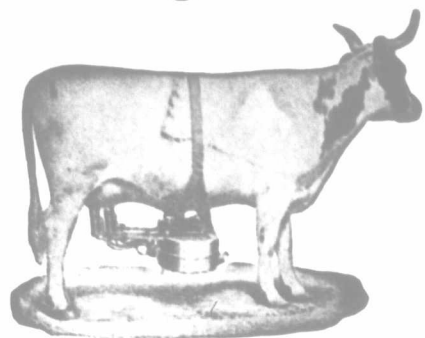


## The OMEGA Milking Machine



has been installed in the private dairy of H. M. King George V. at Windsor Castle and also at His Majesty's private estate at Sandringham. The OMEGA, in a 17-day test on ten cows, (against 17 previous days) at the O. A. C. Guelph, increased the milk flow 206 pounds, or 3 per cent.

### Cleanly and Efficient

The OMEGA is the only machine that draws the milk from the teats through stiff, transparent celluloid tubes to the pail which is suspended from the cow. (See cut). The pail cannot be kicked over and the teat-cups cannot fall to the floor and suck up straw or manure. There are no rubber tubes in the OMEGA to crack and harbor germs. The OMEGA is simple in design and easily cleaned.

### WRITE TO-DAY

for Free booklet describing the many exclusive and desirable features of the OMEGA.

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St. Mary's Ontario

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**Choice Offering in Ayrshires**  
At Special Prices. Several young bulls of serviceable ages. All from R. O. P. sires and dams. Come and see them.  
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**Glencairn Ayrshires** Herd established 40 years. Producing ability from 8,600 to 11,022 lbs. If that sort of production appeals to you, we have heifers all ages and young bulls for sale. **Thos. J. McCormick, Rockton, Ont. Copetown Station, G. T. R.**

**CITY VIEW AYRSHIRES**  
One bull, ten months old, dam's R.O.P., 6,500 lbs. milk, 4.64% fat as a two-year-old. Several bull calves—might spare a few females. R.C. and S.C. Reds, White Wyandottes—eggs for setting now ready. **James Begg & Son, St. Thomas, Ont.**

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## Why Northern Grown Seed Potatoes Increase Yields.

EDITOR "THE FARMER'S ADVOCATE":

The superiority of Northern Ontario for the production of seed potatoes is due, we believe, to three factors. The first of these is found in the peculiarly favorable climate that prevails in the north. The natural habitat of the potato was found in the high plateaus in Colorado and Peru. The characteristics of the climate prevailing in these districts are: Long-growing days of sunshine, cool nights, abundant moisture and heavy dews, without periods of drought. Under such conditions the potato has been proven to thrive best. In Northern Ontario these conditions are prevalent. Severe heat and drought which arrest the growth and lower the vitality of potatoes—are very uncommon, while abundant rains and heavy dews are the rule.

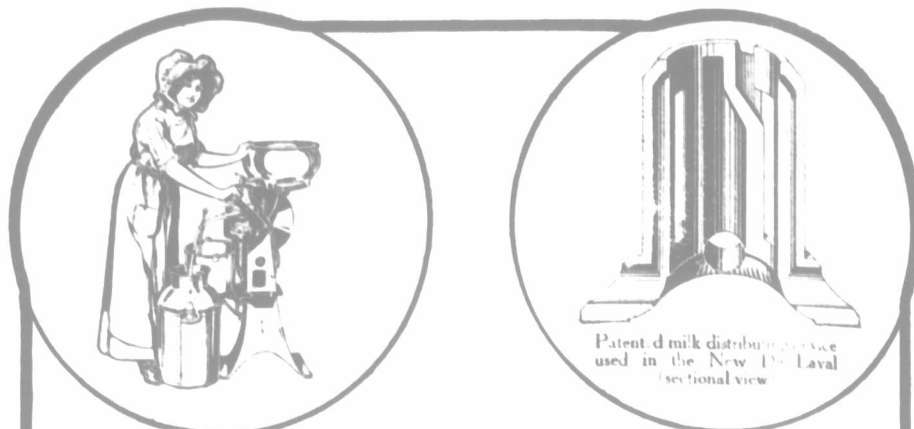
Physiological diseases which are becoming all too common in Old Ontario are hardly known in the north. Leaf Roll, the worst of these diseases was not found in a single case during a lengthy investigation conducted in Northern Ontario in the summer of 1917. Curly Dwarf was not noted either. Mosaic, a bad disease, but less serious than Leaf Roll, was encountered to a small extent, but in a very few cases was the percentage of diseased plants large. These diseases are all hereditary. Their action is to stunt the growth of the plants and reduce the size and number of the tubers. If tubers from plants affected with this disease are planted, the disease will exist in the resultant plants in a still more aggravated form until in the third or fourth generation, the plants will be very small and stunted, and the crop of marketable potatoes produced by them almost nil.

From experiments conducted by P. A. Murphy, who has charge of potato disease investigation work in Canada, it would appear that these diseases are also communicable. Just how they are communicated is not known, as no organism has been found which causes them. It is thought, however, that enzymes of the diseased plants contaminate healthy plants immediately adjacent to them. It is generally believed that the diseases are produced by prolonged drought or other unfavorable conditions which produce the degeneracy noted.

Whatever the cause, however, it has been abundantly proven that these diseases are about the most serious obstacle which the potato grower has to face. As an example, a number of experiments conducted in Nova Scotia may be cited. Several lots of potatoes were planted in this experiment, some from healthy and some from diseased stock. Where 100 per cent. leaf roll was present the plots yielded at the rate per acre of from 36 to 46 bushels of marketable potatoes. Where no leaf roll was present from 226 to 240 bushels of marketable potatoes were secured per acre. Intermediate percentages of leaf roll gave yields varying between these two extremes very nearly in direct proportion to the amount of leaf roll present. As a general result of these experiments it may be taken that for each per cent. of leaf roll present in the crop, the yield of marketable potatoes will be reduced one and two-third bushels per acre.

It is believed that these diseases can be communicated to healthy plants, and they are certainly inheritable. The best authorities both in Canada and United States agree that it is practically impossible to control these diseases, in a district where they are well established, by selection. The only safe remedy is to secure seed from a district where they have not become established. This district, so far as it affects potato growers in Old Ontario, would logically seem to be Northern Ontario. As has already been explained, physiological diseases have not yet become established to any extent in the north, and owing to climatic conditions which do not favor the development of such diseases, it is doubtful that they ever will become a menace to the potato industry in the north.

The third factor which makes Northern Ontario particularly adapted to the production of high-class quality of seed potato is the immaturity of the seed in these districts which is found. That immaturity increases yields can hardly be doubted in view of scientific experiment and practical experience which would seem



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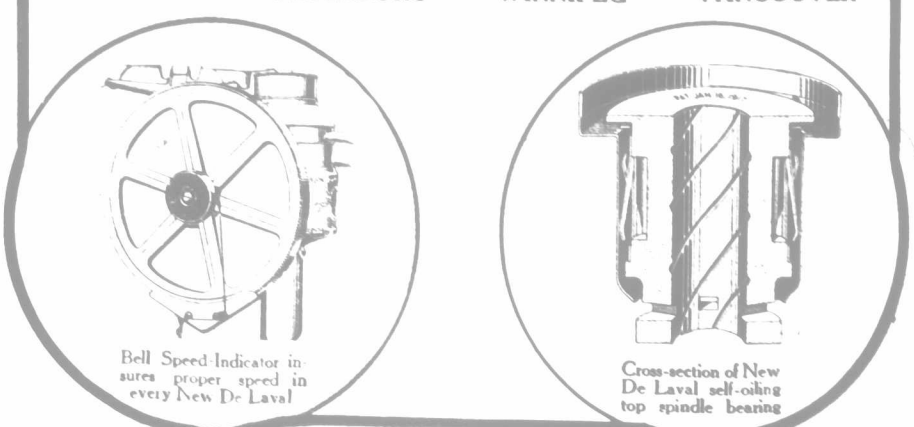
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to prove the practicality of the experimental Farm. Immaturity was clearly forcible. In 1916, Professor W. H. Horticulturalist, co- with potatoes on soil—sand, clay and planted on the boundary of Macoun discovery. Workmen were seen preserve uniformity had three lots of mature seed planted, yielding results, yielding mature seed of planted on the same

At a conference, practical growers, October, 1917, this was discussed, and by all present, the very greatly increased meeting, Walter C. plained his method in July, after removed and planted provide his seed year. By the time the tops, the immaturity sufficiently to be these methods he had his yields in the bushels per acre.

In Northern Ontario conditions, the seed large size very factor of immaturity very important reason when planted in outstanding results.

In a series of for five years, Dr. Ontario Agriculture the relative merits in Northern Ontario Old Ontario. The ferent sources was on exactly the same yield last year was 200 bushels, results may be taken the five years' operation.

Practical growers' factory reports. The Sarnia Vegetable in his annual report the members to plant in Northern Ontario report, that such members of his Association increased their yield G. A. Williams, secured an increase above the yield obtained. G. Bridger, Joak, Peterboro, O. Sarnia, and Henry have all written to planting of northern they have increased to 25 per cent. This in conjunction with experiments already conclusively that potatoes give for Ontario. In consideration of an investigation in late summer of 1917, tages of encouraging in Northern Ontario McCubbin, the Chief biologist in Ontario, Commissioner visited Northern Ontario potatoes. Their method best potato growers generally and make several hundreds of From this inspection percentage of diseased 87 growers in the north.

But after they finished they decided they had decided they wanted of the condition in N of the potato industry know accurately the Ontario, particularly of physiological diseases after, they visited Ontario which specialing—Carleton Place, Middlesex, Erie, Town of Wellington, and in the County of Carleton.

In New Ontario the cent of serious diseases physiological disease the three districts in found very short amount potato diseases and an