

construction and sanitation to have a manure pit under the stable.

5. A comfortable calf-pen should be provided, effectively separated from the milking herd.

6. No dairy barn is complete without a wash-room for the milkers and barn attendants, and lockers for their clothes. This room should also contain a small boiler for providing hot water and steam, as this is a necessary part of the equipment of a modern dairy barn. Milk scales, record sheets, milk stools, etc., may also be kept there when not in use.

7. There is no objection to storage of feed above the cow-stable proper, so long as the floor is kept perfectly tight.

8. In cold climates it is deemed better to have a comparatively low ceiling, on account of temperature.

Detailed plans are given for two-story stables, also plans for siloes, small dairies, creameries, combined creamery and city milk depot, and combined ice-house and milk-room. To anyone contemplating the erection of dairy buildings, the plans and suggestions in the report will be very valuable.

H. H. D.

CANADIAN DAIRY PROGRESS.

The report of the Dominion Dairy and Cold-storage Commissioner of Canada, for the year, March 31st, 1907, has recently come to our table. Part I. of the Report deals with "The Progress of Dairying in Canada." Under this heading, we note the following points of general interest to dairymen:

"Ontario and Quebec continue to produce the bulk of the cheese and butter made in Canada. The dairy industry is not making much progress in the Maritime Provinces. The dairy industry in the Province of Nova Scotia is rather declining. Dairying shows more progress in New Brunswick. In the Western Provinces, the best development is shown in Northern Alberta, where there are 14 creameries and 8 cheese factories. In the Province of Saskatchewan there are six creameries, but no cheese factories. There is a revival of interest in the dairy industry of the Province of Manitoba." (Incidentally, a good word is spoken for the Dairy Department of the Manitoba Agricultural College, in charge of a graduate of the Ontario Agricultural College, Prof. W. J. Carson, who deserves all the kind things said of him.) "In British Columbia there are sixteen creameries in operation, and the business is established on a sound, healthy basis." (Here, too, we have another graduate of the O. A. C. in charge—the genial F. M. Logan, B. S. A., whose soul has taken on a Western expansion under the favoring Pacific breezes and the bracing Rocky Mountain air.)

The Commissioner does not look for any material permanent increase in the amount of cheese for export, but thinks there may be an increase in export butter if prices improve. The manufacture of condensed milk is reported to be prosperous, and shows signs of growth and development. He further notes a falling off in the annual increase of butter and cheese exported since 1900. Great Britain continues to be the only real market of consequence for Canadian dairy products. The total value of cheese exported to other countries in 1906 was \$132,261, and of butter \$273,536.

In a brief history of the cheese industry of Canada during the 41 years which have elapsed since its inception, the names of Harvey Farrington, Edwin Caswell, Hon. Thos. Ballantyne, Ketchum Graham, and James Burnett, of the Province of Quebec, are mentioned. Adam Brown, of Hamilton, is credited with having made arrangements for the first cheese exported. There is a rather unkind cut at modern cheese-buyers in the reference to the late Mr. Caswell, of whom it is said: "Impulsive by nature, he frequently committed errors of judgment in his dealings in cheese, which caused himself heavy losses, but no one ever knew him to try to get out of a bad bargain by discovering some minor defect in the quality of the cheese he had agreed to purchase." There is a suspicion in the minds of some salesmen, that there may be something in this point, raised by the Dairy Commissioner. We presume he did not enlarge upon the point for obvious reasons, but felt, like Scipio, "Upon these points, like wounds, I touch with reluctance; but, unless touched and handled, they cannot be cured."

EXPORT CHEESE TRADE.

The prediction that New Zealand cheese can hardly be a factor in materially affecting the situation, is scarcely borne out by the recent reports from British markets, where the large imports from New Zealand during the past winter (their summer), have materially weakened the market for Canadian cheese at the end of the season for cheese from Canada. Advice is tendered Canadian grocers and others, with reference to catering for the Canadian cheese trade. They are advised to buy June cheese for winter use, and September cheese for the following summer trade. These should be kept in a "cool" temperature. Small cheese, weighing 10 to 15

pounds, are also recommended. The bad results, from shipping green cheese are emphasized. A big increase in the number of cheese factories fitted with cool-curing rooms is prophesied.

THE COW-TESTING WORK.

Many pages of the report are occupied with the results of Cow-testing Association work. The general conclusions from this work are:

1. In order to ascertain the value of a cow, it is necessary to test, as well as weigh her milk.

2. Many farmers are not only working hard, but working overtime, unnecessarily, through keeping twelve cows, when seven would yield as much milk and butter-fat.

3. Cows of mature age lower the production of a herd just as often as heifers. Many cows are evidently kept too long.

4. Careful selections of good individuals, intelligent breeding to sires of proven worth, and liberal feeding, are the sure foundation stones in building up a profitable dairy herd.

5. Systematic weeding will speedily increase the average production of the herd.

6. If a dairy herd has a certain average production of milk and butter-fat, it follows, necessarily, that some individual cows in the herd must be below that average, while others must be above it. The work of the cow-testing associations is to help the farmers to detect those below this average. This can be done only by keeping records of individual cows. Better care, better breeding, better management and better feeding should be given to those above the average, so as to maintain and improve their records.

Part II. deals with the report of the Assistant Dairy Commissioner, J. C. Chapais, for the French section of the Province of Quebec, and includes an account of a visit to New Ontario. The Assistant Dairy Commissioner says: "A new feature was added to my work last year, that of fighting against Sunday work in butter and cheese factories." Is there anyone else connected with the dairy industry doing any "fighting" along similar lines in English Canada? If so, we have not heard of it. There was a slight attack of anti-Sunday cheesemaking last year, but apparently it was mild, and all the patients appear to have recovered.

Part III. deals with "Extension of Markets," by W. W. Moore. Good work is apparently being done in this branch of the service.

Parts IV. and V. deal with "Fruit" and "Cold Storage," respectively. If the fruit-growers were managing the dairy business of Canada, what would the dairymen say? H. H. D.

reached the standard of 3.5 per cent. fat and 9 per cent. solids not fat during the months of June and July.

"But," someone says, "lower the standard to a reasonable ground, and this difficulty will be overcome. If the standard is lowered, it leaves at once a loophole for the middleman to tamper with the milk, and then come within the limit of the law. For instance, one farmer sends milk testing 4 per cent., and a second farmer milk testing 2.9 per cent., the second man, if such a law were in force, requiring the above-named standard, would be fined for adulteration (?), and the middleman might skim the 4-per-cent. milk down to 3 per cent., and yet go unpunished; and, according to the best medical authorities, the 3-per-cent. milk is, in all probability, better than the high-fat milk for consumption in the whole form. Sensible, is it?"

Cows in all breeds test below 3 per cent. fat, with the possible exception of the Channel or Island breeds. Twelve cows, at a recent Royal Show in England, gave milk testing under 3 per cent. fat (two of them below 2½ per cent.). A number of prizewinning Holsteins have gone below 3 per cent., and possibly there are some of other breeds. Should these strong breeds of cows be practically cut out of the milk business, when it is an acknowledged fact that the calves from these cows are easier raised, grow better, and are less subject to digestive derangements than those of the Channel Island breeds. If calves thrive better on milk from such cows, why not children?"

For these reasons, I say cut out the milk standard of solids in any new law regulating the sale of milk. Use the lactometer, and fine every man who puts water in his milk, for 3-per-cent. pure milk is better than 4-per-cent. watered milk; but do not, surely, have the man subject to fine or imprisonment who may give the consumer the best possible product from strong, healthy cows, though falling below a nonsensical standard.

Russell Co., Ont. G. A. McCULLOUGH.

GARDEN & ORCHARD.

PLANTING TREES IN SPRING.

To anyone who has been used to trees about the home, it is almost incomprehensible that so many other homes in our country should be entirely without them. Drive through the country where we will, and what do we see! Every here and there a bare farmhouse, without even a vine or shrub to clothe their desolate nakedness; windows staring at one with an effrontery as different as may be from the coy attractiveness of those that peep out from the half-shielding greenery of trees or the pink of apple-bloom; often, not even a bit of an orchard, a possession which, from the merely economic standpoint, would unquestionably recommend itself.

It is a great mistake not to have trees about the home, and for many reasons. In the first

place, beauty in any form exercises a refining influence. In the second, it is very necessary that the children cherish a love for the old farm, even for the material elements of it, and the child is certainly "up against it" who is required to foster a great affection for a brick band-box in a bare field, with a cow-lane on one side, and a burdock patch on the other. In the third place, there is a great interest in planting trees, and vines and shrubs; in seeing the evergreen wind-break creep higher year by year, and the orchard beginning to throw out its fronds of pink, with their promise of a rich fruitage. In the fourth, a man's "place" indicates very well, as a rule, the kind of man he himself is. A bare, cheerless abode, whether truthfully or not, never fails to convey the impression either of carelessness, or lack of the æsthetic quality so necessary to the true lady or gentleman, or else of a hard, niggardly disposition which expends itself in money-grabbing, at the sacrifice of all the softer, finer, more ennobling attributes of human nature.

Doubtless, many have put off planting, not knowing exactly how or where to plant to the best advantage. We wish to urge, however, upon those who have never planted trees, the advisability of setting out at least a few this year. The trouble is almost nothing; the expense may be nothing, if one goes to one's own woodland for the trees; and the satisfaction is sure to be great—that is, provided, of course, that the



The Four-horse Age in Agriculture.

Four-horse team at work on the farm of Anderson Bros., Huron Co., Ontario. (Photo by B. E. Anderson.)

MILK STANDARDS.

Editor "The Farmer's Advocate":

What is ideal milk? There are different phases of this question. Certainly, the first and most important essential is a strong, healthy cow. She must have good food, fresh air and pure water with which to manufacture the milk. With these conditions, the milk, as it comes from the udder, must surely be fit for human consumption. After this, the point to consider is the proper handling of the milk, which includes the cleaning of the cow, the sanitary conditions of the dairy utensils, the proper cooling of the milk, etc.

An attempt to regulate the food, water, and condition of the cow and surroundings, and also the care of the milk, seems to me a step in the right direction, and a necessary step, if we are to have good milk; but to attempt to regulate by law how much fat, casein, etc., a cow must put into her milk to make it marketable, is, to say the least, ludicrous. Especially ridiculous does it seem when the standard proposed is higher than 90 per cent. of the herds in Eastern Ontario reach during the months of June and July. Some individual cows of all breeds would give milk which would subject the owner to fine or imprisonment.

At the St. Louis Demonstration were stabled 25 Jerseys, 29 Shorthorns, 5 Brown Swiss, and 15 Holsteins, and not one cow in the whole lot