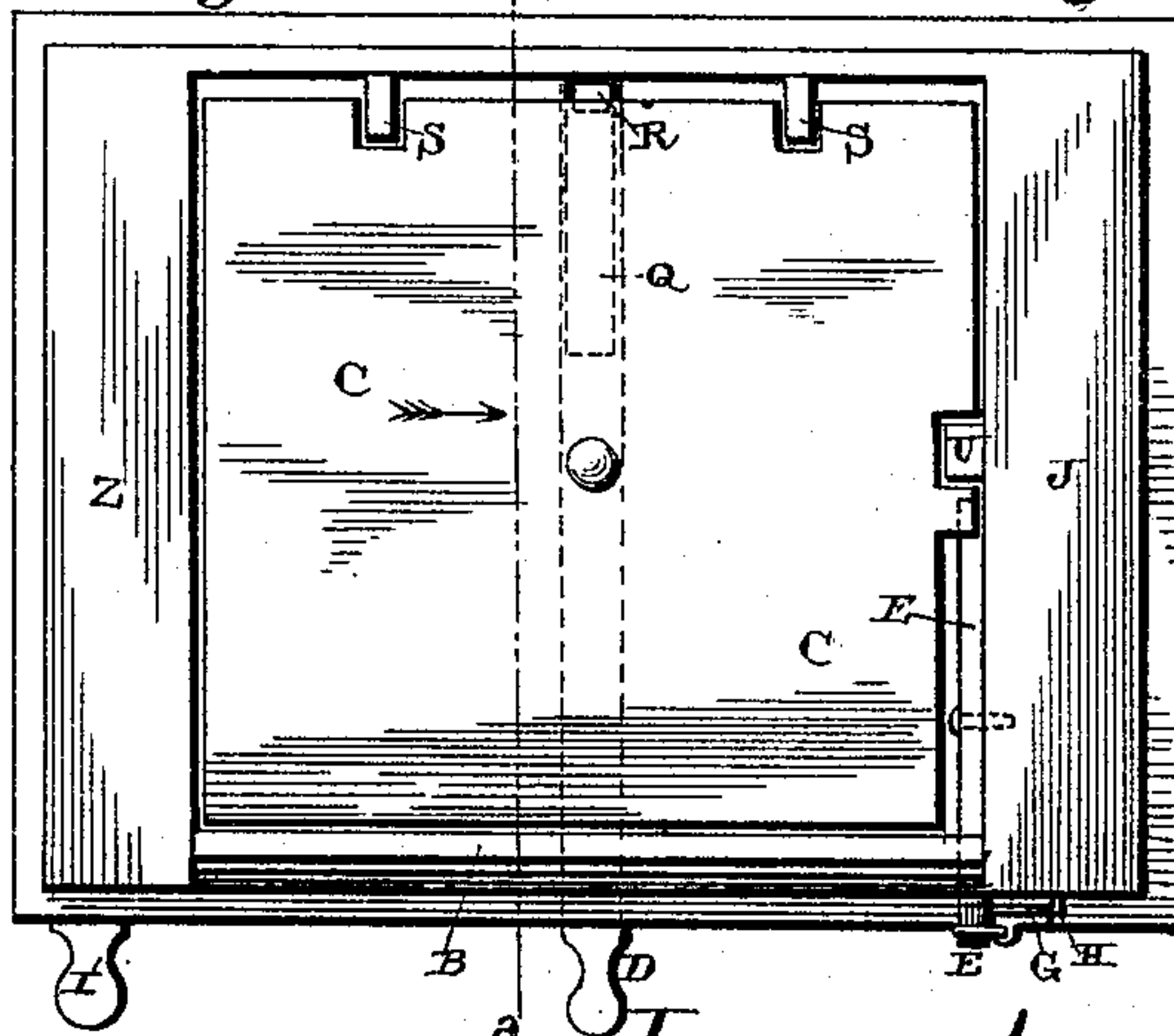
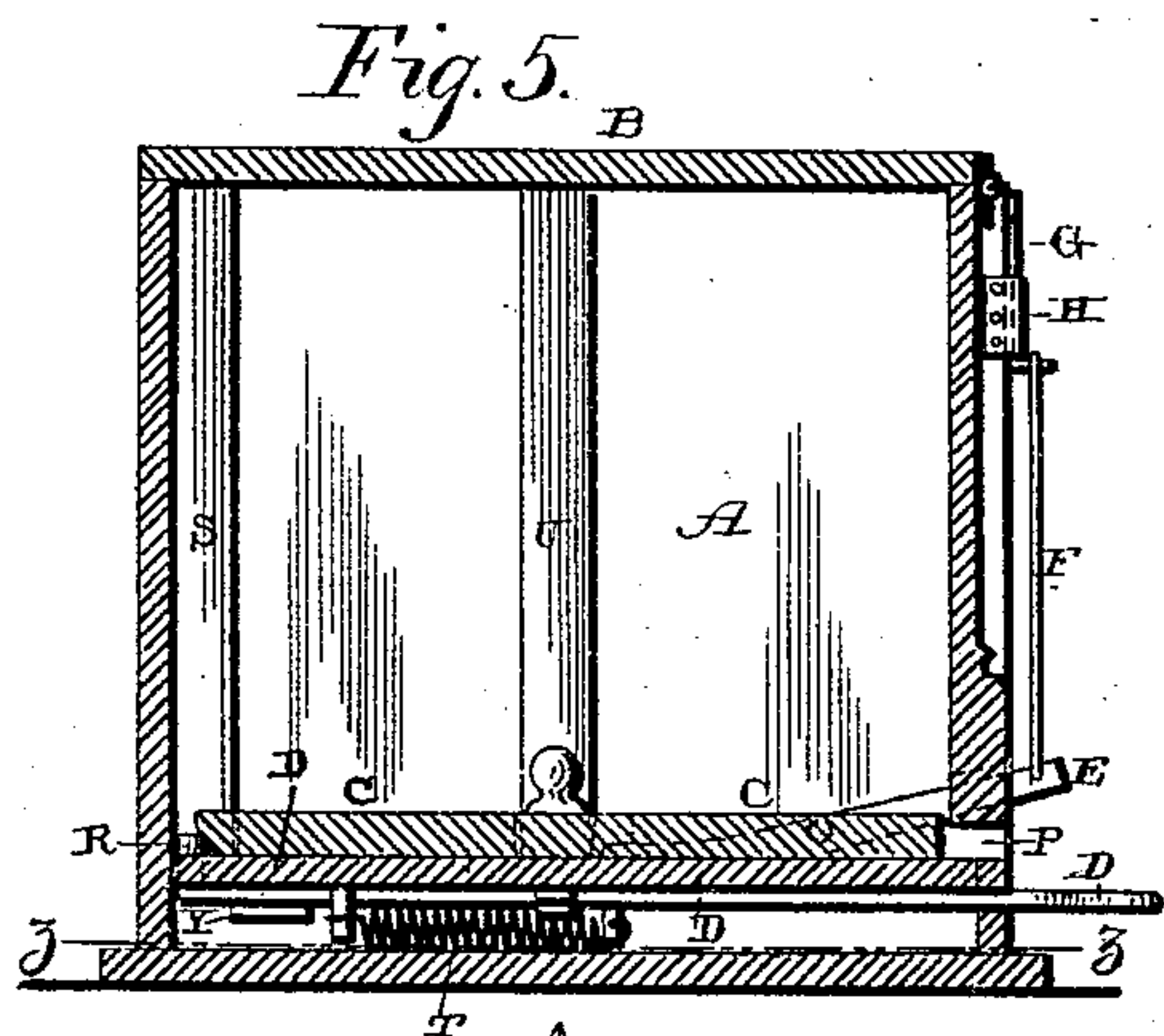
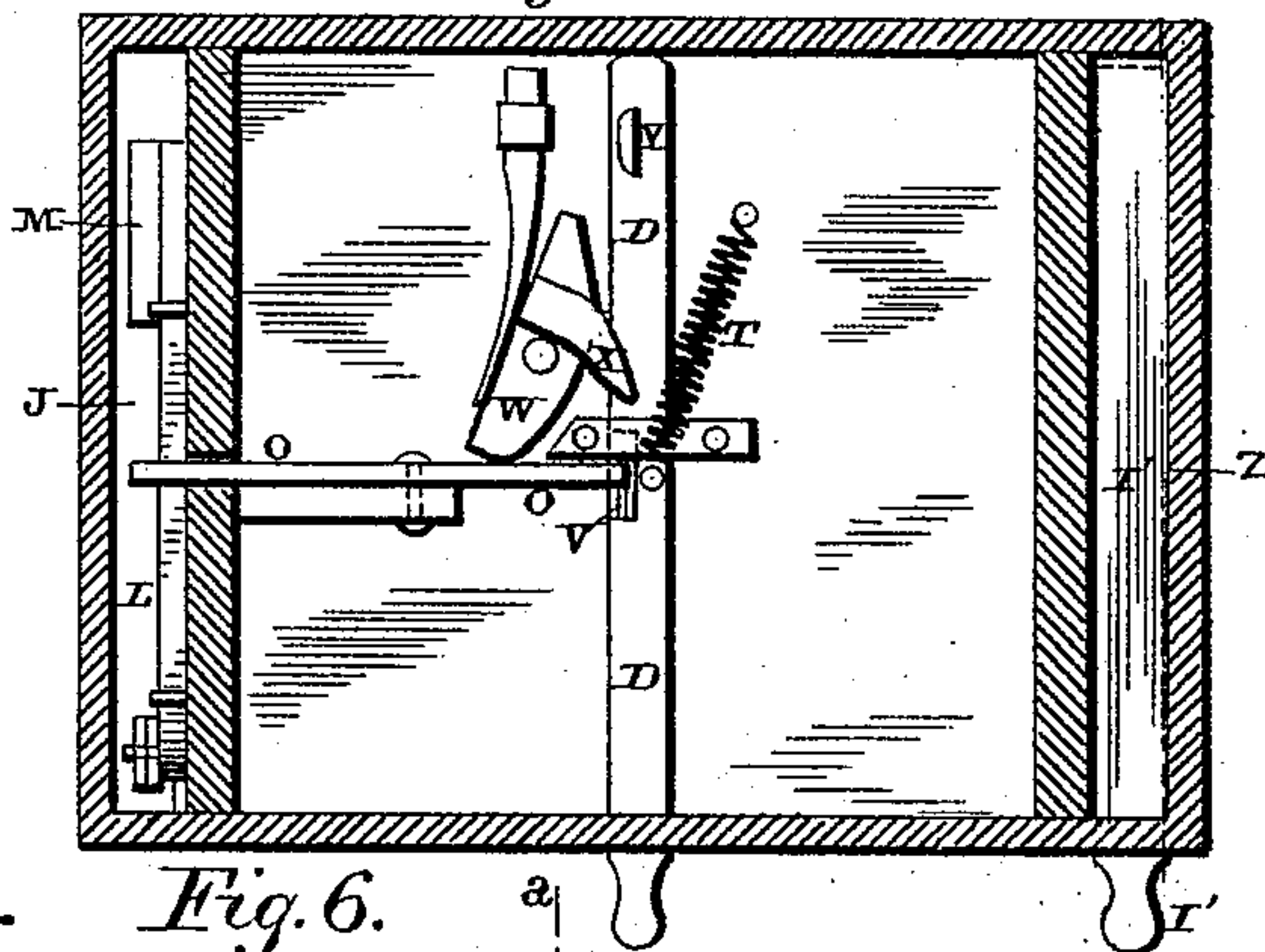
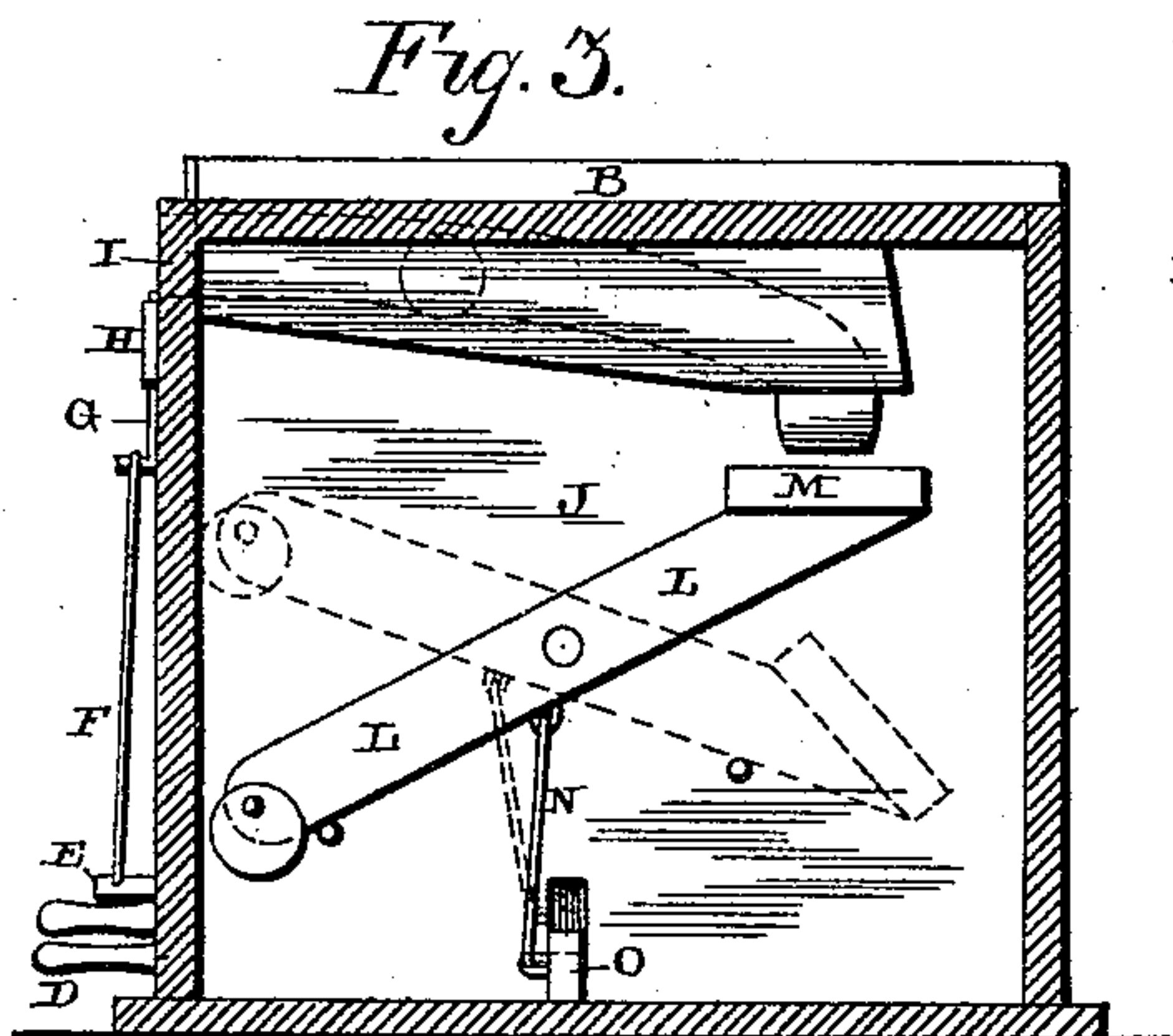
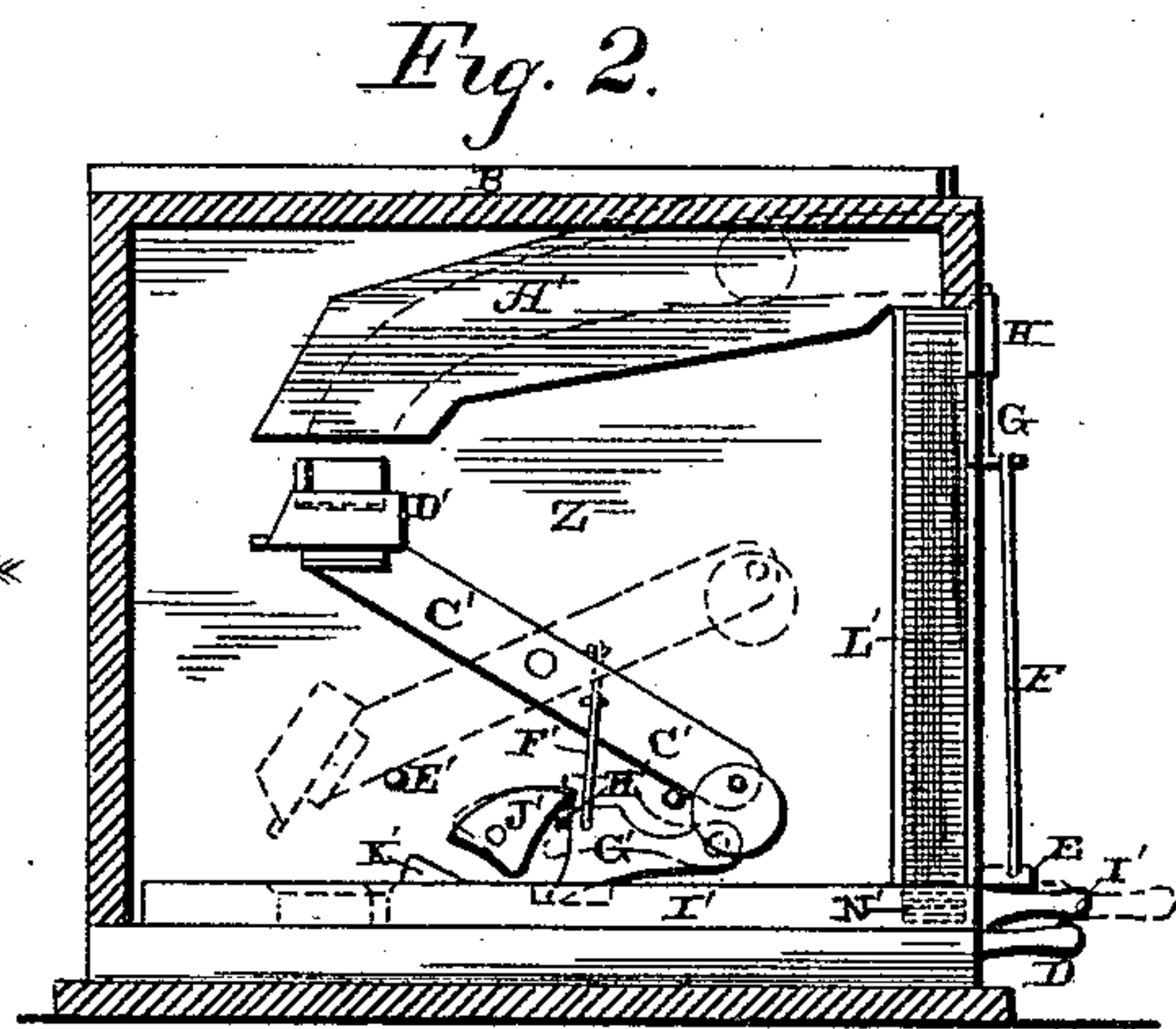
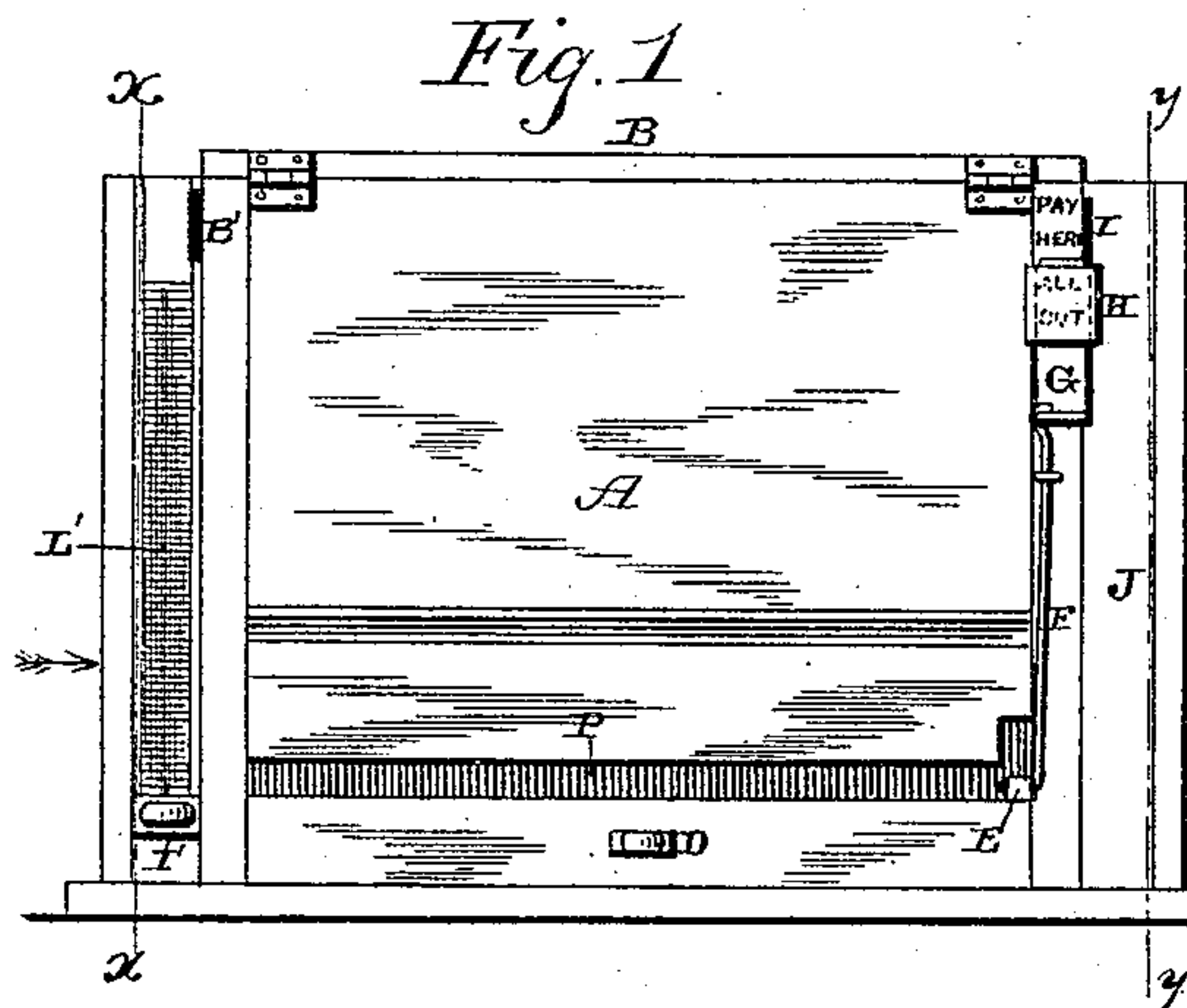


(No Model.)

G. A. WELCH.
NEWSPAPER VENDING MACHINE.

No. 437,407.

Patented Sept. 30, 1890.



Witnesses:
E. P. Ellis
J. M. Ketch

Inventor:
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per
J. A. Lehmann, atty.

UNITED STATES PATENT OFFICE.

GEORGE A. WELCH, OF BALTIMORE, MARYLAND.

NEWSPAPER-VENDING MACHINE.

SPECIFICATION forming part of Letters Patent No. 437,407, dated September 30, 1890.

Application filed January 2, 1890. Serial No. 335,701. (No model.)

To all whom it may concern:

Be it known that I, GEORGE A. WELCH, of Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Newspaper-Vending Machines; 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 improvement in newspaper-vending machines; and it consists in, first, the combination of the box in which the papers are placed for sale, a weight for forcing the papers downward in the box, so as to insure their delivery when the slide is operated, a pivoted lever placed inside of the box and upon which the weight operates, and a slide connected to the outer end of the lever for operating a sign which both closes the money-slot and notifies the intending purchaser that all the papers have been sold, and thus prevents money from being placed in the slot when there are no papers in the box; second, the combination of the box in which the papers are placed, a channel through which the money runs, a pivoted counterweighted lever having a pan or receptacle secured to one end and into which the money falls, a connecting cord or wire attached to the lever, and an operating-lever which releases the slide to allow the paper to be drawn out as soon as the counterweighted lever is operated by the coin; third, the combination of the box in which the papers are placed and which is provided with a slot through its bottom and a delivery port or opening through which the paper is delivered, with a spring-actuated slide for drawing the lower paper in the box toward the opening, an automatically-acting lever for engaging with the slide and preventing the slide from being drawn outward until the lever has been operated by the dropping of the coin, and a spring-actuated catch provided with an arm which snaps under the lever when its inner end has been depressed, so as to prevent it again engaging with the slide until the arm has been struck by the projection on the slide, so as to release the end of the lever and again allow it to engage with the slide; fourth, the combi-

nation of the box provided with a channel through which the coin to be changed is passed, a counterweighted lever upon which the coin drops, a trigger for locking the slide in a closed position, a support for the trigger, the slide provided with a recess to receive the change, and a tube made of or covered with glass and which contains the change which is to be given in exchange for the coin dropped into the channel when the slide is drawn out, all of which will be more fully described hereinafter.

The object of my invention is to provide a box which is to be placed in any public place, but more especially upon the street-cars, for the sale of newspapers or publications of any kind, and in which the parts are so arranged that if a person has not the right amount of money to pay for the paper or one of the publications he can have the coin automatically changed, and then by dropping a coin of the proper denomination into another slot or opening a mechanism will be operated, so that by pulling out a slide a paper or other publication will be presented to him, and in which, in case the papers have all been sold, the slot will be closed, so that no more money can be dropped into the box.

Figure 1 is a side elevation of a vending machine which embodies my invention. Fig. 2 is a vertical cross-section taken on the dotted line xx of Fig. 1, looking in the direction indicated by arrow. Fig. 3 is a similar view on the dotted line yy of Fig. 1, looking in the direction indicated by arrow. Fig. 4 is an inverted horizontal section on dotted line zz of Fig. 5, looking in the direction indicated by arrow. Fig. 5 is a vertical cross-section taken on the dotted line aa of Fig. 6, looking in the direction indicated by arrow. Fig. 6 is a plan view of the machine with the cover removed.

A represents a box made of any suitable material, and which is provided with a cover B, which is intended to be locked after it has been filled with newspapers or other publications which are to be sold.

Placed upon the top of the papers placed in the box is a weight C, which keeps the papers pressed downward, so that the bottom one will always be delivered when the slide D is operated.

Pivoted inside of the box, as shown, is a

lever E, which is only operated when the last paper has been sold and when the weight settles down upon it, so as to depress its inner end. When the inner end of this lever is depressed, the outer end is forced upward and through the connecting-rod F operates a slide G, which is raised through a suitable guide H, so as to hide the sign "Pay here," and at the same time close the slot I, through which the coin to pay for the paper is dropped. On the front of the box, just opposite the slot I, are the words "Pay here," so as to show the purchaser where to drop the coin.

At one end of the box A is formed the money-chamber J, and through the top of this chamber extends the inclined channel through which the coin passes into the chamber. Pivoted in this chamber J is a counter-weighted lever L, which is provided with a pan M at one end, so as to catch the coin as it drops from the end of the channel, and which has secured to its other end a suitable weight or weights which just about counterbalances the coin necessary to pay for one of the papers. When the coin drops into the pan M, it counterbalances the lever L and causes that end of the lever L to sink and drop the coin into the chamber J. As soon as the coin drops from the pan the lever returns to position again. When the weighted end of the lever arises, it exerts a pull through the cord, wire, or chain N upon the outer end of the pivoted lever O for the purpose of raising this outer end and depressing its inner one. The outer end of this lever is made the heaviest, so that as soon as the lever is left free to move its outer end descends and its inner end rises.

Moving back and forth on the underside of the box A in suitable guides in a chamber prepared especially for this purpose is a slide D, which serves to draw the lower paper in the box to the delivery-opening P, made through the front of the lower edge of the box, as shown. Upon the top of this slide and projecting through the slot Q into the box is a projection R, which extends just far enough above the bottom of the box to force the lower one of the papers out through the opening P, where the purchaser receives it. In order to cause this projection R on the slide D to always move back into position beyond the rear edge of the lower paper, suitable uprights S are placed inside of the box, so as to prevent the rear edges of the papers moving back in the box beyond a certain point, and for the purpose of returning the slide always into position the spring T is secured to it. As soon as the slide is released, after having been drawn outward to deliver a paper, the spring T causes it to snap back into position again, so as to be ready to deliver another paper. Also placed inside of the box is an upright U, which serves to prevent the papers from operating the lever E and thus causing the sign G to be raised. The papers or other publica-

tions must be folded so as to fit nicely inside of the box and not project beyond the uprights S U.

In the lower edge of the slide D is formed a notch or recess V, into which the inner end of the lever O rises for the purpose of preventing the slide from being operated until the lever O has been operated by a coin of the proper denomination, which must be dropped through the slot I into the chamber J. Until this lever O has been operated as above described its inner end serves as a lock or stop to the slide. In order to prevent the inner end of the lever O from moving back into the recess V before the slide D can be operated after the coin is dropped into the slot I, the spring-actuated trigger W is used, and this trigger has its outer end to bear against the side of the lever O until the lever is operated, and then it snaps over the top of the inner end of the lever O, so as to hold the lever with its inner end in a depressed position. Secured to the inner end of this trigger W is an arm or cam X, which partially extends across the under side of the slide D, and on the under side of the inner end of which is placed a projection Y, which strikes against the inclined end of the arm or cam X as the slide D is drawn outward for the purpose of operating the trigger W. After the trigger has moved over the top of the inner end of the lever O, so as to prevent it from moving, the lever remains in this position until the slide D is drawn outward for the purpose of delivering a paper, when the projection Y strikes against the arm or cam X and forces the trigger backward at its outer end, and then the inner end of the lever O at once moves upward and locks the slide again, so that it cannot be operated until another coin has been dropped in the slot I.

Any number of these selling-machines may be placed one above the other or side by side and each one contain a different paper or publication, and then the purchaser can take his choice. Each one of the machines may be adjusted for a different-priced paper, or all of them contain papers of same price.

In order to make change for those who may not have a coin of the proper denomination to purchase one of the papers or publications placed in the box, a second money-chamber Z is formed at the opposite end of the box from the chamber J, and in the top of this chamber Z is placed a channel A', through which the coin to be changed is passed. At the slot B', through which the coin is dropped, will be placed a suitable sign or instructions as to the value of the coin which must be dropped in this slot in order to receive change therefor. Pivoted inside of the box Z is a counter-weighted lever C', which is provided with a pan D' at one end to receive the coin and a suitable weight at the other, so that when the coin is dropped into the pan it will cause this end of the lever to sink as far as a suitable

stop E' in the chamber will permit. After the coin has dropped from the pan the lever at once returns to position, owing to the weight or weights at the other end. Connected to this weighted end of the lever C' is a cord, wire, or chain F', and fastened to the lower end of this cord, wire, or chain is a pivoted catch G', which has a shoulder H' formed upon its inner end. The inner end of the catch G' drops into an opening made in the slide I' for the purpose of preventing the slide from being drawn outward until the catch G' has been operated through the lever C' by the dropping of the coin into the slot B'. Pivoted in this chamber Z, just in the rear of the catch G', is a second pivoted catch J', which has its upper end so shaped as to drop forward and catch under the shoulder H' when the catch G' is raised. This catch J' has its pivot placed to one side of its center, so that its weight causes it to be automatic in its operation. Placed upon the top of the slide I' is a suitable projection K', which when the slide is drawn outward strikes against the lower corner of the catch J' and forces its upper corner upward, so as to release the catch G' and allow its inner end to drop into the recess in the top of the slide I'. The outward movement of the slide I' is limited by any suitable well-known means.

In the outer edge of the chamber Z is formed a vertical tube or channel L', which may be made of or provided with glass or any transparent material, so as to let the intending purchaser see whether there is sufficient money in the tube to give him his necessary change, and which tube is to be filled with coins which will give in change the value of the predetermined coin which is to be dropped into the slot B'. At the bottom of this tube or column is formed a recess N' in the top of the slide I' and near its outer end, and this recess is just deep enough to hold the precise number of coins which are to just equal in value the coin which is dropped into the slide B'. When the slide I' is drawn outward, this recess N' contains the exact amount of change necessary and so as to enable the purchaser to put a coin of the proper denomination into the slot I'.

By means of the mechanism here described for giving change, if a purchaser has not a coin of the proper denomination to purchase one of the papers or publications in the box and he has a coin of a predetermined value, it is only necessary for him to drop this coin into the slot B' and then operate the

slide I', when the proper change will be given to him.

Having thus described my invention, I claim—

1. The combination, in a vending-machine, of a lever pivoted inside of the box, a weight for operating the lever after the last article has been sold, a connecting-rod attached to the outer end of the lever, and a slide which is operated by the rod for closing the slot into which the coin is to be dropped, substantially as shown.

2. The combination, with the slide provided with a projection R upon its top and having a projection Y and a recess in its under side and the pivoted lever, of an operating mechanism for the lever, a spring for returning said slide to its normal position, and a spring-actuated trigger W, provided with an arm X on its under side to strike against the arm, substantially as specified.

3. The combination of the money-chamber Z, a chute A' placed therein, a pivoted lever C', a cord or wire F' connected thereto, the pivoted catch G', provided with a shoulder, a pivoted catch J', for engaging with the catch G', and a recessed slide I', provided with a projection K', substantially as shown.

4. The combination, with the box in which the papers are placed, of a slide supported therein above the bottom thereof, a pivoted locking-lever below the said slide, one end of which engages the under side of the slide, another pivoted lever which is adapted to be operated by the coins, and a cord or wire connecting the two levers, whereby the papers will not interfere with the operation of the locking-lever, substantially as described.

5. The combination, in a vending-machine, of a compartment for the coins, a lever pivoted therein which is adapted to be operated by the coins, a second compartment for the reception of the articles to be sold, a slide placed therein for withdrawing the articles therefrom, a pivoted lever which extends through the dividing-partition and having its inner end engage the slide, and a cord or wire connecting its outer end and the lower end of the coin-operated lever, substantially as shown and described.

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

GEORGE A. WELCH.

Witnesses:

PHILIP MAURO,
E. P. ELLIS.