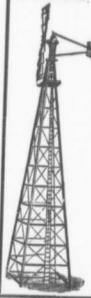


## WINDMILLS



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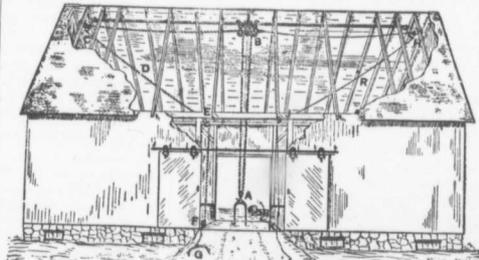
## Hay and Grain Unloading Tools

H. Ralph St. Ste, Sales Mgr. Louden

Farmers in general often do not give the matter of hay tools the care and consideration they should. Because they are small machines and cost less money than binders or manure spreaders is no reason why they should not be oiled and kept in the best possible repair. The fact of the matter is, if slings are used and both hay and grain handled by the carrier, they will work as many days in the year as any of the other machines; and if they break down, as much, or nearly as much trouble and delay is caused as if a larger machine went wrong.

It is worth noting that there has been a great development in hay tools in the last few years, not only in carriers, but also in forks and slings, pulleys and tracks. For instance, take the difference between steel track and the old-fashioned wood track. The

extra durability of the steel track is above question, as is the greater ease with which the carrier will operate on the steel track, and then there is also the doing away with the fraying of the wood track, the extra space saved in the peak of the barn, and above all the way in which the carrier can be fitted to the steel track which



Full Arrangement of an Unloading Device in a Centre Drive Barn

is always exact in size, while the wood track, although it is supposed to be 4x4, is apt to vary a great deal as one sawyer is likely to saw a little above measurement, while another may saw a little below.

We should notice also the improvements in the carrier. The new triple draft carrier enables one horse to lift as much as two did with the double draft carrier, and when slings are used and the load taken up on three lifts instead of four, as with a fork, this extra lifting power is of the greatest advantage. The centre tripping pulleys with slats, and the self-locking slings tightened by the beam are a great improvement over the short slings and hand tightened ones. To mention the better way in which the rack is cleaned by slings.

The arrangement of pulleys is a matter of prime importance. In a centre drive barn, as shown in the illustration, the pulley hooks at C and H should be screwed into the collar beam as shown in the small cut. This collar beam should be spiked to the last pair of rafters from each end of the barn. On these hooks the pulleys C and H are hung. The collar beams may be 2x6 or 3x4, or 4x4 chamfered off thin at the ends, so that they can be properly spiked to the rafters. It is a poor plan to screw the hook into one of the rafters because in heavy work it is liable to pull out a single rafter.

The draft rope is shown in this illustration from the cat B, through the pulleys C, E and F to whiffletree G. When it is necessary to deposit the load in the other mow, the pulley C, which should be on a pulley changer, is carried to the other end of the barn



A Collar Beam to Support Pulley

and put on hook H. The draft rope may then go from B through the pulleys H and J, or from pulley H across to E, and so down to the whiffletree. In this way no climbing will be required after the carrier is installed.

In the end hoist barn it is better to bring the rope through a small opening in the side of the barn just below the plate and down to the ground near as can be managed to the end of the barn furthest from the hay door. The draft will then be more direct and less rope will be required.

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Don Osborn, Assiniboia East, Sask.

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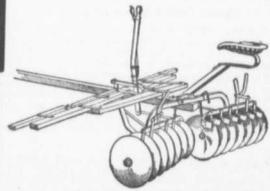
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See roller ad. on page 19 of this paper.

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## O.A.C. June Excursions, 1910

Monday, June 6—C. Wellington; S.

Huron; W. & N. Bruce & N. Grey.

Tuesday, June 7—N. Wentworth.

Wednesday, June 8—C. Simcoe; E.

Huron; Welland (T. H. B.).

Thursday, June 9—E. & W. Peter-

boro & E. Durham; Pr. Edward & E.

Hastings.

Friday, June 10—Haldimand; N. &

S. Perth; W. Huron.

Saturday, June 11—Lincoln; Wel-

land.

Monday, June 13—N. Ontario.

Tuesday, June 14—W. Middlesex;

W. Kent; E. & W. Lambton.

Wednesday, June 15—E. Elgin; W.

York; N. York.

Thursday, June 16—E. & W. Victoria;

S. Norfolk.

Friday, June 17—S. Grey & E. Wel-

lington; W. Simcoe.

Saturday, June 18—Halton (C.

P. R.).

Monday, June 20—N. Oxford; W.

Wellington; E. Simcoe.

Tuesday, June 21—Dufferin & E.

Wellington; E. Middlesex; N. Middle-

sex.

Wednesday, June 22—S. Oxford; N.

& S. Brant; S. Ontario & W. Durham.

Thursday, June 23—N. & S. Water-

loo; Peel; Parry Sound.

Friday, June 24—E. York.

Saturday, June 25—S. & C. Bruce

& Union; C. Grey; Halton (G.T.R.).

It is rumored that Prof. H. S. Ark-

ell is resigning his position as Pro-

fessor of Animal Husbandry at Mac-

donald College, St. Anne De Bellevue.

I have taken Farm and Dairy for

four years and like it for its dairy and

agricultural reading. I enclose \$1 for

my renewal.—J. F. Shaw, Norfolk

Co., Ontario.