

M. T. NESBITT.
Improvement in Grain-Separators.
No. 127,788. Patented June 11, 1872.

Fig 1.

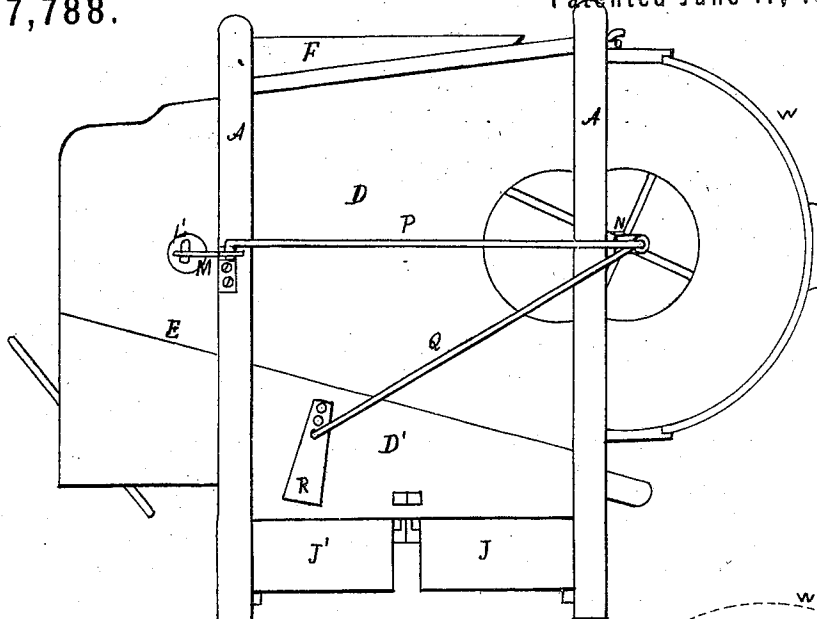


Fig. 2.

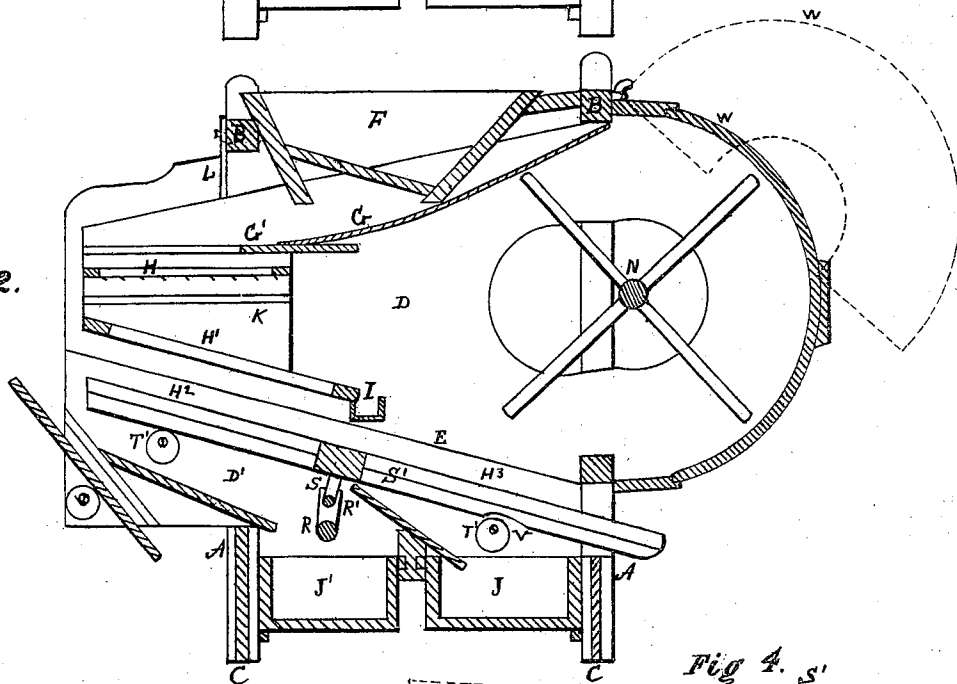
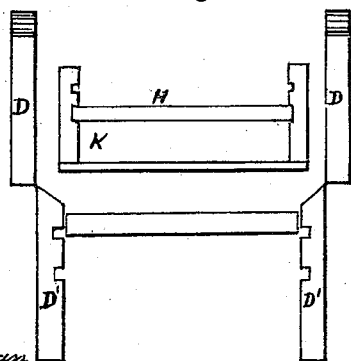


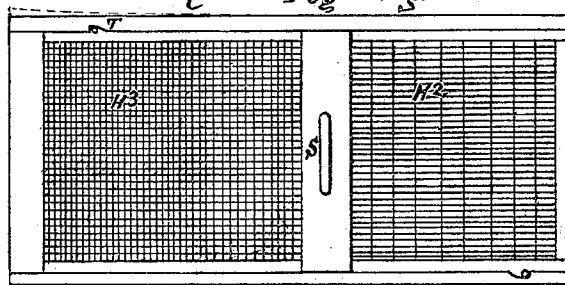
Fig. 3.



Witnesses.

W. H. Keaman
J. H. Bowen.

Fig 4. S'



Inventor.

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UNITED STATES PATENT OFFICE.

MOSES TAYLOR NESBITT, OF COLORA, MARYLAND.

IMPROVEMENT IN GRAIN-SEPARATORS.

Specification forming part of Letters Patent No. 127,788, dated June 11, 1872.

SPECIFICATION.

To all whom it may concern:

Be it known that I, MOSES TAYLOR NESBITT, of Colora, Cecil county, in the State of Maryland, have invented certain new and useful Improvements in Fanning-Mills and Grain-Separators; and I hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawing forming part of this specification.

The nature or essence of my invention consists in the particular construction and arrangement of devices forming the improvements in fanning-mills and separators described in the following specifications and represented in the accompanying drawing.

In the accompanying drawing, Figure 1 is an elevation of one side of a machine with my improvements. Fig. 2 is a vertical section of the machine cut lengthwise through the center. Fig. 3 shows the front end of the case and shoe. Fig. 4 shows the under side of the ridge-frame.

In the above-mentioned drawing, A A are four posts, connected by the top cross-bars B B and the bottom cross-bars C C and the siding-boards D and D', forming the frame and case of the machine. The two front posts are further apart than the two rear posts, so as to make room in the upper part of the machine for the shoe to vibrate, and some pieces are applied inside of the front parts, below the line E, to bring the insides of the boards D' parallel where the screens traverse lengthwise of the machine. The hopper F is fastened to the top of the machine, and may have a slide in the bottom to graduate the supply of grain to the curved board G of the shoe, on which it passes forward over the adjustable board G' onto the first screen H, and passes through to the screen H¹, which retains substances larger than the grain, which pass into the trough I, and so pass out at the side of the machine, while the grain passes through the screen H¹ onto the screen H², which takes out the seeds of weeds and other foul stuff smaller than the grain, which passes down onto the screen H³, which separates the small kernels of grain, which pass through it into the draw J, while the large kernels pass over the screen out of the machine. The draw J', under the screen H², receives and retains the seeds of weeds which pass through the screen. The

shoe K, which has the trough I attached to it, is hung by staple and hasp to the rear top bar B, and its front end is hung by the links L fastened to it and to the front top bar B, to allow it to vibrate sidewise when moved by the link L', which connects it to the bell-crank M. The fan-shaft N turns in boxes fastened to the posts A, and has a crank on one end to traverse the rod P and work the bell-crank M to shake the shoe. This crank also traverses the rod Q, which works the rock-shaft R, which has an arm, R', with a notch in it which forks onto the staple S in the screen-frame S' so as to lift and vibrate the frame when it is traversed. The screen-frame S' is made of two side bars, which are grooved to receive the screens, and connected by a single bar across the middle, so that when the screens are changed the ends of the sides can be sprung apart, as shown by dotted lines in Fig. 4, to release the pin T from its notch in the side bar, which holds the screen in place. The screen-frame is prevented from tilting too much by the adjustable stationary cams T', fastened to the side D' with screws, which cams may be set so as to incline the screens more or less, or so as to allow them to tilt more or less. The under sides of the side bars have a curved notch, V, near their lower ends to raise the lower end of the screen-frame and let it fall alternately, to jounce the lower screen and shake the small kernels of grain through it, while the large grains are passing over. The fan-case W is hinged to the top bar B, so that it may be raised up or as shown in Fig. 2.

Claims.

1. In combination with a screen provided with one or more pins, as described, I claim a screen-frame having its side bars connected by a middle cross-bar only, and provided with a notch or notches, T, so that the ends will spring open to allow the pin on the screen to pass into said notch in the side bar to hold the screen in place.

2. In combination with the vibrating shoe K and the lower traversing screen, the case D, when constructed as described and shown, substantially as and for the purpose set forth.

MOSES TAYLOR NESBITT.

Witnesses:

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1000 words