

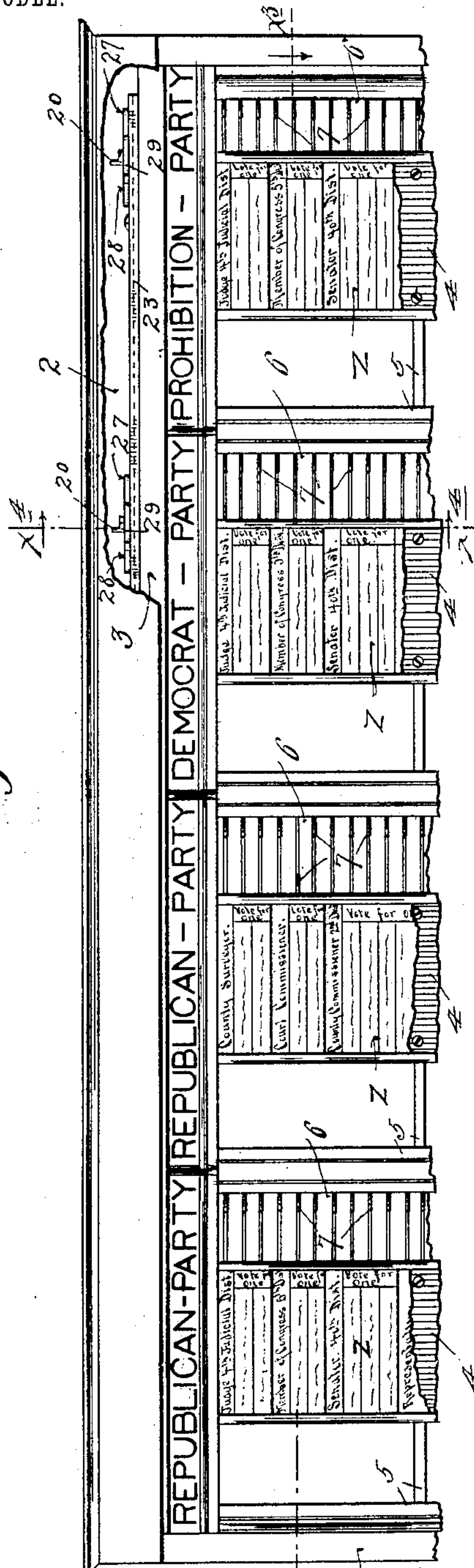
S. LOE.
VOTING MACHINE.

APPLICATION FILED MAY 4, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.



Witnesses.
H. D. Hilgert,
a. v. Opoahl

Fig. 2.

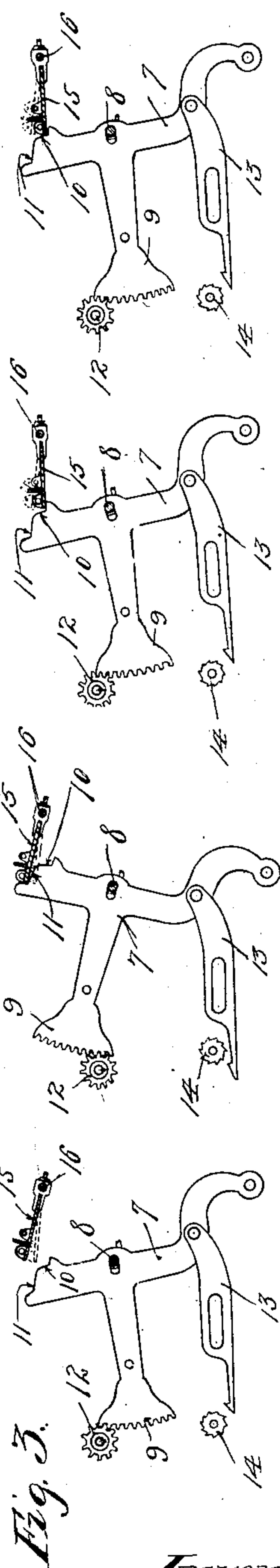
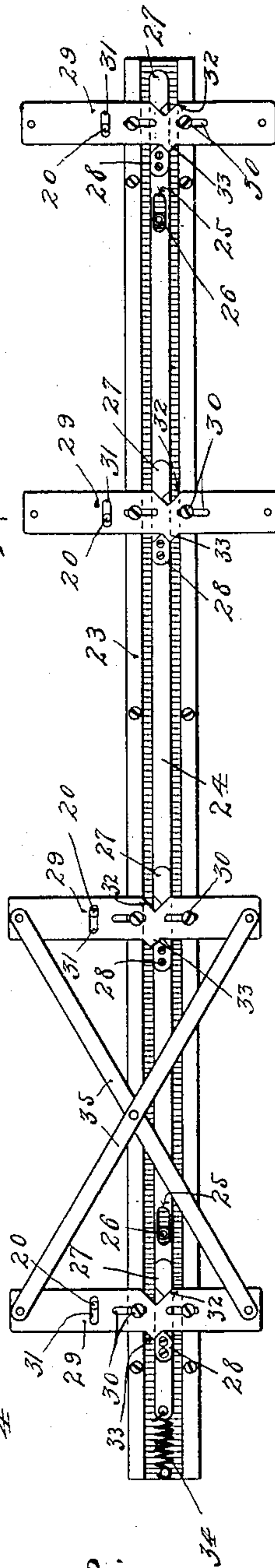


Fig. 3.

Inventor:
Syver Loe,
By his Attorneys

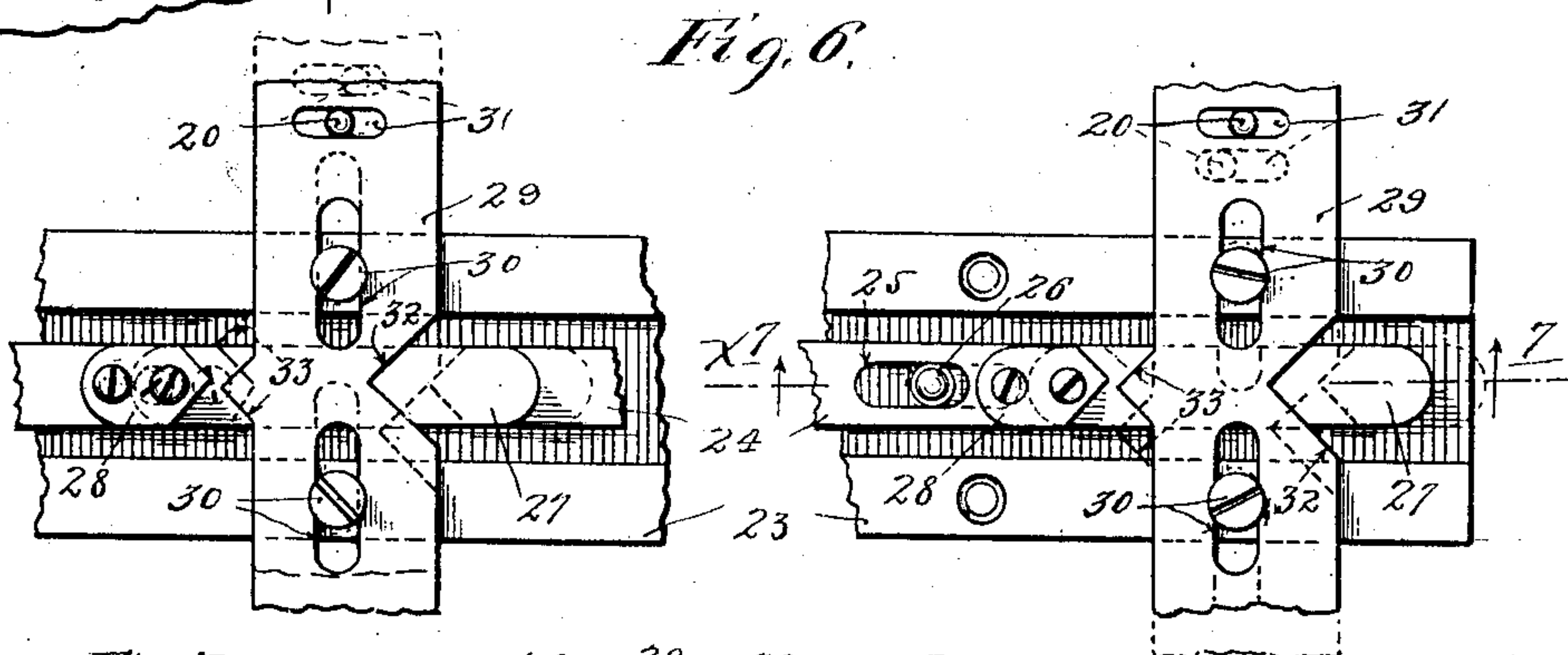
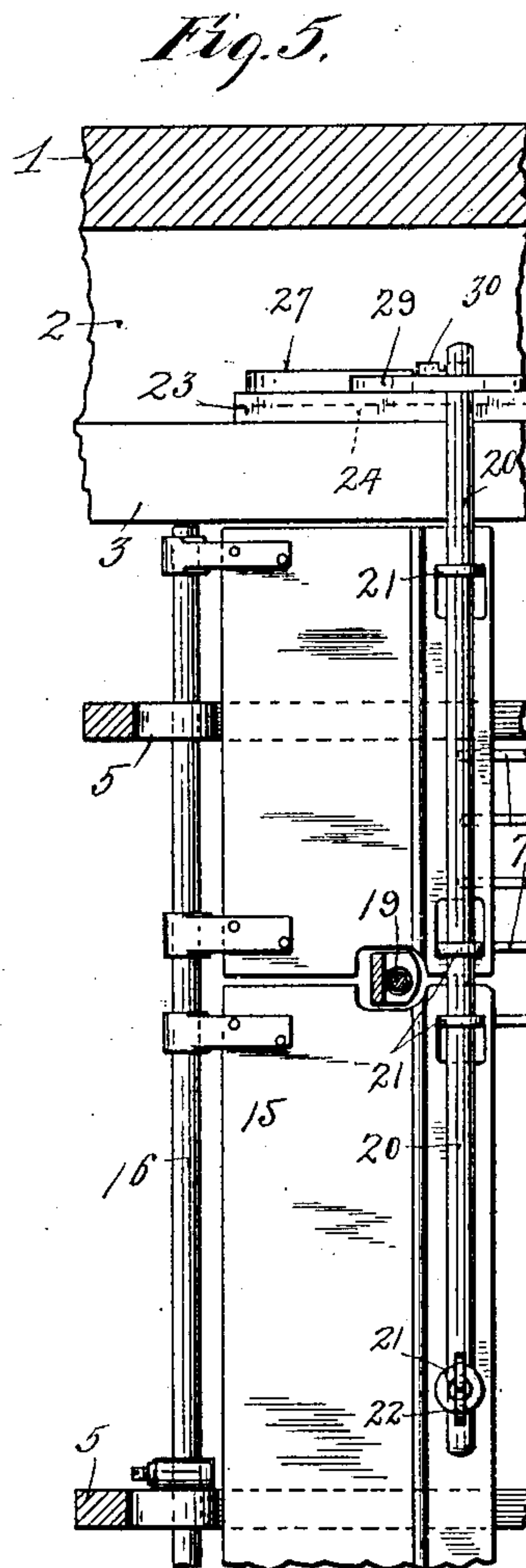
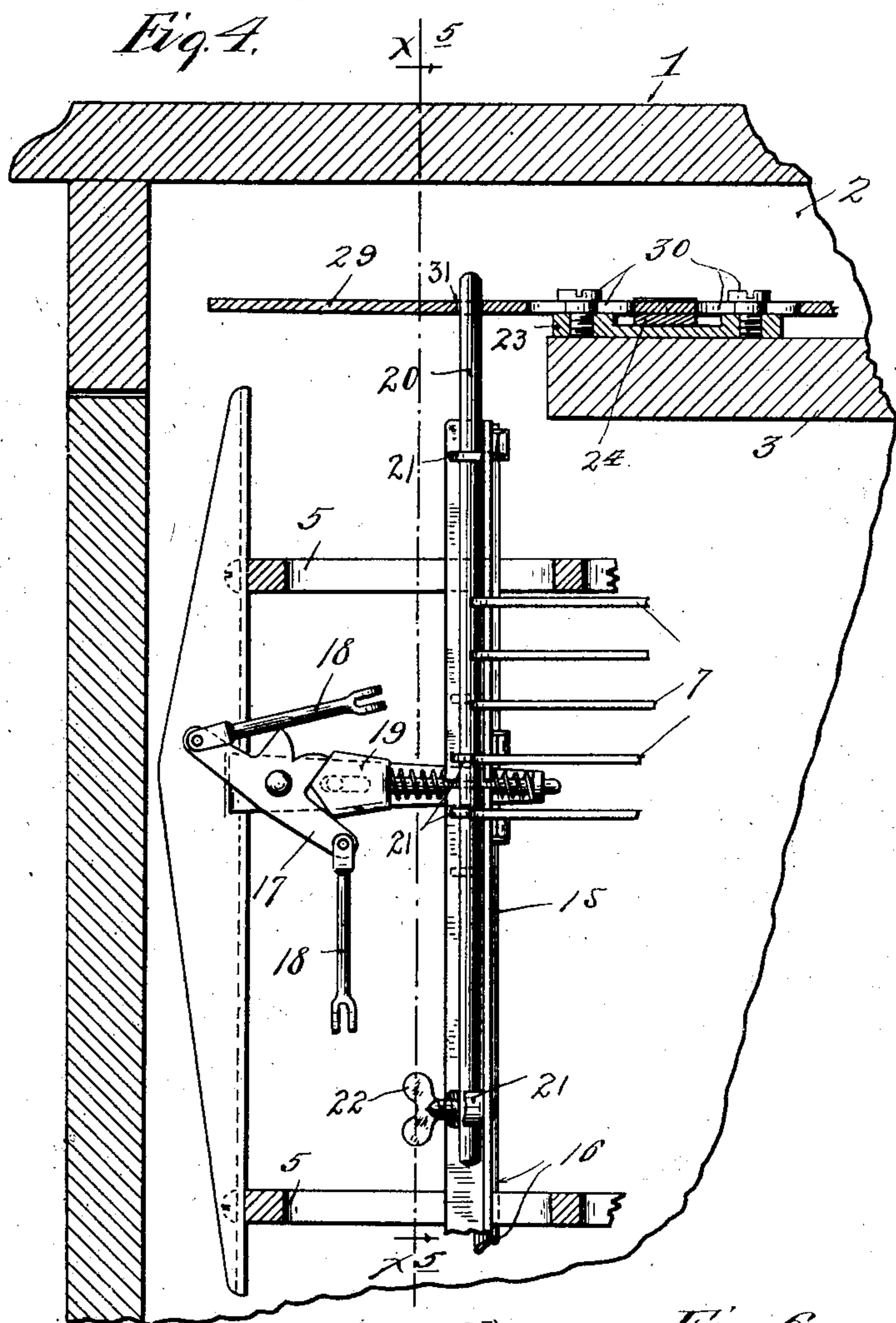
Williamson Merchant

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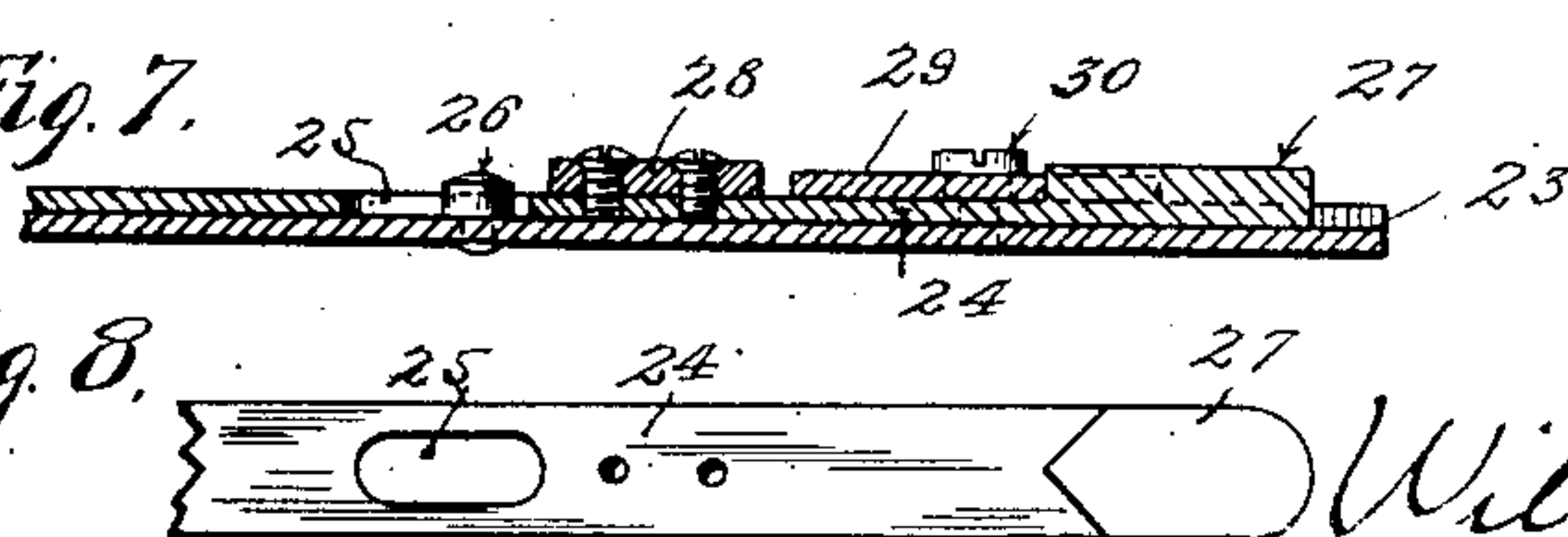
2 SHEETS—SHEET 2.



Witnesses Fig. 7.

H. D. Kilgore

A. B. Opsahl Fig. 8.



Inventor:

Syver Loe.

By his Attorneys

William M. Merchant

UNITED STATES PATENT OFFICE.

SYVER LOE, OF MINNEAPOLIS, MINNESOTA.

VOTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 750,987, dated February 2, 1904.

Application filed May 4, 1903. Serial No. 155,460. (No model.)

To all whom it may concern:

Be it known that I, SYVER LOE, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Voting-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 appertains to make and use the same.

My present invention relates to voting-machines, and has for its object to improve the same in the several particulars hereinafter noted; and to such ends it consists of the novel devices and combinations of devices hereinafter described, and defined in the claims.

The present invention is directed to the improvement of the so-called "party-selecting mechanism" which is disclosed and broadly claimed in my prior patent, No. 688,424, December 10, 1901. The mechanism designed as shown in the accompanying drawings is especially adapted for application and for use as a part of the machine disclosed and claimed by me in a companion application filed of even date herewith entitled "Voting-machines." With the party-selecting mechanism herein described applied to the machine disclosed in said companion application the said machine is adapted for use at primary elections or at elections where the voter must elect his political party and then vote only for candidates for nomination belonging to that party.

The present invention is illustrated in the accompanying drawings, wherein like characters indicate like parts throughout the several views.

Figure 1 is a fragmentary view in front elevation and with some parts broken away, showing a portion of a voting-machine and illustrating my improved party-selecting mechanism applied thereto. Fig. 2 is a plan view of the so-called "cut-out bar" and cam-slides and support for the same removed from the case. Fig. 3 is a diagrammatic section on the line $x^3 x^3$ of Fig. 1, showing the register-actuating levers and certain associated parts, the case and supports being removed. Fig. 4 is a vertical section on the line $x^4 x^4$ of Fig. 1, some parts being broken away. Fig. 5 is a vertical

section on the line $x^5 x^5$ of Fig. 4. Fig. 6 is a plan view corresponding to Fig. 2, but on a larger scale and with parts broken away. Fig. 7 is a section on the line $x^7 x^7$ of Fig. 6, and Fig. 8 is a plan view showing a portion of the so-called "cut-out bar."

As in the machine disclosed in my companion application, the mechanism of the present machine is mounted in suitable framework contained within a rectangular case 1, which at its upper extremity is formed with a horizontal compartment 2, separated from the main compartment of the case by a horizontal partition-board 3. The tickets z , upon which the names of the candidates are printed and of which, as shown, there are four, are held by vertically-disposed plates 4, secured to the frames 5, to the front of which frames are also secured guide-combs 6. The actuating-levers 7 are, as in the companion application, pivoted on rods 8 and work outward through the guide-comb 6. These actuating-levers 7 are horizontally disposed and arranged in vertical stacks or series, of which, as shown, there are four series or a number of series corresponding to the number of tickets. The actuating-levers are provided with toothed segments 9, having stop-shoulders 10 and cam-surfaces 11. The segments 9 mesh with the pinions 12 of vote-limiting mechanism, not herein fully illustrated, but fully shown in my companion application and shown and broadly claimed in my prior patent, No. 712,079, of October 28, 1902, for a voting-machine. The actuating-levers 7 are provided with pawls 13, which cooperate with and act upon the ratchet-wheels 14 of the primary members of the tallies or registers in a manner fully set forth in my said companion application.

For each series of actuators 7 there is a stop-blade 15, which has a shaft 16 pivotally mounted in the framework 5. To adapt these stop-blades for use where a split ticket is to be voted, they are formed in sections which when the machine is adjusted for such elections are connected for reverse pivotal movements to an oscillating lever 17 by means of links 18, and the said lever 17 is then adapted to be held in an intermediate position by a spring-pressed centering-plunger 19, all of

which parts are more fully described in my said companion application. In the present instance the said parts 17, 18, and 19 are thrown out of action, preferably as shown in Fig. 4, the links 18 being disconnected from the blade-sections, and the sections of the blade are rigidly connected for common pivotal movements by vertical coupling-rods 20, passed through lugs 21 on said blade-sections and, as shown, rigidly secured to one thereof by a thumb-nut 22. The upper ends of the coupling-rods 20 work through suitable openings in the horizontal partition-board 3 and terminate in the case-compartment above the same. The edges of the stop-blades 15 cooperate with the shoulders 10 and cam-surfaces 11 of the actuating-levers 7 in a manner which will be hereinafter described.

Rigidly secured on the top of the partition-board 3 and extending transversely of the several series of actuating-levers 7 is a guide-strip 23, preferably of channel form, and in the channel of which is mounted to slide a so-called "cut-off bar" 24, having slots 25 in which work rollers 26, carried by said guide. On its upper edge the guide-bar 24 is provided with several (as shown, four) pairs of reversely-acting cam-blocks. The points or V-shaped ends of the cam-blocks 27 are located at the center of the bar 24, while the points of the V-shaped ends of the cam-blocks 28 are located at one side of the center of said bar. In other words, the points of the cam ends of the blocks 27 and 28 are located out of line with each other for a purpose which will hereinafter appear. Working between each pair of cam-blocks 27 28 is a so-called "cam-slide" 29, which, as shown, is attached to the guide-strips 23 by slot-and-screw connections 30. The rear ends of these slides 29 are provided with transverse slots 31, in which work the projecting upper ends of the corresponding coupling-rods 20 of the cooperating stop-blades 15. The cam-slides 29 have V-shaped notches 32 in one edge and V-shaped cam-lugs 33 on the other edge. The cam-notches 32 cooperate with the cam-blocks 27, while the cam-lugs 33 cooperate with the cam-blocks 28. A coiled spring 34, attached to one end of the cut-out bar 24 and to the guide-strip 23, draws the cut-out bar normally into an extreme position toward the left, and thereby forces the cam ends of the lugs 27 into the V-shaped notches 32, as shown by full lines in Fig. 6, and this normally holds the cam-slides 29 in intermediate positions. When the cam-slides are in intermediate positions, the stop-blades 15 are held in intermediate positions, as indicated by dotted lines in Fig. 3, this being the normal position of the said stop-blades. In these normal positions of the parts the points of the cam-blocks 28 stand to one side—to wit, as shown forward of the points of the cam-lugs 33—so that when the former are drawn against the latter by the endwise

movement of the cut-out bar 24 the cam-slides operated upon thereby will be moved toward the front of the machine and will move the stop-blades 15, connected thereto, into a locking position.

For primary elections or for elections where a split ticket cannot be voted any particular ticket \approx will have marked thereon only the candidates for nomination of a certain political party. In the adjustment of the machine illustrated it is assumed that there are a larger number of candidates for nomination on the Republican ticket than there are on the Democratic or Prohibition tickets. Hence the two columns or series of actuators and cooperating devices at the left are appropriated to the Republican party and those toward the right are appropriated, respectively, to the Democratic party and Prohibition party. Hence the two cam-slides 29 at the left are tied together for common sliding movements, this preferably being done by means of a pair of crossed braces 35. (See Fig. 2.)

For one illustration we will now assume that the voter forces toward the left the projecting end of one of the actuating-levers 7 of one of the two columns at the left—to wit, as shown, the lever fifth from the top of the second column from the left—and thereby moves the said lever into its so-called "set" position. Under this movement of the lever its cam-surface 11, acting on the free edge of the cooperating stop-blade 15, rocks the said blade rearward and of course also forces rearward the two connected slides at the left. The movement of the said cam-slides forces the cut-out bar 24 toward the right, and this movement of the said cut-out bar throws the points of the cam-lugs 28 against the rear surfaces of the cam-lugs 33 of the two cam-slides at the right, and thereby causes said cam-slides to move forward and to move the connected stop-blades 15 into locking positions, as shown at the right in Fig. 3, by an inspection of which it will be noted that the said two stop-blades are thrown back of the shoulders 10 of the actuating-levers appropriated to the Democratic and Prohibition parties. In this way it has been seen that when any one of the actuating-levers of the two columns appropriated to Republican candidates has been moved into a set position the actuating-levers appropriated to other political parties are locked, while the actuating-levers in the two columns appropriated to the Republican party are released, so that they may be actuated in any desired order, subject only to limitation as to number under the control of vote-limiting mechanism. It is equally evident that if one of the actuating-levers of either of the two columns at the right be first moved into a set position an action similar to that just described will take place and the actuating-levers in the other three columns will be locked. Where four political parties are to be represented, or

where it is not necessary to assign more than one column to each political party, the tie-braces 35 will of course be removed from the two slides at the left, and these two slides will then operate independently.

It will of course be understood that the mechanism described is capable of modification within the invention herein set forth and claimed. In the foregoing description the "cut-out bar" and "cam-slides," so-called, have been described as provided with cooperating cam-surfaces; but it will be understood that these so-called "cam-surfaces" might be afforded by antifriction-rollers, which would operate as convenient substitutes for the cam-blocks illustrated in the drawings. Again, the so-called "cam-slides" may be connected in a great many different ways to the cooperating stop blades or bars.

What I claim, and desire to secure by Letters Patent of the United States, is as follows:

1. In a voting-machine, the combination, with the several series of register-actuators and stop blades or bars cooperating with each series of actuators and adapted, when in normal positions, to be moved by the cooperating actuators, of cam-slides connected to said stop-blades, and a cut-out bar upon which said slides operate to impart movements thereto, said cut-out bar in turn acting on such of said cam-slides as have not been moved by an actuator of the corresponding series, to impart movement thereto in a direction to move the connected stop-blades into position to lock the corresponding series of actuators, substantially as described.

2. In a voting-machine, the combination with several series of register-actuators and cooperating pivoted stop-blades normally standing in position to be acted upon and moved by the cooperating actuators, of cam-slides connected to said stop-blades, and a cut-out bar, said cam-slide operating on said cut-out bar to move the same endwise, and said cut-out bar in turn operating on such of said slides as have not been moved by actuators of corresponding series, to move the same endwise and throw such of said stop-blades as have been left standing in normal positions into positions to lock the corresponding series of actuators, substantially as described.

3. In a voting-machine, the combination with several series of pivoted register-actuating levers and cooperating pivoted stop-

blades normally standing in position to be acted upon and moved by any of the levers of the cooperating series, of cam-slides connected to said stop-blades, and a spring-pressed cut-out bar having cam-lugs cooperating with the cam-surfaces of said slides, to center the latter and to move said bar, when one of said slides is moved, said cut-out bar further having cam-lugs cooperating with the cam-lugs on said slides, to move said slides when said cut-out bars move, and thereby to move such of said stop-blades as have been left standing in normal positions, into positions to lock the corresponding series of actuating-levers, substantially as described.

4. In a voting-machine, the combination with several series of pivoted register-actuating levers 7, having stop-shoulders 10 and cam-surfaces 11, of the pivoted stop-blades 15 cooperating as described, with the shoulders 10 and cam-surfaces 11 of said levers, the cam-slides 29 connected to said stop-blades, and the reciprocating spring-pressed cut-out bar 24, said cut-out bar having the cam-blocks 27, cooperating with cam-notches 32 of said slides 29, to normally center the latter and to move said cut-out bar when one of said slides is moved, and the said slides having cam-lugs 33 cooperating with cam-blocks 28 on said cut-out bar, whereby endwise movement of said bar under the action of one of said slides moves the other cam-slides into position to throw the connected stop-blades into positions to lock their corresponding series of actuating-levers, substantially as described.

5. In a voting-machine, the combination with several series of register-actuators and cooperating stop blades or bars, of cam-slides connected to the several series of stop-blades for movement therewith, means for connecting certain of said cam-slides for common movement, a cut-out bar upon which said cam-slides operate to impart endwise movements thereto, and which cut-out bar operates on such of said cam-slides as have not been moved by an actuator of one of the series, to move the same into position to throw the respective connected stop-blades into locking positions, substantially as described.

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

SYVER LOE.

Witnesses:

ELIZABETH H. KELEHER,
F. D. MERCHANT.