H. H. SEELY.

GRAIN SEPARATOR.

No. 62,694. Patented Mar. 5, 1867.

Fig. 2.

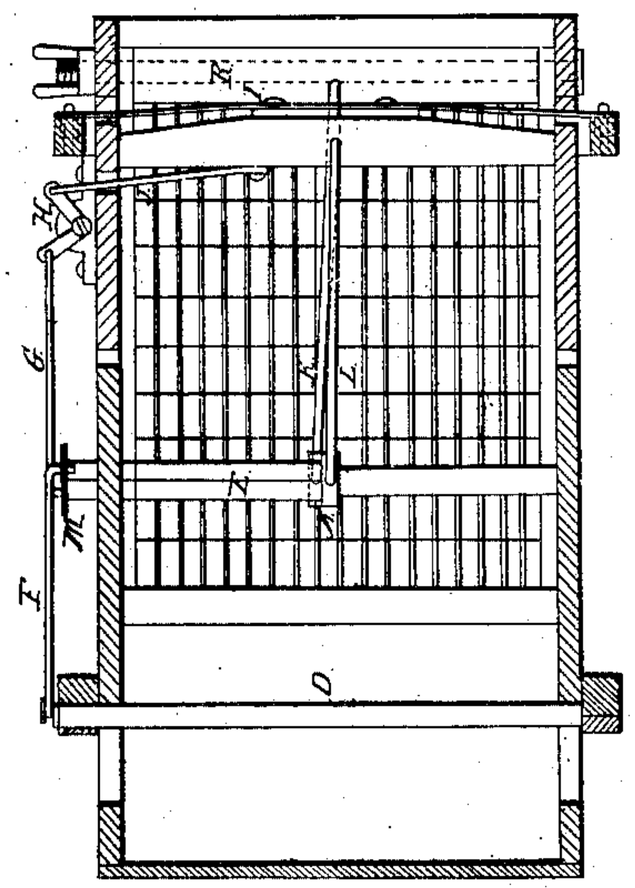


Fig. 3.

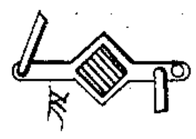
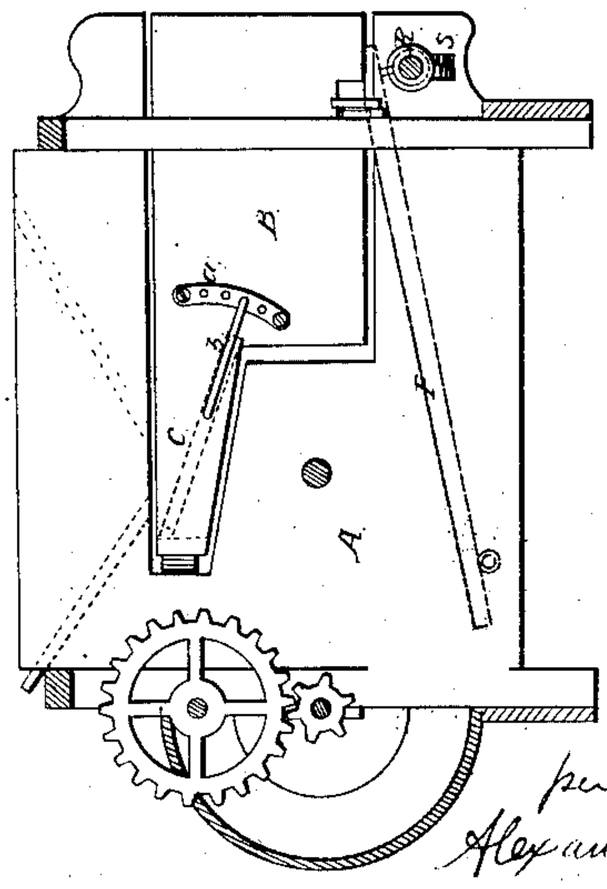


Fig. 1.



Witnesses:

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per

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Letters Patent No. 62,694, *dated March* 5, 1867.

IMPROVEMENT IN GRAIN SEPARATORS.

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, H. H. SEELY, of Hudson, in the county of Lenawee, and State of Michigan, have invented certain new and useful improvements in "Grain Separators;" and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon. In the annexed drawings, making part of this specification—

A represents the frame of the machine. The side boards of this frame are made of one piece of board, including the hopper, side and drum-head. An opening, the shape of the shoe, is cut in each of the side boards, and the piece thus cut from the said board, after being reduced a very little in size so as to give it room to play, is used for forming the end of the shoe. The ends of the shoe B, as will be seen, are hung in the openings made in the side board, and thus form a portion of the sides of the machine. The shoe B is hung in the frame by means of two springs which lie across the said frame. These springs are secured to the shoe, and have their ends resting in the frame. I represents one of the above-mentioned springs, the other being similar to it in form and mode of attachment. D represents the fan-shaft, which is driven by suitable gearing. On the end of this shaft, opposite the gearing, is a short crank, to which is connected a rod, F, which said rod attaches at its other end to the upper end of an arm on a collar, M. E represents a shaft which lies across the frame of the machine, having its bearing in the sides of said frame. Upon this shaft are two collars, M and N, made similar in shape, as shown in fig. 3; one of said collars, M, being on the outer end of the shaft, and one being placed about centre way of it. Both of these collars have arms which extend above and below it. To the lower end of arm on collar M, one end of a rod, G, is attached, the other end of said rod being attached to one arm of an elbow-lever, H, as shown. J represents a rod, one end of which secures to the other arm of lever H, while its inner end secures with the shoe for the purpose of giving said shoe a lateral shake. K and L represent two rods, which connect at their inner ends to the two arms of collar N, one to the lower and the other to the upper. The outer end of rod K attaches to the lower screen P, and serves to give motion to it. The outer end of rod L, connects with the shoe B, and serves to give an endwise motion to the said shoe. When the rods J and L both connect with the shoe, they serve to give it three motions, an endwise, a lateral, and a partial rotary motion, but when one of the rods is disconnected the shoe has only one motion, either endwise or lateral. C represents the shoe-bottom, seen in dotted line, fig. 1. This bottom is hinged at the upper end of the shoe, its lower end being adjustable. *b* represents a rod, which is secured in the bottom at one end, and passes through the shoe. The other end of this rod is bent so as to catch into holes in a plate, *a*, secured upon the shoe by means of the rod *b*. The shoe-bottom is set at any required angle. R represents a rod which passes across the frame at its rear end, resting upon springs, S S, which are placed in slots, as seen in the said frame. This rod serves to sustain the upper end of the lower screen P. This rod is provided with small friction-rollers, against which pins upon the under side of screen P strike, for the purpose of giving said screen an up-and-down motion, in addition to its longitudinal motion. By constructing the sides of the machine as described, the cost is diminished, and the manufacture rendered more easy and simple. By placing the shoe ends in the openings in the side boards, more room is gained in the machine and the shoe is worked to better advantage.

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

1. The adjustable shoe-bottom C, rod *b*, and perforated plate *a*, upon the shoe, arranged and used as and for the purpose herein specified.

2. The arrangement of the rod G, lever H, and rods J and L, with the shoe, for the purpose of giving said shoe three motions, or one, as may be desired, substantially as set forth.

As evidence that I claim the foregoing I have hereunto set my hand in the presence of two witnesses.

H. H. SEELY.

Witnesses:

S. S. NYE,

L. R. PEIRSON.