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& RURAL HOME

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The Recognised Exponent of Dairying in Canada

Trade Increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land—Lord Chatham.

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A Farm With Mechanical Equipment of the Best

Geo. R. Barrie & Son Have Many Devices, Some Home Made, Some Purchased, for Lightening their Work—By F. E. Ellis

Geo. R. BARRIE & SON, of Galt, have long been known to Ontario farmers as growers and exhibitors of seed grain. Operating under the regulations of the Canadian Seed Growers' Association, this farm has established a reputation and a profitable outlet for its selected seeds. It was W. L. Smith, farmer and journalist, however, who first told me of the mechanical devices employed by the Messrs. Barrie. "You will find more schemes for getting work done on that farm than on any other farm in the province of which I know," stated Mr. Smith with conviction. A little later on the same day (it was on the occasion of the Provincial Plowing Match at Paris last fall), I was talking with Mr. John Fixter, Agriculturist of the Commission of Conservation, and he, too, referred to the labor-saving devices to be found on the Barrie farm. With such recommendations as this, I went out to the Barrie place this spring expecting to find a good farm, well managed and extra well equipped.

I was not disappointed on either count. The rich clay loam, 200 acres of it, naturally lends itself to good cultivation and during the 50 years that it has been in the hands of the Barrie family, the soil has never been abused. A systematic rotation of crops and the carrying of a heavy stock has enabled the owners to constantly increase its productive capacity. But it is not of the farm, good as it is, that I wish to speak particularly at this time. The mechanical devices employed is the feature that impresses itself most strongly on all visitors. These devices which have greatly lightened the work of the big farm, are the product of many years of effort on the part of Mr. Barrie, Sr. They have been added one at a time as necessity dictated, or as the ideas developed, and as the son, like his father, is of a mechanical turn, the end is not yet. At least two of their home-made implements should be manufactured on a large scale for the use of farmers generally, as they appeal to us as being superior to anything now on the market. I refer to their potato planter, which is entirely a home product, and a force feed mangol seeder, which is a combination of an old seeder drill and Barrie invention.

The Threshing Outfit.

The outstanding labor-saving device is the threshing outfit. Even Dr. Creel, man with the best organized threshing gang, will find it hard to improve on the Barrie method. The gang on this farm consists of three men. There is none of the hustle and bustle, the rush and the muss that characterize threshing day on the average farm. The grain is threshed as it is drawn from the field, and, when harvesting is finished, so is the threshing. There is no labor to be returned, because no outside assistance is required. It was just noon, however, when I arrived at the farm and a minute inspection of the equipment had to wait until after dinner in the home of the junior member of the firm, Mr. W. C. Barrie, who, by-the-way, is president of the Ontario Plowmen's Association. Then we all went out on a tour of inspection.

The barn floor runs along one side of the big barn, which is just 150 feet from one end to the other. At one side of the floor stands the separator, operated by a shaft from the 18 h.p. gasoline engine, which stands in the farm work shop some 50 feet from the barn. The grain separator, one of the old fashioned elevator types, was purchased at the age of a few years ago for just a few dollars. The

straw, when carried over the elevator, drops on to a sliding table which feeds it directly on to the apron tread of the straw cutter. The straw cutter is equipped with a blower, which delivers the straw into its proper place in the mows. In operating the outfit, one man is required on the load, another man to cut the bands and feed the separator, and a third man to operate the straw cutter and direct the blower. No help is required to handle the grain; it is elevated mechanically, as in a grist mill, to the bins above the granary, the gasoline engine supplying the power for this purpose also.

The procedure during harvest is as follows: The long barn floor affords standing room for eight loaded wagons and the farm equipment includes eight wagons with racks, the wagons, like the separator, being for the most part picked up cheaply at sales. In the afternoon all of these wagons are loaded and drawn on to the barn floor. Next morning, when the dew is still on the shocks and conditions are not favorable for drawing in, the eight loads drawn in the afternoon before are threshed.

bars to a straw cutting "bee." "The greatest advantage of our plan," said Mr. Barrie, senior, "is that we are going on with our fall plowing when otherwise we would be threshing our own grain and the grain of our neighbors. On farms of good size, such as this one, I expect the individual threshing outfit to become very popular."

The granary is so arranged as to economize labor in handling the grain itself. The bins into which the grain is elevated are six or eight feet above the level of the barn floor. In cleaning grain the fanning mill, which is also run from a pulley on the engine shafting, is placed directly under the bins and the grain runs through slides in the bottom right into the hopper of the fanning mill. A few years ago when much grain from this farm was loaded directly on to the cars, being transported from the farm in a big open grain box, the barn was so arranged that the grain wagon was backed directly under the fanning mill in the shed beneath and as the grain was pouring from the bins into the fanning mill, it was also pouring from the fanning mill into the wagon, a gravity process all the way through. "On one occasion," remarked Mr. W. C. Barrie, "we cleaned and loaded 190 bushels of grain in 45 minutes."

A Home-Made Potato Planter.

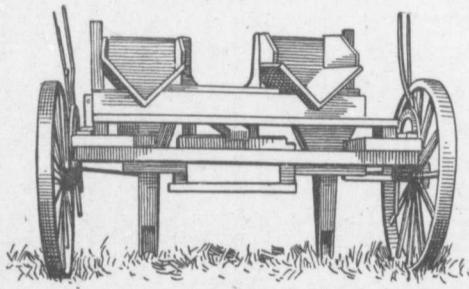
Two of the cash crops on this farm are potatoes and sugar beets. The handling of both of these crops is simplified by home-made planting machines invented by Mr. Geo. Barrie. An idea of the construction of the potato planter will be gained by a study of the diagram published in connection with this article. It is a two-row machine requiring three operators,—a man to handle the bags of seed and drive the team, and two boys to drop the seed. A recent bulletin from Ottawa describes Mr. Barrie's planter in detail as follows:—

"The main frame is three feet six inches by five feet, and made of hardwood planks two inches thick by 10 inches wide, bolted together at the corners. The spouts are made of heavy gas pipe, 14 inches long and 3 1/2 inches in diameter, tapered at the point, like a cultivator tooth, so that they will not drag the sod or manure. The upper end of the tooth has a thread on it and is screwed into a piece of hardwood scantling six inches by six inches and 23 inches long, bolted firmly to the frame. The balance of the spout attached to the hopper is made of heavy zinc and is wider at the top for convenience in dropping in the potatoes. The spouts are placed three feet apart and the wheels are centered 18 inches from them, so that the one wheel comes back into its own mark, thus making all the rows the same distance apart. Should it be desired to have the rows closer together, the machine can be made on the same principle to suit any distance.

"The wheels are the kind used on the old fashioned walking cultivators, with levers for raising and lowering. The catching on the levers should be small and close together, so that the soil does not run up or down any desired distance. Gang-plow wheels with ratchets on the sides may also be used by elevating the frame to suit.

"The wheels are so placed that the machine will balance when two boys are sitting on the back. The boxes, holding one bushel of cut potatoes, are shaped like a mason's hod and held firmly in place

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A Home-Made Potato Planter Designed by Mr. Geo. R. Barrie.

With this implement four acres of potatoes are easily planted in a day. With the exception of the "shoes" it is entirely home-made, and is only one of several devices of home construction employed to lighten labor on the Barrie farm, the mechanical equipment of which is described in the article adjoining.

Throughout the day the loads are threshed as they are drawn in and in the latter part of the afternoon the eight wagons are again loaded up and drawn to the floor for the next morning's threshing.

Advantages of Threshing Outfit.

The advantages of this system are numerous. The grain is handled only once from the wagon to the separator. In ordinary procedure on the average farm, the sheaves are first thrown from the wagon to the mow, where they must be carefully and systematically mowed away and, when the itinerant thresher comes along, a gang of men is required to handle the sheaves back from the mow to the separator, all of which work is avoided when a farmer owns his own outfit as Mr. Barrie does and threshes as he goes. An additional advantage of the method is that the straw is stored under cover, instead of being blown out into a stack. Farmers are generally agreed that there is a great advantage in cutting the straw, both for bedding and feed, an operation which on the Barrie farm involves practically no extra labor, but which under most circumstances calls for another gathering of neigh-