

C. DE CROES.
RECORDING APPARATUS FOR VOTING MACHINES.

APPLICATION FILED FEB. 17, 1904.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

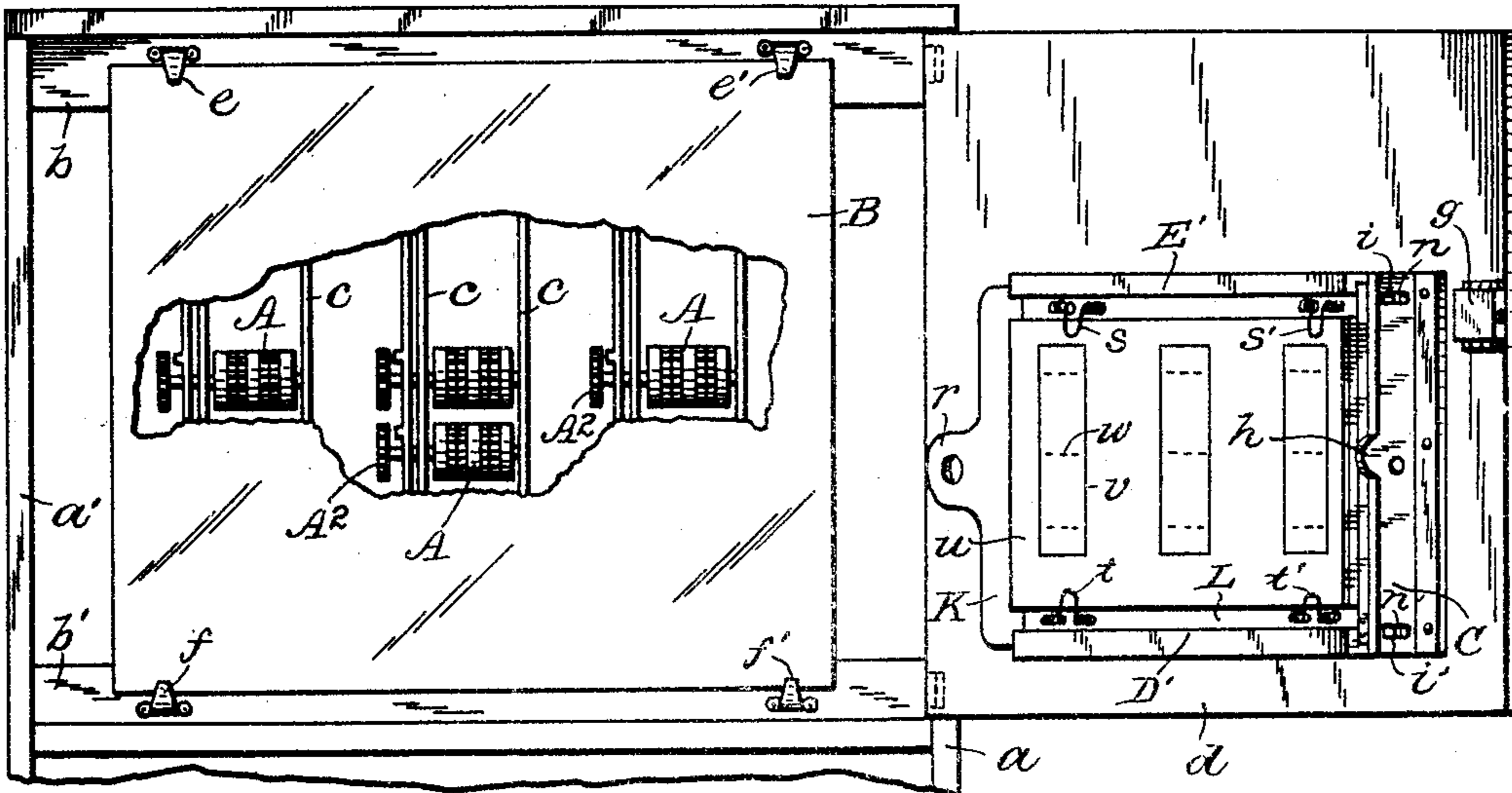
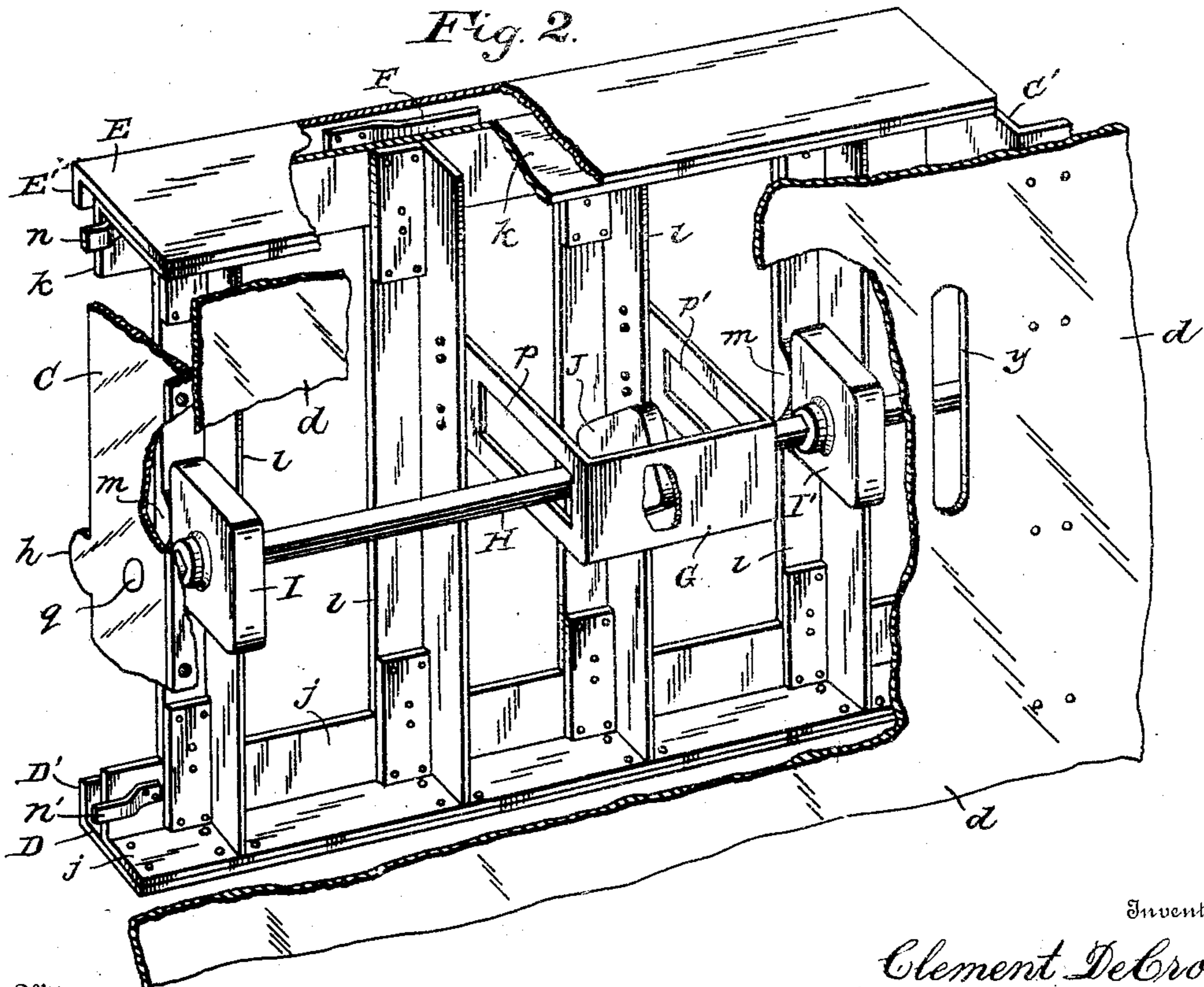


Fig. 2.



Witnesses:

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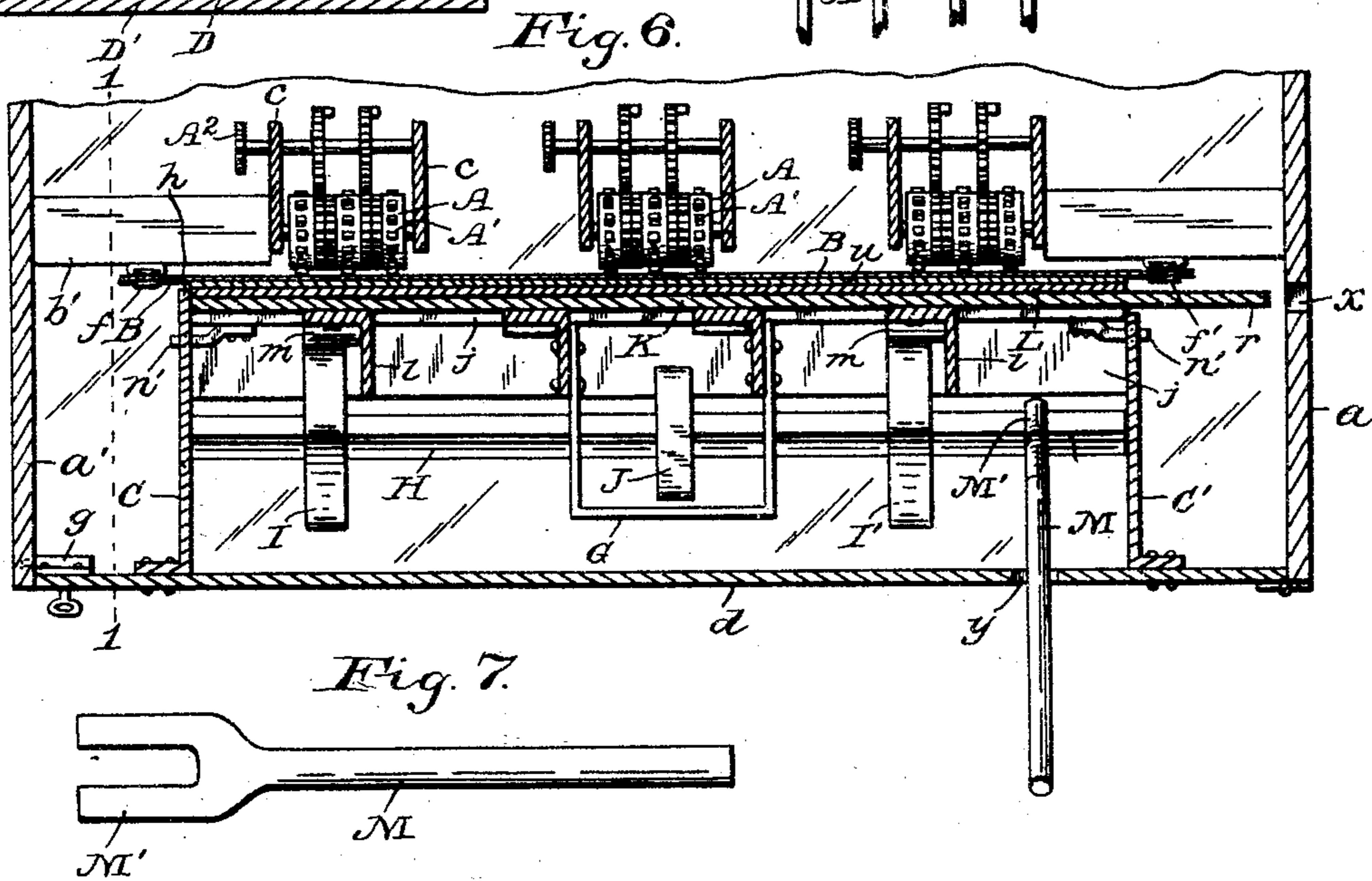
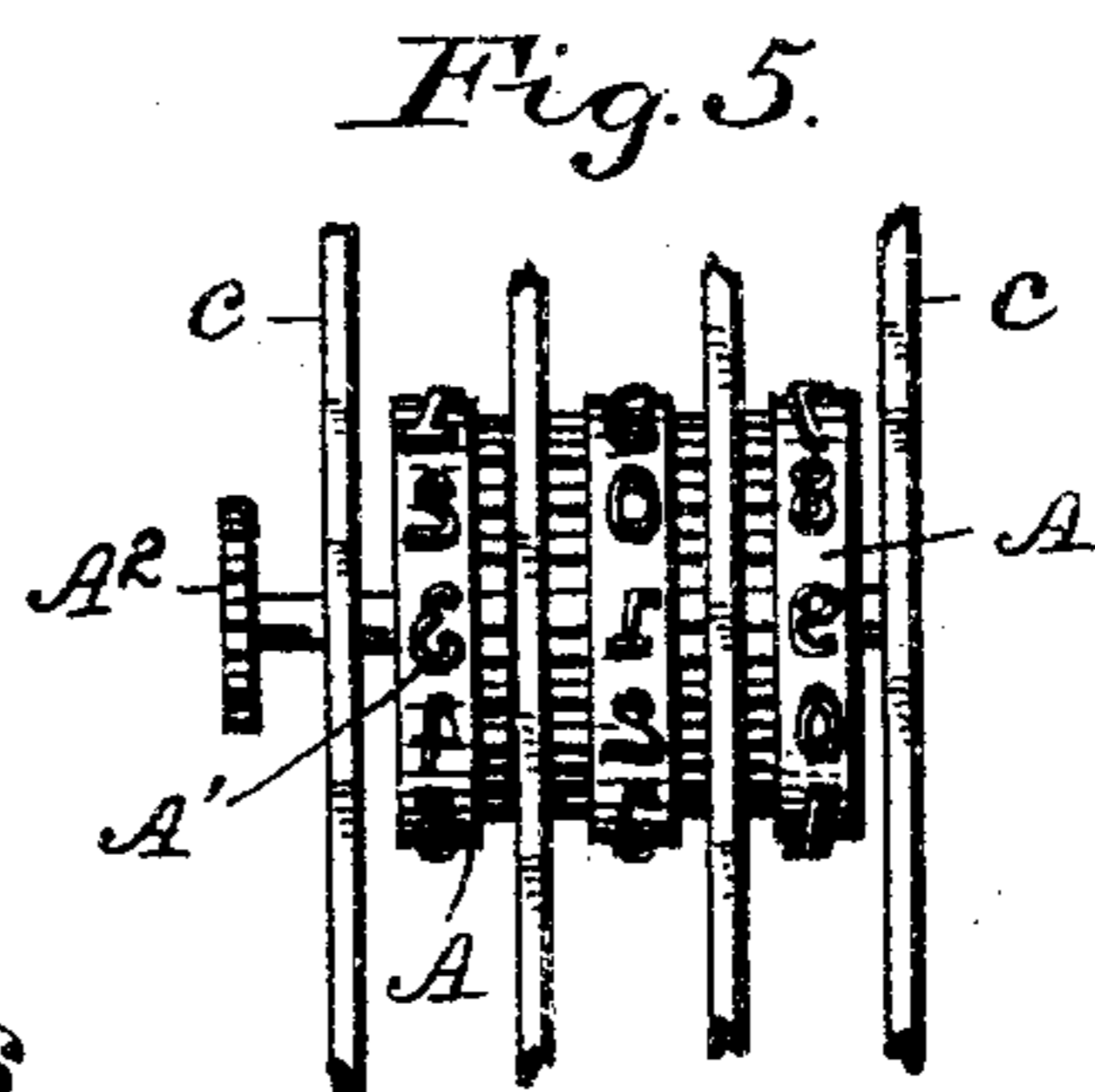
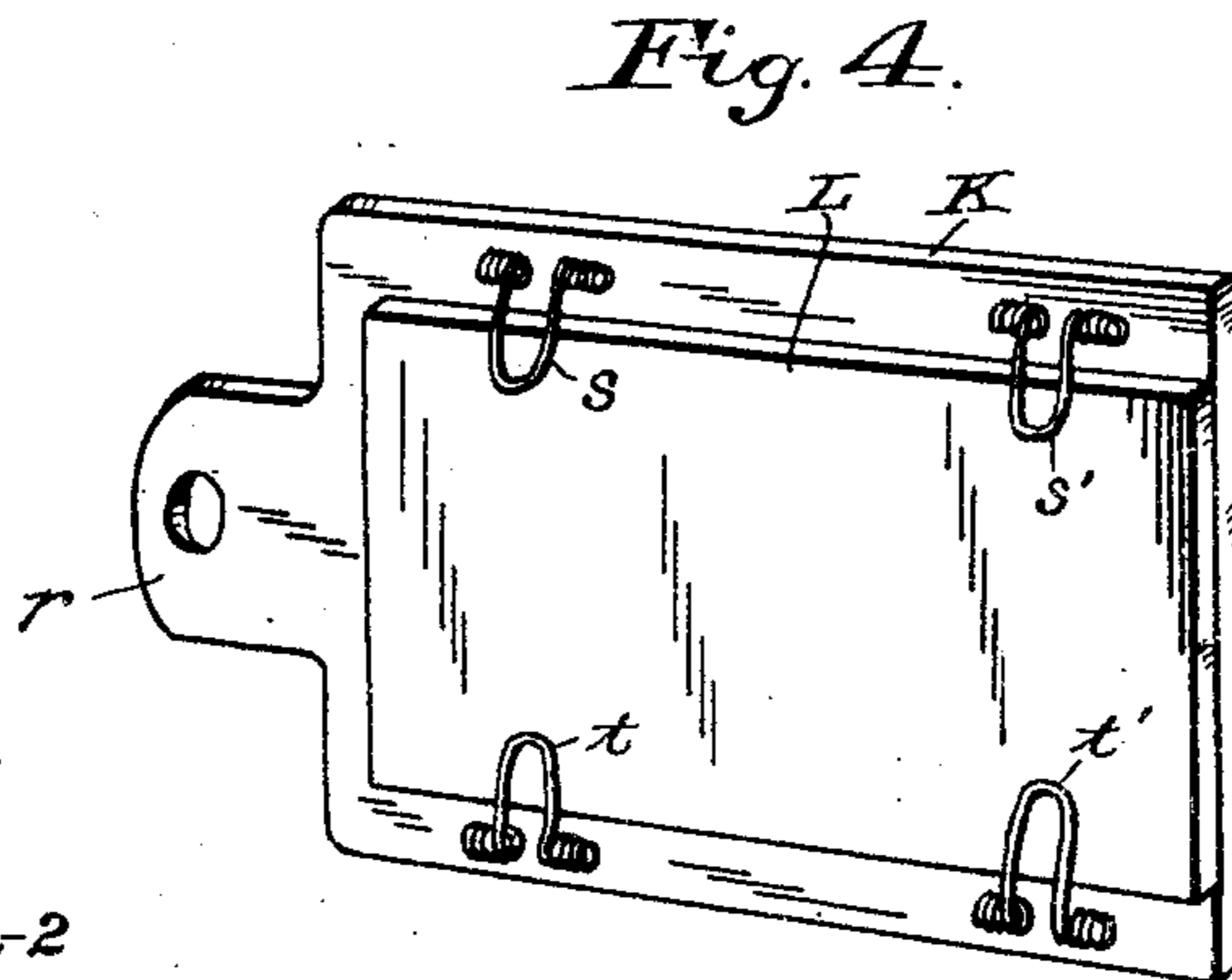
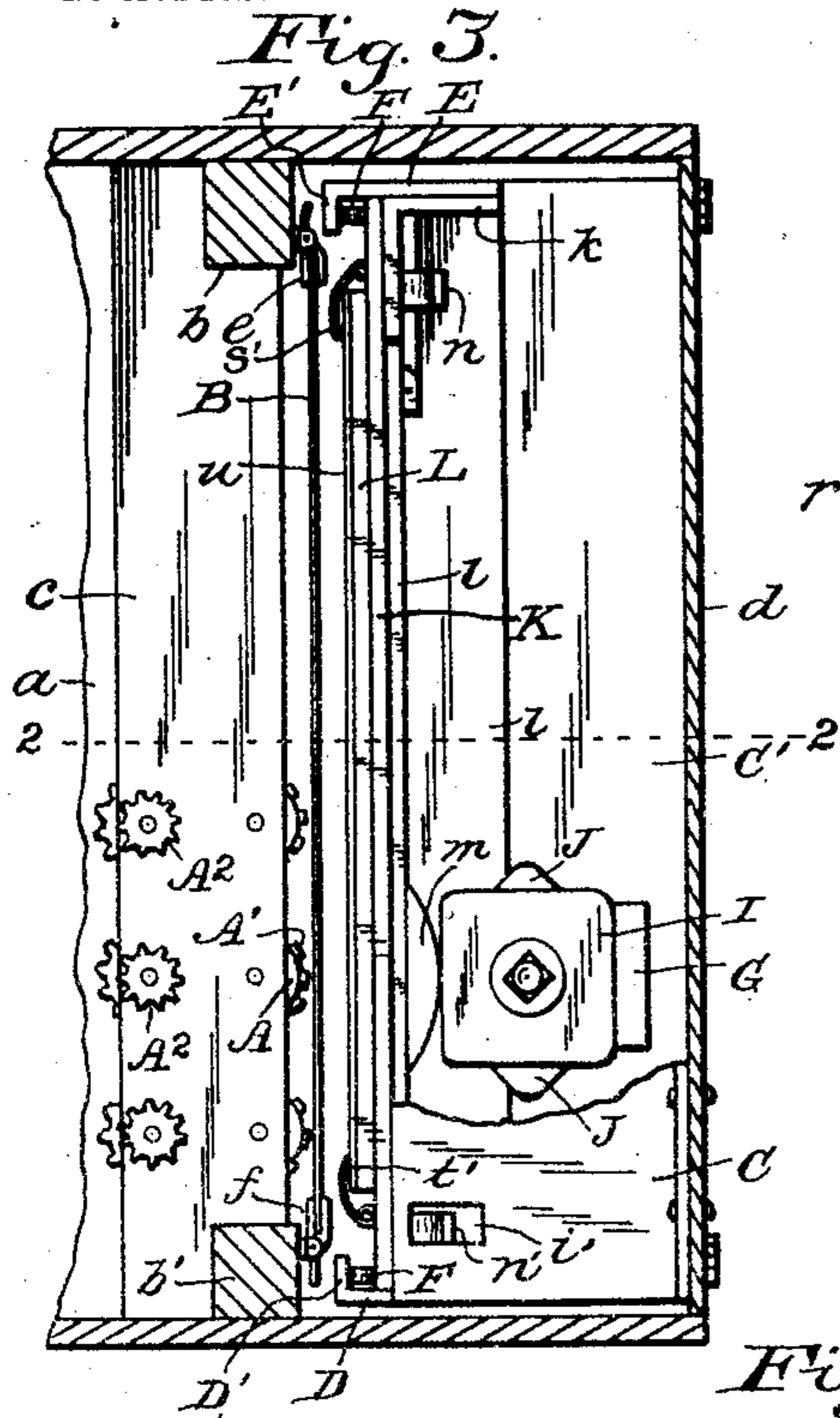
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2 SHEETS—SHEET 2.



Witnesses

For W. Vorhies.
Stella Snider.

Inventor:

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UNITED STATES PATENT OFFICE.

CLEMENT DE CROES, OF WESTPORT, INDIANA, ASSIGNOR TO THE HOOSIER VOTING MACHINE COMPANY, OF SHELBYVILLE, INDIANA, A CORPORATION OF INDIANA.

RECORDING APPARATUS FOR VOTING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 776,730, dated December 6, 1904.

Original application filed November 6, 1903, Serial No. 180,054. Divided and this application filed February 17, 1904. Serial No. 194,016. (No model.)

To all whom it may concern:

Be it known that I, CLEMENT DE CROES, a citizen of the United States, residing at Westport, in the county of Decatur and State of Indiana, have invented new and useful Improvements in Recording Apparatus for Voting-Machines; and I do declare the following to be a full, clear, and exact description of the invention, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to apparatus for printing on paper from types that may be arranged with their faces in a plane; and it has reference more particularly to recording apparatus by means of which instantaneous permanent records may be made of the votes that may be cast during any election by means of voting-machines having registers provided with suitable raised printing-types, the object of the invention being to improve recording apparatus for voting-machines.

This invention is designed to be used particularly in connection with such improved voting-machines as that described in an application for Letters Patent of the United States filed November 6, 1903, Serial No. 180,054, of which the present application is a division.

A voting-machine of the character referred to includes an inclosing case in which are arranged a number of sections of apparatus suited to the various kinds of ballots, such as those for national and local elections, each section having a suitable number of registers and operating devices therefor, the several registers being arranged in a vertical plane, and in order to adapt the registers for printing purposes they may be composed of disks, as indicated therein, and provided with well-known forms of printing-types projecting from the peripheries of the disks, the disks and gearing therefor being suitably arranged in order to operate properly as registers or counters, as will be understood, for the purpose intended.

In the accompanying drawings only so much

of a voting-machine is illustrated as is necessary to an understanding of the present invention and its relation thereto.

Referring to the drawings, Figure 1 is a fragmentary rear elevation showing a section of the voting-machine, the rear door of which is open and standing at an oblique angle, the recording apparatus being shown in connection therewith; Fig. 2, a perspective view of the door and parts of the apparatus mounted on the inner side thereof, portions of the door and the apparatus being broken away to clearly show parts that would otherwise be obscured; Fig. 3, a transverse vertical sectional view as on the line 1 1 in Fig. 6, showing the apparatus in end elevation; Fig. 4, a perspective view of the platen forming part of the apparatus; Fig. 5, a rear view of one of the registers adapted to cooperate as part of the apparatus; Fig. 6, a horizontal sectional view of the apparatus and necessary cooperating parts of the voting-machine as on the line 2 2 in Fig. 3, and Fig. 7 is a side view of the attachable operating-lever for the recording apparatus.

Similar reference characters in the drawings indicate like parts or features.

In the present invention *a a'* may designate vertical parts of the case or partitions thereof, and *b b'* fixed parts of framework in the case, *c* being suitable supports for the registers, each register including, say, three disks or wheels *A*, having types *A'*, and an operating-wheel *A²* for actuating the train of wheels *A*, which wheel *A²* may be engaged by any suitable operating device, as a voting-key, as will be understood. Suitable gearing connects the disks with the operating-wheel. A door *d* is hinged to the case *a* at the rear thereof, the door when closed being parallel to the plane of the registers. An inking or carbon sheet *B* is supported vertically at the rear of the registers, near the faces of the printing-types thereof, in a suitable manner, as by means of fasteners *e e'*, attached to the part *b*, and similar fasteners *f f'*, attached to the part or parts *b'*, and the fasteners may con-

sist of spring-clips, as indicated, or other suitable devices. The door d is provided with a lock g , adapted to cooperate with the member a' , so that it may be impossible to have access
5 to the registers until after permanent records of the votes may have been made.

The vote-recording apparatus proper, whereby the printing may be accomplished, comprises suitable supports C and C', which are
10 rigidly attached to the inner side of the door d ; but, if preferred, the supports may be otherwise mounted removably in the case, as will be obvious. The door, however, provides a convenient means for withdrawing the ap-
15 paratus from the case when necessary to gain access to the registers, which are usually inaccessible from the front of the machine. The support C has a stop h at the free edge thereof, and each support C and C' has a pair
20 of open guides i i' at the upper and lower portions thereof.

A movable frame, preferably of skeleton form, is suitably constructed so as to extend between the supports C and C' and be guided
25 thereby and comprises a bottom rail j and a top rail k , connected together by a suitable number of upright bars l , two of which have bearing-blocks m attached thereto at the side toward the door. The top rail k is provided
30 at its ends with guide-bars n , which extend into the guides i , and the rail j has guide-bars n' , which extend into the guides i' , so that the frame is supported by means of four guide-bars in four open guides in the sup-
35 ports. Other forms of supporting-guides may, however, be employed, if preferred. The movable frame is provided with platen-holders comprising a support D and guide D', connected to the rail j , and guides E E', con-
40 nected to the rail k of the frame. The guides D' E' have antirattling springs F at the inner sides thereof. A yoke G, having apertures p p' , is secured to the movable frame and extends toward the door d .

45 A rotative shaft H, square in cross-section, having journals q , is journaled in the supports C and C' and extends through the apertures p p' of the yoke G, between the movable frame and the door d . Two cams I and
50 I' are secured to the shaft H and cooperate with the blocks m for advancing the movable frame, and a cam J is also secured to the shaft H and cooperates with the yoke G for retracting the movable frame. The cams
55 are so designed that they operate harmoniously, being preferably square in plan with rounded corners.

A platen K is supported removably by a movable frame on the support D between the
60 guides D' E' and is pressed by the springs F against the frame. The platen is provided with a rubber pad L at the outer side thereof and also with fasteners s s' t t' for holding a tally-sheet against the rubber pad. The pad
65 is large enough to accommodate a complete

ballot-sheet u , suitably printed with the requisite number of party-tickets, as at v w , indicating the positions of the vote-records of the candidates printed by the registers. The
70 platen may be inserted through a slot x , formed in the case a , and withdrawn from the movable frame through the same slot. In some cases the platen may have a handle r as a convenience.

It will be understood from the foregoing that
75 the object in inserting the platen E through the narrow slot x , that is provided in the side of the case, is to either insert or withdraw the tally-sheet carried by the platen without per-
80 mitting access to the registers or counters, and it will be clear that, if preferred, the platen may remain permanently in its bearings within the machine-case and a mere holder and carrier for the tally-sheet may be provided
85 whereby to insert and remove the same through said slot and suitably support it adjacently to the platen.

An operating-lever M, having a fork M', is provided for rotating the shaft H to operate the platen, a slot y in the door d being
90 provided through which the lever may be inserted and applied to the shaft.

In Fig. 1 the platen and its operating devices is shown as being relatively short for
95 short tickets, while in Fig. 3 they extend upwardly higher than the registers, so as to accommodate longer tickets that may have party emblems at their heads.

It is customary, as will be understood, for
100 proper officers to prepare and lock the machines before proceeding with elections, and in the use of the present invention after the registers or counters have been set at "zero" and the case locked or sealed the condition of
105 the registers or counters may be proven by inserting a proof tally-sheet and taking an impression thereon.

The operation of the registers or counters may be accomplished by various suitable types
110 of keys or devices engaging the operating-wheels A' thereof, which in turn actuate the disks or wheels A by suitable connections, each register or counter displaying opposite to the tally-sheet a number indicating the num-
115 ber of times it may have been actuated and according to prearranged understanding the number of votes cast for a candidate for office.

In practical use when preparing for an
120 election the inking or carbon sheet B should be placed in position opposite to the rear of the registers nearly in contact therewith. The properly-printed tally-sheet u should be applied to the platen in its frame or to a suit-
125 able tally-sheet holder, so that the records when made thereon will be at the names of the different candidates, whose names will be on the tally-sheets in the same order in which they will appear at the front of the voting-
130 machine. The door d may then be closed and

locked, and the voting may then commence. At the close of the election the lever M may be inserted through the slot *y* and applied to the shaft H, and if the shaft be rotated one-fourth of a revolution by means of the lever the cams I I' will force the movable frame toward the registers, causing the tally-sheet to be pressed by the pad L against the sheet B and this against the types A' of the registers, with the result that impressions will be made on the tally-sheet, thus instantly recording or printing the result of the voting. In the operation after the cams I I' have advanced the platen the cam J will engage the yoke G and retract the platen. Now the tally-sheet, with its holder, or the platen and the tally-sheet, as the case may be, may be withdrawn from the movable frame through the slot *x*, and the tally-sheet may be taken from its holders by the proper officers and the door *d* may be kept locked to guard against possible illegal changing of the registers. Should additional tally-sheets be desired, they may be quickly printed as before. The platen is to be gaged by the stop *h*.

The particular means herein described for pressing the inking-sheet against the registers and the tally-sheet against the inking-sheet are intended to disclose simple and inexpensive forms of mechanism which may be preferable yet may be considerably modified, a number of different devices being capable of adoption—such, for instance, as certain apparatus employed experimentally and originally included in an application for Letters Patent filed by me April 18, 1901, and other apparatus since developed by me.

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

1. Recording apparatus including vote-registers having printing-types, an inclosing case, supports mounted in the case, a movable frame mounted between the supports, guides for the movable frame, a platen supported by the movable frame, a tally-sheet holder suitably supported and adapted to be removed from the case, a gage for the tally-sheet holder, and means for supporting an inking or carbon sheet in a plane between the registers and the platen.

2. Recording apparatus including vote-registers having printing-types, an inclosing case, a door for the case, supports mounted in the case, a movable frame mounted between the supports, guides for the movable frame, a platen supported by the movable frame, a tally-sheet holder suitably supported and adapted to be removed from the case, a gage for the tally-sheet holder, an inking or carbon sheet supported between the register-types and the platen, and means for independently advancing and retracting the platen.

3. Recording apparatus including vote-registers having printing-types, an inclosing case having a slot therein, a door for the case, a

tally-sheet holder mounted removably in the case opposite the slot therein, a movable platen, guides for the platen, a gage for the tally-sheet holder, an inking or carbon sheet supported in a plane between the register-types and the platen, and means for independently advancing and retracting the platen.

4. Recording apparatus including vote-registers having printing-types, an inclosing case having a slot therein, supports mounted in the case, a movable frame mounted between the supports, guides for the movable frame, a platen having a yielding pad and also provided with tally-sheet fasteners and mounted in the frame in the plane of the slot in the case, an inking or carbon sheet supported between the register-types and the yielding pad, and means for advancing and retracting the movable frame.

5. Recording apparatus including vote-registers having printing-types, an inclosing case, supports mounted in the case, a movable platen mounted in the case, an inking or carbon sheet supported oppositely to the register-types, means coöperating with the supports for moving the platen to advance and retract the same, and a tally-sheet holder mounted in the case so as to temporarily hold a tally-sheet opposite to the inking or carbon sheet and removable through the case.

6. Recording apparatus including vote-registers having printing-types, an inclosing case, a door for the case, upright supports attached to the door, a movable frame mounted between the upright supports, guides for the movable frame, a platen having a yielding pad mounted on the movable frame, an inking or carbon sheet supported between the register-types and the yielding pad, a rotative shaft journaled in the upright supports and having a pair of cams for advancing the movable frame and having also a cam for retracting the movable frame, and a device for operating the rotative shaft.

7. Recording apparatus including vote-registers having printing-types, an inclosing case having a slot therein, a door for the case provided with supports attached thereto, a movable frame mounted between the supports and provided with guides, guides for the movable frame, a platen mounted in the guides of the movable frame opposite the slot in the case, a gage for the platen, a yielding pad attached to the platen, tally-sheet fasteners attached to the platen, an inking or carbon sheet supported oppositely to the register-types, and means for advancing and retracting the platen.

8. In a voting-machine, the combination with a case having a slot therein and printing-registers mounted in the case, of a door hinged to the case and provided with upright supports, a movable frame mounted in the supports, cams for operating the movable frame, a platen mounted removably in the

movable frame opposite the slot in the case, and an inking or carbon sheet supported adjacently to the registers.

5 9. In recording apparatus for voting-machines, the combination of a skeleton frame having guides, upright supports having guides in which the frame is movably mounted, a platen mounted removably in the guides of the frame and provided with tally-sheet fasteners, a yielding pad attached to the platen, an inking or carbon sheet suspended opposite to the platen, and power mechanism for advancing and retracting the skeleton frame.

15 10. In recording apparatus for voting-machines, the combination with a plurality of registers, of a case having a slot therein, a door having a slot therein and hinged to the case opposite to the registers, a lock for the door, supports attached to the door, a movable frame mounted in the supports and provided with a yoke, guides for the movable frame, a platen mounted removably in the movable frame opposite the slot in the case, a gage for the platen, a yielding pad attached to the platen, tally-sheet fasteners attached to the platen, a rotative shaft mounted in the supports, a pair of cams secured to the shaft and operating to advance the movable frame

toward the registers, a cam secured to the shaft and operating in connection with the yoke to retract the movable frame, an attachable lever for the rotative shaft adapted to operate in the slot in the door, an inking or carbon sheet, and fasteners supported in the case and supporting the inking or carbon sheet. 30 35

11. In recording apparatus for voting-machines, the combination with a plurality of registers, of a case having a slot therein, a door hinged to the case, an inking or carbon sheet supported opposite to the registers adjacently thereto, a holder for a record or tally sheet mounted movably by means of the door in a plane parallel to the inking or carbon sheet and movable through the slot in the case, a platen supported by means of the door for pressing the record or tally sheet and also the inking or carbon sheet against the registers, and means for operating the platen cooperating with the door. 40 45

In testimony whereof I affix my signature in presence of two witnesses. 50

CLEMENT DE CROES.

Witnesses:

J. W. SYKORA,

OTTO A. HLAVACEK.