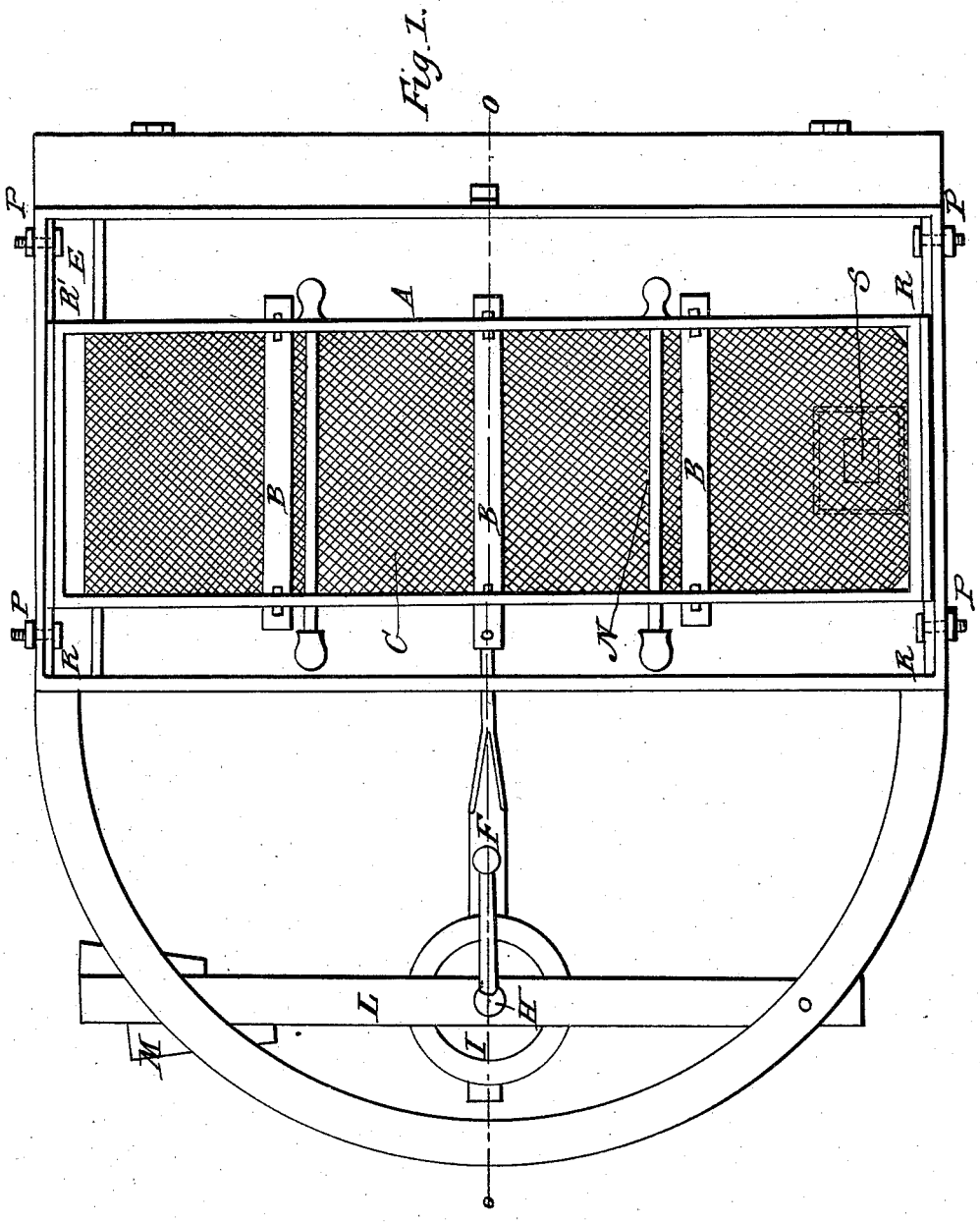
2 Sheets—Sheet 1.

J. HEAN.

Machine for Dressing Flour.

No. 2,471. Patented Feb. 28, 1842.

Fig. 1.



2 Sheets—Sheet 2.

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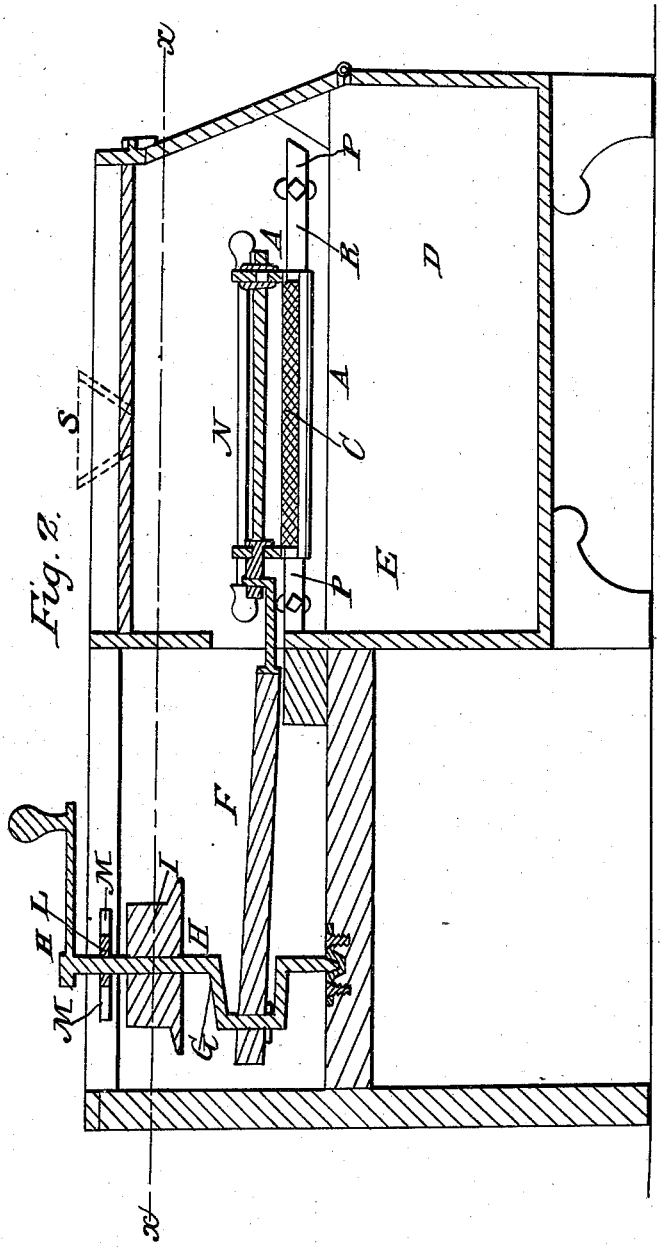
Fig. 2.



UNITED STATES PATENT OFFICE.

JOHN HEAN, OF ANNVILLE TOWNSHIP, LEBANON COUNTY, PENNSYLVANIA.

MACHINE FOR BOLTING AND DRESSING FLOUR.

Specification of Letters Patent No. 2,471, dated February 28, 1842.

To all whom it may concern:

Be it known that I, JOHN HEAN, of Annville township, Lebanon county, State of Pennsylvania, have invented a new and useful Improvement in Machines for Dressing Flour, called "Hean's Vibrating Flour-Dresser," which is described as follows, reference being had to the annexed drawings, making part of this specification.

Figure 1 is a horizontal section at the line *x x* of Fig. 2. Fig. 2 is a vertical section at the line *o o* of Fig. 1.

Similar letters refer to corresponding parts.

This vibrating screen A is an oblong trough composed of longitudinal boards set edgewise and connected by two transverse end boards also set edgewise and mortised and tenoned into the same. Between these end boards and parallel thereto are arranged three transverse horizontal braces D for strengthening the screen mortised and tenoned into the aforesaid longitudinal side boards thereof. On the bottom edges of said boards forming the sides of the screen is secured a screening or bolting cloth C through which the flour passes. This screen is set at an angle of about 2 or 3 degrees with a horizontal plane, or ribs or ways R placed on the inside of the flour chest D on which it moves backward and forward—the lower end being over the bran trough E which is formed by partitioning off a part of meal chest—said lower end being raised or lowered at pleasure by screens P attached to the lower way or rib in order to change the angle of inclination of the screen.

Motion is communicated to the screen by a connecting rod F connected to the side of the screen by a loose joint and extending to a crank G, or a vertical shaft H on which there is a pulley I around which passes a band leading to another pulley on the mill spindle, said crank shaft and its pulley having a movement toward or from the screen in order to regulate or stop its motion by having the upper end of said crank shaft to turn in a horizontal vibrating lever or bar L adjusted by wedges, keys M straps and pins or other mechanical means.

The spout S for conveying the meal to the screen passes through an opening in the top of the meal chest over the higher end of the screen.

Two horizontal parallel agitators or knockers N for knocking against the sides of the screen in order to jar the screen to keep the pores of the cloth open and passed through apertures in the sides of the screen a little larger than the shafts of the knockers or agitators, said knockers or agitators having heads outside the screen for the purpose of striking against the sides thereof, which knockers receive their motion from that of the screen being thrown violently against its sides by the movement of the screen.

The meal chest is made in the usual manner. The machine being in motion the meal is introduced to the screen through the spout S, the fine flour passing through the cloth into the meal trough, below it and the bran falling off at the lower end of the screen into the bran trough partitioned from the meal trough.

The advantages possessed by this flour dresser over that of the revolving bolt are several—First, it is cheaper and simpler; second, it can be easily changed for others to suit the several kinds of meal to be dressed the screens being all adapted to the same meal chest; third, in the knockers or agitators preventing the clogging of the cloth by giving a jar to the screen; fourth, in the simplicity of its gearing.

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

The arrangement of the agitators in combination with the screen as described.

JOHN HEAN.

Witnesses:
GEORGE WEIDMAN,
JOHN M. MARK.