

season gone. Then, the cows are treated with kindness and milked with regularity, as part of the day's work, not at any old time—after the load of hay is off, or something else finished. There is no flowing water in the fields, so they are watered morning and evening in the stable at milking time, and at noon in the tank supplied from a well by the windmill. If they do not come up for the mid-day drink, they are brought. Though water is supplied them in the stable, they are let out every day in winter for fresher air and exercise. For health and good milking, this is imperative. Mr. Teskey says he has observed that, on occasions when, because of rough weather the daily outing was skipped, instead of keeping up the milk flow, as might be supposed, there was an actual falling off. If practicable, Mr. Teskey would have the cows dry off for six weeks or two months before "coming in" afresh, so as to recuperate them for another season's milking.

Last year he began keeping individual cow records on sheets supplied by the Dominion Department of Agriculture at Ottawa, and is continuing the plan, because it is the only reliable way of knowing what the cows are actually doing. To weigh and record the milk of four cows would occupy at the rate of about one minute, and it pays. Under the steel windmill tower is a big elevated water tank, and beside it a covered shed for milk wagon. There are also wooden cooling tanks, into which the cans are lowered by a crank windlass or small derrick. A larger cement tank in the ground will shortly replace the wooden ones. On the wall alongside the stand is the spring scale and record book, all under cover. Sunday morning's milk is kept cool and sweet, and sent to the factory on Monday morning.

The interior of the stable was clean, though it was in the midst of the busiest farm period. Cobwebs did not festoon the ceilings. The mangers were not cornered up with musty fodder, straws did not obscure the water basins, and the manure gutters were not breeding places for flies. Lime had been freely used about the stalls.

At the time of our visit, early in June, some of the cows were milking up to 67 pounds per day, the lowest being a three-teated cow giving 34 pounds. At the auction sales, this sort of cow always milks "just as well" as one with four teats, but she doesn't, all the same. Mr. Teskey keeps a grade Holstein sire from his own best-milking cow, crossed with the best available neighboring male. With two or three "red, white and roan" exceptions, the herd is composed of grade Holsteins, and they all look like business. The only pedigree to which Mr. Teskey pays much attention is the pedigree of the milk pail and the scale. He raises a few heifer calves annually, but never hesitates to pay for a cow if he sees one likely to improve the standing of his herd. It is evident that a herd of this kind is chiefly the product of thinking put into practice. A fairly representative group of them on pasture appears in our illustration. As one might expect, Mr. Teskey has been following carefully the progress of alfalfa culture, as recorded from time to time in "The Farmer's Advocate," having his first cuttings last year, and had an excellent growth this year from 1911 seeding, 20 pounds per acre, with barley sown at the rate of 1½ bushels per acre. This spring, another field of beautiful rolling land, 10 acres, sown in the same way, shows a very fine catch.

Milk and It's Care.

Interspersed in the tirade against the methods of the milk producer, it is somewhat of a relief to hear now and then a word of adjuration to the milk consumer concerning his part of the responsibility for the care of the milk which he uses. There is no doubt whatever that a great deal of milk suffers serious deterioration in the households where it is consumed. It is not always the dairyman's fault if the milk sours too quickly or absorbs unpleasant flavors. A timely address upon the subject of milk and its care was delivered in Woodstock recently by Prof. H. H. Dean, at a meeting held under the auspices of the Oxford County Holstein Club. The speaker introduced his subject with a sample of milk which had been pasteurized by heating to a temperature of 160 degrees Fahrenheit, holding it there ten minutes, then cooling and putting in a sterilized bottle. Milk treated in this way should keep sweet twenty-four to forty-eight hours longer than unpasteurized.

COMPOSITION OF MILK.

The best scientific men in the world have been studying milk, and still they don't know very much about it. They do know, however, that it contains about 87½ per cent. water. Water is nature's great carrier of food to plants and animals. The best definition of milk is that given by Aristotle, "Milk is elaborated blood." It is made from the life giving fluid of the cow. Discussing the constituents of milk point by point, Prof. Dean remarked that it is practically a hopeless task to try to convince the average house-

keeper that the cream which rises on the milk doesn't measure its value. The fat which constitutes largely the cream furnishes only heat, and is really the least important part of milk from a nutritive point of view. We don't need much fat in milk, especially in the summer. Perhaps the most valuable element of milk is the casein. Casein furnishes the muscle for the animal body, and also nourishes the brain. The albumen is another nitrogenous compound very much like casein, and serving similar functions. The sugar is also valuable, being similar to cane sugar, although not quite so sweet. The sugar may be troublesome, for when the milk sours the sugar turns to acid. The simple means of preventing souring is to keep the milk cold. The bacteria then can't feed on the sugar. If the milk has been previously pasteurized, nearly all the bacteria will have been killed, and if the milk is cooled at once it will keep a considerable length of time. In addition to the elements above mentioned there is the ash material, which goes to build up bone.

MONO-SERVICE MILK BOTTLE.

Touching upon the matter of distribution, the speaker quoted Dr. Sheard, formerly health officer of Toronto, by saying the milk bottle, as used in Toronto, was the greatest disseminator of disease in the city. Milkmen would sometimes take a bottle from one door and refill, without its having been properly washed. A mono-service paper milk bottle was exhibited and handled in various positions, upside down and otherwise, to indicate its serviceability. These bottles, as the name implies, are thrown away when once used.

MISTAKES OF THE HOUSEWIFE.

In using milk, housewives often make the mistake of emptying the milk first into a pitcher and then setting this on and off the table until used up. The proper way is to have a glass-stoppered bottle. Pour from this into the pitcher enough

improvement in ice-houses and tanks made by farmers in many parts. The short make in some parts is due to the shipping of milk to outside points, as Toronto and Ottawa. Spring crops are very late in most parts, much of the seeding not being done even until June 1st. but the improved weather conditions during the last few days will have made great changes. Fall grain varies much in different parts. In the Lindsay and Peterboro districts cows are not in as good shape as last year, but, with favorable conditions, the make will likely exceed that of 1911. The falling off in May this year in the Lindsay group is partly due to the feeding of milk to the calves for a longer period before sending it to the factory. In the Peterboro group, three new cooling rooms and a new cement-block cheese and butter factory, with cool-curing room and refrigerator, are largely responsible for an improved quality of product. Many patrons are using ice and cold water to a greater extent this year. The scarcity of feed in the Picton group is largely responsible for poorer cows and 20 per cent. decrease in the early cheese output this year. An increasing number of patrons are sending milk and cream to Toronto, so that, while the total output may equal, it will scarcely exceed last year. In the Cayuga group, while the make of cheese is slowly falling off, the output of butter has increased, and the trend of the industry here is steadily in this direction. In the Belleville district the cheese has been shipped too green this year, and the make to the end of May will run about fifteen per cent. less than in 1911. Dozens of new milk stands are conspicuous along the various routes this spring. In the Campbellford group, more ice has been stored than ever before, and more factories are in a position to handle their cheese properly after making. In the Kingston group, a number of ice-houses have been erected, thus insuring considerable improve-

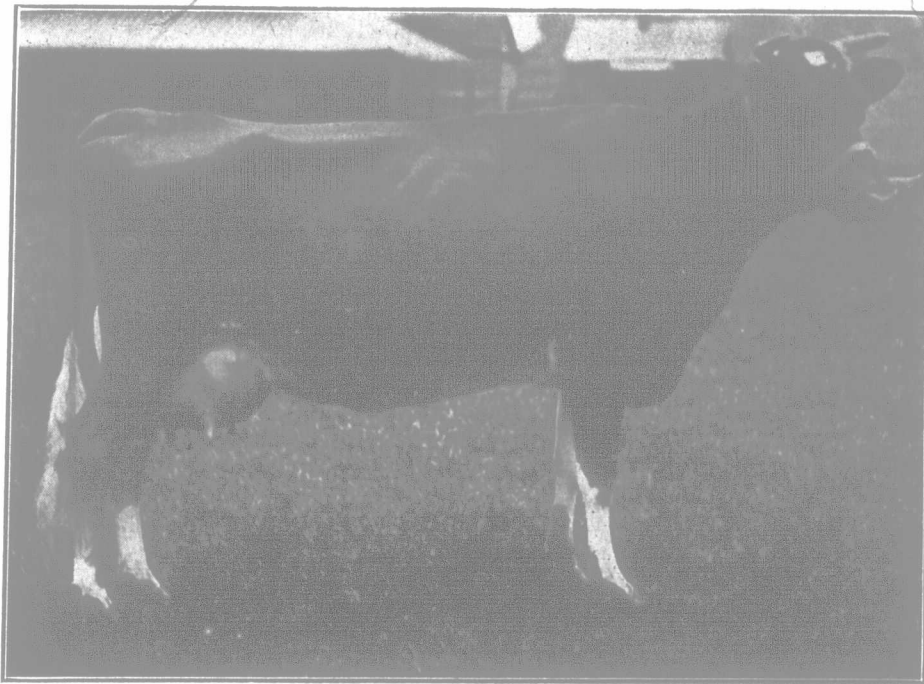
ment in the care of milk. In the Almonte syndicate, about Smith's Falls, many patrons have put in ice and tanks this year. Farmers in the Gananoque district are milking more cows than in 1911. Around Carp, the influence of Ottawa is felt, and this city is drawing a considerable supply from thirty miles out, and factories are becoming fewer. In the Cornwall group milk has been coming in in excellent condition, and a very superior lot of fancy cheese has been produced in this district. The flavor and texture is reported almost perfect in many factories. Many put in ice last winter, and fewer cans of tainted

milk are reported this season than in many years. In the Kemptville district greater interest is being shown by the producers in improved conditions, much better cooling facilities having been established. In the Brockville N. group patrons are taking a much greater interest in the care of their milk than ever before, and many tanks and ice-houses were installed for this season. In the Brockville group, the general opinion is that the output will exceed last year's, as the meadows, especially of alfalfa and other clover, are excellent. The quality throughout the Ottawa E. group is decidedly superior this year, largely due to the better quality of milk. Many new ice-houses have been built, and also several new silos, while many factories have been improved.

POULTRY.

Developing the Pullets.

The chicks should be moved out on the wide range when they are about eight weeks old, putting fifty to seventy-five youngsters in each colony coop or outdoor brooder that has been altered into a colony coop. The floor of the coop should be covered with half an inch of loam from the garden. About once a week, shovel out the loam in a wheelbarrow and wheel it to the garden, distributing the rich dressing where the tender roots of growing plants won't come in contact with it. A load of fresh loam is shovelled into the barrow, wheeled to the coops, and the floors covered again. A load will do two 3 x 6-foot coops.



Hayes Cherry.

Guernsey cow; first prize at Bath and West Show, at Bath.

each time for use, and never put the milk in the pitcher back into the bottle. Milk should always be kept covered. Exposed in a pantry, milk will absorb all kinds of flavors. Keep the milk in the original package in which it came until used.

Eastern Ontario Dairy Conditions

Reports have been received from practically all the dairy instructors in Eastern Ontario, in reply to a number of questions sent out by the Dairy Branch of the Ontario Department of Agriculture. The replies point to a promising season. Cows generally went out in poor condition this year, and the make of cheese until nearly the end of May has been considerably lighter than last year, due partly to the late season. In some places last winter, owing to very high prices, farmers sold themselves short of feed, and will not be able to feed so well this summer. The poor season last year, followed by a severe winter and late spring, is showing its effects in many parts, not only in a lack of feed during winter and spring, but many new meadows are patchy. The high price of concentrates has also been a serious drawback. Wherever the silo is much in evidence, conditions generally are favorable. Meadows seem good generally, especially old ones, and, if favorable conditions ensue, the output this year should exceed last year's. The quality of cheese has been decidedly superior, several instructors reporting the finest cheese for last month their districts have ever turned out. This has been due to the cooler weather during May, and a very marked