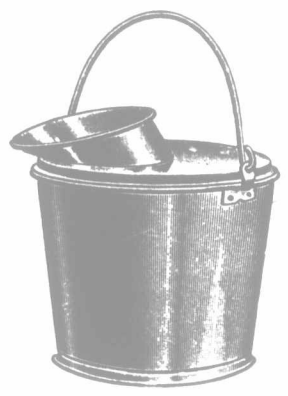
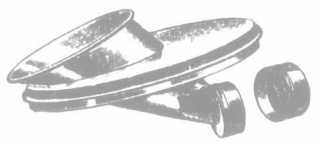
Lancaster; J. C. Hall, Cornwall; John McPhee, McAlpine; E. C. Boyce, Athelstan; Dr. Lyster, Richmond; R. J. Roy, Howick; Peter Cruise, Lachute; J. J. Riley, Graham; Adam Robertson, Como; E. Stringer, Hemmingford; Wilfred Guay, St. Valentine; and E. H. Morgan, Stanbridge Station. W. F. S.





Milk Pail and Strainer Cover.

ONE HUNDRED DAIRY COWS.

One by one, like well-drilled soldiers, an even hundred sleek and well-fed cows marched in before the Collie from the tree-shaded pastures that skirt the Lake Canandaigua "Outlet" and its spring-fed tributary brooks. One by one the company file in from the paved yard to their numbered swinging stanchions for the 2 p. m. soiling feed of alfalfa, last year's ensilage, or corn fodder (as available), and the four-o'clock milking in the dairy barn of the farm connected with the famous Clifton Springs Sanitarium, in Ontario Co., N. Y.

SANITARY MILK PRODUCTION.

Each cow, as she wills, takes a tonic lick at her lump of rock salt; the passageway is swept clean, the udders are all brushed down, the slatted doors are locked to exclude curious strollers, who read on the wall the legend, "All loud talk, laughter, fooling and unnecessary noise forbidden here." Six men do the afternoon feeding and milking, which occupies about two hours, and twelve men at 5 o'clock a. m. They first prepare themselves in the wash and clothes room. Covered pails, with a strainer attachment, as shown in the illustration, are used, and the milk is at once removed to the milk-room, strained thrice through chese-cloths and run over the ice-filled cooler before being placed in cans, to be set in a big, oblong cement tank, through which cold water runs continuously, supplied from a tower-tank fed by steam-pump from a never-failing spring. About half the day's milk supply passes through a De Laval steam-turbine separator for cream, ice-cream and butter making.

BABCOCK AND TUBERCULIN TESTS.

The extra supply of milk required for the institution above that given by the herd is purchased from adjacent farmers, according to the Babcock test, one cent per pound for fat below New York City price per pound of butter being paid. There are no factories or creameries in this locality. Samples of milk are taken every day, and composite tests made twice per month.

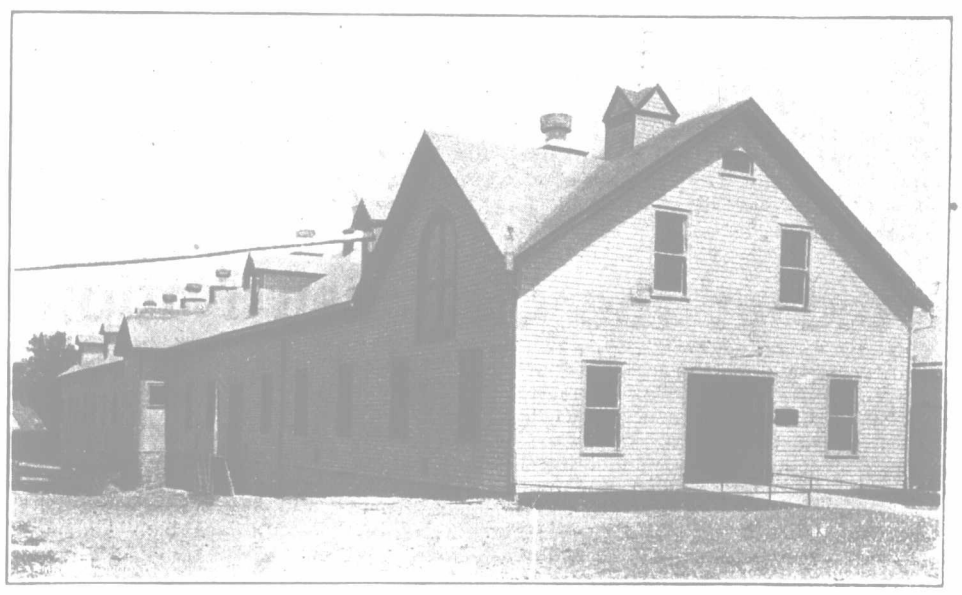
The herd yields something over 240 gallons of milk per day the year round, on an average, testing, by the Babcock, from 4 to 4½ per cent. butter-fat. A herd test made the last week in August showed 4.6 per cent. fat. The cows are grades of the Jersey, Guernsey, Holstein and Shorthorn breeds, Guernseys being the favorite, because of vigor and size, coupled with a good flow of rich milk. In the weeding-out process, continually going on, new additions by purchase are being made, and from 15 to 20 heifer calves are raised annually, Guernsey and Holstein sires being in use. The remainder of the calves are "vealed" by suckling the cows. Cows are "coming in" during all months of the year, but those dropped late in the winter or early spring are preferred to raise.

For five years past, the policy has been pursued of testing the herd for tuberculosis with tuberculin three times a year. Sometimes not one cow will show a reaction, but in other seasons two and three will have to be isolated for fattening. When slaughtered, if the carcass discloses generalized disease, the meat is destroyed, under direction of the official veterinary inspector.

A SANITARY STABLE.

The dairy barn, as shown in the engraving, is a double-boarded, story-and-a-half structure, with storage loft for bedding and a limited quantity of feed stuff. It is 36 feet by 228 feet long; the clothes and wash room and the milk room, separated by a wide hallway, being at the south end. The windows are large, 3 feet by 5 feet each, and are placed every 12 feet around the building. The ceilings are 8 feet high; the floors, of cement throughout, except 2 feet where front feet of cows stand, which is hard clay; single stalls, 5 feet from manger edge to gutter, and 4 feet wide, the gutter being 1 foot wide and 6 inches deep.

As the illustration of the interior shows, there are no boards about the manger space, and the stall fittings are of iron. From the floor, the board wall is covered with a galvanized-iron wainscoting three feet up, and there is simply a 4-inch-high cement ridge forming the back of manger. The manure passage is down the center, the feed alleys at the sides, the cows facing outward for sanitary reasons. The cows have access to a tank outside, under cover, and the water is tempered with a heater in winter, when they are watered twice daily, being out of doors not over an hour at a time. At other seasons they are on pasture, except at milking and soiling hours. The dairy barn and other buildings, as well as the farm residence, are beautifully lighted with acetylene gas.



A Sanitary Dairy Stable.

SOLVING THE VENTILATION PROBLEM.

The stable was carefully fitted up with the King system of ventilation, but this was found insufficient in winter to keep the air pure and dry, and Alonzo S. Cotton, the farm superintendent, last winter put the much-discussed muslin curtains to a test. The lower sash of alternate windows was first raised to the top, and cheese-cloth fitted to a frame substituted therefor, but some moisture was still observed on the walls and ceiling. When the curtain frames covered the place of all the lower glass sashes, the problem was solved, with most gratifying results, moisture disappearing entirely, the air becoming purer, and the general tone of the herd improving. It was also a matter of surprise that the stable did not become too cold, the temperature ranging from 50 to 65 degrees. In severe, driving storms the glass sash can be lowered. So highly pleased was Mr. Cotton with the results that he substituted the glass sashes in his own bedroom windows with the cloth curtains, and they are also used in the farm poultry houses. Mr. H. J. Bostwick, the general business manager, uses them on the windows of his sleeping-room in his home in the town. In summer, the lower-sash space is covered with a coarse wire netting. This system of stabling was adopted some years ago, when the farm herd suffered from an experience with tuberculosis, when housed in a close basement stable, imperfectly ventilated and having water basins before the cows, all of which is now regarded by Mr. Cotton as contributory to ill-health.

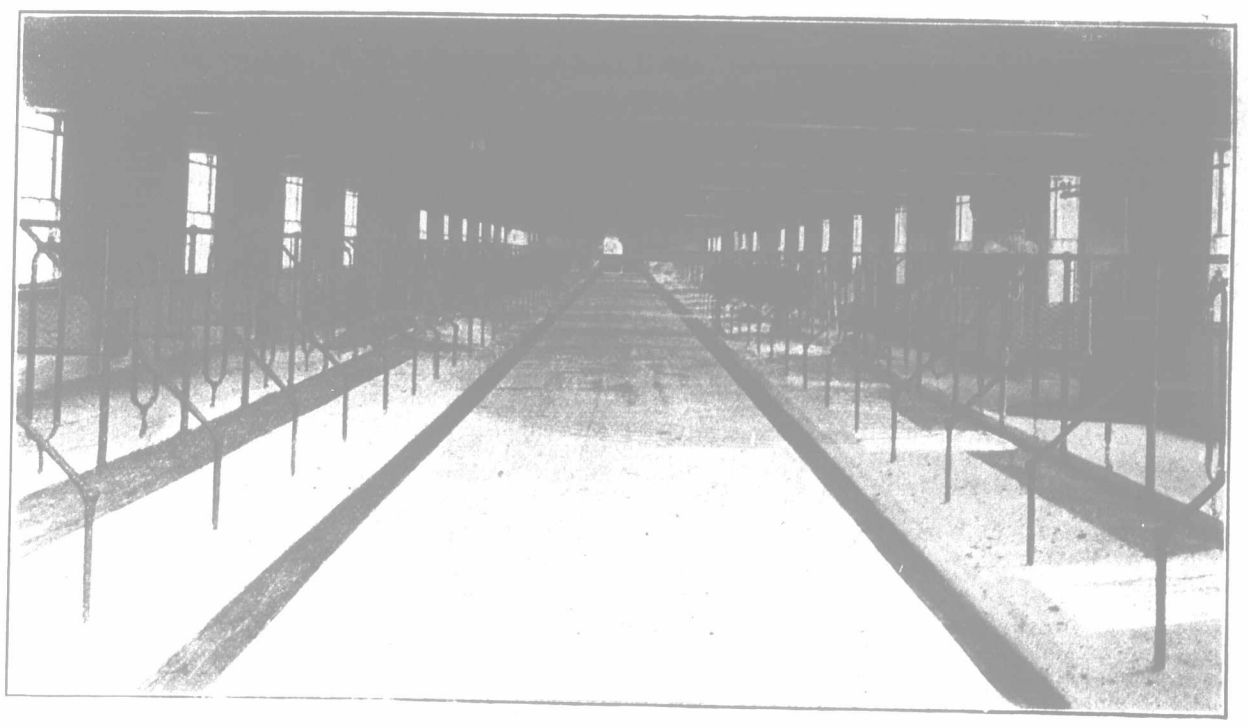
FARM MANAGEMENT.

Whenever possible, the manure is spread directly from the stable upon the fields. Planing-mill shavings are used for bedding, very little of the farm, which consists of 350 acres (200 tillable, and the rest pasture), being devoted to grain-raising. Some 35 acres are sown to oats, and a small area to winter wheat for chicken feed, the other crops being potatoes, alfalfa, and over 100 acres per year of corn, this year there being 135 acres of grand Western Dent for the ten stone siloes, with walls 20 inches thick, plastered inside, which have been in use for over twenty years, and vary in size from 12 x 12 x 30 feet to 16 x 24 x 30 feet. Corn ensilage has thus, for 20 years, demonstrated its value as the staple food of the farm, but, if the land were better adapted for it, Mr. Cotton would grow more alfalfa, for which, as one of the greatest of foods for milch cows, he is an enthusiast. A 26-inch knife cutting-box, stationary on barn floor, driven by a 20-h.-p. engine, with an arrangement of carriers, fills all the siloes, at the rate of 100 tons per day, five men tramping in the cut corn.

Alfalfa is the main soiling crop from June 1st to September 1st. In the season, three cuttings are taken off. It is seeded after winter wheat, the ground being well plowed, and worked like a garden. Twenty pounds of seed are used, 10 lbs. sown across each way, per acre, with a wheelbarrow seeder, followed by a couple of strokes of the smoothing harrow. No nurse crop is sown. Sometimes one cutting is made the first fall, and left on the ground for protection. The trouble with spring seeding was found to be the weeds, but, on other good farms in the State, where the conditions are different, spring seeding is in favor.

FEEDING METHODS.

The chief purchased stuffs are bran, at about $26 per ton, and gluten feed, at $28.50 this season. Practically no hay nor straw is fed. In winter, the first meal is a mixture of ensilage, gluten and bran; cut dry fodder at noon, to the extent of ten pounds, and a repetition of the morning ration at night, with water midway in the forenoon and afternoon. Thirty to forty



Interior Sanitary Dairy Stable.