

(No Model.)

E. K. TOLMAN.

REGISTERING AND CANCELING BALLOT BOX.

No. 528,191.

Patented Oct. 30, 1894.

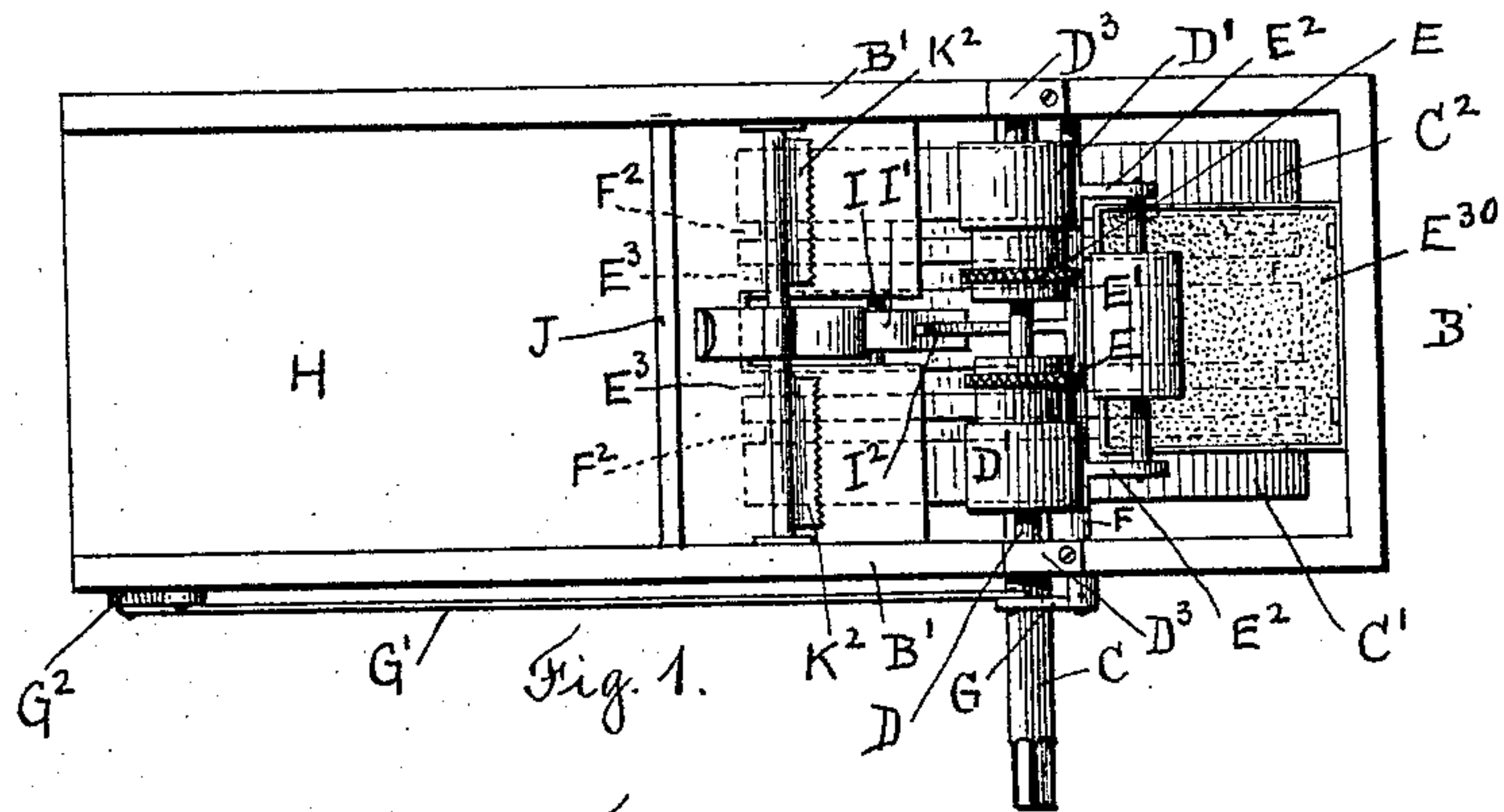


Fig. 1.

Fig. 2.

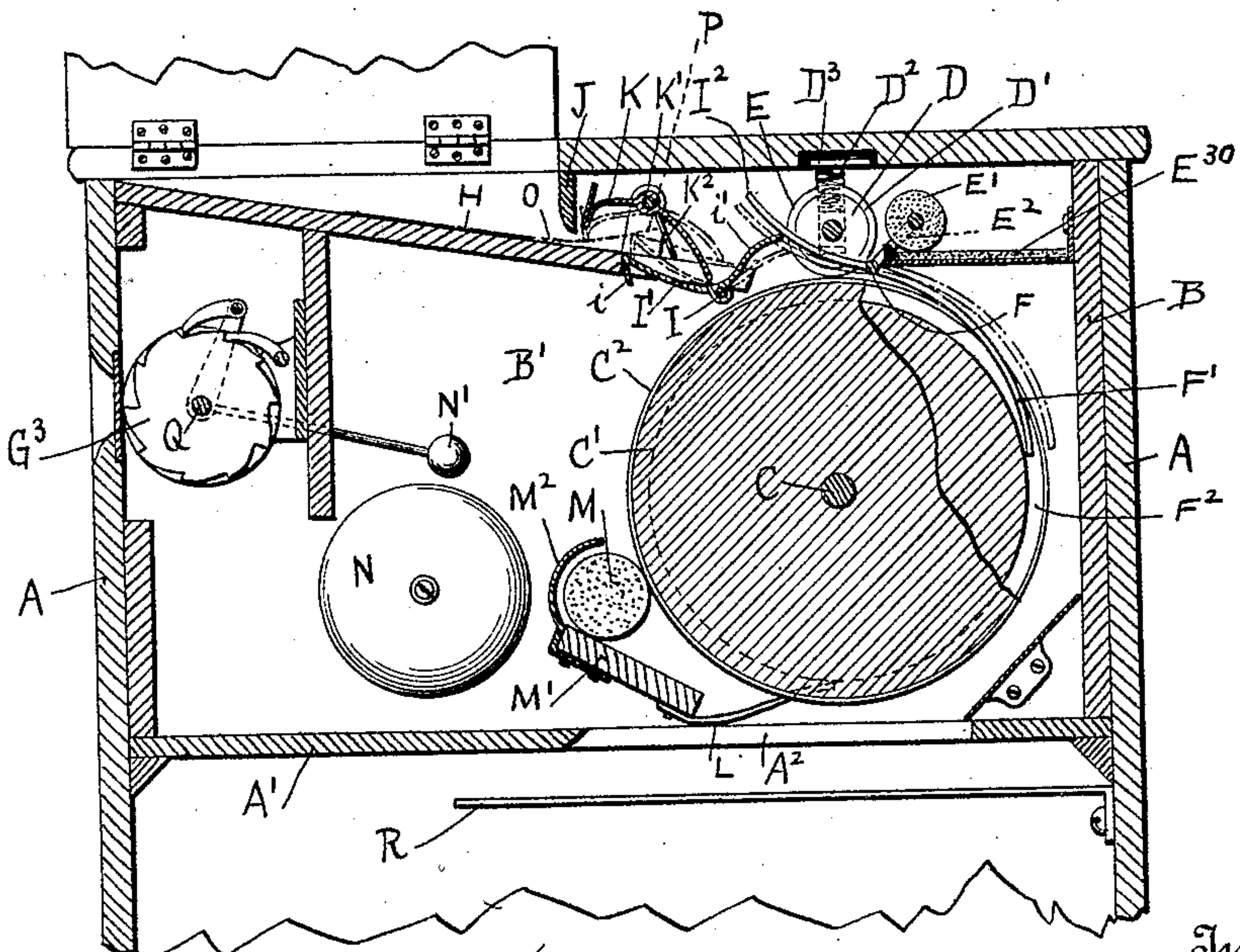
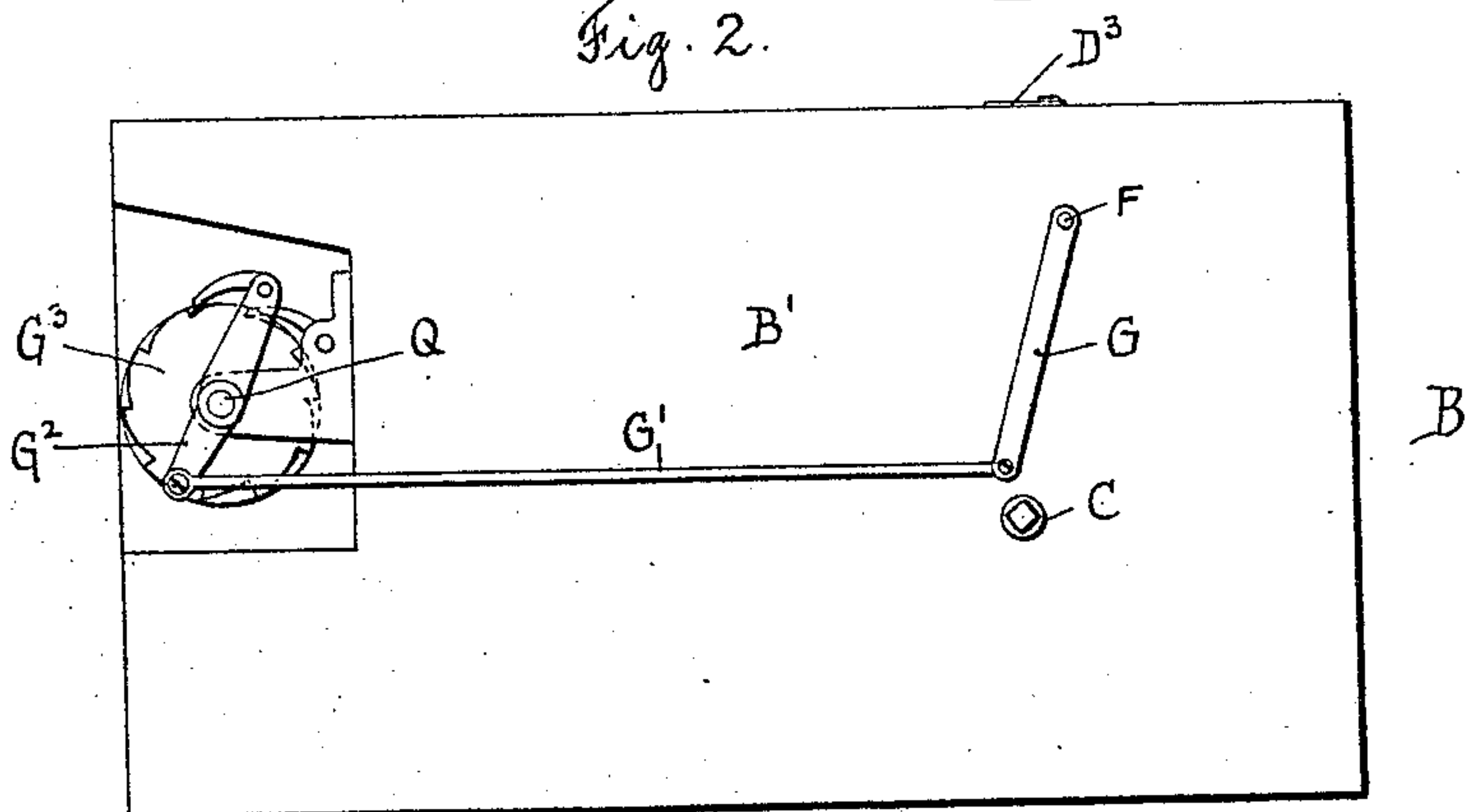


Fig. 3.

Witnesses  
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# UNITED STATES PATENT OFFICE.

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## REGISTERING AND CANCELING BALLOT-BOX.

SPECIFICATION forming part of Letters Patent No. 528,191, dated October 30, 1894.

Application filed October 25, 1893. Serial No. 489,102. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD K. TOLMAN, a citizen of the United States, and a resident of Worcester, in the county of Worcester and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Ballot-Boxes, of which the following, in connection with the accompanying drawings, is a specification.

My invention relates to boxes, adapted to register, cancel, and receive ballots, and particularly to the ballot-box for which a patent has been granted to me on August 22d, 1893, No. 503,626, and my invention consists in the improved construction of the operating mechanism and its component elements, as will be fully described, and as is illustrated in the accompanying drawings, in which—

Figure 1 represents a top view of my improved box. Fig. 2 is a side view of the same. Fig. 3 shows a central longitudinal section of the same.

Similar letters refer to similar parts.

In the drawings A represents the casing of the box containing two compartments which are separated by the shelf A', and the upper one of which serves to receive the box containing the operating mechanism, while the lower compartment is adapted to receive the ballots after they have been registered and canceled, and discharged through the opening A<sup>2</sup> of the shelf A'.

The box containing the operating mechanism contains, first, means for taking the ballot, after it has been placed on the feed board, into the machine; secondly, apparatus for canceling the same by printing one or more lines of type on the plain side of the ballot; thirdly, a counting mechanism, by which each ballot, as it enters the box, is registered; and fourthly, a mechanism by which the insertion of a ballot into the machine, before the preceding one has been canceled and registered, is prevented.

Journaled in the sides B' of the box B is a shaft C, upon which is mounted the drum C', the outside of which is covered with a layer of rubber C<sup>2</sup>. Placed on top of the drum C' is a friction-roller D, the outside of which is covered with rubber D', and which is forced down upon the drum C' by means of springs D<sup>2</sup>, interposed between the bearing blocks of

the roller D and plates E<sup>3</sup>, secured in the upper edges of the sides B'. The roller D is also provided with a printing type E, to which ink is supplied by the roller E', the ends of which are held by the arms E<sup>2</sup>, secured to the spindle F. This roller E' takes ink from the pad E<sup>30</sup>, (which is secured to the end of the box,) and transfers ink onto the type only when a ballot is placed into the machine, as will be readily understood. The drum C' is provided with grooves E<sup>3</sup> to permit drum C' and roller D to run tightly together without the printing wheels E leaving "off-set" of ink on the drum C'.

The spindle F is journaled in the sides B' of the box B, and attached to it are a series of fingers F', the ends of which, when in their normal positions, enter the grooves F<sup>2</sup> of the drum C'. Secured upon the spindle F and at the outside of the box is a lever G (see Figs. 1 and 2) the free end of which is connected by the link G' with the operating lever G<sup>2</sup> of the counting or registering mechanism G<sup>3</sup>, which may be of any well-known type or construction, and which is so arranged that when the spindle F is rocked sufficiently to bring the ends of the fingers F' out of the grooves F<sup>2</sup>, an angular movement is imparted to the lever G<sup>2</sup>, sufficient to advance the first wheel of the counting mechanism one tooth.

H represents the feed-board upon which the ballots are placed, and fed between the drum C' and the friction-roller D. If, now, rotary motion is imparted to the drum C', it will be seen that as the ballot travels with the drum C', the ends of the fingers F' are gradually expelled from the grooves F<sup>2</sup>, and that consequently the spindle F is rocked sufficiently to impart the necessary movement to the lever G<sup>2</sup> of the registering mechanism G<sup>3</sup>.

Journaled in the sides B' is a spindle I, to which is attached a sheet-metal strip I' having one end turned downward as at *i*, and the other end projecting upward as at *i'* to be engaged by a finger I<sup>2</sup>, which is firmly secured to the rock-spindle F. It will therefore be seen that when the said spindle is rocked by the ballot expelling the fingers F' from the grooves F<sup>2</sup>, the finger I<sup>2</sup> will depress the end *i'* of the strip I', and thus cause the end *i* to protrude above the feed-board H, and thus serve as a stop for the ballot being fed into



the machine before the preceding ballot has been discharged from the drum C'.

Arranged above the feed-board H, and secured in the sides B' is a guard J, the lower edge of which is beveled so as to bring the ballot in close contact with the upper surface of said feed-board, and another guard-plate K is journaled on a rod K', a short distance from the guard-plate J, to prevent the ballots from being lapped onto each other and fed into the machine, in which case the ballots would form a continuous sheet, keeping the fingers F in their outward position until the last one of the series of ballots would have been fed into the box and canceled, while only one ballot would have been registered by the counting mechanism.

The particular object of the guard-plate K is clearly illustrated by dotted lines in Fig. 3, in which the end *i* of the strip I' is shown projecting above the surface of the feed-board H, thus making a bend in the ballot O between the ends of the guard-plate K, and thereby guiding the succeeding ballot against the rear portion of the plate K, as indicated by the broken line P, Fig. 3.

On the under side of the drum C' I provide the discharge fingers L, which enter into the grooves F<sup>2</sup>, so as to positively separate the ballot from the drum C'.

A gong N may be placed in the box B, and so arranged that when the fingers F' return to their normal positions in the grooves F<sup>2</sup>, the hammer N' which is attached to the spindle Q of the counting mechanism, may strike a blow, thus indicating that the ballot has been discharged from the drum C'. As is essential to prevent the drum C' from being rotated backward, I provide a roller M preferably made of rubber, and resting upon the inclined shelf M', so that when the drum C' is rotated in the proper direction, the roller M will be free, but when it should be attempted to turn the drum backward, the roller M will be impinged between the outside of the drum and the shelf M', thus preventing any backward movement on the part of the drum C'. A guard M<sup>2</sup> serves to retain the roller M in proper place upon the shelf M'.

As it is desirable to provide means whereby the extraction of a ballot from the machine after the same has been fed in, shall be prevented, I arrange on the rod K' the check-

plates K<sup>2</sup>, hanging loosely thereon, and having their lower edges serrated so that when a ballot has been passed between them and the feed-board H, the teeth in their lower edges will catch in the paper, and thus prevent the ballot from being extracted.

Since the ballots, when being extracted from the drum C', are sometimes liable to drop into the lower compartment of the box A with their forward end hanging downward, I provide the wire R, arranged centrally beneath the drum C' so that the end of the ballot is guided lengthwise, and almost for its entire length horizontally, until it falls off on to one side of the wire, and lies flat in the bottom of the box.

The operation is as follows: The ballot is placed near the feed-board H, and passed beneath the guards J and K, and between the drum C' and the friction-roller D. As the drum C' is rotated the ballot is carried with it and upon its periphery, and the fingers F' are thus gradually ejected from the grooves F<sup>2</sup>, whereby the spindle F is slightly rocked, and this imparts proper movement to the stop-plate I', and at the same time, rocking the operating-lever G<sup>2</sup> of the counter, so as to advance the first wheel one notch. Upon the continued movement of the drum C', the ballot is positively discharged from the drum, by means of the clearer-fingers L, and is then allowed to drop through the opening A<sup>2</sup> into the lower compartment of the case where the ballots accumulate, and whence they can be removed through a suitable door.

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

1. The combination with the feed-board, a stop and means for projecting said stop above the surface of the feed-board, of a pivoted guard-plate, the ends of which are arranged on both sides of the stop, substantially as described.

2. The combination with the drum, the type-roll, of the inking roll, and means whereby the inking roll is brought into contact with the type-roll, as a ballot is received upon the drum, substantially as described.

EDWARD K. TOLMAN.

Witnesses:

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SAMUEL PETERSON.