2 Sheets—Sheet 1.

M. P. CLEMMER.

Flour-Bolting Machines.

No. 210,186. Patented Nov. 26, 1878.

Fig. 1.

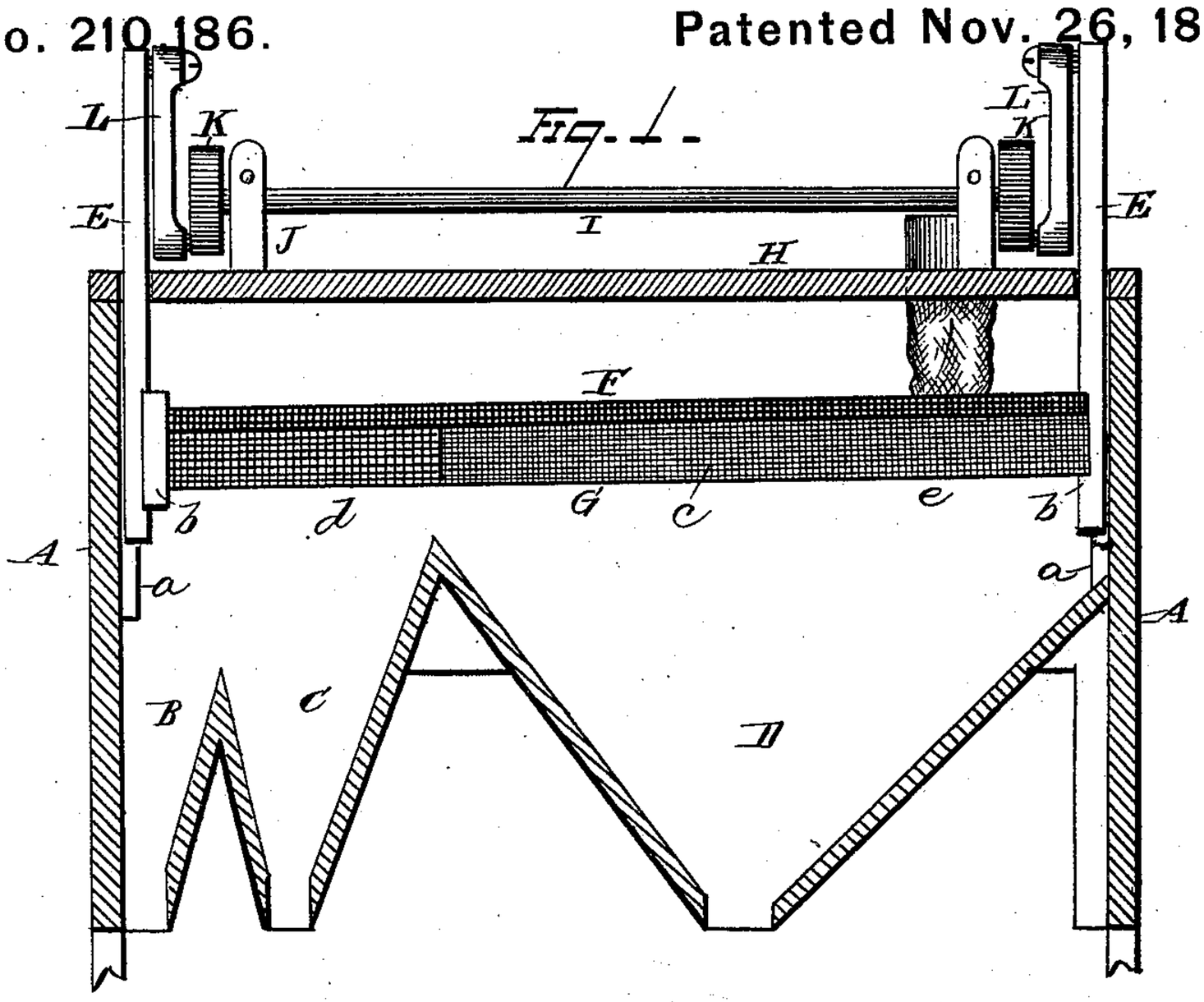
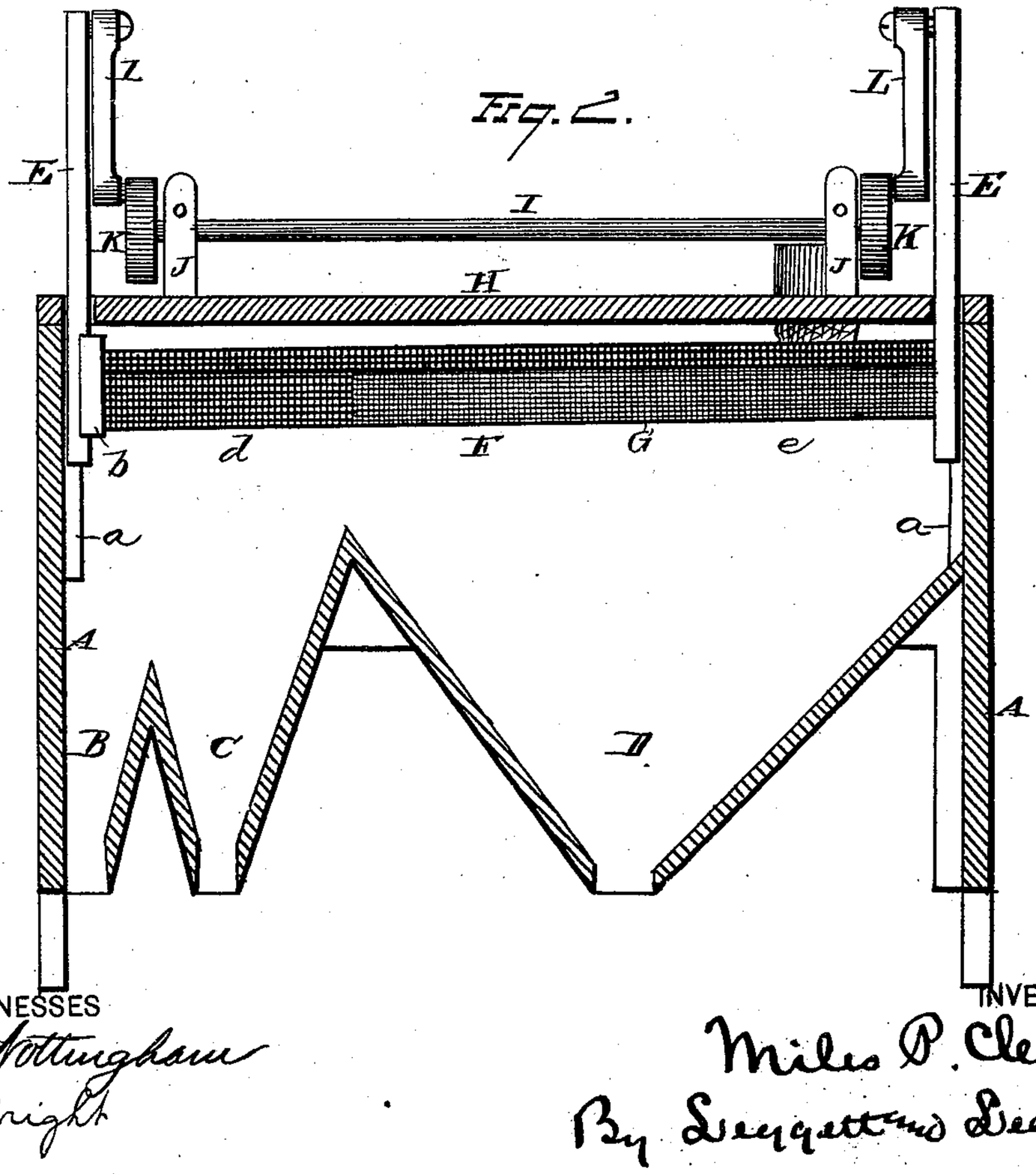


Fig. 2.



WITNESSES

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INVENTOR

Miles P. Clemmer.

By Leggett and Leggett.

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2 Sheets—Sheet 2.

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Fig 3

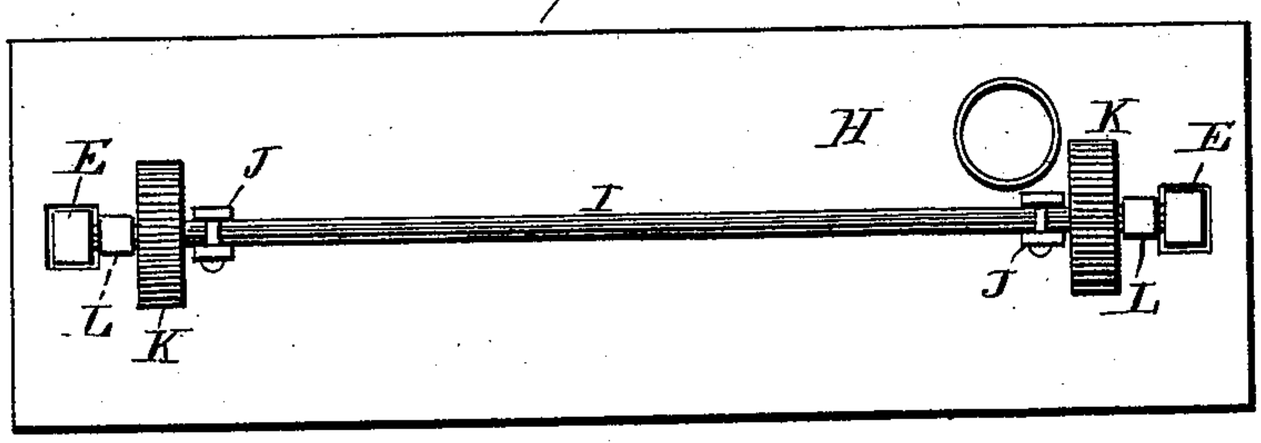
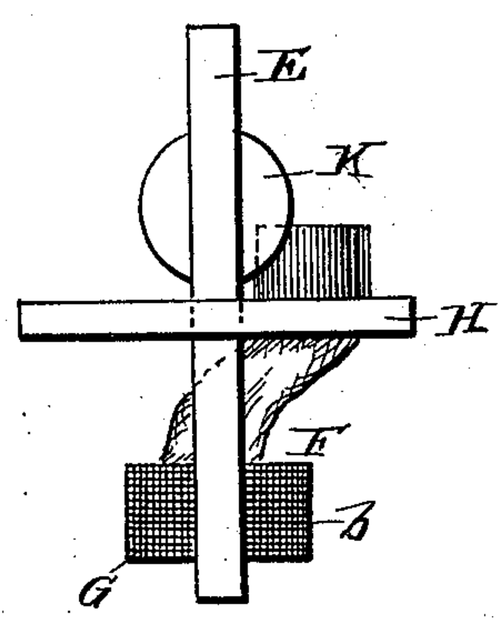


Fig. 4.



WITNESSES
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UNITED STATES PATENT OFFICE.

MILES P. CLEMMER, OF PIN HOOK, NORTH CAROLINA.

IMPROVEMENT IN FLOUR-BOLTING MACHINES.

Specification forming part of Letters Patent No. **210,186,** dated November 26, 1878; application filed September 13, 1878.

To all whom it may concern:

Be it known that I, MILES P. CLEMMER, of Pin Hook, in the county of Gaston and State of North Carolina, have invented certain new and useful Improvements in Bolting Apparatus for Flour; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawings, which form part of this specification.

My invention relates to an improved bolting apparatus for bolting flour.

Heretofore bolting-reels have ordinarily been employed for bolting flour, which are expensive, both in first cost and to keep in repair. The clothing for reels is very expensive, as about twenty yards are used in covering a reel, and owing to the fact that such clothing is often torn and destroyed by bugs, it is a matter of considerable expense to keep the ordinary bolting-reel in proper condition for use.

The object of my invention is to provide a bolting apparatus of such construction that but a small quantity of bolting-cloth will be required to clothe the bolting-receptacle; and to that end my invention consists in a bolting apparatus of the peculiar construction as will hereinafter appear from the following description and claim.

In the accompanying drawings, Figure 1 is a vertical longitudinal section of my improved bolting apparatus. Fig. 2 is a similar view, showing the bolting-trough at its highest point of travel. Fig. 3 is a plan view of the frame; and Fig. 4, an end view of the bolting-trough, and mechanism for operating the same.

A represents the frame of a bolting apparatus, provided with spouts or pockets B C D, which latter may be arranged as desired, and of any suitable number. To the ends of frame A are attached cleats *a*, for guiding the uprights E, to the lower ends of which the opposite ends of the bolting-trough F are secured. The frame of the bolting-trough consists of the ends *b* and side pieces, *c*.

G represents the bolting-cloth, which is arranged on the trough on the same principle as on a reel, sections *d* and *e* being of different size of mesh for the different grades of bolting. The bolting-cloth is attached to the bottom of the trough throughout its entire length, and the top may be covered by ordinary thick heavy cloth, or by strips of boards, as desired. To the top H of the frame is secured a funnel, having the upper end of a flexible conveyer attached to its lower end, the opposite end of said conveyer being attached to the top of the bolting-trough. This construction and arrangement of conveyer allows of the continuous feeding of the flour to the bolting-trough while the latter is in motion.

The trough is arranged at a slight angle of inclination, so that the coarser particles may be carried gradually from the head to the tail of the trough, and the tailings discharged through the lower and open end of the trough.

I is a shaft, journaled at opposite ends in suitable brackets J, attached to the top of the bolting-frame. To the ends of shaft I the crank-wheels K are secured.

L are pitmen, their upper ends being pivoted to the upper ends of the uprights E, while their lower ends are attached to wrist-pins secured to the outer faces of the crank-wheels.

The shaft I is provided with a belt-pulley, and may be driven by power from any convenient source. By imparting a rapid rotary motion to the shaft I the bolting-trough is rapidly reciprocated in a vertical direction. Flour is poured into the funnel attached to the top of the frame, and is conveyed to the rapidly-reciprocating bolting-trough by means of the flexible conveyer.

As the contained flour in the bolting-trough is constantly subjected to the vertically-shaking action of the bolting-trough, caused by the passage of the upper and lower dead-centers of the wrist-pins, the flour will be most thoroughly and rapidly bolted. That portion of the flour that is too coarse to fall through the meshes of the cloth located nearest to the head of the bolting-trough will be gradually carried down to the cloth having coarser meshes, and such particles as will not fall through the meshes of the cloth nearest the tail end of the trough will be discharged from the lower and open end of the trough.

My improved bolting apparatus is simple in

its construction, and can be supplied with bolting-cloth at a slight expense.

I am aware that the shoes of middlings-separators have been made to be reciprocated in a vertical plane, and hence I make no claim to such construction; but,

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

The combination, with a bolting-trough suspended within the frame or casing of the apparatus by means of rigidly-attached end supports, which move in guides and project above the top of the casing, of a driving-shaft provided with crank-wheels on opposite ends thereof, and pitmen pivoted to the bolt-trough supports and to wrist-pins on the crank-wheels, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 5th day of September, 1878.

MILES PETERSON CLEMMER.

Witnesses:
C. H. ABERNETHY,
F. W. THOMPSON.