked, if these can be secured. No previous experience can compensate for their lack.

If the expectant mother is young, she must not be overawed by elderly ignorance. She is the em-

ployer and has a right to demand that her requirements shall be complied with. It is here that she will feel the advantage of having consulted the doctor on the subject. She will have him as an ally and he will fight her battles if it is necessary.

It is to be hoped that this necessity will not arise; it is unlikely to do so if the selection of the nurse has been a judicious one and the mother is a reasonable person. Harmony in the convalescent's room, as elsewhere, is best promoted by mutual forbearance. The relation between nurse and patient is a very close one. Dependence on the one side and the constant ministrations necessary on the other often produce a bond of gratitude and tenderness that strengthens into a lifelong regard.

## CHAPTER V

### FOOD

It is very important that the expectant mother should take sufficient food to supply the extra demand upon her, and that this food should be of a suitable kind.

A diet exclusively of fruit, vegetables and cereals has been strongly recommended as retarding the bony development of the child and so rendering labor less painful. This is not endorsed by the best authorities, and probably, as in many other things, the middle path is the safest.

### MEAT

It is well to limit the amount of meat taken and never to eat it more than once a day. The most nutritious and digestible kinds should be chosen. Roast beef and roast mutton, beef steak, broiled, not fried, mutton chops and poultry, furnish a sufficient variety.

## MADE DISHES

When meat is recooked it should be carefully done, avoiding much fat in the preparation. The following suggestions may be of use.

## GRAVY

The foundation of madé dishes is a good gravy. That left from dinner can be utilized, but when none remains it has to be made from the beginning. Break a few bones into small pieces, cover them with cold water and add trimmings, or scraps, of meat, raw or cooked, avoiding fat. Let it heat gradually and boil gently for two hours. At the end of that time strain and measure the liquid. Half a pint is usually sufficient, but of course much depends upon the quantity of meat to be used. To each half pint allow half a teaspoonful of butter, melt this in a dry sauce pan, or frying pan, and stir into it the same amount of flour. When it has cooked together for three or four minutes, being constantly stirred, thin it gradually by mixing with it a little of the boiling gravy; when perfectly smooth pour in the whole. Season with salt and pepper and it is done. Any flavoring desired may be added, as lemon juice, all-spice, curry powder, etc.

## ST. PATRICK'S PIE

Mince the remains of cold beef or mutton very fine. Place it in a baking dish, filling it about three-quarters full. Moisten thoroughly with gravy and fill the dish with a thick layer of mashed potato. Dot the top with small bits of butter and bake in a hot oven from a half to three-quarters of an hour, according to the size of the dish.

## DELICATE MINCE

Cover the bottom of a flat meat dish with nicely browned toast cut into quarter slices. Cut the meat into small thick squares, like dice. If it is tough, cover it with boiling water and let it steam for an hour and a half, not permitting it to boil, but only simmer most gently. This will make it tender, while hard boiling would toughen it. The water can be used for the gravy, or saved for soup. If already tender, heat the gravy and put the meat in, letting it remain for ten minutes, but being careful not to boil it. Then pour it over the toast.

Slices of tender roast or boiled meat can be heated in the gravy, which is then poured round them on the dish, garnished if desired with sprigs of parsley.

Remember that boiling cooked meat toughens it, a thing especially to be avoided.



## TOMATO MINCE

Fill a baking dish with alternate layers of minced meat and canned, or stewed tomato. Cover the top with bread crumbs and a few pieces of butter to facilitate the browning and bake three-quarters of an hour. The tomato should be seasoned with pepper and salt, and, if liked, a little nutmeg may be grated over it, or a sprinkle of mace.

## CREAMED CHICKEN

Make a cream sauce by melting one tablespoonful of butter in a frying pan and cooking in it two tablespoonfuls of flour; add one pint of milk. Boiling fat, as butter, attains a much higher temperature than boiling milk or water. The starchy part of the flour cooked in it is changed into dextrine, giving the sauce a smoother, richer taste and more agreeable flavor than when flour and butter are simply rubbed together and boiled in the milk. Have ready the fragments remaining from cold roast, or boiled, chicken, both light and dark meat, cut into neat morsels, stir them in and let them remain on the fire for five minutes to permit the mass to become thoroughly hot. Serve in a deep, covered dish.

## COOKING STEAK AND CHOPS

It is sometimes impossible to get a good fire for broiling, and then the frying pan must be used as a

substitute for the gridiron. Even when this is the case the meat need not be fried in the ordinary acceptation of the term. Heat the frying pan very hot, put a little dripping, cottolene, or a piece of fat from the steak, or chops, in the bottom of the pan. Lift it for a moment to prevent the fat from burning. Have steak cut about an inch thick. If it seems tough rub it with strong vinegar an hour before using and wipe it off with a dry cloth. Pounding the meat with the edge of a plate softens the fibre. Trim chops nicely, removing the fat. Lay the meat in the pan when it is as hot as possible, that the heat may close the pores and keep in the juice. Turn it quickly from side to side that it may not burn, draw back the pan a little and as soon as the meat is done remove it from the pan, not allowing it to cook until it is dry and hard.

All meat except pork and veal should be eaten rare, the flesh looking a little red. If this is not liked, at least do not cook it until every particle of juice is evaporated and nothing but tasteless muscle left.

#### FISH

This is an excellent substitute for meat at breakfast. When it can be obtained fresh it can be cooked in any of the usual ways. Those who have not tried it have no idea how much better slices of

fresh fish are rolled in Indian meal dropped into boiling fat deep enough to cover them and boiled like doughnuts. Cod fish balls can be cooked in the same way. The flavor is far superior to the taste when fried in a shallow pan. The fierce heat of the boiling fat cooks them in about two minutes. The fat can be strained, clarified by boiling with water and used again.

Cod fish can be shredded and creamed like chicken. Grated nutmeg improves it. Oysters are very digestible and may be creamed in the same way, care being taken to leave them in the boiling sauce only three or four minutes until the edges curl.

They can be scalloped with bread crumbs, stewed with milk, heated in their own liquor, or eaten raw. The last being to many persons the most delicious manner of serving them. Sections of lemon should be brought to the table with them, the juice squeezed over them being an indispensable accompaniment when they are taken raw.

#### EGGS

Eggs do not agree with some persons. They are a desirable food because practically all the material contained in them is digested and turned to account in the system.

The usual method of boiling them toughens the

white, or albuminous portion, rendering it like leather. If an egg is put into boiling water, which is then withdrawn to the back of the stove, where it will keep hot but not boil, and left for ten minutes, the white will be soft and jelly-like.

Those who do not care for them in this state had better have them scrambled with a little milk, made into an omelette, or dropped into water without the shell and served on toast. Fried eggs must be prohibited.

#### EGG LEMONADE

Egg lemonade is palatable to many. The egg is lightly beaten, the lemonade made separately and poured upon it.

#### EGG BROTH

Egg broth is made in the same way, substituting boiling water for the lemonade ; sugar or salt may be added as preferred. The egg must be carefully stirred during the process, or it will curdle. This can sometimes be retained when there is nausea or when solid food would be rejected. In this case it should be taken very hot and without sugar.

#### ALBUMEN

The white of the egg may be shaken in a self-sealing jar with a glass of cold water and flavored

with lemon juice, or seasoned with salt. Being almost pure albumen, it is very nourishing. Beaten with sugar it can be spread over puddings, baked custard, etc., and browned in the oven; it still retains its valuable properties.

#### BAKED EGGS

Beat the white of the egg to a stiff froth, put it in the dish in which it is to be served. Drop the yolk lightly in the centre. Place the dish in a pan of boiling water, cover and let it stand for two minutes. A shallow cup answers the purpose very well.

#### PARMESAN EGGS

Boil two eggs for twenty minutes; the long cooking renders them more digestible. Drop them in cold water for a few minutes to prevent the yolks from turning dark. Melt one teaspoonful of butter and stir into it one teaspoonful of flour, add gradually two gills of milk. When it thickens add the whites of the eggs pressed through a potato squeezer or chopped fine. Pour the mixture over a slice of toast and grate the yolks of the eggs over it.

#### DROPPED EGGS ON RICE

Eggs less than two days old do not set readily when dropped into boiling water, but few of us are

lucky enough to be able to get them as fresh as this. A teaspoonful of vinegar in the water helps to preserve the shape. Have the water boiling with a little salt in it, break the egg carefully in a saucer and slip it gently into the water. Let it cook about two minutes and lift it out with a perforated ladle. Have ready a flat dish spread with a thick layer of boiled rice and lay the eggs neatly on it. Rice is especially suitable to be eaten with eggs, as it supplies the starch in which the egg is deficient.

#### RICE

Rice is often disliked because it is improperly prepared. A wet, sticky, tasteless mass is not appetizing. When the rice is smoking hot, every grain distinct and the flavor intact, it assumes a different aspect. The expectant mother should try to learn to like it, if she has a prejudice against it, as it is a bland food very suitable for her. Dr. Pavy, an authority on food and dietetics, says that starchy matters, in addition to playing a part in fat formation, contribute to the manufacture in the body of the highest form of matter we know—that is, proteid material. Rice contains a very large proportion of starch. Tapioca and sago may be included in the same category.

To boil rice put half a cup in one quart of boil-

ing salted water, having previously well washed the rice in several cold waters. It will cook in from fifteen to twenty minutes and must be removed as soon as tender while the water is still clear. Drain and set the sauce pan on the top of the stove uncovered, stirring the rice occasionally with a fork as it dries. It is much improved by using milk, chicken, beef or mutton broth instead of water, or serving a good gravy with it to pour over it.

Rice can be baked in milk, allowing half a cup to each quart of milk. It is cooked for two or three hours, being stirred occasionally and milk added as it boils away until the whole is a creamy mass. Sugar can be added if desired.

Rice pudding can be made with eggs and different flavorings, as lemon, vanilla, rose water, etc., used to make a variety. Rice can also be added to soups and made into a jelly by long boiling, sweetened, flavored and pressed into a mold. Stoned raisins can be scattered through the jelly to improve the taste.

Plain boiled rice pressed into a mould, allowed to cool, turned out and surrounded with custard, or a border of jam, makes an excellent substitute for a pudding. It may also be substituted for tapioca in the following recipe :

## TAPIOCA CREAM

Put three large tablespoonfuls of tapioca to soak over night. If this is impossible let it soak in warm milk for two or three hours. Boil one quart of milk, sweeten to taste, add the tapioca and the yolks of three eggs well beaten, flavor with vanilla, or lemon. Pour into a dish and when cool cover the top with the whites of the eggs beaten to a stiff froth with a little sugar. Place in the oven to color slightly; if preferred the whites can be stirred through the cool cream after being well beaten. This makes it lighter and more frothy.

## DELICATE PUDDING

Boil half a cup of rice in two cups of water. When nearly soft add two cups of hot milk. As soon as the liquid boils again stir in the well beaten yolks of four eggs, removing it from the fire in a minute lest the eggs curdle. Sweeten to taste, using about half a cup of sugar. Beat the whites of the eggs very light and whisk them into the mixture. Serve cold.

## RICE AND APPLE PUDDINGS

Wash well one teacupful of rice. Pare, quarter and core six apples. Mix and tie in a bag freshly wrung out of boiling water and dredged with flour.



Plunge in boiling water and cook three-quarters of an hour. Do not tie the bag too tightly, but allow room for the rice to swell. See that the water does not stop boiling. Sugar may be added to the pudding if desired, or a sweet sauce served with it.

#### CHEESE

It is said that the long cooking of cheese converts it from an indigestible substance into a very nutritious one. It agrees with many persons even without being cooked. If this is the case with the expectant mother, she need not omit it from her diet list, as it is a savory addition to many dishes and can sometimes take the place of the meat which is not so good for her.

#### CHEESE SCALLOP.

Moisten two cups of bread crumbs with as much milk as they will absorb. Place a layer of these and a layer of grated cheese alternately in a baking pan; when full, cover the last layer of cheese with dry crumbs, dot with tiny bits of butter and bake in a slow oven one hour. It is an improvement to add a sprinkle of salt and a few grains of baking soda to the milk.

#### CHEESE CRUSTS

Cut slices of brown, or oatmeal, bread in four inch squares, butter them slightly, spread them with

grated cheese, heaping it high in the middle, and brown in a quick oven about fifteen minutes. Serve hot.

#### CHEESE TOAST

Make milk toast in the usual way, but before pouring the cream over the toast spread each slice with grated cheese.

#### CHEESE PUFF

Take half a teacupful of bread crumbs, half a teacupful of grated cheese, a dessertspoonful of butter and one cup of milk. Mix these together and add two eggs, the yolks and whites beaten separately. Beat all together briskly, pour into a baking pan and cook in a quick oven about twenty minutes. Salt and pepper may be used at discretion.

#### CEREALS

Hominy, farina, cracked wheat, farinose oatmeal, etc., may be eaten. It is important to remember that the latter requires long slow cooking, six or eight hours being none too much. It can be prepared the afternoon previously and re-heated for breakfast. A double boiler is the most convenient vessel to use, as then there is no fear of burning. If none is at hand, a tin pail with a tight-fitting cover set in a pot of boiling water answers the purpose very well.

Some persons who do not like oatmeal porridge find the oatmeal palatable when made into bread or cakes, and to these the following recipes will be welcome.

#### OATMEAL BREAD

Boil two and one-half cups of oatmeal thoroughly. When cool put it in a pan and add half a cup of molasses, half a cup of liquid yeast, or half an yeast cake, a teaspoonful of salt and enough flour to make it the consistency of ordinary bread dough, not too stiff. Put it in pans to rise until very light and bake it an hour and a half.

#### OATMEAL CAKES

Take two cups of flour, two cups of oatmeal, three if the rolled oatmeal is used, and mix them well with a spoon. Add half a cup of sugar, two tablespoonfuls of melted butter, a little salt and a small half teaspoonful of baking soda dissolved in half a teacupful of milk. If more milk is needed add enough to make the mixture stiff enough to roll out like rather thin biscuit. Cut in shapes and bake in a moderate oven.

#### OATMEAL TEA CAKE

Mix together two cups of oatmeal, one cup of flour, a tablespoonful of butter, one teaspoonful of

soda, two of cream of tartar and two cups of milk. Bake twenty minutes and break in squares when hot.

#### CHOICE OF FOOD

Women who are accustomed to subsist chiefly upon meat will find it difficult to change their accustomed diet and learn to supply its place with less stimulating food. The effort should be made for the sake of both mother and child; each will be greatly benefited. Different methods of cooking vegetables should be tried, and whenever possible vegetable soups should be substituted for those made of meat.

#### POTATO SOUP

Boil ten good-sized potatoes. When done, drain, sprinkle with salt and shake well in the sauce pan before turning them out. This breaks the starchy granules on the surface and makes them look mealy. Mash them smooth. Melt a large tablespoonful of butter in a sauce pan, stir into it three teaspoonfuls of flour, when cooked add gradually three pints of milk; let it boil for a few minutes to thicken, then add the freshly mashed potato and salt if necessary. When it again boils pour into a tureen, It can be strained through a sieve if desired,

## TOMATO SOUP

Skin and slice one quart of tomatoes, cook them in one quart of boiling water until perfectly tender, add one teaspoonful of soda to correct the excessive acidity. When the effervescence subsides strain them and add to the liquid one quart of milk, salt and pepper to taste. Thicken with one tablespoonful of butter and one of flour boiled together, and when the soup boils again pour out and serve. Canned tomatoes may be substituted for the fresh ones.

## TOMATOES

Tomato and potato are both valuable additions to the diet list and should be prepared in as many different ways as possible to prevent them from becoming distasteful. The one contains acid which the stomach often craves, and the other is largely composed of starch which Dr. Andrew Wilson tells us is a muscle food.

It is scarcely necessary to do more than remind the housewife of the great variety of ways in which tomatoes can be cooked. Stewed with bread crumbs, or cracker crumbs, or thickened with butter and flour, baked, broiled, or scalloped, they are always delicious to those who like them, and the taste for them can be acquired when it does not exist.

A tiny pinch of soda neutralizes the excess of

acid which is sometimes too pronounced to be agreeable. A little nutmeg improves the flavor for those who care for it and a spoonful of sugar is desirable.

#### GREEN TOMATOES

Green tomatoes cut in slices, sprinkled with pepper and salt and browned in a frying pan with a little butter, good beef dripping, or cottolene, are considered a delicacy. The slices should be very thin.

#### POTATOES

There are almost innumerable methods of preparing potatoes, both the first time and for re-cooking them. A few facts should be borne in mind in regard to this favorite vegetable. Potatoes are more palatable baked than boiled because the potash which helps to give them flavor, being soluble, is melted by the boiling water and remains in it. Salt sprinkled over them after they are boiled helps to absorb the surface moisture and makes them mealy. Potatoes should not be cut in pieces, as the water penetrating them makes them sodden. They should not be pared before boiling. One of the best potato presses retains the brown jacket and lets the inner part of the tuber pass through in fine particles. If a little cold water is poured into the pot just before they are done, the inside is allowed to cook thoroughly with-

out the outside being boiled to pieces. They should be taken up the moment they are tender and drained instantly ; standing in the water ruins them.

Well cooked potatoes can always be done over acceptably and there is no vegetable that can be treated in as many different ways. Scalloped, creamed, pressed into a dish, brushed with milk and browned in the oven, made into croquettes, stuffed, cut in thin slices and dropped into boiling lard as Saratoga chips, all are good.

#### BRUSSELS POTATOES

Cut one quart of boiled potatoes into dice. Melt two tablespoonfuls of butter, boil in it two tablespoonfuls of flour, add gradually one pint of milk and a little salt. Beat three eggs very light, pour a little of the hot sauce on them at a time, heating to prevent curdling, until all is added. Return it to the sauce pan and let it boil one minute. Fill a baking dish with alternate layers of the sauce and the potatoes sprinkled with salt and pepper, cover the top with bread crumbs, dot with butter and bake twenty minutes. A little nutmeg is considered an improvement by those who like it.

#### PANNED POTATOES

Cut the raw potato into thin slices, put them in a baking dish and fill it with milk, each layer having

been sprinkled with salt. Put the dish in the oven and bake for two hours. If the milk boils away very much add a little more, as there should be plenty of moisture when the process is finished. This is an excellent way to dispose of small, or inferior, potatoes, particularly in the spring when they begin to grow soft. They should then be soaked in cold water before slicing.

#### POTATO PUFF

Take two cups of mashed potato, beat it smooth with three tablespoonfuls of cream, or two of milk and one of melted butter, season with pepper and salt. Stir in the well beaten yolks of two eggs. Whisk the whites very light and beat them lightly into the mixture. Put them in a well buttered baking dish and brown in a quick oven; serve as soon as the dish is withdrawn from it, as the puff falls if kept waiting.

#### GREEN VEGETABLES

In summer there is a wide choice in green vegetables which in winter are not available. At that season, especially in the country, the range of selection is extremely limited; so the most must be made of the resources at command.



## CABBAGE

Cabbage, not usually considered a delicate vegetable, can be so cooked as to be almost equal to cauliflower. If the head is a large one, cut it in quarters, in any case in two. Have ready a pot of boiling, salted water. Plunge in the cabbage, at the same time adding a little boiling water to keep up the heat. Boil one hour, leaving the pot uncovered. Try the cabbage with a fork ; if not perfectly tender give it ten or fifteen minutes' longer cooking. Turn it into a vegetable dish and cut it through several times with a sharp knife, that there may be no large pieces to embarrass the helping. Serve with a cream sauce or accompanied by butter and vinegar.

Long boiling makes cabbage dark and strong smelling. The same is true of turnips, which should be cut in thin slices to facilitate the process.

Carrots can be cut in small pieces and served with cream sauce. This only means a pint of milk, thickened with two tablespoonfuls of flour and one or two of butter according to the amount of richness desired. It is very good with the butter omitted.

## CANNED CORN

To each can of corn allow one pint of milk and two eggs ; season with salt. Put in a baking dish and stand this in a pan of hot water. Bake until it

sets like thin custard. It usually takes about twenty minutes or half an hour, but much depends on the heat of the oven. Green corn grated from the cob can be used in the same way.

### FRUIT

The expectant mother should abjure pastry, rich boiled puddings and anything that she finds overtaxes her digestive powers. Light puddings, custard, blanc mange, etc., may be eaten with impunity and fruit is essential. Oranges and lemons can usually be procured, even in winter, and these are especially beneficial. In summer there is little difficulty in keeping up the supply.

When fresh fruit cannot be obtained, prunes, evaporated apples and peaches, prunelles, a small dried plum, and canned peaches should take its place. No meal should be considered complete without fruit.

Lemon juice squeezed on sugar may be used when nothing else can be procured and may also supplement other fruit.

### BAKED BANANAS

Bananas are thought to be more digestible when cooked than raw and can be prepared in the following manner: Remove the narrowest strip of skin,

carefully loosen the flesh of the bananas at the sides from the skin, without breaking the ends. Fill the space with sugar, moistened with lemon juice if preferred. Bake twenty minutes, serve in the skin which will be filled with jelly if it has not tipped over while baking.

## BEVERAGES—TEA

A single cup of tea or coffee each day properly prepared does no harm. The stimulation is much missed by those accustomed to it if it is suddenly withdrawn. The proper preparation must be insisted upon. Tea steeped in a tin tea pot, or boiled, as is alas sometimes done under the impression that it enhances the strength, should be avoided as if it were slow poison, as indeed it is. The tannin set free by the process acts injuriously on the coats of the stomach, tanning them as it were and rendering them incapable of their proper work of digestion.

Tea made in an earthen tea pot with freshly boiled water and drunk when it has stood only a few minutes is comparatively harmless.

## COFFEE

An excellent way to make coffee is to mix it with an egg, or a little cold water and a piece of cod fish skin. Fill the coffee pot with the requisite amount of

cold water and remove it from the fire as soon as it boils.

#### COCOA

Cocoa made with half milk and half water is really preferable to either tea or coffee from an hygienic point of view, but so few persons find it an adequate substitute that it is difficult to use it exclusively.

#### OTHER BEVERAGES

Plain hot water is acceptable to a few and the taste for it can be cultivated.

*Lemonade* is valuable and can be drunk either hot or cold. The white of an egg can be shaken with each glass.

*Orangeade* made from the juice of an orange with the yolk of an egg beaten light and added to it is preferred by some persons; a dash of lemon juice improves it.

Any tart preserve, as cranberry, gooseberry, or the small sweet-water plum can be used as a flavoring. It is best to pour hot water on them and let it stand until cool if desired.

#### FOOD IN NAUSEA

When there is much nausea it is often impossible to retain solid food and then liquid must be given in

small quantities. A teaspoonful taken and retained does more good than a teacupful which goes down only to be instantly rejected. Sometimes the stomach can be coaxed into good behavior by repeatedly administering a very little fluid at intervals of half an hour. It learns toleration and will soon bear more.

#### MILK

Milk can seldom be borne alone and should never be given if it is disliked, or there is any difficulty in its digestion when the person is well.

When it is given it should be diluted one-third with limewater or one-half with vichy or any effervescing mineral water, prepared with diluted hydrochloric acid, or peptonized. If hot milk is liked it may be taken with advantage, but not more than one glass a day unless diluted with water.

#### PEPTONIZED MILK

Get from the druggist a few powders each containing five grains of extract of pancreas and fifteen grains of bi-carbonate of soda. Add one to a pint of milk and place the vessel containing it in water of 115° Fahrenheit, or so hot the hand can be held in it only for a moment. Let the milk stay there for twenty minutes, then place it on ice, or pour it into a clean sauce pan and let it come to the boil to

check the digestive process begun in it. If this is carried too far a bitter taste is developed.

#### DIGESTIBLE MILK

Warm one pint of milk very slightly, drop into it thirty drops of dilute hydrochloric acid, stir it constantly until it cools. This takes off the flat taste of the milk and also renders it more digestible.

#### RENNET CURD

Sometimes this is retained when milk itself is rejected. To one pint of very slightly warmed milk add one dessertspoonful of liquid rennet and set it aside to cool. If it is desired to give the whey alone, break the curd after it forms and strain off the whey.

Milk diluted one-half with boiling water may be acceptable.

#### BEEF TEA

Although the nutritive value of beef tea, meat juice and animal broth is not as great as milk, it can sometimes be retained when the latter cannot, and we are obliged to depend upon them for a time.

Beef tea should not be boiled, as that process coagulates the albumen contained in the meat just as heat does the white of an egg.

Chop one pound of juicy beef from the top of the

round very fine, or mince it in a meat chopper. Cover it with one pint of cold water and let it stand for two hours, stirring it frequently. Put this over the fire and let it remain until it steams, but do not let it boil. After straining it can be seasoned with a little salt, or celery salt if liked.

#### BEEF JUICE

Have a pound of beef from the top of the round cut about an inch thick. Divide this in strips and hold them for a moment on a gridiron over a slow fire to draw the juice to the surface. Squeeze the strips in a lemon squeezer, or vegetable press. Small meat presses, costing about two dollars and a half, are sold for the purpose and they greatly facilitate the operation. A little salt may be added. If disliked raw, the beef juice may be heated by standing the cup containing the portion to be taken in boiling water.

#### CHICKEN BROTH

Some persons can take this who dislike the taste of beef tea. Cut a fowl into neat pieces. Have the bones broken and cover the whole with cold water. Boil slowly for three hours, strain, add a little salt, and when cold skim if necessary. A medium-sized fowl should make about a pint and a half of broth. The meat is very good creamed.

## OATMEAL GRUEL

Gruel made with water and given hot is sometimes relished when milk cannot be borne. Allow one tablespoonful of oatmeal to a pint of cold water and boil for one hour. Season with salt. If it proves too thick it can be reduced to the desired consistency with boiling water.

## OYSTER BROTH

Cut a teacupful of oysters into small pieces, cover them with cold water and let them simmer gently for ten minutes. Add a little salt, strain them and skim if necessary.

## GUM ARABIC WATER

This is very bland and soothing and a spoonful at a time may be retained after prolonged nausea. Dissolve half an ounce of gum arabic in half a pint of boiling water; it has to stand for a little while. Flavor with lemon juice and a very little sugar, if this is asked for. Give ice cold.

## ALBUMINIZED WATER

This must be the chief reliance in extreme nausea when the stomach persistently rejects food. Put the white of an egg in a self-sealing glass jar with half a pint of very cold water. Shake until they are



thoroughly amalgamated. Salt, lemon juice, or sugar may be added, but in a severe case it is best to give only the albuminized water ice cold.

## KOUMISS

This is especially valuable when ordinary milk cannot be digested, and persons have lived upon it exclusively for many days. The original koumiss was made in the East from fermented mares' milk, but the homemade seems to answer every purpose and is often much liked. It can be procured from some druggists, but is much more cheaply made at home.

Dissolve the third of an yeast cake in a little warm water, or take the third of a cupful of liquid yeast. Stir it into one quart of milk as warm as when it comes from the cow. Add one tablespoonful of sugar and fill bottles three-quarters full of the mixture. Stand them in a warm place, about 68° Fahrenheit, to rise like bread. At the end of twelve hours cork the bottles tightly, tie down the corks with string, unless the bottles have patent fastenings, and lay them on the side in ice, or in a cool place, to stop the fermentation. Uncork very carefully as it is apt to fly.

## EFFECT OF FOOD

Diet is a matter of great importance to the expectant mother. It is very desirable that she should be in good condition, with a store of reserve strength, when her time of trial comes. This she cannot have if for many months her digestion has been out of order, her food not properly assimilated, and her tissues are debilitated for want of nourishment.

. Much can be done by a well chosen diet to relieve the constipation which is almost always one of the accompaniments of this condition.

The effect of semi-starvation upon the child is most painful. It cannot be plump and well nourished if the mother has been unable to take sufficient food to supply the demands of her own system, much less to have a surplus for the growing frame that needs such a variety of constituents to bring it to perfection. These considerations should make her regard her food as of supreme importance, to be attended to as a matter of duty both to herself and her child.

## LONGINGS

It was once thought that longings for a special article of food, if not gratified immediately, would surely be attended with evil consequences to the child. They are only indications that the system is clamoring for some material that the coveted food is rich

in. If it can be obtained at reasonable trouble and expense it is as well to get it, or something as nearly like it as can be procured. If this is not possible no alarm need be felt; if the mind is resolutely turned away from it, no harm will follow.

When the diet is hygienic and regulated by common sense, these longings are seldom felt. Very often they are for fresh vegetables, or some kind of fruit, and when these are eaten in abundance they are less likely to occur.

Sometimes, however, they are for slate pencils, chalk, vinegar or pickles. When this is the case the doctor should be consulted, as some form of iron, or dilute acid, is probably required.

Unselfish women are too apt to think that their special likes and dislikes are matters of very little importance and to put them aside as too trivial to be attended to. They think it of small moment whether they eat a sufficient quantity of food, or not. If every other member of the household is satisfied, their waning appetite is of no consequence.

They imagine the unpleasant feelings of nausea and indigestion are incident to their condition and so patiently go without food because their disinclination for it is so great they cannot take it.

Such must remember that there is another life depending upon them and make the effort for it

they would not take the trouble to for themselves alone.

Eating is a means, not an end, and never more so than during this time of waiting, which is also a time of preparation and development.

## CHAPTER VI

### BATHS

#### CARE OF THE BODY

THE early Greeks, who had strong and beautiful bodies, were particularly careful and punctilious in their care of them. They were bathed, rubbed, and oiled, in fact groomed with a care that is now sometimes exercised with valuable horses, but very seldom with the human form divine.

The expectant mother should strengthen her body by every means in her power. It has a special and most important task to perform and it is a part of her duty to fit it for its work.

#### CAUTION IN BATHING

Delicate women can easily bathe too much and do themselves more harm than good, exhausting their nervous vitality and weakening instead of strengthening their muscles.

A bath that has done good is followed by a sense

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of exhilaration and refreshment. The skin is warm and tingling, the blood seems to flow more rapidly and one feels stronger and brighter. When, instead of this, there is chilliness and fatigue, a feeling of languor and depression instead of buoyancy, the form of bathing that has caused it should be discontinued. Hot baths, repeated too often, have a tendency to bring on a miscarriage.

#### FRICTION

A full bath each day, especially if it is a plunge bath, is too much for some persons. Such will find great comfort in thorough friction, rubbing the body briskly from head to foot with a hair mitten, or one made of coarse Turkish toweling. This helps to open the pores of the skin, removing from the surface the impurities brought to it with the perspiration, as well as particles of dried skin, which is constantly being renewed, rolling up and coming off. Dry friction brings the blood to the surface and benefits the skin, stimulating the sweat glands and oil glands to do their duty.

A bath should never be taken immediately after a meal. The blood is drawn to the digestive organs to assist the processes taking place there and cannot be diverted to the surface without danger. At least two hours should elapse between a full meal and a bath.

## PLUNGE BATH—SPONGE BATH—COLD BATHS 97

Many persons who cannot bear a full bath every day, find no inconvenience if they bathe one-half the body one day and the other the next.

### PLUNGE BATH

Getting into a bath full of water should be done slowly and gently, so that there may be no violent shock. If the water is cold the face and neck should be wetted first. While in the bath the body should be rubbed with a cloth, or the hand, and the stay should be short. Only those who have been previously accustomed to it should take a cold plunge bath. If the water is warm the bath is enervating if prolonged beyond a few minutes. Either a hot or cold bath should be followed by quick rubbing of the whole surface.

### SPONGE BATH

A cold, or very cool, sponge bath, taken at short intervals, is one of the best preventives of taking cold that can be adopted. If the skin is in a state of activity and toughened by cold and friction, it is not susceptible to every change of the atmosphere and colds are rare.

### COLD BATHS

The person unfamiliar with cold sponge baths and wishing to try them can come to them by degrees by

beginning with tepid water and using it a little colder each day. It is well to stand in a small tub with the feet covered with warm water at first. If the bath and rubbing are not followed by swift reaction, a glow and feeling of warmth, the use of the cold water should be discontinued.

A handful of coarse salt may be added to the water, as this has a stimulating effect on the skin and so is said to be strengthening. This should be tried when baths seem to disagree with the bather instead of benefiting her, before discontinuing them altogether.

A cold bath should never be taken when one is heated, or very tired. For the latter reason the morning is a better time for it than the evening.

#### WARM BATH

The surface of the skin is covered by the terminations of innumerable nerves. It is impossible to stick the point of a pin where a tingle of pain will not reveal the presence of a nerve.

When tired and overstrung at night a warm bath will sometimes relax the skin and bring a sense of soothing calm that may induce sleep. From the fact that they are relaxing, warm baths should be used with caution. The tepid sponge bath is the safest for constant use.



## SITZ BATH

Many physicians consider this form of bath of especial value to the expectant mother. The abdomen and adjacent parts are principally affected by it and thought to be particularly benefited. The water should be about 90 degrees Fahrenheit. A tin tub of a peculiar shape, high behind and sloping low in front, is the most convenient thing to take it in ; it comes for the purpose and is called a sitz bath. If this cannot be had, any tub large enough to sit in can be made to answer the purpose.

The best time to take the bath is before going to bed, when it need not interfere with the morning sponge bath.

Remove the clothing and fasten a blanket round the shoulders so that it will fall over the tub when the person is seated in it. Have as much water in the tub as it will hold without overflowing when the bather sits down in it. The bath should last about fifteen minutes and a little hot water be added if it grows uncomfortably cold.

Do not be deterred by the trouble from taking it, begin its use early and continue it through the whole period. It is said to assist in relieving nausea and constipation. When several means are tried for the same end it is always difficult to apportion the credit

justly and to say exactly which has had the largest share in bringing about the result.

If a woman obeys the laws of health during this time, it may be safely said that her confinement will be more easy than if she had disregarded them, because she will come to it in better condition.

#### FOOT BATHS

A warm foot bath just before going to bed will sometimes dispose to sleep by drawing the blood to the extremities. The feet should be immersed in a deep tub, or pail, the water reaching half way to the knees. When more stimulation is needed, as when there is a cold coming on, two tablespoonfuls of mustard can be added.

#### COLD FOOT BATH

When there is suffering from cold feet, as is often the case when the circulation is not good, they should be bathed at night in cold water. Hold one foot over the basin and squeeze the water over it from a cloth until it is thoroughly wetted. Rub vigorously with a dry towel and repeat the process with the other foot. If persisted in for a week or two, each night, a cure may be effected.

## FOOT BATH IN BED

This can be given without difficulty if necessary. A warm foot bath will sometimes allay nervous excitement and irritation and aid in bringing sleep which would not come without it.

Provide a yard square of India-rubber cloth, or table oil cloth, to protect the bed. Turn back the clothes from the foot of the bed, spread the rubber over the sheet and place the tub on it. The patient lies on her back with the legs drawn up and the knees bent. Stand the tub in a convenient position and put the feet in, the knees being still bent. Cover tub and all with a blanket.

## SPONGE BATH IN BED

For the first three days after confinement a full bathing is not required if the mother had been bathed just before it took place. She should rest and be disturbed as little as possible except for the absolutely necessary ministrations.

The parts needing it can be kept delicately clean by wiping them with a cloth wrung out of warm water each time the napkin is changed, or water is passed.

Hands and face of course may be washed morning and evening.

While cleanliness is all important in the lying-in

room, more important than any one other single thing, bathing must not be overdone. Should it be found, as is unfortunately sometimes the case, that the person has been neglected, the soil must be removed, as dirt is a distinct source of danger. This can be done by bathing a part of the body at one time and continuing the process at intervals until the whole is done.

Usually the fourth day is soon enough for the first full bath. A tablespoonful of alcohol in the water is desirable.

Have ready water, towels, wash cloth, soap and clean, warmed clothing by the bedside. Two extra blankets are needed. The room should be warm, the thermometer not lower than 72° Fahrenheit.

Double one blanket and spread it on one side of the bed over the under sheet. Under shelter of the bed clothes draw the patient on it, not permitting her to sit up. Double the other blanket and lay it over her, outside the upper bed clothes. Draw these away from underneath it, leaving her covered with it alone. If this seems too little add a down comforter, or a thick shawl, or woolen lap rug. Remove her night dress, being very careful not to uncover her while doing it. Unfasten and take off the binder. Holding the wash cloth, moist but not dripping, in one hand, pass it under the blanket and

bathe the upper half of the body. Dry with a warmed towel, kept under the blanket and not withdrawn, unless to substitute a fresh one, until the bath is done. Turn the person gently on one side and bathe the back; when this is dry, do the thighs and legs, and last the feet. Not more than ten minutes need be spent in the actual washing, each part being dried before another is wetted. Quick drying and no exposure is the secret of giving a sponge bath in bed, without at the same time giving cold.

Put on a fresh binder and the clean, warm clothing, which after being well heated by a fire should be folded in a blanket to keep it warm. Move the patient to the other side of the bed, replace the upper clothes, draw out the blankets and the operation is finished.

#### THE BABY'S FIRST BATH

Sometimes the condition of the mother who absorbs the attention of the nurse, or the premature arrival of the baby causes its first bath to be left to inexperienced hands.

Contrary to the usual habit the first washing should be a sponge bath given between the folds of a blanket. A new-born baby has been accustomed to an even temperature of about 98 degrees. Even

if it is plunged into a tub of water of the same heat there is a certain amount of exposure inseparable from putting it in and taking it out which may be responsible for the bronchial diseases that afflict and sometimes carry off little babies.

A soft knit blanket should be provided for the bath, a little sweet oil, fresh lard, unsalted butter, or any substance of an oily nature, a soft towel and wash rag and a piece of a fine old handkerchief. The water should be 100 degrees to begin with, as it very soon cools. If inexperience is likely to prolong the bath there should be a pitcher of hot water to replenish the basin.

With a piece of the handkerchief wash the eyes carefully and dry them with the remainder. Taking a little of the oil, or fat on two fingers pass the hand under the blanket and rub the whole body with it, putting plenty in the creases about the neck, arms and thighs. Some babies are covered with a sebaceous substance that will not come off with water alone. Others are comparatively free from it, but the oiling does no harm.

Squeeze the cloth comparatively dry and put on a little good white soap. Bathe quickly all that can be reached as the child lies on its back, and dry with soft pats of the towel. The skin is too delicate to

bear rubbing. Be careful that the head is supported and does not hang down over the knee.

Turn the baby over on its face, supporting the head with one hand and putting the other firmly under the body. It can be rolled over by taking hold of the outer side of the blanket and rolling it inwards. Many persons prefer this method of moving a baby and it assures the nervous that there is no danger of dropping it. Finish the bath as quickly as possible.

Have the sleeves of the little shirt and slippers fitted together so that they will go on as one garment, and after adjusting the band they can be drawn over the feet first and the arms put in without difficulty. Wrap the baby warmly and lay it down to sleep.

#### LOCAL BATHS

The slightest disagreeable odor about mother or child shows that there is a lack of cleanliness which ought to be immediately remedied, or the most disastrous consequences may follow.

As has already been said, there is no difficulty in keeping the mother clean nor need a quantity of water be used to do so. A few gentle strokes with a soft cloth wrung out of warm water will remove every trace of soil each time the napkin is changed.

If stitches have been taken with wire, a sponge is

less likely than a cloth to catch in them. The greatest care must be taken of sponge and cloth, or they will become sources of infection. They must be thoroughly washed after each time of using, hung outside the window in the open air and boiled once a day. A pinch of washing soda in the boiling water will prevent the sponge from becoming slimy.

This seems a small matter, but neglect may imperil, if not destroy life.

The nipples should be bathed with tepid water, in which a pinch of borax has been dissolved, each time the baby finishes nursing. They should be gently drawn out with the fingers that the water may penetrate every crevice. If any application is used it must be washed off before the baby nurses and re-applied after the final washing. This is one of the surest means of preventing sore nipples.

#### EYE BATHS

The first attention to be paid the new-born infant is to wipe its eyes with a soft piece of handkerchief. If this is neglected, a speck of mucus lodging on the delicate lining membrane of the lids might cause serious harm.

The eyes should be carefully watched, and if there is the slightest trace of discharge on eyelids, or lashes, they should be washed several times a day



with tepid boiled water until the doctor can be consulted.

Unless the secretion is frequently removed by bathing the lids the child's sight may be injured, or lost. The cloth used in the process should be burned and only small pieces of old cloth employed, as a tiny particle of the discharge might infect the eyes of mother or nurse.

When the doctor orders cold applications little squares of linen may be laid on a lump of ice, applied to the eyes as needed and burned after one application.

## CHAPTER VII

### EXERCISE

#### THE MUSCLES

THE muscles that have to take part in the act of expelling the child from the uterus must be trained and brought into a condition to do their work. Muscles that are not exercised become soft and flabby; they are not capable of prolonged and vigorous effort.

The reason that exercise tires so many women is that they are not accustomed to take it systematically. A certain set of muscles called upon suddenly to undergo the strain of unwonted use resent it and feel sore and tired. If they were exercised daily in the same way they would not grumble any more than our fingers do when we call upon them for their usual duties.

It is all important to the expectant mother that every muscle should be in good order able to perform its proper work with ease.

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If she were told that by spending fifteen minutes a day in some simple observance, she could greatly lessen the fatigue of her labor and minimize its pain would she not gladly do so? Judicious exercise will surely do this. It must be steadily persisted in, as it is the daily repetition of the same act that strengthens and develops any part of the body.

Women suffering from some forms of uterine displacement are unable to walk. Such should be under the care of a physician, and exercise, as well as other means of alleviation must be prescribed by him.

## WALKING

Unless this is the case, or there is some special reason to the contrary, walking is a valuable exercise and within the reach of all. It may be so done as to render it perfectly useless for practical purposes and it may be so used as to make it an efficient aid in the development that is needed.

Most women in moderate circumstances take a great deal of exercise in doing the work of their households. Unless it is too heavy, as washing, scrubbing, etc., overtaxing the strength, it is beneficial, calling many muscles into play unconsciously to the owner.

Those who do not take much exercise in the house should spend from half an hour to an hour a day in

walking in the open air. This walk should not be an aimless saunter but a brisk constitutional, taken with an object in view.

A correct position is very important. The shoulders should be held back, thus expanding the chest and giving the lungs free play, the arms carried easily at the sides, the lower part of the body thrown a little forward and the weight allowed to fall on the ball of the foot as it touches the ground. This carriage can be acquired by a little practice and it is well worth the trouble, as it diminishes the fatigue which is always complained of by those who are unaccustomed to walk properly.

Vigorous steps in which the foot is lifted well from the ground and firmly set down again, though without jarring the body, strengthen the muscles at the sides of the waist.

#### STAIRS

Going up and down stairs, usually considered an exertion peculiarly injurious to women, may be made to serve the same purpose, developing these muscles. The dress must be perfectly loose and easy, with no constraining bands, or pressure anywhere, particularly about the waist. The progress should not be too rapid, nor the journey repeated too often at first.

This exercise also benefits the muscles of the abdomen, which it is desirable to have in good condition. Blakie, in his admirable little book "How to Get Strong," says, "Every step forward moves them, and the higher and more energetic the step the more they have to do." "The strong, high step tilts the body slightly back and gives these muscles so much to do that they soon grow good at it and shapely and powerful accordingly."

In going up and down stairs we have "the strong, high step" in perfection.

A healthy man never complains of any inconvenience in climbing stairs; in fact he more often than not, runs up two steps at a time. While men are stronger than we are, there is no reason why a woman who is properly dressed should not be able to mount stairs with as much ease as he can. I can testify from personal experience that the absence of corsets and correct habits of breathing deprive the ascent of all its terrors.

In going up and down stairs keep the mouth closed to ensure breathing through the nose, hold the shoulders back to expand the chest and do not carry a heavy weight in the hands.

#### BREATHING

It is strange that when the whole human race has

to breathe to live, and that every member of it breathes at least sixteen times in a minute from the moment of birth to that of death, any one should have to be taught how to perform this necessary process properly.

Nature intends that the abdominal muscles shall take part in the act of respiration. This is impossible when the waist is held firmly in the unyielding grasp of a corset. Even when it is not worn too tight—and who ever admitted that hers was—proper expansion of the ribs is prevented and the breath must come from the upper part of the chest.

Watch the breathing of a woman who wears unduly tight clothing, whether she is encased in a corset, or not. The bosom rises and falls with each breath; the muscles below the waist line do not move, they cannot. The lower part of the lungs is never properly filled, nor emptied.

The expectant mother does not breathe for herself alone. She has to inhale a sufficient amount of oxygen to purify the blood of her child as well as her own, and she needs every inch of lung surface at her command to make adequate provision for both.

If she does not already do so it is her duty to learn how to use her lungs in the most effective manner.

It is difficult to overcome bad habits. Even

laying aside corsets and doing away with tight bands about the waist will not immediately revolutionize the faulty method of years. The muscles are weak from inaction. The lungs must be trained to do their duty.

Sitting in an easy position in a comfortable chair, with the head supported, draw a long breath and hold it until the expiration becomes a necessity. Exhale slowly and repeat the process seven or eight times.

Close the mouth and inhale through the nose, expelling the air by the same channel. This can be done alternately as rapidly and as slowly as possible. Repeat it in different positions, reclining in the chair, sitting erect with the arms folded behind the back, standing with the arms extended to their full length and the hands clasped behind.

Sitting upright, hold the arms parallel with the shoulders, bend them at the elbows and tap quickly every part of the chest that can be reached with the fingers.

When walking or standing, practice taking deep inhalations and holding the breath as long as possible. This is an excellent method of warming oneself when chilly. A few deep breaths drawing in an extra amount of oxygen sets the blood dancing,

and with the improved circulation there is an immediate sensation of warmth.

If one has habitually breathed through the mouth there is a feeling of suffocation when the attempt is made to close it and use the nasal passages for the admission of air. Unless there is some obstruction of the nose this feeling is soon overcome.

Nature intends that the air shall be warmed by passing through this circuitous route before it reaches the delicate tissues of the lungs. Breathing through the mouth permits a rush of cold air where she never meant it to come. The habit of breathing through the nose can be acquired with comparatively little trouble, if the passages are unobstructed, and it is very important to the health of the lungs.

Violent exercise like riding on horseback, playing tennis, dancing, bicycle riding, etc., had better be discontinued at this time.

#### DRIVING

Driving in a carriage can scarcely be classed as exercise, and yet when a woman is unable to walk she can in this way obtain fresh air and change of scene without much fatigue, and the result is beneficial.

#### SITTING

Nothing is more injurious than long sitting in



one position bending over a writing table or a sewing machine. The use of a machine with a foot-treadle should be interdicted. In some cases, by removing the band, the machine can be turned by hand, thus making sewing upon it possible without injury to the worker.

#### STANDING

Prolonged standing is also injurious. Women who have to do their own ironing will find great relief in using a high chair and sitting while they are thus occupied. The feet must be comfortably supported on a foot stool.

By having a chair of the proper height dishes can be washed, bread kneaded and many other domestic operations conducted while sitting which are usually done in a standing position. By the exercise of a little ingenuity much unnecessary weariness can be avoided.

#### PHYSICAL EXERCISE

A celebrated physician has said, "One might hesitate to prescribe gymnasium exercise for the pregnant; yet I recall one patient habituated from early childhood to gymnastic exercise, who continued her training during nearly the whole of her gestation, omitting only the heavier work, and she had

a most rapid and easy labor and an uneventful convalescence."

Those who are accustomed to regular physical exercise may continue it, those who are unaccustomed to it should commence it, choosing suitable exercises that strengthen without straining the muscles.

A few simple ones for improving the capacity of the lungs have been mentioned. These should be assiduously practiced, for the power of taking and holding a long, deep breath is of immense advantage during the last stage of labor.

To develop the muscles at the sides of the waist, besides the exercise obtained from the high steps in going up stairs, try the following simple one. Stand erect with limbs together, head held well up, chin drawn in a little and shoulders thrown back. Raise the left arm as far as possible above the head, bending the body sideways in the opposite direction as far as can be done without lifting the left foot from the floor. Repeat with the right arm and continue using each arm alternately, for two or three minutes.

Stand as straight as possible and bend the body backward and forward as far as can be done without raising the feet from the ground.

Kneeling on the floor with the knees apart and gently swaying the body in different directions,

backward, forward, and sideways helps to strengthen the muscles of the perineum.

The best time for these exercises is just before the midday rest, or at night before going to bed. The dress should be removed and the underclothing be sufficiently loose to offer no restraint.

#### GARDENING

Gardening is a delightful occupation for those who are fond of it when it is possible. Bending over as in weeding strengthens the muscles of the small of the back, and being in the open air is always beneficial.

#### PRECAUTIONS

There is one precaution that must not be neglected. No violent exercise, nor indeed bodily exercise of any kind, should be taken at the time that would have been the menstrual periods under ordinary conditions. This rule must be implicitly observed. Its neglect may cause the loss of the child's life and serious injury to the mother.

With this exception regular gentle exercise during pregnancy is one of the most certain means of ensuring good health to both mother and child.

#### MASSAGE

When active exercise has to be omitted, a course of

massage treatment is advisable, that the muscles may be kept in good condition.

This consists of rubbing, kneading, rolling, pressing and manipulating each muscle separately. It must be done by a professional masseuse and under the direction of a physician.

When the expectant mother is obliged to remain in bed from some physical disability for months at a time, as is sometimes the case, this means of keeping up her vigor should not be neglected.

It is very agreeable to most persons, and those who have once undergone the treatment are usually anxious to repeat the experience.

When the services of a masseuse cannot be had the want may be in a measure supplied by amateur rubbing and, if the doctor permits them, a regular course of exercise in bed.

#### EXERCISE IN BED

Lying on the back and alternately bending the knees and extending the legs is a good exercise. The knees may be bent and the legs moved from side to side as far as possible each way.

Pushing with the feet against the foot-board of the bed or the hands of another person, who pushes back again, is of use.

Pushing with the hands in the same way helps

to exercise some of the muscles of the arms. Propped with pillows, the arms can be raised and the head of the bedstead grasped, or, lying down, the body can be drawn up by the hands, if there is no reason why the movement should be prohibited.

Deep breathing can be practiced without difficulty in any case, as this involves very little exertion and it is of incalculable benefit in expanding the chest and increasing the capacity of the lungs.

When a woman is convinced that firm muscles, capable of expanding and contracting vigorously in the efforts which she must put forth, will be of great advantage to her in the hour of need, she will spare no pains to cultivate them.

It is happy for her if the preparation has been begun long before, in her girlhood, and she has already a well developed body. When this is not the case she must try to remedy the ill effects of neglect and bring herself into as good a condition as possible in the time allowed her.

## CHAPTER VIII

### REST

#### NECESSITY OF REST

THE importance of avoiding exertion at the time that would have been the menstrual period has already been mentioned. It cannot be too often reiterated. If, as sometimes happens, the expectant mother does not know the exact season when the discharge might have been expected, she must be doubly careful to heed any indications that might lead her to suppose it is approaching.

Feelings of languor and weariness should be yielded to, not fought against, and be met with additional rest. A bearing-down sensation, or pain, even if it is not acute, should be the signal for staying in bed two or three days. It is misplaced fortitude to keep on the feet and try to do the daily work under these circumstances.

A woman should remember that she is entitled to care and cherishing during these months of waiting.

Usually those about her are very ready to give it ; unhappily this is not so, she must redouble her care of herself. She has to think not only of herself but of her child.

## REST DURING THE DAY

Many women believe it is a positive waste of time to lie down during the day. As has already been said this is a fallacy. The gain to brain and nerves more than compensates for the loss sustained by spending one of the working hours in sleep.

The expectant mother should make a point of taking off her dress, putting on a loose jacket and lying on her bed, or a couch, for an hour in the middle of the day before or preferably after dinner or lunch. She should lie still with eyes closed even if she does not sleep.

At first it will require an effort. The impulse is to read, or to occupy oneself in some way, if only in counting the patterns of the wall paper. We are creatures of habit, and after a few days this desire, if not yielded to, lessens and one is content to lie still.

It is important to have the room darkened, as the absence of light in itself rests the weary brain and renders sleep more probable. This is best effected by means of dark linen blinds, which can be rolled up out of sight when not in use.

If plenty of exercise is taken there is no fear of

the noonday nap interfering with the night's rest. Indeed it is more likely to promote it, as over fatigue is one of the causes of sleeplessness and this is prevented by the timely rest.

#### RELAXATION

There is an art in resting which is only beginning to be understood. Perfect relaxation is in itself rest. Swaying back and forth in a rocking chair with muscles tense and nerves on edge is not resting. Throwing oneself back in a comfortable easy chair with every part as limp as possible, feet resting easily on the ground, arms lying loosely in the lap, fingers unclasped, and head supported, comes nearer the ideal position.

If several times in a busy morning five minutes is taken for absolute rest with eyes shut, and ears as far as possible closed to outside sounds, the good effect will be perceptible in the freshness with which one will return to the tasks that were beginning to seem a burden.

#### WASTE OF POWER

We are all apt to put too much energy into our every day work, using a steam hammer to crack a nut. The expectant mother cannot do this with impunity; she must husband her resources, she has to live for two.



A little thought will often teach one how to avoid expending strength unnecessarily. The whole arm, for instance, is often called into play when the hand moving from the wrist would be all sufficient for the purpose. Those who have never tried it will be surprised to find how often it is possible to use the hand, or the forearm, to accomplish what is needed while the arm remains still.

Physical self control is almost as important as mental, and both can be acquired by those who are willing to take the trouble to train themselves.

#### OUT DOOR REST

Rest in the open air is peculiarly beneficial. In summer it should be taken in the hammock, or the piazza lounging chair, whenever possible. Lying on a thick rug under a shady tree, or stretched on cushions in a boat moored in the shade are delightful forms of recreation that unfortunately are not accessible to everyone.

Driving in an easy carriage with a steady horse, or even a fast one when there is confidence in the driver, may be made restful, or the reverse. If the motion is yielded to and the body allowed to sway gently in unison with it, there is little exertion. When the whole frame is firmly braced to resist the slightest jolt, the head carried stiffly and the mind

kept on the alert to see that the tension of the body is not relaxed, there is little rest to be obtained from it.

#### CHANGE OF OCCUPATION

Change of occupation is a certain kind of rest, calling into action a different set of faculties and muscles. This, however, is not enough for the expectant mother, nor should she be satisfied with less than an hour a day and several shorter intervals of absolute rest to recruit and refresh her.

#### SLEEP

Quiet, profound sleep is very necessary for the health of body and mind at this time as well as at every other. It is not always to be had for the asking, and sometimes the very effort to compose oneself seems only to drive it further away.

The doctor can prescribe medicine which will soothe the excited nerves and induce sleep, but it is not well to depend upon these, and all the domestic soporifics should be exhausted before he is appealed to.

#### MEANS OF INDUCING SLEEP

A warm bath just before going to bed is with some persons an effectual means of bringing sleep.

Brisk rubbing of the feet, either dry or with cold water, stimulates the extremities and equalizes the

circulation, thus relieving the pressure of blood in the brain which renders sleep difficult, or impossible.

In natural sleep the heart beats more slowly than when one is awake, consequently the blood circulates less rapidly, there is less pressure on the nerve centres and the machine runs at the lowest rate of speed, giving all the parts time to rest.

In using means to promote sleep every effort should be made to attract the blood to other parts of the body that the brain may be as little stimulated as possible.

Sometimes a rubber hot water bag at the feet and an ice bag at the back of the neck will have the desired effect. If a rubber ice bag cannot be had a towel wrung out of ice water tightly folded and covered with a piece of India rubber cloth, or rolled in table oil cloth, may be used as a substitute.

A light supper just before going to bed is advisable. The digestive organs are set in motion and a certain amount of blood diverted to them in the process of digestion.

A glass of hot milk is highly recommended, and with some persons is an unfailing antidote to sleeplessness. It should be taken as hot as it can be sipped. A third lime water may be added to it if it cannot be borne alone.

Exercise in the open air promotes sleep and a

healthy fatigue almost ensures its coming. Over fatigue may drive it away and any excitement, anxiety, or distress of mind is sure to do so.

There are a few mental exercises that may be tried beside the time honored one of counting sheep leaping over a hedge, or running through a gap. One of these is counting steadily, always beginning with one, or rather returning to it as one, two ; one, two, three ; one, two, three, four ; etc. It is very monotonous and one does sometimes drop asleep under its influence.

#### POSITION

It may be that the expectant mother cannot find a position in which she can rest comfortably. Lying sideways with a pillow placed under the abdomen to support the weight, relieves the pressure and gives ease.

In special cases a bandage may have to be worn at night as well as during the day.

#### BED COVERING

The bed covering should be light. A weight of bed clothes is oppressive and tiring even if it is not felt as a burden at the time. A down comforter is almost indispensable in winter. If it is not to be had large newspapers spread between the blankets

combine warmth and lightness. The paper is almost impervious to air and as it is preventing the escape of the heat generated by the body that makes one warm, they answer the purpose admirably.

#### MORNING SLEEP

Sometimes a restless night is followed by a desire to sleep in the morning. This should be encouraged and the bedroom darkened by means of linen blinds.

Nothing is so restful to brain and nerves as darkness, and when there is difficulty in sleeping light should be rigidly excluded. Often a ray of morning sunlight wakens the sleeper, who would have slumbered profoundly for some time longer had the room been dark.

#### NIGHT LIGHTS

Burning a night light is a bad habit, only defensible where there are children who are apt to wake suddenly and must be attended to in haste. Even then a candle can be lighted in an instant if matches are at hand, without the delay necessary to remove a lamp shade.

When there is a young baby many mothers feel a nervous anxiety at being without a light burning in the room, lest something should happen to the helpless little being which the mother's watchful eye

might have seen and prevented had there been light to have revealed it.

Patent night lights, little wicks floating in oil, and other devices, can be obtained. They have the advantage of consuming very little oxygen. When it is necessary to use kerosene a small lamp of the kind known as a Tom Thumb lamp should be procured. It uses very little oil and need not be turned down. A large lamp unless the wick is kept at the full height almost invariably smells unpleasantly.

It is dangerous to lower gas beyond a certain point as a temporary cessation of the supply puts out the light and when the flow of gas is resumed it pours unchecked into the room, sometimes with fatal results. The sleepers may be suffocated before anyone is roused to a sense of the danger. A baby's life might easily be sacrificed in this way.

#### BED TIME

The hour of going to bed must be regulated to a great extent by the usual custom in this respect. It is an old saying that one hour of sleep before midnight is worth two after. Like the old proverbs, which are the "wisdom of many and the wit of one," this probably has a substratum of truth that has been proved by the experience of ages. The earlier the time of retiring to rest the less tired one

is likely to be, and sleep taken when the body is not over fatigued is more refreshing than when it overpowers one exhausted and wearied by the strain of long continued wakefulness.

We are such creatures of habit that the very fact of undressing and lying down predisposes us to slumber if we usually fall asleep as soon as we are in bed.

Even when the eyes will not close at once there is relief in the change of attitude and in the freedom from the thralldom of clothes, however easy and well-fitting, that is in itself restful. When possible, early hours are a distinct advantage to the expectant mother.

#### VENTILATION

It is not of much use to acquire, or possess, correct habits of breathing unless there is an ample supply of pure air to be inhaled.

Life cannot be sustained without a certain amount of oxygen, and the expectant mother has to take in not only enough for herself but for her child.

The oxygen is abstracted from the air and used in the body, carbonic acid gas being thrown off from the lungs. This renders the air unfit to be breathed again.

Nor is this the only element that poisons the air.

A watery vapor, carrying with it impurities from the body, animal matter which has already served its purpose, is also exhaled from the lungs. A certain amount of waste escapes through the pores of the skin so that, even if there is no other source of contamination, the presence of a person in a closed room speedily renders the air in it unfit for use.

The oxygen has to be diminished to a very small amount, about one-third of that present in pure air, before a difficulty in breathing is experienced. No warning is given in this way that not enough is being received to meet the demands of the system. The air breathed, particularly at night, may contain an entirely inadequate quantity without the consumer being so unpleasantly conscious of it as to make an effort to obtain a proper supply.

The excess of carbonic acid gas is more easily recognized. It is this that gives a close smell to the air in a room that has been occupied by one or more persons and not properly ventilated.

A good test is to close the door of the bed room on leaving it in the morning, stand by an open window for a few moments and then return to the room. If fresh air has not been admitted during the night one is instantly struck by the disagreeable odor and there is a sense of oppression as one tries to inhale the polluted atmosphere.



The absence of an abundant supply of oxygen, the presence of an overplus of carbonic acid gas and of poisonous exhalations from the body in the air that has to be breathed and rebreathed by unfortunate human beings is necessarily injurious to health.

If it is not as immediately fatal as air defiled with illuminating gas, or the choke damp that lingers in disused wells, it undermines the powers of the body by slow degrees. It renders it less able to repel disease and ready to fall a victim to what it would easily have resisted if in full vigor.

## HEAT

There is little difficulty in getting plenty of fresh air to breathe during the day. Many women spend the time that they are in the house in winter in hot rooms from which the pure out door air is as carefully excluded as if it were ether or chloroform warranted to produce asphyxia if taken in too large quantities.

Cold is the great bugbear and warmth the deity to which health must be sacrificed. Those who bathe regularly, and keep the skin in a state of activity by vigorous friction do not take cold readily.

## PURE AIR

Many of the modern systems of heating provide for a constant supply of pure, warm air. An open fire carries away the air that has been used by its upward draught. As our dwellings are fortunately not air tight its place is supplied by out door air, which rushes in through cracks and crevices to fill the vacuum.

We cannot all furnish our homes exactly as we should like to do, and many of us have to make the best of the conditions under which we live, as it is out of our power to make a radical change in them.

To one living in a cold climate in a house heated by stoves the problem of adequate ventilation is a difficult one. It must be met and solved if the family is to be kept in the best measure of health attainable.

Changing the air several times in the day by opening the window, or the fly pane in the double window, when the room is vacant, is perhaps the most feasible plan. Bedrooms should be aired for a couple of hours every morning, unless the thermometer shows a portentously low record.

When the weather is mild enough to permit of the outside air being admitted in a steady stream without lowering the temperature of the sitting

room below  $65^{\circ}$ , that is, enabling it to be kept at this point by means of artificial heat within, the difficulty is materially lessened.

## WAYS OF VENTILATING

There are two ways in which an open window can be guarded so as to prevent the danger of draughts. This is a very real danger and should not be neglected in the desire to keep the air in a fit condition for breathing. To feel a current of cold air stealing down the back is an unpleasant experience and to a delicate person may be a dangerous one.

To obviate this a piece of board about four inches deep and the width of the window may be placed beneath the lower sash. The air enters where the two sashes are separated and is directed upward.

The upper sash can be lowered about the same distance and the aperture covered with a strip of flannel pinned tightly across to the window frame on each side. The flannel can be tacked on a light frame made to slip into the opening.

Both these devices are valuable for use at night in the bedroom.

Sometimes a window can be opened in a hall,

or an adjoining room, and the air admitted from that into the one occupied, being warmed previously.

In summer a screen in front of the window permits the free entrance of air yet prevents a draught.

It is always difficult to ventilate properly a small room with only one window. The bed is apt to stand near it, and opening directly upon it the avoidance of a draught is almost impossible. Covering the opening with flannel and closing the door lessens the danger.

Except in very warm weather it is always well to keep the door shut unless it is necessary to close the window. Then when there is a purer air in the passage, or connecting room, it may be left open to admit it.

#### SOURCES OF CONTAMINATION

The greatest care should be taken to remove from the bedroom every possible source of contamination to the air. Vessels should be emptied, water that has been used in washing removed and no refuse of any kind allowed to remain within its walls.

An artificial light is a consumer of oxygen, and this is one of the arguments against burning one at night. When possible it should at least stand outside the bedroom door.

When the room is close and it is impossible to

open window and door to cause a free circulation to freshen it, the air may be set in motion by moving a large palm-leaf fan briskly through it. If the door is opened into a freshly aired hall some of the pure air will enter the room by this means.

## TEMPERATURE

The feelings should not be permitted to be the only test of the temperature of a room. A thermometer should hang there and the degrees of heat be regulated by its indications. 68° Fahrenheit is warm enough for a sitting room and from 60° to 65° for a bedroom. 50° is sufficiently warm for sleeping. Rest is more refreshing when taken in a comparatively cool atmosphere. A night's repose in a hot room always causes a feeling of languor on awakening.

## CHAPTER IX

### CLOTHING

**DRESS** is generally an important subject in the estimation of women. Our garments are so much more complex than those of the sterner sex that naturally they require more consideration than men accord to theirs.

Whether this is at the root of the vanity with which we are credited, or not, we all have the feminine desire to please and wish to look our best under all circumstances. Dress must be fitting and appropriate, or this natural and laudable wish cannot be fulfilled.

#### PRINCIPLES

There is a deeper reason why the expectant mother should pay especial attention to her clothing. The welfare of her child, no less than her own, is involved. She can injure its development and impair her own health by dressing improperly, and she can benefit both by attention to a few simple principles.

Avoid pressure, particularly constriction of the waist, or breasts.

Suspend clothing from the shoulders, not from the waist.

Do not wear garters around the legs.

These are not mere arbitrary rules; there is a reason for every prohibition. The thoughtful woman will recognize their necessity.

She who has all her life dressed according to the dictates of fashion, or from simple thoughtlessness followed the example of those about her, may not be readily convinced that any change is needed.

#### RESULT OF PRESSURE

The walls of the abdomen are soft and yielding. Below the ribs in front, there is nothing to prevent the delicate organs within from being squeezed out of shape by persistent, long continued pressure from without.

A familiar illustration will serve to show that this has actually wrought great mischief. One variety of malformation of the liver is known as the "corset liver" because it is deeply indented by the pressure which is maintained by even moderate tight lacing.

The vital organs are arranged in the abdomen with wonderful nicety. Each occupies its own

place, with space to perform its own function without interfering with its neighbors.

What must be the effect of thrusting into this delicate adjustment the disturbing influence of pressure? The parts are squeezed out of their proper relations to each other, the circulation is interfered with, the pelvic bones are distorted and the machinery, so complicated and yet so perfectly adjusted to do its work, cannot run smoothly.

Nothing but the marvellous power of adaptation which the human body possesses prevents the distortions to which it is subjected from destroying life itself. Crippled, it can still live on, but at what a cost of suffering to the victim, very often not attributed to the true cause.

One reads with hope of gymnasiums for women, of tennis grounds and rowing clubs, whence tight garments of any kind must be excluded. On the next page are spread forth the advertisements of corset makers in such number and variety as make it evident that they must be largely patronized or they could not afford to call attention at such length to their wares.

If the expectant mother has always dressed sensibly, wearing a soft well-fitting waist instead of a stiff unyielding corset, and avoided heavy skirts, she need make little alteration in her dress.



Should she be in bondage to less hygienic underwear nothing remains but to make a change as soon as possible. Pressure, always bad in its effects, is doubly dangerous now.

The enlarging uterus must exert a certain amount of pressure upon the surrounding organs. This comes so gradually, as in all the operations of nature, that they insensibly adjust themselves to it and are not permanently injured by it.

There is temporary inconvenience even then, as is shown by the desire to pass water more frequently than usual, caused by pressure upon the bladder, and difficulty in breathing, due to upward pressure on the diaphragm, lessening the capacity of the chest, and rendering it difficult for the lungs to expand freely.

Tight bands about the waist force the internal organs downward toward the pelvis, already fully occupied with its own new burden. As the uterus gradually rises into the abdomen its upward progress is hindered by the obstacle from without. There is no room for expansion and yet it must expand. The most sensible course seems to be to remove the bands.

Pressure continued for many years may have distorted the bones of the pelvis, altering its shape and diminishing its capacity. The weight of heavy

skirts dragging on the lower part of the flexible spine may have bent it inwards.

For this there is now no help. The only thing to be done is to give nature free sway, untrammelled by restrictions from without, and trust to her to remedy the faulty conditions as far as possible.

This emphasizes what has been said before, that the preparation for motherhood should begin in early girlhood. If mothers realized their responsibility in this matter, would not they see that at least their daughters were not through their own folly rendered less capable than nature made them of becoming mothers with safety to themselves and their children?

#### SHOES

The expectant mother should begin at the foundation and wear comfortable shoes broad enough to allow the foot, and especially the toes, free play. It is difficult to walk properly when the foot is cramped. Weight is thrown where it does not belong, the muscles are imperfectly exercised and the whole body suffers.

Do we not often hear women say, "I would walk more if my feet did not hurt me so much." "I suffer so from corns I dread to put my feet to the ground."

## STOCKINGS

The stockings should be warm in winter, well fitting, and always long enough to cover the knees. They must be kept up by straps at the sides.

## STOCKING SUPPORTERS

The best stocking supporters are strips of wide elastic with a buttonhole in each end, like those used for children. These can be fastened at one end to a button sown on the outside of the stocking and at the other to a button on the waist. They do not tear holes in the stockings as the metal-tipped supporters are apt to do. The button holes and the buttons on the stockings should be stayed with pieces of cotton to prevent their pulling out.

Garters worn around the leg must be drawn close to keep the stockings in place. They thus become tight ligatures, interfering with the circulation and preventing the free return of the blood through the veins from the feet and legs.

The pressure on the trunks of the great blood vessels in the abdomen by the expansion of the uterus renders this a difficult matter under any circumstances. If it is not effectually accomplished varicose, or enlarged veins, are the result, and these are dangerous from their liability to rupture.

Freedom from restraint is important everywhere. Even in a point as far distant from the pelvis as the knee it cannot be neglected with impunity. At this time "if one member suffers all the members suffer with it" is especially true.

#### BED SOCKS

If the feet are cold at night a pair of loosely knitted, or crocheted, bed socks will be found a great comfort.

#### UNDERWEAR

The underwear should be as light as possible. In winter a Jersey union suit, combining shirt and drawers in one, can be worn. They are warm and not bulky.

If the shirt is worn alone it is sometimes found convenient to open it down the front, face each side and add buttons and button holes.

This does away with the difficulty of putting it on and taking it off, which is sometimes very trying.

Worry should be spared in every way possible, and it is by attention to little things that recur constantly that this can most easily be effected.

If preferred the drawers can be obtained separately and buttoned on the waist. Do not fasten any of the underclothing by bands around the waist.

Some women like a chemise over the shirt, and there is no objection to this garment.

## WAISTS

The best waist is the equipoise. It gives ample room for the breasts and furnishes some support for them. There is no steel in front and the lacing at the back makes it possible to adjust it to the figure as it enlarges. The price is about two dollars and a half, making it more expensive than the ordinary corset.

If a cheaper waist is desired it is best to make one. I do not know of a perfect pattern, but a good waist can be made by modifying an ordinary pattern published by any firm that deals in paper patterns.

Instead of closing the upper part of the front seams over the breasts, work eyelet holes on each side and lace them across. The lacings can be regulated to give support while avoiding pressure.

Two waists should be provided, so that they can be frequently washed. They are made of drilling or any other thick material that is liked.

A corset cover is not needed and it is better to dispense with one, as unless made with lacings it is sure to be too tight at some time.

## SKIRTS

Two light skirts are all that are necessary and these can have button holes in the bands and be fastened to the buttons on the waist.

## MATERNITY DRESSES

The outside dress is the most important part of the costume as far as appearances go, and indeed in other respects as well. If this is drawn tightly about the form, all that is gained by having loose underclothing is lost. Pressure, wherever applied, is to be scrupulously avoided.

It is impossible under the circumstances to preserve the graceful lines of the figure. Any attempt to do so is labor thrown away. Tight fitting garments only bring into prominence what it is desired to hide. Loose, softly flowing draperies are much more effectual in concealing the form. These give an impression of ease and fitness, which is far more pleasing to the eye than the display of outlines which in the nature of the case cannot be beautiful.

A maternity dress should be made with long jacket fronts and a full vest falling well below the waist line. This vest can fasten down the middle, the joining being concealed by the fulness.

There should not be a tight fitting lining beneath it. At the under arm seams, where it joins the lining of the dress, broad pieces of elastic about six inches long should be inserted.

These are hidden by the jacket fronts and yet give the necessary elasticity at the waist.

The soft, full vest gives sufficient room for the breasts, care being taken to make it full enough to do so in the first instance.

If it is desired the lining can extend under the vest and be laced up the front instead of fastened with hooks and eyes. This permits of its being enlarged as required.

A blazer with a full vest makes a good waist for a maternity dress. The vest and collar are in one, separate from the blazer. The vest is held in place around the waist by a band of elastic.

The long skirt of the blazer is particularly becoming. A shirt waist, made with a softly gathered full front, may be worn instead of a vest if it is liked better.

The dress can be cut in princess fashion at the back, waist and skirt in one. In front provision must be made for the lengthening that is necessary as time goes on, or else the skirt will be lifted from the floor at the bottom and poke out awkwardly at the foot.

This can be accomplished by having the front breadths gathered on an elastic band attached to the sides of the waist at the bottom of the under arm seams. About four inches of the material should be turned down when the dress is made and the skirt fastened to the band as in an ordinary dress. The extra material can be let down as needed. The bottom of the vest falling over this part of the skirt conceals the marks of the stitches if there is a trace of them.

The skirt can be made separate from the waist. In this case a piece of elastic must be inserted across the front of the waist band, which must be amply large.

Shoulder straps must be fastened to the band. The easiest way to adjust these is to sew them on the band at the back, bring them over the shoulders and fasten them to the band in front with safety pins. They should be about two inches broad.

It is important to have the skirt of light material and without lining, as weight is especially to be avoided.

There is no difficulty in doing this in summer, and even in winter the choice of light woollens renders it an easy matter to find a suitable fabric.

An extra petticoat can be buttoned on the under waist if desired. Two soft light skirts are much



warmer than one heavy one. Air is a non-conductor and that entangled between them serves to keep in the warmth.

#### WRAPPERS

A Mother Hubbard wrapper with a long full skirt falling from a yoke is the most effectual disguise, but this is not suitable to wear outside the bedroom, except in the morning.

A loose wrapper is an indispensable adjunct to the toilet. Cotton ones make cool morning dresses in summer. The back can be confined by two straps coming from the side seams and crossing behind, or be gathered into a band, but the fronts should be allowed to hang straight and loose without a belt.

#### OUT DOOR GARMENTS

As exercise in the open air is so important to the expectant mother, the out door garments require consideration.

The maturity dress that has been described is made a walking length and looks very well in the street.

The shape of the outside wrap must be governed to some extent by the prevailing fashion. Anything deviating very widely from it would only call attention to the wearer by making her conspicuous and attract the notice she wishes to avoid.

A long full cloak, gathered into a yoke, with slits to put the arms through, well at the side to allow plenty of fulness in front, is the most effectual shield when it can be worn.

A tight fitting jacket is inadmissible. A variety of the dolman wrap, with full fronts and the peculiar half sleeve that gives this form its name, is very suitable.

Wraps should always be long, reaching to the knees, and fasten down the front.

An ulster with loose fronts answers the purpose, but cannot be worn on all occasions.

In choosing an out door garment the restriction as to bands about the waist must be observed. In a half fitting garment the tight back is often held in place by a waist strap, and such must be rejected.

Cloaks reaching below the knees impede free motion to a certain extent and render walking more tiring.

A muff in winter is a useful auxiliary. The only objection to it is that its use requires the hands to be carried stiffly in front and the arms bent. The best position for them in walking is hanging easily at the side, free to sway a little with the movements of the body.

Fur is always becoming, when it can be worn, as are soft, fluffy muslins and lace in summer. Anything that breaks the severity of outline is advantageous.

## COLOR

It should be remembered that black, or dark colored, materials decrease the apparent size, while white, bright tints and striking shades in a dress have the opposite effect.

The expectant mother is proud of the distinction that is coming to her, and of the great gift in store for her. She should not be foolishly sensitive as to the temporary alteration in her appearance, yet she does not wish to emphasize it needlessly. This she can avoid by a little attention to the details of her attire.

## NIGHT DRESS

As more than one-third of our time is spent in bed the night dress demands a little attention.

In winter one of Shaker or outing flannel will be found a great comfort. The comparative warmth of the material prevents the slightest chill from the cold sheets on getting into bed. It also affords protection for the moment before the dressing gown is slipped on, if the wearer has to get up at night.

It is also a saving in laundry work, as the soft fabric is easily washed and requires no starching.

Should these not be worn, it is well to have a bed jacket of the same material, or of flannel to wear over the night dress.

Delicate persons of a nervous temperament should husband the heat of the body, preventing its escape by sufficient clothing. Its production is a tax on the nervous energy which should be made as light as possible.

These extra jackets are advisable even in summer, except in intensely hot weather.

## CHAPTER X

### THE BABY'S WARDROBE

To the young mother the wardrobe that is to be prepared for the new comer is a matter of much more serious consideration than her own.

Those who are about to become mothers not for the first time usually have a certain number of baby clothes laid by, if not a complete outfit. At least they have some experience and a good idea of what will be required.

They have, too, an opportunity to remedy mistakes in the past and can supplement the deficiencies they painfully remember in their earlier preparations.

The young expectant mother has no such resources. Very often she has the vaguest possible idea of what will be needed, is far from her mother or an experienced friend, and does not like to make her wants known, nor to ask for the advice she requires.

She may take comfort in the knowledge that amateur advice on this point is often misleading. By

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using her own common sense and modifying the directions given here according to her circumstances and requirements, she will have a more satisfactory supply of useful apparel for her baby than if she had tried to harmonize the conflicting usages of different advisers.

Fashion has made many changes in the garb of the modern baby and for once her dictates are on the side of health and comfort. Warmth and freedom are the two essentials in latter day baby clothes, and the young mother loses nothing but gains much by not following older customs.

The chilly linen shirt, trimmed with thread lace, but with no protection for neck and arms, has been superseded by the high-necked long-sleeved Jersey, elastic yet close fitting.

The tight bands are gone. The long skirts, encumbering the tiny atom of humanity with their weight and stiffness, have followed them and luxurious ease is the result.

Baby things must be made with extreme neatness or they do not look well. If the mother can fashion the dainty little garments herself and knows how to purchase the materials judiciously, it is cheaper to make than to buy them.

When a seamstress has to be employed the ready-made clothing is the less expensive.

## PATTERNS

The accurate paper patterns that can be obtained make the task a comparatively easy one even for the novice, provided she can sew neatly either by hand or on the sewing machine.

The exact quantity of material required is stated and also the amount of embroidery, or whatever trimming is used.

These patterns have, as a rule, one fault, the skirts are too long. Thirty inches from neck to hem is an ample length for slips and dresses, under-skirts being two inches shorter.

In cutting out skirts a fold should be taken in the middle of the length of the pattern, shortening them as much as is necessary. This avoids making them too narrow around the bottom, as would be the case were it simply cut off. The sides of the pattern can be folded under to the proper slope.

The label on the pattern states the kind of material that is suitable for the garment to be made by it, so that even the inexperienced cannot go far astray in her choice.

The Gertrude patterns, and other good ones, can be obtained from the Butterick Publishing Company, in New York City.

## SAMPLES

A written request to any large dry goods firm

will bring a selection of samples in as many different materials as is desired, and from these it is easy to make a selection.

Parcels under four pounds in weight can be sent by mail, so that distance from the great shopping centres, or inaccessibility to express companies is no longer a serious drawback to procuring as good an outfit as can be obtained in a large city.

#### READY MADE CLOTHING

When it is desired to purchase the clothing ready made it is best to send for a catalogue to a large firm that deals in baby clothes.

There is a great variety of style and price and from this garments can be chosen of any degree of luxuriousness. The simpler ones are often more dainty than the elaborate ones. Simplicity is especially to be sought in the baby's belongings. The absence of ornament is compensated for by the fineness of the material and the neatness of the work.

It is best to select separately the things that are needed. Many articles not really required are included in the layette furnished at the shops, while there is a paucity of some of the more necessary ones.

It is sometimes possible to make the undercloth-



ing, or some of the plainer garments, at home, even when the dresses have to be purchased. Yokes and sleeves can be bought ready made and it is not a difficult matter to add the skirt to complete the dress.

It is well to begin work on the outfit in good time. The later months may bring a disinclination or inability to work.

Accident sometimes hastens the birth, then it is a great satisfaction to know that everything is ready and all the preparations completed.

Working on the sewing machine is not a very beneficial form of exercise for the expectant mother and as little of it as possible should be done with a treadle machine. Hand work is infinitely preferable, if it is neatly sewed. It always commands an extra price in ready made garments.

#### NUMBER OF GARMENTS

The facilities for having washing and ironing done when it is desired make some difference in the amount of clothing it is necessary to provide. Those who have this labor performed at home and are sure of being able to obtain clean garments whenever they are required do not need as large a stock as those who must depend upon a distant laundress.

To be stinted in baby clothes means that it is

almost impossible to keep the baby fresh and sweet. Everything should be sacrificed to this. When the means are small the saving should be effected in the quality of the material or in the absence of trimming, not in the number of garments provided.

The following list is based upon the supposition that the clothes can be returned from the laundry punctually once a week.

It may be added to at will, but should not be much curtailed, unless the facilities for washing and ironing are exceptionally good, or the need of economy is very urgent.

#### CLOTHING

√ 3 bands	√ 2 wrappers
√ 4 shirts	√ 12 pair socks
6 petticoats	√ 3 blankets
~48 napkins	2 cloaks
√ 6 night slips	2 hoods
8 dresses	18 bibs

*Bands.* When linen shirts were worn, bands were an important part of the wardrobe, affording warmth and protection to the abdomen. They were usually pinned too tight and did harm in that way. It is no more necessary to bandage a young baby than a young colt.

It is true there are weak points in the abdominal

walls, but the unyielding bandage, as it is usually applied, forces the intestines down against these when the child cries and actually increases the danger of rupture, which it was meant to guard against.

Now that the use of the soft, warm Jersey shirt is almost universal, the band is only required for a few days to keep the dressing in place and care should be taken not to put it on too tightly.

Three strips of soft flannel about five inches wide, by twenty-four long, torn off and not finished in any way are all that is needed.

They can be sewed on if desired, but small safety pins answer very well practically to fasten them and are much less trouble. They should be put in at the side so the baby will not be compelled to lie on them.

In leaving off the bands a strip should be torn off every day, not to make the change too sudden.

*Shirts.* As a shirt has to be worn at night as well as during the day, four will be found none too many. The ribbed cashmere, Saxony or Jersey, high necked, long sleeved and opening down the front are the best. They cost from forty-five to seventy-five cents each. As the first small ones are soon outgrown the less expensive quality answers very well.

If it is desired to make them, the Butterick shirt

pattern No. 7004 is a very good one. Cotton and wool, or silk and wool flannel, should be used, as it shrinks much less in washing than the all wool material. The seams should be laid flat and the edges catstitched. If desired, the neck, sleeves and bottom of the shirt can be bound with flannel binding, which washes better than ribbon.

A skilful knitter can knit little shirts that are very pretty and dainty and answer the purpose admirably. A baby ribbon of pink or blue should be run in at the neck and wrists.

After putting on the shirt it should be fastened with a safety pin to the napkin in front to prevent its riding up.

Some mothers prefer a flannel slip instead of a shirt. This can be made by the night slip pattern, cutting it a little narrower and lower in the neck.

The disadvantage of this garment is that if it accidentally gets wet the baby must be undressed to remove it. This accident is not likely to happen with a short shirt. It does not cling as closely and hence is not as warm as a cashmere shirt.

In dressing the baby it is convenient to fit the sleeves of the different garments in one another and so put them on as one article. In this case the shirt may be fastened behind. The baby seldom objects to lying face downwards while its clothes are

being tied and it saves much trouble to get them all on with one motion.

A baby dislikes, and very reasonably, being turned and twisted about while it is being dressed and often gets cross and cries before the operation is completed.

*Petticoats.* A sleeveless flannel slip is preferable to a petticoat until the baby is three or four months old. It gives more freedom to the body than a regular petticoat, as it is impossible to draw it tight around the waist.

As it takes the place of the old-fashioned pinning blanket, or harrow coat, it is well to have the bottom turned up and loosely buttoned for added warmth to the little feet. Care should be taken not to have it too tight to impede their motion. It should be thirty-three inches long from neck to hem. This allows four inches to turn up. This is the length when finished and does not include the hem before it is turned, which must be allowed for.

It can be made from the night slip pattern, omitting the sleeves and cutting it lower in the neck. The arm holes and neck can be bound with flannel binding and the seams laid flat and catstitched. Ridges at the seams should be avoided in a baby's clothing.

If a regular petticoat is preferred, the Butterick pattern 7801 is a good one to use. It has a slit on one side of the waist through which one end of the waistband slips, permitting it to be drawn around and tied in front. Pins should not be put in a baby's clothing when it can be avoided. There are straps over the shoulders, though this is not of so much importance in the skirts of a tiny baby who spends most of its time lying down. If it is desired to use pinning blankets for the first two months they can be made by pattern number 7801, which has a waist with slit in the side and shoulder straps.

The petticoats should be made of flannel if another slip is not worn. The waist should be of the same material, or of outing flannel, for the winter baby. In summer Lonsdale muslin may be used for this purpose.

Silk and wool flannel costs from sixty-five cents to a dollar a yard. The more expensive quality is beautifully fine and can be used for a cloak, or wrapper. The cotton and wool flannel can be purchased for about thirty-five cents a yard, and is equally serviceable for underclothes. The only advantage of the former is its added daintiness.

If it is desired to have the petticoats especially ornamental, flannel can be purchased by the yard

with a broad hem on one side surmounted by a row of hemstitching, or a delicate vine of leaves and flowers, or shamrocks, or polka dots, done in silk, forming a pretty border. The length of the garment is cut from the width of the material.

They are very pretty at first, but lose their freshness after repeated washing.

There is an art in washing the baby's flannel belongings which it is well for the young mother to know if she has to do it herself, or direct the work, and wishes them to keep their beauty.

Dissolve a few shavings of Ivory soap in warm water, not too hot, wash the articles in this, pressing and rubbing them gently, but not wringing them to pull them out of shape.

Rinse them in water of the same temperature, neither hotter nor colder. Shake them until partially dry and complete the process by hanging them in the sun, or near the fire, that it may be a rapid one. Iron them immediately.

Using water of the same temperature and drying quickly are the secrets of success.

Garments that are knitted or crocheted wring in a towel. Press them into the proper shape, laying them flat on a folded towel or napkin, pin them so they cannot shrink and lay them over the register, or in a warm place, to dry quickly.

If a little bluing is added to the last water it gives them a bluish tinge and prevents their looking yellow.

If it is wished to make a long underskirt to wear with the christening dress, or festival robe, with which most babies are provided, this same pattern can be used.

Cambric or lawn, hemstitched, or tucked on one side, can be procured and saves much trouble. A narrow edge of embroidery can be added at the bottom if desired, but the simpler trimming is in better taste.

*Napkins.* The best material for the napkins of a young baby is an old linen table cloth or table napkins; this linen is soft and absorbent. Not every one is fortunate enough to have a store of old house linen on hand to meet this requirement, and perhaps the next best is linen diaper, which is sold by the piece at varying prices from \$1.10 upwards. That costing a dollar and a quarter is a good quality for the purpose. Each piece contains about ten yards.

It must be soaked for two days and washed several times until every particle of stiffness is removed and it as soft as an old pocket handkerchief.

Cotton diaper is less expensive, and has the ad-



vantage of being thicker. It should be treated in the same way.

Pads have done away with one of the former objections to the linen diaper, that it was too thin to be useful, as they absorb much of the moisture.

Stockinet, such as undershirts are made from, is an excellent material for this use. Unfortunately it is difficult to purchase it at retail. No doubt if it were more often inquired for it would be kept on sale, at least in some of the larger stores. A good quality, about a yard wide, costs thirty-five cents a yard. It is soft and absorbent, but does not wear as well as a firmer fabric. Old undershirts could be utilized when they are to be had.

Ready-made stockinet napkins can be procured at the large establishments where baby clothes are sold. Care must be taken not to confound them with stockinet diaper, which have a coating of rubber on one side, fatal to the tender skin.

Canton flannel, cotton flannel or swansdown, as it is called indifferently, is another good material, with the requisite qualities. Though it is rather thick and clumsy for the first napkins it answers admirably for the larger ones that will be needed later on.

It can be procured in different grades and at vari-

ous prices. That costing seven cents a yard is better than the more expensive, as it is not so apt to get hard in washing.


Eighteen-inch squares are large enough for the first napkins and twenty-five inches for the second size. If it is decided to make only the larger ones they can be folded twice while the baby is little. It is well to make two dozen of the smaller size and three of the larger. When only the latter are provided, four dozen is sufficient.

In putting on the napkins, if one is found inadequate it can be supplemented with another pinned around the hips but not drawn up in front.

To the inexperienced it sounds droll to speak of a pattern for napkins, but improvements have been introduced into this part of the baby's attire as well as into every other.

An elliptical piece is cut from the centre of each, rendering it equally effective and much less clumsy.

Fold the eighteen-inch square to a triangle, this measures across the folded part twenty-five inches. Lay a plait in it so that it only measures twenty inches. Let this gradually taper down until there is no fold when the points are reached. Taking a needle and thread baste along this seam, slipping the hand underneath the fold not to catch the under part with the needle. When the middle is reached

turn the triangle gently over and continue the bast-  
ing down the other side to the opposite point.  
Spread the square on the table and cut out the fold.  
The piece removed will be shaped thus , and can be  
used as a pattern to cut the others by.

Stitch the seam neatly. When the napkin is  
made double the seams can be inside. Otherwise  
they can be folded inside when it is put on.

This is a specially desirable pattern for the larger  
napkins, as they, being thicker, are more clumsy than  
the smaller ones.

A square of thick flannel cut in this way can be  
used as an extra protection at night, or when addi-  
tional security from the moisture penetrating to the  
surface is required during the day. The point need  
not be drawn up between the legs.

It is not necessary to change a baby at night after  
it is fed for the last time. If the covering is  
thick enough to absorb the wet so that the clothing  
will not become damp, no harm is done. In fact, a  
baby taken from a warm crib and inducted into cold  
napkins in a cool atmosphere is much more likely  
to take cold than one let alone.

There will be no chafing if the skin is sound and  
whole. Should it through neglect have become  
chafed, cover the abraded surface with a piece of soft

linen rag spread with cold cream, vaseline, or mutton tallow, so that the wet cannot penetrate to it.

Rubber diapers never should be used. The dampness, unable to escape, acts upon the tender skin as a poultice, making it sore in a very short time. Those of oiled silk, oiled muslin, or any impervious material, have the same effect. They may save a little trouble in the beginning, but they cause a thousand times more in the end than is involved in changing all the clothing, were that necessary as a consequence of not using them.

A napkin may be used twice, but it is better not to use it more than once without its being washed. When the moisture evaporates a solid deposit is left behind, invisible to the naked eye, but irritating to the delicate skin of a baby.

If put on a second time they should not be dried before using in the room where the baby is. The open air is the safest place in fine weather, and if possible they should be hung where the sun will shine on them. When brought in they must be warmed before using.

#### PADS

These will not prevent the napkin from becoming wet, but they will prevent its being unpleasantly soiled and they relieve the washing of its most disa-

greecable feature. When removed they are folded together and put in the fire.

They are six inches square and are best made of cheese cloth, that has been washed to remove the harshness, and a layer of thick absorbent cotton. When this is not to be had, one or two thicknesses of soft, old cotton may be laid between the cheese cloth covers, or even a square of soft, unprinted paper. An old pocket handkerchief answers very well for the outside covering. One of ordinary size will cover two pads.

It is only necessary that the side placed next the baby should be soft, the other may be left uncovered if there is a scarcity of material. An unlimited number may be made, as they are useful for a long time.

When they can be obtained, pieces of old cotton, or linen, can be folded square and used as pads. If they are only wet, not soiled, they can be washed and used again. If the laundry bill has to be kept down, it is cheaper to burn them.

#### NIGHT SLIPS

These may be used as night dresses also during the first month. A young baby spends so much of its time in sleep the simplest dress is the best.

The little shirt, flannel slip and cambric slip are

worn at night as in the day. It is not necessary during the first four weeks to undress the baby in the evening, unless there is some special reason for doing so.

It is well to turn it over on the lap, pass the warm hand gently under the loose clothing and rub the back and abdomen.

The night slips may be made of Lonsdale muslin costing about sixteen cents a yard. It is well to have them perfectly plain, without a yoke; a good pattern is the Butterick one for an infant's night gown, number 4902.

In winter, or in a cold climate, the night slips can be made of Shaker or outing flannel by the same pattern, and turned up at the bottom and buttoned to keep the feet warm. This object is perhaps more easily effected by running a drawing string in the hem and tying the lower part of the night gown like a bag.

These slips are more suitable for use after the baby is three months old than for a very young child. The flannel under slip, or petticoat, keeps the feet warm until it is discarded.

#### DRESSES

There are so many pretty patterns for a baby's dresses that the only difficulty is to choose between

them. The Butterick slip pattern number 7803 has a round yoke and is a simple and pretty one. A pattern for a yoke of a different shape with sleeves, number 7049, can be obtained for ten cents. With these as guides the ingenious needle woman can vary the shape of the yokes at will. They may be round, pointed, or square, joined plainly to the skirt, or edged with a narrow ruffle of embroidery.

The yoke may be made with clusters of narrow tucks and feather stitched between them, or with bands of insertion separated by tucks, or tucked without any other ornament.

It is well to remember not to put even a narrow edge of Hamburg around the throat as it is apt to scratch the tender skin. An edging of lace can be substituted for it.

Tucking can be bought by the yard and the yoke cut from it. Machine-made feather stitching, narrow braid with a design to represent feather stitching woven on it, can be purchased by the piece.

As has been mentioned, ready made yokes with sleeves can be obtained and the skirts added to them.

Nainsook muslin, costing from twenty-five to seventy-five cents a yard, Victoria lawn and Lonsdale cambric of fine quality, from twenty cents to twenty-five cents a yard, are the favorite materials for babies' dresses.

The two former can be had with a deep hem-stitched hem on one side of the material. This makes a pretty finish to the bottom of the skirt. A narrow band of thick embroidery, leaves and a vine in satin stitch, may be worked above it if desired, or a cluster of tiny tucks added. Deep open work embroidery is no longer considered necessary as a trimming for the skirt.

Valenciennes is the lace that has long been appropriated to babies. The real is expensive if much is used. A fine Torchon wears very well.

When a mother has to do her own work and must husband her strength she will find it a great saving to have the little dresses of Shaker or outing flannel. They are much more easy to wash than the cambric ones, require no starching and hence can be ironed with a third of the pains that must be expended to make the others look well.

They are not quite as dainty as the pure white folds, but they can be made very pretty with tucks and feather stitching done in cream washing silk, and the gain to the overtaxed mother is very great.

The best dress may be of cream cashmere as this washes well. No one who has not tried the effect can imagine how pretty a cashmere yoke is, made with clusters of narrow tucks with a feather stitch-



ing done in cream silk between them. It almost reconciles one to the loss of delicate muslin. The sleeves can be faced with the material and shirred at the wrist.

When it can be afforded a handsome robe is usually provided, to be worn only on state occasions.

Such are sometimes handed down for several generations. I know of one that has served for two and is being carefully preserved for a third, while no doubt there are others much older. The young mother does not know that hers may not be beginning a long career of usefulness and so wants to have it as dainty as her means will permit.

Fineness of material and delicacy of embroidering and general workmanship should be sought for rather than an overabundance of coarser embroidery.

If the expectant mother is a skilful needlewoman she will like to make it herself; if not, it had better be purchased. The skirt should be ten inches longer than the ordinary dresses, as the weight will not be injurious for the short time it is worn.

A long lawn under skirt should be provided to go with it.

The young mother who inherits a family heirloom of this nature usually finds that it is made with low neck and short sleeves. She is afraid of her baby

taking cold when arrayed in it for the christening, or some ceremonial occasion. This can be avoided by putting on one of the everyday dresses, with a pretty yoke and sleeves, under the state robe, to look like a guimpe.

In these precious garments the slip is sometimes of silk and the overdress of lace.

#### STUDS

When making the ordinary dresses it is well to remember that it is prettier to close the back with studs than with buttons. They can be obtained in every variety of design, from jewelled ones far beyond the reach of the ordinary purse to ivory ones costing only a few cents.

Three are necessary and they are safer when linked together with a slender chain. Unless the setting is a tiny turquoise, or pearl, jewels seem inappropriate for a baby. The little gold, or silver, hearts are a favorite design. The former cost about three dollars and a half a set.

Studs of course involve a double number of button holes. Those who dislike making them will prefer the little gold, or silver, safety pins that answer the purpose equally well. These also are united by a chain. Plain silver ones can be had for two dollars a set. They look like small bib pins, not

ordinary safety pins, though these too are for sale in silver and gold. A doting relative sometimes gives one to fasten the napkin, but it is not a whit more useful than the humbler nickle-plated one.

## WRAPPERS

These are an indispensable addition to the baby's wardrobe. They are made either perfectly plain, or with a little yoke. The Butterick pattern number 4676 answers for the first, and number 7231 for the second.

The material may be silk and wool flannel, opera flannel, although this shrinks when washed, Scotch flannel, and outing or Shaker flannel. The latter makes very useful garments. Cashmere is pretty, but not as warm as the other fabrics.

The yokes may be tucked and feather stitched, or plain with rows of feather stitching, done in washing silk.

When made without a yoke the fronts can be tucked for about four inches from the neck, or trimmed with pointed bands of the material, alternately three and four inches in length, extending from the neck downwards, each band being feather stitched.

It may be a help to the inexperienced to know that the material should be tucked first, then the

pattern laid on it and cut out. This applies to yokes as well.

The wrappers may be tied in front with ribbon, or fastened with buttons and button holes. The latter is more sensible, as ribbons suffer in daily use.

The sleeves should be shirred at the wrist. It is a pretty addition if ribbon is used for the front to tie a band an inch wide around the shirring, the bow with short ends being on the outside. This is easily removed when soiled, leaving the sleeve perfectly finished without it.

Wrappers are useful to slip on in early morning when the night slip is removed, or to put over it in cool weather. Babies are so susceptible to cold that they have to be guarded against it, not by keeping them shut up in hot rooms, but by clothing them properly and letting them have plenty of fresh air.

#### SOCKS

These are a disputed good for little babies. They keep the feet warm, which is an important gain, but they are apt to get wet and have to be tied rather closely to prevent them from being kicked off. They have to be worn as soon as the flannel slip is no longer kept closed at the bottom, so it is as well to begin with them.

They can be knitted or crocheted of white zephyr,

and stouter ones of Germantown wool. The little shoe part of the foot may be of pink, blue, pale yellow, or crimson. Purple is the color of grief, although it is also the royal shade, and is not appropriate for a baby's belongings.

Tiny shoes, to be used instead of socks, may be fashioned of stockinet—the best part of old, fine underwear answers very well for the purpose—flannel, jersey flannel, or eiderdown flannel. They can be daintily embroidered, or feather stitched, in the same, or a contrasting color, with washing silk. The Butterick pattern number 4257 shows how to cut them in two ways.

At least a dozen pairs of socks are necessary, as they soil quickly and wear out with marvellous rapidity under the ceaseless movements of the little feet.

Crocheted or knitted socks can be purchased for twenty-five cents a pair, but cost much less when they are made at home. Very elaborate ones are sold for \$1.25.

#### BLANKETS

These are necessary to wrap around the baby while it is little. At least some protection of the kind is required.

Soft white knitted shawls may be used, but they are more clumsy and not as easily washed. I once

saw some very soft fine white Shetland shawls, with a thread of silk woven with the wool, which were exactly the thing for a baby, but they are difficult to procure.

Very fine embroidered blankets of cream flannel, worked with sprays of flowers and leaves in satin stitch, can be had at the establishments where baby clothes are sold. They cost from \$2.50 to \$6.00. It may be desirable to have one to be worn with the state dress, but simpler ones are more comfortable and sensible for everyday wear.

A square of silk and wool flannel, with the edge scalloped and worked with washing silk, and perhaps a dot in the centre of each scallop, makes a dainty blanket sufficiently nice for best.

Cream, pink, or blue, eiderdown flannel with a two inch hem stitched in silk is useful and easily washed.

A square of cotton and wool flannel with a hem of the same depth hemmed by hand, and having two, or three, rows of chain stitch in silk to conceal the hemming, answers very well.

Flannel blankets, whether simple or elaborate in their decorations, must yield the palm for comfort to those knitted from Germantown wool. Cream washes the best, but any color preferred may be used.

Five skeins of the single wool is required and a pair of rubber, or bone, needles a quarter of an inch in diameter.

Set up 123 stitches, knit three stitches plain and three ribbed, or purled, across the first needle; turn the work and beginning with three plain stitches repeat as in the first row. Always begin the row with three *plain* stitches. This gives a pretty crinkled effect, but any pattern or fancy stitch preferred may be used, or crochet substituted if knitting is disliked.

The blanket should be a yard long and three-quarters of a yard wide. Two are needed. A pretty blanket with one end shirred into a hood can be made of any of the thinner materials mentioned. It can be cut by the Butterick pattern number 8239. It is ornamented with a bow on top and at the back of the hood, and is useful to put on if the baby has to be taken through long passages, or when it is carried outside the door in summer.

## JACKETS

Little worsted and flannel jackets, which used to be considered indispensable, have rather gone out of fashion for babies. They are difficult to put on, soil very quickly and their beauty is soon spoiled by washing.

They are still sold as a part of a baby's layette. Flannel and cashmere ones cost from \$1.50 to \$9.50, the latter being very elaborately embroidered.

If it is desired to make two, or three, the Butterick pattern number 3974 can be used to cut them by; they are much less expensive when made at home.

Worsted jackets, which cost from \$1.15 to \$1.90 when purchased ready made, are knitted or crocheted in shell stitch, or star stitch, from zephyr wool. This may be white or any color preferred. Cream with a colored border looks well. With rows of baby ribbon run above the border, or a single row of wider ribbon, their daintiness is indisputable. Their utility is questionable for the reasons given.

#### CLOAKS

The age at which a baby must first be taken out of doors must be governed by circumstances. What would be a perfectly safe proceeding at midsummer might be very imprudent in the depth of winter. It is well to have the cloak and hood ready beforehand, as there is always plenty to occupy the mother's attention when she first gets well without beginning immediately to think about new garments.

Cream cashmere is the prettiest and most service-



able material for the first cloak. China silk is used in summer and a heavy corded cream silk at any season, but it does not seem as appropriate to the tender little form as the softer cashmere.

The ready made cashmere cloaks cost from \$4.75 to \$12.50. The simpler ones are quite pretty enough even for a first baby. The pattern has a pointed, tucked yoke, the sleeves have tucked cuffs, there are bows of ribbon on the shoulders, and it is tied with the same in front.

A rather elaborate one of China silk costs \$14.50 and a cream corded silk, with the waist tucked and embroidered in dots, \$23.50. When the cloaks are embroidered by hand and trimmed with silk lace, the price rapidly increases until \$75.00 is reached.

Cashmere costs from seventy-five cents to one dollar a yard, and about three yards are required to make a cloak with a cape. It must be lined with silesia and the cape faced, or lined, with silk. When ribbon and silk for embroidery, or feather stitching, is taken into account, it will be seen that there is little difference in cost between making one at home and purchasing one of the less expensive ones.

It is true the material will probably be finer and, if the maker is a skilful needlewoman, the garment more neatly finished.

If it is decided to make one, it can be cut by the Butterick pattern for a baby's first long cloak. The cape is very pretty trimmed with three rows of narrow cream ribbon, either watered or plain, with feather stitching in silk between each. The skirt is usually left perfectly plain. Two or three rows of dots worked in silk between the bands of ribbon look well, but are not as effective as the feather stitching.

An edging of white fur is a pretty addition in winter. It can be bought by the yard very cheaply.

#### HOODS

The material of which the first little bonnet is made varies with the season of the year. In cool weather it may be of cashmere, to match the cloak and edged with a border of white fur, or swans-down.

In summer, silk, crepe de chine, plain faille Français or embroidered China silk, lace, muslin and silk mull are used.

The silk caps are trimmed with full rosettes of Valenciennes lace on top. The crepe de chine may be embroidered in polka dots or trefoils, and ornamented with rosettes of fine net, intermingled with narrow cream-colored baby ribbon.

The lace and muslin ones should have a lining

of thin silk. Very pretty ones are made of rows of Valenciennes insertion, laid over a silk foundation of the proper shape.

Those of silk mull can be feather stitched and have bands of drawn work down the sides and across the gathered crown, with a pompon of the mull and lace on top.

Caps of Swiss muslin can have clusters of hair line tucks and feather stitching if desired, the face border being a plaiting of the muslin edged with Valenciennes. All the other caps have full ruches of lace around the face and all are tied with ribbon under the chin.

The little hoods are difficult for an inexperienced workwoman to make neatly. They cost from ninety-five cents for a plain one of corded Swiss muslin, with a border of the muslin edged with imitation Valenciennes lace, to twelve dollars for a real lace one. A dainty embroidered China silk one can be had for two dollars. This has a rosette of fine net and baby ribbon, with loops of wider ribbon and a narrow ruche all around it.

## BIBS

Bibs are not required until the child begins to teethe, unless, unfortunately, it throws up its food. It is well to have them ready beforehand and

sometimes it is convenient to have one to put on to protect the cloak or the best dress.

They are made of lawn or fine Lonsdale cambric, with a thin layer of cotton batting between the outside and the lining and quilted by hand, or on the sewing machine, in diamonds, or any pattern desired.

They can be trimmed with narrow Hamburg or lace, or embroidered if it is wished. Sometimes when they are quilted a space is left in the middle or at the lower part and a simple design worked in it, or the baby's initial or monogram.

Birdseye diaper makes strong serviceable bibs. They are made double but without the interlining of batting and are not quilted.

It is cheaper to make bibs than to buy them. They may be purchased from seventeen cents to two dollars and a half, being elaborately embroidered at the latter price. The Butterick pattern number 748 can be used for them. It contains two models; one, the handkerchief bib, crossing behind, is a variation of the regular shape we have been familiar with since our own baby days.

About two dozen are needed, as when once in use they have to be changed frequently to keep them dry. Fortunately they are easily washed.

Dainty bibs for out door wear can be made by cut-

ting hemstitched handkerchiefs in two diagonally, working the cut edge in button-hole stitch and embroidering one point with forget-me-nots, daisies, or tiny pink flowers.

## BIB PINS

They give a good excuse to display the bib pin with its setting of pearl or turquoise to match the studs. It may have the word "Baby" on it in raised letters, or the child's monogram, or initials engraved on it, or be a plain bar of gold or silver, satin finished and with a safety clasp.

Pearls, or tiny silver daisies, are pretty for a little girl whose name is Margaret, as the name means both pearl and daisy.

The child born in April may have a diamond spark and the one in October an opal, as these are the birth stones for those months. Turquoise properly belongs only to the December baby. The birthday stones for the other months are: January, garnet; February, amethyst; March, bloodstone; May, emerald; June, agate; July, ruby; August, sardonyx; September, sapphire; November, topaz.

## CHAPTER XI

### THE BABY'S BELONGINGS

#### THE BASKET

A BASKET to hold the toilet accessories is a necessary part of the baby's outfit. They are of different shapes and sizes, and almost any basket that is large enough may be fitted up to answer the purpose very nicely.

They can be bought trimmed and ready for use, but are much more expensive than those made at home.

The simplest flat basket covered with Swiss muslin, over pink or blue silesia, costs \$3.75, while the same basket undecorated is fifty to seventy-five cents.

A standard basket trimmed costs \$9.50, untrimmed from \$1.50 to \$2.50. The trimming consists of a lining of Swiss muslin over silesia, pockets and pin cushions of lace and bows of ribbon tied

on the handles and where the legs of the stand cross one another.

Large wicker hampers with a tray, trimmed with dotted Swiss muslin, cost fifteen dollars, and more elaborately decorated with lace and ribbon, twenty-five dollars. The hampers untrimmed can be obtained for five dollars and a half. Hampers made of palm leaf cost eight dollars.

The trimmed baskets are very pretty and dainty looking, but the freshness of the muslin and lace is soon impaired by constant use, and they have to be renewed at a time when the young mother's attention is sufficiently occupied already with the necessary care of her baby.

Ribbon is the most sensible ornament, as it can be replaced with very little trouble, and looks well for a long time. Choose a width to correspond with the openings in the sides of the basket and weave the ribbon in and out, adding a bow here and there to conceal the joining and break the monotony of the outline.

Hampers can have a broad ribbon crossing the cover diagonally, with a bow at each end and the same on the front.

The cover inside may be crossed from side to side by a zigzag of ribbon, tacked at the points.

To line the tray make a plaiting a little wider

than the depth of the tray. Tack this with a needle and thread around the edge, holding it above the edge, wrong side out. Turn it down and tack it on the bottom of the tray. Cut a piece of stiff cardboard the exact size of the bottom, cover it with a layer of cotton batting split and thickly sprinkled with violet, or other sachet powder. Press this in place. Sew on the sides of the tray two pin cushions, one round and one long, and two little bags.

A flat basket may be lined in the same way, and if desired a deep frill added outside with a full ruche of the same around the top. A handle crossing the top of the basket to lift it by is useful. It can be tied with ribbon.

Besides Swiss muslin and lace, art muslin, silkolene, chintz, China and India silk can be used for lining and covering the baskets. It is well to make a cover of the material to throw over the open basket to keep out the dust.

If it is decided not to cover the basket with a perishable material it can be gilded or painted white and varnished, or red with lines of gold. This is a good device to freshen a wicker basket that has seen service before.

The pockets and cushions may be made of delicate China silk or any material that is liked.



Ribbons are fastened to them, drawn through the meshes of the side of the basket and tied in bows on the outside.

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The basket should hold a little porcelain box of pure vaseline, a powder box and puff, with powdered French chalk scented with violet, or any good powder, a half cake of ivory soap in a celluloid or silver soap box, a soft baby brush, two little wash cloths made of an old dinner napkin, which are far more satisfactory than a sponge, and two larger towels of the same kind of old linen. A little powdered borax and a wide-mouthed bottle of fuller's earth should be at hand, not necessarily in the basket.

In one pocket should be a bunch of absorbent cotton, in the other the middle of an old handkerchief. One cushion is for large, the other for small safety pins; common pins should not be put in a baby's clothes. The clothes that will be required for the first dressing must be laid in it—a band, a shirt, a flannel, a plain night slip, a napkin, a pair of socks and one of the Germantown blankets.

## CARRYING BASKET

Sometimes a basket is provided to carry the baby from room to room. This is about two feet and

a half long, with handles. One can be purchased for \$2.75 and ornamented to correspond with the toilet basket. A down pillow is used as a bed.

Some one color should be chosen for the baby's belongings and used wherever color is permissible. Pink for a girl and blue for a boy is the established usage. Pale green, yellow and crimson are all pretty.

#### THE BABY'S CLOTHES PRESS

A modern high bureau, or chiffonier, in dark or light wood, with many shallow drawers, is the most convenient receptacle for the baby's wardrobe. There is usually a little closet at one side that holds the bonnet without crushing.

A box or trunk with the sides concealed by a deep frill of chintz, the top stuffed and covered with the same, is a good place to keep the napkins.

#### SACHETS

Wherever the clothing is kept a number of sweetly scented sachets should be provided to scatter amongst it. One should be kept with the bibs and a few tucked in the waists of the dresses. Sachet powder can be bought by the ounce and little bags are easily made. The powder is sprinkled on a piece of split cotton batting before being put in the bag.

A delicate aroma of violet, or heliotrope, enhances the sweetness even of a sweet baby. Liquid perfumes are too decided in their odor to be used about a baby. Something more delicate and ethereal is required.

## THE BABY'S BED—BASSINETTES

Wicker bassinets, which are often chosen for the baby's first bed, are very pretty and dainty looking. They cost untrimmed from \$6.75 to \$9.00 and have a hood, or canopy, to protect the head. They can be lined with glazed muslin, or silesia, of whatever color is chosen for the baby's belongings, and covered with plain or dotted muslin, laid smoothly over the lining or frilled on. Art muslin, silkolene, China or any kind of fancy silk can be used if preferred. A full ruche is put around the top to conceal the joining of the outside flounce and the lining. The curtains are looped back with bands of the material used or with ribbon. Sometimes the canopy is omitted.

A large oval clothes basket makes a good substitute for a bassinet. It can be trimmed in a similar manner and is less expensive.

A stand draped with the same material can be provided to hold the bassinet, or it can stand on two chairs. It can be easily carried from room to room, which sometimes is a convenience.

## THE BED

A large pillow forms the bed. Over this is spread a square of rubber cloth and then the sheet, or a folded crib blanket. Another blanket and a pretty light coverlet is all the covering needed.

## PILLOWS

The pillow should be a small square one with a dainty cover. Two large hemstitched handkerchiefs make a pretty one. Down is objectionable as making the head too hot, unless the pillow is a very thin one. A soft hair one answers the purpose very well in summer. Feathers are not objectionable unless too soft.

## CRIBS

Pretty as the bassinets are their decorations soon lose their freshness and a crib is a more sensible purchase.

The white iron ones with embellishments of brass are to be preferred, although there are many fascinating styles in wood. They can be had with a curved iron rod to support curtains, or a framework, or canopy, from which they can be hung. They should be looped well back to permit a free circulation of air but are useful as a protection from draughts.

## CRADLES

There is a great difference of opinion as to whether

it is permissible to rock a baby or not. At present there are symptoms of reaction against the cast-iron rule of no rockers. While violent motion is of course injurious, it is held that a gentle swaying will sometimes quiet a restless baby and prevent its rousing when otherwise it would waken.

When we consider that for so many generations it was the universal custom, amongst English-speaking people at least, to rock babies, it does not seem as if it could be so very dangerous a practice as its opponents would have us suppose.

Shakespeare's brain was not injuriously affected by the operation, nor the many geniuses from his day to the present who spent a large part of their early existence in cradles.

Probably in this as in so many other things the middle path is the safest. A baby should not be accustomed to be rocked to sleep, nor perpetually jogged when he is slumbering. Yet it may be well not to put it out of one's power to give the gentle touch that will soothe the restless sleeper to more profound repose. Heredity, which is held accountable for so many strange things, may be responsible for this touch being needed.

#### PROTECTORS

Whatever the bedstead may be, there is no ques-

tion that the foundation of the bed should be a woven wire mattress. Over this is laid a soft hair mattress, and on this the protector.

Rubber cloth can be purchased for seventy-five cents a yard, a yard wide. Two strips should be provided, that one may be hung in the sun and air while the other is in use. Twice a week they should be sponged with a solution of carbolic acid in water, 1-60. This will prevent their smelling unpleasantly if they are frequently wet.

A good protector to lay over the blanket, or sheet, if one is used, is made of several thicknesses of newspaper folded and slipped into a cotton, or flannel, cover kept for the purpose. They are easily renewed, the paper being burned when damp and the cover washed. Two should be provided.

#### BLANKETS

A folded blanket laid over the rubber cloth is better for a young baby than a sheet, as warmth is all important to it. Eiderdown flannel makes inexpensive blankets. The cut edges can be buttonholed with washing silk in long and short stitches. The upper blanket can be bound with ribbon if desired, but it does not wash well. A pair of crib blankets is an economical purchase.

### COVERLIDS

An upper sheet is not needed, the blanket and a light white quilt, or silk coverlet, or in winter a down comforter, being all that is necessary.

Cotton batting covered with pink, blue, or cream cheese cloth and caught here and there to secure it, makes a light and pretty comforter.

### PILLOW CASES

The pillow should be a thin feather, or soft hair, one, to avoid overheating the little head. If the case is embroidered, the initials, or monogram, or whatever the design may be, should be at one end and not where the tender cheek rests. A cluster of narrow tucks above a broad hem, hemstitched, or not, is a pretty finish.

### HAMMOCKS

When space is a consideration, as it is to the dwellers in flats, a hammock makes a convenient bed for the baby. A small one occupies little space when slung on two stout hooks and is easily put out of the way when it is not occupied. A long pillow and blanket is all the bedding required.

If there is a fear that the baby will fall out, it can be fastened in with two broad bands tied around the hammock.

## FOLDING BATH—TOILET APPARATUS

A folding bath tub can be procured, made of rubber cloth stretched on a frame that can be folded and put aside when not in use. There is a hard rubber faucet at the bottom to let off the water. At one end are pockets of rubber cloth to hold the wash cloth, soap, etc., and at the other a towel rack.

It costs \$8.75 untrimmed, and \$12.00 with pockets and towel rack. With care one will last a long time, but the slightest crack in the rubber coating renders it useless as a bath tub, though it may still serve the secondary purpose of a bassinette for the baby.

## TIN TUB

An oval tin tub is the most durable bath tub. It should be carefully dried after it is emptied. When in course of time it leaks, a soldering iron will repair the damage and give it a new lease of life.

## TOILET SETS

Pretty decorated china toilet sets are sold for the baby's use. They consist of a basin, either a plain round one, or with a division in the middle. In the latter one side is for hot, the other for cooler water, or one side for scented water to finish the bath. Beside the basin there is a powder box and soap dish to match it, and a pitcher. The set costs \$3.75.



Sometimes the basin is set in a wicker stand with a shelf below for soap dish and powder box. This costs \$7.50 ; the stand alone, four dollars.

#### WASH STANDS

A more durable receptacle is a little wash stand of iron enamelled in white. This costs \$1.75 ; with basin, two pitchers, soap and powder boxes, \$8.50. An iron stand of the same shape can be had with the basin and boxes, but without the pitchers, for five dollars.

#### POWDER BOXES

Powder boxes in plain China cost from fifty to seventy-five cents ; decorated, they are from eighty cents to a dollar. Soap boxes to match cost from seventy cents to \$1.25.

#### COMBS

Tiny combs can be procured for ten cents ; little soft brushes, from twenty-five cents to a dollar.

#### LUXURIES

While the fanciful toilet sets are a pretty addition to the furniture of the nursery, they are not at all indispensable to the baby's comfort. He can be kept daintily nice with no better apparatus than a common hand basin and soap dish.

While every mother loves to surround her baby

with luxurious appointments, she need not be distressed if she cannot afford them. The baby will be as happy without them, nor suffer in health or temper because they are missing.

They have been described and the prices added so that those who can possess them may have a guide in the selection.

## CHAPTER XII

### THE MOTHER'S ROOM

#### SITUATION

WHEN there is an opportunity for choice, a large airy room should be selected with a sunny aspect in winter and a cool, shady one in summer.

If there is plumbing in the house it should not open into the bath room nor should there be a set basin in the room.

When this is unavoidable, the door leading into the bath room should be closed and the cracks carefully stuffed with paper. If there is a set basin the overflow holes should be stopped with moist plaster of paris and the basin kept filled with water, to form a water seal. The water must be changed every day by the nurse.

Sewer gas is too dangerous an enemy to run the risk of its admission into this room which ought to be most carefully guarded against every possible source of contamination.

## THE WINDOWS

If the windows do not already open from the top they should be arranged to do so. If both cannot be altered the one farthest from the bed should be changed.

When it is impossible to put in cords and pulleys, the cleats may be removed from under the top sash, and the frame kept in place by a short stick resting on the top of the lower sash. The width of the opening can be regulated by the length of the stick.

Heavy curtains, or draperies, should be removed, on account of their propensity for collecting dust. Fresh muslin, or any washing material, is unobjectionable. Sash curtains soften the light and may be used if desired.

If there are outside blinds, or awnings, dark linen shades are not indispensable, but they are always convenient as they are so easily arranged and can be adjusted without opening the window.

For the first few days the light must be subdued for the sake of both mother and child. After that it can be freely admitted, the baby's eyes being shaded by a screen, or the crib canopy. They never should be exposed directly to a bright light.

## THE FLOOR

Some authorities insist that the carpet must be re-

moved from the floor of the lying-in room. This is usually inconvenient and often impossible. It is well when the floor is bare, as it so frequently is in modern houses, as then it is more easily kept clean by being gone over with a damp cloth. Many perfect recoveries have been made in carpeted rooms, only the floor needs a little more care to keep it in good order.

The carpet should be taken up a short time before the confinement, thoroughly beaten and cleansed and tacked securely in place again. If possible a large square of carpet linen should be tacked over it for the bed to stand upon. This if firmly stretched makes a smooth surface from which it is easy to remove dust.

Under the bed is one of the most certain hiding-places for dust and requires more care from the nurse than all the rest of the room put together. Being out of sight it is too frequently out of mind and being so near the patient is a source of danger that must never be forgotten. It should be dusted every day with a damp cloth, either held in the hand or wrapped around a broom.

A carpet can be swept with a carpet sweeper to prevent the dust from rising, unless the noise is an objection. Otherwise it can be sprinkled with bits of dampened newspaper, or tea leaves to take up the dust.

It is well to provide a piece of carpet or an old rug,

that can be laid at the right side of the bed at the time the baby is born. Very often it is not needed, but a delicate carpet may be ruined for lack of it, or a stain left on a plainer one that is difficult to get rid of.

A polished floor with rugs that can be removed once a week to be shaken is probably the best. The nurse must wear soft slippers as otherwise the noise is distressing to a nervous patient.

#### THE BEDSTEAD

A low, wide bedstead is very objectionable. It is difficult for the doctor to get at the patient to do his duty properly, and it is almost impossible for the nurse to lift and move her afterwards without straining her back.

An iron bedstead of the width known as three-quarters is the best. This is about three feet wide, perhaps a few inches more rather than less. Hospital beds are narrower than this, but less space gives a person accustomed to a wide bed an uncomfortable feeling of not being able to turn over without fear of falling out. The height to the top of the woven wire mattress should be not less than twenty inches.

#### THE BED

A woven wire mattress is at once the most comfortable and the most sanitary foundation for the bed.

A free current of air is admitted underneath it and it cannot be otherwise than clean.

Over this should be a hair mattress. If this has been long in use it should be freshly made over, with a new tick, for the occasion. It is well to have a cover of unbleached cotton for it to save it from accidental stain.

Over this is spread a square of India-rubber cloth, firmly pinned to the mattress at the corners with safety pins. A second square should be provided to make the pad on. If India-rubber cloth cannot be afforded, white table oil cloth makes a good substitute. It is wider than the rubber cloth and costs about twenty-five cents a yard, the other being seventy-five cents for a yard wide.

Old sheets are softer and more pleasant to use than new ones. A great number is not required as the pads save them from being soiled.

Blankets are the best covering, varying in number according to the season of the year. Unless perfectly new they should be sent to a dyeing establishment and cleansed. It is unwise to wash fine blankets at home if it be possible to have them done by a professional cleaner. The cost is about one dollar a pair for the process and they look almost like new when well done.

A light white spread, not a heavy Marseilles quilt,

is the best outer covering. When this cannot be procured, a clean, white sheet is a good substitute.

If it is desired to use a down comforter in winter, it should be hung in the sun and thoroughly aired for several days before being taken into use.

The pillows should be treated in the same way and made over if the ticks are soiled, or they have been used for a long time without having been renovated.

A good supply of pillow cases is required. Nothing gives a more dainty look to a bed than fresh, uncreased pillow cases and the coolness is always welcome to the invalid.

#### THE COUCH

A comfortable couch, or low bed, should be provided for the nurse. If baby and mother do well she will have many nights of almost undisturbed repose, and she will be better rested for the next day's labors if this is taken on an easy bed.

#### TABLES

There should be a small bedside table to hold various little necessaries. No food should be permitted to stand there for more than the moment that it requires to arrange the bed table, or the time occupied by the convalescent in eating her meal.



Food, unless it is being eaten, is out of place in the sick room. If a glass of water stands there for a short time it should be covered.

#### CHAIRS

A larger table is desirable, a comfortable easy chair for the nurse to hold the baby in and one or two others. One of these should be a firm chair, not a rocking chair, for the doctor.

When he comes this should be placed at the right side of the bed and so that he can sit facing his patient.

#### SCREEN

A screen is a very necessary addition to the furniture of the room. It serves many purposes; to protect mother, or baby, from light or draughts, to stand before the door when it is wished to keep it open for a short time, to screen the baby when it is being dressed or put to sleep, or to shut off a corner from an unexpected visitor.

The furniture in the room should be wiped every day with a damp cloth to remove the dust; so it is well not to have too much, that the nurse be not overtaxed.

#### ORNAMENTS

While a few ornaments may be left to beautify the apartment, it is best to put away the superabun-

dance of bric-a-brac which adorns, or encumbers, most bedrooms, nowadays. It is difficult to keep it as free from dust as it should be kept, and when it is crowded it is apt to meet with accidents which are distressing to the invalid and embarrassing to the nurse. Pictures are never in the way.

#### PLANTS

One or two growing plants in pots are preferable to cut flowers. If the latter are admitted a little salt should be added to the water, that being changed every day. They should always be removed from the room at night.

#### SUBSTITUTE FOR COMMODORE

A commode should be rigidly excluded from the room. It is almost impossible to keep one sufficiently clean to meet the exacting requirements of the lying-in room. Even if the vessel is emptied as soon as used the woodwork and surrounding parts cannot but become impregnated with unseen particles which should find no lodgment in this abode of cleanliness.

One is unnecessary while the patient is confined to bed. When she can sit up, if she requires one, an ordinary earthenware slop jar makes a good substi-

tute. It can be covered, quickly removed and thoroughly cleansed.

No waste of any kind should be permitted to remain in the room for longer than it takes to remove it. Empty vessels and chamber conveniences should be scalded, dried and kept in the bath room.

#### THE BABY'S ROOM

If possible the baby's belongings should have a place in an adjoining apartment where it can be washed and dressed out of the immediate ken of its mother. It saves much friction if the baby happens to be a fretful one and in any case is important during the first few days, when quiet is essential.

#### THE MOTHER'S COMFORT

The young expectant mother is often as much puzzled to know what preparations are requisite for her own comfort as she is to know what her baby will require for its needs.

#### BED PADS

These entirely prevent the bed from being soiled and save much disagreeable washing as they can be rolled up and burned. Two large ones are needed and it is well to provide half a dozen smaller ones for subsequent use, as they materially reduce the laundry bill.

The foundation is a square yard of India rubber

cloth, or white table oil cloth. On this is placed about a dozen thicknesses of newspaper, over this a thick layer of absorbent cotton and the whole covered with cheese cloth tacked in place around the edges. After using, these stitches are cut, the foundation taken off and the pad burned.

The rubber cloth, or oil cloth, can be sponged with a cloth wrung out of carbolic acid and water, 1-60, and used again.

After the confinement the soiled pad is taken away by the nurse and the fresh one put in place without disturbing the under sheet.

Absorbent cotton purchased from the druggist is expensive, costing about seventy-five cents a pound. The Absorbent Cotton Works at Waltham, Mass., furnish a cheaper quality, suitable for pads, at about thirty cents a pound and will send it by mail. Two pounds are sufficient for a pad.

It is well to place a sheet folded once across the bed under the pad and extending from it to the foot of the mattress. It should be firmly tucked under at the sides and can be removed with the pad. It prevents the accidental soiling of the under sheet from a drop of blood or a finger mark.

#### PADS

Small pads for use instead of napkins should be

provided. They can be burned and lessen one of the great risks of infection.

Six dozen are needed. They can be purchased ready made and cost about sixty cents a dozen, but can be much more cheaply prepared at home of absorbent cotton covered with cheese cloth.

Cut a piece of cheese cloth eight inches long by two wide; lay on this a thick pad of the cotton seven inches long by nearly five inches wide. Double the cheese cloth on this and baste the edges together. Sew a strip of cheese cloth to each end of the napkin to fasten it to the girdle, or binder. Three pounds will make sixty good-sized pads.

After childbirth there is a bright red discharge which lasts for three or four days and amounts altogether to two or three pints. This continues for about two weeks, rapidly becoming paler, and after that time gradually disappears.

#### BINDERS

It is best to provide five binders, as they sometimes get soiled and have to be frequently changed. They are not necessary, some physicians discarding them altogether, but they certainly add to the comfort of the mother, giving a sensation of support, which is grateful to the relaxed abdominal walls, not yet recovered from their overdistension.

Make them of soft unbleached cotton which has been washed. They are cut a yard and a quarter long by thirty inches wide, doubled so that they will be fifteen inches wide when done and the edges stitched or overhanded together.

It is well to have a couple of yards of the same cotton at hand for breast bandages in case they are required.

#### NIGHT DRESSES

A short night dress, a pair of open drawers, without starched frills, and a pair of white, or cream, stockings should be provided to wear during the actual confinement. The night gown can be made from an old one by cutting off the lower part just below the waist line. Unless short night dresses are especially disliked they will be found a great convenience during the first few days, while the discharge is profuse and the napkins have to be frequently changed. After that the ordinary dress can be resumed.

#### UNDER SHIRTS

If under shirts are worn they should be open down the front, faced and furnished with buttons and button holes. It is difficult to change a tight undershirt otherwise, and disturbs the invalid unnecessarily.

#### BED JACKETS

Pretty jackets of opera, Scotch, or Shaker flannel

are preferable to under shirts. The back should be cut twice as wide as usual between the shoulders and the extra fulness shirred in at the neck. This extra width makes them easy to put on and take off. One should be worn during the labor.

A small shawl, or blanket should be provided to lay over the chest, when the bed clothes are turned back.

#### WRAPPERS

At least one pretty wrapper to be worn during convalescence should be provided. It can be called a tea gown if preferred, as that seems to do away with the flavor of invalidism which always clings to the bed room wrapper.

It can be made of surah, China or Japanese silk, crepon, cashmere, or fancy flannel, and be as plain, or as elaborate, as taste and means will permit. Only one thing is imperative, it should be fresh and dainty looking, as befits the importance of the occasion.

The train should be short, as the weight of a long one is tiring to the weak back. It should open easily in front to permit of the baby being nursed comfortably, if the mother is so happy as to be able to perform this duty.

#### SLIPPERS

Pretty slippers should be chosen to wear with it,

either matching it in color, or having some special ornamentation. Old ones can be covered with velvet by skilful fingers and decorated with rosettes, or a twist of ribbon, or both, as desired.

#### NECESSARIES

Two or three extra clean sheets should be in the room and a good supply of clean towels, at least a dozen.

A small blanket, shawl, or large flannel petticoat should be provided to wrap the baby in. A nest should be made in an easy chair, with a pillow and a blanket to receive it until it can be washed.

A pair of blunt scissors and a ball of soft white wicking should be at hand to cut and tie the cord. Some doctors prefer narrow tape.

Two dozen medium-sized safety pins should lie beside these to pin the binder. Gores are taken in and pinned in place after it is on, to make it fit snugly.

A granite ware or wood pulp basin makes a good receptacle for the placenta, which is cut in pieces by the nurse and burned, or buried, after the doctor has inspected it.

The baby is sometimes dipped into hot water immediately after its arrival and it is well to have a tin foot tub, or pail, large enough to hold it in case the physician wishes to do this.



Ice should always be on hand and a good supply of hot water at the time of delivery.

#### SYRINGES

A fountain syringe is indispensable. The Tyrian, which can be converted into a hot water bag at will, is a good kind to purchase. Many physicians order a douche to be given daily while the discharge continues, and this cannot be done without a fountain syringe.

A granite ware douche pan is a great convenience, being much lighter than an earthen ware one and not liable to be broken.

A good bulb syringe is needed if there is a tendency to constipation.

#### HOT WATER BAG

The Tyrian fountain syringe can be used as a hot water bag. Should another kind be chosen, a separate hot water bag should be provided, if there is not one already amongst the household requisites. A pint hot water bag for the baby is a great comfort.

A fit of colic can sometimes be prevented, or cut short, by rolling baby and warm bag together in a blanket. Warmth is especially necessary to the little creature.

## BED PAN

A bed pan is also indispensable as for several days the mother should not sit up in bed on any pretext whatever. The most convenient kind is the Eureka, a small earthen one. It can be much more conveniently slipped in place and removed than the large, old-fashioned French one.

The nurse should warm it by filling it with hot water and drying it before it is brought to the bedside. A flannel cover, something like a bag, may be made to fit over it and makes it more comfortable to use. A small square of rubber cloth should be provided to cover it when it is taken away and this should be kept clean by frequent sponging with carbolic acid and water, 1-60.

## BED TABLE

A bed table adds to the comfort of the convalescent when she can sit up in bed to take her meals. The simplest form is a board about twenty-six inches long, by fourteen wide, standing on four short legs, about four inches long. A plain, homemade one answers every purpose, although bed tables can be bought nicely finished and varnished.

When one is not to be had, a large pillow with a towel spread over it makes a tolerable substitute.

Tables to stand at the side of the bed can be

tained, that are made to serve as bed tables. In these the point of support for the top is placed at one end. A screw permits it to be raised and lowered as desired. The top can be swung into place in front of the invalid and turned back when not in use.

## WASH CLOTHS

Several wash cloths of soft Turkish towelling should be provided, a bunch of absorbent cotton, a roll of old cotton, or linen, as napkins, or parts of a tablecloth, and a jar of vaseline separate from that to be used for the baby.

If the nurse arrives in time she should be shown where the different articles are kept. They should be collected and arranged some time before there is a probability of their being needed. There is always a possibility of their being required prematurely and if this should be the case their absence may occasion serious inconvenience.

## CHAPTER XIII

### THE IDEAL

#### THE MENTAL STATE

**THE** expectant mother who earnestly desires the best good of her child, has other duties to perform beside providing for its physical comfort and safety.

Its whole life will be biassed by the influences which surround it during this formative period. Temper and disposition are being fashioned as surely as feet and hands, face and fingers.

While we cannot understand the mysteries of heredity, nor the part which even remote ancestors have in the formation of that complex whole, the new-born child, we do know that the mental state of the mother has much to do with the temperament of her offspring.

A nervous, excitable woman, who refuses to attempt to exercise self-control during this time, will find her baby irritable and easily startled, if not cross and peevish.

Calmness of mind, a refusal to be disturbed by trifles, will bring its reward in a placid, good-tempered baby.

From the first the mind should be filled as far as possible with pleasant images. Interesting books should be read, beautiful pictures, or natural scenery, dwelt upon and everything that excites disagreeable emotions put as far away as possible.

Many an expectant mother would refrain from an outburst of temper, an angry retort, or a fit of sulks, if she gave herself time to think, "This may injure my baby."

The ideal should be kept constantly before the imagination. It is more easy to do so with the first child, when love and tenderness surround the young wife and she has few serious cares to disturb her. By the time that the fourth, or fifth, comes, and the other little children are constantly demanding attention and wearying the overtaxed mother, she finds the task a difficult one indeed. Yet justice to the latest comer requires that it shall be at least attempted.

#### PHYSICAL IMPRESSIONS

Physical impressions may be made upon the child at a very early period of its existence. It is said that the deformities of cleft palate and hare lip are impossible after the second month.

## FEARS

Many mothers suffer much from the fear that their children may be deformed, or marked in some way. It is never well to dwell upon these things. When they press for recognition, they should be resolutely put away for pleasanter reflections.

It is a great comfort to know that though these accidents do happen, they are comparatively rare and that most of them can be remedied, if treated by a skilful surgeon early in the child's life. No time should be lost in getting the best advice that can be procured, if it should be needed.

Many children have unimportant marks in places where they are of no consequence, as they are seldom seen.

Another fear that haunts the large majority of expectant mothers is, that they may not survive the ordeal through which they must pass. This cannot be summarily dismissed, but in far the greater number of cases it is unfounded.

Childbirth is a natural process, not a disease, and the proportion of safe deliveries is very large.

Since the introduction of antiseptics and the delicate cleanliness which they have brought in their train, the chance of unfavorable after complications is materially diminished. Better nursing has helped to swell the list of recoveries.

There is danger in every step of our daily life. We cannot enter a carriage, nor take the shortest journey by land, or sea, that we do not imperil our lives. They are in the hand of a wise and loving Father, who in His own good time will call us home. That moment cannot be delayed, or hastened, by anything that we can do. If we are in the path of duty we may safely leave the result to Him.

The young expectant mother should close her ears to the stories that some of her acquaintances will only be too ready to tell her.

Difficult confinements do occasionally occur ; they are not likely to take place with those who have lived in accordance with the laws of nature and come to the trial well prepared physically.

Since the introduction of anesthetics there is no need to dread excessive pain. The physician always carries ether, or chloroform, and will use it if the necessity arises.

To dwell on accidents which in all probability will never happen, is as foolish as it would be to spoil the pleasure of a voyage by the constant dread of shipwreck.

#### SELF DENIAL

Dr. Charles M. Green, in an address read before the Boston Society for Medical Improvement, em-

phasizes a point that is often overlooked for the preservation of mental tranquillity. Dr. Green is an obstetric physician in large practice. He says in substance :

“To many women I believe coitus during pregnancy is distasteful, to many even obnoxious, to all, in my opinion, it is more or less injurious. Aside from the mechanical disturbance of the uterus, the pelvic vessels are injuriously congested, the nervous system first excited then depressed and it is often a cause of miscarriage, especially at a menstrual epoch. So far as my knowledge of the animal creation goes, the pregnant female will fight if necessary to protect herself. Certainly among enlightened human beings, men who have at heart the welfare of wife and children should be willing to forego this indulgence during the time when the wife needs all her vital powers for her own well-being, and that of her expected offspring. Many men and women err through ignorance, and are grateful for advice on this subject.” With delicate women it is said to be a common cause of miscarriage.

#### HEREDITARY DISEASE

When there is an hereditary disease latent in the family on either side, the expectant mother may very properly give her attention to the best means of



counteracting it, and arresting its development in her child.

The modern theory is that children in this case are born with a predisposition towards the disease in question. They are more susceptible to its influence than others. If they become inoculated with the germ it falls on soil favorable to its growth, and they are more likely to fall victims to it than they otherwise would have been.

This weak point should be guarded and strengthened by every means in the mother's power. From babyhood, the child should be surrounded with all the helps that mother-love can devise, and mother-wisdom execute.

Pure air, proper physical exercise, suitable food will upbuild weak lungs and enable them to resist the inroads of the dread germ of tuberculosis. So through the list of hereditary diseases. Competent advice should be sought from the earliest years, and the directions given be faithfully followed.

Many mothers have sad reason to dread that their children will be born with an inherited taste for alcohol and a tendency to indulge in it to excess. It is a real danger when the father is a victim to this habit. Yet danger does not always mean disaster, and in no case does the old proverb, "forewarned is forearmed," apply with stronger force than in this.

After prolonged alcoholic excesses the tissues become diseased and demand the stimulant to which they have become accustomed. Men in this condition cannot transmit healthy tissue to their offspring; they have not got it to give. What was at first a sin of the will, becomes a transgression of the body.

It is the mother's part to counteract this baleful heritage. By means of proper food, as her child grows older, little meat, no condiments except salt, plenty of fruit, vegetables, and the cereals, she may hope to build up healthy tissue, which will have no abnormal craving for stimulants.

Above all she must never permit alcohol to be tasted. When the child is of an age to be capable of understanding it she should explain to him the reason for the prohibition in his case. He should know that for him it is a subtle poison, as deadly, if not as sudden in its effect, as strychnia, or arsenic.

If his will can be enlisted on the side of self-conquest the battle is more than half won.

Mothers who have this dread enemy to fight should read Helen Campbell's little book, "Some Passages in the Practice of Dr. Martha Scarborough." It is published by Roberts Brothers, Boston, and is full of comfort, encouragement, and wise practical suggestions.

God helps those who help themselves. If the mother, through ignorance, or wilfulness, has given to her children a father who may bequeath to them this deadly inheritance, it is her duty to help them to overcome it, and not to sit by with folded hands and see them ruin themselves without making one adequate effort to save them.

They are few defects, physical or mental to which the human race is subject that cannot be benefited by wise treatment, begun early and carried out with unremitting perseverance.

## OCCUPATION

There is nothing like constant occupation to keep the mind tranquil and composed: A succession of absorbing interests will do more to promote cheerfulness than any other means that can be devised.

A woman is wrong to shut herself up from outside pleasures at this time. If she is properly dressed there is no reason why for many months she should not go to concerts, the theatre, or other public places where she finds agreeable diversion.

If she is obliged to stay within doors she should occupy her leisure moments with light literature, music, attending to house plants, if her fancy lies in that direction, or whatever pleasant employment she best likes.

The crown of womanhood is coming to her. She should meet it with anticipations of the happiness that will be hers when she enters into full possession of her kingdom, not with forebodings which turn her joy into sadness.

#### INFLUENCE ON SEX

The desire of the mother appears to have little influence upon the sex of the child. As has been already said this seems to depend upon some mysterious law whose workings have not yet been discovered and to be determined very early in its existence.

In a premature birth the sex can be distinguished by the middle of the fourth month.

When the parents have sufficient resolution it is better not to set the heart upon either a son or a daughter. The disappointment is very hard to bear, if it comes, especially to the mother in her weak state. At first, that is with the elder children, it is a matter of less importance, but after several of the same sex have appeared the desire for a change is urgent and natural.

There being no known means of effecting it with certainty, it is the part of wisdom to summon all the philosophy that can be mustered and submit to the inevitable with fortitude. There are always compensations to those who look for them.

## INTELLECTUAL CAPACITY

How far it is possible for a mother by conscious mental effort to influence the intellectual capacity of her child cannot be decided. Any strong bias on her part will probably be transmitted to it, just as a strong physical impression is apt to be.

A mother who was alarmed not long before the birth of her child by an outbreak of fire gave to it a dread of flame and a dislike for the sudden shining of bright light which persisted through childhood at least.

The mothers of great men have generally been remarkable women. It is the characteristics of the mother that are usually inherited most conspicuously by her boys. The sons of a genius seldom display any considerable share of the talents of the father.

## INFLUENCE OF THE MOTHER

Even the physical peculiarities of the mother descend more surely to the sons than the daughters, whose tendency is to follow the paternal type.

Dental surgeons tell us that daughters have teeth of the same order as those of the father, while the teeth of the sons resemble those of the mother.

While we cannot lift the veil that shrouds the mysteries of inherited tendencies, we do know that the mother has much in her power. Peace of mind,

urity, sweetness of temper, form an atmosphere favorable to the best mental development of the tender being she is nourishing.

If unhappily the father is likely to have communicated opposite qualities as his share of the inevitable hereditary birthright, she must only strive the more earnestly to overcome them by the superior force of her own stronger influence for good.

Even after birth, if the nursing mother is subjected to strong excitement, anger, emotion, or fatigue, it affects her milk injuriously and through that the child is disturbed and injured.

Before birth, when the connection is so much closer and more intimate, the power of influence is proportionately stronger and more capable of working permanent results. It is a solemn thought that a bias for good, or evil, is being given not to one child only, but through it to others of succeeding generations.

Is it not a noble ambition to leave an impress for good on the human race, to help to raise it by giving to it worthy sons and daughters?

Every mother desires a prosperous future for her child. Let her endeavor as far as in her lies to bring it into the world with such a temper and disposition, such tendencies and capabilities, as will ensure for it success.

If there is ever a time in a woman's life when she should strive to be unselfish, subordinating her own wishes and feelings to the good of another, it surely is in these months of preparation. Her reward may seem slow in coming, but she will have it if she does her duty faithfully. As certainly as the harvest follows the seed time she will reap what she sows now. The cares and anxieties, the temporary inconvenience and suffering will pass away and be forgotten, the fruit of her self-conquest will remain.

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## CHAPTER XIV

### AILMENTS

Some women are fortunate enough to feel perfectly well during the whole period of pregnancy. There are exceptionally lucky ones who say they never feel better in their lives than at this time, but they are the exception rather than the rule.

No doubt if more attention were paid to the laws of health, this desirable condition of affairs would exist far more frequently than it does and be the rule, not the exception.

Proper food and clothing, bathing and ventilation, exercise and rest from the first conduce to it and make it possible.

### SENSE OF WEIGHT

There is always a little discomfort after the third month from the increasing size and sense of weight. This is best relieved, as has been already said, by a well-fitted bandage, which should fit snugly but not

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press tightly. It can be fastened with straps and buckles, such as are sold for men's trouser straps, admitting of its being adjusted comfortably and loosened as desired. A good one can be made by the Butterick pattern No. 3186.

The importance of rubbing the breasts and abdomen with oil to facilitate the stretching of the skin has already been mentioned.

#### MORNING SICKNESS

This unpleasant feeling is usually one of the early signs of pregnancy. It generally ceases after the third month, but may continue through the whole period.

Although it is annoying and disagreeable it is not dangerous, unless it interferes with the taking and retaining of a sufficient amount of food.

It is all important that the expectant mother should be able to take enough nourishment to supply the double demand upon her. She must be in good condition for the effort that awaits her.

The nausea is often caused by the inability of the system to respond immediately to the fresh call upon its resources. The mother cannot produce at once enough blood for her own needs and those of the child. Her nerve centers are starved and the stomach, being a sensitive organ, rebels. She must

try to coax it into submission and in time the body will adjust itself to the new conditions.

It is best to eat a light supper before going to bed as the long fast of the night is injurious. In the morning, before sitting up in bed, a warm drink should be taken. A glass of hot milk with one-quarter lime water, or instead of the latter, apollinaris, or vichy, is excellent. A cup of tea with a soda biscuit, or a cup of cocoa, made with half milk and half water, is more acceptable to some persons. There should be no haste in getting up, rise slowly and dress leisurely.

An effervescing water, as soda water without syrup, will sometimes give relief. Soda mint tablets taken when the nausea is first felt are effectual in some cases.

A mustard paste over the stomach, left on until the skin reddens, but not long enough to blister, may assist in giving relief. Sometimes a day or two spent in bed, lying quietly on the back, improves the condition.

An ice bag applied to the back of the neck, extending as high as possible, and bits of ice allowed to dissolve slowly in the mouth, may control vomiting.

If the stomach is out of order the doctor should be asked to prescribe, as there are many simple

remedies that can be tried. This may be the case where there has been a previous tendency to indigestion, or the sufferer is naturally inclined to what—for want of a better word—we call “billiousness.” It is very important that the bowels should be regularly relieved. Any accumulation there reacts unfavorably upon the stomach.

It is best to try to eat, even if the food is rejected afterwards. Sometimes the nausea does not affect the appetite, at others it is intensified at the sight of food. It is a good plan to eat a little at a time and more often than usual, if it is found that in this way there are fewer disagreeable sensations. The nausea may be held in check by never permitting the stomach to be quite empty during the waking hours. It can rest while its tired owner is asleep.

If solid food cannot be borne, liquids must be taken in small quantities; beef juice, beef tea, chicken broth, mutton broth, clam or oyster broth, koumiss, buttermilk if it is liked, all are usually more easily retained than milk. When the latter is given it should be diluted with lime water or vichy and is often more acceptable heated than cold. It should not be allowed to boil. It may also be peptonized.

When liquids pall, scraped beef may be tried. A piece of juicy steak is scraped fine, every particle of membrane being rejected. The meat is then rolled

into tiny balls with powdered cracker crumbs and eaten. It may be spread between very thin pieces of bread to form a sandwich, or the balls may be held for an instant over very hot coals to brown the outside. It can be seasoned with celery salt.

Sometimes plain hot water, as hot as it can be sipped, will relieve the nausea for a time.

When it is found that a change of food and the home remedies do not control it, the vomiting should not be permitted to persist without taking further measures to check it. The physician should be consulted before the sufferer's strength is impaired.

#### INDIGESTION

There may be indigestion without nausea, although this is uncommon when the diet is carefully attended to and only digestible food is eaten.

There may be a disagreeable, burning sensation in the stomach or an acid taste in the mouth.

Half a teaspoonful of baking soda dissolved in half a tumbler of water and taken slowly, a little at a time, may relieve the condition. A glass of hot water made pleasantly acid with lemon juice is often effectual. No sugar should be added to it and sugar should be used very sparingly in the food, sweet things being avoided entirely for a time.

If relief is not obtained, the doctor should be con-

sulted. It is so necessary to the welfare of mother and child that food should be properly digested and assimilated that anything which interferes with the proper performance of these functions should be removed as soon as possible.

Drinking very little fluid with the meals, a sufficient quantity to supply the wants of the system being taken at other times, may be tried. The gastric juice is thus left free to do its work, undiluted by a quantity of liquid which interferes with its efficiency.

Perfect rest for a time after eating may alleviate the pangs of indigestion. All the powers of the body can then be directed to the great business of beginning the digestion of the food taken. If it is possible to sleep for an hour after dinner so much the better. If not it is well to lie down and read an amusing book that will not overtax the mind. At no time should active exercise be taken immediately after eating. This rule should be observed with especial care when the digestive organs are weak and unequal to the work they have to do.

#### CONSTIPATION

This is one of the most annoying ailments the expectant mother has to encounter. During the latter months the proper action of the bowels is me-

chanically interfered with by the pressure upon them from the enlarging body in the abdomen.

It is unwise to seek relief from laxative medicine, for this only intensifies the evil. If the difficulty has persisted for some time and there has been no movement for five or six days, as sometimes happens with inexperienced persons, a tablespoonful of castor oil is the safest remedy. When the intestine is emptied, measures must be taken to prevent a recurrence of the condition.

Castor oil can be obtained put up in large capsules. It is very nauseous and must be taken scientifically if given pure, or it will not be retained.

When it can be obtained, a piece of ice should be held in the mouth for a minute previously, to paralyze the nerves of taste. The oil should be poured in a wine glass of ice water, when it forms a ball and the whole can be swallowed without much difficulty. A little lemon juice or peppermint water helps to remove lingering traces of the flavor.

When there is a chronically torpid condition of the bowels, an enema is the best means of securing a daily evacuation. A bulb syringe is used and from one pint to one quart of hot water. A little soap may be added by passing a cake through the water a few times. The temperature should not be uncomfortably warm.

The larger the quantity taken and the longer it is retained the more copious the result will be. This should be remembered in case of obstinate constipation. For constant use the amount of fluid should be as small as possible, not to produce over distension of the bowel and subsequent torpidity.

A very small quantity of glycerine, two teaspoonfuls, is equally effectual in some cases. This has to be administered with a little hard-rubber syringe that comes for the purpose, as a bulb syringe will not take up so minute a portion.

The glycerine is also stiffened with gelatine and made into suppositories which can be purchased by the box from any druggist. One is inserted into rectum with the fingers and is followed in about fifteen minutes by a movement.

Gluten suppositories are made by the Health Food Company which act very well with some persons.

Strict attention to the diet is one of the best means of preventing constipation.

Plenty of fruit, fresh, or cooked, vegetables, especially tomatoes, and the cereals, with little meat, have a laxative effect. Stewed prunes are almost a specific with many persons, particularly if molasses is used with them instead of sugar.

A glass of hot or cold water immediately upon

rising is efficacious. Constipation is sometimes due to the want of sufficient fluid in the intestine.

Two or three figs soaked in water over night and eaten before breakfast are not a disagreeable remedy. An orange, taken at the same time in the morning, may be substituted if preferred.

Fresh fruit eaten when the stomach is empty is more apt to produce the desired effect than if taken after a meal.

When medicine is taken, it should be of the simplest kind. A glass of some laxative mineral water, as Hunyadi Janos, drunk while dressing, is perhaps the best.

Compound liquorice powder, which owes its efficacy to the senna it contains, is a gentle aperient. A teaspoonful may be taken at night mixed with a little water.

It is very unwise to use patent pills, or medicine of any kind whose ingredients are unknown. Powerful drugs are unsuited to the case and will do more harm than good. If some of the means mentioned do not give speedy and sufficient relief, the advice of a physician is needed and should be obtained.

Under no circumstances should the condition of constipation be allowed to continue. The intestine becomes filled with waste material which decom-



poses where it lies and gives off an effluvia most injurious to the system. A process of slow self poisoning is instituted, which must affect not only the mother but the child.

Headache, neuralgic pains, and various disturbances of the digestion are the direct result of a want of regular and sufficient evacuations.

## PILES

These are small tumors about the rectum and are a frequent accompaniment of constipation, though they do appear when the bowels are regular. They are an enlargement of the tiny veins of the intestine, due to pressure, either of an accumulation of waste matter, which ought to be discharged, or of the enlarging uterus.

When they are within the passage, out of sight, they are called internal piles. Their presence is known by streaks of blood appearing in the movements, from one having ruptured as the mass pressed upon it; or by a slight burning, smarting pain after a motion.

They are known as external piles when they appear as little bunches, varying in size, around the opening of the rectum. If they become inflamed they are very painful, otherwise they do not cause much discomfort. When they are very large they

are pressed upon in sitting and thus give pain. They may increase to the size of an egg if inflammation sets in. Even then rest and treatment usually speedily reduces them.

When the tendency to them is first observed, a well-fitting bandage should be worn to support the weight in the abdomen. The sufferer should lie down frequently during the day and the parts should be bathed with very hot, or cold water, whichever gives most relief.

If constipation is the cause, the bowels should be regulated, a free movement being secured once a day.

The itching may be relieved by anointing them with carbolized vaseline, which can be obtained from a druggist.

When the piles bleed, a piece of cotton wool soaked in extract of witch hazel may be gently pressed into the rectum. Bathing them with it at other times eases the pain.

An astringent ointment of nut galls is useful for external piles.

If they continue in spite of home treatment, the doctor should be informed, as they may need more vigorous measures, that can only be undertaken by a physician.

#### EDEMA

Sometimes other parts swell and are uncomforta-

ble, seeming to contain fluid. Unless the enlargement is very great, rest on the back and the application of cold water will give relief. When this is not effectual in reducing the swelling, the doctor should be informed.

#### SWELLING OF THE LEGS

The pressure of the enlarged uterus on the trunks of the great veins in the abdomen, which carry back the blood from the legs on its way to the heart, may cause the legs to swell.

If this swelling is slight, little attention need be paid to it beyond keeping the feet raised on a chair whenever there is an opportunity to sit down. If it extends to the knees, or there is puffiness of the lower eyelids, or a diminution in the quantity of water passed, medical advice should be had.

Moderate exercise is not injurious unless the swelling is excessive. Bathing the legs in cold water and raising the feet on a pillow when lying down help to subdue it.

Gentle rubbing of the legs upward for a few minutes several times during the day helps to improve the circulation and reduce the swelling.

If the skin is tightly stretched and causes a disagreeable tense feeling, it should be freely anointed with warm oil, the legs wrapped in flannel and

slightly elevated, and the sufferer remain in bed for a time.

The easiest way to warm oil is to pour a little in a cup and set the cup in hot water. It soon becomes warm enough, as a high degree of heat cannot be borne. In all cases of swelling of the legs, or varicose veins, an abdominal bandage should be worn to support the uterus and relieve the pressure as much as possible.

#### VARICOSE VEINS

This condition of the veins is not peculiar to pregnancy.

Many persons seem to have a predisposition to it, the veins becoming prominent whenever they stand, or walk, for any length of time without rest.

The pressure of the uterus on the great veins, preventing the free return of the blood from the lower limbs, increases this predisposition when it exists.

The veins, particularly those on the inside of the legs and thighs, become prominent. The network can be traced in discolored lines all over the surface of the skin. When there is much distension the veins appear knotted, dark blue bunches showing at intervals along their course.

Care is necessary, because the rupture of one of these protuberances would cause bleeding which might be difficult to control.

At the first symptom of varicose veins, the patient should lie down as often as possible and always sit with the feet raised on a chair.

A bias flannel bandage about two and a half inches wide and long enough to reach from the ankle above the knee, or to the top of the thigh if necessary, should be provided.

This is easily made at home by cutting bias strips of the desired width and lapping them, so the joining will lie flat, one edge on one side the bandage, the other on the other, and basting them together until the proper length is obtained. If it is not needed above the knee, five yards will be sufficiently long ; if to the top of the thigh, twelve yards will not be too much.

It is best to bandage well above the weak point, that the bandage may not slip down and leave it unprotected. However high it may be carried, the bandage must begin at the toes to equalize the pressure below the enlarged vein.

The heel need not be covered ; after leaving the foot a turn of the bandage is carried over the ankle, thence round the leg and so upward.

In applying the bandage it must not be drawn too tightly, particularly about the foot and ankle, as this would interfere with the circulation and make the return of the blood through the veins still more

difficult. If subsequent swelling of the leg makes it uncomfortable it must be loosened. It can be removed at night if desired, though it may be left in place if the support is needed. It must be put on afresh before getting up in the morning.

An elastic stocking may be used instead. This is made of stout elastic rubber and can be ordered through a druggist, who will take the measures, or give directions for self-measurement. This is important, as the stocking is of no use unless it fits snugly.

It should not be worn at night. The constant stretching injures the rubber and soon destroys its elasticity. If it is not safe for the leg to be without some support a flannel bandage can be substituted. The stocking should be replaced before putting the foot to the ground in the morning.

Should one be required after confinement, a smaller one will probably have to be procured, as the leg lessens in size after the pressure is removed.

The close support of a stocking, or bandage, renders the liability of a vein rupturing very much less. One or the other should always be worn as soon as the prominence of the veins is noticed. It is a very simple precaution, easily taken, and much trouble may be avoided by attending to it in time.

## RUPTURE OF A VEIN

Should this accident occur, a piece of cotton folded several times, until it is about three inches square, and, if possible, dipped into extract of witch hazel, should be tightly bound over the bleeding point, the leg laid flat, not elevated, and the doctor sent for. Spirits of turpentine may be used instead of witch hazel, but firm pressure is more important than either. A piece of ice pressed over the bandage helps to check the bleeding.

Sometimes a vein ruptures under the skin and the escaped blood forms a dark spot on the leg. Cloths wrung out of ice water, witch hazel and water, or alcohol and water, should be applied without pressure and the leg kept at rest until the discoloration has disappeared.

Constipation is one of the causes of varicose veins, the accumulated mass within the intestine causing undue pressure. A dessertspoonful of Rochelle salts should be taken as often as is necessary to relieve it.

## SALIVATION

There is sometimes an undue secretion of saliva in the mouth which causes much inconvenience, as it has to be frequently gotten rid of. It is said that a piece of dry, bitter orange peel kept in the mouth

helps to check it. A teaspoonful of spirits of turpentine put in a pitcher of boiling water and the steam inhaled is also recommended. The mouth may be washed with a little tannic acid, or chlorate of potash, dissolved in water, but this should be sparingly used. Rochelle salts is the best laxative to use should one be required.

#### FAINTNESS

A feeling of dizziness and faintness is common during the earlier part of pregnancy and is often marked at the time of quickening, or when the motion of the child is first felt.

It is best relieved by lying down with the head low, without a pillow, admitting a current of fresh air and if it continues taking slowly a warm drink. Stimulant should not be resorted to, plain hot water, hot weak tea, or coffee, hot lemonade, or clear soup, bouillon being better and leaving no ill effect as stimulant is apt to do.

Lying down as soon as the first sensation of dizziness is felt will often prevent it from passing into faintness.

#### DISCOLORATION OF THE SKIN

The stretching of the skin of the abdomen and breasts, particularly of the former, causes glistening white lines to appear upon it. Sometimes they are



red or blue in color, turning white after confinement, when they look like scars. They are of no special importance and do not require treatment except as they show that the skin is under great tension and should be lubricated by daily rubbing with oil. The abdominal bandage gives support and lessens the discomfort.

Brown or yellow patches sometimes appear upon the face and breasts. These remain until after the confinement and then gradually fade away.

## LEUCORRHEA

There may be a discharge from the vagina of a thin watery liquid or of a thicker one, white or yellow in color. This may irritate the surrounding parts and cause unpleasant itching. A douche should be taken every morning of one heaping teaspoonful of common salt in one pint of warm, not hot, water. The fountain syringe should be used and the bag hung only just high enough to permit the water to flow in the gentlest manner, force must be carefully avoided.

When the irritation is very great, carbolized vaseline may be applied to the external parts, or they may be bathed in a solution of one teaspoonful of baking soda to half a pint of warm water.

If relief does not follow, the doctor should be ap-

plied to for advice, as the persistent irritation shows that more radical treatment is necessary.

#### SLEEPLESSNESS

This has already been mentioned, but it may be as well to recapitulate here the simple measures which may be tried for its relief.

A light supper before going to bed. This sets the digestive organs in motion and draws the blood away from the brain.

Lying with the head raised on an extra pillow.

Applying a hot water bag to the feet and an ice bag to the back of the neck.

Sponging the feet with cold water followed by rapid friction just before getting into bed.

Taking a warm bath, or soaking the feet in hot water to which mustard has been added.

Drinking a glass of hot milk after going to bed.

Lying in a comfortable position with the abdomen supported on a pillow.

Taking daily exercise in the open air.

Having the bedroom well ventilated.

Drinking no tea nor coffee in the evening.

As far as possible banishing unpleasant subjects of thought and fixing the mind on some monotonous form of motion.

It is suicidal to take drugs to induce sleep unless

there is absolute necessity. The habit of depending upon them is easily formed and most difficult to shake off.

They never should be ventured on without competent medical advice, nor tried until everything else has failed.

Sometimes, when the night's rest is broken, sufficient sleep can be obtained during the day to compensate for the loss.

#### CONSULTING A PHYSICIAN

Although it is foolish to seek a physician for relief from every slight ailment, the young expectant mother should remember that it is unwise to let one persist for any length of time unrelieved. It is a waste of the strength she is bound to husband for the time of need.

Ailments that seem slight to her may indicate a necessity for speedy treatment to the experienced eye of her doctor. No harm is done by consulting him and often much good.

Above all she should not permit herself to brood over something which may be of no consequence whatever. A few cheery words from the doctor may dispel a phantom which has haunted her for weeks, to the great detriment of nerves and spirits, and which might as well have been laid earlier.

If there is a real evil to be faced, the sooner it is met and dealt with the better. If it is only an imaginary evil that is troubling her peace, it cannot be too speedily put to flight. Health and comfort are too precious to be risked and ease of mind should be as jealously guarded as strength of body.

## CHAPTER XV

### MISCARRIAGE

IF a child is born before it is possible for it to live outside the uterus the accident is called a miscarriage, or an abortion. If it takes place after the sixth or seventh month, but before the full term has elapsed, it is said to be a premature confinement.

It has been mentioned before, but it cannot be too often reiterated if it makes the expectant mother more careful, that a miscarriage is peculiarly likely to happen at the time when the menstrual period is due. If the slightest pain, or inconvenience, is felt then, it is wisest to go to bed and lie on the back as much as is possible for four days at least.

It is said to be most common during the first three months of pregnancy, the danger lessening after the fourth.

A miscarriage is looked upon by many women as a very trifling matter, and sometimes, it is to be feared, is even rejoiced over.

It always involves danger and may be more serious in its results than a confinement.

It is not a natural process, as an ordinary labor is, and causes more or less shock to the system. Many uterine diseases are the result of neglected miscarriage and the patient needs special care after one has taken place to avert disagreeable consequences.

#### CAUSES

There are various causes which contribute to a miscarriage. It is not to be overlooked that disease in the father, or other circumstances connected with him, may affect it. Alcoholism, exhausting chronic disease, lead poisoning, working in sulphur and extreme old age, or youth, are some of these.

If the mother takes too violent exercise, or very hot baths, wears tight corsets, has a fall, or a severe blow on the abdomen, suffers from an infectious disease, as scarlet fever, or some forms of chronic disease, is subjected to extreme mental emotion, or any prolonged strain, it is very apt to bring it on.

Women who work in tobacco are said to be peculiarly liable to miscarry and excessive indulgence in it by the father may have the same effect.

In some women it recurs regularly at about the same time in each pregnancy. The predisposing cause, whatever it may be, still exists, and if it can

be discovered may be removed. Sometimes complete rest in bed for several months is prescribed, in the hope of saving the child.

### SYMPTOMS

The symptoms are a sense of weight in the abdomen, pain in the back, sensations of chilliness followed by flashes of heat, the discharge from the vagina increases and there is a feeling of languor and general malaise.

During the first two months a miscarriage might easily be mistaken for excessive menstrual flow. If the period is delayed for two or three weeks and then comes on as a slight hemorrhage it is probable one has taken place. The embryo is so tiny it might easily escape notice, unless a close watch was kept for it. There are usually clots of blood, any one of which might conceal it.

A discharge of blood from the vagina, particularly when it is accompanied with pain in the lower part of the abdomen, is always suspicious. The pain is due to the contraction of the uterus. It is of a griping character and comes in paroxysms, ceasing entirely and then returning at regular intervals.

### TREATMENT

Rest in bed on the back is the first measure. The

patient should remain there for a week after the symptoms have disappeared.

Hot drinks should not be given and the covering should be light. If necessary the catheter can be used and the bowels must be regulated by an enema, or a gentle laxative.

The doctor should be sent for in every case. There are quieting drugs which he can administer if necessary and he is needed to direct the after treatment should the miscarriage take place. The rest and quiet may prevent it. Strict attention should be paid to the diet, no meat or indigestible food being eaten.

If the uterus is determined to expel its contents, the pains continue, the hemorrhage increases and finally the mass comes away.

The danger is that a part of it may be retained, the placenta, or some of the membranes, remaining behind. The doctor desires to leave as much as possible to nature and will not interfere unless it is certain that interference is necessary.

Any solid matter that comes from the uterus should be kept for his inspection. If there is long to wait before he can see it, a little water may be poured on it and a few drops of carbolic acid added if it is required. The vessel containing the



substance should be closely covered and kept at a distance from the patient's room.

The pain usually ceases as soon as the uterus is empty. The discharge lessens, or stops entirely. It is often present in small quantity for a few days, at first red and gradually losing color as after an ordinary confinement.

Should the discharge become offensive, or if there is the slightest disagreeable odor perceptible about the napkin, the doctor should be informed. A small portion of the contents of the uterus may have been retained and be decomposing, and this will infect the patient if prompt measures are not taken to prevent it. The return of the discharge after once stopping is also an indication that treatment is required, unless it is very slight and caused by standing, or unusual exertion.

#### CONVALESCENCE

After a miscarriage, time is required for the uterus to return to its normal condition, just as it is after a confinement. Inflammation is apt to follow any imprudence in walking, or standing. Straining of the ligaments that support the uterus is another danger to be avoided. Pain in the back is one symptom of this condition, and when it is present special care should be exercised. The ounce of prevention is

worth very much more than the pound of cure, for in this instance if the prevention is neglected the cure often is not possible.

The patient should not sit up in bed for several days, nor get out of bed before the end of a week. Walking should be resumed cautiously and discontinued if it is followed by backache.

The doctor sometimes orders a douche of warm water. This is given with a fountain syringe which should be held only high enough to permit of a gentle flow of water. A nozzle with a hole in the point should not be used. The one proper for a douche has holes in the sides. It is only necessary to wash out the vagina. It is not desirable, and in some cases it is dangerous, for the water to enter the uterus itself, which it might if thrown from the end. If the discharge continues as a white, or yellow, fluid, staining the napkin after losing its red color, the doctor should be told of it. Some uterine affection may be indicated which could be relieved, or cured, by prompt treatment and proper remedies.

Occasionally the breasts feel full and heavy and may contain a little milk. Less liquid should be drunk than usual and the patient kept on light diet, bread, toast, farinaceous food, eggs, custard, blanc mange, etc., no meat being given.

The breasts can be gently rubbed with warm oil

and if the weight is uncomfortable they can be supported by a bandage. The bowels must be kept open by a mild laxative.

The danger to the mother in a miscarriage may be very much lessened if it is kept steadily in mind that the same care and precautions are necessary as if the child had been born at full term. Time is required to rally from the shock, to recover from the loss of blood and to enable the uterus to return to its normal condition. The same perfect cleanliness must be observed in her person and surroundings, as she is susceptible to infection from outside sources and must be guarded against it.

## CHAPTER XVI

### PREMATURE CONFINEMENT

IF the child is born at any time before the end of the nine months, when it is capable of living even for a short time, the confinement is said to be premature.

During the sixth month it weighs about one pound and does not usually live more than two weeks.

During the seventh month its weight increases to three or four pounds, the nails are developed, and with care it may live and thrive, if it comes into the world at this time.

It must not be forgotten that the baby born prematurely is placed under great disadvantages. The conditions that surround it are very different from those under which it should have lived and grown for at least two months longer.

It takes a long time for it to overcome these. It grows slowly and is often backward in walking and talking. If there is any predisposition to heredi-

tary disease it is apt to develop in the delicate frame. The mother often cannot nurse it because her milk does not come, and this is an additional drawback and lessens the chance of existence for the poor little thing.

This being so, everything that is possible should be done to prevent the confinement from taking place prematurely. The expectant mother should be on the watch for the symptoms, recognize them when they appear and do her best to combat them.

#### SYMPTOMS

There is sometimes a slight flow of blood from the vagina as in an earlier miscarriage. Very often this is absent and the first indication of danger is pain in the abdomen. Unless the attention has been called to the possibility of its having a special significance, this may easily be attributed to colic.

The pain of colic is felt in different parts of the abdomen, moving from one place to another with each paroxysm. The other pain returns in one place, and if the hands are laid over the spot the uterus may be felt to harden as it contracts.

#### TREATMENT

The patient should go to bed immediately and keep perfectly quiet, as in endeavoring to avert a

threatened miscarriage. The doctor should be sent for, as there are medicines he can use which may prevent the catastrophe, if it is not too late.

Should this be impossible, the labor proceeds as if at full term.

It is wise to make preparations for this and to have everything in the room that may be needed.

The bed should be protected and properly made, and all the details attended to if there is time to do so. The nurse often cannot come at an unexpected summons and arrangements should be made with some friend to take her place if necessary.

#### CARE OF THE BABY

This is a very much more difficult matter than if the child had been ushered into the world at the proper time.

Elaborate arrangements are required to keep it alive, its feebleness rendering the task a very difficult one.

Warmth and proper food are the two essentials. If these can be provided, the problem is well nigh solved; if not, the flickering flame will die out.

#### CLOTHING

It is almost impossible and would be very unwise, to attempt to dress such a frail little being as the

premature baby. Lamb's wool, which comes in rolls like cotton batting, is the best material to wrap it in. It should be so arranged that a thick pad placed under the buttocks can be removed without disturbing the wrappings. If this material cannot be had, cotton wool must be used with several layers of flannel over it.

#### WASHING

No effort should be made to wash the child. It should be rubbed with warm oil and this process repeated every day, only a part of the wool being removed at one time to permit the part covered to be done.

#### INCUBATORS

In some large cities incubators can be obtained in which the child is kept until it is strong enough to support existence without an extra supply of heat.

One cannot always be procured when it is needed. An incubator for chickens might be modified so that it could be used, if one were to be had.

Dr. Worcester, in his book on maternity nursing, describes an impromptu hot cradle which could easily be arranged.

Two tin foot tubs are provided, one so much smaller than the other that only the handles rest on the rim of the larger tub. The inner one is weighted

with bricks so it will not float when water is poured in the outer one. This is filled nearly to the brim with hot water and a lamp placed under the bottom to maintain the temperature at 100° Fahrenheit. The inner tub is lined with cotton wool, or thick folds of flannel, and the baby, well wrapped and covered, placed in it.

It should only be removed from this nest when absolutely necessary and disturbed as little as possible.

When no other way of keeping it warm is to be had it must be surrounded by hot water bags, replenished regularly every hour.

This care must be maintained until after the time at which it would have been born had the full term been completed.

#### FOOD

If the mother has milk it may be drawn from the breast with a breast pump, warmed a very little and given to the baby with a teaspoon, or a medicine dropper, when it cannot draw it itself.

Should there be no milk, it is best to peptonize cream food and try that. The lime water may be omitted as the soda used in peptonizing renders the milk sufficiently alkaline. The digestive organs being not fully developed, peptonizing is especially



necessary, as in this process the milk is partially predigested.

The child is often too feeble to suck and so cannot obtain milk from the mother itself or use a nursing bottle.

## GAVAGE

The doctor sometimes tries forced feeding, or gavage, and this method is said to have saved many lives. The food goes directly into the stomach and any quantity that is prescribed can be easily administered.

The method is thus described in the "Care of Children," as it is used in feeding a sick child who resists taking food: "The apparatus is a soft rubber catheter with a double eye, a short glass tube to connect the catheter with eighteen inches of rubber tubing, and a small funnel.

"The child is laid on the back, the tongue held down with a finger and the point of the catheter passed down the throat keeping it well to the back of the mouth." Three or four inches would be far enough for so young a baby.

"The funnel is held high up to allow gas to escape from the stomach and then the food poured in."

For a premature baby, not more than a tablespoonful should be given at once.

If the mouth is held open for a few minutes after

the catheter is withdrawn the child is less likely to vomit. The stomach is washed out with plain boiled water once a day.

After using, the tube must be thoroughly washed with a solution of baking soda in water, it being poured through them again and again, and well rinsed in clear warm water. About once in three days the apparatus must be boiled. "A glass funnel is the best to use, although a tin or hard rubber one will answer the purpose if it is kept exquisitely clean. Unless properly attended to, the tubes become a distinct source of danger."

The child should be fed every two hours and after the first week the quantity of food is increased gradually.

#### EXCESSIVE CARE

Many children born prematurely have been saved by the care and devotion of their nurses. It is an anxious task to watch over one and requires almost the whole time and attention if it is to be accomplished successfully.

Such a child needs excessive care by night as well as by day. The temperature must be kept up, as cold is well-nigh fatal, and food must be given at intervals of about two hours.

The doctor may order a little stimulant, as a few drops of wine and water, at regular intervals.

The head should be protected by a light covering of flannel and the hands kept under the coverlet as much as possible.

The bed should be a soft feather pillow with a very small square of rubber cloth laid under the hips. The best outer covering is a small down comforter. If the pillow is of down, care should be taken that the baby's nose and mouth are not buried in it by any involuntary movement. A case is on record in which a strong, healthy baby, three months old, was smothered in this way. Every precaution must be taken with a tiny, delicate child whose hold on life is so precarious at the best.

It ought to be kept in one large, well ventilated room for several months and not exposed to the danger of a change of temperature, which is always a serious menace to such a frail being,

## CHAPTER XVII

### LABOR

#### BEGINNING

As the end of the pregnancy approaches the abdomen decreases a little in size. This is caused partly by the uterus beginning to contract to expel its contents and partly by its sinking lower in the pelvis.

The breathing is less interfered with, but walking is more difficult.

The discharge from the vagina increases and when it is tinged with blood the confinement is near.

It will probably take place at what would have been the tenth menstrual period had there been no pregnancy. Women who were habitually unwell two, or three, days before the expiration of the usual four weeks would probably be confined sooner than those who were in the habit of waiting the full time.

There are often slight attacks of pain which are thought to mean no more than ordinary colic.

The labor usually lasts longer with a first child than with the subsequent ones. The parts are more unyielding, never having been stretched before, and it takes longer to dilate them.

This may comfort the young expectant mother who fears that skilled assistance may be slow in arriving. The doctor almost always comes in time. Should he not do so, the nurse, or anyone who has taken pains to inform herself what ought to be done, can do all that is necessary until he comes.

A perfectly natural birth takes place without outside interference. Should there be any difficulty, the process is very slow and there is plenty of time to wait for the doctor. Only he can do what is then needed.

It is said that labor usually commences between nine and twelve o'clock at night and the birth takes place between nine the next evening and the same hour the following morning.

#### STAGES

Labor is divided into three stages: the opening of the uterus, to permit its contents to pass out, the passage of the child and the expulsion of the after birth.

The young mother must not fancy that she is to suffer severe pain all this time.

The pains during the first stage are something

like colic, sharp while they last, but only continuing for a few minutes, and with long intervals of ease between them. It sometimes occupies twelve hours.

During this time the patient may be partially dressed and move about her room if she wishes to do so.

She should have light food, hot milk, cocoa, soup, toast, bread or farinaceous food, but no meat.

She will have a desire to pass water and to have a movement, but as this is occasioned by the pressure of the child's head against the bladder and rectum, yielding to it does not bring relief.

An enema of warm water ought to be administered to empty the lower bowel. If she has not been able to pass water for some time, the doctor should be informed when he comes that such is the case.

She should not be permitted to go to a water closet, nor to strain in any way.

As in some cases this stage is short in duration, the bed should be made, the necessary articles brought into the room and all the preparations completed.

The hair should be parted in the middle at the back, firmly braided in two tails and tied so it will not come unloosed. It is then no great matter if it cannot be brushed or combed for several days.

It will be found smooth and untangled when it is unplaited.

The pains may be distinguished from those arising from other causes, as irritation of the intestine, colic, or indigestion, by their beginning in the back and extending round to the abdomen, coming at regular intervals and increasing in intensity.

By laying the hands on the abdomen as the patient lies on her back the uterus will be felt to harden as it contracts during a pain, the hardness disappearing as the pain passes off. This is a certain sign that the pains are not false. They also recur about the same place in the abdomen, while in colic the pain shifts from point to point.

With a first child there are often false alarms, but when the pains begin to come regularly and increase in severity it is time to send for the doctor. Even then there is no great haste, as it will probably be some time before his services are actually needed. Still he ought to know that the labor has begun, as he may have reasons for wishing to be on hand early in the proceeding.

If the pains are very severe, as is sometimes the case with a first child, owing to the mouth of the uterus being tense and difficult to relax, the doctor should be told of it, as he can prescribe something that will give relief.

The end of this part of the labor is usually marked by the breaking of the amniotic sac, or bag of waters, in which the child has floated up to this time.

This brings a rush of fluid for which the patient should be prepared by having on a couple of large napkins and a folded sheet under her, if she is sitting, or lying down. It is not at all alarming. The child has simply torn the thin membrane surrounding it that it may pass into the world.

When this does not occur naturally the doctor ruptures the bag with his finger nail.

It may burst while the mother is still apparently quite well and be the first indication that labor has really begun. It is well to be prepared, towards the end of the pregnancy, for this accident happening. It would be very embarrassing if it took place outside the privacy of the bedroom and no preparation had been made for even partially absorbing the fluid.

After this has taken place the expectant mother should no longer walk about, if the doctor is not there, but go at once to bed.

The birth does not always follow rapidly, but it often does so and if she is alone bed is the safest place. The mouth of the uterus is usually expanded by this time; the child might descend suddenly and



meet with some accident if the mother were on her feet.

When the second stage begins the pains come much more frequently. Instead of being sharp and cutting, like those of the first stage, there is a strong inclination to bear down, and a desire to brace the feet and grasp something firmly with the hands to assist in the effort.

✓ A sheet tied to the foot of the bed is a good thing to pull on. Sometimes the nurse's hands are held, but she may have other things to attend to and cannot always be near when she is wanted.

Some persons find a small well-stuffed pillow to place under the back a great comfort. There is always pain in the back and firm support gives a sensation of relief.

If the nurse can be spared, she may press against the back at the weak point with her hands. When this pressure is made early in the labor it should be well down, at the lowest part of the back; later it should be higher, on a line with the top of the hip bones.

The lower joints of the spine are movable and yield a little to make as much room as possible for the passage of the child. Intelligent pressure helps this movement in a slight degree.

The patient often sleeps for a few minutes between

the pains. She should yield to these feelings of drowsiness ; it is one of nature's devices to husband her strength and give her a little needed rest.

She should not have stimulant without the doctor's orders, but may have a cup of tea, coffee, or soup, not too hot, if she fancies it.

The pains now come every two or three minutes, and the birth is not far off. If the doctor has not arrived there is still no cause for anxiety. If everything is proceeding naturally the baby will be born without his assistance ; if it is not and there is a hindrance, he will come before it arrives.

Any friend can do what is necessary in case the labor is rapid and the baby appears unexpectedly.

It is not even indispensable that the cord should be cut and tied immediately. The baby may be wrapped in flannel, a folded sheet tucked under the mother to place it on, and both covered until the doctor reaches the scene of action.

#### THE CORD

It is better to have the cord cut, so that the baby can be rolled in a blanket and laid in the nest prepared for it. To do this the piece of soft string that has been provided is tied firmly around the cord about two inches from the child's body, and again about two inches farther along, nearer the mother.

With the blunt scissors the cord is then severed between the ligatures.

It should not be cut until the child has cried lustily and until the pulsation in it has ceased. If held between finger and thumb for a moment this throbbing can be distinctly felt. It shows that the blood is still passing between the child and the placenta. After a few minutes this ceases and then the cord may safely be divided.

When the doctor is present, he usually does this himself and then hands the child to the nurse to be cared for, while he attends to the mother.

If an inexperienced person is alone with the mother, as soon as the head is born she should see that the cord is not twisted around the child's neck. If it is, it must be loosened and slipped over the head. This can be done by pulling down a loop of it. If it is not done the child may be strangled, as the tight ligature prevents its breathing. In a desperate case the cord can be tied in two places and cut between them.

#### THE AFTER BIRTH

Should the doctor be absent, the after birth may be left until it comes away of itself. This it often does in about twenty minutes, though the time may be much longer. The mother should be warmly

covered and may have a warm drink, but not a hot one, for fear of promoting profuse bleeding.

Should the after birth be expelled it must be put in the vessel prepared for it and kept for the doctor to see. He always wishes to inspect it that he may know whether all has come away or not. This is important, as when a part is retained it may cause mischief if it is not removed.

This ends the third stage and nothing now remains but to make the mother comfortable and leave her to rest and sleep.

#### THE MOTHER'S NEEDS

A clean corner of the pad, or a folded sheet, is laid under the mother, she is bathed with warm water that has been boiled, the binder adjusted and the napkin put on.

If necessary, the night dress is changed and then the pad, carefully rolled up, is drawn out, the fresh one put in place, the coverings arranged and the room darkened.

The mother sometimes has a feeling of chilliness, or even a slight chill soon after the baby is born. She complains of cold, shivers and her teeth may chatter for a few moments. This is not alarming as it is caused partially by nervousness and also by the removal of the large warm body that has for so

long occupied the uterus. A warm drink may be given, extra covering put over her, the feet wrapped in flannel and if necessary a hot bag laid near them.

After all that the newly made mother has undergone, she needs perfect quiet for several hours before she is permitted to see anyone. A five minutes interview with her husband is all that should be granted. However well she feels, quiet should be insisted upon. All congratulations must be deferred until she has had rest and sleep. Excitement is dangerous and no visitors must be permitted to enter the room, nor should conversation be allowed, even if she wishes to talk. Neglect of this precaution may cause serious disaster, even when all seems to be going on well.

#### AFTER PAINS

The young mother is not likely to be troubled with after pains after the birth of her first child, though she is liable to them in subsequent confinements.

They are caused by contractions of the uterus, as it subsides to rest, like the swell of the waves after a storm.

After a first birth the walls of the uterus, being firm, contract once for all and remain quiescent, causing no more pain. When they have been ex-

panded several times, the walls lose their contractile power to a degree and cannot close so firmly, contracting and relaxing several times before they finally settle into quiet.

These pains often occur at night and may last for two or three days after the birth.

A folded flannel warmed and laid over the abdomen may give relief, or a hot water bag applied to the part. If they are so severe as to interfere with sleep the doctor will give an anodyne to quiet them.

They are sometimes excited by putting the baby to the breast to nurse, so intimate is the connection between the breasts and the uterus.

#### EMERGENCY

It may happen in a rapid labor that the mother is entirely alone at the time of the baby's birth. In this case she need only see that the child lies so its breathing is not interfered with, its head raised to be out of the way of the discharges, and that it is warmly covered. No harm will come to it until help arrives. Having satisfied herself of this, the mother must lie perfectly still.

Standing, walking, or even sitting up in bed, are fraught with danger. She may not be injured by moving, but there is a probability that it will do mischief and it is better to run no risk.

In case of emergency, thick pads of newspaper can be placed under the mother. It is a very efficient protector when it is used in sufficient quantity.

If the birth should take place elsewhere than in the room prepared for it, the mother should be rolled on a blanket which can be lifted by the corners, at head and foot, by two men. She can thus be carried to her own bed and laid upon it without disturbing her very much. The blanket is easily slipped from beneath her.

#### REMOVING STAINS

It may be well to mention that in removing stains of blood from linen, or cotton, it should be soaked in cold water for some hours before it is washed. If boiling water is poured on the fresh stains they turn dark and cannot be removed without a great deal of labor if at all.

Blood can be removed from rubber sheeting with a wet cloth, if done at once. When it has been allowed to remain, it must be washed with chlorinated soda which can be obtained from the druggist.

A paste of starch, or flour, mixed with cold water may be spread over stains on blankets, mattresses, or pillows, and brushed off when it is dry. If traces are still left, a second application will probably remove them.

## THE DOCTOR'S COMFORT

There is one point that is sometimes forgotten in preparing for the labor and that is the comfort of the doctor. The wise housewife will make provision for this beforehand, and charge some member of the household with the duty of seeing her instructions carried out. /

The loss of a night's rest, which is so unusual to ordinary people, is a common occurrence with him and he remembers gratefully those who mitigate his discomfort as much as possible.

If it can be done a place should be arranged in an adjoining room where he can lie down. There are often long intervals of waiting when he can do nothing to assist, while if he is close at hand the nurse can call him the moment he seems to be required.

Some light refreshment should be brought to him, not merely offered; his tastes can easily be ascertained by a few judicious questions. His life is a very self-sacrificing one and his patients who benefit by it should try to return his care for them by consideration for him. Money can not compensate the priceless devotion and self-forgetfulness of a good physician. /

No one can feel this more fully than the expectant mother, who has conferred with her family physi-



cian frequently during the period of her pregnancy and has been helped, advised and consoled by him.

She can now show her gratitude in a substantial manner, sure that it will be recognized and appreciated by the object of it, even if he does not put it into words.

There is no one who brings more comfort into the lying-in room than the doctor does. His moral support, as he cheers, encourages and reassures, is as valuable as his physical assistance. If his patient has made a friend of him during the preceding months, she reaps the benefit of it now in her time of need, knowing that she can entirely trust him with herself and her child.

## CHAPTER XVIII

### AFTER CARE OF THE MOTHER

#### REST

THE newly-made mother must sleep as much as possible during the first twenty-four hours after labor is ended. She could not have a better beginning to her convalescence than a long period of profound repose.

Her mind is at rest, all the cares and anxieties of the past months are forgotten, she is happy in the possession of her baby and has nothing to look forward to but getting well as speedily as she can.

She should not be disturbed except to give her nourishment and to change the napkin, even then she must not be roused more than is absolutely necessary.

If she is awake and wishes it, the baby may be put to the breast at the end of the first six, or eight, hours. It is thought that the action of nursing helps

to contract the uterus more firmly, and therefore it is an advantage to the mother.

#### FOOD

The food must be regulated to a certain extent by the appetite. For the first twenty-four hours liquids, milk toast, or some farinaceous preparation is all that is needed ; then egg on toast, bread and butter, etc., may be added and after the third day, if there is no rise in temperature, there may be a return to the usual diet.

#### THE SUPPLY OF MILK

The nursing mother must drink abundantly of liquid food to ensure a good supply of milk. For this purpose nothing is better than milk itself. It can be prepared as she has been accustomed to take it during her pregnancy.

What the children call ice cream milk may make a pleasing variety. The milk is sweetened and flavored with vanilla, essence of lemon, or bitter almond, or rose water. If a lightly beaten egg is added, it becomes " cold custard."

Cocoa, gruels made with milk, hot milk flavored with tea, or coffee, good broth, and clear soup are all beneficial.

A bowl of liquid should be taken immediately on

waking in the morning, another between breakfast and lunch, or dinner, a third between dinner and tea, a fourth before going to sleep, and if there is wakefulness a fifth during the night.

Should there be too great a flow of milk the supply of fluid must be limited. No mother can nourish her child properly unless she is well fed herself.

It is said that the leaves of the castor oil plant, if made into a poultice and applied to the breasts, stimulate the secretion of milk when it is deficient.

Good milk, unlike that of the cow, looks thin and watery and has a bluish tinge.

#### CARE OF THE BREASTS

This is one of the most important of the duties of the nurse. If she does not know just what ought to be done the mother must be able to direct her. The penalty of neglect may be intense suffering, an abscess, or what used to be called "broken breasts," and the necessity of weaning the child.

For the first two days the breasts secrete only what is known as colostrum. This is a fluid with laxative properties, intended to act upon the baby's bowels and remove the dark, tarry substance with which they are filled.

The third day this begins to give place to milk,

and with the coming of the milk the breasts are congested with an oversupply of blood and the temperature is apt to rise a little.

During this day the baby, if possible, should not nurse more than once in three hours. The breasts may be hard and not improbably a little hot to the touch.

To promote the circulation and relieve the tenderness the nurse should rub the breasts in the most gentle manner, using a little warm olive oil, or camphorated oil, to lubricate them. The rubbing should be done in the gentlest manner, the hands scarcely touching the skin, beginning at the base and stroking upwards towards the nipple. It may be some time before the good effect is perceived, but after an hour's faithful work the whole surface will be found soft and the milk will flow easily when the baby's lips are applied to the nipple.

The breasts are formed of pear-shaped glands, growing smaller as they approach the nipples, where the points converge. If the milk accumulates, or cakes, at the base of one of these glands a hard lump is felt which must be dispersed, or mischief will ensue. Gentle persistent rubbing with oil will usually have the desired effect. If it persists the doctor should be informed at once. Lumps near the nipple are of little consequence, particularly if

they are small. In any other part of the breast their presence should be immediately reported.

The mother must instantly check the least attempt at pressure in rubbing the breast. It is not a matter of comfort, but of expediency. Rough handling may set up the inflammation it is desired to avert.

If the breast becomes painful the doctor should be sent for. It is misplaced fortitude to bear this pain in silence. Should it swell and look red a single thickness of cotton wet in tepid water should be kept over it until the doctor comes.

If the breasts feel heavy or seem in need of support, a bandage should be put on shaped like the letter Y. The tail piece goes across the back and is cut about twice as long as is necessary for that purpose and about three inches wide. Another strip of the same width is folded and pinned to one end to form the fork of the Y. One end of this goes above the breasts the other below them, the tail piece is brought round behind the back and the points firmly pinned to it. The free end lies across the nipples and can be turned back when the child nurses, otherwise the bandage need not be disturbed then. A little absorbent cotton may be put between the breasts and about them if needed to make them more comfortable.

They are sensitive to cold and should have a light covering thrown over them when the baby nurses.

After each nursing the nipples should be carefully washed with a soft cloth and a little tepid water in which a pinch of borax has been dissolved. Should any other preparation be used on them, it should be washed off before the baby nurses and renewed when it has finished.

When the nipples are sensitive they can be painted with white of egg, which is allowed to dry and then applied again until three coats have been put on. The nipple should be dried first.

As a crack in the nipple causes exquisite pain and often prevents the baby from nursing they should be carefully watched, particularly if they have not been treated before the confinement to prepare them for use. At the first symptom of soreness they should be painted with compound tincture of benzoin, applied with a camel's hair brush.

Exquisite cleanliness is necessary to prevent particles of milk from remaining in the folds of the skin and causing trouble. If this is attended to faithfully, soreness may be entirely avoided.

A wash of twenty grains of boracic acid to one ounce of water can be obtained from the druggist and used instead of the borax and water. If the skin seems very delicate the boracic acid can be put

in mucilage instead of water, painted on in a thick coating and allowed to remain until the next nursing, when it is washed off with warm water.

The state of the nipples should be reported to the doctor. When the skin is actually cracked and painful an application of cocaine is usually ordered. This has to be washed off with special care before the baby nurses.

It may be necessary to use a nipple shield. These are made of rubber and put over the nipple before the child takes it in its mouth.

Prevention is so much easier and more agreeable than cure in this matter, that no attention is too great to bestow to prevent the nipples from becoming sore. There is little danger when they have been properly attended to before the child is born and are kept clean afterwards.

If for any reason the baby cannot nurse, the doctor will order a preparation, probably belladonna, in the form of liniment, ointment, or plaster to be applied to the breasts to dry up the milk. In putting on a plaster a hole must be cut in the middle for the nipple to come through.

As little fluid as possible is taken for a few days until the flow is checked. Drawing the milk with a breast pump should not be resorted to if it can be



avoided, as this stimulates the secretion. It sometimes has to be resorted to.

## CLEANLINESS

The great importance of cleanliness in the lying-in room has already been insisted upon. It cannot be too earnestly reiterated. The newly-made mother is peculiarly liable to infection. She herself and everything about her must be kept scrupulously clean.

The napkin should be changed at first as often as is necessary. Later, when the discharge lessens, not less frequently than three times a day. As soon as it is removed it should be rolled in paper and burned.

If the under sheet becomes stained or soiled, it must be immediately replaced by a fresh one. It is best to lay a folded sheet across the bed with the India-rubber cloth beneath it, or between its folds. This is easily drawn out and changed without the disturbance that taking off the under sheet must cause the patient.

If stitches have been taken, the parts are most easily washed by very gentle syringing with the fountain syringe. It must only be held high enough to permit the water to trickle over them into the bed pan placed beneath the patient to receive it.

In ordinary cases wiping the parts with a soft cloth wrung out of tepid water is all that is necessary when the napkin is changed, or water has been passed. These precautions are very simple, are easily taken and their neglect may be followed by serious consequences.

The method of giving a sponge bath has been detailed in the chapter on baths.

A piece of cotton twisted around a wooden tooth pick may be utilized for cleansing the teeth while it is difficult to use the tooth brush.

#### THE HAIR

If the hair has not been braided before the confinement and the mother happens to be unable to have it brushed or combed for a few days, it will be in a sad snarl. Much patience is requisite to get it smooth again, and hair has been cut off that need not have been sacrificed had enough pains been expended upon it to get it straight.

Hair forty inches long that had been untouched by comb or brush for three weeks, has been disentangled, but it is a task that equals one of the labors of Hercules.

In a bad case only a few locks can be done at a time and when a portion is set free it must be braided to keep it in place. If possible the comb-

ing should be begun at the ends. Sometimes it is so matted that the ends cannot be found. The tangles may be moistened with alcohol which helps to loosen them. The hairs can be drawn out of a knot by picking up each one separately with a needle.

It is an apparently hopeless, endless task, and to prevent it the braiding should not be neglected in the beginning. By turning the head from side to side it is easy to dress each braid in turn.

The most satisfactory way to fasten them is to double up the ends and twist a few loose hairs tightly about them. This seldom slips off. During convalescence ribbons can be tied over them.

#### THE EYES

For a few days the mother's eyes should be shielded from a bright light. The room can be partially darkened during the day and the gas, or lamp, shaded at night. Even if she feels well she should not read until after the third day. Rest of mind and body is all important.

#### MEDICINE

No medicine should be taken without the doctor's permission. If the bowels have been thoroughly moved before the birth of the baby, it is no matter

if there is not another motion for the first two days.

For constipation later in the convalescence resource may be had to the methods of relief recommended for trial during the pregnancy. Unless in very obstinate cases the difficulty usually disappears as soon as solid food can be taken.

While the patient is still in bed, rubbing the abdomen with warm oil and gentle pressure and manipulation of the bowels, beginning low down on the right side, passing up, across, and down the left side, thus following the course of the large intestine is sometimes effectual.

The rubber hot water bag is the great resource for cramp and pains.

#### POINTS TO BE MENTIONED

Sleeplessness should be mentioned to the doctor as he may be able to prescribe something which will relieve it.

If the discharge has a disagreeable odor it should be at once mentioned to the doctor. There is always a peculiar odor, not unlike that of the menstrual flow. This is not offensive and need excite no suspicion, but any departure from it should be noted.

On first sitting up in bed the lochia may become

a deeper red. This is of little importance unless there is a profuse flow, when the patient should lie down again and remain quiet until it ceases.

As the young mother is so liable to infection, it has been wisely said that for the first few weeks her letters should be opened by some near relative, that there may be no doubt it is safe for her to have them. Many of the eruptive diseases, as scarlet fever, can be conveyed by letters. A thoughtless person who was nursing a child ill with it, or writing from the same house, might send one, meaning no harm.

There may be a slight chill on the third day when the milk comes, as the temperature may be slightly elevated then.

If it is severe, or persists, coming several times in succession, the doctor should be informed. A chill at any other period should be mentioned to him.

#### MILK LEG

Pain in the leg should always be spoken of and attended to. There is sometimes an inflammation of the tissues of the leg about the veins which is very painful. The leg swells and looks white, which has given the affection its popular name of milk leg.

It should be wrapped in cotton batting, laid on pillows and the weight of the clothes supported so

as not to press upon it. A little frame can be made from barrel hoops or stout wire bent into shape for the purpose, the ends fastened to two long strips of wood, if a cradle cannot be obtained. This is the technical name of the appliance used in hospitals to sustain the bedclothes when their weight cannot be borne by the invalid.

The sufferer from milk leg should lie as still as possible, not attempting to sit up in bed. The milk has nothing whatever to do with the swelling.

#### CONVALESCENCE

When the convalescence proceeds without any of the drawbacks that have been mentioned, there should be few disagreeable feelings. As the strength returns it is a time of repose and refreshment ; with a good baby there should be nothing to mar its peacefulness. While the nurse stays, all care should be made over to her.

Older mothers may tell the young mother of the rapidity with which they recovered from their confinements, what they did at the end of three weeks and how active they were long before the close of the month. She might follow their example and apparently be none the worse for it. She might try to emulate their briskness and suffer for it all her life. It is not worth while to run the risk.

However well she feels, and between relief of body and exhilaration of mind she often feels very well indeed, it is only a reasonable precaution to stay quietly in bed until the ninth, or tenth day. She may then move quietly to the easy chair, or couch, walk about her room a little after the first two weeks are over, but still sit with her feet up when it is possible. The fifth week is quite time enough for her to leave her room to begin to take up her ordinary duties again.

If she wishes to go downstairs after the third week the progress should be made slowly and carefully. In summer a drive in an easy carriage will do no harm. She should sit on a soft cushion and have another at her back.

Walking should be indulged in very moderately. It is six weeks before involution is accomplished, that is, before the uterus assumes what will be its normal condition. During the earlier weeks standing and walking tend to bring too much weight on the ligaments supporting it and so displace it.

This is an accident which causes much discomfort later on when perfect health should have returned. How many mothers say "I have never felt quite right since my first child was born." Perhaps a little extra precaution at that time might have prevented all they have suffered since then.

## CONFIDENCE IN THE DOCTOR

A woman should not permit any feeling of false modesty to induce her to conceal from her physician any unusual sensation, or circumstance, during this period of convalescence. If she fears that anything is wrong now is the time to speak of it and have it remedied if possible. She owes it to her family as well as to herself that no preventable disability should be allowed to continue.

Women will cheerfully submit to severe surgical operations and undergo painful and disagreeable treatment when they know it is necessary for their restoration to health. Yet many of them hesitate to tell their physician some symptom which if he knew it might enable him to take measures to prevent the necessity of resorting to such drastic remedies.

Perfect confidence between doctor and patient can only result in good to the latter, and no physician should be employed to whom this cannot be given.

The mother should make a point of seeing the doctor alone for a few minutes during each visit, even if she has to request the nurse to leave the room that she may do so. Then should anything occur to make his private counsel necessary she will feel no embarrassment and find no difficulty in securing it.



## CHAPTER XIX

### AFTER CARE OF THE CHILD

#### CARE OF THE CORD

THIS is now simply dressed with a dry dressing instead of the ointments which used to be used for it. The natural tendency of the cord is to dry up and wither away and it is wise to try to assist nature instead of running counter to her indications.

The stump of the cord is sprinkled with powdered borax. A hole is cut in the middle of a piece of linen about four inches square, the cord drawn through the hole and the linen folded over it. This is secured in place with the binder.

When the child is washed great care should be taken to avoid wetting this dressing. If it can be kept dry the cord will shrivel up and drop off in less than a week.

If instead of shrinking and dessicating it should remain soft and begin to smell unpleasantly the

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doctor should be informed. He will probably have it washed with weak carbolized water and the dry dressing changed more frequently.

After it has dropped off a folded piece of linen can be kept over the navel for a few days. If it pouts or protrudes a little, as it sometimes does, a wooden button mould, or large smooth button without a shank, can be wrapped in linen, the rounding part placed next the navel to press it gently inwards, and secured with the binder.

#### RUPTURE

If there is a marked protrusion it should be reported to the doctor, as in this case a portion of the intestine has probably come through the opening in the muscular wall of the abdomen, under the skin. This should be replaced and held in position by a proper belt, worn for some months, until the weak point closes.

This accident also may happen low down in the groin and in other parts of the abdomen. The intestine is felt as a soft, movable bunch under the skin.

It is not immediately dangerous, but may become so if it is not replaced. The child should be placed in a warm bath to relax the parts. Very gentle pressure may be made on the protuberance to try to

reduce it. If it does not yield readily the doctor should be sent for. A proper truss must be put on to prevent the recurrence.

## WARMTH

There is nothing more potent in keeping a young baby good and comfortable, which in this case are synonymous terms, than warmth. This does not mean that it shall be kept in a hot room and deprived of fresh air, but that it shall be warmly and closely wrapped when it is laid down.

A new-born child has been accustomed to lie with its limbs close against the body and sustained by an elastic pressure. It misses this support and rests more quietly when its place is supplied. The Germantown wool blanket should be wound round it, a crib blanket over that and the pillow pressed close to the body.

A hot water bag filled with warm—not hot—water and covered with flannel can be put near it. It should be shielded from draughts. If it is necessary to carry it from one room to another its head should be covered. In laying it down the blanket should be drawn away from the face. Air that has been re-breathed is not at all better for babies than for grown persons.

## POSITION

A new-born child is laid on its right side to facilitate the closing of a little valve in the heart.

After the first few days it is well to turn it over every two hours. It is not well for it always to lie in the same position. If this is gently done it will not waken it. It is best to place it on the right side immediately after a meal, otherwise the liver, which in a young baby is disproportionately large and heavy, presses on the stomach and interferes with digestion.

Some authorities advocate laying the child on its chest with the head turned to one side. It is said that the lungs have freer play in this position and that children accustomed to it prefer it to any other.

## NURSING

After the child has been bathed as directed in Chapter VI, dressed and warmly wrapped up, it should be laid to sleep and left undisturbed as long as it will consent to remain so.

At any time from four to six hours after its birth it may be put to the breast, if the mother is ready for it. The colostrum has a laxative effect and helps to expel the waste matter with which the bowel is filled.

It is sometimes difficult to induce a baby to begin to nurse. If the finger is dipped in warm water and put in its mouth it may grasp it and begin to suck if it is gently moved between the lips. The mouth can then be transferred to the nipple. Several attempts may have to be made before the baby will take hold properly.

During the first two days it need only be put to the breast once in four hours, and this interval may be lengthened if baby and mother sleep.

As has been already said, the mother's milk does not come until the third day. If the infant is an unusually vigorous child it may be hungry and clamor loudly for food in the interval. A few teaspoonfuls of plain warm water may be tried first. If this does not satisfy it, dilute a mixture of half milk and half cream, one teaspoonful of each, with four teaspoonfuls of boiled water, add a pinch of sugar of milk, and feed it with that.

The warm water is best if the baby will accept it.

It fills the empty stomach and soothes instead of irritating it with food to digest at a time when Nature intends that nothing more substantial than the colostrum shall be offered to it.

If the baby cries it may be from some other cause than hunger, and pains should be taken to ascertain that it is comfortable and has no just cause for com-

plaint, before deciding that it requires food, which may only add to the difficulty instead of removing it.

In nursing, the child should be held easily on the arm and care should be taken that the nose is not pressed against the breast, or it cannot breathe, the mouth being otherwise occupied. If the breast is unusually full, a finger should be placed above and below the nipple and the areola gently pressed back. This helps to check the flow of the milk when it comes too quickly. The baby should have one breast at each nursing, taking them alternately. If the mother cannot remember which was taken last she should wear a ring, or bracelet, that can be changed from one side to the other as needed.

#### WASHING THE MOUTH

After nursing the baby's mouth should be washed with a little swab, made of a piece of cambric handkerchief doubled, dipped into tepid water which has been boiled.

This should be done in the gentlest manner. Rough handling may rub off the tender skin and if this is broken the mouth may become sore.

When the washing is neglected the particles of milk lodging there may decompose and give rise to a disorder called thrush, which in aggravated cases

is fatal to little babies. It is a kind of fungoid growth appearing in the form of tiny white spots and may extend through the whole intestinal canal. Cleanliness prevents it.

The baby should have a teaspoonful of boiled water several times during the day. Milk does not satisfy thirst. In giving a baby anything from a spoon it should be remembered that the spoon must be withdrawn from the mouth, releasing the tongue, before the child can swallow.

#### INTERVAL OF FEEDING

Not much regularity can be observed during the first three days in the time of putting the baby to the breast. After that it should be nursed every two hours during the day for the first three months and not more than once, or twice at the most, during the night.

Babies, like their elders, are creatures of habit. It is quite possible to teach them not to require food at night, which to them as to others should be a time of rest. Unless the mother is obliged to nurse the child for her own relief, it is best for it not to be fed between eleven P. M. and six A. M. Some babies will sleep even longer than this.

Nothing is more pernicious for mother or child, than to permit the baby to lie by its mother and

nurse whenever it stirs. It exhausts the mother's vitality and ruins the baby's digestion.

Milk requires about an hour to digest in a baby's stomach. Nursing it at intervals of two hours during the day gives time for the completion of the process and the necessary rest to the organ before it begins work again.

A baby usually nurses about ten or fifteen minutes. When it is satisfied it drops asleep and so stops of its own accord. If it is hungry it will take hold of the nipple gladly when it is presented to it. If very sleepy and manifestly unwilling to take nourishment, it should not be pressed. It will cry for it when it is hungry again. In this case the next hour of nursing should be counted from the time it does condescend to take food.

#### FEEDING

If the mother cannot nurse the child, its life depends upon a food being found which it can digest.

During the first two days, as has been said, very little food is required. Warm water, or the cream, milk and water, alone should be given.

After that cow's milk, properly prepared, is the best substitute for mother's milk. There are children who seem to be unable to assimilate it and for these other food must be found. Its use should



be persevered in for several days, and it should be weakened and strengthened by varying the proportion of water before it is abandoned for any prepared artificial food.

When the baby persistently vomits, or cries with colic, or seems dissatisfied after its meal, the food should be changed.

There are several important points of difference between cow's milk and that of the human mother, which renders it necessary to especially prepare the former before it can be given to an infant.

Cow's milk is slightly acid and becomes more and more so the longer it is kept after being milked. Mother's milk is alkaline. For this reason cow's milk is treated with lime water to neutralize the acidity.

The milk of the cow contains about twice as much solid matter as a woman's milk. This is chiefly caseine, the hard substance of which cheese is made when it is separated from the rest of the milk by being curdled. For an infant's food this proportion must be lessened by diluting the milk with water.

Mother's milk is richer in fat and contains more sugar than cow's milk. These must be supplied by adding cream and sugar of milk.

Cream is tiny globules of fat surrounded by a thin film of caseine. When it is shaken in a churn

this covering is ruptured, the fatty particles coalesce and form butter.

When milk is curdled, the watery part remaining is called whey. Sugar of milk is obtained by evaporating the whey and recrystallizing the powder thus obtained. It does not ferment as easily as sugar obtained from the beet, or the sugar cane, and so is better for babies. It is a dry white powder which can be obtained from any druggist. It is inexpensive and keeps indefinitely.

The requirements of a mixture which shall approximate as nearly as possible to the mother's milk is met in the following recipe prepared by Dr. Meigs, called

#### CREAM FOOD

Cream 2 tablespoonfuls.

Milk 1 tablespoonful.

Lime water 2 tablespoonfuls.

Milk sugar water 3 tablespoonfuls.

The milk sugar water is made by dissolving half an ounce of sugar of milk in half a pint of boiling water. This sours if kept more than twenty-four hours.

#### LIME WATER

It is a common saying that whatever is paid for lime water is too much, the cost of making it is so small.

If the material for it cannot be obtained, it must be bought at the druggist's ready prepared.

To make it, take one ounce of lime, put it in a bottle with one quart of cold water that has been previously boiled. When the effervescence subsides shake the bottle. After the lime has sunk to the bottom pour off the clear fluid and add again the same quantity of water, shaking a second time. Let it stand for twelve hours and pour off the water carefully for use, leaving the sediment behind. Keep the bottle containing it corked.

The lime must be in a lump, not air-slaked.

It cannot be made too strong, as water only has the power to absorb a certain quantity of lime, about a quarter of a grain to the tablespoonful.

#### STERILIZING MILK

It is always safest to sterilize the food. By this means any noxious germs it may contain are rendered incapable of doing harm to the baby, if not actually destroyed.

The milk should be allowed to stand for about three hours after it is received and the upper third only used for the food, as it then contains more cream.

To sterilize it, a number of small bottles should be provided corresponding to the number of times the

baby is fed during the twenty-four hours, about nine.

The quantity of food requisite for one feeding is put in each bottle.

Invert a perforated tin pie plate in the bottom of a large saucepan and stand the bottles on it. Put in enough cold water to come above the milk in the bottles and set the saucepan on the fire. When the water boils draw it to a cooler part of the stove and let it stand, covered, for an hour. The bottles should be stopped with a tuft of cotton batting, which is said to be particularly efficacious in straining out germs.

When the bottles are taken from the water they should be put in the ice chest, or a cool place. When one is needed, the cotton batting is removed, the rubber top put on and the baby takes its meal without the milk having been exposed to the danger of contamination from any source.

#### PEPTONIZING MILK

If the child's digestion is very delicate it may be necessary to peptonize the milk before it is given. By this means the food is partially digested before it enters the stomach. No doubt the lives of many babies have been saved by adopting this process of pre-digesting the food.

Extract of pancreatin, tablets of pancreatin and soda, or peptogenic milk powder can be used. The latter is especially prepared for peptonizing infant's food. Directions accompany the different preparations.

## VOMITING

If a baby vomits after being fed, grows pale and listless and evidently is not thriving, the food should be peptonized.

Vomiting used to be considered a sign of health and there is this to be said in its favor. Babies are very often overfed, a larger quantity being given them than the stomach can contain. They reject food from simple inability to retain it. In this case less must be given at each feeding.

When the vomiting is incessant and the baby does not gain in weight, it is apparent that not enough food is being assimilated to meet its requirements and a change must be made, or the life of the child will be sacrificed.

An accidental attack of vomiting means nothing more than some temporary disturbance. When it is habitual, the cause should be sought for, found and removed. It is too serious a condition to be neglected.

*Note.*—For children over one month old there are several foods which may be tried. The subject of food for children is treated at length in "The Care of Children," from which some of these directions are taken.

## AMOUNT OF FOOD

The stomach of a grown person will contain about five pints. That of a new born child is said to be able to hold less than six teaspoonfuls of fluid. Babies are usually fed a much larger quantity than this at one time.

We know how uncomfortable we ourselves feel after too large a meal. It may be that much of the crying of very young children is caused by being overfed.

The capacity of the stomach increases rapidly in the first two months of an infant's life, after that time it grows more slowly. The amount of food given should keep pace with this demand.

Babies vary in appetite and power of assimilation just as adults do. The amount that would abundantly satisfy a small, delicate child, with a feeble digestion, might be quite inadequate for a strong, healthy one, who could easily dispose of the nourishment given it.

The intervals of feeding should be the same as in nursing.

## TEMPERATURE OF FOOD

Giving food too hot is a sure way to disturb the digestion of young babies. The mother's milk, which is the model to be approached as nearly as

possible, is only warm. The food should never be hotter than 99° Fahrenheit.

It is best to warm the milk by standing the bottle in hot water for a few minutes. The contents should be shaken on taking out the bottle to equalize the heat.

#### THE NURSING BOTTLE

Round bottles are the best, as presenting fewer angles for the lodgement of particles of milk.

Rubber tops without tubes should be used. It is almost impossible to keep a tube clean. It is so very small it cannot be properly cleansed. Letting water run through it will not remove every trace of the milk. What remains decomposes and poisons the food drawn through it.

In choosing a top, select one with as small a hole as can be found in the end. The milk comes too fast and with too little labor on the part of the child when the opening is large. It is a good plan to place a small piece of sponge in the top. It must be removed and washed after each feeding and a fresh one supplied every day.

The top should be turned inside out and scrubbed with a stiff brush kept for the purpose. Every two or three days it should be boiled for ten minutes. Boiling does not injure the rubber.

The bottle must be rinsed in tepid water after using, then scalded and turned up to dry.

A pinch of baking soda may be added to the first water occasionally. Thorough washing, which never permits any milk to remain to become sour, is the best safeguard.

Should the bottle look cloudy, a little strong ammonia water may be used in washing it, followed by repeated rinsing and scalding.

Perfect cleanliness is part of the price that must be paid for the baby's health.

#### MOVEMENTS

The nurse should see that the child passes water during the first twenty-four hours.

If it lies with its legs drawn up and cries, it may be suffering from the inability to relieve itself. A flannel wrung out of hot water may be laid over the bladder and renewed several times. The heat and moisture may relax the parts and bring about the desired result. If not the doctor should be told of the difficulty.

This first movement of the bowels is the discharge of the meconium, a black mass looking like tar. When this has come away the next passage should be soft and light yellow in color. A young baby



ought to have two, or three, of these motions during the twenty-four hours.

White specks of curd through them show that the milk is not properly digested.

The movements may have a greenish tinge, but this is of no importance unless they also become slimy, when the doctor should be consulted.

The normal odor is not especially disagreeable. If it becomes offensive the food is unsuitable, or is not being properly digested.

When the bowels do not move regularly, very gentle pressing and rubbing of the abdomen is usually sufficient to induce them to do so, particularly with a young baby. A little warm oil may be used as a lubricant if desired. The rubbing should be kept up for about ten minutes.

If this produces no result a suppository may be tried. As mechanical stimulation of the intestine is all that is needed, a piece of stiff white paper about four inches long is rolled in a small tight cone. The point is oiled and inserted in the rectum for about an inch and a movement follows in a few minutes. A fragment of white soap can be shaped into a suppository and is rejected with the fæcal matter when it comes away.

As soon as possible the baby should be taught regular habits by being held out at certain times

every day. After six weeks old, it should seldom soil a napkin if it is quite well, and the training should be begun early.

#### THE FONTANELLES

These are the soft spaces on the top of the baby's head which will in time become solid bone, like the rest of the skull. The word means a fountain and the name was probably given because the pulsations of the brain, which can be distinguished beneath the skin, suggest the rising of the water from a fountain.

The front one is much the largest and remains open and soft until the child is one or two years old. Four bones meet here leaving a four-sided opening where they come together.

None of the bones of the skull are firmly united at the time of birth. The sutures, or joinings, are soft, so that they may yield a little to pressure and accommodate themselves to the narrow passage through which the head must pass.

Some mothers, fearing to injure the brain beneath, do not keep the skin over the fontanelles clean. An oily substance is constantly exuding through the pores of the skin. This should be removed by careful washing with soap and water every morning. If it is allowed to remain, specks of dust lodge in it

and a very ugly brown scurf is formed, which disfigures the sweetest baby.

When the first brown flakes are perceived they should be rubbed with vaseline and gently scraped off with the finger nail. If they have been allowed to accumulate through neglect they should be softened by an application of vaseline over night and very gently scraped off with a fine comb the next morning. The skin will be reddened, but that is not a serious matter, and more care must be taken to keep it free from foreign deposits in the future.

#### CARE OF THE EYES

Although babies, unlike some of the lower animals, as kittens and puppies, are not blind at birth, their power of vision seems to be imperfectly developed. An object may be passed close in front of their eyes without causing them to wink. It is said that the color is not finally decided until they are about three weeks old.

The new-born child is subject to an inflammation of the eyelids and sometimes of the conjunctiva, or white of the eye, which is dangerous and if neglected may produce disastrous results.

In France, nurses are obliged by law to report to a doctor any affection of the eyes of a young infant. Should they fail to do so they are punished by fine

or imprisonment, as the child may become blind in consequence of their neglect.

The first duty of the nurse after the child is born is to wipe its eyes with a soft damp cloth. The eyes should be carefully examined at the time of the morning bath and if reddened should be bathed by squeezing tepid water over them, letting it drip on a folded towel placed under the head. This can be repeated several times a day until the doctor's next visit.

Should there be a discharge the doctor will probably order a wash of boracic acid. This can best be applied with a medicine dropper. The lids are carefully separated with the fingers, the point of the dropper inserted at the outer angle of the eye, pointing towards the nose, and the rubber bulb of the dropper very slowly pressed.

If the eye is not kept clean and free from the discharge, it may cause the cornea, or glassy covering of the front of the eye, to ulcerate, and should the ulcer be a bad one blindness may follow. Surely this fear will make the nurse faithful to her duty.

The discharge is very infectious and, unless care is taken, the disease may be communicated to the eyes of the mother and the nurse.

Pieces of linen that have cleansed the eyes must be burned and nothing used about the baby's face

be permitted to be used by any one else. Towels are a frequent cause of infection.

If the doctor is not paying regular visits he should be immediately informed of the appearance of the discharge.

Keeping the eyes free from the dangerous matter by faithful washing will probably save the child's sight. Otherwise it is in great peril.

#### HEARING

A young baby's hearing is not very acute, and is said not to be developed to the normal capacity until it is about three months old.

It does not mind noise, though a loud jar of any kind will disturb and perhaps awaken it.

As it grows older it is not wise to keep the house especially quiet while it sleeps. It is better to accustom it to the ordinary sounds of daily life and it will learn to sleep through them.

When there are unavoidable noises which cannot be controlled, as those made in the neighborhood, putting a plug of cotton wool in each ear helps to deaden them.

#### RED GUM

Sometimes the surface of the skin is dotted with tiny red pimples, giving the complexion a decidedly

rosy cast. This eruption is called red gum and proceeds from some irritation of the delicate skin. Careful powdering with French chalk morning and evening is all that is necessary. It disappears after a short time.

Most of the first skin peels off during the earlier weeks of a baby's life. Sometimes the process is so gradual it is not noticed, at others the skin comes off in larger flakes. Occasionally a little fluid collects under a patch of skin, looking almost like a blister. No treatment is required, except care in washing and drying the part.

#### JAUNDICE

As the redness fades the skin may assume a yellow appearance, looking almost like jaundice. There is one difference, the whites of the eyes remain clear and white; in jaundice they always have a yellow tinge at least.

If the digestion is disordered and the urine stains the napkin a deep yellow, the doctor should be consulted. The liver then is probably at fault. Otherwise no treatment is required, the skin assuming its normal color after a few days.

#### THRUSH

This disease has been mentioned in speaking of

the necessity of cleanliness in all the paraphernalia used for the baby's food. If thrush appears, neglect in this matter should be at once suspected. It may, however, be brought on by disturbance of the stomach or some part of the digestive tract, caused by improper food.

The mouth may be washed with a saturated solution of boracic acid which can be obtained from the druggist. If it is desired to make it at home, buy the boracic acid crystals and dissolve them in boiled water. The solution is saturated when the water will not take up any more, and some crystals remain undissolved at the bottom of the bottle.

### COLIC

The pain of colic arises from the distension of the stomach and intestine by an accumulation of gas or wind, as it is popularly called, arising from the fermentation of the food.

In a young baby a teaspoonful or two of warm lime water will sometimes give relief. Laying the child on its stomach on a hot water bag is also efficacious. Gently rubbing the abdomen, as directed for the relief of constipation, helps to expel the gas.

In severe cases a few drops of essence of pepper-

mint in warm, unsweetened water, or a hot bath, may cut short the attack.

Warmth is the best aid against the enemy. The feet should be wrapped in flannel and put on a hot water bag. When the pain comes on at a certain hour every day, the baby should be wrapped in a blanket with a hot water bag before the attack is due.

With young children, colic is usually attributed to overfeeding or indigestion, yet sometimes the utmost attention to the diet will not avert it.

#### INCREASE IN WEIGHT

An average baby is said to weigh about seven pounds at birth if a boy, and six and a half if a girl. A child may, however, weigh as little as four, or as much as fourteen pounds. During the first three days there is a loss in weight. After that there should be a steady gain of rather more than a quarter of a pound a week until the infant is five months old, when the gain is slightly less rapid.

In weighing the baby it should be remembered to weigh the clothes in which it is dressed afterwards, and deduct their weight from the amount registered.

The length of the average child is nineteen and a half inches if a boy, and half an inch less if a girl. It is said to grow faster in length during the first



week of its life than at any subsequent time and should gain an inch in height during the first month.

If a baby does not make steady progress in growth both in length and weight it is not thriving properly. The food should be changed and all the conditions under which it is living carefully reviewed, to find where the fault lies.

At three months old the average baby should weigh not less than eleven pounds and measure twenty-two inches. If the child was very small, or very large, when it was born, the gain should be in this proportion.

When the flesh is soft, instead of being firm and mottled, the face pale and the baby fretful, there is something wrong which must be set right if the child is to live and thrive.

#### MOTHER-LOVE

The constant watchfulness of mother-love is needed to enable the baby to surmount the perils that threaten its frail life during the early months of its existence. Nature means it to live and the mother must do her part to carry out the beneficent design.

Proper food and clothing, sufficient sleep, and cleanliness are the requisites which it must have to

grow and develop properly. Under the head of cleanliness are included clean air to breathe, and the regular removal of the waste matter generated in the body by a daily movement of the bowels.

A baby thrives best in an atmosphere of love. It needs loving and cherishing for its best development, almost as much as it does material care. It is not very long before it learns to look for it and in its own measure to return the affection that is lavished upon it.

A child that is looked upon as a burden and an incumbrance is defrauded of its just due. The mother who does not give to her baby the love and devotion that ought to be inseparable from her relation to it, loses the sweetest reward of motherhood. She wilfully takes the pains and penalties of maternity and robs herself of the recompense that to the true mother makes them weigh as dust in the balance.