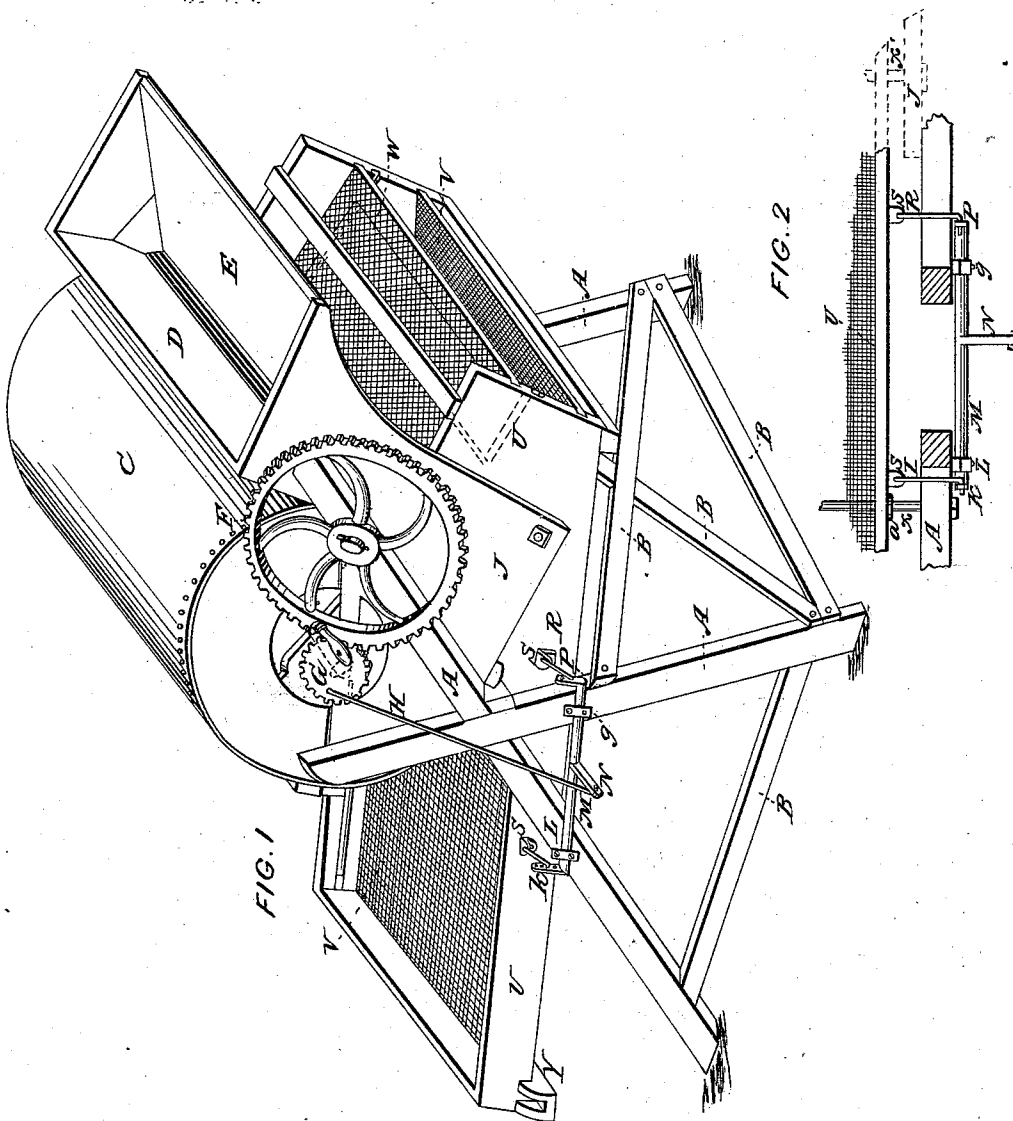


H. OGBORN.
Grain Winnower.

No. 106,395.

Patented Aug. 16, 1870.



WITNESSES:
H. J. Tracy
Edw. F. Brown

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HARRISON OGBORN, OF RICHMOND, ASSIGNOR TO SAMUEL WATSON, OF LEWISVILLE, INDIANA.

Letters Patent No. 106,395, dated August 16, 1870.

IMPROVEMENT IN FANNING-MILLS.

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

To all whom it may concern:

Be it known that I, HARRISON OGBORN, of Richmond, in the county of Wayne and State of Indiana, have invented new and useful Improvements in Fanning-Mills; and I hereby declare the following to be a full and clear description of the same, sufficient to enable others skilled in the arts to which my improvement belongs to fully understand, construct, and use the same, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a perspective view of my machine;

Figure 2 is a top view of the shaker and adjoining parts.

Similar letters of reference refer to corresponding parts in the different figures.

The nature of my invention consists in the use of a double shaker for a fanning-mill, and of horizontal bars or rods and guides for hanging the shoe of a fanning-mill, so that the motion given to it by the shaking devices will be a firm, steady, smooth, horizontal motion.

K M N P is a double shaker, for giving a light or heavy shake, which is also a regular firm shake, to the shoe of a fanning-mill over its entire length, and for regulating the shake of the "shoe," so that either end of the shoe can be made to vibrate more or less, without changing the length of the vibrations of the other end of the shoe.

L L are boxes for holding the shaker in position.

A A is a cross-frame, which supports the various parts of the machine.

B are the cross-braces.

C is the fan-case, through which passes a shaft, to which wings are attached, all made in the usual manner.

G is a pinion-wheel, on the end of the fan-shaft, for giving motion to the same.

F is the master-wheel, to which the handle O is attached.

T T are sides forming part of the drum; also act as a support for the rod X', and as ends to the hopper D.

E is a sliding feed-board, making part of the hopper.

W is a short screen, somewhat coarser than the others, for taking out large particles.

I and R are short rods connecting the shoe U with the bell-crank K P, by means of the holes in the ears S S and K P, which are several, to vary the shake of the shoe.

N is an arm, forming part of the bell-crank M, connected with the same by the longer rod H into the pinion G.

On the bottom of the shoe U is placed wire-cloth, finer than that on screen V, to allow of two or more separations at the same time; a great variety of grain and seeds may be cleaned and separated on the machine by having suitable screens.

Y is a spout, the bottom of which is inclined downward to one side, which conveys the large fine wheat to one side of the machine. By its side is another spout into which the smaller wheat falls, by reason of the lower screen being a little shorter, and is sloped in the opposite direction to the other side of the machine, where the wheat is carried and falls off.

X X' are rods that support the shoe; the rod X passes through the frame, and through holes in plate a, on the sides of the shoe. The holes through the plate are enough below the bottom of the shoe to prevent its rubbing. The screen-rod X' passes through the fan-case T and shoe U, above the long screens and below the short one, and through plates fastened on the sides of the shoe.

To clean wheat it is placed in the hopper D, and, motion being given to the machine, the board E is slightly drawn out. The wheat and all impurities fall down onto the screen W, which takes out all large particles. The wheat falls through the screen W onto a chess-board, and from there onto the upper end of the long screen, or from the upper screen directly onto the long screen when the chess-board is removed. While falling the blast of air from the fan strikes it, and blows out the light chaffy particles; the screen V retains the large fine grains or seed-wheat which passes down the screen, and falls into the spout Y, and from it into any convenient vessel.

The smaller grains of wheat, chess, cockle, and other small impurities, fall through screen V onto the lower screen, heretofore spoken of, which again screens it, and retains the small grains of wheat, suitable for market, and passes them down the screen and into the other spout, from which they fall on the other side, in any vessel suitable for the purpose, while the chess, cockle, small foul seeds, sand, dirt, and other impurities, fall through the screens onto the floor.

Having described my improvement in fanning-mills, What I claim as new, and wish to secure by Letters Patent, is—

The shoe U, provided with plates a a and ears S S, the supporting-rods X X', operating-rods H I R, and bell-crank K M N P, when said parts are constructed, combined, and arranged to operate substantially as described, and for the purposes set forth.

Witnesses:

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EDM. F. BROWN,

H. J. ARETZ.