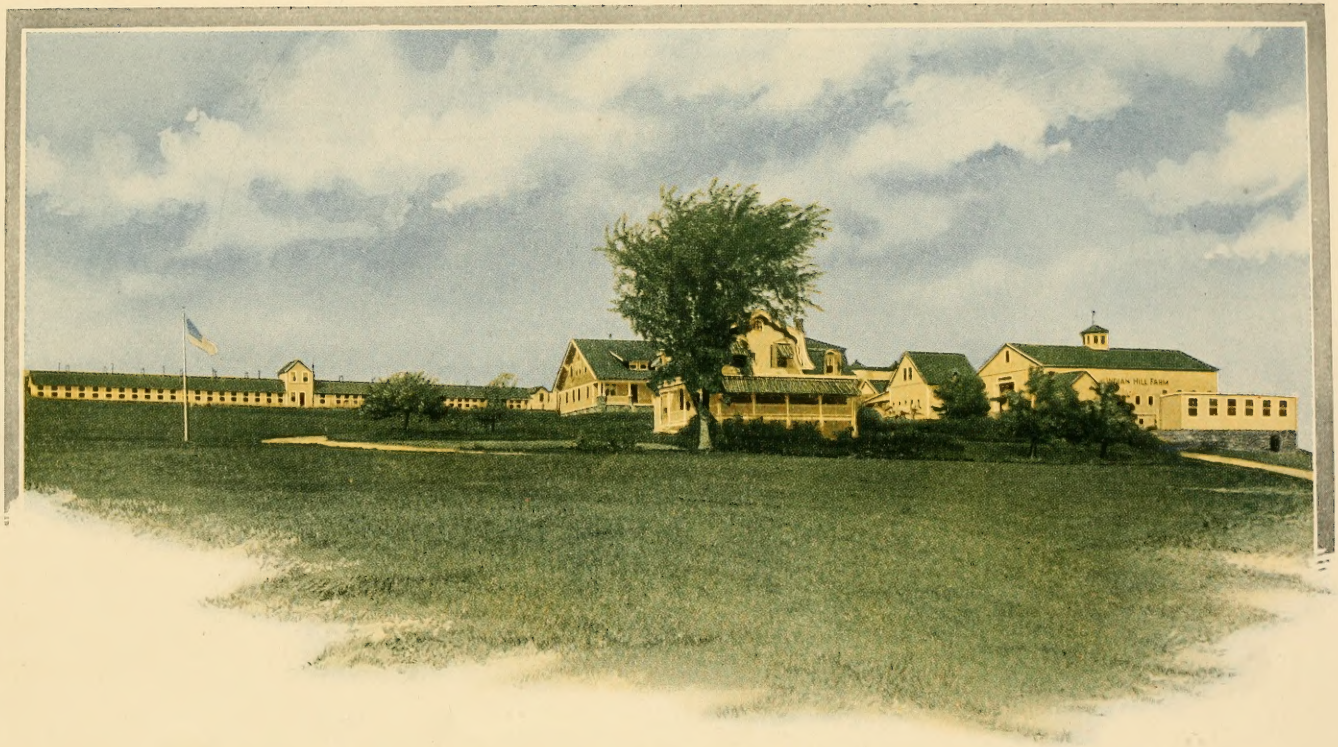
The Story of a Farm



"TRULY man made the city, and after he became sufficiently civilized, not afraid of solitude, and knew on what terms to live with nature, God promoted him to life in the country."—BURROUGHS.

BUSINESS ANNOUNCEMENT

Indian Hill Farm milk is delivered to consumers in Worcester each morning, at a rate of nine cents per quart and five cents per pint.

Baby milk from selected thoroughbred Holstein-Friesian cows, bottled under special seal, delivered at a rate of eleven cents per quart and six cents per pint.

Eggs and poultry---broilers, roasters, capons---delivered at prevailing market rates.

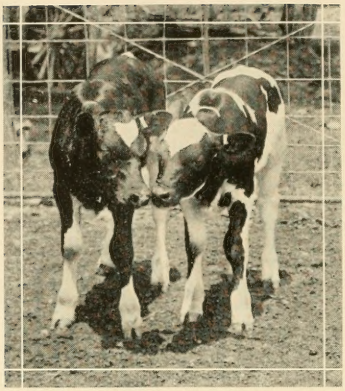
Pure strain, single-comb White Leghorn and White Plymouth Rock day-old chicks, breeding and laying stock shipped direct from farm.

Address all communications to

INDIAN HILL FARM, Inc.

5 Lakewood Street, Worcester, Mass.

Office Telephones, Park 3702 and Cedar 1039-M.
Farm Telephone, Charlton 4-2.
Farm Post-Office, Dodge, Mass.
Railroad and Express Shipping Point, Charlton Depot.



Playmates

"AND *now that the days are hot and long,*
And the city writhes in heat and pain,
I hear the children's laugh and song,
The smell of the hay comes sweet and strong—
It is good to go back to the farm again."—GREENLEAF.

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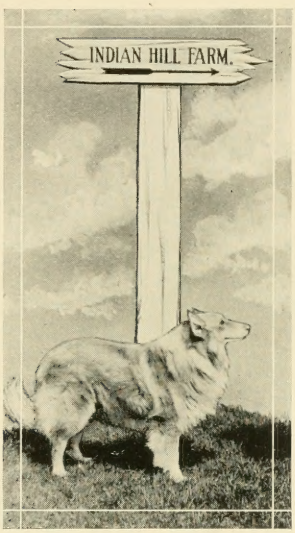
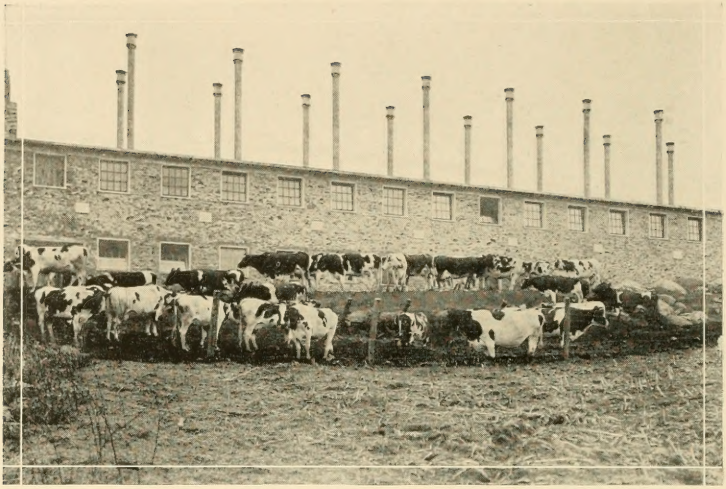
THE STORY OF A FARM



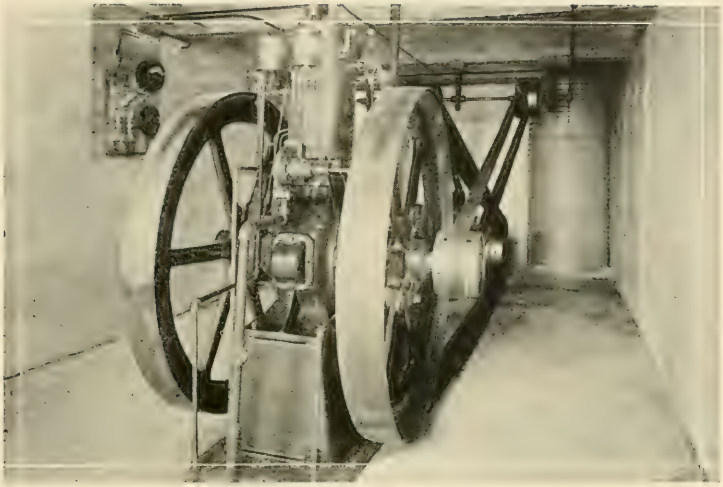
THIS is the story of a farm in the heart of Central Massachusetts, nearly a thousand feet above the level of the sea, graced by the winds that breathe through forests of pine and hardwoods, overlooking vast stretches of woodland, field and waterways. It is a farm which has not lost sight of old traditions, yet a farm which has followed the advance of science in making its products wholesome. Cattle, whose ancestry dates back to the days of the ancient Friesians, graze here in abundant pastures through the summers and live winters of content in the shelter of the most modern housing. Sheep of old English lineage forage in the brush-land, advance guard into new pastures. Thousands of white-feathered fowl send forth their gladsome calls from the extensive poultry houses and ranges. Gaily-plumed pheasants, which seek to hide their fashions from the eyes of mankind, rear their young here for life in the neighboring woodland covers. Generous acres, teeming with golden grain and sweet-scented hay, await in season the reaper; orchards bloom and bear; gardens yield their bounty to the hand of the farmers. Men trained to a high mark of efficiency toil here, always guided by the rule that cleanliness must dominate all. It is a farm of two hundred and fifty acres in the northern part of the town of Charlton, Worcester County. It is called Indian Hill Farm, because in the days of the red man's power in New England, here was a meeting-place for Massachusetts tribes. Here they raised their fields of maize, and left their stubble to be found in the soil when the white man built his first dwelling here, nearly two hundred years ago.



SUNSHINE STABLE YARD

"*AND far away shall rise*
The drowsy low of cows, and farm-yard cries."—DAVIDSON.

Indian Hill Farm, Incorporated, is the result of the ideas of George M. Wright, Mayor of the City of Worcester, 1913, 1914, 1915, 1916; president and general manager of the Wright Wire Company, with factories in Worcester and Palmer; president of the Park Trust Company of Worcester; and chairman of the board of directors of the New England California Corporation, which owns a large ranch in San Joaquin, California, raising olives, almonds and pears for Eastern markets. The farm is not in any sense a toy, but a real scientific enterprise conducted under sound business principles, aimed to reach the highest mark in the production of milk under the most sanitary conditions, and the raising of high-class poultry. Mr. Wright has long been of the mind that pure milk is not the dream of an idealist; and confident that a farm subjected to the most rigid requirements of modern sanitation could be established and maintained, he is now demonstrating that belief on Indian Hill.



DAIRY POWER PLANT

"WE flee away from cities, but we bring the best of cities with us."
—EMERSON.

Scientific Dairying The primary principle of the scientific dairy is that of keeping milk free from contamination. Indian Hill Farm is conducted on the hypothesis that milk was never intended to see the light of day, for, under the normal method of nourishment, the milk coming directly to the young, there is little danger of contamination. When artificial methods of drawing milk and transporting it are resorted to, dangers and new conditions arise. Milk then comes in contact with the air and various receptacles and apparatus, and thus may collect particles of dirt and foreign matter.

The problem of securing milk as nearly as possible to the state in which it exists in the udder is one that must be met by every conscientious dairyman. It is the problem of reducing contamination to the least possible factor. The first contamination is likely to begin with the process of milking, and from then on it may take place until the milk is consumed. Under the Indian Hill Farm system, from the instant it is taken down from the cow, until it is delivered at the consumer's door, the milk comes in contact with nothing that is not as clean as human agency can make it.

SUNSHINE STABLE

"WHERE the cow is, there is Arcadia; so far as her influence prevails, there is contentment, humility and sweet homely life."—BURROUGHS.

Sunshine Stable Sunshine Stable at Indian Hill Farm, completed in 1915, is a scientifically arranged housing for cattle, of concrete and stone construction, forty by one hundred and fifty feet in dimensions, providing commodious quarters for sixty-five cows, bull and calf pens and a maternity ward. The cattle stand on flooring of cork brick, a non-conductor of cold. They drink from individual bowls, each fitted with a valve, which, through the pressure of the animal's nose, causes the bowl to be filled with pure spring water. Windows are so arranged in the walls and roof that sun shines on every part of the floor during the day, hence its name Sunshine Stable.

The system of ventilation provides circulation of pure air and removal of foul air continuously without there being draughts upon the animals. Pure air enters from the outside through flues built in the eighteen-inch walls and is released in the center aisles of the stable in front of the cows, while impure air passes through ducts in the rear, and is released through stacks in the roof. These ventilators

EXAMPLE OF UNSANITARY BARN WHERE MILK IS PRODUCED

"THE old, swallow-haunted barns,
Brown-gabled, long, and full of seams."—WHITTIER.

are regulated by a shaft lever, thus being in complete control in all the vagaries of the weather. There are thirty-six square inches of inlet and outlet for each animal, or about four times the amount considered necessary by experts. Copper screens cover each intake, making it impossible for flies, mosquitoes and other injurious animal life to enter. The cork brick upon which the cattle stand is kept in sanitary condition. Unlike porous timber used in many barns, this flooring cannot be an abiding place for germs. As a further insurance of cleanliness, the floor is bedded with new pine sawdust. Improved metal stanchions, that give the cows freedom and ease, take the place of the wooden slats that are found in the old fashioned stables. The walls of the interior are plastered over wire lathing and painted with washable paint.

Hay and grain are brought from the adjoining barn, which is separated by fire doors, on carriers, which run on a track through the center of the stable. The milk of each cow is carried separately to a room outside the stable where it is weighed, and the weight recorded. It is then poured through a sterile block-tin tube to the

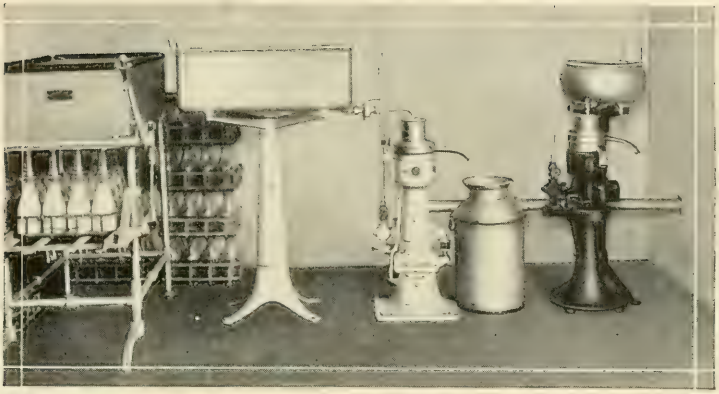
MILKING BY ELECTRICITY

"THE milk pail used to versify a mild and mellow meter,
When I used to milk Old Brindle in the yard."—FOSS.

dairy one story below, where it enters a tank in the dairy. Manure is removed to a covered pit, fifty feet outside the stable, on carriers which run behind the cows.

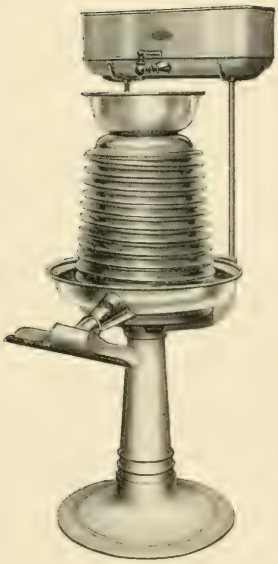
Just outside Sunshine Stable, in the cattle yard, are three silos, each rising to a height of thirty-six feet, and having a total capacity of four hundred tons. Twenty-five acres of Indian Hill Farm are planted to ensilage corn each year, and when this is in the milk state, so-called, it is cut, carried to the stable yard, fed to a gasoline-powered cutter, which cuts it into pieces of about one-half inch in length; and it is then blown through a tube to the top of the silos, where it is packed and sealed.

Milking Time Men in spotless, white clothing are in charge of the milking of Indian Hill Farm cows, which is done by electric machinery of modern type as the first preventive from contamination. At five o'clock in the morning and five o'clock in the afternoon the cows are groomed and scrubbed, and their udders washed with pure soap and sterile water, and the milk is

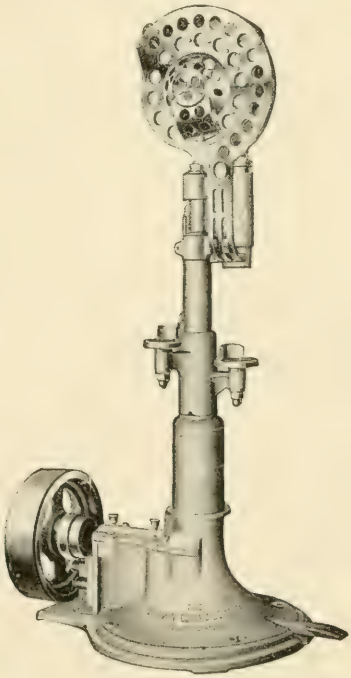


BOTTLING MACHINE, CLARIFIER, SEPARATOR

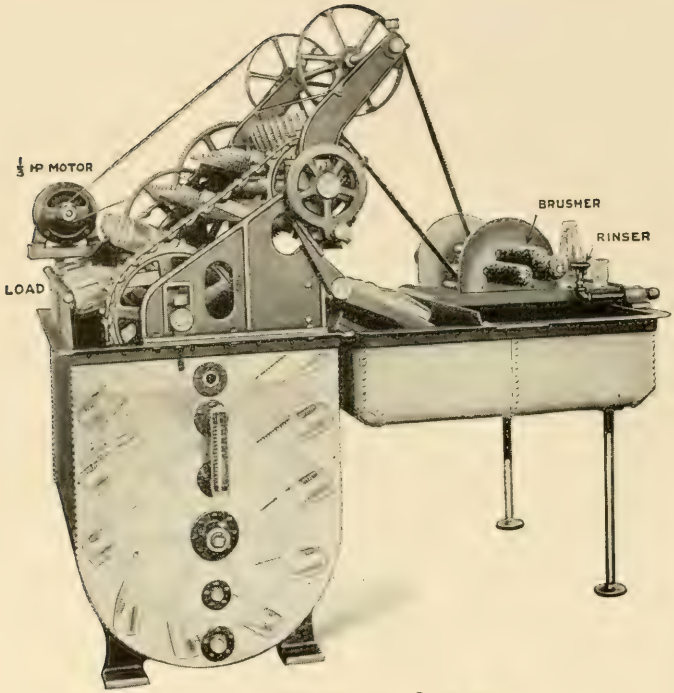
"LET me but do my work from day to day
In field or forest, at the desk or loom,
In roaring market place or tranquil room;
Let me but find it in my heart to say,
When vagrant wishes beckon me astray,
'This is my work; my blessing, not my doom.
Of all who live, I am the only one by whom
This work can best be done in the right way'."—VAN DYKE.



COOLER



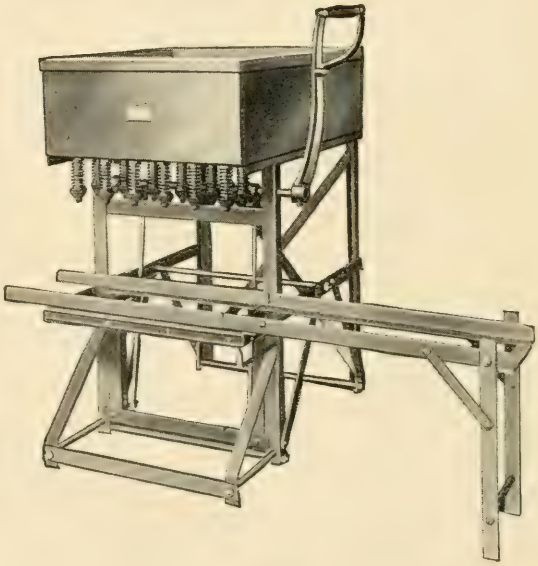
CAPPING MACHINE



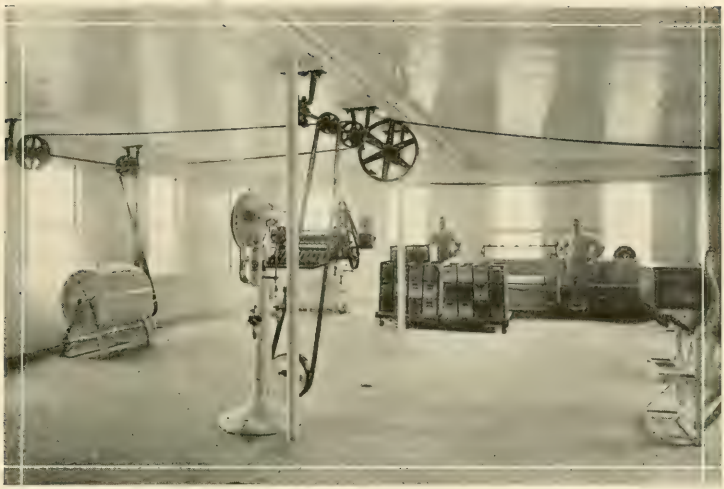
BOTTLE-WASHER AND SOAKER

"NO man is born into the world whose work is not born within him. There is always work and tools to work withal, for those who will; and blessed are the horny hands of toil."

—LOWELL.



BOTTLING MACHINE



SANITARY DAIRY—SOUTH VIEW

"WORK and your house shall be duly fed;
Work and rest shall be won."—CAREY.

drawn direct from the cows through a sterilized tube to an air-tight bucket, and therefore it cannot come in contact with the stable air, and no obnoxious matter, such as hairs, dirt and, worst of all, flies can fall into the milk as in the old-fashioned hand milking way.

Under this process of milking, sterile rubber nipples are placed over the teats, and over this a metal nipple, which is connected by a tube running to the air tight bucket, and which is also connected with an electric air compressor. The pressure of the air within the metal nipple against the rubber nipple performs the operation of milking in practically the same manner as hand milking. A glass in the tube indicates when

MILKING MACHINE

SANITARY DAIRY—NORTH VIEW

"WHITE and clean as the driven snow,
Sweet and bright as morning light."—ANON.

the cow is milked. The cows take kindly to this method of milking, in fact, it seems to be in conformity with the theories established by the Friesian originators because it provides contentment among the cattle, which these knowing dairymen learned centuries ago is the essential to proper production of milk.

The Dairy House The function of the clarifier is to remove any possibility of solid impurities remaining in the milk, not only particles of soil or dust, if there be any, but more particularly the internal contamination consisting of broken-down udder tissues and pus corpuscles, which are almost invariably present in all milk. From a hygienic standpoint the removal of this organic matter is of great importance. Bacteriologists and sanitarians who have examined and analyzed zooglea, the material removed by the clarifier, are amazed upon learning its serious nature. In a series of experiments in connection with the study of infectious diseases, injections of zooglea into guinea pigs, rabbits and mice have almost invariably proved fatal.

"UP and away at the break o' day
Athirt the downs of the roaren town."—OLD WELSH SONG.

MICROSCOPIC VIEW OF SEDIMENT REMOVED BY CLARIFIER FROM CERTIFIED MILK

If a cow has garget, the most common of bovine diseases, even though it be in so mild a form as to escape detection on the part of the milker, the milk will contain pus corpuscles and broken-down tissue which may be absolutely loaded with germs. The clarifier takes out an amazingly large amount of this, making the milk cleaner and more wholesome. The same would be true of the tubercle bacillus in milk from cows affected from tuberculosis of the udder, for the germs are usually discharged from the udder associated with particles of granular matter which make up the tubercle. In this connection, it is of interest

"GRAY grows the dawn while men-folk sleep,
Unseen spreads on the light,
Till the thrush sings to the colored things,
And earth forgets the night."—MORRIS.

to note that all cows at Indian Hill Farm are submitted to a tuberculin test frequently, thus making possible the detection of any symptoms of tuberculosis in its insipiency.

After the milk has passed through the clarifier, and while it is still warm, it enters another sterile tube and is forced through a cooler, an apparatus containing a chamber through which cold spring water flows, while the milk passes through pipes coiled about the outside. The milk is cooled immediately at a temperature of 45° Fahrenheit. It then enters another tube which carries it to the bottling machine tank. In the process of bottling, the milk passes through a cotton-batting strainer which removes all possibility of foreign substance being contained with the milk. Each piece of cotton-batting is used but once, and is then destroyed. Twelve bottles standing in a galvanized iron carrier are filled with one operation of this machine which is so devised that the use of an automatic valve closes the pressure of milk when the bottles are filled without spilling any of the milk on the sides.

The bottles are then placed in a capping machine which squeezes on the top automatically, a tin cap lined with sterile paper. This

"THERE is virtue in the cow; she is full of goodness; the whole landscape looks out of her soft eyes.
I would rather have the care of cattle than be the keeper of the great seal of the Nation."—BURROUGHS.

form of cap removes any possibility of dirt or bacteria entering the milk after it has been bottled. It is locked solidly in its place, and unless it can be removed with the hands, the consumer may be sure it has not been opened since leaving the dairy. The bottles in the carrier are then placed in a chest and covered with chipped ice.

At midnight they are taken out, still covered with ice, and are carried by automobile truck to Worcester, where they are loaded into smaller trucks and wagons and delivered to the homes of consumers. All surplus milk is passed through a DeLaval separator and the cream is churned into butter. All containers and tubes and all appliances in which milk is carried are washed and steamed thoroughly after using, then immersed in pure water until next used, the bottles being cleaned in an automatic bottle soaker, so-called.

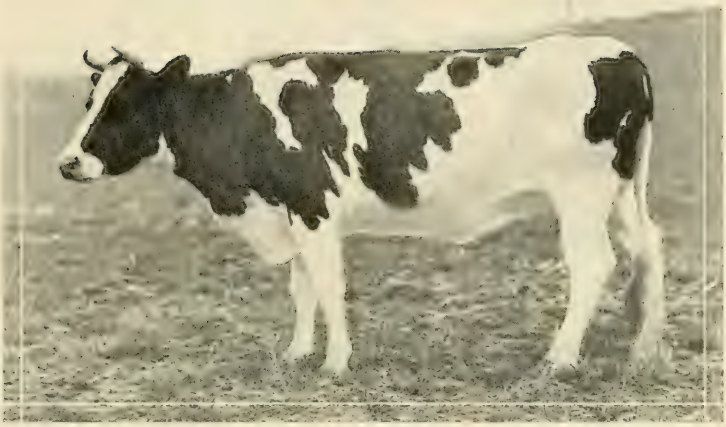
Empty milk bottles are made absolutely sterile by the use of this machine. The bottles are placed in a slanting position on carriers which are fastened to an endless chain arrangement and carried in a ten-minute immersion through a tank filled with strong, hot alkali water, which has sufficient strength to destroy all germs and remove all grease. Emerging from this part of the machine the bottles are

SIR PONTIAC HEGERVELD DE KOL, No. 80139

"A *KINGLY character he bears*
Unfading is the crown he wears."—COWPER.

emptied automatically and are washed thoroughly by revolving brushes propelled by a turbine. These brushes, which reach every part of the interior of the bottle, revolving at a rate of several hundred times a minute, add doubly to the purity of the process and prepare them for another bath in pure hot water. When the bottles have passed through this process, they are dried almost instantly because of the high temperature of the bath.

In the basement of the dairy is a forty horse-power boiler, which furnishes steam for sterilizing and washing all cans and the various utensils used. This boiler receives its heat from wood fires, the wood being cut on the farm, in accordance with the policy of the management to provide as much as possible all products used on the farm from native soil. Ice cut from Crystal Lake on the farm is stored in an ice house nearby, and from there a refrigerator in the dairy room, with a capacity of two tons, is filled. In this refrigerator are kept cans of cream to be churned into butter, cases of eggs and poultry dressed for the market.



"WE paused at last where home-bound cows
Brought down the pasture's treasure."—WHITTIER.

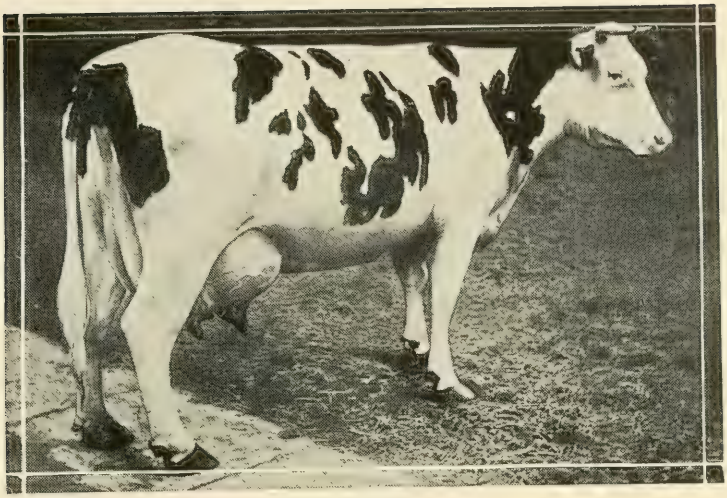
Electrical current is developed on the farm for lighting and power. At the dam of Crystal Lake there is a power house in which is installed a turbine wheel, which is propelled by a fall of sixteen feet through a thirty inch pipe, and which is capable of developing fifteen horse-power. The current is carried through copper wires to a switchboard and is from there distributed to the various buildings through underground conduits. As an auxiliary there is in use a ten horse-power kerosene oil engine and generator, which is connected with the same switchboard, so that it may be brought into use by simply turning a switch. There are one hundred and forty electric lights on the farm and within the buildings, sixty of which are in Sunshine Stable. The current is carried to Cold Spring some distance from the buildings and attached to a three-plunger pump operated by a motor which pumps water to a reservoir on the hill, giving gravity supply to all buildings. There is an adequate supply of pure water for the dozen or more farm buildings, even in seasons of the most severe drouth.

"*FROM fairest creatures*
we desire increase."—SHAKESPEARE.

The Holstein-Friesian

While every scientific authority recognizes a number of causes for variation in milk, all place particular stress on the breed of cow as a factor of first importance. This being the case, it is interesting to note the history and characteristics of Holstein-Friesian cattle, in order to ascertain just why the consensus of expert opinion leaves no room to doubt the superiority of Holstein-Friesian cows' milk as human food.

Holstein-Friesian cattle, the greatest of all milch cows, have been in the process of development over two thousand years. They were introduced from the provinces of north Holland and Friesland, a section of the kingdom of The Netherlands, bordering on the North Sea. The present dairymen of these provinces are descendants of the ancient Friesians, and their cattle are lineal descendants from the herds of their ancestors. From the earliest accounts of their dairy husbandry, these black and white cattle have been used and developed for dairy purposes. Easterly and northerly from its place of origin, this breed has spread, until it has extended even to Russia, where, at the mouth of the river Dwina, nearly under the Arctic Circle, it has produced the Kholmogorian breed, the most highly

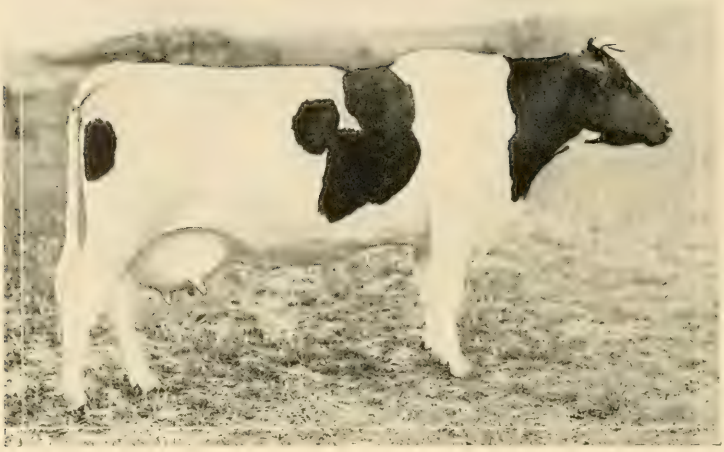


"PRIDE *of thy age,*
and glory of thy race.—POPE.

valued cattle of that country. Holstein blood is strong and not only remains unimpaired in all sections of the world, but improves all others with which it is mingled.

These Hollanders developed cattle of sturdy thrift and plodding patience, qualities which have been maintained and are manifest in their descendants to-day. These farmers have always avoided inter-breeding, and for this reason the Holland cow possesses more stamina and prepotency than any other animal. The Dutch dairymen through the centuries have bent their efforts toward improving constantly the milk producing capacity of their herds, and the liberal importation of the best strains of these cattle to the United States has been responsible for the upbuilding of American Holstein herds.

The first recorded importation of these cattle was made by the Holland Land Company in 1795. During the past twenty-five years, the marked advance in the proper housing and the proper care of cattle has increased the popularity of this breed, and well-informed farmers are coming to know that the milk of Holstein-Friesians is the ideal milk for human consumption, while the public, on the other hand, is beginning to realize that it must specify this particular milk



"EVEN the homely farm can teach us there is something in descent."—TENNYSON.

as a means of safety and proper nourishment. In the herd at Indian Hill Farm are to be found the most notable strains of the Holstein-Friesian breed, particularly the Pontiac strain. Throughout the year the herd numbers from fifty to sixty head, representing in pedigree many generations of the most popular and highest producing strains in America. Heading this herd is the lordly Sir Pontiac Hengewell DeKol Number 80139, sired by the world-famous King Pontiac Butter Boy.

Vigor and Vitality That the Holstein-Friesian cow is large, strong and healthy is self-evident, but many fail to take into consideration the value of this vigor and vitality in the cow. The importance of the health of the cow is now gaining recognition, however, proof of which is found in a visit to any first class public institution or sanitarium where, if it produces its milk, will be found a herd of pure bred Holsteins. Experience soon teaches that the milk of the Holstein cow is the only milk that can be fed in safety to every class of infant or invalid. The strength and

"NEW-BORN *flocks, in rustic dance,*
Frisky ply their feeble feet.—GRAY.

wonderful constitutional vitality of this cow makes tuberculosis and other diseases to which cattle are prey almost unknown among them. Physicians who have been in a position to make a serious study of cows' milk aver that Holstein milk is the ideal milk for consumption, and pure bred Holstein cattle are the final choice of every institution or organization that attempts to produce milk in a scientific manner.

The strongest proof that this breed has kept a high standard of vital force is the fact that it is maintained in almost every climate, even to the rigorous cold of northern Russia. In America it proves as hardy as native breeds. The large size of the Holstein is of importance that should never be disregarded, for it is to this magnitude that they owe in part their extraordinary constitutional vigor or vital force, which affects all their relations to their food, care and production. Their robustness makes them especially resistant to disease, while the more delicate breeds are more easily conquered by such scourges as tuberculosis. In temperament they are quiet and docile, bulls as well as cows, showing the result of centuries of the kindest treatment, for it must be known that the shrewd Holland

HOME OF FARM MANAGER

"YE happy Fields unknown to noise and strife
The kind rewarder of industrious life."—GAY.

dairymen appreciated the value of kindness from a commercial standpoint. They knew that all nervous excitement of whatever nature lessened milk production and affected its quality, and so by means of the most careful and considerate handling they were remarkably successful in developing the placid, easy-going disposition that is such a striking contrast to the high-strung nervous temperament found in other breeds.

Pure Milk The criterion of pure milk is the bacteria count. The requirement of the Board of Health of the City of Worcester in this particular is that milk shall not contain over five hundred thousand bacteria per cubic centimeter, or an amount equal to one-fourth of a teaspoonful. Inspected milk is that containing from thirty thousand to one hundred thousand, while certified milk contains not over ten thousand. Tests made at Indian Hill Farm have shown much lower than that required for certified milk. The bacteria count gives assurance that milk is pure, and that nothing on the farm pertaining to the cows is radically wrong. It enables the manager to improve his system, step by step, and incites interest and pride among the dairy-workers who begin to strive to make a record for their milk.

THRESHING RYE IN FIELD

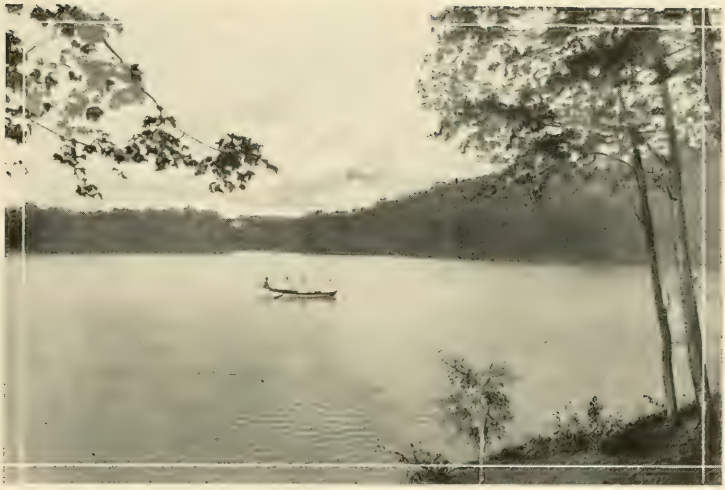
"BE thankful to the fields, though summer's sweets lie dead;
It was their fleece that clothed you,
Their green blades brought you bread."—STANTON.

The all-crowning event, therefore, of the up-to-date dairyman is to minimize the bacteria count in his milk. As an aid to this, bacteria tests are made at Indian Hill Farm each week.

Pure milk necessarily costs more to produce, but the many fatalities recorded daily are sufficient argument to prove that milk is not an item on which to economize. Relative to this subject a paper written by A. D. Melvin, Chief of the Bureau of Animal Industry of the United States Department of Agriculture, states: "The fact that there have been exaggerations of the demands and added expense of modern inspection is no argument against the consumer recognizing that the word 'quality' as applied to milk means more than chemical composition, that there may be milks of widely varying quality even where the amount of milk solids is the same. A reasonably clean milk is worth 2 cents more than common slovenly milk. The former is safer and therefore cheaper at the increased price. There has been too much indifference on the part of consumers regarding clean milk, too much of a tendency to regard all milk as the same, and too much of a desire to buy it at a low price, regardless of quality. Merely as a matter of sentiment and refinement, clean and

"THERE scatter'd oft, the earliest of the year,
By hands unseen, are showers of violets found;
The redbreast loves to build and warble there,
And little foosteps lightly print the ground."—GRAY.

fresh fruit and vegetables command a premium, while dirty food is frequently unsalable at any price. Milk, however, is often regarded with less discrimination. A little sediment meets with no emphatic disapproval. Consumers on seeing side-by-side pictures of bad and of sanitary stables comment favorably on the latter and express disapproval of a food produced in the former, but they haggle over the price and when it comes to paying the bills fail to recognize more value in one kind of milk than the other. Milk in most instances is consumed raw, and is exposed to the direct contamination of all the bad conditions with which it comes in contact. Furthermore, it is the exclusive diet of many invalids and infants, and is an almost perfect medium for the development and spread of germ diseases. Aside from any refined prejudices in favor of clean food, dirty milk may prove expensive even as a gift, while clean milk may be an economy at several cents above the ordinary price. The cheapest article is often the most extravagant. A few additional cents a quart for milk is cheap insurance against some forms of sickness."



CRYSTAL LAKE

"YES; it is the sun descending,
Sinking down into the water;
All the sky is stained with purple,
All the water flushed with crimson!"—LONGFELLOW.

Importance of Pure Milk

It is an easy matter for a person to be misled regarding the quality of milk left at his door. A bad egg, for example, cannot be disguised, while over-ripe or green fruit can be detected by the eye. The difference in the taste of most articles of food reveals to the consumer why he should pay more for one brand than for another, but bad or infected milk keeps its secret until the consumer is sent to bed ill. There is no unpleasant taste or other detectable sign when one drinks a glass containing a few million extra injurious bacteria. Most milk tastes alike to the consumer; therefore he is likely to buy the cheapest, and milk that is the most unsafe. Some say they cannot see the philosophy of paying for cleanliness and sanitation when the old methods have always done well enough until the "germ fad" was discovered. Such persons are liable to fail to understand that milk is not a thing on which to economize until, perhaps, they have lost a child through the agency of impure milk.

The model dairy has the advantage also that it does away with

"A *CHARM from the skies seems to hallow us there,*
Which sought through the earth is not met with elsewhere."—PAYNE.

the necessity of pasteurizing milk. While pasteurized milk is a great blessing to some communities, it must be considered that when milk is pasteurized all non-pathogenic as well as pathogenic germs are destroyed. Pasteurized milk will not sour, and for that reason cannot be used in some forms of cooking. It will decay, however, and in decay becomes more harmful than milk which has not been pasteurized. Advocates of pure milk are sometimes met with the argument that a person has been taking milk from the same place for years, and while it is known that the producer is not making any marked attempt toward modern sanitation, with an alarming degree of thoughtlessness they say they will wait until they can see evidence of harm before making a change. Others perhaps dwell on the theory that the New England farmers of the old days did very well without modern ideas of sanitation. A walk through the churchyards of the early New Englanders, and a count of the little stones over the graves of their children will show that in some families but one child of six or eight survived. This appalling infant mortality, mostly during the summer when the climate was good but when the milk of dog-days was bad, is a most potent answer to such argument.

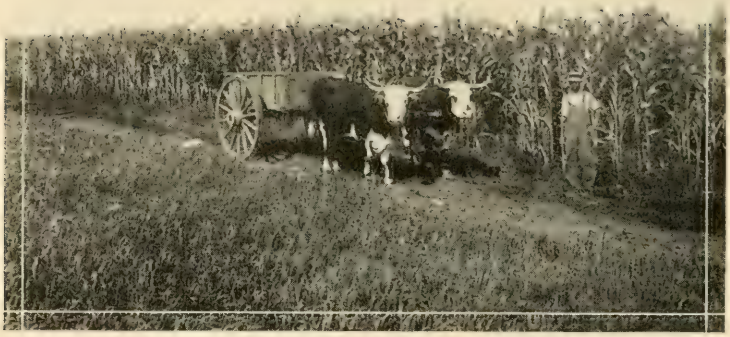
"BUT when glad summer at the west winds' call
Shall send the flocks to woods and pastures free."—VERGIL.

Food Value of Milk

Many think of milk, for adults, at least, as a beverage rather than a food, and do not realize that a glass of it adds as much to the nutritive value of a meal as a quarter of a loaf of bread or a good slice of beef. The New York Milk Committee, in making a comparison of the cost and value of various articles of food, stated that one quart of milk is about equal in food value to any one of the following:

3-4 lb. of lean round beef	3 lb. fresh codfish
8 eggs	2 lb. chicken
2 lb. potatoes	4 lb. beets
6 lb. spinach	5 lb. turnips
7 lb. lettuce	1-6 lb. butter
4 lb. cabbage	1-3 lb. wheat flour
2 lb. salt codfish	1-3 lb. cheese

J. Allen Gilbert, Ph.D., M.D., of Portland, Ore., says: "In milk are contained all the elements necessary to the maintenance of the human body, and evidence is to be had in abundance showing that milk is in no sense a luxury, but is an economical article of diet."



"*OXEN that rattle the yoke and chain,*
Or halt in the leafy shade."—WHITMAN.

M. J. Rosenau, M.D., Professor of Preventive Medicine and Hygiene, Harvard Medical School, says of milk: "No other organic food stuff shows such a marked variation, except meat. To most people milk is milk. About the only preference they indicate inclines toward the thickest, creamiest milk that they can get. Because of its cream they have a feeling that it is more desirable, possessing more nourishment, and being, therefore, of greater value. This erroneous notion is also reflected in the milk standards adopted by State Boards of Health for the regulation of the milk supplied to the people. In thoroughly praiseworthy attempts to protect the public health, these misguided officials have helped to perpetuate a mistaken idea that food chemists and physicians have proved repeatedly to be entirely opposed to the truth. It is this very cream—really the fat in the milk from which butter is formed—that contains the element of greatest danger to the digestive organs of infants and adult invalids. And it is not the fat (cream), but the proteins (the tissue, muscle, bone and blood makers), that form the ingredients of greatest value in milk."

"NOW *to the cooling shades, the cows retreat,*
To drowse and dream with mild, half-opening eyes."—WILSON.

Superiority of Holstein Milk

Convincing testimony, establishing beyond question the preëminent position of Holstein Milk, is furnished by eminent specialists, all of whom are led to the same conclusions by exhaustive investigations supplementing the most careful tests. It is only comparatively recently that the medical profession has given itself so completely to the study of preventive medicine, as a result of the enormous waste in human life that is such a blot on our civilization. It has been well said that the infant death-rate of a community is a test of its civilization. There is, therefore, something more than a mere coincidence in the fact that, with the general recognition that the work of keeping people well is of far greater constructive value than the curing of the sick, has come an appreciation of the wonderful help that Holstein milk offers toward that end. In view of the fact that so many disorders associated with infant or adult invalid feeding arises from the indigestibility of milk rich in fat, this variation in the product of the different breeds is exceedingly important. When knowledge on this subject becomes general, when its importance is understood, people will learn to ask for milk by name, and the name that will be in every mind and on

"THE Earth is a machine which yields almost gratuitous service to every application of intellect."—EMERSON.

every tongue will identify the breed of cows whose milk possesses demonstrated superiority for human food.

Holstein Baby Milk Milk from the larger cows in the Indian Hill Farm herd, or from one particular cow at each delivery, the selection being made after examination of all the animal's qualities, is reserved for baby milk, which is placed in bottles containing a distinguishing cap. Indian Hill Farm Baby milk may be allowed to follow directly after the stork has left its precious burden in the home.

Every man wants to bring his baby to strong manhood or womanhood. He would make heroic sacrifices if he knew his little one's welfare required it, but too often he remains ignorant of the great necessity of proper milk. He remains ignorant of the fact that nine-tenths of the illness that may possibly inflict itself upon the child is due directly to its food. The well-informed father or mother knows there cannot be too much care exercised in ascertaining the facts concerning the source of the milk supply.

INDIAN HILL FARM, 1861
(Courtesy Colonial Publishing Company, Springfield, Mass.)

"FIRMLY builded with rafters of oak, the house of the farmer
Stood on the side of a hill."—LONGFELLOW.

Dr. Thomas Morgan Rotch of Boston, whose fame as a specialist in infant feeding is international, says of the Holstein: "The cow represents the most perfect milking animal known, having every characteristic of a cow suitable for an infant's milk supply. Its milk is good and nourishing, and comes nearer to human milk than that of any other breed of cows. The reason for this is that the emulsion of the fats in Holstein Milk is much nearer in fineness to the emulsion in human milk than is that of other breeds. The fat also contains a less amount of the objectionable volatile glycerides so pronounced in the fats of the Jersey cows, and in this way also corresponds more closely to the quality of human milk. As a physician dealing with infants, I have many instances coming to my notice of cases where the milk of the Holstein Cow is the only quality the stomach of the infant will retain."

"AND this our life, exempt from public haunt,
Finds tongues in trees, books in the running brooks,
Sermons in stones, and good in everything."—SHAKESPEARE.

Dr. Lamson Allen of Worcester talks from an experience of over thirty years when he says: "It seems incredible, but it is nevertheless true, that the average medical practitioner is more easily swayed by tradition than governed by reason, especially in the matter of prescribing food for infants, invalids and convalescents. When will the medical world throw off the incubus of feeding 'top milk' in the above cases? Not until they will allow logical reason to supersede illogical custom. It ought to be unnecessary to remind the medical profession that 'top milk' contains too large a proportion of calories to the tissue-building ingredients of milk. We must always realize that what the child, the invalid and the convalescent need above all else is the building up of tissue rather than the accumulation of heat elements. The fats of milk may tickle the palate, but the palate is a very insignificant portion of the body compared with the other essential parts thereof. It is not only the fact of the lower percentage of butter-fat in the Holstein Milk that gives it its superior quality, but it is the fact that the globules of the butter-fat are so much smaller in Holsein Milk than in milk of other breeds that makes it so reliable

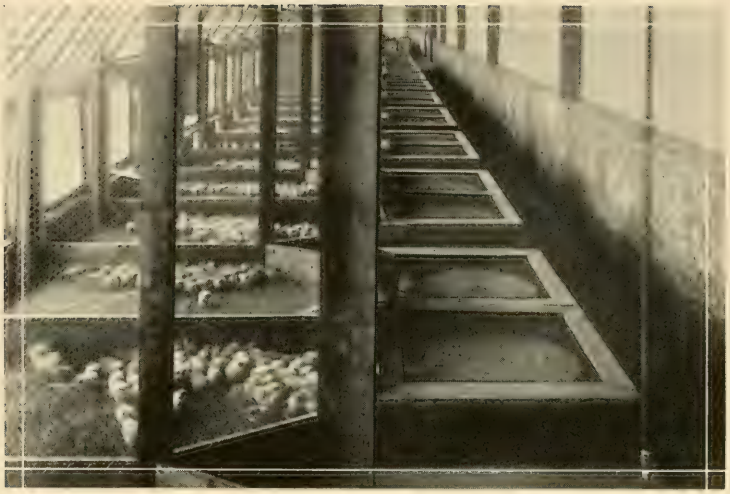
POULTRY RANGE

"IMMORTAL heirs of universal praise,
Whose honors with increase of ages grow."—POPE.

and so valuable. The smaller size of the fat globules also helps in making milk coagulate in smaller curds in the stomach during digestion, thereby enabling the stomach to do its proper work more easily and safely."

Clean milk, kept cold and properly protected, shows very little change in three or even five days. When special precautions are taken, it is possible to keep milk so that it may be shipped from America to Europe and return, and still be in good condition. It is possible to have sweet milk on transatlantic liners without replenishing the supply oftener than once a round trip.

At the Paris Exposition in 1900, milk shipped from the United States arrived in good condition and remained pure and sweet for several days, dumbfounding the French farmers, who could not deliver milk more than one hundred miles, or have it in good condition for more than forty-eight hours. Nothing but coldness and cleanliness contributed to these wonderful results.



BROODER HOUSE

"HEAR the chickens cheep, boys, and the hen with pride
Clucking them to sleep, boys, on the sunny side."—RILEY.

In the home, milk should be kept cold, clean and covered. The sanitary crowns which are used on milk bottles sent out from Indian Hill Farm may be replaced and all danger of outside contamination eliminated after part of the milk has been used. It is never safe to replace a paper cap on a milk bottle.

The smooth metal surface of Indian Hill Farm bottle crowns, rather than dust-collecting countersunk paper lids, seal the bottles perfectly. This method of sealing is strictly hermetic, protecting the milk from bacilli, dust and dirt, and is a safeguard against the milk being tampered with. The crown being removed readily with an opener, eliminates spattering and loss of top-cream; while the pouring lip, over which the milk must pass, is never left exposed to the tongues of germ-bearing dogs or cats or the hands of infected humans.

Scientists in dietetics advise a more general use of milk as food adapted to supplying the various needs of the human system. Milk is the only safe food for infants when their delicate bodies first begin to grow. It is a foundation upon which the human body is builded

safely. From the days when the infant first looks up in wonderment from its cradle-down to the death-bed of the aged, milk is a boon, a preserver of life, a giver of health and a palatable delicacy. Pure milk is a food and a medicine; but delicious, healthful and nourishing as it is American people consume comparatively little of it per capita. At nine cents per quart, the average American uses only six dollars and sixty-six cents worth of milk in a year. He would be much better off if he went to the milk jar oftener and tarried longer over its delicious, invigorating potion—provided the milk is pure. Through the rigid system of inspection, and thorough process of sterilization, it is possible at Indian Hill Farm to produce milk that is pure and free from disease-disseminating germs.

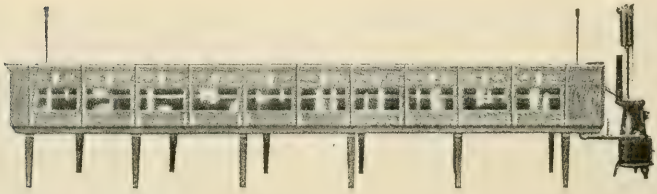
MISS WORCESTER
The Heart of the Commonwealth. She wears her heart on her forehead.

The Stray Cat's Confession

I DO NOT BELIEVE in the theory of germs. In fact, with all kinds I keep tryst. I steal all about in the dark hours of night, and temptation I never resist. A bottle of milk with a loose paper cap is a feast that I never forsake. The milk may be sterile, from thoroughbred cows, but it's free for all cats to partake. But I have no use for the tight-fitting caps on the bottles from Indian Hill Farm. The babies may have it all to themselves, for it's locked where I do it no harm.

A Laying of Four Hundred Eggs

The poultry at Indian Hill Farm consists of exceptional strains of single-comb White Leghorns and White Plymouth Rocks. The poultry buildings have been planned in harmony with their surroundings, cost not being the primary consideration. Chicks are given the advantage of almost unlimited range. They roam at will over fields and woods, growing into strong, vigorous fowls, under such conditions being able to acquire unusual strength and vitality. Hall Mammoth Incubators, with a total capacity of 10,400, furnish an output of sixty thousand chicks during the season beginning February 1 and ending June 15. The brooder house is two hundred and twenty feet long, and has a capacity of six thousand chicks. There are five laying houses with a capacity of twenty-four hundred. Ranged along a sunny slope are forty colony houses of the open front type which accommodate from seventy-five to one hundred chicks each.



Five Thousand-Egg Incubator

"*THE mighty mother of a mighty brood.*"—Lowell.

LAYING HOUSE NUMBER TWO

"THE eye that with a glance discerns
This shaping potency behind the egg."—LOWELL.

In laying the foundation for these flocks, the best breeding stock obtainable was secured. The birds have been selected and bred under the supervision of an expert poultryman, during the last five years. They are bred strictly for heavy egg production and fine table qualities. All stock is graded carefully in the fall before going into winter quarters, and from the high grades are selected the most promising pullets. These are trap-nested, and the highest producers are mated with males of known breeding. In these poultry yards are special matings from which eggs or chicks are not sold, but are kept solely for the purpose of replenishing the stock. Among these are matings headed by the Leghorn Cockerel Indian Hill Pride No. 4205, and son of hen No. 3271, with a record of 241 eggs in her pullet year, while the dam of this hen, No. 2415, had a record of 248, and her dam was hen No. 2420 with a record of 288. The sire of this cockerel, No. 190, was from a dam No. 2420 with a record of 288. Among Indian Hill Pride's flock of high class single-comb white leghorns are two full sisters, Princess Dawn and Lady Snow, daughters of hen No. 2433 with a record of 237,

PRINCESS DAWN PRIDE OF INDIAN HILL LADY SNOW

"IN the rare spring days it was good to hear,
The song of the hens and the rooster's crow,
The cheep of the chickens, low and clear,
The cluck of the mother brooding near."—GREENLEAF.

whose dam was hen No. 2426. In these stock pens are selected birds with only males that are closely associated with the 250 egg record. Live pullets of both the single-comb White Leghorn and White Plymouth Rock varieties are sold, many going to the market at an advantage of ten weeks' age, when the mortality stage is passed, while thousands of day-old chicks are furnished to the trade in the early spring. Indian Hill Farm eggs and dressed fancy poultry—broilers, roasters and capons—are delivered from the milk wagons that cover the City of Worcester, all eggs being delivered in sealed cartons, bearing the date of laying.

"CONTENT with what life gives and takes."—LOWELL.