

P. H. MASSEY.

Grain Cleaner.

No. 111,760.

Patented Feb. 14, 1871.

Fig 1

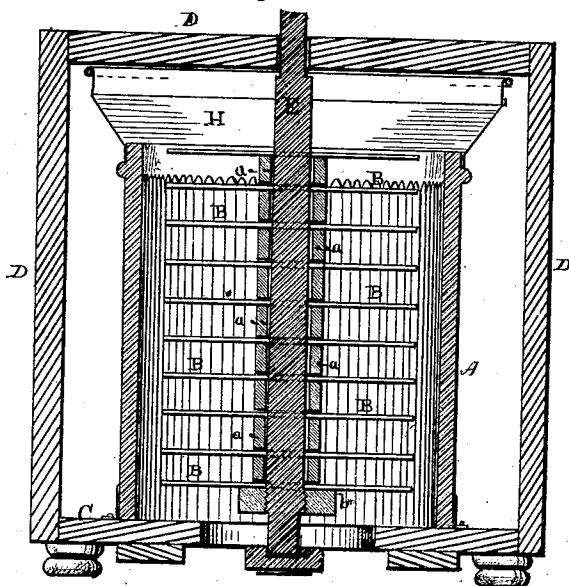


Fig 2

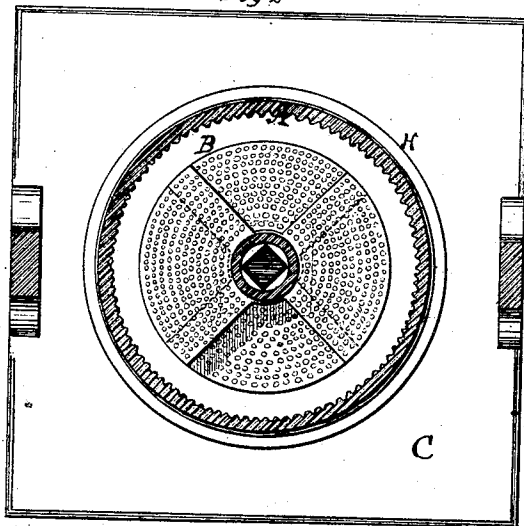
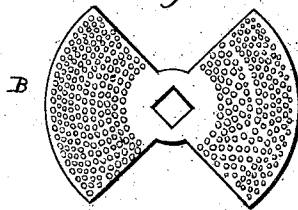


Fig 3



Witnesses

Engel P. Morris
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United States Patent Office.

PLEASANT H. MASSEY, OF SOUTH BEND, INDIANA.

Letters Patent No. 111,760, dated February 14, 1871.

IMPROVEMENT IN MILL-STONE FEEDERS AND GRAIN-SCOURERS.

The Schedule referred to in these Letters Patent and making part of the same.

I, PLEASANT H. MASSEY, of the city of South Bend, in the county of St. Joseph and State of Indiana, have invented certain new and useful Improvements in Mill-Stone Feeders and Grain-Scourers, of which the following is a full description, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a vertical section.

Figure 2, a horizontal section.

My invention consists in corrugating the inner surface of the cylinder within which the scourers of a feeder and cleaner revolve, and in so attaching the scourers upon their shaft that they can be readily removed, and in the form of the scourers.

In the drawing—

The scourers and the cylinder in which they revolve are shown, but the other parts of the machine are not shown, being constructed in the usual manner, and substantially as shown and described in a patent granted to me and dated April 7, 1868.

The scourers are driven, as shown in said patent, or in any other suitable well-known manner, and the driving devices are not shown in this application.

In the drawing—

A represents a cylinder, within which the scourers B revolve.

The cylinder is corrugated on the inside, as shown in fig. 2, and it stands on a board or platform, C, as usual.

D represents parts of the frame, which is constructed and arranged as usual.

E is a shaft upon which the scourers B are placed, being separated from each other by the washers *a*, and held upon the shaft by the nut *b*.

A greater or lesser number of scourers can be used, by decreasing or increasing the thickness of the washers.

The shaft and scourers can be taken out of the cylinder, and then the scourers can be removed from the shaft, by first removing the nut *b*, and new scourers can be then placed on the shaft, or the number of scourers used may be varied, as desired.

I find it advisable to make the scourers both removable and adjustable, as described, so that they may be adapted, both in kind and number, to the work to be performed.

The form of the scourers which I now use is shown in Figure 3; those which I formerly used were complete disks.

These have a portion of the metal cut away at *c c*, as shown, and, when placed on the shaft, I arrange them so that the open places *c c* in one scourer are over the wings *d d* of that immediately above or below.

The advantage resulting from this form is that the grain can fall to the center, and then be thrown out from the center by the centrifugal force of each alternate scourer. In other respects the scourers are constructed as usual.

The corrugated cylinder has this advantage over one having a smooth interior: There must be a little space between the edges of the scourers and the surface of the cylinder, and when the cylinder is corrugated, as shown and described, the grain in this space is more likely to be kept in motion and brought again to the scourers than when the surface is smooth. I now make the cylinder of glass.

This material has important advantages over any other now in use for this purpose, the chief of which is its durability.

The constant friction of the grain upon metal cylinders in use rapidly wears them away; but the glass is so exceedingly hard that such friction will have no perceptible effect for a long time.

If the glass be transparent the operator can see when the cylinder is empty from any position and without approaching the device.

It is about eight inches long, and in diameter about the same.

H is the hopper.

The lower end of the shaft may be supported in any suitable bearing, located where convenient, and the upper end may extend above the frame to receive a driving-pulley.

What I claim as new is as follows:

1. The corrugated cylinder A, when made of glass, in combination with the scourers B and shaft E, substantially as and for the purpose set forth.
2. The combination of the scourers B, shaft E, washers *a*, and nut *b*, substantially as specified.
3. The segmental scourers B, constructed and arranged upon the shaft E, substantially as and for the purpose set forth.

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Witnesses:

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