Goodrich.—The distinctively dairy breeds and their grades, and sires descended from the best performers in those breeds.

Alvord.—Jerseys and Guernseys for butter or cheese; Ayrshires and Holstein-Friesians for market milk. Use these and grades of these for cows, and pure-breds only for sires.

Gurler.—Jerseys, Guernseys, and butter families of Holsteins.

Gould.—Any of the dairy breeds best suited for the local disposal of the milk.

Curtiss.—Jerseys, Guernseys or Holsteins.

Dodge.—Jerseys.

Dawley.—Jerseys, Guernseys, and butter strains of Holsteins.

Adams.—Jerseys and Guernseys.

Boardman.—I would say Jerseys, Holsteins, and Guernseys, but do not regard it necessary to confine the selection entirely to these, for individuals of other breeds having the dairy type and conformation will often prove themselves valuable for the dairy. For sires none but thoroughbreds should be used.

Brandt.—Jerseys.

Morgan.—Holsteins.

Nissley.—Jerseys or Holsteins.

Jones.—Jerseys or Jersey-Guernsey grades.

Eyth.—Jerseys.

In answer to the questions, "*For home or creamery buttermaking, what do you consider the most desirable months to have cows calve, and at what age is it preferable that heifers should have their first calves?*' the majority reply in favor of September and October; several preferred having them "come in all the year round." About half would have heifers calve at two years old, a few from two to two and a half, and the balance from two and a half to three years.

Two Grand Holstein-Friesian Heifers.

The two young cows reproduced from photographs and represented on this page are fair specimens of the herd to which they belong—that of Mr. G. W. Clemons, St. George, Ont. For a number of years efforts have been made by the proprietor to place his Holstein-Friesian herd in the very front ranks, by adding from time to time such animals as would best assist in raising the standard. It has been his aim when purchasing stock to secure animals as nearly as possible connected with the highest producers, until he now possesses a number of great dairy performers among the matrons of the herd. Not only do they yield well, but in show-ring contests, where conformation largely governs the decision of the judges, members of this herd invariably earn for themselves and owner enviable reputations. At the last Toronto Industrial, Artis Peer's Poem (1300), of this herd, won the silver medal award for being the best female of the breed on the ground, a winning credited in the ADVOCATE of Oct. 15 to R. S. Stephenson's Ideal's Lena, who actually won the female sweepstakes award at the London "Western."

Mondamin's Daisy Barrington gave as a two-year-old 62 lbs. of milk in one day, 416 lbs. in seven days, 1,635¼ lbs. in thirty days; total production in seven months, 10,351 lbs. 8 ozs., a record which has never been equalled by any other two-year-old in Canada. Her prize winnings are as follows: As a calf she won first at Oswego, first at Rochester, and first at Sandy Creek; also winning sweepstakes at Rochester for best female any age or breed. As a yearling she won first at the Toronto Industrial, first at Montreal, first at Ottawa, and second at the Provincial Dairy Show at Gananoque. As a two-year-old she won in 1896 first at Toronto, third at Montreal, first at Ottawa, first at Galt, and first at the Beverly Agricultural Society at Rockton. This record stamps her as one of the greatest show and performing heifers of the breed in Canada.

Cornelia Artis gave as a two-year-old 40 lbs. milk in a day on grass; as a three-year-old, she gave 59½ lbs. in a day without forcing. She won as a two-year-old second at Montreal, second at Ottawa, and first at Gananoque.

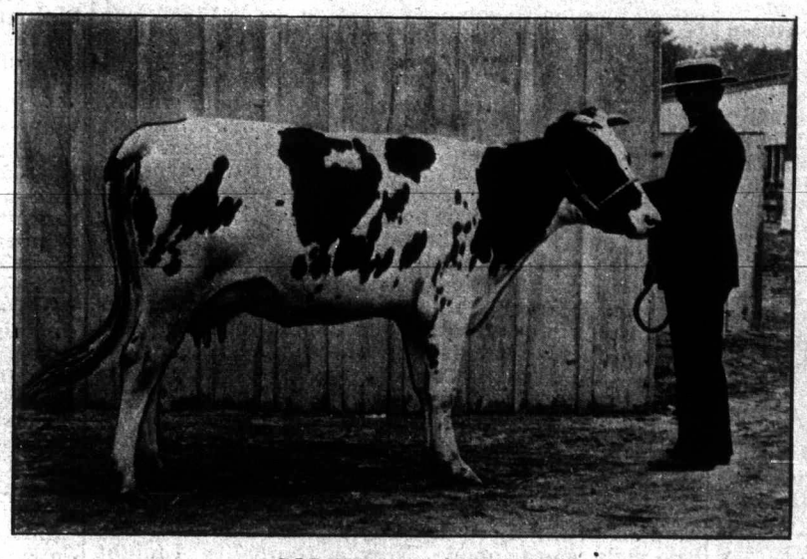
Mr. T. C. Stark, superintendent of dairy cattle at Gananoque, in his report to the Agriculture and Arts Association, says: "I never saw a finer sight than when the sixteen two-year-olds were in the ring," and Cornelia Artis was up head. She won in 1896, as a three-year-old, second at Toronto, first at Ottawa, and second at Rockton.

The Key of the Crow's Nest Pass.

The right of way through the Pass is the key to the situation. No matter what arrangement may be made, that must never be alienated from the Dominion. While it is in the hands of the Government the needed transportation connection between the East and the West will be assured. If it passes into private ownership situations may arise in which such connection will depend on the experiments and whims of the stockowners here or abroad.—*Toronto Globe.*

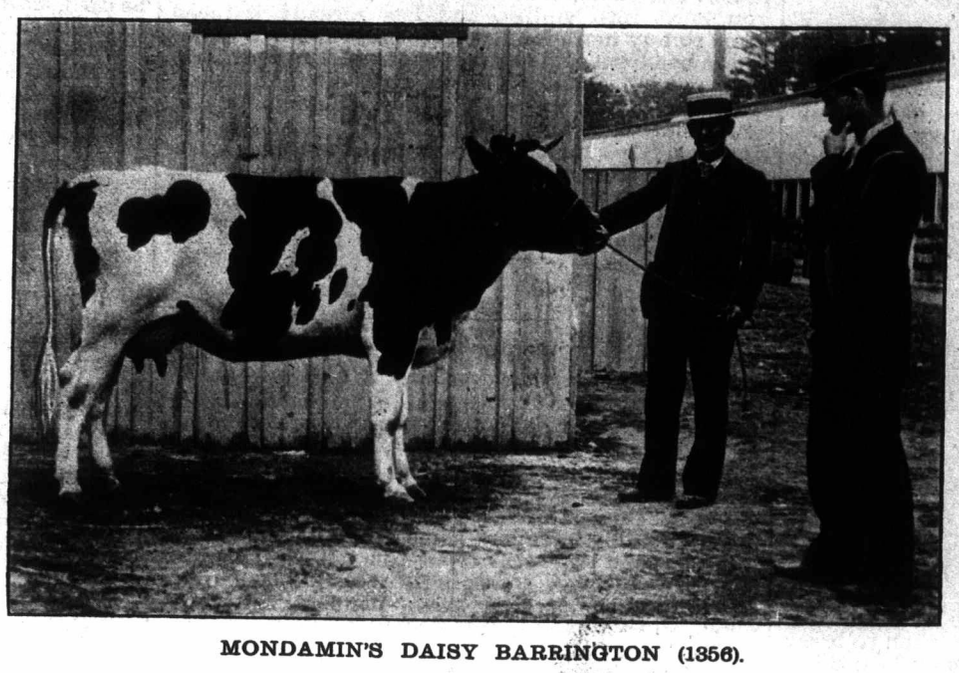
Pigs and Farm Produce.

There was a time when any sort of grain would bring a good price. It was then questionable whether or not hogs could be profitably grown and fatted on many farms; but in the present day it behooves every one to make the most of the little things in agricultural practice. In a discussion upon this subject, Mr. Sanders Spencer, in the English *Live Stock Journal* Almanac, expresses a wonder that pig-breeding and pig-fattening should not be generally carried on on the same farms in England, which he indicates is not the case. In the Old Land, as in portions of Canada, dairy farms having a large amount of by-product, it is the practice to purchase rather than breed the hogs to be fattened. Probable reasons for this are that on such farms a large number of hogs are wanted at about one time, while there is a certain amount of



CORNELIA ARTIS (865).

doubt as to whether or not the home-kept sows would be punctual in their time of farrowing so that their young pigs would be in readiness for the whey or skim milk; that to breed the pigs required would necessitate a considerable addition to the farm buildings, etc. Such reasons and others are put down simply as excuses by Mr. Spencer for not breeding the pigs to be fattened. It is true that the buildings required for half a dozen breeding sows are not nearly so extensive as is frequently supposed. It is advisable to let each sow have a separate place in which to farrow; but after the pigs are a fortnight old, two or even three sows may be placed in one roomy building; each litter of pigs will then keep to its own dam; and, further, as soon as the days become warm the young pigs will thrive all the better if they, with their mothers, have simply an open yard in which to roam, providing, of course, that there is a good shed in the yard.



MONDAMIN'S DAISY BARRINGTON (1356).

There is another very important point in favor of combining the breeding and fattening processes: One is able to own far better pigs, and those which will fatten more readily and realize a higher price when sold. On dairy farms, in particular, the cost of keeping half a dozen or more well-bred sows need be very little. Dairy by-products, with grass in summer and roots in winter, will keep a sow in good condition, provided a little better ration is provided for a few weeks prior and after her farrowing. All kind of inferior grain, ground and mixed with dairy offal, are readily eaten, and with good results, by pigs while on pasture, and give a good return in the form of pork and a considerable improvement in the pasture on which they are fed.

Summer Feeding.—If no grass land be available, a considerable weight of valuable pig food can be grown on a patch of land sown with tares, and at the same time the land will be benefited, since the tares (a leguminous crop) will obtain most of the nitrogen required from the air, and there is sure to be a large amount of leaf and stubble to be plowed in for the following crop. In the earlier stages it is advisable to allow the tares to be a few hours in the swath before they are required. Pigs will eat and thrive on such food until the seed pods begin to fill. Before this condition will have arrived the red clover or lucern plot will be giving a continuous supply of valuable pig feed at little cost. Neither of these crops, especially the lucern, should be allowed to become too old or stalky, since the pigs eating it in that condition will sometimes become constipated, and generally be less thrifty, owing to the woody fiber being so difficult of digestion.

As a pasture red clover is a very valuable food for pigs. With it alone store and breeding pigs will thrive well, and if some corn or meal be added the pigs will fatten rapidly and the land become enriched. White clover and even trefoil may be used in the green stage, but the former is better grazed by the pigs. Not only is such a combination of foods well balanced and therefore profitable, but land upon which such feeding is practiced becomes rapidly richer.

Winter Feeding.—A considerable portion of the winter food of breeding sows and growing stores might consist of swedes and mangels, and it is within the bounds of possibility that a far better return would be received from the consumption of these roots by pigs than if they were fed to cattle, provided that a certain quantity—which need not necessarily be large—of grain in the form of meal be also fed to the pigs. It is frequently this want of additional and more expensive food which deters so many farmers from paying that attention to breeding and keeping of pigs which could be profitably given to a much greater extent than is now the case. With regard to winter housing, when we remember that the pig has little natural covering, it goes without saying that warm quarters are necessary in which to produce pork economically. Dry bed and cleanly surroundings are necessary. Good ventilation is also important, so that the steam which rises from the pigs may not accumulate on the walls and ceiling, and render the house damp and clammy.

We have in this and foreign countries a good reputation for our pork, so that it is not necessary to go abegging for a market when the right sort of bacon and hams are produced. The profits, however, are what we are all in pursuit of. It therefore behooves every fattener of pigs to have to do with only the best type of animal, feed it to the best advantage, so far as possible upon food produced at little expense, which may be found to some extent in the by-products which are frequently allowed to go to waste.

FARM.

Satisfactory Round Silo and Ensilage Feeding.

To the Editor FARMER'S ADVOCATE:

SIR,—In reply to your request, I send you a short description of silo and mode of building. It is a round (stave) silo, twenty feet high and fourteen and a half feet in diameter (inside). We dug a circular trench and filled it with broken stone, leveling it smooth with common mortar for a foundation. For staves we used two-inch pine plank, just as it came from the saw, twenty feet long and eight and ten inches wide. We put on five hoops (⅞ round iron), each hoop in four pieces, each piece twelve feet long, with a nut on each end. Instead of using blocks for tightening hoops we used scantling twenty feet long, the height of silo, letting the scantling stand in even with inside of stave, leaving outside of stave two inches or more (according to size of scantling) to tighten hoops on (the scantling should be hardwood). We bent our rods to a circle the size of silo. We next set up our scantling and put on hoops (and as we built inside the barn we had no difficulty in plumbing and staying the scantling), then fitted in the staves and tightened hoops.

The total cost of material used was $40. We were two days in filling, using a horse power and Watson ensilage cutter with carriers; one man in the silo all the time mixing, spreading, and tramping, and left it without any covering or weighting.

We have been using the ensilage for about four weeks, and are well pleased with it. We feed about thirty lbs. a day to milking cows and fattening cattle, with six lbs. of meal and all the oat straw they will eat, and never fed with better results.

A. O. TELFER.

Middlesex Co., Ont., Dec. 24th, 1896.

Still at the Top.

The FARMER'S ADVOCATE issued a superb Christmas number. The ADVOCATE is now and has been for some time the favorite and most practical agricultural journal in the Province—*Glencoe Transcript.*