

W. McLAUGHLIN.

Grain Cleaner.

No. 106,184.

Patented Aug. 9, 1870.

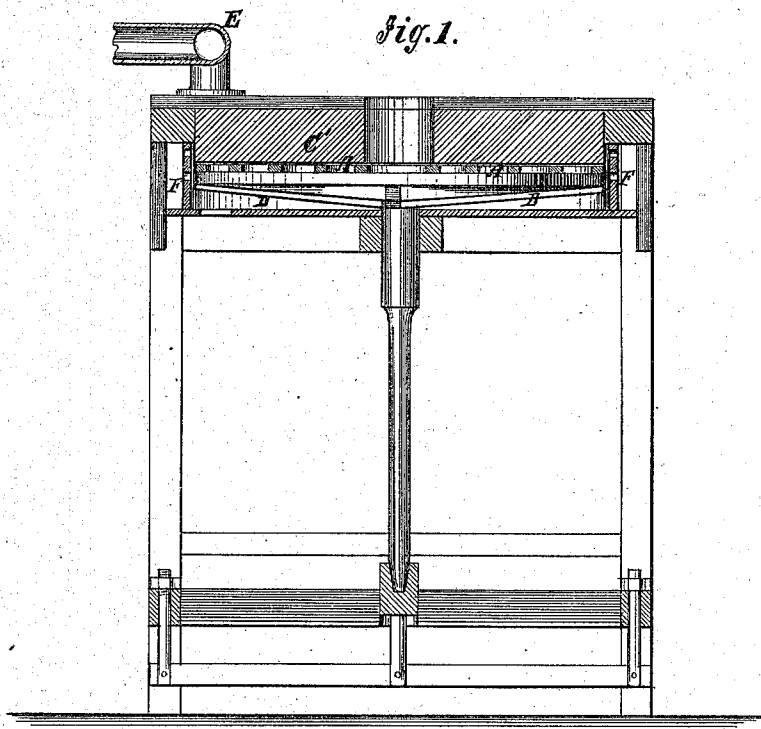
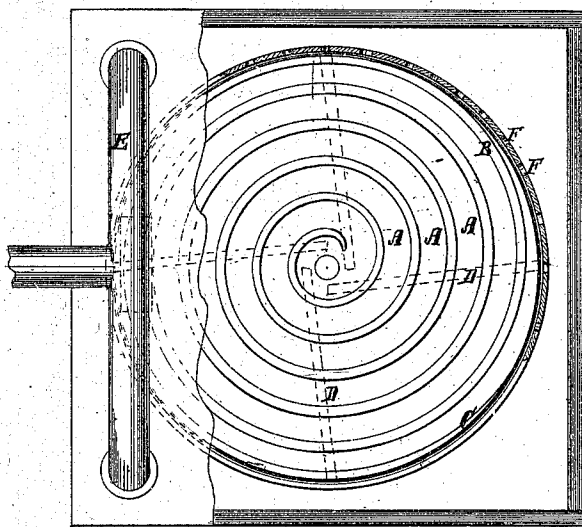


Fig. 2.



Witnesses:

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PER

Wm. C. [Signature]
Attorneys.

United States Patent Office.

WILLIAM McLAUGHLIN, OF JERSEY CITY, NEW JERSEY.

Letter's Patent No. 106,184, dated August 9, 1870.

IMPROVEMENT IN GRAIN-SCOURING MACHINES.

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, WILLIAM McLAUGHLIN, of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and improved Grain-scouring Machine; 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.

This invention relates to improvements in machines for scouring and hulling grain, and consists in arranging a scroll-shaped groove in the face of one of the stones, preferably the runner, beginning at the center and gradually approaching the skirt, and in arranging the said grooved stone with another stone having a smooth face, which will confine the grain in the scroll groove, and cause it to be subjected to the action of the stone during several revolutions, the said groove preventing the escape of the grain as soon as it does in the stones as ordinarily arranged, and causing a more uniform action.

Figure 1 is a sectional elevation of my improved mill, and

Figure 2 is partly a plan and partly a horizontal section.

Similar letters of reference indicate corresponding parts.

I propose to make a broad scroll groove, A, in one of the stones, preferably the runner, with vertical sides, and about or nearly as deep as the thickness of the grain to be acted on, the said groove beginning at the center of the stone, extending several times around, and terminating at the periphery, where it is made concentric nearly one circle, say from the point B, where the dividing wall comes to the periphery, to the point C, leaving a narrow place for the discharge, thereby utilizing the surface of the stone between the said points, which would not act on the grain if the wall terminated at B, as the grain escapes at the end of the said wall.

It will be seen that the action of a stone on the

grain arranged in this way, and combined with a stone, C, having a smooth face, will be continued much longer, and will be much more uniform than when the common dress is used, which allows the grain to escape more directly.

By this plan, the pressure of the stone upon the grain does not require to be so great as to effect the necessary work, and thereby the tendency to break the grain is very much lessened.

I also propose to place the scraper D on the under side of the running stone, to prevent the grain from working under it.

I also propose to apply a sucker-spout, E, and fan for removing the dirt from within the curb, and, to supply the air for the purpose, I make holes in the side of the curb, as shown at F.

Instead of forming the spiral channel by making the groove in the face of the stone or scouring-plate, I may make it by attaching a spiral rib to the face of the plate, and this rib may either be continuous or sectional, or it may be made in sections of concentric rings, each succeeding section from the center outward being set further toward the skirt than the first, so that the groove or space will assume the equivalent of a spiral course by the successive breaks in the rib.

Or, again, these sectional ribs may be plain or in any other form, which, when arranged according to the plan indicated, will obstruct and regulate the passage of the grain to the skirt, in the manner described.

Having thus described my invention,

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

The combination of one smooth-faced stone with a stone having one continuous groove, forming a coil upon its surface, as shown in fig. 2 of drawing.

The above specification of my invention signed by me this 17th day of May, 1870.

WILLIAM McLAUGHLIN.

Witnesses:

GEO. W. MABEE,
T. B. MOSHER.