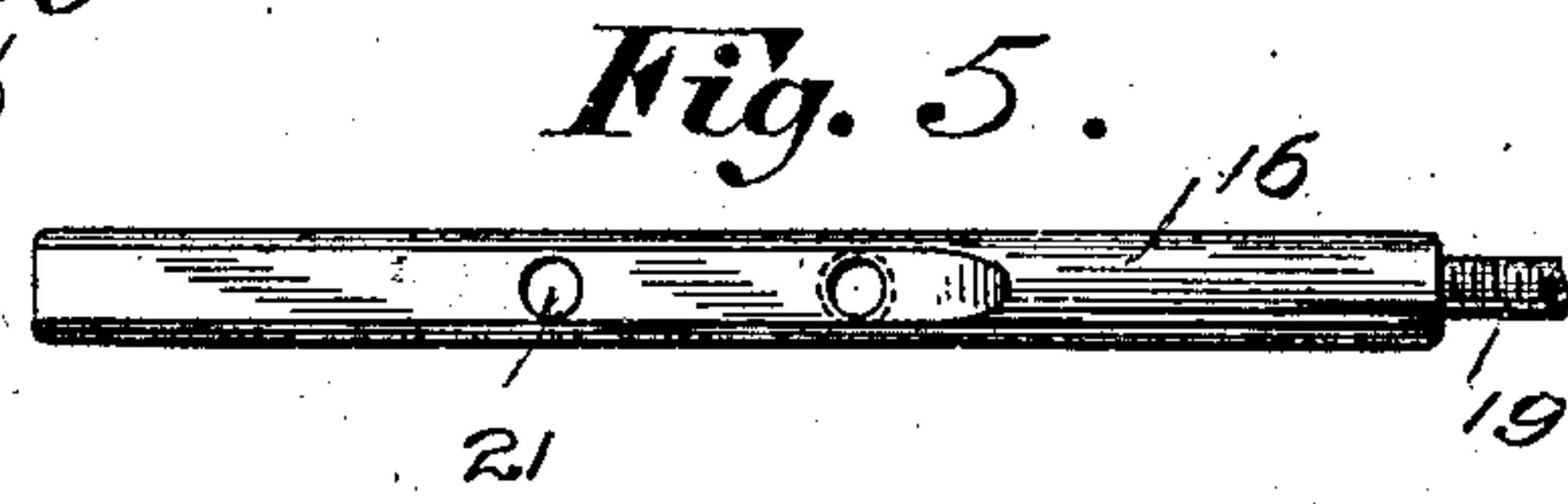
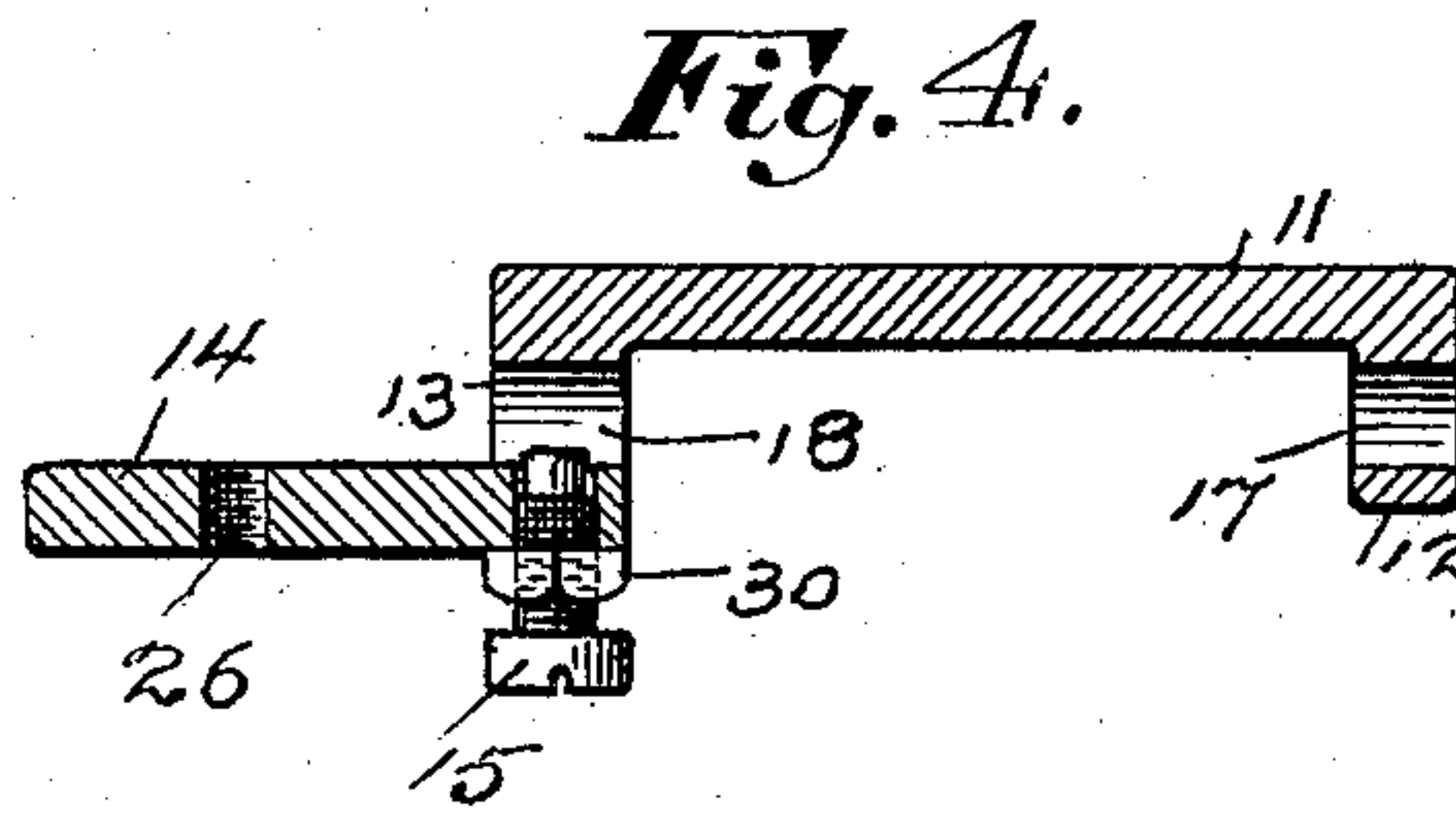
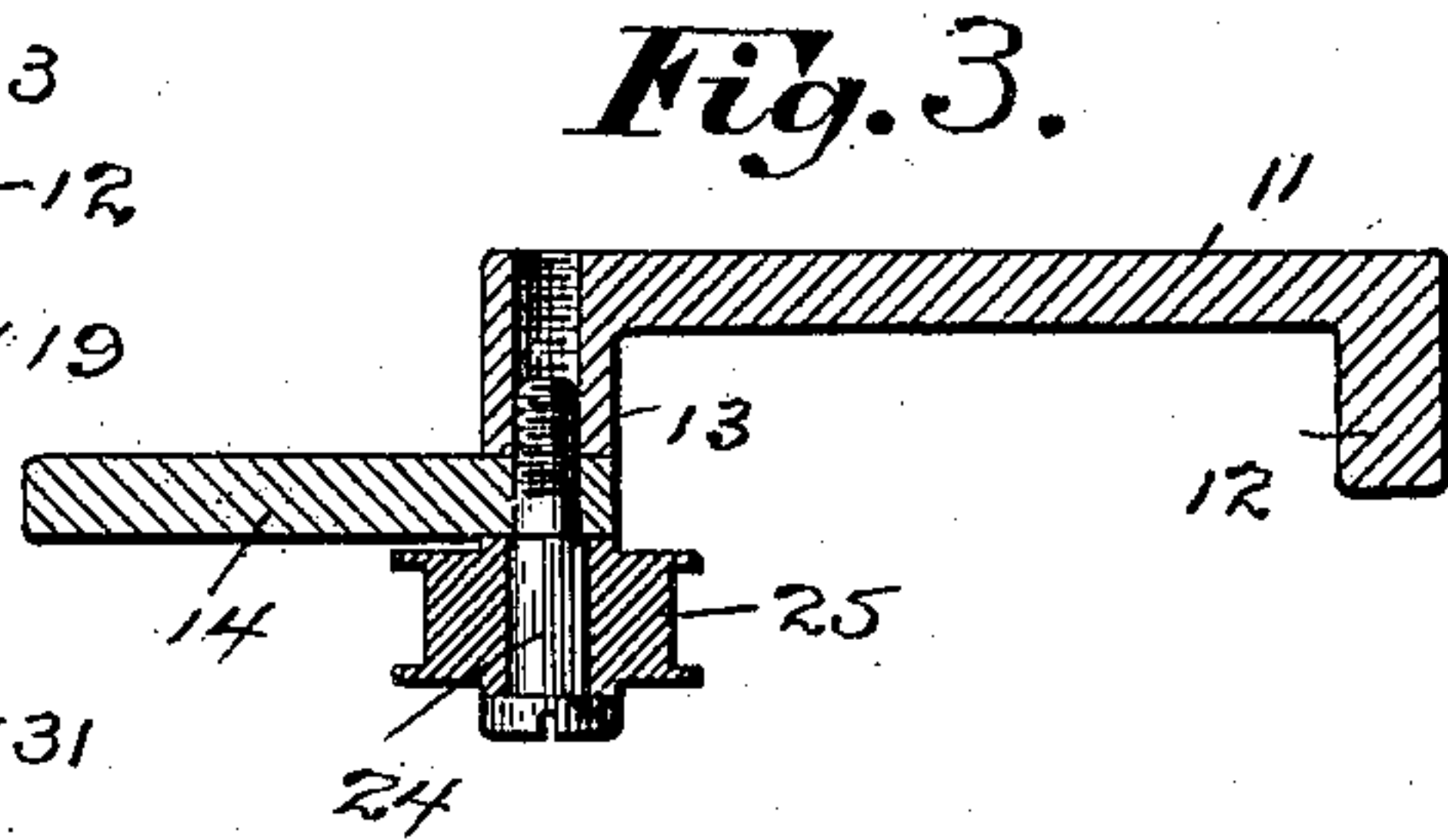
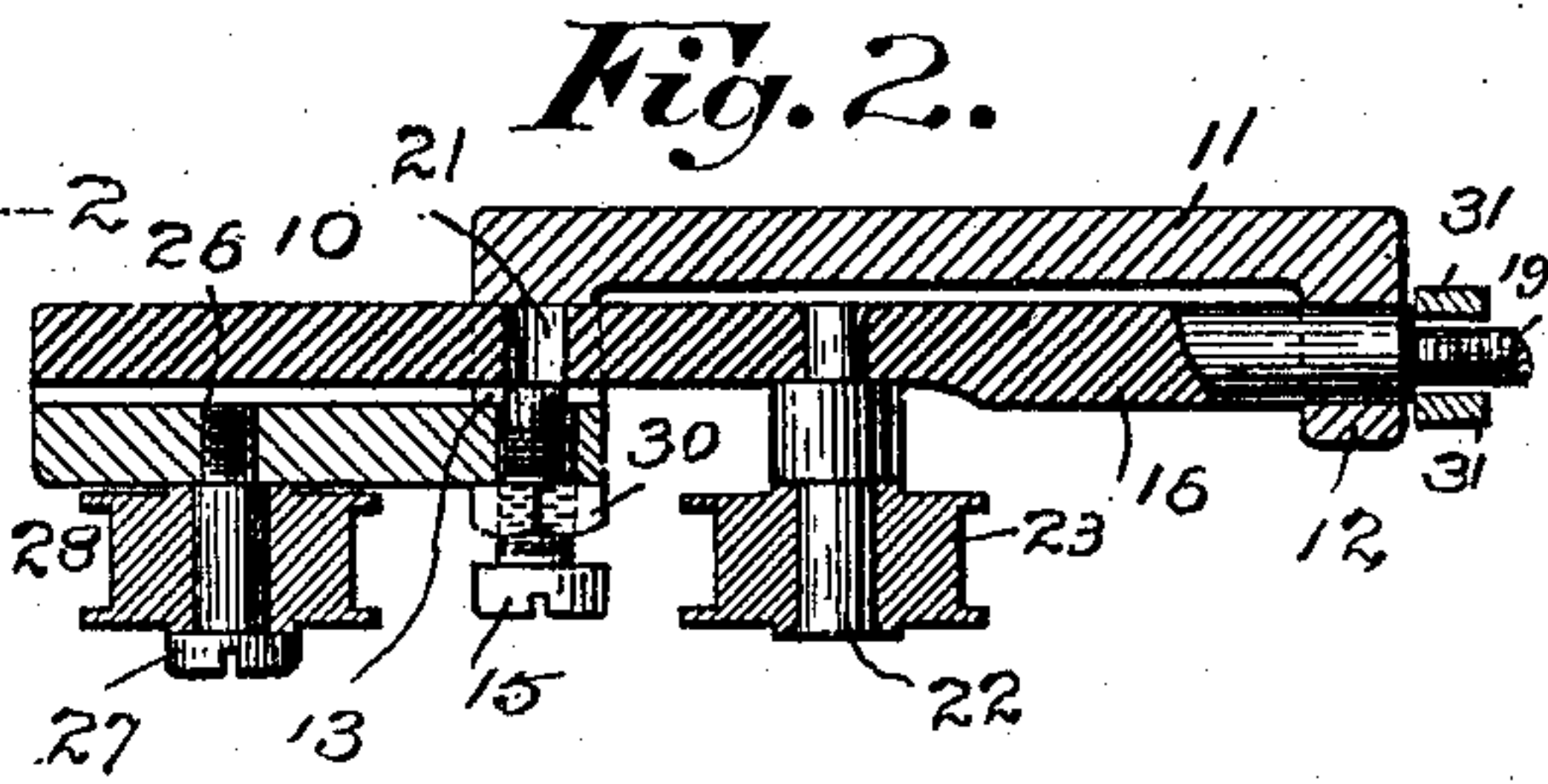
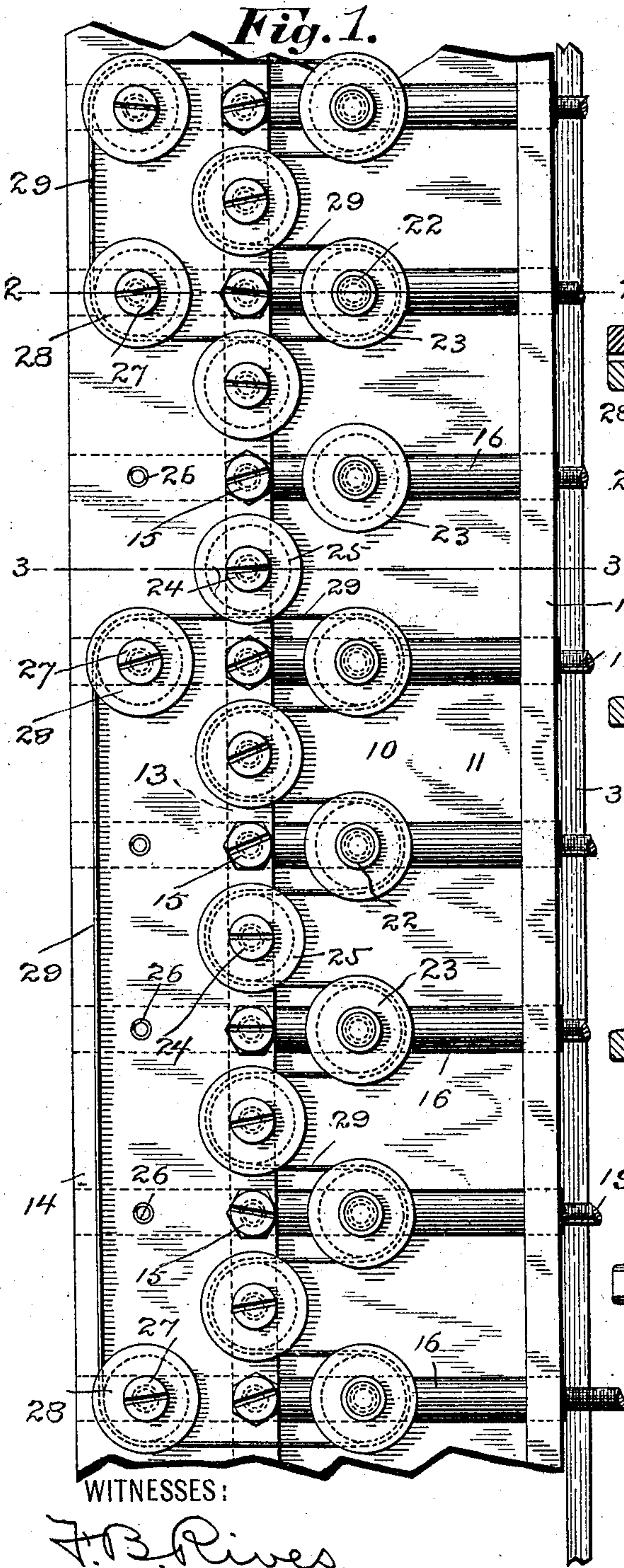


C. C. ABBOTT.

GROUPING MECHANISM FOR VOTING MACHINES.

APPLICATION FILED DEC. 26, 1906.



WITNESSES:

F. B. Rives.
Geo. O. B. Hawley.

INVENTOR

Charles C. Abbott.
By A. M. Webster ATTORNEY

UNITED STATES PATENT OFFICE.

CHARLES C. ABBOTT, OF PITTSFIELD, MASSACHUSETTS, ASSIGNOR TO TRIUMPH VOTING MACHINE COMPANY, OF PITTSFIELD, MASSACHUSETTS, A CORPORATION OF NEW JERSEY.

GROUPING MECHANISM FOR VOTING-MACHINES.

No. 847,037.

Specification of Letters Patent.

Patented March 12, 1907.

Application filed December 26, 1906. Serial No. 349,550.

To all whom it may concern:

Be it known that I, CHARLES C. ABBOTT, a citizen of the United States, residing at Pittsfield, county of Berkshire, State of Massachusetts, have invented a new and useful Grouping Mechanism for Voting-Machines, of which the following is a specification.

This invention relates to that portion of the mechanism of a voting-machine that has to do with "group" voting, so called.

The invention is shown as applied to a "vertical" machine, so called, in which the names of party candidates are placed in vertical columns and the names of all candidates for the same office are placed in horizontal lines; but the invention is of course equally applicable to a "horizontal" machine, so called, in which the names of party candidates are placed in horizontal lines and the names of all candidates for the same office are placed in vertical columns, or to a machine in which the names of candidates for each office are arranged in alphabetical order without party-columns.

The present invention consists in certain constructions and in certain parts, improvements, and combinations to adapt a voting-machine for group voting that will permit votes to be cast in a group in accordance with the will of the voter all for the nominees of one party, or for one nominee of each party, or for any number of nominees of any party up to the total number of offices in the group, it being impossible, however, for a voter to cast but one vote for any candidate or more votes than there are offices in the group.

With these and other objects in view I have devised the novel grouping mechanism, of which the following description, in connection with the accompanying drawing, is a specification, reference characters being used to indicate the several parts.

Figure 1 is an elevation illustrating my novel grouping mechanism detached, all other parts of a voting-machine being omitted; Fig. 2, a section on the line 2 2 in Fig. 1; Fig. 3, a section on the line 3 3 in Fig. 1; Fig. 4, a section similar to Fig. 2, the slide and rollers being removed; and Fig. 5 is an elevation of one of the slides detached.

10 denotes the grouping-upright as a whole, which may be of any ordinary or pre-

ferred construction. In the present instance I have illustrated a grouping-upright consisting of a plate 11, having vertical flanges 12 and 13, and a plate 14, attached to flange 13 by screw-pins 15 and screw-studs 24.

16 denotes grouping-slides, which reciprocate in guide-holes 17 and 18 in flanges 12 and 13, respectively. At the right end of each slide, as seen in the drawing, and rigidly secured thereto is a screw 19, to each of which one of the flexible members (not shown in the drawing) is secured in any suitable manner, as by means of a turnbuckle. The inner ends of the screw-pins 15 are unthreaded to adapt them to engage holes 21 in the slides to lock the slides against movement in regular voting, as will be more fully explained. Each slide is provided with an outwardly-extending stud 22, which carries a flanged roller 23. Intermediate screw-pins 15 are screw-studs 24, which pass through plates 14 and engage flange 13 and which carry flanged rollers 25, the horizontal alinement of rollers 25 being intermediate rollers 23 on studs 22.

26 denotes screw-holes in plate 14, which are adapted to receive screw-studs 27, which carry rollers 28. Screw-holes 26 for studs 27, carrying rollers 28, are in horizontal alinement with studs 22, carrying rollers 23, and intermediate rollers 25 on screw-studs 24.

29 denotes endless flexible grouping members, in the present instance metallic strips. In use the length of the endless flexible grouping member is made to correspond with the number of slides to be grouped. The flexible grouping member passes alternately about the rollers 23, carried by the slides, and the rollers 25 on the grouping-upright and about rollers 28 on the grouping-upright corresponding in alinement with the first and last grouped slide. In Fig. 1 I have illustrated a group of two slides and a group of five slides. The first and second slides from the top are grouped together. Rollers 28, corresponding with the rollers 23 on the slides, are provided on the grouping-upright carried by screw-studs 27, engaging screw-holes 26 in the upright, and the endless flexible grouping member 29 passes alternately about the rollers 23 on the slides and the roller 25 on the upright carried by a screw-stud 24 and about the two rollers 28 on the upright. The third slide from the top is not grouped,

as in regular voting, and is shown as locked against movement by turning the corresponding screw-pin 15 into engagement with the hole 21 in the slide. When slides are
 5 grouped, the corresponding screw-pins 15 are turned out of engagement with the holes 21 in the slides, so as to release the slides, and may be left with their inner ends just out of engagement with the holes, as in Fig. 1, so
 10 that the ends of the pins will lightly bear on the slides and steady them in use. The screw-pins are shown as locked in position after adjustment by means of set-nuts 30. In the lower group of five slides the group is
 15 set up in the same manner as before. The endless flexible grouping member 29 is adjusted to the required length to pass alternately about the five rollers 23 on the slides and the four intermediate rollers 25 on the
 20 grouping-upright and also about rollers 28 on the grouping-upright in alinement with the first and last grouped slides, the intermediate rollers 28 being preferably, although not necessarily, omitted.

25 It has been stated that in regular voting each flexible member (not shown) is adjusted to permit one slack therein and no more. It should be understood, however, that in group voting mechanism must be provided that will
 30 permit as many slacks in each flexible member as there are candidates to be voted for. For example, in the upper group both slacks could be placed in either of the flexible members (not shown) corresponding with that
 35 group, and in the lower group five slacks could be placed in either of the flexible members (not shown) corresponding with that group, or two, three, or four slacks in either flexible member and the remainder of the
 40 five slacks in any of the other flexible members, there being, however, but an aggregate of five slacks in all of the flexible members in the group. The desired grouping result in the present instance is effected by means of
 45 the slides, all of the slides in the group being released. In use the slides in any group may either of them be moved the necessary distance to permit any desired number of votes to be cast in the corresponding line, the end-
 50 less flexible grouping member sliding freely over the rollers in either direction—that is, in the direction of least resistance. This makes it very easy to transfer the vote from one line to another. For example, if all of the votes
 55 had been cast in the upper line, any or all of them might easily be changed to any lower line or lines by operating voting members in those lines on account of the ease with which the endless flexible grouping member would
 60 pass over the rollers.

Any ordinary or preferred means for returning the slides to their normal position and locking them, as in Fig. 1, after a voting operation may be used. In the present in-
 65 stance I have shown the slides as returned

by means of a vertical returning bar or bars 31. It is of course well understood that voting-machines are ordinarily provided with "entrance" and "exit" mechanisms, so called, which are not illustrated, as they form
 70 no portion of the present invention. In the present instance the operation of entrance mechanism and connections (not shown) moves bar or bars 31 from their normal or locking position, as in Fig. 1, toward the
 75 right, leaving the slides unlocked and free to be operated. After the completion of the voting operation the voter on leaving the machine operates exit mechanism and con-
 80 nections, (not shown,) one of the functions of which is to move returning bar or bars 31 laterally toward the left to the position shown in Fig. 1, thereby returning all of the
 85 slides to their normal or non-voting position and locking them there.

Having thus described my invention, I claim—

1. In a voting-machine, the combination of a grouping-upright, slides in the upright, rollers on the upright and on the slides and a
 90 flexible endless grouping member passing over said rollers, substantially as described, for the purpose specified.

2. In a voting-machine, the combination of a grouping-upright, rollers 25 mounted
 95 thereon, slides reciprocating in the upright, rollers 23 mounted thereon, rollers 28 mounted on the upright and an endless flexible grouping member passing alternately about
 100 rollers 23 and 25 and about rollers 28.

3. In a voting-machine, the combination of a grouping-upright having rollers 25 mounted thereon and screw-holes 26, screw-
 105 studs engaging said holes and carrying rollers 28, slides reciprocating in the upright, rollers mounted thereon and an endless flexible grouping member passing alternately about rollers 22 and 25 and about rollers 28.

4. In a voting-machine, the combination of a grouping-upright comprising a plate 11
 110 having vertical flanges 12 and 13 and a plate 14 secured to flange 13, said flanges being provided with guide-holes, slides reciprocating in said guide-holes, rollers 23 mounted on the slides, rollers 25 and 28 mounted on the
 115 upright and an endless flexible grouping member passing about said rollers.

5. In a voting-machine, the combination of a grouping-upright, slides in the upright, rollers on the upright and on the slides, an
 120 endless flexible grouping member passing over said rollers, and means for locking the slides against movement in regular voting.

6. In a voting-machine, the combination of a grouping-upright, slides in the upright,
 125 rollers on the upright and on the slides, an endless flexible grouping member passing over said rollers and screw-pins in the upright engaging the slides to lock the slides against movement in regular voting.
 130

7. In a voting-machine, the combination
of a grouping-upright, slides in the upright,
rollers on the upright and on the slides, an
endless flexible grouping member passing
5 over said rollers, and means for returning the
slides to their normal position after a voting
operation.

8. In a voting-machine, the combination
of a grouping-upright, slides in the upright,
10 rollers on the upright and on the slides, an
endless flexible grouping member passing

over said rollers and laterally-movable re-
turning-bars which return the slides to their
normal position after a voting operation and
lock them.

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

15

CHARLES C. ABBOTT.

Witnesses:

A. B. CAMP,
S. KEMER.