

S. FOSTER, Jr.
Grain Winnower.

No. 92,814.

Patented July 20, 1869.

Fig. 1.

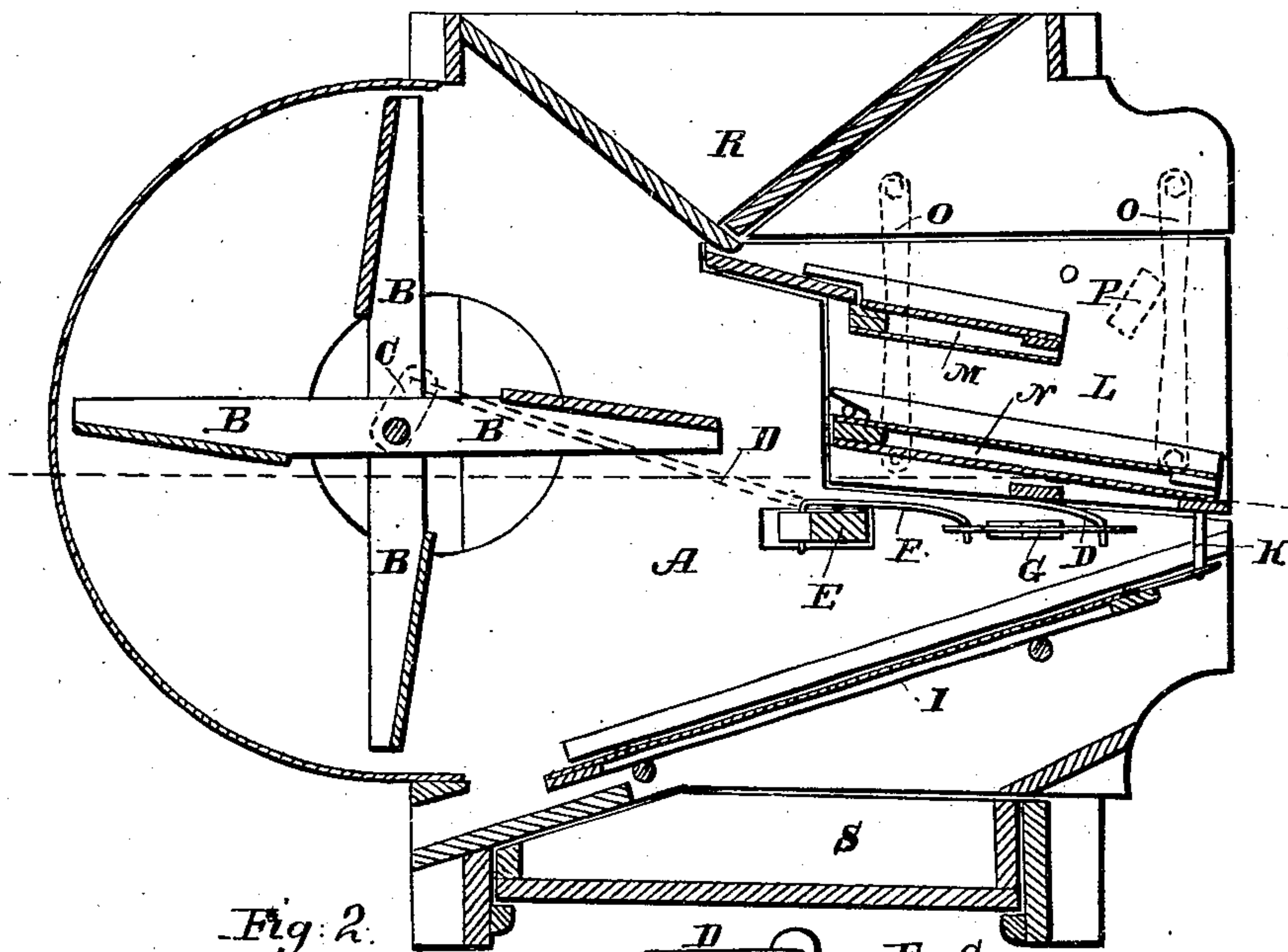
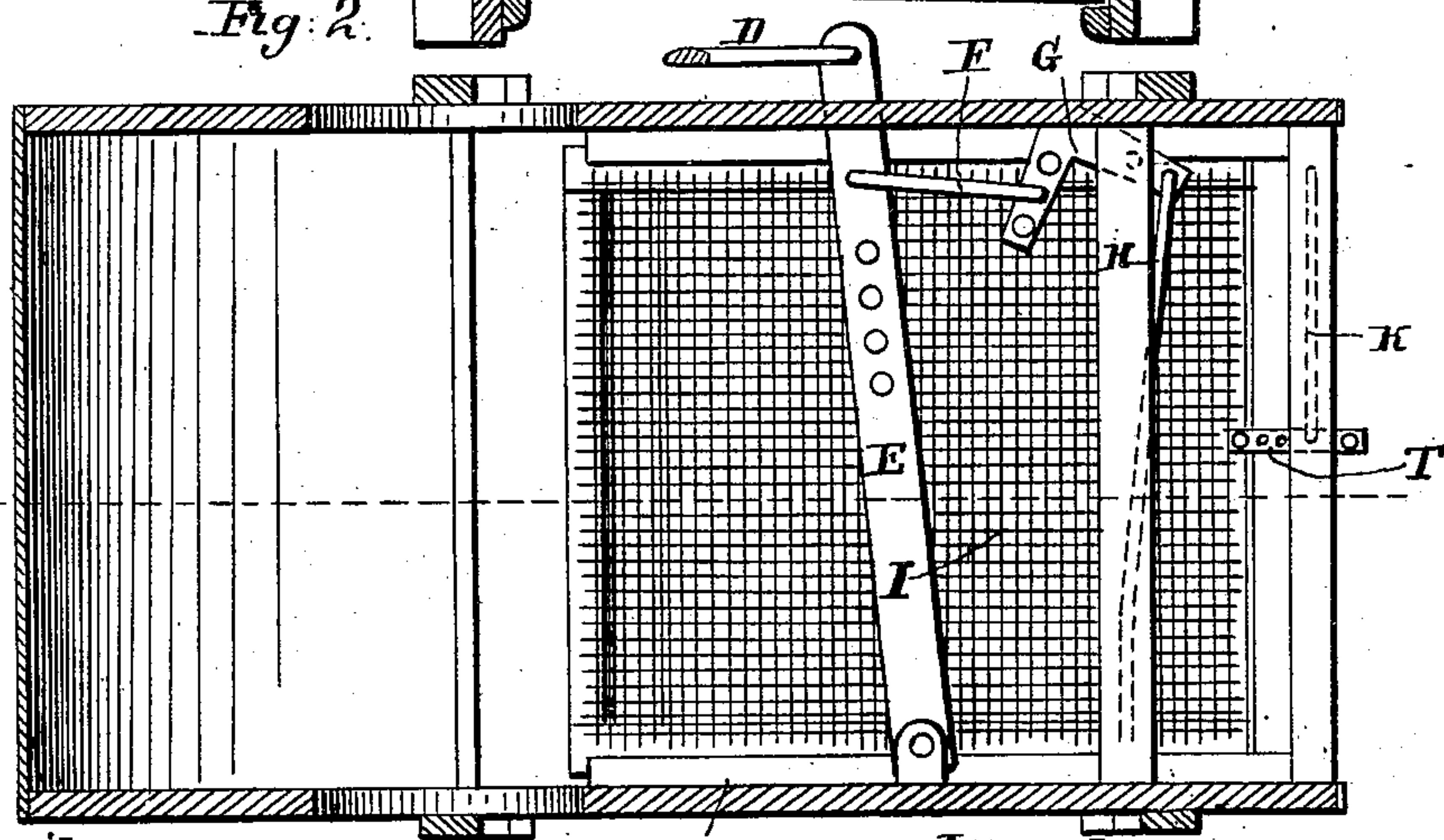


Fig. 2.



Witnesses:

Harry King
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SAMUEL FOSTER, JR., OF DES MOINES, IOWA.

Letters Patent No. 92,814, dated July 20, 1869.

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, SAMUEL FOSTER, Jr., of Des Moines, in the county of Polk, and in the State of Iowa, have invented certain new and useful Improvements in Fanning-Mills; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters marked thereon, making a part of this specification.

The nature of my invention consists in placing a number of screens in a fanning-mill working horizontally, one above the other, so as to separate the wheat from the oats, as will hereafter be more fully set forth and described.

Figure 1 is a vertical section of my mill.

Figure 2 is a horizontal section of the same.

Letter A represents the frame of my machine, which may be of any desired shape or size, and which has the fan B placed in its rear end.

Upon the end of the fan-shaft is placed the crank C, to which is attached the pitman D, for the purpose of communicating motion to the screens.

To the opposite end from the crank, the lever E is secured to this pitman, from which it receives a reciprocating motion. One end of this lever is pivoted to the inside of the frame, while the other one extends outward through a slot in the side.

In this lever there is a number of holes, so that the arm F can be shifted from one to the other, in order to increase or diminish the vibration of the screens.

To the side of the frame is pivoted the double lever G, which receives motion from the arm T, and then imparts a reciprocating one, by means of the rod H, to the frame which holds the screen, and to the lower screen I, by means of the rod K.

The vibrating frame L, in which are secured the two screens M and N, consists of two pieces placed in the side of the frame A, and secured by the springs O, so as to give it an elastic motion.

The outer end of this frame can be contracted by

means of the rod P, so that the sides will grasp the screens and hold them securely at any desired angle, without further fastenings of any kind.

This rod consists of a straight bar, having a screw-thread cut on its end, over which a nut is passed, so that the sides can be drawn together.

As the grain passes from the hopper A, it falls upon the upper screen M, which is placed at a sharp angle just over the gang-screen N.

The upper screen may consist of two or three sieves, while the lower one may have four or five, just as may be desired, and the two together form a double gang-screen, which moves horizontally with the frame L.

The oats will slide down to screen N, while the wheat will fall through both M and N on to the lower screen I, and from there out the opening in the rear under the fan.

The second quality of wheat and oats, from about the centre of the screen N, will be sifted, the oats being blown out over the end, and the wheat falling into the drawer or box S under the screen I.

To the front end of the screen I there is a perforated arm T attached, in which the end of the rod K is fastened. By means of this arm the screen can be lowered or raised to any desired position and secured there.

Having thus described my invention,

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

The arrangement of the fan B, crank C, pitman D, levers E and G, arm F, rods H and K, screens I, M, and N, frame L, springs O, box S, and arm T, all constructed as described, and combined to operate in the manner and for the purposes set forth.

In testimony that I claim the foregoing, I have hereunto set my hand, this 10th day of May, 1869.

SAMUEL FOSTER, JR.

Witnesses:

F. A. PERCIVAL,
R. S. HATTON.