F. G. WALLACE. 2 Sheets—Sheet 1.

FLOUR-BOLTING MACHINES.

No. 195,192. Patented Sept. 11, 1877.

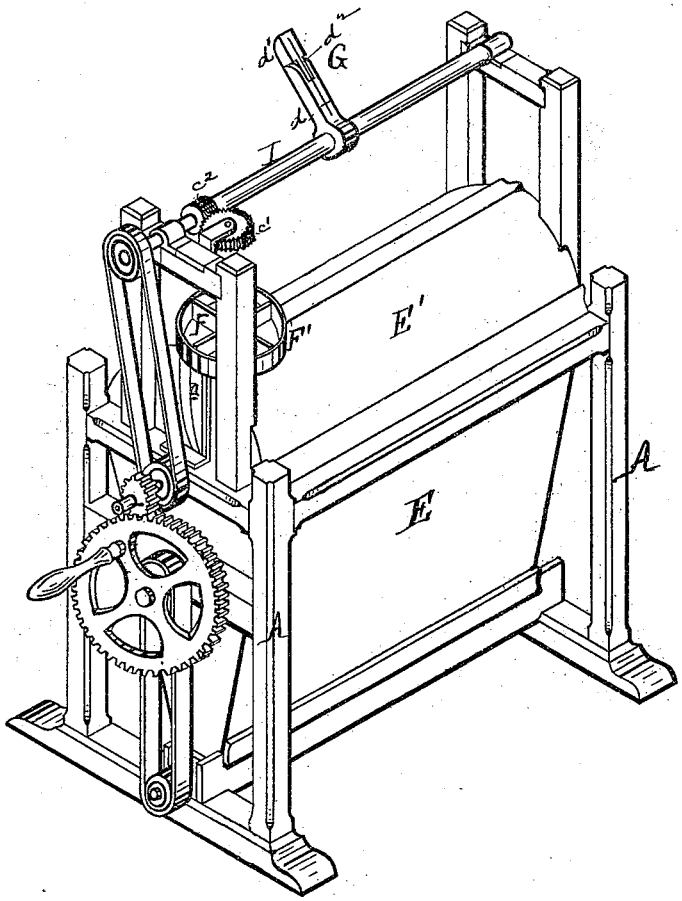


Fig. 1

Witnesses:
F. C. Wells
Wm. Herring

Inventor:
F. G. Wallace
by atty.
Thos. S. Sprague

2 Sheets—Sheet 2.

# F. G. WALLACE.

## FLOUR-BOLTING MACHINES.

No. 195,192. Patented Sept. 11, 1877.

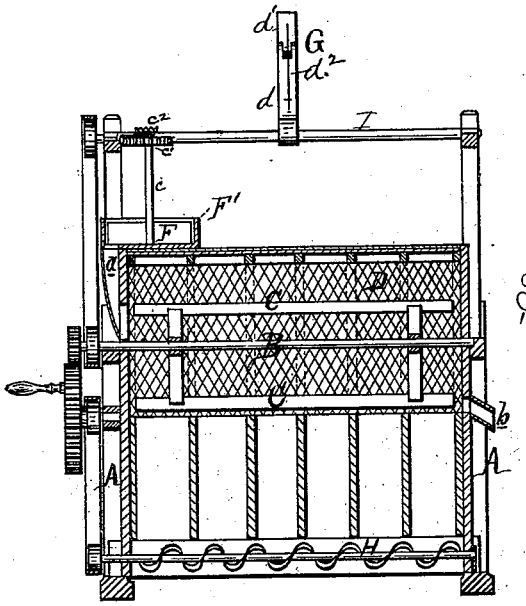


Fig. 2

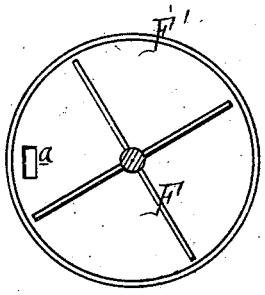


Fig. 3.

Witnesses:
P. C. Mills
Wm. Herring

Inventor:
F. G. Wallace
By Atty
Chas. S. Sprague

# UNITED STATES PATENT OFFICE.

FERRAND G. WALLACE, OF JACKSON, ASSIGNOR TO HIMSELF AND JOHN WEBSTER, OF DETROIT, MICHIGAN.

## IMPROVEMENT IN FLOUR-BOLTING MACHINES.

Specification forming part of Letters Patent No. **195,192**, dated September 11, 1877; application filed June 23, 1877.

*To all whom it may concern:*

Be it known that I, FERRAND G. WALLACE, of Jackson, in the county of Jackson and State of Michigan, have invented certain new and useful Improvements in a Combined Bolter and Bran-Duster, of which the following is a specification:

The object of my invention is to provide a small, compact, and inexpensive stripping-reel and bran-duster in the manufacture of flour, to separate the bran and offal from the meal or chop preparatory to bolting the latter.

In the drawings, Figure 1 is a perspective view. Fig. 2 is a longitudinal vertical section. Fig. 3 is a plan of the cooling-feeder.

In the drawing, A represents the frame of the machine, at the top of which is longitudinally journaled a shaft, B, slightly inclined, which shaft is to be driven at a considerable speed, by belt or gearing, from any convenient source of power. The shaft B carries three floats or fan-blades, C, revolving in close proximity to a steel wire-cloth cylinder, D, of twenty-two to twenty-four mesh. E is the casing of the lower part of the machine, and E′ the casing of the upper part, which, being hinged at one side, may be thrown open, as may also the upper half of the bolting-cylinder. F is a cooler and feeder, rotating in a curb, F′, at the upper end of the top casing, into which the heated meal, fresh from the stones, is spouted. The vertical shaft *c* of the cooler is slowly rotated by a worm-gear, $c^1$ $c^2$, or otherwise, so that the chop may be partially cooled before it is swept into the spout *a*, which feeds it into the cylinder. Here it is taken up by the fan-blades and projected by centrifugal action against the screen, through which passes everything except the bran and offal, which latter pass down to the foot of the cylinder, and are discharged by a spout, *b*.

Inasmuch as a considerable portion of the stock passing through the cylinder will adhere to the interior of the casing, I provide a knocker, G, to loosen the stock, which, falling to the bottom of the lower casing, is carried away by the conveyer H to the bolts. This knocker G is carried by the horizontal shaft I, which operates the feeder, and this shaft is journaled in the frame-work above the hinged portion E′ of the casing. The knocker is composed of an arm, *d*, which is keyed at its inner end on the shaft I, about over the center of the casing, a shoe, $d^1$, hinged or pivoted to the end of the arm *d*, and a spring, $d^2$, to keep the pivoted shoe in line with the carrying-arm.

In the revolution of the shaft I the shoe $d^1$ strikes against the top of the casing, producing the required jar of the parts, and, by being pivoted, this shoe, after delivering the blow, is bent up, and passes over the top of the casing, when it again resumes a straight position.

By employing such a machine with a cylinder of twenty inches diameter by six feet in length, the miller is enabled to dispense with the usual bran-dusting machine and a twenty-foot cloth-covered bolting-reel.

What I claim as my invention is—

1. In a machine substantially as described, the knocker G, carried on a revolving shaft, and having a pivoted shoe adapted to strike and pass over the casing of the machine, substantially as described and shown.

2. The combination, with the casing E′, of the shaft I and the knocker G, composed of the arm *d*, pivoted shoe $d^1$, and spring $d^2$, constructed and arranged substantially as described and shown.

FERRAND G. WALLACE.

Witnesses:

H. S. SPRAGUE,

H. L. AULLS.