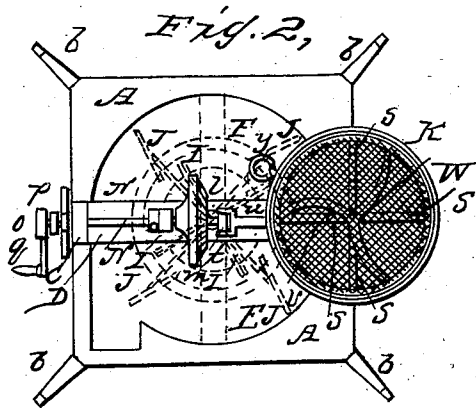
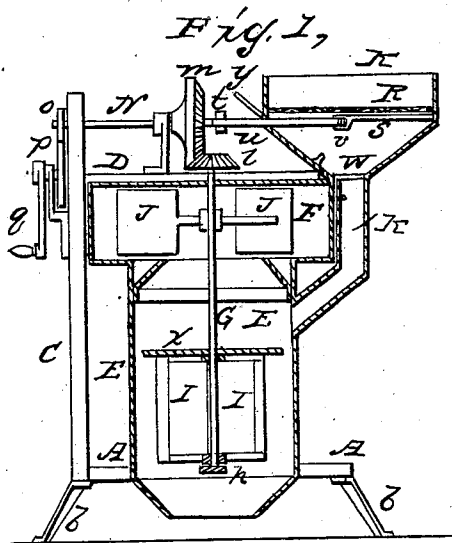


EXELBY & MARSHALL.

Oat Dusting Machine.

No. 83,054.

Patented Oct. 13, 1868



Witnesses:
Edward Melching
Victor H. Buerger

Inventors:
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United States Patent Office.

RICHARD EXELBY AND GEORGE W. MARSHALL, OF BUFFALO, NEW YORK, ASSIGNORS
TO THEMSELVES, JOHN S. LACY, JR., AND JOHN A. SEYMOUR, OF SAME PLACE.

Letters Patent No. 83,054, dated October 13, 1868.

IMPROVED OAT-DUSTING MACHINE.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that we, RICHARD EXELBY and GEORGE W. MARSHALL, of the city of Buffalo, in the county of Erie, and State of New York, have invented certain new and useful Improvements in Portable Oat-Dusting Machines; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, in which—

Figure I is a vertical longitudinal section, and

Figure II a plan of our improved machine.

Like letters of reference designate similar parts in both figures.

The invention consists in combining, with a beating and separating-mechanism, so geared that it may be operated by hand, a hopper and valve, arranged with reference to the driving-mechanism, so that the feed can be regulated by the operator of the machine, the whole being constructed and arranged substantially as hereinafter shown and described.

The invention further consists in the combination and arrangement of an oscillating screen with said hopper, operated in the manner specified.

In the drawings, A is a base-board or plate, resting on suitable legs, *b b*. C is a standard rising from said bed-plate, and provided with a cross-piece, D, near the top, which three parts form the frame of the machine.

E is a beater-case, and F the fan-case, resting on the top of the frame, or formed with it.

G is a vertical beater and fan-shaft, resting in a suitable step, *h*, and provided with beaters I I and fan-wings J J.

K is a hopper, with a pipe or passage, *k*, opening into the case E.

At the upper end of the shaft G is a bevel-pinion, *i*, gearing with a bevel-wheel, *m*, which is mounted on a horizontal shaft, N. On the outer end of this shaft is a pinion, *o*, meshing with spur-gear, the shaft of which is provided with a crank by which the machine is operated.

A screen, R, is arranged within the hopper, supported by cross-bars *s s*, to which it is pivoted at the centre, as shown.

The inner end of the shaft N extends beyond the bevel-wheel *m*, where it terminates in an eccentric, *t*, which imparts an oscillating horizontal motion to a bar, *u*, the opposite end of which is jointed at *v* to one of the cross-bars *s*, as shown in Fig. II.

The screen, at or near its periphery, is secured to

the bar *u*, so that it receives an oscillating motion corresponding with that of the bar.

The screen is so constructed that it can readily be removed from the hopper and freed from the refuse material that has been screened from the grain.

W is a slide or valve in the bottom of the hopper, provided with a rod, *y*, extending in the direction of the place, and within reach of the person operating the machine, by which he can open, close, or otherwise regulate the passage for the grain into the machine.

As the grain enters the machine, as just described, it falls on a central disk, *x*, above the beaters, whence it is thrown, by the centrifugal action of the revolving disk, towards the periphery, from which it descends among the beaters, the action of which, in combination with the upward draught produced by the fan, most effectually removes all dust and other foreign matter that may have collected and adhered to the kernels.

In feeding horses or other animals, it is of great importance that the grain should be as free as possible from all impurities, and especially from dust, which has a most pernicious influence in producing heaves and other pulmonary affections. To insure this freedom from dust, it is of importance that the grain should be run through a machine immediately before its use is required, which requires a machine that can be conveniently and readily operated by a single person, and the amount of grain passed through easily regulated by the attendant.

This desideratum, never before attained, is fully supplied by the use of our improved machine, which possesses the qualities of convenience, facility of operation, and portability, which such use requires.

We are aware that the several devices herein described, and mainly, also, their combination, are not new, and we do not, therefore, claim any of said devices separately, nor their combination; but

What we do claim, is—

The arrangement of the hopper K, rod and valve *y* W, vibrating screen R, operated by eccentric *t* and rod *u*, pipe *k*, fan J, distributing-board *x*, beaters I, crank, *q*, and gearing *p o m l*, forming a portable oat-dusting machine, constructed as herein set forth.

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JAY HYATT,

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