

universal in all operations, with the one exception of fraking, and even then many use the team. In mowing, with a 5-foot cutting bar a two-horse team should cut 8 acres. One horse, raking with an eight-foot rake, should cover 10.8 acres, and one man should cock 5½ acres with a yield of 1½ tons per acre.

Many other farm operations might be tabulated if space permitted, but the ones already mentioned cover, to a large extent, the bulk of farm labor where man and horse combine to do the work.

### The Storm.

By Peter McArthur.

Wasn't it sudden? On Saturday I was trenching celery and on Monday morning the trenches were buried under a snowdrift over four feet deep. Of course we were caught before we were ready. I may be wrong, but I have an impression that if the fall were a year and a day long the winter would still come a day too soon. Though we were better prepared for winter than any year since coming to the country there was still work that we hoped to get done before the snowfall. Still I am deriving a lot of solid satisfaction from the fact that the corn is all husked and under cover. Not more than one-half of the corn in this district has been husked, and I am in a position to test the truth of a cynical remark by some surly old philosopher, Rochefoucauld, I think, that "in spite of ourselves we derive a certain amount of satisfaction from the misfortunes of even our best friends." Of course that is not true, and even if it were I would not admit it. I am very sorry that people were caught with their work unfinished, but I have a feeling of satisfaction that almost over-balances my sorrow in the fact that my own work is so well in hand. Candour compels me to admit that if the old cynic was not entirely right he was so close to it that it is not wise to have too much to say about the matter. I am not sure but if my corn-stalks were all in and nicely stacked I would have to admit that he was entirely right. But I am enough behind myself to have sympathy for other people and that prevents me from feeling any mean joy because they were unprepared.

When the storm began to rage in the afternoon I thought we would wait until it quieted a little before doing the chores, but by five o'clock it was worse than ever and getting worse. We could hardly beat our way to the stable against the wind, and by the time we were done the chores

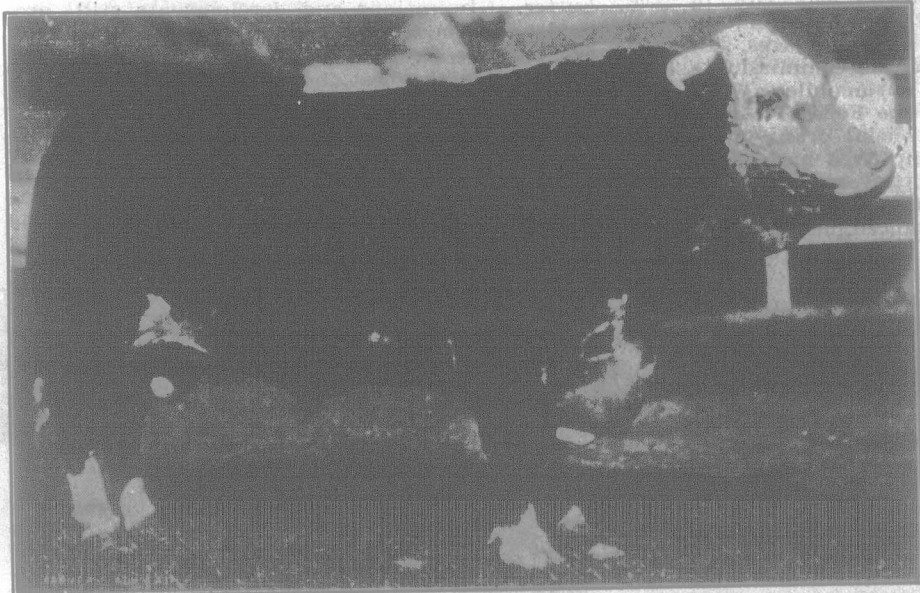
"Ze wind he blow a hurricane  
Bymbye he blow some more."

A spruce tree near the house snapped like a pipe-stem at a point where it was over six inches in diameter, and the part that was broken off landed right at the door. The children are now sure that they will have a Christmas tree, for the top of the broken spruce is just the right size and shape. I hear a lot of other spruce trees have suffered the same fate. The wet snow clung to them and then the high wind was more than they could stand up against. Trees that have withstood the wind for over forty years went down before this gale, and the havoc in what remains of the forests must be great. Four big maples went down in our wood lot, and although the large trees in the orchard escaped, I hear that most of the other orchards suffered considerably. Although the storm was still raging on Monday morning, the country was full of activity, for most of the cattle that were out at pasture were caught in the gale. As there had been rain and sleet in the night as well as wet snow the poor brutes that were out in the fields were coated an inch thick with ice. One man a couple of miles away had to dig his sheep out of a snowdrift seven feet deep that had formed over a rail fence beside which they had taken shelter. When going to the stable I saw a bright red spot in a snowdrift and on investigating found that a Leghorn hen was all buried except her beak and comb. She had evidently been blown out of a tree where she had been roosting, but when freed from the packed and frozen snow she flew to the stable and did not seem any the worse of her experience.

The most important work that was left undone was the wrapping of the young apple trees to protect them from the mice. As I had decided to use tar paper because of the difficulty of getting veneer in this district, I purposely left the job as late as possible, still hoping to get it done before the winter had really set in. The storm caught me, however, and I had to fall back on the pioneer method of tramping the snow around the little trees. I have been assured by experienced orchardists that although this method is troublesome it is one of the most effective of all. There was too much to do on

Monday to undertake this task, and when I started on Tuesday morning I found that I was not a bit too soon. When the snow was tramped down I found that the mice had already commenced their work. About a dozen trees bore the marks of their teeth and one was freshly gnawed half way around and up for a distance of about five inches. An hour or two more would probably have settled that tree. Although the snow had been lying only about twenty-four hours, there were holes everywhere where the mice had come to the surface, and their tracks were quite plentiful. The whole district seems to be swarming with them. If this snow melts off, as all weather-wise people assure me it will, I am inclined to think that in addition to putting on the tar paper I shall trample the snow, for with mice so plentiful it will be no little task to save the orchard. Last winter the pestiferous little creatures girdled most of the white ash and catalpa seedlings in the wood lot, and even attacked the pines. As they are about ten times as plentiful this year, I hate to think of the damage they will probably do. Three thousand and five hundred seedlings are altogether too many to try to protect. I would be walking all winter if I tried to trample the snow around them.

It was really surprising that some of the apple and cherry trees were not broken by the



Bonnie Brae 31st.

Hereford bull; first and reserve champion at Brandon, and third at Toronto and London, 1913. Owned by James Page, Tyrconnell, Ont.

storm. As they had not shed their leaves the snow and ice clung to them so heavily that many of them were bent to the ground and frozen into the drifts. I freed them as carefully as possible, but I am afraid that many of them were so nearly uprooted that next spring it will be necessary to go over the whole orchard and straighten up the little trees. While working in the orchard, I had plenty of time to notice the damage done in the wood lot nearby. As three big maples went down in the spring, and many others have the dead tops that betoken maturity, I am afraid that it will not be many years until all that remains of the old, original forest will be gone. As other wood lots are suffering in the same way, it is highly probable that within twenty-five or thirty years there will be very little woods left in this district unless reforestation is taken up seriously. Cattle are still allowed to run in the woods everywhere and the young seedlings are destroyed as soon as they sprout. I know of only two wood lots that have been wisely fenced in so as to give the young trees a chance, and though I have heard of one or two others in the county who have taken advantage of the Government's offer to supply seedlings, my own experiment in reforestation is unique in this district. If the wood lots continue to be neglected as they are now, it will only be a few years until we will have the only picnic grounds in the county. When that time comes people need no longer move West. Ontario will be just as much a Prairie Province as Alberta and Saskatchewan.

### Growing Summer Pasture.

Editor "The Farmer's Advocate":

I thought you might like to know how the summer pasture I tried turned out. Last spring I had nine acres of pasture which I found that the white grub or something else had eaten out. I plowed it up on the first of June and sowed oats, sorghum and Hungarian on the fifth day of June. On the seventh and eighth of July I turned fourteen head of cattle, twenty-four sheep and two horses in and they stayed on it for about five or six weeks. Then I removed them

for about five or six weeks and then put them back again for three or four weeks. I kept them on until the frost killed the sorghum and Hungarian. The quantities of seed used on the nine acres were twelve bushels of oats, ninety pounds of sorghum and one bushel of Hungarian. The total cost of seed was \$11.00. When I first turned the cattle on the field the other pastures were pretty well eaten down. My cows, after they were in the field of sorghum and oats for two or three days, gave double the quantity of milk and kept it up till I turned them out. I know the Agricultural College at Guelph recommends sowing one and one-half bushels of oats, thirty pounds of sorghum, with no Hungarian, but I prefer adding the Hungarian and using less sorghum. The reason is this: The sorghum and oats are fast growers and the Hungarian is slow. When I turned the cattle into the field the oats were about eighteen inches high, the sorghum about two feet, and the Hungarian only about two inches. The cattle ate the sorghum and oats off and left the Hungarian. After the oats were eaten off they did not grow again, but the sorghum did. The Hungarian, which the cattle had not touched, came on good and strong. When I turned the stock in the second time the sorghum had grown up about two feet high and the Hungarian was about one foot or a little more. The oats never grew after the cattle had eaten them off. I also found that

the cream from the milk was far more solid than before when the cattle were on the old pasture. I am not in dairying heavily, but keep a few Shorthorns and send the cream to the creamery, but if I were I certainly would have a lot of sorghum pasture, as it comes in just when other pasture has failed. My cattle and sheep never did as well before. I had some young stuff and they were extra fat this fall. I think I will sow some every year. This fall when I plowed the field it was just as mellow as a garden and equal to summer fallow. Next year I think I will sow this mixture: One and one-half bushels of oats, twenty pounds of sorghum and five to seven pounds of Hungarian to the acre.

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### The Highways Commission.

The organization of a highways commission and launching them on an investigation tour throughout Canada is a step towards permanent road improvement. Heretofore the great bulk of the public highways throughout this Province have been made and repaired by the people who front upon these thoroughfares. Each section has its pathmaster, and each township has its warden. There are almost as many ideas regarding road work as there are of these officers, and furthermore they only continue in office for one year, when they are replaced by a new set of officials and a new set of ideas. True, indeed, is the old saying, "God made the country, but man made the country roads," and it would be sacrilege in the extreme to credit any one other than a human being with the condition of some of our rural roadways.

Since Chairman C. A. Magrath, W. A. McLean and A. M. Rankin, M. P. P., undertook, last July, to ascertain the local needs and and recommend to the Government a system that would be permanent, efficient and equitable, they have visited five States in the neighboring union embracing New York, Massachusetts, Connecticut, New Jersey and Michigan. Hearings have been held in various points in Ontario where wardens, councillors and public-spirited men may express their wants, and impart to the commission their experience in road construction.

Hamilton was the seat of the last investigation, held on Tuesday, November 11th. Counties lying east, west and south sent in their corps of men who know, and are responsible for, the condition of their thoroughfares. All were profuse in expressing their desire for better roads and wish for Government aid. Senator E. D. Smith, of Winona, voiced the sentiment of the delegates when he outlined the rural needs and suggested that automobiles be taxed according to their horse power, and this with a liberal Government grant be devoted to the maintenance of highways