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Farm Machinery and What it Means to the Farmer

A Series of Essays by Students of The Manitoba Agricultural College.

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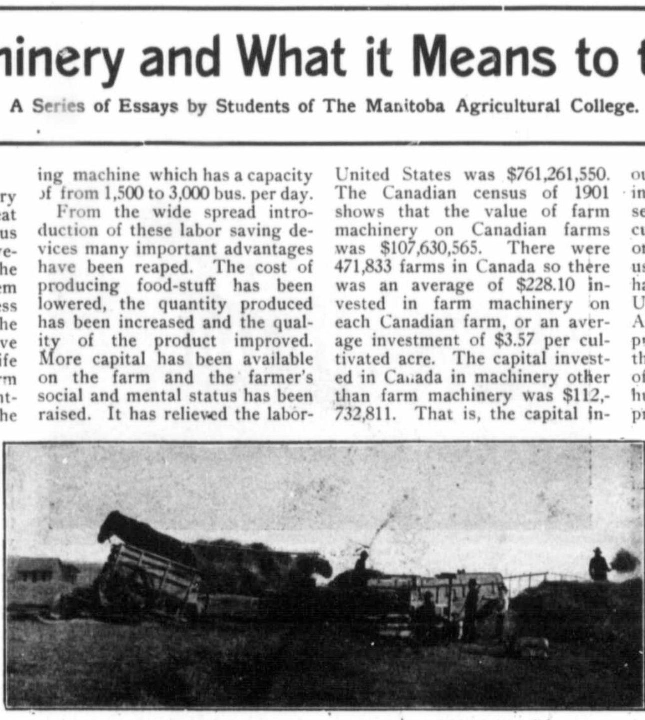
A survey of the last century reveals it as an age of some great men and of many marvellous achievements but the achievements exceed the giants of the age in number and surpass them in grandeur. All the restless activity of a Napoleon or the iron policy of a Bismarck have not wrought upon, modern life as has the improvement of farm machinery. The great inventions and their adaptation to the needs of humanity are the real glories of the nineteenth century. And nowhere in all the varied field of human activity has more progress been made or more benefit been derived than in the realm of agriculture.

In 1800 not a single cast iron plow was in existence. The plow then in use was a clumsy homemade wooden affair very heavy in draft and performing its functions in a very slow and unsatisfactory manner. Cultivation was laboriously performed with the hoe. The seed was scattered by hand. The crop was cut with a sickle and threshed with a flail. Now the plowman uses a neat, factory-made cast-iron sulky plow which quickly and competely inverts the soil and upon which he can comfortably ride. We cultivate our crops with a four-horse cultivator, sow our seed with a twenty shoe drill, reap the crop with a self binder cutting six or eight feet at a swath, and thrash our grain with a modern threshing machine which has a capacity of from 1,500 to 3,000 bus. per day.

From the wide spread introduction of these labor saving devices many important advantages have been reaped. The cost of producing food-stuff has been lowered, the quantity produced has been increased and the quality of the product improved. More capital has been available on the farm and the farmer's social and mental status has been raised. It has relieved the laborer of much drudgery, made his work and his hours of service shorter, stimulated his mental faculties, given an equilibrium of effort to mind and body and made agriculturists in general more efficient workers, broader men and better citizens.



This kind of an outfit is still to be found in some sections

The amount of capital invested in farm machinery is not generally realized. According to the returns of the census of 1900 the value of the farm machinery then on the farms of the United States was $761,261,550. The Canadian census of 1901 shows that the value of farm machinery on Canadian farms was $107,630,565. There were 471,833 farms in Canada so there was an average of $228.10 invested in farm machinery on each Canadian farm, or an average investment of $3.57 per cultivated acre. The capital invested in Canada in machinery other than farm machinery was $112,732,811. That is, the capital invested in our agricultural machinery is almost equal to the total capital invested in machinery in all our other industries put together.

The use of so much machinery has had a very marked effect on the cost of producing farm products. One man with a modern plow and a four-horse team can plow as much in one day as could formerly be plowed by the same force in four or five days. The same holds true of our mowers, binders and threshing machines. One man with a self binder and four horses can cut and bind as much grain in one day as twenty men could using the sickle and binding by hand. Geo H. Holmes of the United States Department of Agriculture in a report on the prices of farm machinery states that "It is one of the marvels of the age that the amount of human labor now required to produce a bushel of wheat, from beginning to end, is on the average only ten minutes, whereas in 1830 the time required was three hours and three minutes. Thus the cost of labor in producing one bushel of wheat has been reduced from seventeen and three quarter cents to three and one-third cents." That is to say the introduction of labor saving machinery has so reduced the amount of labor necessary to produce a bushel of wheat that it is now not one-fifth of what it was eighty years ago.

The introduction of improved farm machinery has increased the quantity of agricultural products produced in two ways. It has produced extensive farming and intensified farming. In the West where land is cheap, machinery has enabled the farmer to go in for cereal production on a large scale. In the East where the population is more dense and land has consequently a higher value, machinery has enabled the farmer to carry on