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All About Milk

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All About Milk

BY

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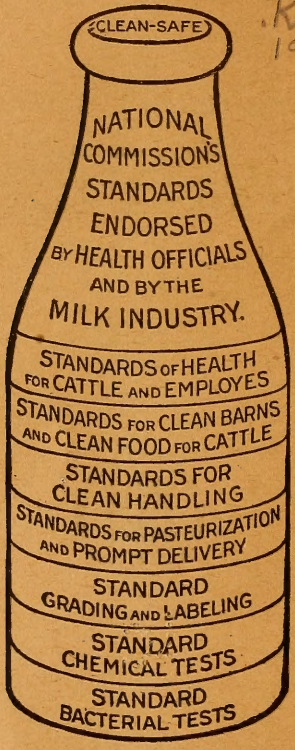

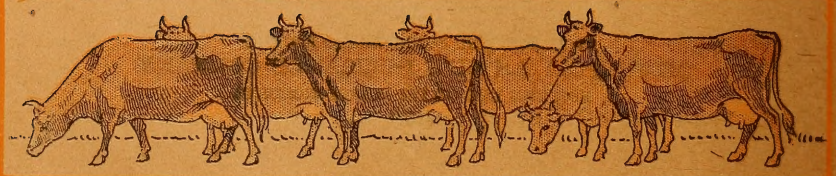

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All About Milk.

Milk is our best all-round food. It is the most perfect food we have. It is also one of the cheapest foods, even at the present prices. Milk is the most difficult of all our foodstuffs to collect, handle and transport. It requires the greatest care from pasture to pail, and from pail to palate. Milk spoils quicker than any other food. It spoils even quicker than fresh fruit and berries. It must be kept clean, cold, and covered.

SOME THINGS ABOUT MILK

Milk tastes good; it is easily digested, and is very nourishing. It makes bone, brawn, and blood. In fact, the vigor and success of a nation depend largely upon the amount of milk it uses. In the United States, we use something like forty billion quarts of milk a year. This would make a lake large enough to float all the navies of the world. Yet this is only about half a pint of milk a day for each person. Only one-quarter of this is actually used as milk, the other three-quarters being made into butter, cheese, and other milk products.

Like all good things, milk has a few drawbacks, but these are far outweighed by its advantages.

Milk is the great factor of safety in our diet. It makes the ration complete and keeps the body strong.

Drink more milk and use it freely in cooking.

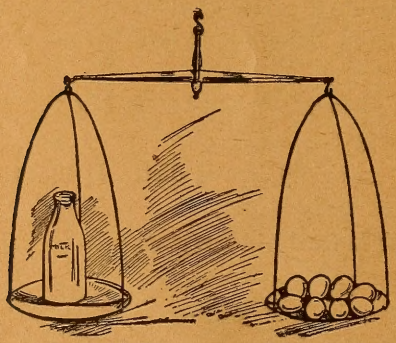
The Best Food We Have

MILK IS THE BEST FOOD

Milk is the best food we have. There is no substitute. Save on other things if you must, but not on milk. You cannot afford to do without it—growing children especially need plenty. Buy at least half a pint of milk a day for each person in the household. No other food can take its place. Use it all; do not waste a drop. Milk looks like a simple fluid, but really it is very complex. A glass of milk contains a mixture of all the important things that make up a mixed diet. One can get the same nourishment from milk as from a meal made up of meat and eggs, sugar and cereals, oils and fats, with salt and water.

Milk is good fuel, because it contains fat and sugar. The body needs fuel to keep it warm and to make it move and work and play, just as the steam engine needs coal or the automobile needs gasoline.

One quart of milk is about equal in fuel value to any of the following:



1 Quart of Milk Costing 12 or 14 Cents = 8 Eggs Costing 36 to 50 Cents

2 pounds salt codfish
3 pounds fresh codfish
4 pounds beets
5 pounds turnips
$\frac{1}{6}$ pound butter
$\frac{1}{3}$ pound wheat flour
$\frac{1}{3}$ pound cheese
$\frac{3}{4}$ pound lean round beef
2 pounds potatoes
6 pounds spinach
7 pounds lettuce
4 pounds cabbage
8 eggs

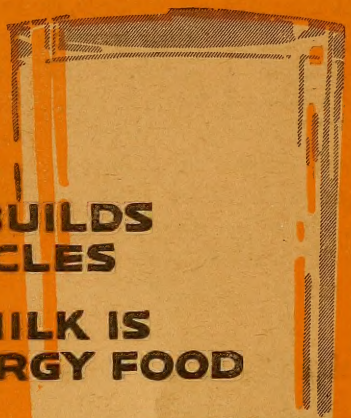
One ordinary glass of milk is about equal in fuel value to:

2 large eggs
1 large serving of lean meat
2 moderate-sized potatoes
5 tablespoonfuls of cooked cereal
3 tablespoonfuls of boiled rice, or
2 slices of bread

Milk Is the Best All-round Food

...MILK IS A... PERFECT FOOD

FOR
FATHER
MOTHER
CHILDREN



MILK BUILDS
MUSCLES

MILK IS
ENERGY FOOD

MILK SUPPLIES
ESSENTIAL
ELEMENTS

USE MORE MILK

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Milk Is the Best and Cheapest Single Food

Food is more than fuel—for food also repairs waste, helps growth, builds flesh and bone. Milk does all this. That is, milk is a good food, not only because it is a good fuel, but also because it has life-giving properties. Milk is both fuel and food.

Milk contains a great deal of lime. Children need lime and plenty of it, especially for their growing bones and teeth. Milk contains lime in a form that is easily changed in the body into bone. Big boys and girls, and even grown people, need lime, because the bones are always wearing away, little by little, and this wear and tear must be replaced. Lime helps build bones and makes them strong. The following illustration shows how much lime there is in milk compared to carrots, eggs, or bread.

CHILDREN NEED LIME

AMOUNT OF LIME IN

1 cup of milk

½ cup carrots

1 egg

2 slices of bread

Milk is the cheapest food for lime. Buy milk. You and your children need its lime.

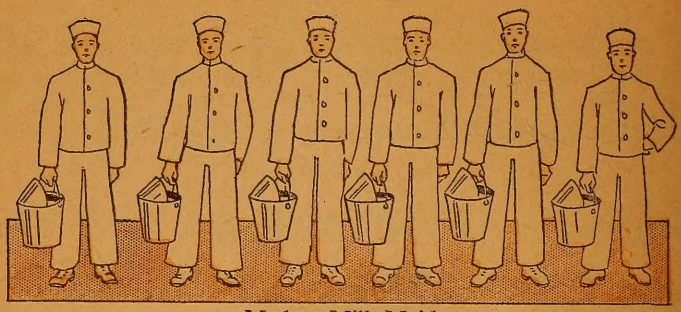
Milk is not a beverage. It should not be used to quench thirst. Milk is a food. It should be eaten, not swallowed quickly. Take small sips and roll it about the mouth and enjoy it as it goes down. Think how slowly nature furnishes milk to the suckling. It takes a baby twenty minutes to get a few ounces of milk from the nipple. Imitate nature—do not gulp down a glassful of milk—drink it slowly; *eat* it. Chew it. This will prevent hard and indigestible curds forming in the stomach.

MILK IS NOT A DRINK

DRINK MORE MILK

ONE QUART OF MILK EQUALS IN ENERGY FOOD VALUE *ANY OF THESE*

MILK IS THE CHEAPEST FORM OF ANIMAL FOOD FOR THE MONEY THAT A HOUSEHOLDER CAN BUY



Modern Milk Maids

Babies should have breast milk. There is no real substitute. Cow's milk is good, but not the best milk for infants. A baby raised on breast milk has a much better chance in life than one raised on the bottle. Give your baby a square deal. The baby fed at the breast has just ten times the chance of keeping well and vigorous that a bottle-fed baby has.

MILK FOR BABIES

Nature never intended that milk should be drawn into a pail, emptied into a can, carted to a town, and placed in bottles which are left on the doorstep before dawn next morning. Further than this, cow's milk is often exposed to dust, flies, and dirt, and frequently it is not used until it is two or three days old. Such stale, germ-laden milk may be quite harmful to the baby. In nature's plan, the milk is taken directly at its source while pure, sweet, clean and wholesome. Milk was never intended to see the light of day. Nature's plan keeps out dirt, germs, flies and fevers. A breast-fed baby need not fear stale and partly decomposed milk, containing dirt and germs.

THE LONG vs. SHORT HAUL

The short haul is God's plan. The long haul is a poor substitute.

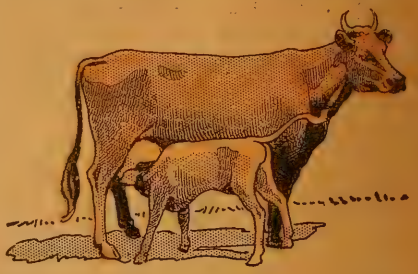
Ten Bottle-fed Babies Die to One Breast-fed

Courtesy of the Chicago Health Department

It is not safe to raise the baby on cow's milk alone. The cow is a good foster-mother, but a foster-mother only. Cow's milk was intended by nature as a food for calves. It has everything in it that a growing calf needs—but these things are not in the right proportion for baby's needs.

NURSE THE BABY

Breast milk is fresh, clean and pure; cow's milk, by the time the baby gets it, is apt to be stale, dirty and impure. Ten bottle-fed babies die to one breast-fed baby. The chances are, therefore, ten to one against the bottle-fed baby. Mothers should always nurse their babies if possible and keep it up until the baby is six to nine months old.



Breast feeding is cheapest, simplest, and safest. It needs no training and is less troublesome than tending to bottles. It is best for the baby and best for the mother.

Bottle feeding requires skilled training to carry out safely; it requires skill and practice to modify the milk to suit the baby; it requires much more time and trouble than breast feeding. At best it is only a poor makeshift.

Modify and prepare cow's milk as we may, it cannot take the place of mother's milk. It may be modified to *resemble* mother's milk, but is never "just as good." It is impossible to change cow's milk into mother's milk. By diluting it and adding sugar, we can make a mixture that is something like mother's milk, but always lacking important substances. By giving the baby barley water and orange juice, the deficiency may be partly made up, but not entirely satisfactorily.

REASONS FOR MODIFYING

There is a temptation to add sugar generously to the milk for the bottle-fed baby, for the reason that sugar is fattening, but a flabby, over-fat baby is not a sign of robust health. Milk should not contain more than seven per cent. of sugar, which is the amount provided by nature in mother's milk. Too much sugar may cause gas and colic and lead to more serious trouble.

Again, if cow's milk is not diluted, the baby is placed in the position of a person living upon a rich meat diet. Milk, not diluted with water, then, may be the cause of indigestion and colic, which in turn lead to summer complaint.

Further, if the milk is too rich in fat, it may cause trouble. Too much fat in the baby's milk causes a sort of self-poisoning, leading to diarrhea and summer complaint.

If the baby must be raised by bottle-feeding, or weaned, select the best milk obtainable. Baby's milk should be "Certified" or Grade "A."

Learn how to prepare the baby's bottle and always do it yourself. Do not trust any one.

Every nursing mother knows how careful she must be with her own diet, for everything she eats or drinks affects her milk. Certain drugs taken in through the mouth have been found in the milk of nursing mothers, such as, for example, mercury (calomel), headache powders, opium, purgative salts, rhubarb, arsenic, bromides and patent medicines.

CAREFUL DIET FOR MOTHERS.

Cows are good botanists, but their judgment cannot be relied upon so far as baby is concerned. Cows in pastures sometimes feed upon objectionable or poisonous weeds. Some of these poisons may pass into the milk. A cow that is kept to produce "Certified"

milk, which is the best grade of milk for babies, is not, under any circumstances, allowed to graze in pasture on account of this danger. Such cows are given selected feed in suitable amounts.

CARE OF BABY'S MILK

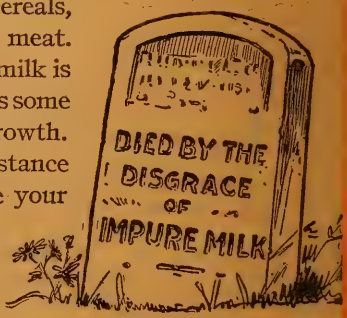
Milk for the baby must be kept cold until just before feeding time; then it should be warmed to blood heat. Test the temperature by dropping a little on your wrist. It is dangerous to keep milk warm or tepid for over half an hour. Never keep it warm in a thermos or similar vacuum bottle. Clean and scald the nursing bottle and the nipple just before filling. Do not use rubber tubing. Keep away flies.

In case of doubt, the mother should consult a doctor, or go to the nearest milk station, dispensary or infant depot. Do not raise the baby upon the advice of the neighbors.

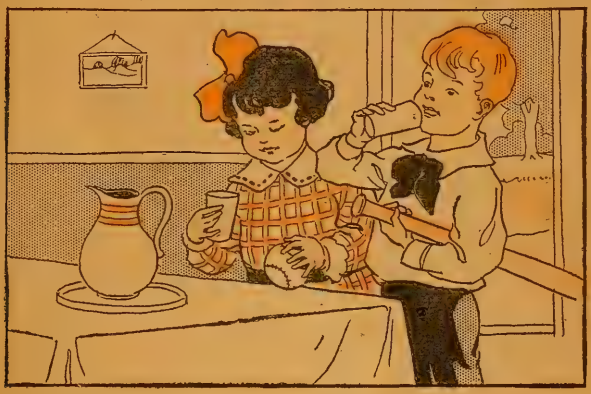
Impure milk is one of the preventable causes of sickness and unnecessary deaths of babies. Many babies can be saved by breast feeding, or by the use of fresh, pure milk; by care and cleanliness and by following the advice of the doctor. Read "The Child," issued by the Metropolitan Life Insurance Company.

MILK FOR CHILDREN

Milk is an absolute necessity for growing children. Each child should have a quart of milk a day. Milk should not be the only food for children, of course. They also need vegetables, fruits, cereals, eggs, and some meat. The reason that milk is especially good for children is that it has some vital substance (vitamine) that helps growth. Children can get a little of this vital substance in other foods, but not enough. Give your boys and girls milk and a chance to grow. Milk also has other valuable things that build bone, make firm flesh and put glow in the cheeks.



Milk also helps your children to keep well. Look at children who do not get milk, but tea and coffee instead. Most of them are pale and sickly. Tea and coffee are not foods, but drugs. They stimulate, but do not nourish. Children are better off without stimulants. Give the children fresh clean milk and plenty of



it. This will help them to grow up strong and well. Save other things if you must, but do not save on milk.

In spite of the shortage of milk in Europe since the war, everything has been done to give milk to the children and hospitals, even though the adult population had to do without it. In a "safety first" health campaign, it must be remembered that it should be "children first."

MILK FOR GROWN-UPS

Milk is valuable for grown-ups, especially for sick people. It has been found in the army hospitals that the wounded recover much quicker when they have milk. Milk helps to keep you strong, vigorous and young.

Wounded Recover Quickly

Grown-up people *can* live for months and months on milk alone, but a hard-working man would have to drink many quarts each day to keep up his vitality and repair the wear and tear of his body. However, if milk is used in combination with other food, one is sure of getting a well-balanced ration. One pint of milk will serve this purpose for grown-ups—children need a quart.

Children must have milk—adults ought to.

SOURING AND CURDLING OF MILK

The souring and curdling of milk is wrongly called nature's danger signal. Nature has no danger signal for milk. The dangers in milk cannot be seen with the naked eye. Our sense of taste and smell are poor sanitary guides. Curdled milk may not be harmful, and is often beneficial.

Usually when milk is allowed to stand it turns sour and curdles. This is the usual way for milk to spoil. This curdling is a special form of fermentation and is caused by an acid which is formed by lactic acid bacteria. Strong acids like sulphuric acid will curdle milk at once. Weak acids like lemon juice will also curdle milk.

When milk curdles, very much the same thing takes place as when an egg is heated—the albuminous matter is made hard, lumpy, and insoluble. The curd is the thickened albumin of the milk.

Buttermilk Is Nourishing

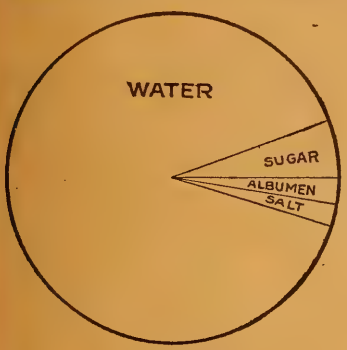
Rennet also causes milk to curdle. This is the ferment found in the gastric juice; hence, the first thing that happens to milk when it reaches the stomach is to become curdled. The curd is then acted upon by the pepsin and digested. If the lumps are large and tough, the digestion is slower than if the lumps are soft and small. Therefore, drink milk slowly.

Buttermilk is a curdled milk from which the fat has been removed. It may be a sweet curd or a sour curd. Buttermilk is a pleasant, refreshing beverage and a nourishing food. It has practically all the food value of milk except the fat, most of which is removed by churning to make butter.

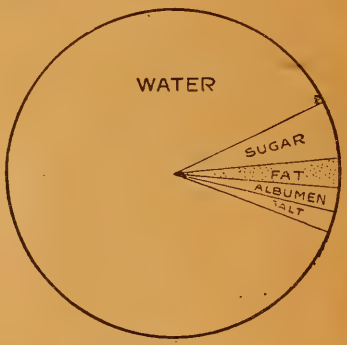
BUTTERMILK IS NOURISHING

Prepared buttermilk is usually made from skim milk and is sold under different trade names. It should always be made from clean, safe milk.

Sour milk can always be put to use. It can be used in making muffins, griddle cakes, and cottage cheese. Use the whey in bread making. Do not waste a drop of it.



Skim Milk



Whole Milk

All skim milk should be used—none wasted. It can be used as a drink or a food, in cooking, or to make buttermilk or cottage cheese. Skim milk is the cheapest kind of albumin on the market. It contains all the good qualities of milk except the fat.

SKIM MILK AND COTTAGE CHEESE

Cottage cheese is made either from whole milk or skim milk.

1 quart thick sour milk
1 quart boiling water
1 tablespoonful top milk
½ teaspoonful salt.

Put milk in a large bowl. Add the boiling water and let stand five minutes. Strain through cheesecloth, squeezing gently. Mash the curd with a fork, moisten, and season with salt.

One pound of cottage cheese supplies more albumin than one pound of beef, or one pound of pork, or one pound of lamb, or one pound of veal, or one pound of chicken.

Other milk products, such as cheese, junket, custards, cream sauces, cornstarch and rice puddings, ice-cream, and butter are all good, nourishing and valuable foods.

Milk is cheap, even at present prices. It is too bad that the housewife is inclined to cut down on milk when the price goes up. It is poor economy to save on vital foods. It is not how much we pay, but how much we get in return that counts. Thus, fourteen cents' worth of milk does the body more good than fourteen cents spent on steak at forty-eight cents a pound, or fourteen cents' worth of eggs at sixty cents a dozen. At these prices, milk would be worth over forty cents a quart.

PRICE OF MILK

To go without milk is poor economy. You get more energy (force) from twenty-five cents' worth of milk than you can from

A Milk Cart in Belgium

Milk Is One of the Cheapest Foods

twenty-five cents' worth of meat, or eggs, or cod. Hence, it is better to cut down on meat before you do so on milk.

The reason for the higher price of milk is the higher cost of everything else including fodder, farm labor and transportation. When the price of milk went up a few cents a quart, many families were found giving their children tea and coffee instead of milk. This is a great mistake for such drinks fail to nourish the child properly.

Milk contains "life" because it is rich in vitamines. Vitamines are vital substances of great importance in our diet. Vitamines are also found in other foods, but are there in very small amounts. These peculiar substances were recently discovered. They are absolutely necessary for the growth and nourishment of the body. Therefore, vitamines are indispensable to everybody, but particularly to growing children and to persons recovering from illness. The easiest way to get vitamines is in milk. Heating does not hurt the vitamines in milk. Hence pasteurized milk is just as nourishing as raw milk.

LIFE IN MILK
VITAMINES

Milk has everything needed in the diet. It is a complete mixed diet in itself. It has sugar and fat which give energy (force) to move the body—like coal to the engine; it has mineral salts which build up the bones and keep the body in good shape; and albumin (protein) which—like meat or white of egg—is important in making brawn and sinew. Of all the different kinds of protein to be found in food, the best is found in milk. Sugar, mineral salts, fat, and protein are all necessary in a well-balanced diet. But these substances without vitamines will not nourish the body or promote growth. Milk is rich in vitamines.

Milk Is Cheap Even at Present Prices

EAT MORE COTTAGE CHEESE
COTTAGE CHEESE
ONE POUND
SUPPLIES MORE PROTEIN THAN
PURE COTTAGE CHEESE
One pound of beef, or
One pound of pork, or
One pound of lamb, or
One pound of veal, or
One pound of fowl
YOU'LL NEED LESS MEAT
COTTAGE CHEESE OR MEAT ?
ASK YOUR POCKETBOOK !

Think of the value of having one food which supplies all the necessary elements of a good mixed diet—and which at the same time can be used without the slightest preparation.

DRIED AND CONDENSED MILK

Milk is watery. The water may be evaporated, leaving all the food value in a dry powder. In other words, milk may be dried just as apples, pears, and beans may be dried. Dried milk loses none of its food value—it is just as nourishing for family use as fluid milk.

Condensed or evaporated milk is partially dried, and is also a good food. Condensed milk is preserved with sugar, and therefore is not sterilized. On the other hand, evaporated milk is not sweetened and must be sterilized by heat, in order to preserve it. It is not wise to raise the baby on dried or partly dried milk, without the advice of the doctor.

Dried milk, condensed milk, and evaporated milk should always be prepared from fresh, clean, and safe milk.

Milk may be rich in cream yet of poor sanitary quality.

KINDS OF MILK

There are only two kinds of milk—good and bad. There is a growing tendency to classify all milk as either raw milk or pasteurized milk. But there are other classifications: (1) Certified milk; (2) inspected milk; (3) market milk. A still better way of grading milk is "Grade A," "Grade B," and "Grade C."

False Impression of Much Cream Because of Narrow Neck

Be sure that your milk is graded, for it is not possible to tell what kind of milk you are buying by looking at it or by tasting it. The amount of cream does not tell the true story. If your milk is graded, ask the Health Officer to examine a sample to tell you whether the grade is up to standard.

Certified milk is the very best, freshest, cleanest, purest, and safest raw milk that it is possible to produce. It is milk of uniform composition and of high quality obtained by cleanly methods from healthy cows under special sanitary care. It is so certified by a medical milk commission. Certified milk is honor milk. It is intended especially for babies and invalids.

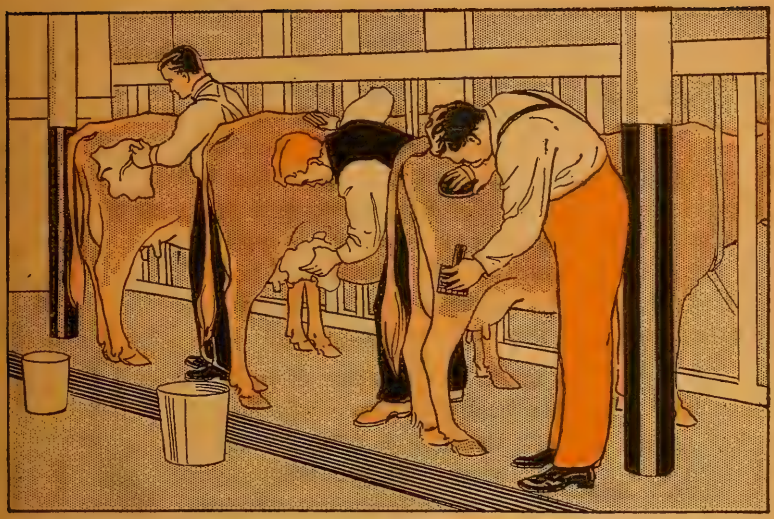
CERTIFIED MILK FOR BABIES

Certified milk costs more than ordinary milk, because it requires a veterinary surgeon to test the cows with tuberculin to find out whether they have tuberculosis, and to examine them from time to time; a bacteriologist and chemist must analyze the milk; a physician must look after the health of the milkers; the cows must be curried, groomed, and kept as clean as race horses; sterilizers must be provided for bottles and pails; skilled foremen must be in attendance to see that the milkers wash their hands and wear clean clothes; the milk must be bottled and iced at the dairy; the construction and lighting and ventilation of the cow barns must be extra good and the water supply extra safe.

The greatest care and attention must be constantly practiced. Constant watchfulness is the price of safety.

INSPECTED MILK

Inspected milk is a good grade of milk obtained from healthy cows by cleanly methods. Inspected milk is not quite as good as certified milk. Inspected milk is family milk. It should always be pasteurized before you buy it.



Washing the Cows Before Milking

Dirty Milk Clean Milk

Pasteurization Means Precaution, Protection, Prevention

Market milk is milk that is neither certified nor inspected. It is often of a poor quality and not suitable for infant feeding.

MARKET MILK, DIP MILK

Dip milk is milk dipped from a can. It is also called "bulk milk" and "loose milk." Such milk is often sold at grocery stores and small shops. The best qualities of milk are never sold in bulk, but always in individual bottles. Any milk dipped from a can is therefore pretty sure to be of the poorest grade. If it is advisable to sell crackers and cereals in individual packages, surely milk should be sold in individual bottles to insure cleanliness and protection from dirt, flies, fingers and germs.

CLEAN MILK

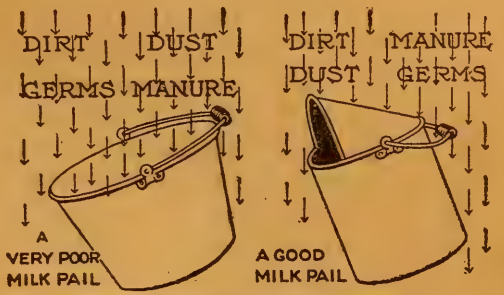
Clean milk is much better than dirty milk, especially when the health of those who handle the milk is carefully supervised. It requires only a little intelligence and reasonable care to keep milk clean. With care, cleanliness, and the use of ice, a satisfactory grade of milk may be sent to market by any farmer. Clean and healthy cows, healthy milkers, milk pails sterilized by scalding, sterilized cans and bottles, clean hands—these are the prime essentials. The milk must be chilled promptly and kept cold. Ice is the best preservative. Good dairy methods are more important than fancy barns and pedigreed cattle.

Clean milk, kept cold, and properly protected, shows very little change in three or even five or ten days. It is not difficult to keep it cold and clean. With special precautions, it is possible to keep milk so that it may be shipped across the ocean and back again and still be in good condition.

Frequently milk contains so much dirt that the specks may be seen as a sediment in the bottom of the bottle or glass. Ordinarily, the dirt cannot be seen because the dairyman has filtered the milk or taken out the dirt in a special machine called a clarifier. Filtration will take out the specks and clarifiers will make the milk *look* cleaner, but these processes do not improve the milk except in appearance. The bacteria and germs cannot be separated or filtered out.

DIRTY MILK

You can see for yourself that milk hides the dirt because milk is opaque—not transparent. Add a teaspoonful of mud to a quart of milk. Mix it up. The milk will look as white and pure as before the mud was added.



The Open Pail Admits Much Dirt; the Covered Pail Keeps it Out

You will find it equally interesting to make the regulation dirt test. Simply filter a pint or a quart of milk through some clean white cotton or through several layers of white cloth. The brownish or blackish stain proves the presence of dirt.

Four grades of milk as indicated by the dirt test. One pint of milk was poured through each of these discs of absorbent cotton, which were perfectly white at first. They show four grades of milk, as follows: 1, perfectly clean; 2, slightly dirty; 3, dirty; 4, very dirty.

Most of the dirt in milk consists of cow dung; also of particles of dust from the air, bits of straw, parts of insects, and trash of all kinds. The dirt is there because most of the milk does not get the care and attention it should have on most farms, especially small farms.

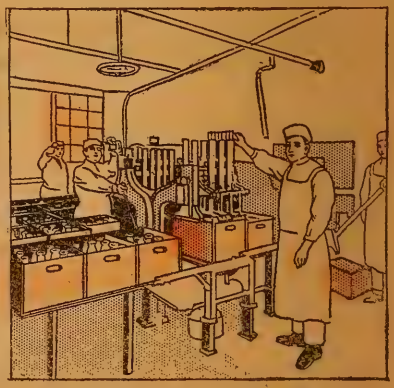
Dirty milk spoils much more quickly than clean milk. It is laden with bacteria, and may be harmful, especially to a tender infant.

DISEASES AND DANGERS

Every rose has its thorns. Milk also has its dangers. It is apt to become contaminated and convey the germs of disease. The principal infections transmitted through infected milk are tuberculosis, typhoid fever, scarlet fever, diphtheria, septic sore throat, diarrheas and dysenteries, summer complaints of children, and other serious diseases. Fortunately every portion of milk is not a portion of poison. The dangers are, however, sufficiently real and frequent to make us careful.

Fortunately, too, we possess an easy, cheap, and reliable method of preventing these dangers—namely pasteurization.

Bottle Washed by Hand—Afterward Scalded



Bottles Filled and Capped by Machinery

Pasteurization Saves Lives and Prevents Sickness

PASTEURIZATION OF MILK

Pasteurized milk simply means heated milk—milk that is par-boiled or scalded. It is not necessary to boil milk to pasteurize it. If you have no thermometer, however, it is advisable to bring it to a boil to make sure that the harmful germs are killed. After the milk is heated it must be suddenly chilled and kept cold. This is a very essential part of the process of pasteurization. The milk should be heated to 148 Fahrenheit for thirty minutes. A lower temperature or shorter time may not kill the bacteria. A higher temperature or longer time is not necessary. Pasteurization has only one object, and that is to destroy the harmful bacteria.

The word pasteurization is used in honor of the great scientist Pasteur, who discovered the process. Pasteurization neither improves nor harms the milk itself. Weak and dirty milk is still weak and dirty after it has been pasteurized. It would avoid confusion if pasteurized milk were simply called heated milk, for that is all it is. Pasteurized milk is just as digestible and just as nutritious as raw milk.

Only the harmful and frail varieties of bacteria are destroyed. Many harmless and hardy forms survive, and will continue to grow and multiply. Therefore, pasteurized milk turns sour and curdles in the same way that raw milk spoils.

Pasteurized milk must be handled at least as carefully as raw milk. It may become infected after pasteurization. All milk, whether raw or heated, should be kept covered, cold and clean.

Pure milk is better than purified milk, but it is so difficult to get pure milk that our only real safety lies in pasteurization. So long as raw milk is apt to be dangerous milk, our only protection lies in heating the milk, thereby killing the germs of tuberculosis, typhoid fever, diphtheria, scarlet fever, septic sore throat and other ills.

For family use, it is advisable to obtain milk already pasteurized by a trustworthy dairy. It is cheaper, safer, and better to heat milk by wholesale in a large plant with competent supervision than to depend upon each household heating its daily supply. If drinking water needs purification, it is filtered at a central station, and not left for each individual kitchen.

Babies should have mother's milk. There is no adequate substitute. If mother's milk is not available, babies are entitled to the best and freshest cow's milk that can be obtained. Whether such milk is to be modified, pasteurized, or otherwise treated is a question for the doctor to decide in each individual case. Unless very sure of the supply, the doctor will usually not take chances, and advise pasteurized milk for baby, especially during summer time.

HOW TO PASTEURIZE

The simplest, cheapest, easiest and best method of making raw milk safe is to pasteurize it. The easiest way to pasteurize milk for family use is to heat it in a double boiler, such as a rice boiler, for three-quarters of an hour, and then to chill it quickly.

The best and simplest home method of pasteurizing milk for infant feeding is in the Straus pasteurizer. Milk of good quality is placed in individual nursing bottles and heated according to directions given below.

The Straus pasteurizer consists of a pail of water and a receptacle for the bottles of milk. It is used as follows:

After the bottles have been thoroughly cleaned, they are placed in the tray (A) and filled with the milk or mixture used for one feeding. Then put on the corks or patented stoppers without fastening them tightly.

The pot (B) is now placed on the wooden surface of the table or floor and filled to the supports (C) with boiling water.

Place the tray (A) with filled bottles into the pot (B) so that the bottom of the tray rests on the supports (C), and put cover (D) on quickly.

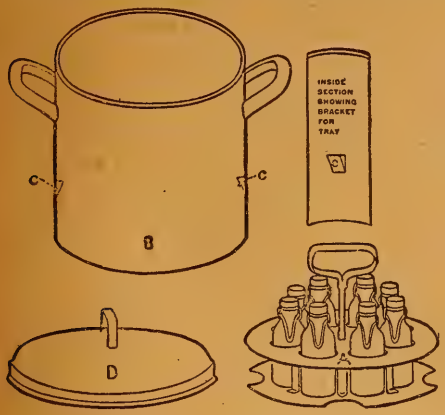


Fig. 72—Straus Home Pasteurizer

After the bottles have been warmed up by the steam for five minutes, remove the cover quickly, turn the tray so that it drops into the water; replace the cover immediately. This manipulation is to be made as rapidly as possible to avoid loss of heat. Thus it remains for twenty-five minutes.

Now take the tray out of the water and fasten the corks or stoppers airtight. Cool the bottles with cold water and ice as quickly as possible, and keep them at this low temperature until cold.

Use the milk from the bottles and do not pour it into another vessel.

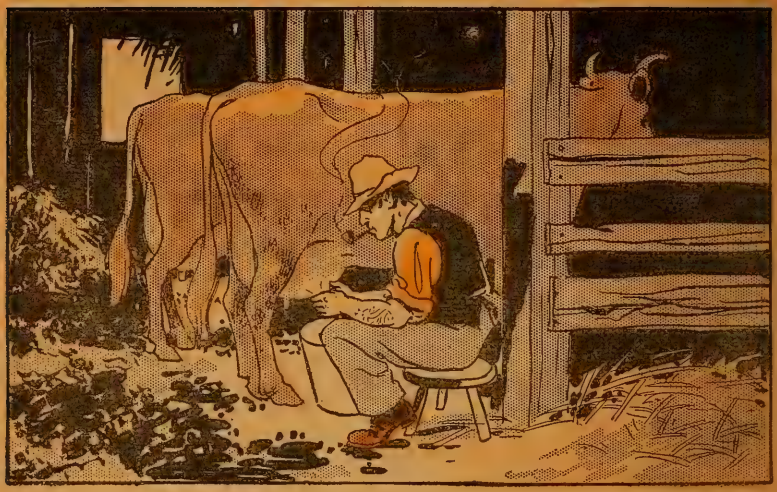
The milk should not be used for children later than twenty-four hours after pasteurization.

Emphasis is laid on the fact that only fresh, clean milk, which has been kept cold, should be used.

COMMONSENSE PRECAUTIONS

It is to the interest of every householder that the milk supply should be carefully supervised. Is your milkman licensed? Are his dairies inspected? It is more important to license persons engaged in the milk industry than it is to license plumbers, undertakers, or chauffeurs. New York, Washington, Boston and other cities require all persons who handle milk to obtain an official license or permit from the health authorities. Such a system helps the inspector to compel cleaner dairies and to get rid of sickly cows, and makes it easier to enforce the milk regulations and to improve the supply.

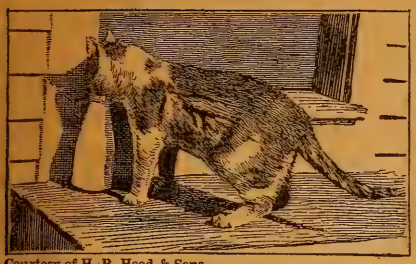
Milk should not be allowed to stand out-of-doors, but should be taken in as soon as delivered. To prevent the dangerous



Old Method

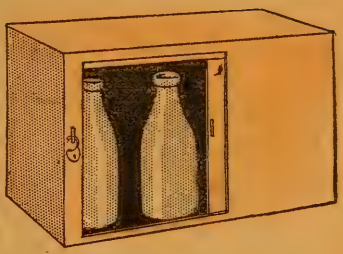
Modern Method

Keep Milk Clean, Cold and Covered



Courtesy of H. P. Hood & Sons

One of the Things That May Happen to Milk During the Early Hours of the Morning

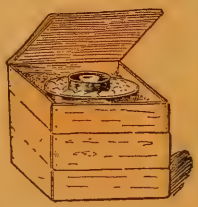


Private House Safe, Showing Door Open, Milkman has Placed His Milk in Safe, Preparatory to Locking the Door

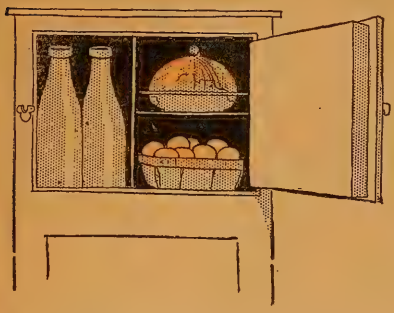
occurrence pictured here, the milk bottle should be protected in a box until taken into the house, and placed on ice as soon as possible.

In the home, milk should be kept *cold*, *clean*, and *covered*. If part of the milk in a bottle is used, do not replace the paper stopper, but invert a clean tumbler over the neck of the bottle and at once replace in the ice-chest. Never let the milk bottle stand around. Have a special place in the coldest part of the ice-chest for the milk bottles. The best way is to have the milk bottle touching the ice. A cheap home-made ice-box for milk can easily be made by following the directions given in a pamphlet issued by the Metropolitan Life Insurance Company entitled "The Child," page 20.

Milk is readily tainted and absorbs odors and flavors just as charcoal does. It will soon taste of tobacco, onions, fish, or fruit if exposed to these things in an open pitcher or bottle. Turnips, onions, and other strong-tasting substances fed to the cow will also give a flavor to the milk. Milk should have no odor at all, or, at most, only



a slight characteristic odor. A "cowy" odor, means smelly barns, poor dairy methods and tainted milk.



Milk should never be placed in a bottle that has not been purified and disinfected by scalding with boiling water. Milk bottles should not be taken into the sick-room. They should never be used for any other purpose than to hold milk. They should always be rinsed in cold water and then thoroughly washed and scalded before they are returned to the milkman. Never take milk from a dairyman who does not disinfect his milk bottles with boiling water or steam.

Inspection and pasteurization solve the milk problem. We need inspection to keep milk clean, and pasteurization to make milk safe. Inspection goes to the root of the problem and helps bring us cleaner, better, fresher and safer milk. Inspection, however, has limitations. These limitations may be guarded against by pasteurization. It is certain that a milk supply that is both supervised and pasteurized is the only satisfactory solution of the milk problem.

SOLUTION TO THE MILK PROBLEM

Milk Is the Best Food

Use MORE Milk

The following pamphlets are published and distributed by the Metropolitan Life Insurance Company for the use of its Industrial policy-holders. They can be obtained free by application to your Agent or by writing to the Company at 1 Madison Avenue, New York City.

"THE CHILD" (32 pages). A complete family guide on the care of children. Describes the symptoms of children's diseases. Of value to the mother both before and after the birth of the child. Illustrated with many marginal cuts. Printed in English, French, Polish, Italian and Yiddish.

"TEETH, TONSILS AND ADENOIDS" (16 pages) emphasizes the need of the care of the teeth; shows the proper ways of brushing the teeth and the bad effects of carelessness. Illustrated. Printed in English, French, Polish, Italian, Spanish and Yiddish.

"FIRST AID IN THE HOME" (64 pages) describes methods for the treatment of diseases and accidents in the home, as well as remedies that may be applied in emergencies before the arrival of the doctor. Printed in English and French.

"METROPOLITAN COOK BOOK" (64 pages), prepared by a well-known dietician, conforming to suggestions of food administrators, with the object of reducing the cost of living and at the same time enabling the housewife to serve wholesome and essential food. Printed in English.

"THE HEALTH OF THE WORKER" (24 pages) describes the dangers to health of workmen in factories and shops; emphasizes the menace of dust, gases and fumes and suggests means by which they may be eliminated. Illustrated. Printed in English and French.

"A WAR ON CONSUMPTION" (16 pages) discusses the nature of consumption and the germs that cause it; describes the extent of the disease, the way it can be avoided and its cure. Illustrated. Printed in English, French and Spanish.

"FOOD FACTS" (32 pages) tells in detail about Where to Buy, How to Buy Cheaply, Clean Food and Disease Prevention, Wise Food and Health, Cooking Foods, and Good Food Habits. Printed in English and French.

"FAKE CONSUMPTION 'CURES'" (16 pages) emphasizes the danger of using any patent medicines for the cure of tuberculosis; shows that fresh air, rest and good food, under medical advice, are the only cure.

Copies of These Pamphlets Should Be in Every Home

"HOW TO LIVE LONG" (32 pages). This booklet gives the Fifteen Rules of Health that every one should observe. It tells about the importance of fresh air, proper food, good habits, exercise and play. It is printed in English and French.

"SMALLPOX AND ITS PREVENTION" (10 pages) describes the nature of this disease and the value of vaccination; emphasizes the fact that the disease rarely attacks those who have been vaccinated. Printed in English and French.

"TYPHOID FEVER AND HOW TO PREVENT IT" (11 pages) shows the relation between impure water and milk and this disease; explains how the disease is carried and how it may be avoided by proper precautions. Printed in English and French.

"HEALTH CAMPAIGN." An eight-page circular which tells by means of pictures the things that people should do in order to keep healthy. It is of particular interest to children. Printed in English and Spanish.

"FIRST STEPS." A circular telling how to keep the baby well. The front is a most attractive picture which is suitable for framing. Printed in English and French.

"VISITING NURSE SERVICE CONDUCTED FOR INDUSTRIAL POLICY-HOLDERS" (15 pages) explains in detail the efforts that are being made by the Company, through a Visiting Nurse Service, for policy-holders who are ill. Illustrated.

"INFORMATION FOR EXPECTANT MOTHERS," gives in simple language the information which every expectant mother should have.

CIRCULARS on FLIES, MILK, CARE OF BABIES, HEALTH and many other subjects are also issued by the Company.

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By LORADO TAFT

Courtesy Infant Welfare Society of Chicago.

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