

The Farmer's Advocate AND HOME MAGAZINE.

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products in an appeal that they be purchased to save waste. Now we hope nothing wastes. This is a bad time for waste to occur anywhere. If the Canadian public can save money and get better value by buying this cold-storage stock well and good, but how about the producer? Last spring there was a great effort made to get the people on the land interested in greater production of poultry and eggs. What will happen if this storage stock is marketed in large quantities just now when the new crop of fresh-killed is beginning to come on the market? Just what the reading notice says—lower prices. The cold-storage stock thrown on the market will bring down the price of the fresh and give the storages an opportunity to restock with fresh poultry at a lower price. With feed at present prices it costs in the neighborhood of \$1.00 to raise a chicken of 4½ pounds weight. In the issue of a Toronto paper carrying the notice re the cold storage poultry, fresh poultry (live) was quoted at 22c. per pound wholesale. The farmer who fed well would break about even. It would be disastrous to the poultry business if these prices were forced down too low. It would not increase the farmer's confidence in the poultry business nor in the sincerity of the call for greater production of poultry. When farmers have more to sell than there is demand to take they have to make the best of it. We would be inclined to let the cold storages do the same. At least it would be advisable to let everyone arrange to sell his own products and to remember that the producer is deserving of some consideration. We do not favor price-fixing as a general plan, but if the authorities are anxious to sell the poultry now in storage for the cold storage owners, they should be just as anxious to ensure that the farmer does not lose on his poultry by fixing a minimum price, leaving him what is fair. We have confidence in those in charge to see the wisdom of such a move.

The Evolution of the Thresher.

BY ALLAN MCDIARMID.

At this season of the year when, as the correspondents of the local papers say, "threshing is the order of the day," one's thoughts are apt to turn back to the days when a generation of men, now either gone on to some other sphere of labor or past taking an active part in the affairs of this one, were running things and doing their work in the way that to them seemed to be the last word in efficiency and speed. Fifty years ago the horse-power threshing-mill was just beginning to take the place of the flail as a means of separating

the grain from the straw, in this part of the country, at least. The first method used by our cave-dwelling ancestors some tens of thousands of years ago, was probably to rub the heads of the grain between their hands and then, blowing the chaff away, grind the kernels with their teeth and swallow them without further ceremony. After this the first mechanical thresher, if it can be called that, came into use, and to some extent it has been employed ever since, or until up to a few years ago at least. This was the flail. It is spoken of first in the book of Ruth, where it says that Ruth beat out the grain that she had gleaned in the fields during the day, and presumably it was a flail she used for this purpose.

The next plan we hear of is the one used by the farmers in Eastern countries about two thousand years ago. They had a sort of a platform resting on a number of low wheels, and this was drawn back and forth over the grain, which had been previously spread out in the threshing-floor, until the grain had been pretty well separated from the straw. The trampling of the oxen, or whatever animals they used, also helped in the operation. The next step was to divide the chaff and straw from the grain. This was done by throwing the whole thing up into the air and allowing the wind to carry the lighter materials to one side while the wheat fell directly to the ground.

Within the memory of a good many men still living the flail was, at a certain time, about the only substitute for a threshing-machine that was to be found in this country. Help was plentiful and the winters were long and there was no extreme hardship in having to thresh the season's crop in this way. At that time the grain was usually cut with the sickle or the cradle, and bound, which tended to make the work still easier. Stock-raising was not carried on very extensively then, so the chores that kept the farmer of to-day so busy in the winter time were not of much account, and it is very doubtful if the farmer of seventy or eighty years ago had to work any harder than does his grand-son of to-day. Carrying the grain to the grist-mill on one's back, which all old-timers tell us was the only orthodox style in those days, it will have to be admitted was bad enough, and not so easy as running it there in a motor-truck, but taking everything into consideration, along with the cooler temperament of the old settlers of this country, it is not very likely they found their lot any harder than do their followers of the present time.

But the day came when the flail was put away and horses were employed to do its work. Two methods of doing this came into use about the same time. One was the one and two-horse tread power, which is still common enough in some parts of the Province of Quebec, and the other was what was known as the sweep-power, which made use of five or six teams of horses that were attached to shafts connected with a large wheel which revolved on a horizontal plane as the horses drew it around. The connection between the power and the thresher was made by means of iron rods and I can recall some exciting times when some of the couplings gave way or something else broke and allowed the shafts on which the horses were drawing to hit them on the heels. A grand run-a-way was the inevitable result. It put the teamster, who always stood on the centre of the wheel in a rather ticklish position, and for the time being he could not be considered a very good risk for any Life Insurance Company. As a rule, however, the horses were stopped before any serious damage was done, though I have heard of men being caught in the wheels and having their legs broken and getting other damage. And there are stories of others getting their hands and arms taken off through carelessness in feeding the threshing machine. One of these men who got caught by the cylinder in this way and had his hand torn to pieces, walked to the house which was some distance away, and then after undergoing the necessary amputation he got up and finding he could not get into his right-hand pocket with the only hand he had left, he asked one of the men standing round to give him a "chaw o' tobacco". He then went out and watched the rest of them at work for the remainder of the day. He was a good type of the "hardy pioneer", but very few of the present generation would find it possible to follow his example.

Another man I knew got caught by what is known as the tumbling-rod, and before the machine could be stopped had almost every particle of clothing torn off him. He came out of the experience alive, but, as he said himself, he "felt pretty well used up for a week or two." Accidents of this nature seem to be the necessary accompaniment of all progress and improvement on the earth and especially in the line of mechanical appliances. The railway, the automobile and the aeroplane have all had their share in shortening the lives of individuals, but what has been lost to one man in the way of time has been more than made up by the many through the use of the new inventions, so the majority rules as always.

But the improvement in the art of separating grain from straw had only begun with the advent of the machines mentioned above. Change after change has taken place, and model after model has come on to the market until to-day the up-to-date "grain separator" as it is called, will cut the bands of the sheaves that are thrown to it, will feed itself, will perfectly clean the grain and put it in bags, and will stack or now away the straw and chaff in any direction desired. A gasoline or steam engine supplies the power and no run-a-ways vary the monotony of life for the threshing-gang, as in the days of the sweep and tread powers. That old idea of standing a horse up on his hind legs to get a good day's work out of him is getting to be somewhat out of the fashion, and it's just as well maybe, for it certainly doesn't seem to be what Nature intended.

Taken altogether it seems to me that not one of the arts, sciences or professions can show the improvement and progress in the last hundred years that Agriculture can, and in the various departments of this calling none has come nearer perfection than the one of "dividing the wheat from the chaff". In every stage of life on the earth, vegetable as well as animal, Nature has made this her chief concern and man has done well to come to her assistance. If the best things in this world are to survive they must be separated from that which is not so good. A number of different things have taught us that.

Nature's Diary.

A. B. KLUGH, M.A.

For the first glimpse of autumn coloration we have to look not to the trees, but to a shrub and a vine—the Staghorn Sumach and the Virginia Creeper. They both begin to turn very early and both assume very brilliant red hues.

The Staghorn Sumach has such a wide range in Eastern Canada, being found from Nova Scotia to Manitoulin, and is so common in dry situations that it does not come in for its fair share of admiration. Its case is similar to many other common things, we look at it but we do not see it. If a thing is rare or if we have to go a long way to find it we are apt to look at it closely and to admire it, while we pass by many common and equally beautiful things without even an appreciative glance. This species in the spring unfolds its soft leaves in a delicate shade of pinkish green; in summer the pyramids of white, staminate flowers and pinkish pistillate flowers stand amid the spreading fern-like leaves; in the fall the leaves are a blaze of crimson; and in winter the wide-spread branches, whose resemblance to the antlers of a stag give the shrub its name, hold aloft the claret-red fruiting panicles which stand out so clearly against the white of the snow.

The resemblance of the branches to the antlers of a stag does not end with their shape, as those of this year's growth are, like growing antlers, "in the velvet." They are covered with fine hairs which are at first pinkish but later turn white.

Late in May the new growth begins at the end of last year's twigs. The yellowish buds open and from their centre come the fuzzy little leaves, each leaflet being folded lengthwise. When fully expanded the leaves are seen to be alternate and to have from eleven to thirty-one leaflets. The edges of the leaflets are toothed, and the leaflets do not stand out straight from the midrib but droop slightly so that their under surface is concealed.

In the flowering panicles of the Staghorn Sumach are two kinds of flowers. The staminate flowers have five greenish sepals, five yellowish-white petals and five stamens. The pistillate flowers have hairy sepals, five narrow yellowish-white petals and a globular ovary covered with pinkish hairs which is crowned with three styles. The ovary when mature becomes a dry drupe, that is a fruit with a seed covered by a fleshy layer. These fruits are a favorite food with many species of birds, and have a pleasantly acid taste.

The Virginia Creeper is common in woods in many localities from Quebec to Manitoba, and is perhaps even commoner in cultivation. It trails over the ground in rocky places and often climbs trees to considerable heights. It is strange how many people do not seem to recognize this vine when they meet it in the woods, and how frequently they carefully avoid it under the impression that it is Poison Ivy. In fact, comparatively few people seem to be perfectly sure of the identity of Poison Ivy, as not a season goes by but I am shown many different plants and asked if they are Poison Ivy. It is always a case of Mahomet and the mountain too, as I have to be taken to see the supposed Poison Ivy since naturally they do not care to take a chance that it is this much-dreaded plant and bring it to me. On the other hand I frequently find people ambling about tranquilly in a veritable bed of Poison Ivy without the slightest notion as to what they are walking over. Of all plants the Virginia Creeper is undoubtedly the most like Poison Ivy, yet it never need be mistaken for it if it is remembered that the Virginia Creeper has five leaflets while the Poison Ivy has but three.

The Virginia Creeper climbs by means of little adhesive disks at the end of tendrils. The tendrils are modified flower-stalks and the little disks are only developed upon their tips under the stimulus of contact. Those tendrils which are not resting against some surface develop no disks, but when a tip is pressed against some object in about two days it swells, becomes a brighter red, and expands to form a disk. The disks appear to secrete a cement and maintain their hold with great tenacity. It has been found that a branch held by five little disks will bear a weight of ten pounds. The coiled tendril acts as a spring so that the effect of sudden strains are minimized.

The flowers of the Virginia Creeper are small and greenish with five little petals, and the fruit is a bluish berry containing from one to four, usually two or three, seeds.

This species belongs to the Grape Family and is sometimes called False Grape, other names sometimes heard being Woodbine, American Ivy and Five-leaved Ivy. Several insects are closely associated with the Virginia Creeper. The peculiar little Tree-hopper, with its triangular shape and a hump like that of a camel on its back and its color which matches exactly the bark of younger vines, sucks the juice of the stem. The caterpillar of a black, white-spotted moth eats the leaves. The larvae of three Sphinx moths feed upon the leaves, the adult of one of these, the Achemon Sphinx, being regarded as the most beautiful of all Sphinx moths.