A. MOFFITT.

Grain Winnower.

No. 6,734. Patented Sept. 25, 1849.

Fig. 2.

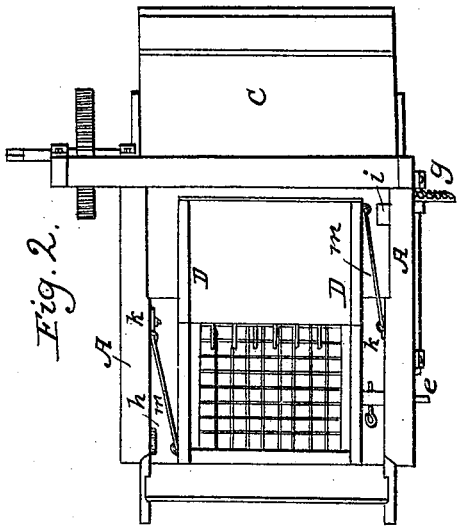
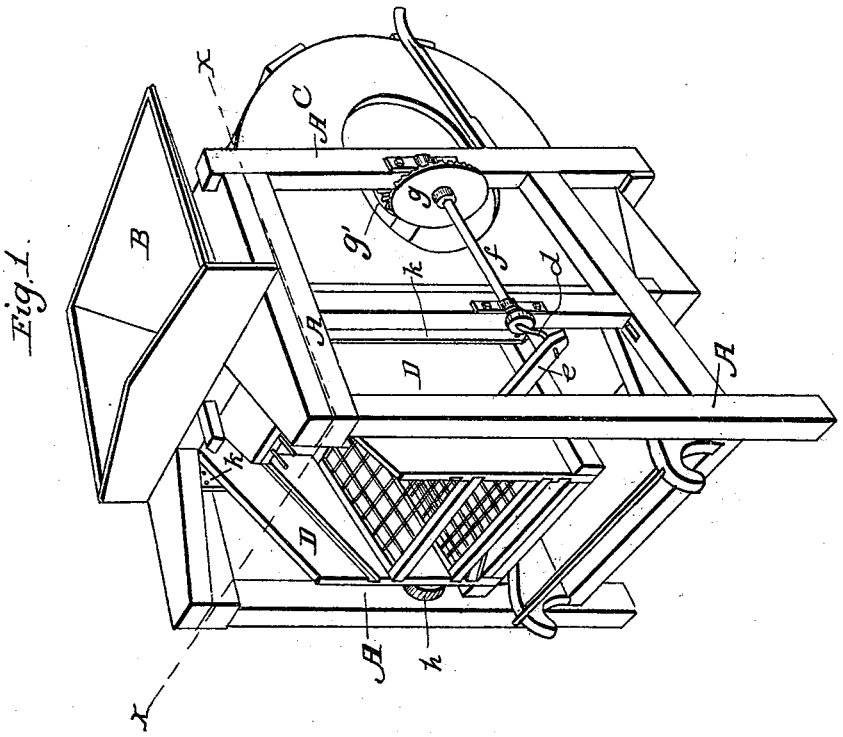


Fig. 1.



UNITED STATES PATENT OFFICE.

ALEXANDER MOFFITT, OF EAST BETHLEHEM, PENNSYLVANIA.

MOTION OF RIDDLES IN WINNOWING-MACHINES.

Specification of Letters Patent No. 6,734, dated September 25, 1849.

To all whom it may concern:

Be it known that I, ALEXANDER MOFFITT, of East Bethlehem, in the county of Washington and State of Pennsylvania, have invented a certain new and useful Improvement in Winnowing-Machines or Fanning-Mills, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, which forms part of this specification, and in which—

Figure 1 is a perspective view, and Fig. 2 is a section through the line *x x* of Fig. 1.

My invention consists in a peculiar combination of the crank, bumpers, radius bars, and suspension straps, whereby a combined reciprocating shocking motion is communicated to the shoe; the shocks being produced by the striking of the shoe alternately at its top and bottom against bumpers attached to the frame of the fanning mill, by which arrangement, the cleansing of the grain is more efficiently performed.

In the accompanying drawing, A is the frame of the mill, B being the hopper for the introduction of the thrashings, C the fan case, and D the shoe. The reciprocating motion is given to the shoe by means of the connecting rod *e*, and the crank *d* on the end of shaft *f*, which latter is put in motion by the beveled gear, *g*, *g'*. In order to produce the shocks, two bumpers *h*, *i*, are attached to the frame A of the fanning mill, the one *h* opposite the lower front portion of the shoe, the other *i* opposite the upper back portion of the same. The shoe D is suspended by the flexible straps *k k*, the upper extremities of these straps being attached to the frame A, and their lower extremities to the lower part of the shoe, so as to give to the latter the greatest possible play; the direction of the straps being in the vertical plane which passes through the center of gravity of the shoe. The shoe is retained in its upright position by the radius bars *m m*. The mill being put at work, alternate shocks are produced at the end of each vibration by the contact of the shoe with the bumpers, giving to the shoe at the moment, a circular motion, the point of contact of the shoe and the bumper being the center on which the former turns. By this peculiar motion the feeding of the grain from the hopper is rendered more equable, and the choking of the mouth prevented; by it also the straws and chaff are prevented from lodging on the sieves, and the grain more thoroughly separated from the chaff.

What I claim as my invention and desire to secure by Letters Patent, is—

Oscillating the shoe diagonally by means of the bumps substantially in the manner and for the purpose set forth.

ALEXANDER MOFFITT.

Witnesses:

JAMES MOFFITT,

JOHN H. HOPKINS.