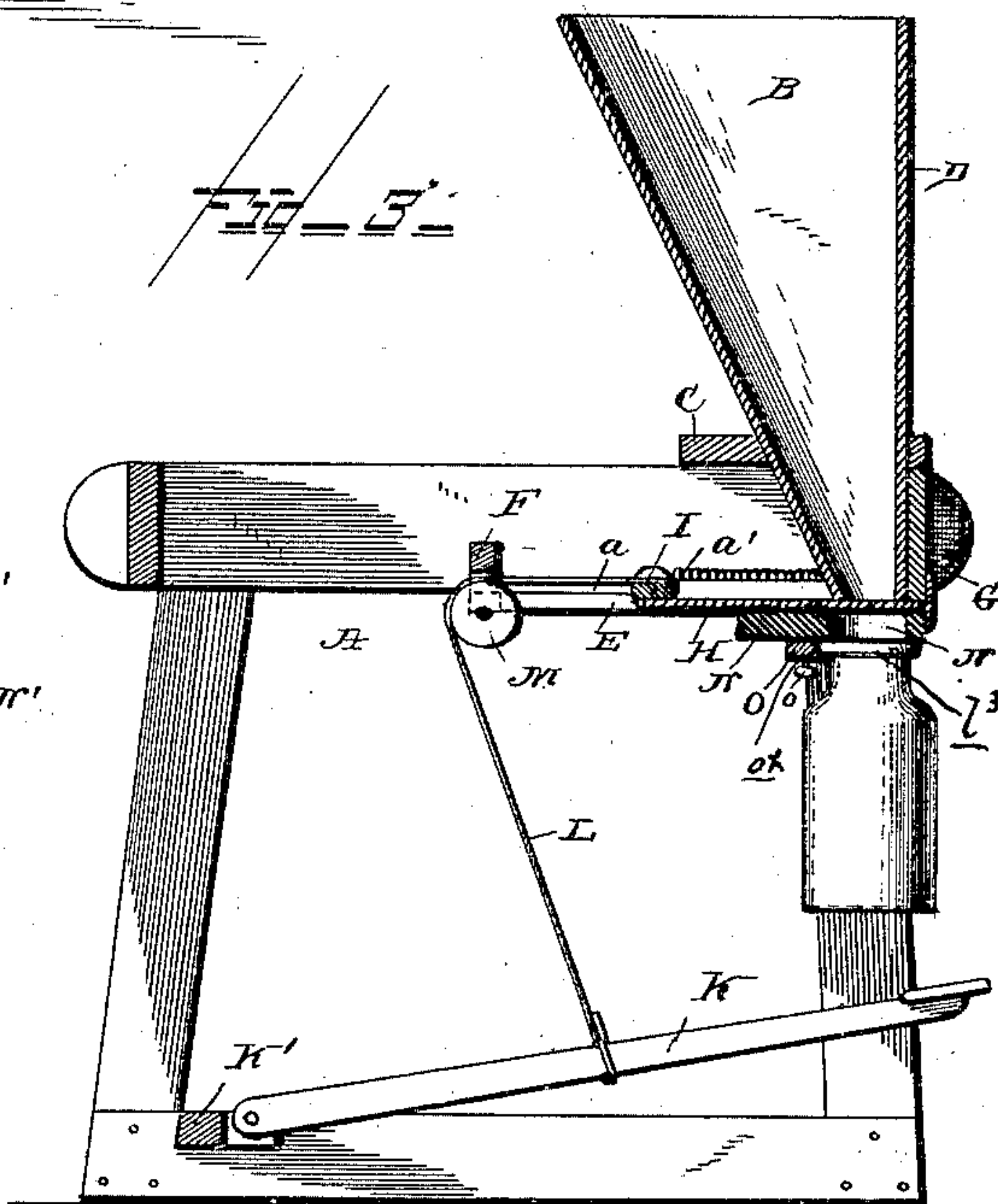
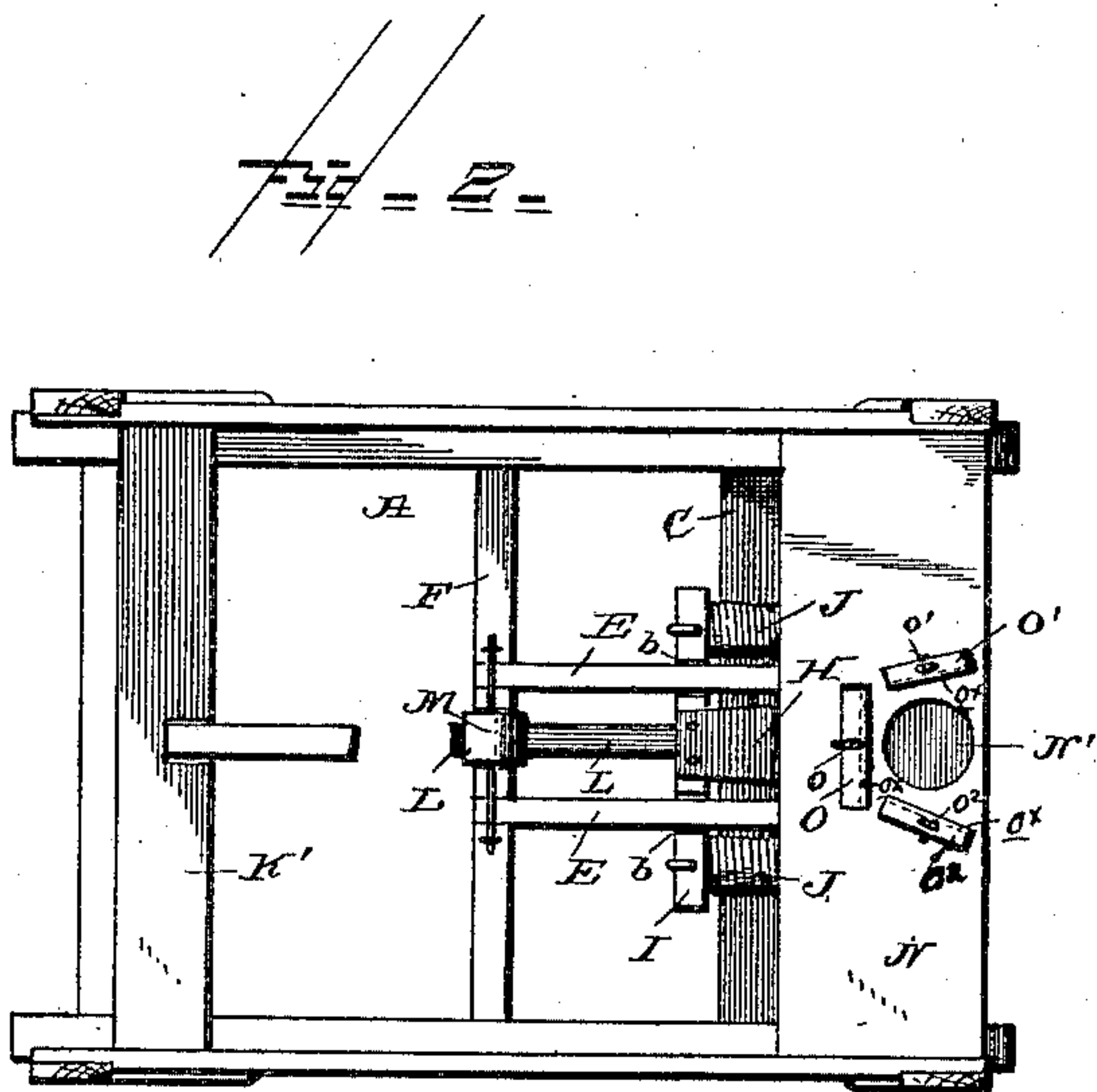
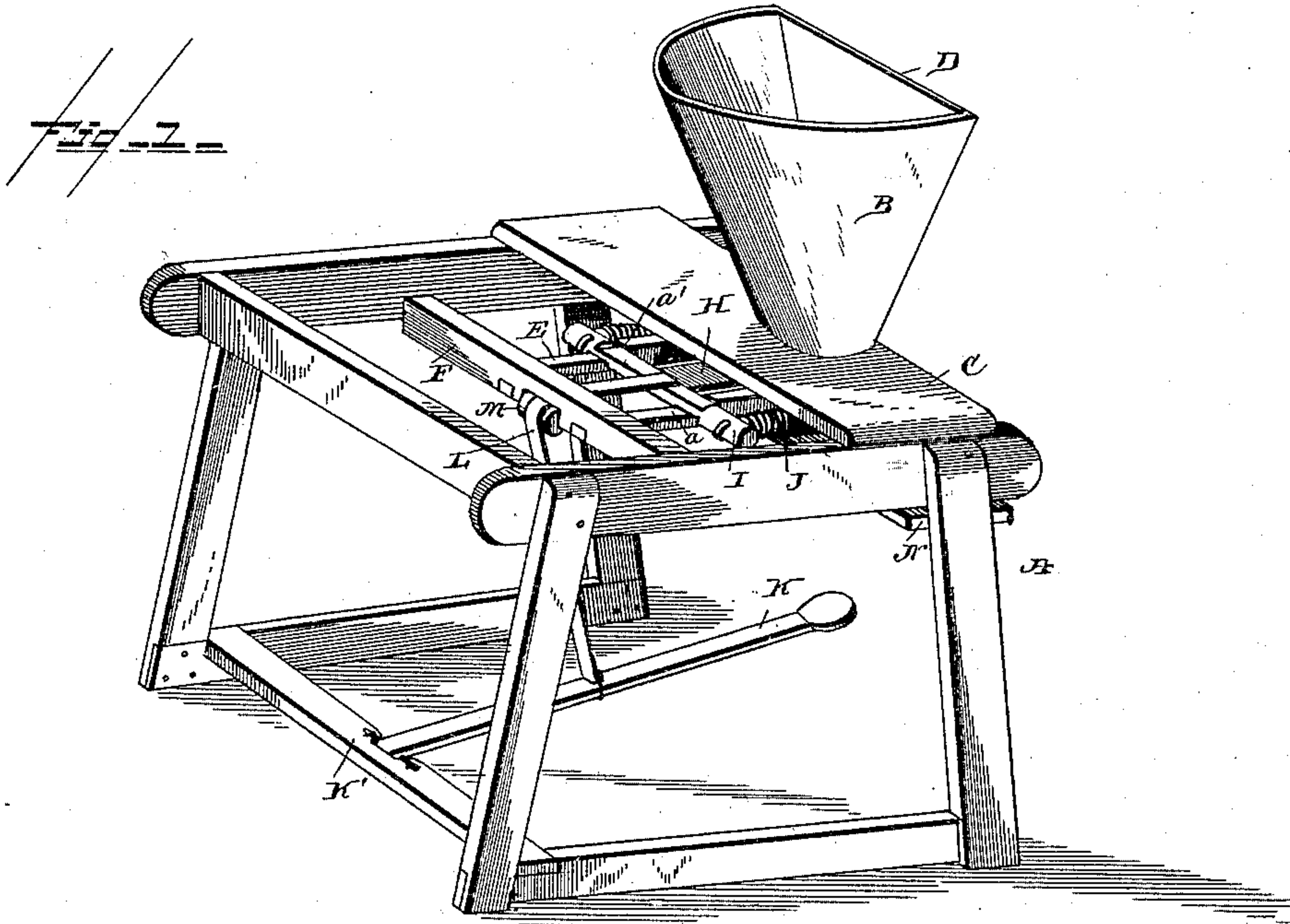


(No Model.)

S. NORRIS.
CAN FILLING MACHINE.

No. 408,353.

Patented Aug. 6, 1889.



Witnesses

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SAMUEL NORRIS, OF KINSALE, VIRGINIA.

CAN-FILLING MACHINE.

SPECIFICATION forming part of Letters Patent No. 408,353, dated August 6, 1889.

Application filed March 8, 1889. Serial No. 302,532. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL NORRIS, a citizen of the United States, residing at Kinsale, in the county of Westmoreland and State of Virginia, have invented certain new and useful Improvements in Can-Filling Machines; and I do 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 appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in can-filling machines; and it has for its object to provide a simple and efficient machine of this character which will be found to be specially adapted for use in filling cans or jars with berries and other small fruits where the special object sought is to preserve the fruit intact without bruising the same.

The invention has for its further object to simplify, cheapen, and render more efficient in operation this class of devices.

To these ends and to such others as the invention may pertain the same consists in the peculiar construction and in the novel combination, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the drawings, and then specifically defined in the appended claims.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, like letters of reference indicating the same parts throughout the several views.

In the drawings, Figure 1 is a perspective view of a can-filling machine constructed in accordance with my invention. Fig. 2 is a bottom plan of the same, the can being removed. Fig. 3 is a central longitudinal section of the same, the can being attached to the machine.

Reference now being had to the details of the drawings by letter, A designates the main frame of the machine, and B is the filling-hopper, the lower end of which hopper is passed through a suitable opening formed in the transverse piece C, secured to the top of

the frame A at one of its ends, the open delivery end of the hopper being a short distance below the lower face of the transverse piece C. The side of the hopper adjacent to the end of the machine is flat and extends in a vertical line from top to bottom, as shown, while, with the exception of this flattened side D, the hopper is substantially in the form of an inverted truncated cone.

E E are longitudinally-arranged horizontal strips of either wood or metal, secured at their rear ends to the lower face of the transverse timber F of the frame of the machine, while their opposite ends are secured to the lower face of the end timber G, as shown.

H is a flat piece of sheet metal placed between the strips E, the width of said piece being sufficient to permit the free movement thereof between the strips in an endwise or longitudinal direction. This metallic slide is intended as a cut-off for regulating the flow of the contents of the hopper to the can being filled, as will presently appear. The rear end of the slide H is attached to the lower face of the movable cross-piece I.

The rear portions of the strips E are cut away upon their upper faces, as shown at *a*, and the cross-piece I is provided upon its lower face with the slots *b*, adapted to fit over the strips E within the cut-away portion described, the shoulders *a'* serving to limit the forward movement of the cross-piece I, as will presently appear.

J J are spiral springs secured at their rear ends to the ends of the cross-piece I, while at their opposite ends they are attached to the inner face of the end timber G of the frame of the machine, and it will be seen that the feed-regulating slide H will by these springs be held in a normally-closed position.

K is a foot-lever pivoted at its rear end to the lower cross-timber K' at the rear end of the frame, and L is a strip secured at one of its ends to the cross-piece I and passing over the pulley M, which is suitably journaled beneath the cross-timber F. The said strip is secured at its other or lower end to the foot-lever, as shown.

N is a transverse strip of either wood or metal, which is secured across the end of the frame of the machine directly beneath the transverse piece C. This strip N is provided

with an opening N' directly beneath and corresponding in size with the size of the outlet end of the hopper.

O, O', and O² are short strips of wood or metal, which are adjustably secured to the lower face of the strip N, adjacent to the opening N', upon opposite sides and at the rear of the same. These strips are formed upon the edges adjacent to the opening N' with a recess or groove O^x, which receives the flanges or rim l³ on the neck of the jar, as shown in Fig. 3. These strips are made adjustable by means of the set-screws o, o', and o², and they serve as a guide and holder for the jar or can that is being filled.

The operation of the machine is simple and readily understood. The hopper having been filled and the jar placed in position beneath the delivery end of the same, the operator presses down upon the foot-lever, which movement of the lever serves to move the feed-regulating slide H against the tension of the springs J, and the can is at once filled by gravity. When the can has been thus filled, the foot-lever is released, and the slide is at once closed over the outlet of the hopper by the tension of the springs J.

By the use of the hopper having one of its sides flat and vertical, thus leading in a direct vertical line from the top to the outlet at the bottom of the hopper, I find that there is much less liability of the fruit becoming clogged within the hopper, and a perfectly free flow of the contents of the hopper is maintained at all times without the necessity of maintaining pressure upon the surface of the contents, and hence the tendency to bruise the fruit is avoided. By the arrangement of the

adjustable can-holding strips O, O', and O² the can is readily placed in position and securely held while being filled.

Having thus described my invention, what I claim as new is—

1. In a can-filling machine, the combination of the main frame and the hopper, the strip N, secured beneath the feed end of the hopper and having an opening registering with the outlet of the hopper, and the strips O, O', and O², adjustably secured to the lower face of the strip N, adjacent to the opening therein at different angles, and adapted to secure and hold the can while being filled, substantially as and for the purpose described.

2. The herein-described can-filling machine, the same comprising, in combination, a main frame, a hopper having one of its sides flattened and extending in a vertical line from the top to its outlet, a strip arranged beneath the hopper and having an opening coincident with the outlet of the same, the adjustable strips O, O', and O², secured to the lower face of the said strip adjacent to the opening therein and formed with groove O^x, a spring-actuated feed-regulating slide at the bottom of the hopper, and means, substantially as described, for withdrawing the slide and uncovering said feed-opening against the tension of the springs actuating the feed-regulating slide, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL NORRIS.

Witnesses:

THOS. BROWN,

PHILLIP S. GRIFFITH.