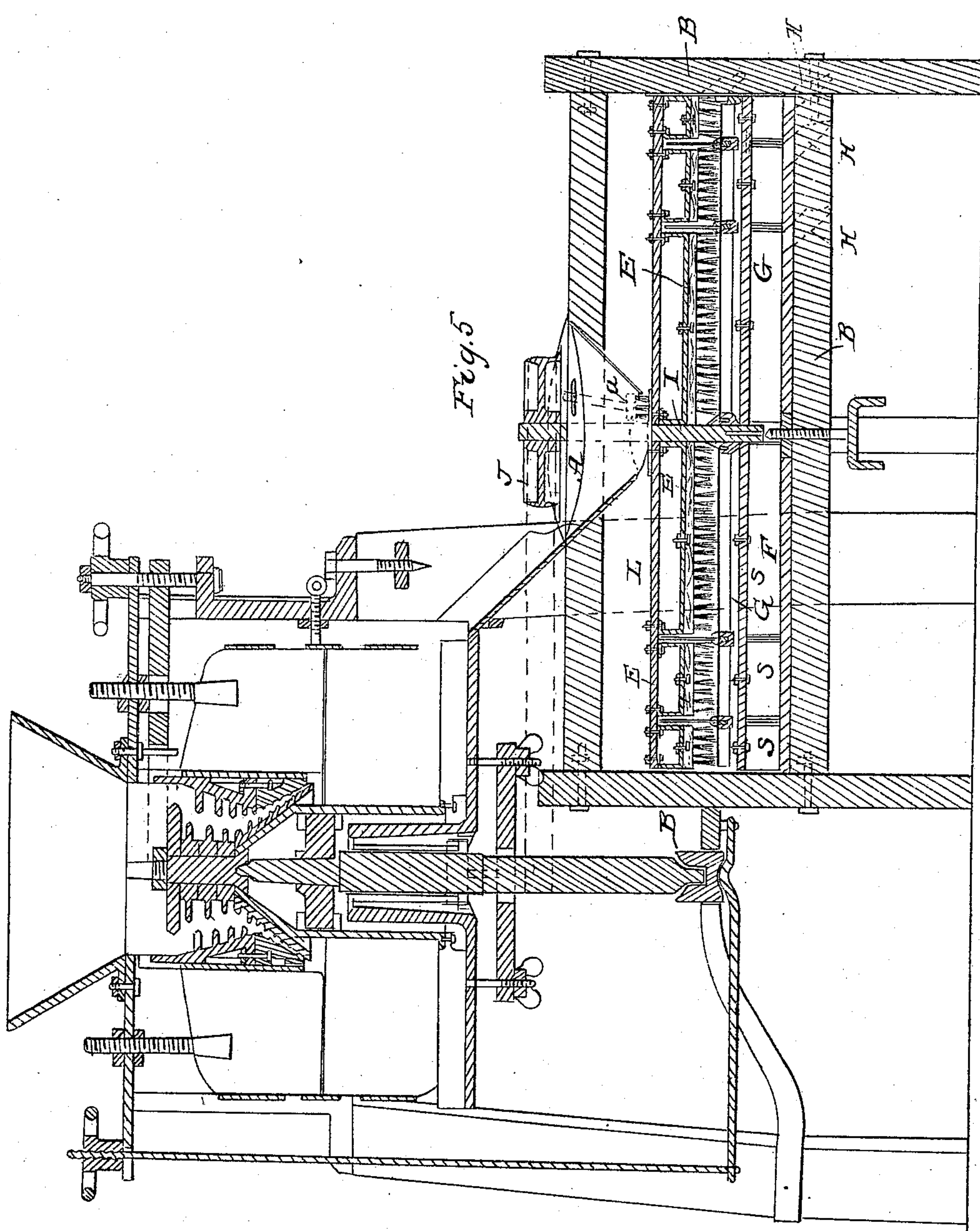


J. WOODWARD.

Mill Bolt.

No. 19,892.

Patented April 6, 1858.



UNITED STATES PATENT OFFICE

JOEL WOODWARD, OF PHILADELPHIA, PENNSYLVANIA.

MACHINERY FOR BOLTING, DUSTING, AND SEPARATING GROUND MATERIAL.

Specification of Letters Patent No. 19,892, dated April 6, 1858.

To all whom it may concern:

Be it known that I, JOEL WOODWARD, of Philadelphia, in the State of Pennsylvania, have made a new and useful Improvement in Bolting, Scouring, Dusting, and Separating Machines Combined for Making Any Number of Separations Desired; and I do hereby declare that the following is a full and exact description of the construction and operation of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, in which—

Figure 5 is a center cut of the bolting, scouring, dusting, scouring and separating machine combined, Fig. 6, a top view showing the form of the frame brushes, sweeps, and discharge spouts.

The nature of my improvement, or invention consists 1st in the stationary brush or distributor resting on the coarse wire and that keeps the metal scraped off, and distributes the same evenly, 2d the manner of making the separations in connection and combination with the bolting, scouring, and dusting, by which room power and expense is greatly reduced and any number of separations made that may be required, 3d the construction of the bottom and the manner of the discharge making the whole machinery simple, compact, cheap, and portable for bolting, dusting, and making any number of separations required.

To enable others skilled in the art to make, construct, and use my invention, I will now proceed to describe its construction, and operation in detail.

Letter A Fig. 5, is a hopper that the meal runs into, from a spout O (or a conveyer may be used, if necessary,) Fig. 3 with a stationary brush, *a*, fastened to the cross piece of the frame B, B, B, B, and resting on the coarse wire C Fig. 6, which revolves under the brush, *a*, thus distributing the meal on the wire or cloth Fig. 6, and is brushed through the wire or cloth, by brushes E, E, E, attached to arms L, L, by bolts or screws in the center of each brush, to allow the brushes to be set in any desired position to carry the meal out to the hoops *i*, *i*, having openings in them to admit of the meal or bran passing from one division to another and having different numbers of wire or cloth makes the required separations.

F, F, is a bottom or plane underneath,

with corresponding hoops or divisions, with two arms or sweeps with scrapers, *s*, *s*, *s*, attached by bolts or screws to allow them to be set to carry the flour, or meal to the spouts, H, H, H.

The shaft, I, rests on a set screw *b*, thus regulating the bearing of the brushes on the cloth, or wire.

c is a feather in the shaft I that drives the sweeps, or scrapers, *s*, *s*, *s* thus carrying the flour to the spouts H, H, H, Figs. 5, and 6.

Letters *d*, *d*, Fig. 6 are two small wheels to traverse on the top of hoop or ring, to carry the sweeps or scrapers *s*, *s*, *s*.

Fig. 5 letters, *e*, *e*, *e*, *e*, *e*, is a top view of a frame made of iron or other material to fasten the cloth, or wire to.

The hoops *i*, *i*, Fig. 5, are kept to their places by small cleats fastened on the top of the wire or cloth.

J, is a pulley.

K, is a belt running from the spindle of the mill Fig. 5 or any other convenient place to drive the bolting, dusting, and scouring and separating machine. This machine may be driven from above or below as desired.

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

1. The stationary brush or distributor shown by letter *a*, Fig. 5 for the purpose as set forth.

2. The brushes E, E, E, so arranged as to carry the meal or bran to, or from the center whereby the substance can be scoured or brushed as much as desired in the manner and for the purpose set forth.

3. The manner of making any number of separations or any mode of combining more than two separations in the duster or separator in the manner and for the purpose set forth.

4. The manner of the corresponding bottom or platform below F F with sweeps or scrapers to carry the flour to spouts as set forth.

5. And the mode of regulating the brushes on the wire or cloth by the bolts or set screws and the screw *b* at the bottom of the shaft I in the manner and for the purpose substantially as described, and to be used in connection with the foregoing specification.

JOEL WOODWARD.

Witnesses:

GEO. H. EARLE,

RICHD. J. WILLIAMS.