

FARM AND HOME

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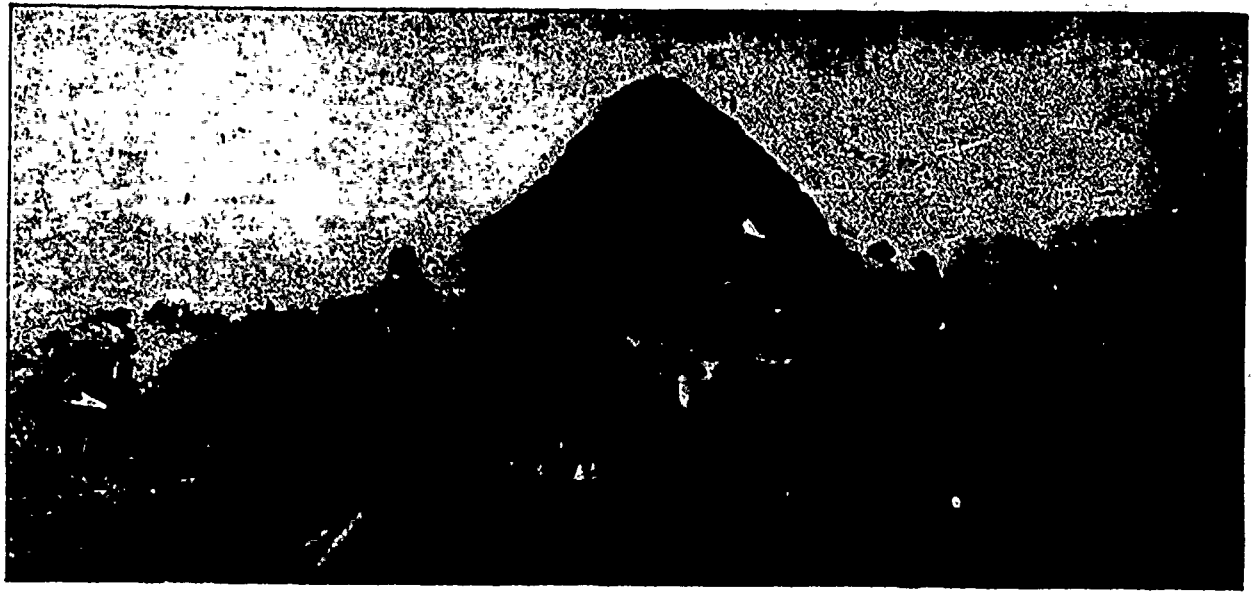
All Around the Farm.

VALUE OF FARM MACHINERY.

The object of using a machine is to save time and labor and as these are the equivalent of money, a machine may be defined as a money saver. But if the interest on the money asked for the machine would do the work in the old way, the machine would be a money loser. If the interest on the price of the machine will pay for doing the work in the old way, do not buy. A raises a few acres of corn each year. He has a one-horse cultivator. With a two-horse cultivator he can save three days' labor each year. But it costs \$40, which will bring him 3 interest, which interest will hire a man to do the three extra days' plowing. Should he buy? This rule, if strictly applied, will condemn many a piece of machinery. A farmer may become machine-poor as well as land-poor.

If a machine will save time or labor (which is money), buy it; it leads to wealth. Every machine must fall under one of these two rules. But there are so many contingencies, and so many machines are so near the dividing line that it will take close thinking frequently to tell which rule to apply. But the man who is too lazy to think should grow poor contentedly. If you are too poor to house, paint and oil your machinery, don't buy any more, for in that case time and labor (which is money) are thrown away.

Make the most of your old machinery. A few years ago I needed a one-horse cultivator. I examined all kinds put on the market. I closely studied the claims of each, their advantages and disadvantages, for I expected to use it extensively. In the meantime I remembered a cultivator I used on my father's farm 40 years ago. It had seven spoon-shaped teeth fastened by taps into a V-shaped frame. I found it su-



The Threshing Season Ended--An Ontario Scene.

perannated, rotten and rusty in an old shed. With 20c and three or four hours' work I had it in good running order. I regard it the most valuable piece of small machinery on the farm. By taking out the front tooth, I cover potatoes, sweet corn, beans, peas, etc. It is quickly adjusted to narrow or broad rows. In short, it will do anything of utility any other cultivator will. I have a two-horse cultivator I bought many years ago. I thought it was played out, but on looking it over decided to fix it up. I added to it the latest improvements, have worked on it all day today, and think it almost as good as a new one. It cost one-third of what the new one would. I have a multitude of tools that a little thought and skill have redeemed from the scrap pile.

Keep machines in good order. The object of a machine is to save time and labor. A sharp hoe will do the same work in less time and with less labor than a dull one, yet not one farmer in 10 sharpens his hoe twice a year.—[W. L. Anderson, Montgomery Co, Ind.]

THE MAN WITH THE GUN.

Seldom alone he roams the fields;
His dog is in the lead.
He makes no noise lest he'll alarm
The quails wherewith they feed.
Then suddenly he raises to
His shoulder, with true aim
The gun. It cracks; a bird sinks down
To make for him small game.

He picks it up and grins a grin
Of gloating self-pleasure.
The dying bird—is it when dead
To anyone a treasure?
If a hoe makes man the oxen's kin—
This hunter on the log—
Does a gun make him brother to
His fellow friend, the dog?

My farmer brothers, drive him off;
He is our biggest pest.
He kills the birds so insects can
Our growing crops infect.
'Tis best to pass protective laws,
But if this can't be done
Put up some signs about the farm:
"Stay off! man with the gun."
—JAMES G. MATTHEWS.

STARCH FROM POTATOES.

The process does not require any very elaborate or complicated machinery. Potatoes are first run through a washer, consisting of a rapidly revolving cylinder incased in a hopper, with grooves running toward the lower end. A stream of water is kept constantly running through this washer, so that when the potatoes finally emerge from it they are cleaned of all dirt and foreign substances. From the washer they go to the grater, another rapidly revolving cylinder covered with corrugated sheet steel, which reduces the potatoes to a pulp. They fall from the grater on to a system of sieves which are kept moving, and on which fine streams of water are falling. As the pulp passes across these sieves the starch is washed out of it and falls into spouts below. From these spouts it runs into vats, where it is allowed to stand and where it finally settles to the bottom. The water is then drawn off, and the starch, now a sticky, dark-colored paste, is shoveled over to other vats where a refining process takes place. It is then drawn to the dry houses, where it is shoveled on to grates in chambers where the tem-

perature can be maintained at about 100 degrees. As the starch dries out, it is raked through the slats to a room below where it appears as the finished product and where it is shipped in large barrels usually holding about 400 lbs each. The machinery required is an engine of sufficient size to afford power for running the grater, sieves and washer, together with pumps for raising water and pumping out the vats, and a boiler large enough to carry the engine and furnish steam for drying the starch. The total cost of the building and equipment is not far from \$10,000. The quantity of starch varies somewhat according to the season, but usually runs from 22 to 25 lbs per bbl of potatoes. [Secretary B. Walker McKean, Me B'd of Agri.]

ECONOMY IN METHOD.

It seems strange to hear there are places in enlightened communities where farmers waste valuable time sacking grain. Here grain is never sacked. It is hauled loose in high wagon boxes and dumped at the elevator in a moment's time. At threshing time it is often measured by wagon loads, about 2 bu to 1 in of box. How many farmers there are who, after plowing, seeding and harvesting in the torrid July and Aug sun, throw away a goodly per cent of their labor by threshing when the grain is not in proper condition, or by allowing threshers to crowd the machine. A thrasher that is fast is a good thing, but a thrasher who takes all the grain out of the straw is very much better.

Some are now seeing the advantage of plowing and seeding a portion of land for pasture immediately after harvest, thus giving cattle green pasture when timothy and clover are failing; the latter then gets a fresh start for the fall. Happy is the farmer who has his whole farm inclosed by a good fence. He can then by a few days' work inclose his cornfield and allow his stock to go over the whole farm. His neighbor does not meet him with a frown because his stock was at that haystack again. His son does not have to go horseback all over the country looking for the cows or unworked horses and come home at 9 or 10 at night to a cold supper.—[Mrs Nellie Fitzgerald, Minnehaha Co, S D.]

To Fill the Drain Trench, get two 2 in planks 10 ft long and 14 or 16 in wide, set on edge, 3 ft apart at one end, 13 in at other. They will form an open V. Place a 2x6 or 2x8 in plank 10 ft long across the wide end, letting the ends project a foot beyond the planks already in position. Spike the three pieces solid with 5 or 6 in spikes. Brace the ends on the outside of the V. At the small end use a 2x4 scantling spiked and braced like the other. Arrange to hitch a horse at each side of the wide end and you will be ready for work. Draw the implement down the field astride the ditch and a couple of trips should fill it rounding full. Of course, in digging the ditch the earth must be thrown up on both sides of



the implement will not be practicable. Weighting the tool may sometimes be necessary; usually not, however.—[M. G. Kaina.]

To Clean Wheat Seed from cheat, fill a wash tub half full of water and add enough salt to raise or swim all the cheat and damaged wheat. Skim off the cheat with a meal sieve and feed to horses. A sunny, windy day is best. The water being cold, wheat can be taken out before it swells. In the absence of a barn floor I use lumber, old planks, etc, but sometimes sog it wet before or without drying. For best yield my experience is to plow early, during late July or early Aug. By plowing early we get effective aid from air, rain and sun in fitting and packing the soil. Then the moisture from below and rains to either will dissolve clods and much less work with harrow will pulverize the ground. No crop needs a better, compact seed bed than wheat, as water is raised by capillary attraction, which had been destroyed by the plow, and thus requires replacing. Wheat ground should be well drained to let water off. I have grown 34 crops of wheat in Mo; 31 bu to the acre was my best yield, 9 bu the poorest.—[Jacob Fair, Vernon Co, Mo.]

A Bright Future for Flax Production—A machine has been perfected which will take flax straw from the field, put it through the several processes of flax cleaning and linen making and turn out a finished piece of linen cloth, all in one day's work of nine hours. This probably means a new home industry possible of enormous development. The flax product of 1898 was, N D 400,000 a, S D 300,000, Minn 350,000, Ia 250,000, Neb 25,000, Kan 220,000, Mo 75,000, Wis 20,000; total 1,610,000. The acreage last year was estimated at 1,679,000. This year's acreage in a tentative way is estimated by Orange Judd Farmer at 2,217,000 as follows: N D 621,000, Minn 605,000, S D 432,000, Ia 243,000, Kan 157,000, Mo 77,000, Wis 31,000, Neb 21,000. The condition of the crop July 1 was estimated at 75 per cent with poorest conditions in Dakotas and Minn. A million-acres of flax straw would yield about \$25,000,000 of fiber as used in the new process recently patented by the National Flax Fiber Co. and which has annually been burned or otherwise gone to waste. A large quantity of flax straw will be fed this winter, as hay is very scarce. Several fiber mills have been established in N D and they will take a large quantity of this year's flax straw. Prospects are bright for the erection of several more mills in the near future.

An Excellent Meadow is made by sowing with the timothy seed 4 qts herd's-grass seed to the acre, with a slight sprinkling of cloverseed; 4 qts cloverseed for 10 a will be sufficient. The hay thus mixed has more richness or nutriment, has a better flavor, is more relished by stock, and, indeed, is a complete food. At the same time the yield is greatly increased. The amount of clover will not be sufficiently large to impair the keeping qualities of the hay or to make it easily injured by dampness.—[Col J. B. Killbrow, Tenn.]