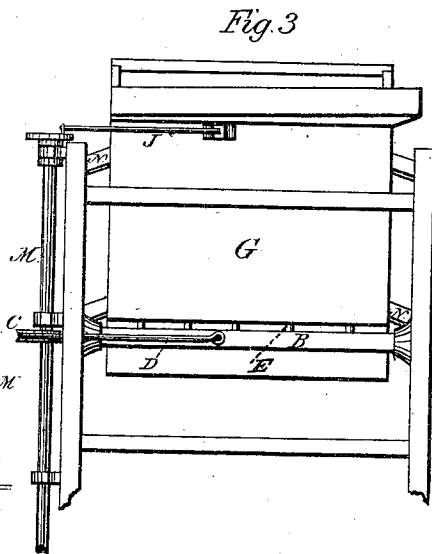
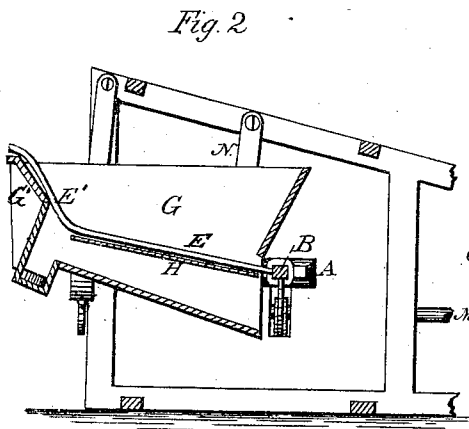
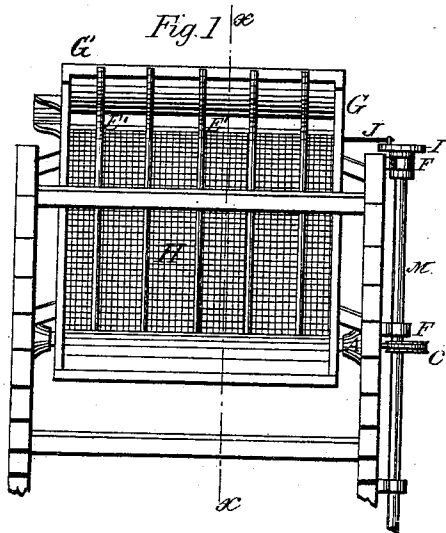


W. W. JOHNSTON.
GRAIN-SEPARATOR.

No. 170,376.

Patented Nov. 23, 1875.



Attest:

Wm. Bagges
L. A. Snow.

Inventor:

Wm. W. Johnston,
by Louis Bagges
his atty.

UNITED STATES PATENT OFFICE.

WILLIAM W. JOHNSTON, OF SUMMITVILLE, OHIO.

IMPROVEMENT IN GRAIN-SEPARATORS.

Specification forming part of Letters Patent No. 170,376, dated November 23, 1875; application filed August 4, 1875.

To all whom it may concern:

Be it known that I, WILLIAM W. JOHNSTON, of Summitville, in the county of Columbiana and State of Ohio, have invented certain new and useful Improvements in Riddle-Cleaners for Thrashing-Machines; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification, and in which—

Figure 1 is a top plan of part of a thrashing-machine, showing "shoe" having my improvement. Fig. 2 is a vertical longitudinal section after the line indicated by X X in Fig. 1, and Fig. 3 is a bottom plan.

Similar letters of reference indicate corresponding parts in all the figures.

This invention relates to that class of riddle-cleaners in which the cleaning is effected by laterally-sliding fingers arranged upon a reciprocating rod; and it consists, first, in so arranging said fingers that they shall clean not only the riddle, but also the tail-board of the shoe; and, second, in the arrangement of the mechanism for operating the cleaners and the shoe, substantially as hereinafter more fully explained.

In the drawing, G represents the shoe, which has suspended within it the riddle H. An oscillating motion is imparted to the shoe by the shake-rod J, in combination with the wheel or disk I and revolving shaft M, the latter resting in suitable boxes or bearings F. B is the finger-bar, to which are affixed the fingers or rods E, and which slide in the sockets A, secured upon the inside of the frame of the machine by bolts, which pass through the frame, and are held in place by nuts, having handles, by which they may be tightened when occasion requires. A reciprocating motion is imparted to the finger-bar B by shake-rod D, in combination with eccentric C, placed upon the rotating shaft M, as shown in Fig. 3. N

are the supports or braces, in which the oscillating shoe G is hung. The fingers E are curved in an upward direction, as shown at E', so as to cover the tail-board G' of the shoe G. By this construction not only the riddle, but also the tail-board will be kept free from straw and trash, while at the same time the curvature of the fingers E prevents long straw from falling into the discharging-spout placed underneath, and choking this up. As long straw accumulates upon the bent portion of the fingers it may readily be removed by the hands or with a rake without stopping the machine.

The operating mechanism is simple and effective, and cannot well get out of order, as in cases where complicated lever-motions are employed. There are always considerable dust and chaff about a thrashing-machine when in operation, and it is a desideratum to construct the operating mechanism in the simplest manner possible, so that it shall not get out of order by having the joints or bearings choked up with dust.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In combination with the shoe G, riddle H, and reciprocating bar B, the fingers E, bent in an upward direction at E', so as to cover and clean the tail-board G', substantially as herein shown and described.

2. In a thrashing-machine, the combination of the riddle-cleaner, consisting of the reciprocating bar B and fingers E, with the rod D, eccentric C, shaft M, disk I, rod J, and shoe G, when said parts are arranged for operation in the manner and for the purpose herein shown and described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

WM. W. JOHNSTON.

Witnesses:

JOHN WEAVER,
B. MCKENNA.