

(No Model.)

2 Sheets—Sheet 1.

J. HUXTABLE.
BOLTING MACHINE.

No. 360,592.

Patented Apr. 5, 1887.

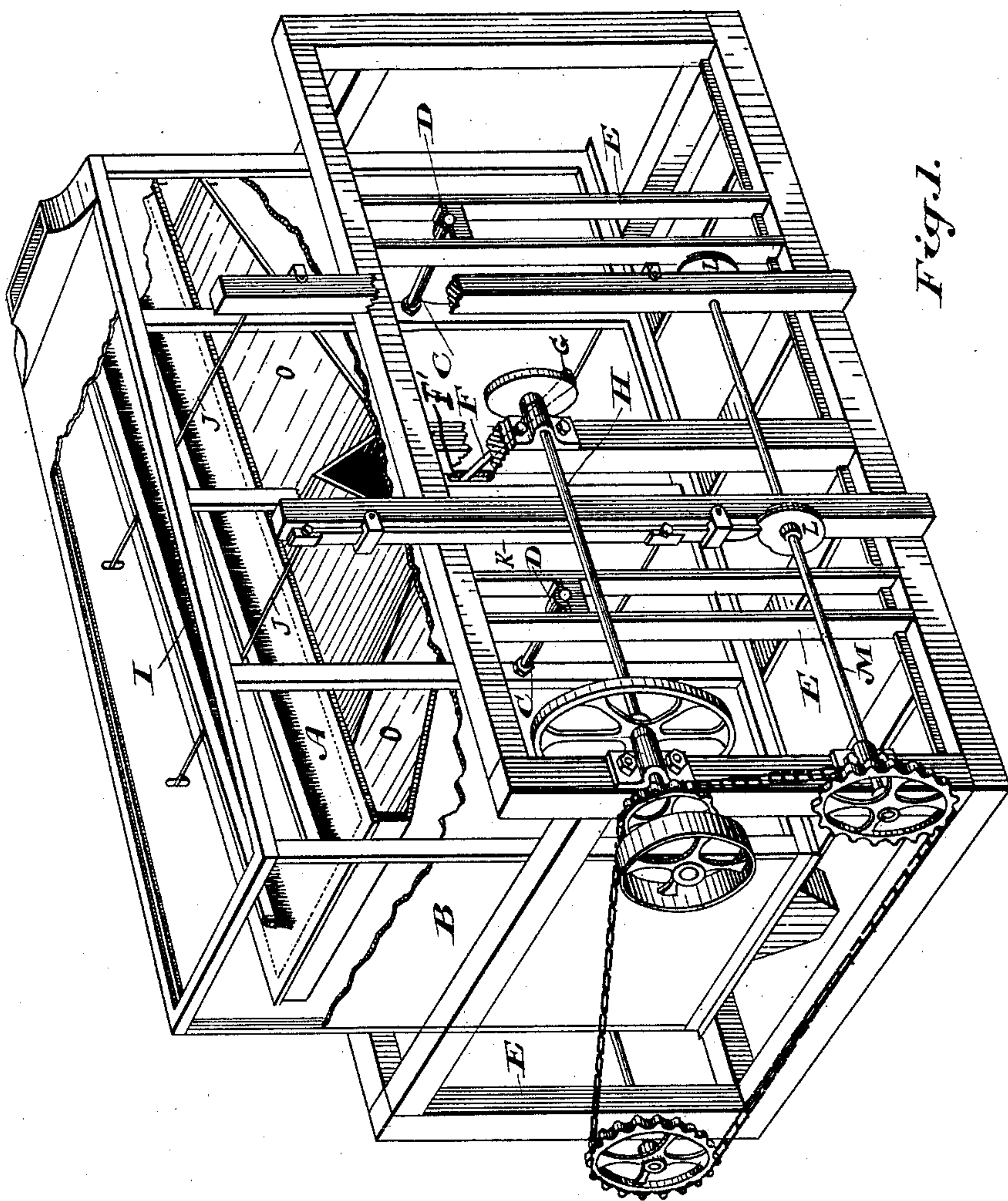


Fig. 1.

Witnesses.

H. B. Fetherstonhaugh
James E. Maylee

Inventor.

James Huxtable
By Donald C. Ridout & Co
Attys

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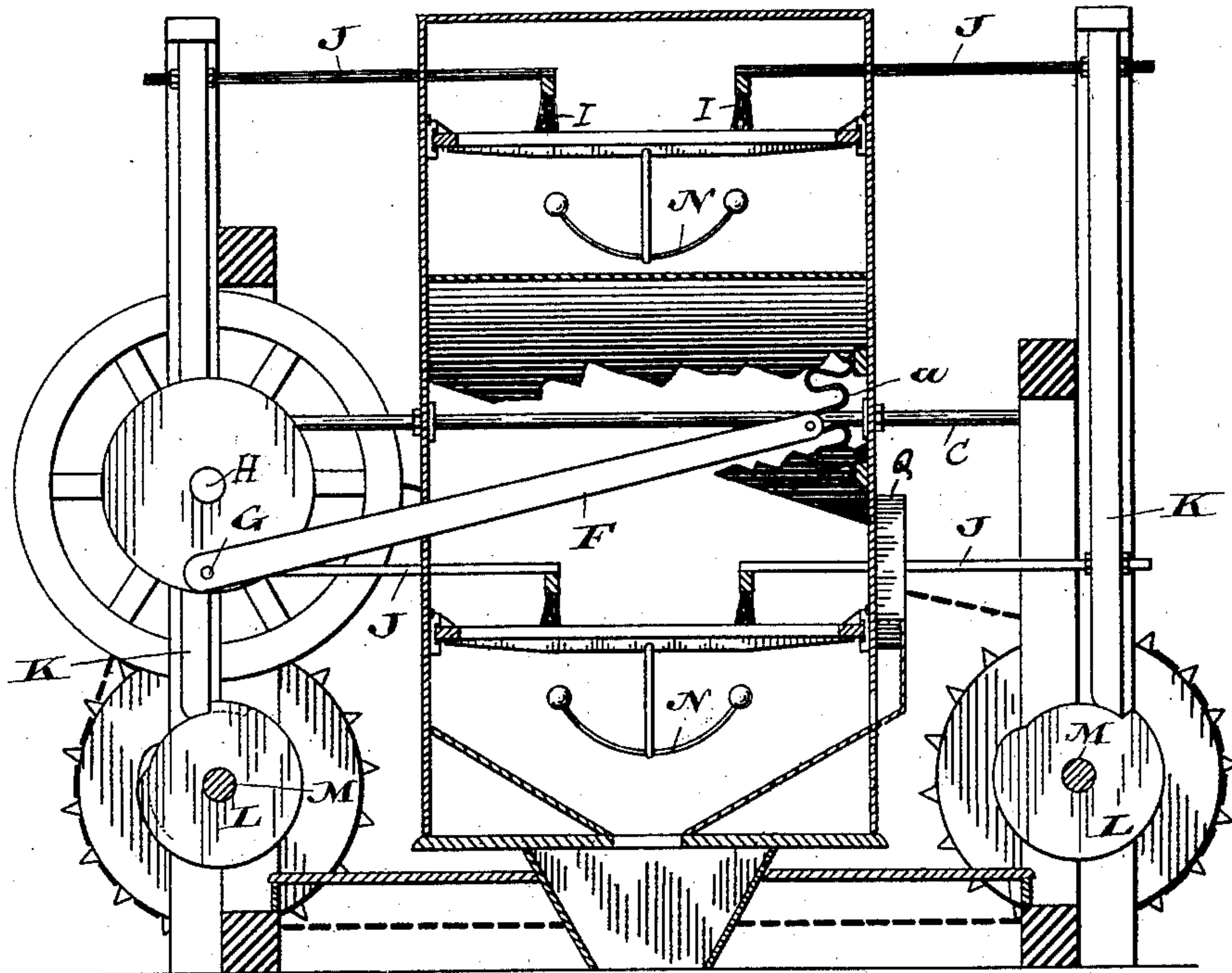


Fig. 2.

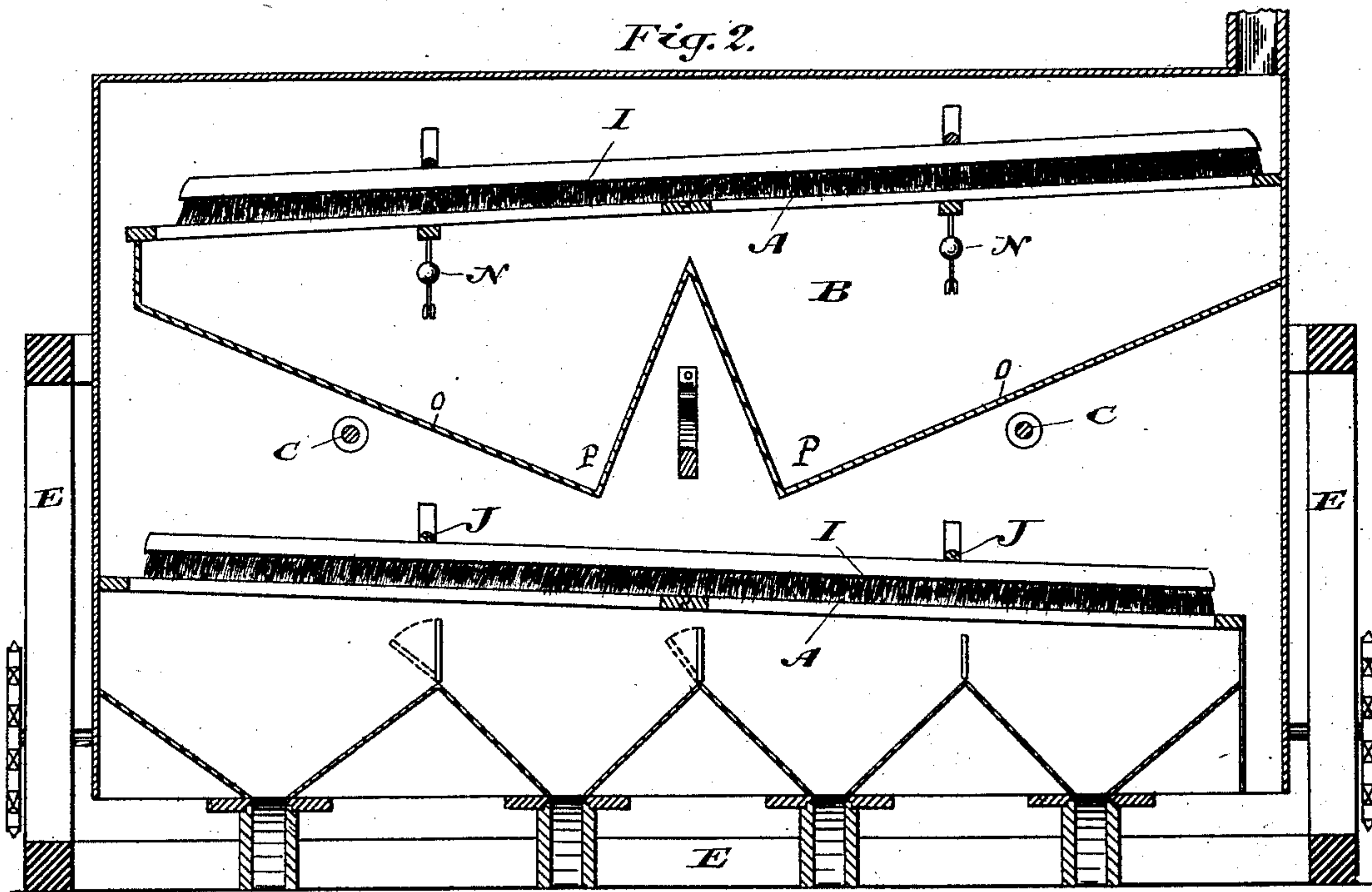


Fig. 3.

Witnesses.

H. B. Fetherstonhaugh
James E. Mayhew

Inventor

James Huxtable
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UNITED STATES PATENT OFFICE.

JAMES HUXTABLE, OF HORNING'S MILLS, ONTARIO, CANADA.

BOLTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 360,592, dated April 5, 1887.

Application filed May 23, 1886. Serial No. 203,525. (No model.)

To all whom it may concern:

Be it known that I, JAMES HUXTABLE, of the village of Horning's Mills, in the county of Dufferin, in the Province of Ontario, Canada, miller, have invented an Improved Bolting-Machine, of which the following is a specification.

The object of the invention is to design a bolter which will produce better work than the ordinary bolting-reel, will do more work in a given period, and which can be readily adapted as a combined scalper, grader, and bolter; and it consists in the peculiar combinations and the novel construction and arrangement of parts hereinafter more fully described, and then particularly pointed out in the claims.

Figure 1 is a perspective view showing the general arrangement of my improved machine, part of the casing being broken away. Fig. 2 is a sectional end view of the machine with parts broken away. Fig. 3 is a sectional side view of the same.

In the drawings like letters of reference indicate corresponding parts in each figure.

A represents the sieves, made of suitable bolting-cloth and arranged within the chest B. The chest B is supported by the two horizontal rods C, the ends of which are carried in suitable bearing-boxes, D, connected to the main frame E. The chest B is shown in the drawings rigidly secured to the rods C, which latter slide in their bearing-boxes; but, instead of arranging it in this manner, the rods C might be connected in a stationary manner to the frame E, and the chest B arranged to slide on them, the only object being that the chest B be arranged to move laterally.

F is a pitman connected at one end to the chest B and at the other end to the crank-pin G, which is connected to the shaft H, supported in suitable bearings, as indicated, passing through a slot, F', in the side wall of the chest, and deriving motion from the gearing, as represented in Fig. 1; so it follows that as the shaft H revolves the chest B derives a reciprocating lateral motion.

Immediately over each sieve A, I suspend the brushes I, two brushes being preferably arranged for each sieve. These brushes are supported by horizontal rods J, connected to the non-yielding vertical bars K, carried in

suitable guides connected to the main frame of the machine, as shown. The bottom end of each of these bars K is supported upon a cam, L, which is connected to the shaft M, which derives motion from the main gearing of the machine through the medium of sprocket-wheels and chain, as indicated. This shaft is speeded to travel much slower than the shaft H—say, for instance, about one revolution for every four revolutions of the shaft H.

The cams L are shaped so that when the bars K rest on their larger diameter the brushes I are held above or clear of the sieves A, and as the speed of the shaft M is less than the speed of the shaft H the brushes are elevated clear of the sieves about every fourth stroke of the chest carrying the sieve. I preferably make the cams L as shown in Figs. 1 and 2, so that they may be adjusted for the purpose of holding the brushes clear of the sieves for a greater or less period, as may be required. This is accomplished by simply adjusting one of the halves of the cams L so as to increase or decrease the hollow of the cam, and in this way the periods at which the brushes are raised or lowered will be regulated.

It will be noticed on reference to Fig. 2 that the pitman F is connected to the chest B by a spring-connection, a, which connection will cause a slight vibratory motion in the chest, besides making the connection a softer and more pliable one.

Below each sieve A, I pivot what I term a "rapper," N. These rappers are designed to rock and strike the bottom of the sieve while it is in motion. This rapping assists the brushes in keeping the sieves clear.

I shall now briefly describe the operation of my machine. The middlings are first fed upon the upper sieve A, which is acted upon by the brushes I and rappers N, so as to bring the finer middlings through the sieve A onto the conveying-boards O. The conveying-boards O are so shaped as to form two chutes, P, at the center of the machine, as indicated in Figs. 1, 2, and 3. These chutes P, it will be noticed, slant toward one side of the machine and discharge the finer flour or middlings into the Y-shaped spout Q, from which it drops into the hoppers at the bottom of the machine. (See Fig. 2.) The remainder of the middlings fall

over the end of the upper sieve A onto the lower sieve A, where they are again acted upon by the brushes I and rappers N, and the finer flour or middlings are discharged directly into the hoppers at the bottom of the machine, while the coarser middlings are discharged over the end of the lower sieve A and pass over the machine.

It will of course be understood that each of my sieves is finer than the one above it, so as to accomplish the desired result.

What I claim as my invention is—

1. A reciprocating chest, a sieve supported within said chest, and means for reciprocating said chest, in combination with the brush I, intermittingly-reciprocating vertical non-yielding bars K, and means for connecting said bars and brush, and means for intermittingly reciprocating said bars, substantially as and for the purpose specified.

2. A chest, B, sieve A, supported within said chest, and means for reciprocating said chest, in combination with the brushes I, rods J, vertical bars K, and mechanism whereby they are raised at certain intervals during the reciprocating motion of the chest, substantially as described.

3. The reciprocating chest B and the sieve A, supported therein, in combination with the cams L, the bars K, resting thereon, the brush I, supported by said bars, and mechanism for rotating said cams, whereby the brush is raised from the sieve at intervals, substantially as described.

JAMES HUXTABLE.

In presence of—

J. T. HEMSTREET,
CHARLES C. BALDWIN.