

due to thoughtlessness. The milker takes the pail and goes to the barn, sits down to milk in the stable that has been tightly closed all night. To make conditions worse, some one begins to clean out the stable and another to fill the mangers with hay. The streams of milk carry much of this foul air filled with hay dust and manure odors into the pail, and we have as a result the familiar "cowy" flavor in the milk.

The udder and flanks should be wiped with a damp cloth, and if soiled should be washed. If a little vaseline is rubbed on the hands it does away with the objectionable habit of wetting the hands. The vaseline also keeps the teats from chapping.

The first streams of milk contain bacteria of the worst form. These should be milked into a small tin and given to the barn kitty. They are bad for the milk, but not likely to harm the cat.

The covered milk pail with only a small opening is growing in favor, and tests of the milk for bacterial content establish its merit in keeping out dust and dirt.

The immediate straining of the milk through several thicknesses of cheese cloth is another essential. It seems unnecessary to speak of the care of the strainer cloth, but when one hears of it being washed in the dish water, and not even rinsed, we venture to suggest that the cloth be first well rinsed in tepid water, then thoroughly scalded and hung in the open air.

Lately I asked one lady at the Pacific Coast, and another in Manitoba, both living on farms, how many cows they had milking, and from each came the same answer, "Oh, I'm sure I don't know, I never go to the barn." That is the tendency of the times—the withdrawal of the women's interest from the barn end of the dairy business. I do not advocate that the women should milk, but I do think they could help much by going occasionally to the barn and seeing how things are done there. The very fact of their looking around and feeling a co-operative interest would be a stimulus to the men to set up a higher ideal of cleanliness. The kindly word of encouragement or helpful suggestion does much toward a permanent improvement.

We women have our share to do in improving the quality of the milk. We must be gravely concerned if the milk is off in flavor. We are too apt to be indifferent, and if that is the case, we must not expect too much of the men.

COOL-CURING ROOMS FOR CHEESE.

Extended experimental work and practical experience in the dairy business confirm the value and importance of improved curing-rooms at the cheese factories, so that through the heated season cheese may be held at a low and uniform temperature. As was stated recently by T. G. Wright, President of the Picton, Ont., Cheese Board, in a letter to the Times of that town, there can be no doubt in the minds of any thinking dairyman that cheese cured in a room where the temperature never rises higher than 58 degrees are superior to those cured in a room where the temperature ranges from 80 to 90 degrees. With proper curing-room facilities there is, also, not the same imperative need to hurry away to the train, boat or warehouse of an exporter, cheese fresh from the presses. Mr. Wright backs up the contention by quoting the reports of leading produce houses in Manchester and Bristol, testifying to the superior condition in which cool-cured cheese arrive in Great Britain over those cured in the ordinary way; and Clement & Sons, of Glasgow, write that they are superior in all respects to other brands from the same district arriving at the same time, and are worth two shillings per cwt. more than others made during hot weather.

Prince Edward County, Ont., has put cool-curing to the test; some nine of the factories—as a rule the larger ones, we believe—being so equipped, and the system would, undoubtedly, have stood a better show of being extended but for the discouraging attitude of buyers, who do not make sufficient discrimination in favor of the cool-cured cheese. The advance of about $\frac{1}{4}$ of a cent per pound paid the first season cool-curing was inaugurated has been diminishing towards the vanishing point, but even yet Mr. Wright points out that for the cheese of June, July and August sold at Picton, nearly \$850 more was received than if there had been no cool-cured cheese on offer, by comparing Picton prices with those of an adjacent board, where only the ordinary cured cheese are marketed. The Prince Edward County dairymen are deserving of still more substantial encouragement at the hands of the trade in their determination to improve the quality and maintain the reputation of their cheese, as they were led to believe would be the case when urged to make the requisite improvements.

What the adoption of cool-curing facilities means can best be illustrated by an example, and for the benefit of its dairy readers generally, "The Farmer's Advocate" gives the accompanying plan and description of the factory, with typical cool-curing room and ice chamber, at Cherry Valley, refitted some three years ago at an outlay of about \$1,000.

Curing-room 26x32 ft. Beginning with a trench two feet deep, filled with cement grout, 2x1 inch studding, 2½ feet apart, is placed on the 12-inch plank sills, and an alternate row midway, so as to leave a foot space between, which is subsequently packed tight full with planing-mill shavings. On the outside of the studding is nailed tongue-and-groove matched siding, and then two thicknesses of waterproof Neponset paper, and, lastly, on the outside common bevelled siding, dressed and painted. Inside the studding is inch tongue-and-groove lumber, then two thicknesses of paper, lined up with spruce, matched and dressed. The ceiling is constructed in the same way, and the whole interior given a coat of alabastine. The floor is smoothly-finished cement concrete. There is a heavy cold-storage door between the drying-room, into which the cheese are placed for 24 hours after being taken from the presses, and the curing-room proper.

The outside opening of the curing-room is 26x30 inches, and about four feet above the floor, large enough to roll out the cheese to the wagons. It has triple doors, the center one being hinged at top, to fall into place after each cheese passes out, to exclude the warm air. The three double windows in south end are small—16x22 inches—and just below the ceiling. Between the curing-room and the ice box or chamber, are two openings at the floor and two near the ceiling, about 10x12 inches each, and regulated with slides, the lower pair admitting the cold air, which, as it grows warmer, rises and passes back through the upper openings into the ice box, to be cooled down again. They are located about 4 ft. from the sides, and 12 feet apart.

The ice box, 20x20 ft., is sided up in the same way as the curing-room, except that on the inside there are three thicknesses of boards. Then it is strapped and boarded, leaving a one-inch space for the free circulation of air. The site for the floor is filled in with earth and gravel to within six inches of the floor proper, and then from 4 to 6 inches of cement grout, and on this are laid 2x4-inch scantlings on edge, two feet apart, and filled between with coal-ash cinders, well tamped down. On this is laid one-inch matched flooring, with a fall of one inch in ten feet to gutter on one side. Over the boards is laid a covering of well-soldered galvanized iron. A ½-inch pipe, trapped outside to exclude air, is soldered in and extends through the wall to drain away the water from melting ice as the season advances. On the galvanized-iron coating are laid 2x4-inch scantlings every two feet towards the gutter. Upon these crosswise and flat are laid 2x4-inch scantlings, four inches apart. The extra layer of scantling are for the purpose of holding up the ice, permitting a circulation of air and allowing drainage. The ceiling is made like the curing-room ceiling, including the one foot of shavings. The only opening is a trapdoor in the ceiling, through which the ice is lowered, being first hoisted from sleighs by rope and tackle with horse to a door in the gable end, where the box dumps itself and the ice slides down an incline to the trapdoor in the center of ceiling. Ice from the adjacent lake is cut in 18-inch blocks, 500 or 600 blocks being required for a 200-ton make of cheese. The interior of the ice box is made of cheese. The interior of the ice box received a heavy coat of paint, and the galvanized iron at bottom was flushed up about 10 inches at the side. The ice should be well chinked with the broken ice; or, better, flooded each evening as the broken ice is being filled in sharp, frosty weather, so that the mass will be compact right up to the ceiling and close to the walls. The floor and ceiling are on a level with those of the curing-room. The ice chamber should be from $\frac{1}{2}$ to $\frac{3}{4}$ the size of the curing-room. In their construc-

tion the owner, W. S. Blakely, in the main, followed the plans issued by the Dairy Commissioner's Branch in the Dominion Department of Agriculture, and the results have been most satisfactory, in giving control of the temperature down to 54 degrees, and greatly improving the character of the cheese as compared with the curing-room formerly in use. The room in north-east corner, with special vats and separators, is used in connection with the whey-butter enterprise. Taken all together, the factory is not only commodious, but convenient and compact, and a credit to its owner.

WHEY SWEETER—CANS EASIER TO WASH.

Editor "The Farmer's Advocate":

At the last meeting of the Norwich Gore Cheese Factory patrons it was unanimously agreed to that the milk should be pasteurized. Thus you can see my experience has not been a long one, but so far the results obtained have been highly satisfactory.

The whey, after being treated, is returned in a very sweet condition, and remains so until it is fed. As to the improvement made in the feeding quality, I'm not at present prepared to say. But this much is true, the cans are returned in a sweeter and purer condition than has been the case heretofore; and although we are paying our maker five cents per cwt. of cheese for this extra treatment of the whey, I for one do not wish to return to the old method. C. H. CARROLL.

Oxford Co., Ont.

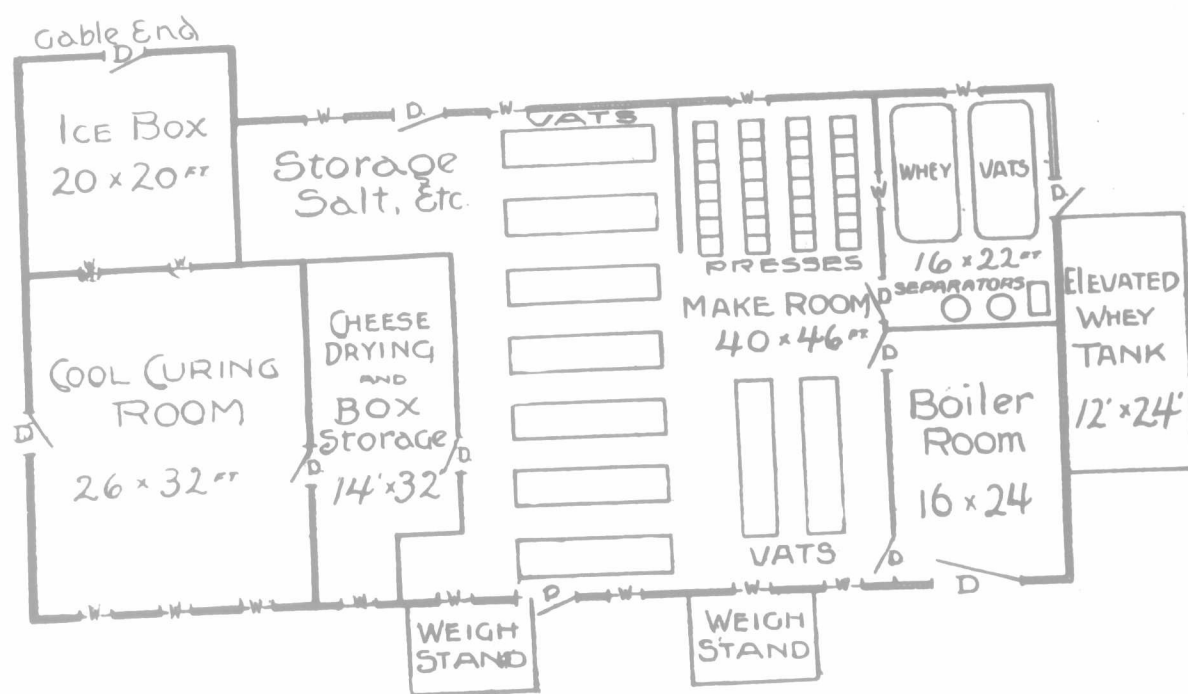
GARDEN & ORCHARD.

INSECT LIFE DISCUSSED BY EXPERTS.

Bugs and their relatives, as found by those who have to do with growing crops, were discussed from various standpoints at the 45th annual convention of the Entomological Society of Ontario, held at Ontario Agricultural College, Guelph, on November 5th and 6th. Though the attendance was not large, interest was keen. The reports and many of the papers were of a practical nature, and sound advice in fighting insect foes to farm and garden crops was given.

The newly-appointed officers are as follows:—President, Dr. Jas. Fletcher, Ottawa; 1st Vice-President, T. D. Jarvis, B.S.A., Guelph; 2nd Vice-President, Dr. Walker, Toronto University; Secretary-Treasurer, J. E. Howitt, B.S.A., Guelph; Curator, L. Caesar, B.S.A., Guelph; Librarian, Dr. Bethune, Guelph. Directors for Districts—A. Gibson, Ottawa; C. E. Grant, Orillia; R. S. Hamilton, Galt; C. W. Nash and J. B. Williams, Toronto. Auditors—J. W. Crow, B.S.A., and S. B. McCready, B.A., Guelph. Delegate to Royal Society of Canada—A. Gibson, Ottawa.

The reports on insects of the year by Messrs. Nash, Williams and Grant elicited discussion on those pests that have been most prominent among the workers of destruction. No depredations by new arrivals were noticed, but some old-time enemies made their presence felt. The aphides on turnips, cabbage and allied plants were among those that did greatest damage. The dry autumn favored their reproduction. Many growers had been known to try spraying. Soap-suds was spoken of as the only practical solution used as spray when cost was considered. The remedy advised, however, was a close watch early in the season and the destruction of colonies before they had spread. The codling moth, though not serious in the central and northern portions of the



Plan of Cheese Factory and Cool-curing Room.