

# CUSHMAN Light Weight ENGINES

## For All Farm Work

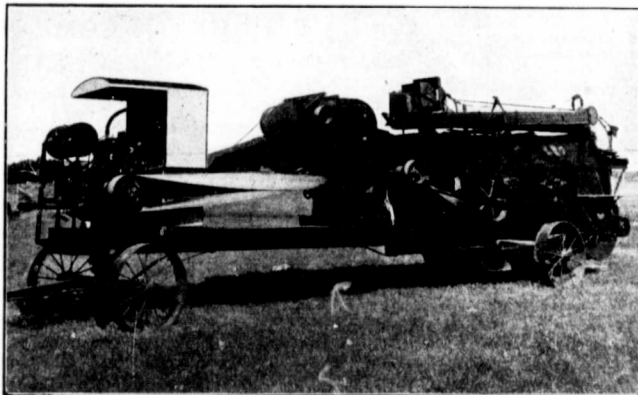
4 to 20 H.P.

Cushman 4-Cycle Engines are built to run without trouble and to do things no other engines will do. They represent a great advantage over ordinary stationary engines, in vertical balanced design, material and workmanship. Highly efficient because of light weight, higher speed, reduced friction and lower operating cost.

Cushman Engines are the lightest weight farm engines in the world, yet they are even more steady running, quiet and dependable than most heavy engines, because of Throttle Governor, perfect balance and almost no friction nor vibration.

Direct water circulating pump, preventing overheating, even on all-day run. May be run at any speed desired; speed changed while running. Enclosed Crank Case, gears running in bath of oil. Equipped with Schebler Carburetor and Friction Clutch Pulley. Mounted on Truck or Skid as preferred.

Because of very steady speed, the Cushman makes the best power for Cream Separators or Milking Machine, or for electric lighting outfits.

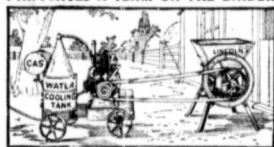


**CUSHMAN COMBINATION THRESHER**

8 h.p. with Straw Carrier and Hand Feed.  
15 h.p. with Wind Stacker and Hand Feed.

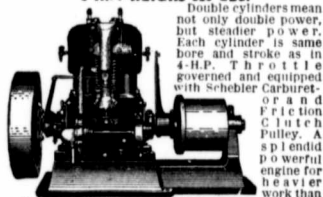
20 h.p. with Wind Stacker and Self Feed.  
Equipped with the famous Cushman 2-Cylinder Engines.

### 4 H.P. SAVES A TEAM ON THE BINDER



The 4 h.p. Cushman is the one practical Binder Engine. Its light weight and steady power permit it to be attached to rear of Binder. With a Cushman you can cut from 8 to 10 acres more and with less horses. If in heavy or tangled grain, and the sickle chokes, all you need do is to stop the team; the engine clears the sickle. Binder runs the same, whether horses go fast or slow or stop. Binder will wear several years longer, as it is not jerked faster and slower by the horses. Attachments furnished for any binder.

### 8 H.P. WEIGHS 320 LBS.



4 H.P. can handle, such as heavy grinding, small threshers, etc., or for any power from 3 to 9 H.P.

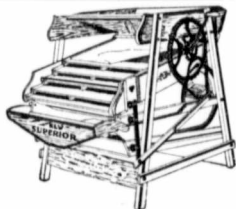
### The Lincoln Smut Cleaner and Pickling Machine



No machine can equal them for treating seed grain. Made in two sizes. Sold on a positive guarantee to prevent smut. With high prices assured for grain next year, every farmer will realize the necessity of treating his seed grain so that he may have an increased yield of perfect quality grain.

Lincoln Smut Cleaners separate smut balls, wild oats, king heads and all light seeds from wheat, also wild oats and all light seeds from barley. By them the farmer can get perfect results. The grain is thoroughly pickled and elevated into the wagon box, being dried by the draining through elevator sieve. An automatic skimmer removes all impurities over a drain sieve at tail of machine, ejecting same, while wasting none of the pickling solution. Capacity 30 to 75 bushels per hour.

No. 3 machine handles 30 to 50 bushels per hour; No. 4, 50 to 75 bushels, accommodating either the small farmer or the large grain raiser. Strong construction, heavy timber; rustless solution tanks of 30 to 50 gallons capacity. Write to-day for particulars and prices.



### King of Wild Oat Separators

Save dockage, clean your grain before marketing with The Lincoln "New Superior" Wild Oat Separator.

With our patented open and blank space sieves it positively separates every wild oat seed, causing them to lie flat, and not up on end.

It is Strong, Well-Built and Bolted—Not Nailed.

Our machine is built to clean any kind of grain and do perfect work. What the "New Superior" cannot do no other can do.

Made in sizes 24, 32 and 42 inches wide, with or without bagger, and with power attachment for gasoline engine if desired.

Talk with Your Dealer about the CUSHMAN LINE or write for FREE CATALOG

**CUSHMAN MOTOR WORKS**  
**OF CANADA, 286 Princess St., Winnipeg, Man.**

Builders of Light Weight Engines for Farm and Binder use. Distributors of Reliable Power Driven Machines, such as Fanning Mills, Grinders, Saws, Cream Separators, Power Washing Machines, etc. Also Barn Door Hangers and Mountaineer Neck Yoke Centres.

You saw this advertisement in this magazine. Don't forget to say so when writing.

badly from the force of the wind. For about 750 feet out from the wind-break the grain crop was green and standing in good condition, but beyond it began to get thinner and thinner and for a few feet it was entirely obliterated. There the whole crop was wiped out by the force of the wind blowing the plants out of the ground.

Dr. Saunders and Mr. Mackay measured the fields at several points and found that for each foot of tree growth there was about 50 feet of protection; that is to say that a shelter belt only 10 feet high protected a width of about 500 feet of the field.

We strongly urge every reader to seize the most generous opportunity the Forestry Department are now offering—a free supply of young trees with complete cultural directions. If application is made to Norman Ross at Indian Head before 1st March no one will be disappointed.

### Compression and Consumption

In these days of fast running engines there is a strong tendency to underestimate the importance of good compression. Dealing with the subject from the point of view of consumption, the amount

of fuel loss is admittedly low for each individual explosion, but in the aggregate, on the principle that "many a mickle makes a muckle," it is well worth considering. With a new car, after it has run 500 miles, says a writer in Light Car, I always believe in taking out the valves to ascertain if they are seating properly all round their circumference, and correcting or replacing any that have proved faulty. Compression losses from this cause are probably greater by far than those from any other source, and novices as a rule fail to realize the effects of a bent

valve stem and warped or untrue valve heads. All joints such as at the sparking plugs, the compression taps, and the valve caps, should be made good with copper asbestos washers, and, if they still fail to pass the oil test satisfactorily, the surfaces of the joints (but on no account the threads) should be treated to a slight coating of boiled linseed oil.

Fuel losses can also take place into the crank case; so the first time that the cylinders are dismantled, the piston rings should be carefully scrutinized for signs of "blowing," and any rings that are marked should be replaced.