F. MILLS.

Grain Screen.

No. 106,949. Patented Aug. 30, 1870.

Fig. 1.

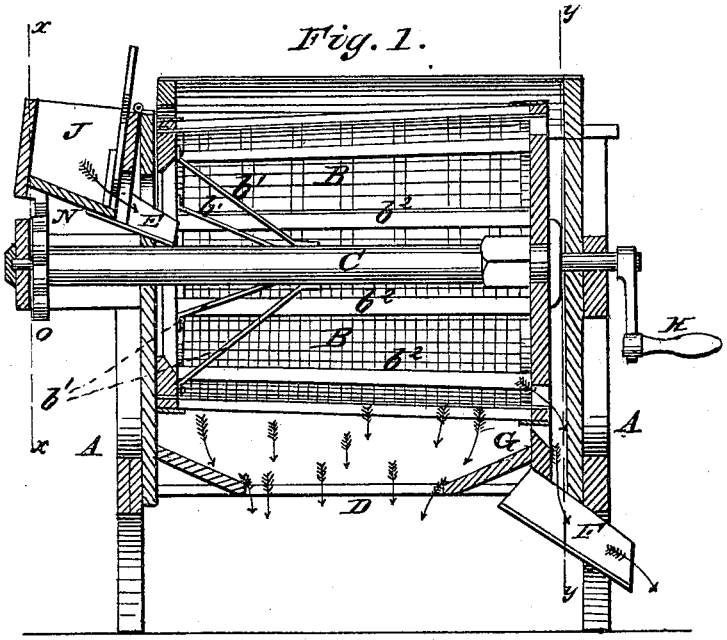


Fig. 2.

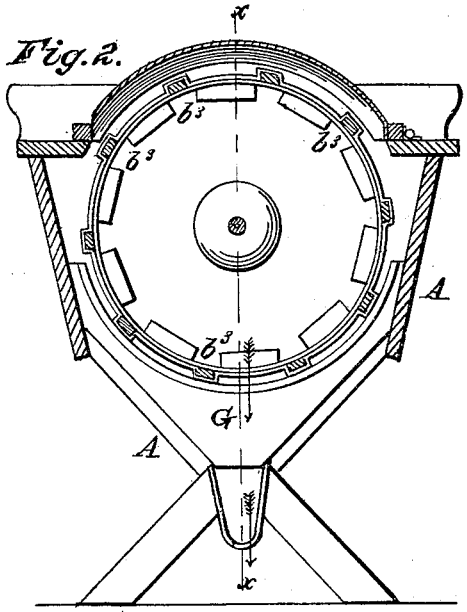
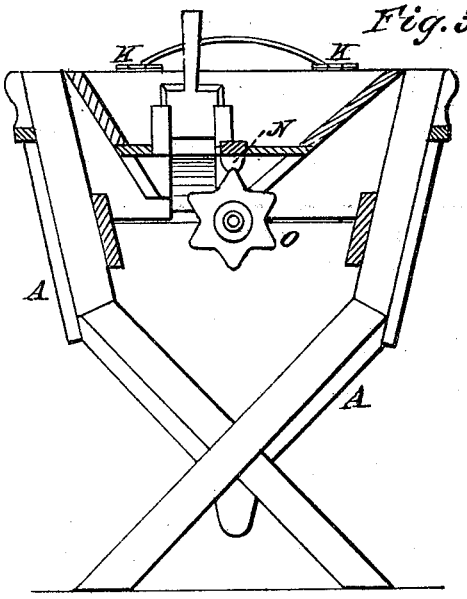


Fig. 3.



Witnesses:
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United States Patent Office.

FRANCIS MILLS, OF MOUNT VERNON, INDIANA.

Letters Patent No. 106,949, *dated August* 30, 1870.

IMPROVEMENT IN REVOLVING GRAIN-SCREENS.

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, FRANCIS MILLS, of Mount Vernon, in the county of Posey and State of Indiana, have invented a new and improved Revolving Screen for Cleaning Grain; 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, in which—

Figure 1 is a vertical longitudinal section of my improved machine, taken through the line *z z*, fig. 2.

Figure 2 is a detail sectional view of the same, taken through the line *y y*, fig. 1.

Figure 3 is a detail sectional view of the same, taken through the line *x x*, fig. 2.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved revolving screen, for separating small seeds from wheat or other grain, which shall be simple in construction and effective in operation; and

It consists in the construction and combination of the various parts of the machine, as hereinafter more fully described.

A represents the box or case of the machine, which is made with legs, of such a length as to raise the machine to a convenient height.

B is the screen, which is made tapering, and in the shape of the frustum of a polygonal pyramid, and which is rigidly connected with the shaft C, so as to be carried with said shaft in its revolution.

The screen is covered with wire-cloth, of such a fineness as to allow the small seeds, which it is designed to remove, to pass through, and which the grain to be screened or cleaned cannot pass through.

As the small seeds pass through the screen B, they fall upon the inclined bottom of the box A, and pass out of the machine through the spout D.

The grain is introduced through the pipe E, at the center of the smaller end of the screen B, which said smaller end of said screen is supported by arms b^1, the outer ends of which are attached to the end-plate of the screen B, and the inner ends of which are attached to the shaft C, the said arms being so formed as to pass around the end of the pipe E, as shown in fig. 1.

As the grain passes back through the machine, it is kept stirred up by the inner ribs b^2 of the screen B, and when it reaches the rear end of the said screen, it is taken up by the inclined blocks or plates b^3, attached to the rear end plate of the screen B, at the rear sides of the discharge-openings through said plate.

As the screened grain passes out of the screen B, it falls through the space between the end of the screen and the end of the box, and passes out through the spout F, being kept from again mixing with the small seeds by the cleats or flanges G, attached to the inner sides of the box A, at the end of the screen B, as shown in the drawing.

The screen B is revolved by means of a crank, H, attached to the projecting end of the journal of the shaft C.

The pipe E passes out through the forward end of the box A.

J is the feed-hopper, which is suspended by jointed connections K to the case A.

To the lower part of the inner hopper is attached a downwardly-projecting arm, N, the lower end of which rests upon the spur-wheel O, attached to the shaft C, so that, as the said shaft C revolves, the hopper J will be jarred, to hasten the escape of the grain from the said hopper.

From the hopper J the grain passes into the pipe E, and passes thence to the screen B, in the manner hereinbefore described.

Having thus described my invention,

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

The combination in the grain-screen B herein described, of the hinged hopper J and lug N, with the sprocket-wheel O and shaft C, all constructed and arranged as shown and described, for the purposes set forth.

In testimony whereof I have hereunto subscribed my name to this specification in the presence of two subscribing witnesses this 8th day of March, 1870.

FRANCIS MILLS.

Witnesses:

JAMES CHENY,

WM. P. LEONARD.