

JOHN DRUMMOND.
No. 123,814.

Improvement in Fanning Mills.
Patented Feb. 20, 1872.

Fig. 1

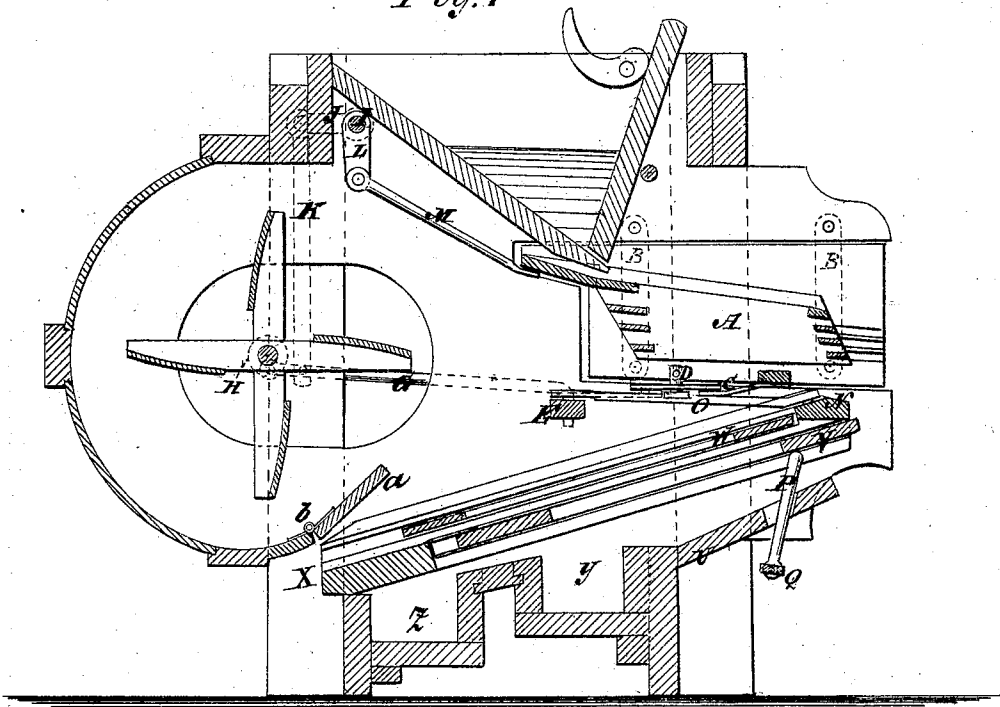
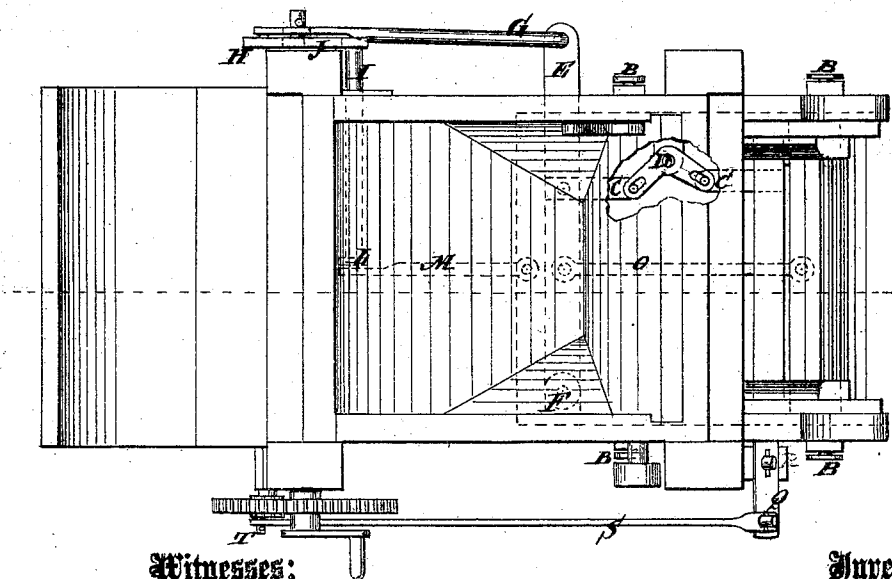


Fig. 2.



Witnesses:

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UNITED STATES PATENT OFFICE.

JOHN DRUMMOND, OF TRENTON, MISSOURI.

IMPROVEMENT IN FANNING-MILLS.

Specification forming part of Letters Patent No. 123,814, dated February 20, 1872.

To all whom it may concern:

Be it known that I, JOHN DRUMMOND, of Trenton, in the county of Grundy and State of Missouri, have invented a new and Improved Fanning-Mill; 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 make and use the same, reference being had to the accompanying drawing forming part of this specification.

My invention relates to improvements in fanning-mills; and it consists in certain arrangements of the shoes holding the screens and apparatus for actuating them, calculated to work them more efficiently than they can be as at present arranged.

Figure 1 is a longitudinal sectional elevation of the improved mill, and Fig. 2 is a top view, with a part broken out.

Similar letters of reference indicate corresponding parts.

The shoe A, which is adapted to carry four screws, is suspended by the four hangers B, adapted to allow it to vibrate both laterally and toward and from the fan; and it is connected, by the links C and bell-crank D, with the lever E, which, being pivoted to the machine at one end, F, and connected at the other end with the crank H, has a vibrating motion, which, being communicated to the shoe, causes it to vibrate laterally, the said bell-crank being suitably arranged for causing it to move in that direction. The connecting-rod G has a connecting-rod, K, connected to it near the crank H, which oscillates shaft I by its crank J, and the shaft I carries a crank, L, connecting with shoe A, by rod M, to actuate the shoe in the direction perpendicular to the lateral motion imparted by the bell-crank D. The lever E is also connected to the lower shoe N, for actuating it, the connection being formed

by the rod O, and the movement being in the lengthwise direction of the shoe and the screws thereon. P is a knocker, mounted on the end of a vibrating lever, Q, pivoted to the frame at R, and worked by a connecting-rod, S, and a crank, T, on the pinion of the fan-shaft. This knocker works through a hole in the bottom of chute V of the mill, up against the frame of the lower screen V of the shoe N, to keep it from choking. The screens V and W of this shoe are for separating or grading the grain, and are arranged for making three grades, the largest passing off the upper one through the passage X, the finest through the upper part of screen V into box Y, and the intermediate grade goes over the end of said screen V and box Z. The screen V is intended to be so arranged that by reversing it the two grades may be delivered into the box Y. I propose to arrange the part a of the fan-case on hinges b, and so that it may be raised or lowered and held in any required position to regulate the application of the blast to the screens in the upper shoe.

These screens are arranged in other machines for shifting, to adapt them to different kinds or conditions of grain.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

The arrangement, with the shoe A, suspended in the manner described, of the lever E, bell-crank D, oscillating shaft I, and the connecting-rods therefor, for actuating the shoe in different directions, said lever and shaft being actuated by the fan-shaft, all substantially as specified.

JOHN DRUMMOND.

Witnesses:

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