

the cost price or make of the machine, comes the question of efficiency of the operator. Handling the machine is a job for the farmer, his son, or some hired man who has an interest in the success of the machine and the cows. For best results the operator must be quick and quiet, with an eye for details, know the machine and the cows and adapt one to suit the other, giving each its proper share of attention at the proper time.

The milking machine will sometimes take the place of an extra hired man, so hard to obtain now. Unlike the hired man, it is always ready to work. It relieves the farm of much of its old-time drudgery. The work of the machine is noted for its uniformity from day to day and it is now recognized as a good investment. One man with a milking machine can milk 20 to 25 cows per hour, which would require three men at hand-milking.

RAISING WATER IN PUMPS

Atmospheric pressure limits the height to which water may be raised by suction. The atmospheric pressure at 5,000 feet is approximately 12.2 pounds per square inch, where at sea level it is approximately 14.7. The mercury barometer at sea level runs about 30 inches and at 5,000 feet runs about 25 inches. The water barometer at sea level is about 34 feet and the water barometer at 5,000 feet elevation runs about 28 feet. You notice that I say about, because the atmospheric pressure varies at all places and sometimes we have a high barometer or heavy atmospheric pressure, and other times a low barometer or light atmospheric pressure.

Theoretically water can be pumped by suction to the height of the water barometer, but in practice this is not the case, because it is impossible to get a perfect vacuum by means of an ordinary pump, consequently, at an elevation of 5,000 feet, about 18 feet, I would say, would be the limit that water could be raised by means of suction, and even this is excessive.

In the installation of any pumping plant the attempt should be made to place the pump as close to the water as possible in order that the suction lift may be made, as small as possible.—E. B. House, Colorado Agricultural College.

SCRAP METAL IN CANADA

The Canadian Government has passed several regulations and orders respecting the price, sale and storage of scrap iron and steel, rags, waste and various other metal materials, as well as steel and iron. The Minister of Customs has authority to fix the price for scrap, and a supervisor will be appointed to enquire into the location and distribution of such materials. The following prices for scrap are now in vogue in Great Britain: Heavy steel turnings and borings, \$17.00; steel melting scrap, \$24.25 per ton; steel mixed with wrought iron, \$12.25; all other classes, \$24.25 per ton. For iron scrap the following are the maximum prices: Wrought iron, \$30.35 per ton; wrought iron mixed with steel, \$24.25 per ton; wrought iron borings, \$12.25.

GOVERNING THE ENGINE

The governor of any engine is used to maintain constant speed at all loads. Engines used for belt work or traction work are always equipped with some form of automatic governor. Automobile, motor truck and motor boat engines are generally governed by hand, but this method is not practicable where the speed of an engine must be kept constant, as in driving a threshing machine.

A governor maintains constant engine speed by increasing or decreasing the power of the engine to suit the load. This may be done by controlling the number of charges of fuel and air taken into the engine cylinder, allowing a full charge or none at all to enter. This is called "hit or miss" governing.

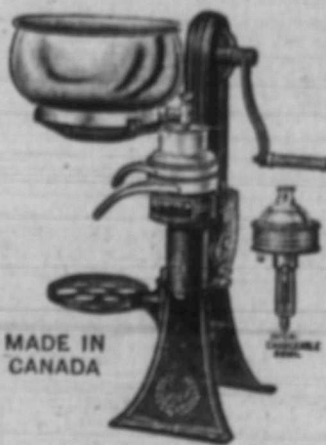
The power of the engine can be controlled by varying the amount of mixture drawn into the cylinder during each suction stroke, allowing less mixture to enter as the load is decreased

Announcement

For some time this company has planned to add to its line a Cream Separator—a Separator that must in all respects be in keeping with the high standard of efficiency which the farmers of the West associate with Cockshutt machines. After conducting many investigations, experiments and exacting comparisons among the many excellent machines available, we decided upon the

Renfrew

Cream Separator, made by the Renfrew Machinery Company Ltd., at Renfrew, Ontario, Canada.



MADE IN CANADA

In our investigations we have spent much more money than any one customer could afford to spend in considering the purchase of a single machine, and our choice, which is substantiated by the records made in the Dairy Schools of Canada and the United States, is therefore your best guarantee.

We give our unqualified endorsement to this machine because our tests show that it not only skims closer than other machines BUT it produces cream that makes firmer, better butter. These economies mean a startling saving to the owner of a Renfrew. It is a made-in-Canada machine, has achieved great popularity in the past eight years among the dairymen of Eastern Canada, and is also being sold in large quantities in the United States, New Zealand and other parts of the world.

The "Renfrew" affords the exclusive advantage of successful interchangeable capacity, self-oiling system, and many other modern features fully explained in the catalogue.

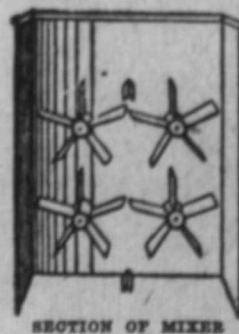
WRITE FOR RENFREW CATALOGUE TO-NIGHT

Cockshutt Plow Company Limited

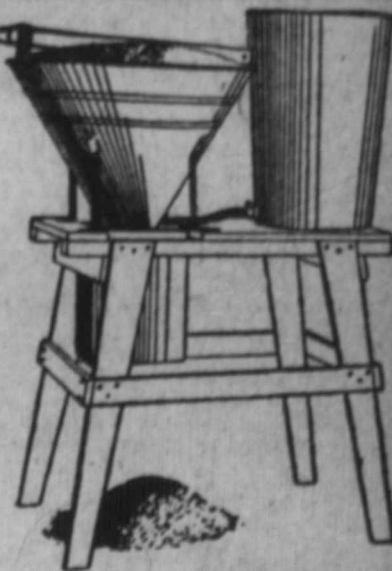
Winnipeg Regina Calgary Saskatoon

The "Rotary Automatic" Pickler

The "Rotary" Pickler has been on the market for three years and given entire satisfaction, as shown by the sales increasing every year. More sold than all other makes combined. It works on the rotary principle and turns the grain over several times and mixes the solution and grain together. The weight of grain runs the machine. It is self-operating and will pickle as fast as a man can shovel the grain.



SECTION OF MIXER



"ROTARY AUTOMATIC"

Manufactured and Sold by

The Metal Specialty Company, Ltd.

Corner 6th Avenue and Halifax Street. Phone 2781. REGINA, Sask.

If you do not see what you want advertised in this issue, write us, and we will put you in touch with the makers

Good Seed Means This Season
Make sure now, Registered White
Oats and Barley, thoroughly cleaned,
rigidly tested for purity,
selection. Shipped only
your approval. Guaranteed
vegetable and flower seed
Mail Order only. Write
now, different catalogues.
HARRIS McFAYDEN SEED CO. LTD.
PLAIN SEED SPECIALISTS