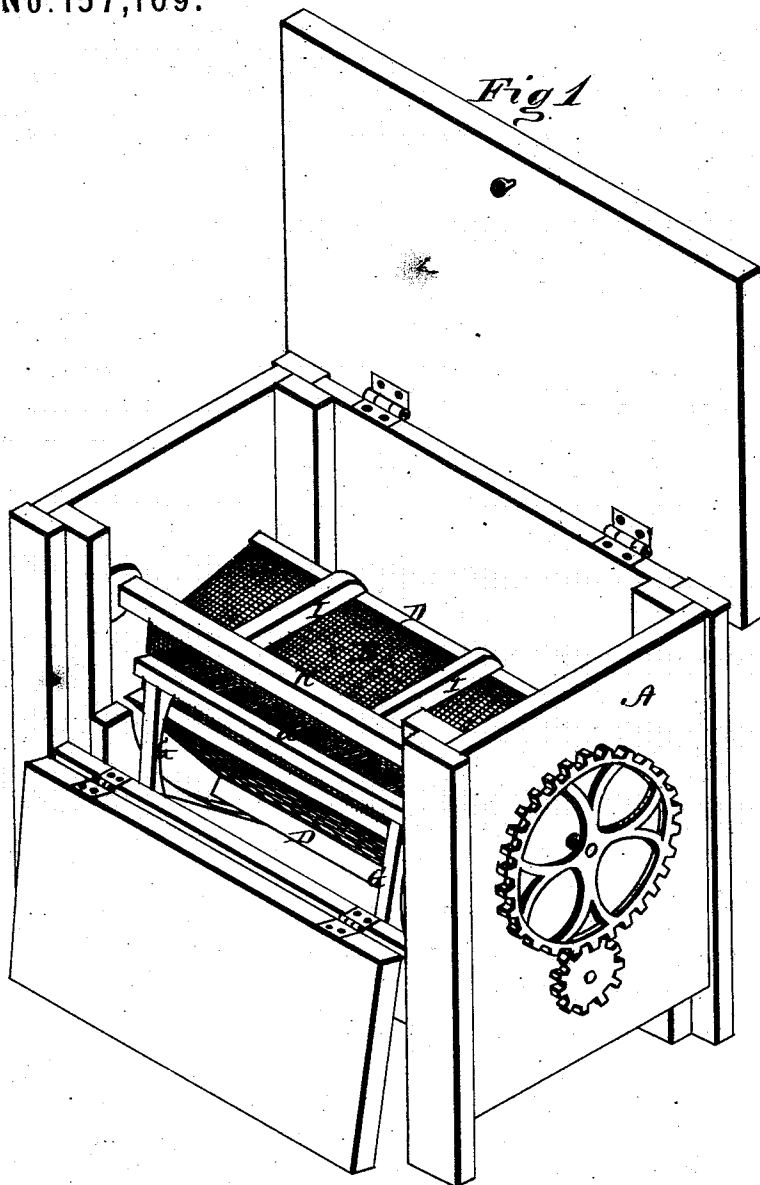


A. FULTON.
Middlings Purifiers.

No. 157,169.

Patented Nov. 24, 1874.



WITNESSES.
Francis L. Durand
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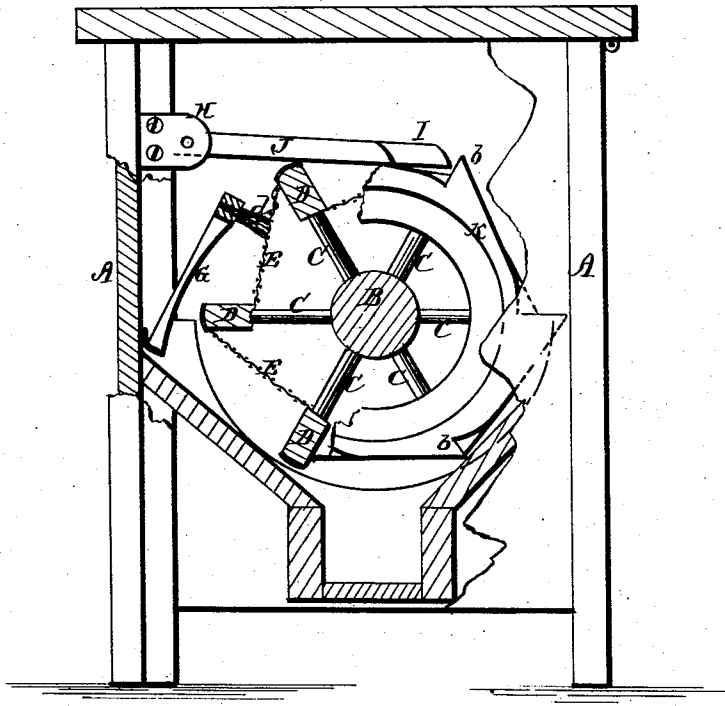
INVENTOR
Abraham Fulton,
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Fig 2



WITNESSES.
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C. L. Ewert.

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By *Alexander Stuart*
Attorneys.

UNITED STATES PATENT OFFICE.

ABRAHAM FULTON, OF OLNEY, ILLINOIS.

IMPROVEMENT IN MIDLINGS-PURIFIERS.

Specification forming part of Letters Patent No. 157,169, dated November 24, 1874; application filed June 3, 1874.

To all whom it may concern:

Be it known that I, ABRAHAM FULTON, of Olney, in the county of Richland and in the State of Illinois, have invented certain new and useful Improvements in Middlings-Purifier; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a middlings-purifier, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a perspective view of my middlings-purifier, and Fig. 2 is a transverse vertical section of the same.

A represents a box of any suitable dimensions, containing the reel. This reel is composed of a central shaft, B, provided with radial arms C C, which support the ribs D D. E represents the bolting-cloth, which is fastened to and runs from the inside of one rib to the outside of the next rib, causing the middlings to slide over the rib, instead of being carried up and dashed about as in ordinary bolting-reels. To that side of the reel which is moving upward is applied a brush, *d*, extending the entire length of the reel and attached to arms G G, which are hinged or otherwise flexibly connected to the box, so as to be self-adjusting to the bolting-cloth of the reel, and keep the cloth clean. On one side

of the reel, in suitable bearings, are placed the journals of a bar or shaft, H, from which arms I I extend over the top of the reel. At one end of the shaft H is an arm, J, which projects over a rim, K, attached to the head of the reel, said rim being provided with projecting teeth *b b*, corresponding in number and location with the number of the sides and ribs of the reel. As the reel revolves, the knocker, thus constructed, is raised by every tooth *b* acting in succession upon the arm J, and as the teeth pass from under said arm the knocker falls down and strikes each rib as it passes over the center at the top, thereby loosening all particles that may adhere to the cloth.

For a thirty-inch reel the speed should not be over twelve revolutions per minute; and for reels of different sizes it should be proportionately greater or less, as the case may be.

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

1. In combination with the toothed rim K upon the reel, the rock-shaft H, provided with knockers I I, and the operating-bar J, all constructed substantially as and for the purposes set forth.

2. The combination, with the reel B C D E, of toothed rim K, rock-shaft H, with knockers I I and bar J, and the gravitating brush G *d*, all substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 30th day of April, 1874.

ABRAHAM FULTON. [L. S.]

Witnesses:

SAM. B. WINSOR,
JAMES E. WHARF.