

Issued  
Each Week

# FARM AND DAIRY & RURAL HOME

Only \$1.00  
a Year

Vol. XXVIII.

FOR WEEK ENDING JUNE 3, 1909.

No. 22.

## THE FARMERS' INTEREST IN LABOR-SAVING MACHINERY

Prof. John Evans, Ontario Agricultural College, Guelph

**This is the Age of Invention. In no one Line of Machinery has more Progress been Made than in Agricultural Machinery. A Knowledge of Farm Mechanics is Necessary if One Would Obtain the Best Results in Operating this Machinery**

**I**t must not be forgotten that agriculture is and must always be the leading and predominant industry in Ontario. Her agriculture is her sole hope, and however pessimistic the farmer may be he cannot get away from the fact that good implements and machinery are inseparable from successful farming. To farm successfully the farmer has to constantly keep in touch with the latest discoveries along the line of agriculture and improvements in the mechanism of machinery. To be abreast of the times the farmers' library should contain not only periodicals of general literature but also such journals as "Farm and Dairy," which treats in a very pertinent way with all phases of agriculture.



Professor John Evans

### VARIED READING NECESSARY.

To become familiar with any subject one must read, study and think. Few occupations demand such varied reading, owing to its complex nature, as that of farming. It is essential that a farmer possess a good general knowledge of mechanics. No matter how perfect the design of a machine may be, it cannot be properly operated without an application of the same quality of brain power as is needed in the general work of the farm. The best designed machine in the world will only run as it is designed to run, when there are brains behind the hand of the man who has charge of it.

It is now generally conceded, that, owing to the growing scarcity of farm labor and the high rate of wages demanded, labor saving machinery on the farm has become exceedingly important, for mainly through it can the farmer hope to reduce the cost of production. With up-to-date machinery, these economic troubles will in time pass away.

### LARGE ASSORTMENT OF MACHINES.

No farm can be said to be well equipped without a large assortment of machines and implements. On account of the large investment in farm machinery there is need of information on the utility and efficiency of the various kinds of implements used. This question of machinery is one that affects the comfort, welfare and the banking account of the farmer, so it should not be regarded merely as a passing fad, but as a sound problem in agricultural economics, for there

is scarcely any operation ranging from hoeing to the more complete work of turning the sod or driving the threshing machine but what can be done with modern machinery. The more perfect and better fitted to its work the machinery is, the greater will be the gain derived by the farmer from its use. It becomes, therefore, a matter of vital importance to be able to select the best machine, based on a knowledge of good construction, and from an understanding of the forces required for the use of such machines in order to produce the greatest possible advantage and efficiency.

### SCIENCE OF MECHANICS.

To increase the effective force of labor, a knowledge of the science of mechanics is most essential. How often it is that the wrong horse is burdened with more than his share of the work or that much of the power of a team is lost through being badly adjusted to the line of draught.

No one ever becomes a mathematician by simply working out a few examples in every rule. No one ever becomes a machinist by turning up a piece or two in a lathe, nor by machining a piece in every machine in the machine shop. To become proficient in mathematics one must study deeply the fundamental principles which govern that science. It is the same in practical mechanics. One must thoroughly know principles and their application so that finally the mind is able to reason out the connecting movements of the

various mechanism of a machine and the hand by many operations trained to be a willing servant of the mind to connect and adjust the various parts correctly.

### THE BOYS ON THE FARM.

The farmer who has had little or no opportunity himself to acquire practical knowledge of machinery should exert every effort to enable his boys to obtain such training. Instruction in farm machinery is now given at any up-to-date Agricultural College. "How to keep the boys on the farm," is a problem that has been for some time agitating the minds of many a father. My advice is get the latest machinery and a good gasoline engine to do all the drudgery. All boys have a liking for machinery to a greater or less degree and to have some of their own which they can run and handle will fill a long felt want in a boy's soul.

It is plain that economic conditions are such that modern farm practice depends, in a large measure, upon skillful operation of machinery, and upon motors to operate them. The great value of improved farm machinery to the farmer is that he is able to cultivate his land and harvest his crops almost without hired help.

### GET ENGINE FIRST.

The implements and machines which every farmer must have, who does his work well are numerous and often costly. They need not all be obtained in one year. Get the engine first and the others will come along in a regular order.

It is regrettable that, frequently, the average farmer allows these high priced machines, when the season is over, to lie along a fence exposed to all weather and to be eaten by rust. So much is this the custom that a good authority estimates the average life of a binder to be 24 days used for six days in a year.



"Machinery Hall," one of the Fine Buildings on the Campus at the Ontario Agricultural College, Guelph

A two storied structure of red pressed brick on a lime stone foundation and roofed with slate. It must be acknowledged that machinery-to-day is doing the world's work; hence how necessary that our youth be taught the management of machinery. The mechanical department of the College seeks to give such instruction.