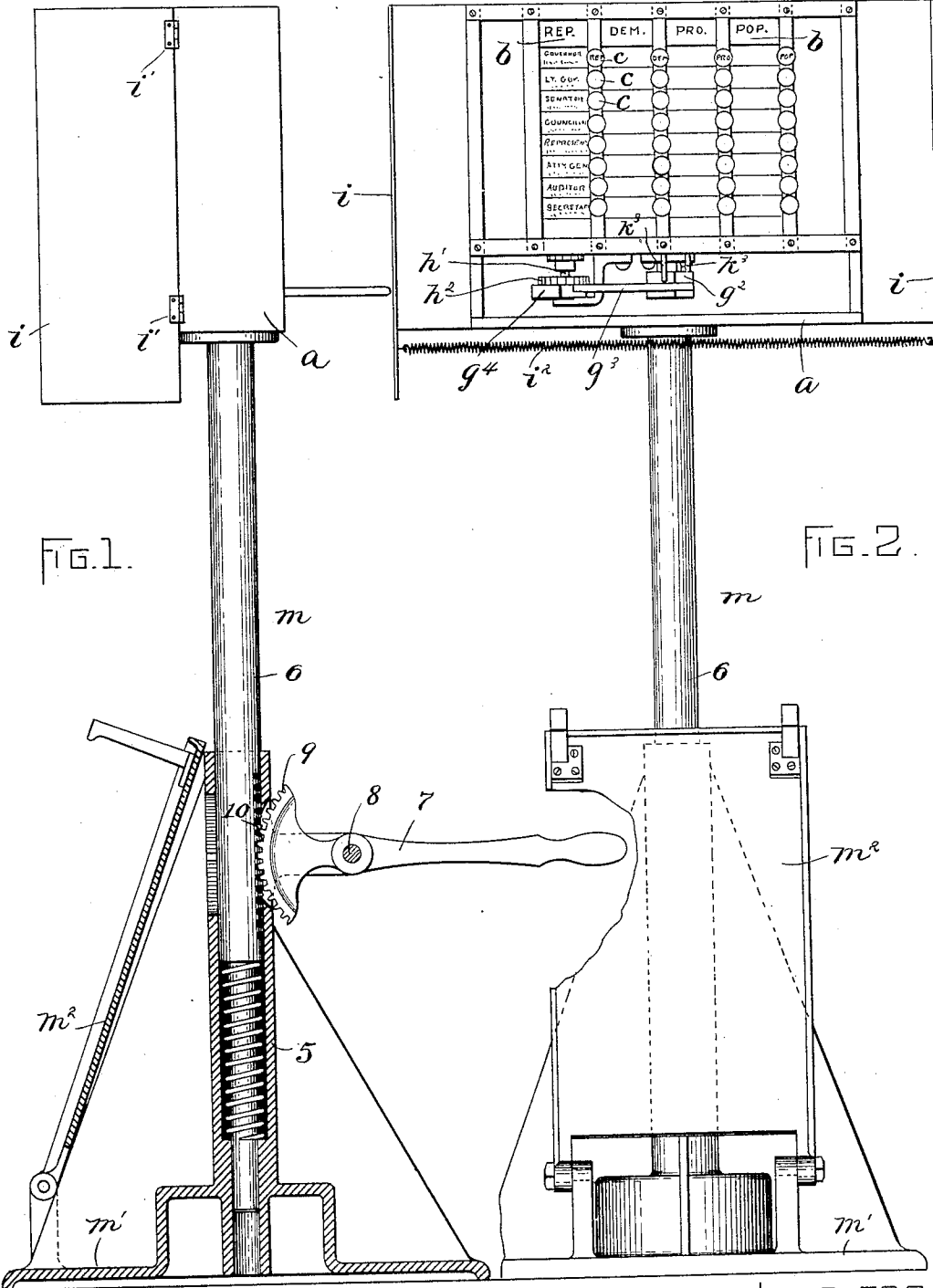


J. McTAMMANY.
VOTING MACHINE.

No. 580,140.

Patented Apr. 6, 1897.



WITNESSES:

A. D. Hamann.

H. L. Robbins.

INVENTOR:

J. McTammany
by Knight Bros. Quincy
Attys.

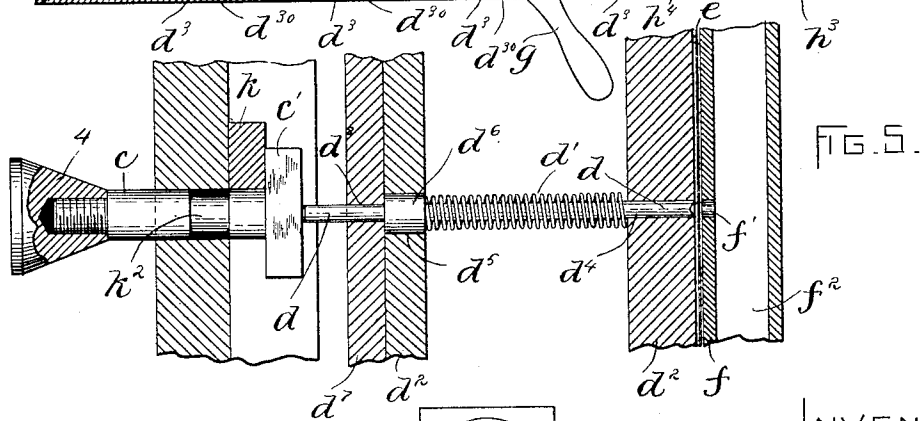
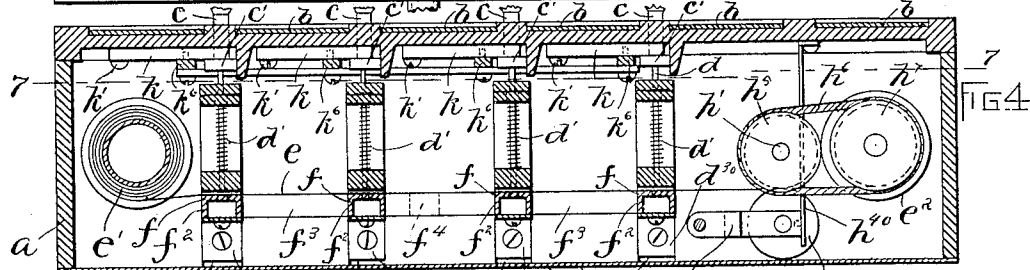
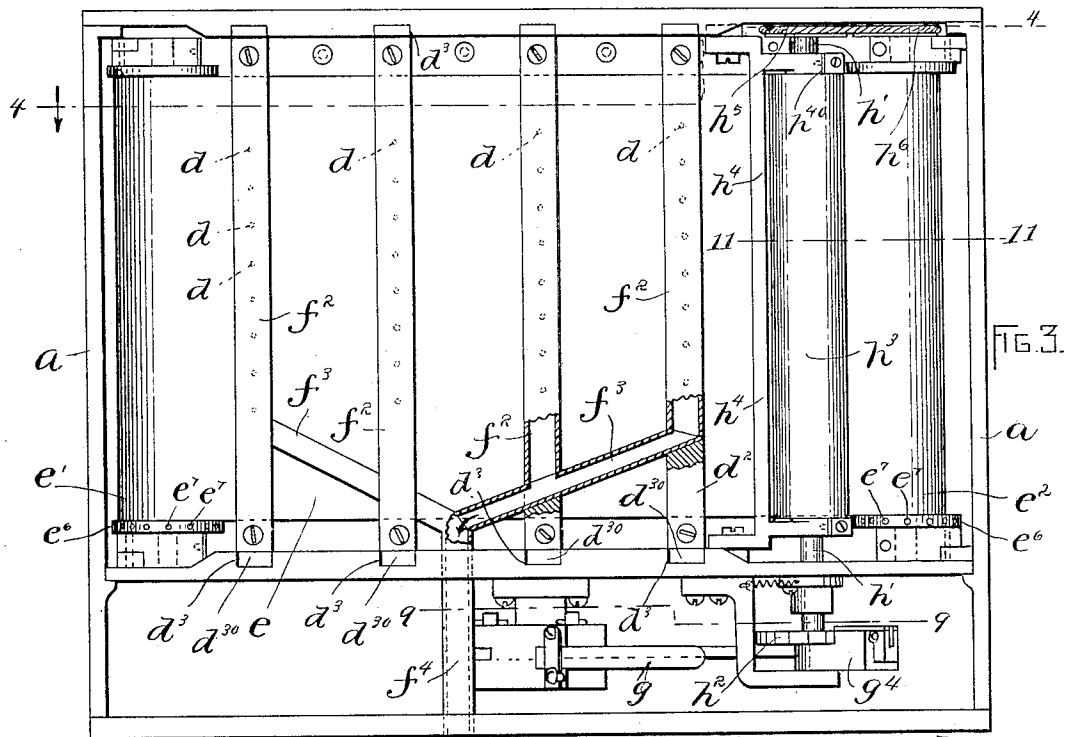
(No Model.)

4 Sheets—Sheet 2.

J. McTAMMANY.
VOTING MACHINE.

No. 580,140.

Patented Apr. 6, 1897.



WITNESSES:

A. D. Hannan.

H. L. Robbins.

FIG. 6.



INVENTOR:

J. McTammany.
by Knight Brown & Quincy
Atty.

J. McTAMMANY.
VOTING MACHINE.

No. 580,140.

Patented Apr. 6, 1897.

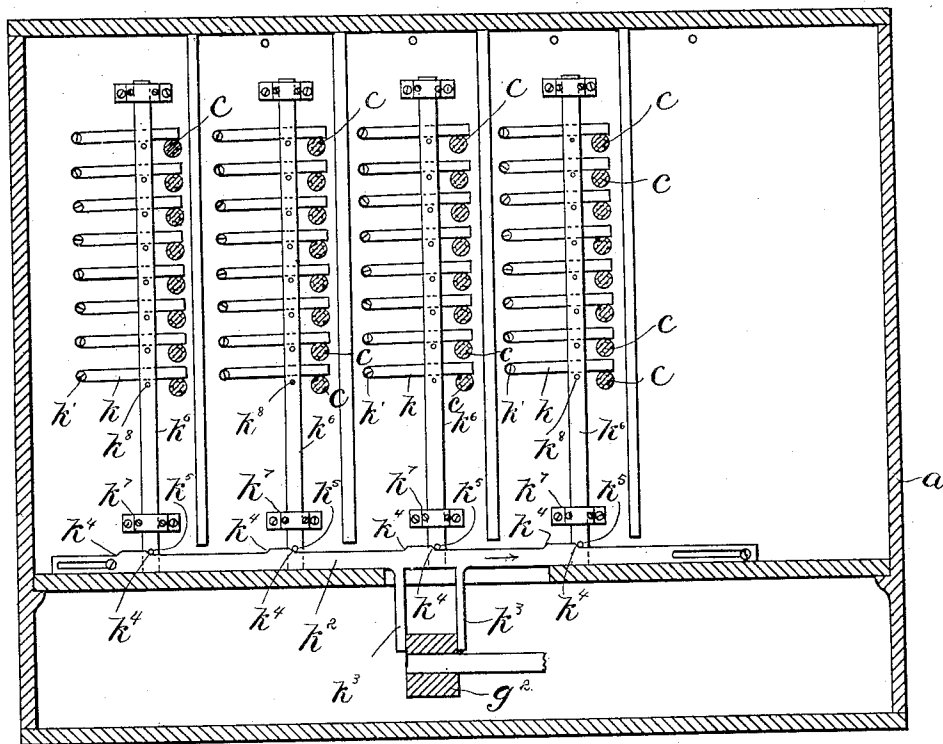
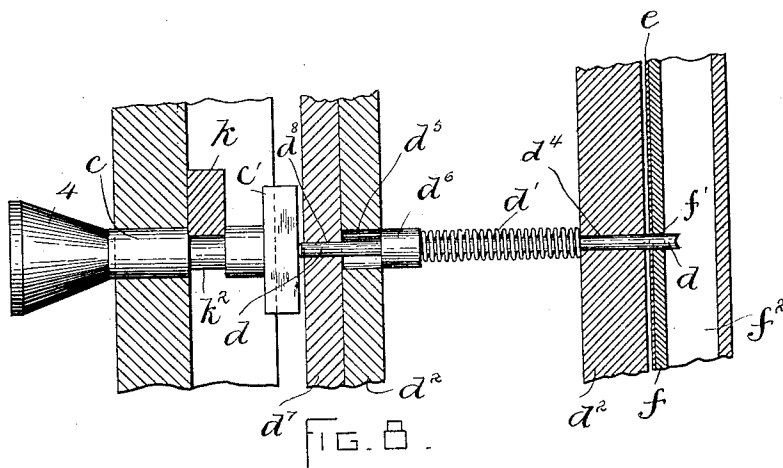


FIG. 7.



WITNESSES:

A. D. Hanson.
H. L. Robbins.

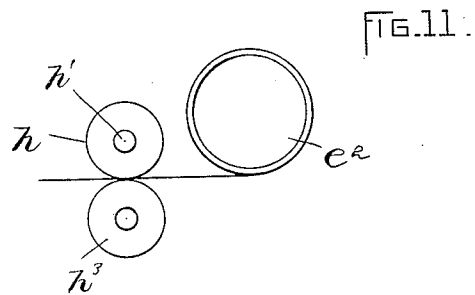
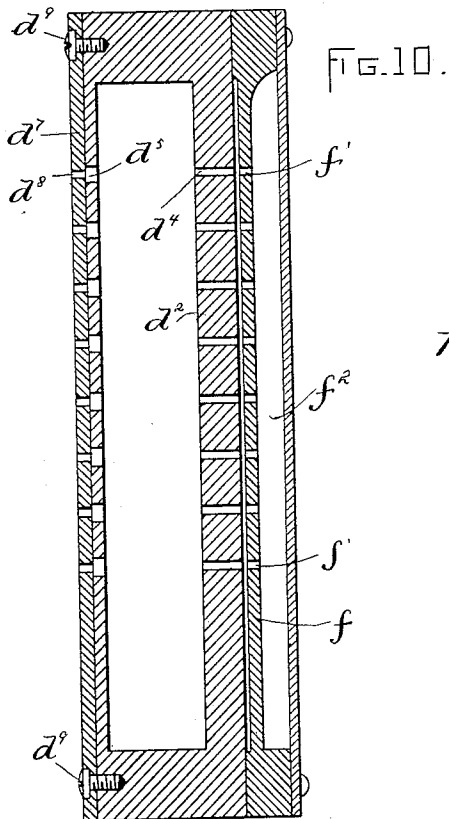
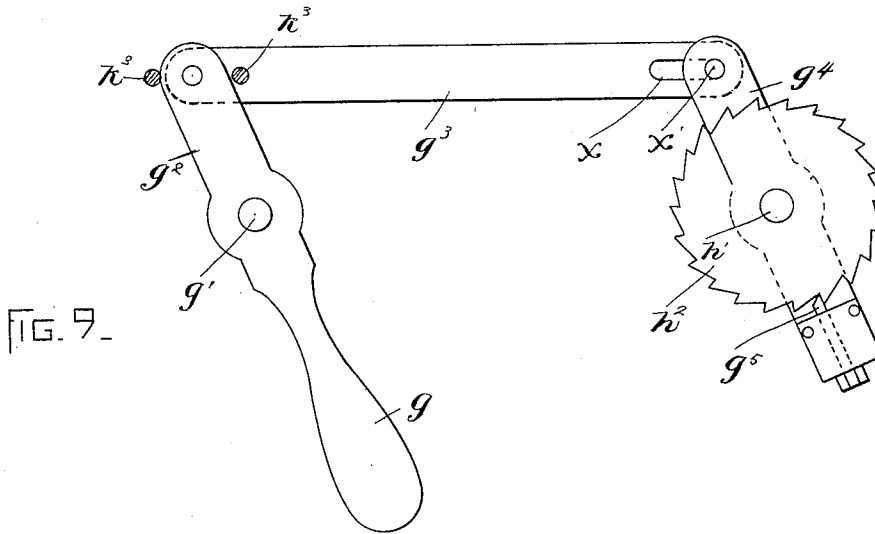
INVENTOR:

J. McTammany
by Right Brown & Lundy
Atty.

J. McTAMMANY.
VOTING MACHINE.

No. 580,140.

Patented Apr. 6, 1897.



WITNESSES:

A. D. Hanson.

H. L. Robbins.

INVENTOR:

J. McTammany
by Hight Brown & Lundy
Atty.

UNITED STATES PATENT OFFICE.

JOHN MCTAMMANY, OF SPENCER, MASSACHUSETTS.

VOTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 580,140, dated April 6, 1897.

Application filed November 22, 1895. Serial No. 569,768. (No model.)

To all whom it may concern:

Be it known that I, JOHN MCTAMMANY, of Spencer, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Voting - Machines, of which the following is a specification.

This invention relates to that class of voting-machines in which a casing is employed having punches movable in guides in front of the casing adapted to be pressed inwardly or projected by a voter standing in front of the casing and a tally-sheet supported in the casing in position to be perforated by said punches, suitable mechanism being employed for feeding the tally-sheet progressively, so that after each voter has made a series of perforations in the sheet representing his ballot the sheet may be advanced and held in readiness for the next voter.

The invention has for its object to provide certain improvements in a voting-machine of this class whereby the machine is rendered more efficient and desirable in certain respects, all as hereinafter set forth.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents an end elevation of the casing of a voting-machine provided with my improvements, the supporting-standard being shown partly in section. Fig. 2 represents a front elevation of the machine. Fig. 3 represents a rear elevation, the standard being omitted and parts shown in section. Fig. 4 represents a section on line 4 4 of Fig. 3. Fig. 5 represents a sectional view showing one of the punches and its operating push-piece, the punch being retracted. Fig. 6 represents an end view of the punch-operating push-piece shown in Fig. 5. Fig. 7 represents a section on line 7 7 of Fig. 4. Fig. 8 represents a view similar to Fig. 6, showing the punch and its push-piece projected to perforate the tally-sheet. Fig. 9 represents a section on line 9 9 of Fig. 3. Fig. 10 represents a sectional view of one of the punch-holding frames. Fig. 11 represents a section on line 11 11, Fig. 3.

The same letters and numerals of reference indicate the same parts in all the figures.

In the drawings, *a* represents the casing of the machine, the front plate or side of which

is constructed to hold a series of fixed ballots *b b b*, Figs. 2 and 4, and to this end may be formed with a series of recesses adapted to receive printed slips comprising said ballots, and glass plates removably secured to the machine, or other suitable means for holding the ballots in place. Beside each ballot is a row of push-pieces *c*, each in line with a name-space upon the adjacent ballot, there being as many rows of push-pieces as there are ballots. Said push-pieces are movable longitudinally in guides formed in the front plate of the casing, their inner ends being provided with heads *c'*, bearing against punches *d*, which are movable in guides within the casing. Said punches and push-pieces are normally held retracted in the position shown in Fig. 5 by means of springs *d'*, arranged as shown in Fig. 5. There are as many rows of punches as there are rows of push-pieces, each row of punches being contained in a frame or holder *d²*, Fig. 10. Said holder is detachably secured to the casing by being inserted at its ends in grooves *d³*, Figs. 3 and 4, formed in the top and bottom pieces of the casing, removable blocks *d³⁰* being screwed in the outer ends of said grooves to hold the frames in place.

Each holder *d²* is provided with guides *d⁴ d⁵*, one, *d⁴*, formed to fit the body of the punch, while the other, *d⁵*, is enlarged and fits a collar *d⁶*, affixed to the punch, the spring *d'* being interposed between one side of the frame and the collar *d⁶*. The frame *d²* is provided with a supplemental piece *d⁷*, having guides *d⁸*, formed to fit the body of the punch, said piece being detachably secured to the frame by screws *d⁹*. When the frame is removed from the machine, the removal of the supplemental piece *d⁷* permits either punch to be taken out, the others remaining in position, if desired. When the piece *d⁷* is in position, the punches are all securely held in place and may be applied and removed together without disturbing their relative positions.

Within the casing is a tally-sheet *e*, one end of which is engaged with a supply-roll *e'*, while the other end is engaged with a receiving-roll *e²*, said rolls being journaled in suitable bearings within the casing. The tally-sheet passes from the roll *e'* to the roll *e²*, be-

tween the rear sides of the punch-carrying frames d^2 and the adjacent sides of plates f , which are provided with orifices f' , coinciding with the punches d , and serving as female dies to cooperate with said punches in cutting out circular chips from the sheet. The plates f are parts of vertical chutes or casings f^2 , which are arranged to receive the chips cut from the sheet, the chips passing downwardly in said chutes and through inclined chutes f^3 , connecting the lower ends of the chutes f^2 with a single chute or outlet f^4 . The object of this arrangement is to collect all the chips at one point, so that it cannot be determined by examining the chips dropping from one row of punches how many punches of that row the voter manipulated, the object being to make the acts of the voter secret so far as the character of his vote is concerned.

Each ballot b represents one party and the corresponding row of punches the same party. It will be seen, therefore, that an inspector watching the machine through the open back of the casing could tell, if the chips were allowed to drop separately from each row of punches, how many candidates on one ballot or ticket a voter had voted for.

Means are employed for transferring the tally-sheet step by step from the delivering-roll e' to the receiving-roll e^2 . As said receiving-roll increases in diameter with the accumulation of the sheet upon it, I have provided means for compensating for this increase and insuring a uniform feed movement, to the end that the holes made in the sheet may always extend in vertical rows at right angles with the sheet, thus enabling the perforations made in the sheet to be counted by the use of a templet having slots arranged to extend across the sheet at right angles to its length.

The sheet-feeding mechanism is under the control of an officer detailed for this purpose, who is stationed at the back of the casing and manipulates a lever g , which is a part of the feeding mechanism, said lever being manipulated after each voter has finished operating the punches. The lever g is pivoted at g' to the casing, and its arm g^2 is connected by a rod g^3 with a lever g^4 , which is pivoted upon the shaft h' of a feed-roll h , bearing against the inner side of the tally-sheet e , said roll h being preferably surfaced with rubber. The lever g^4 is provided with a spring-pressed pawl g^5 , which engages the teeth of a ratchet h^2 , affixed to the shaft h' .

h^3 represents an idle-roll bearing on the outer side of the sheet e opposite the roll h , said roll being journaled in a swinging frame h^4 , which is held by a latch h^{10} and holds the tally-sheet in operative contact with the roll h , so that the rotation of the roll h will insure a positive movement of the tally-sheet. The shaft h' of the roll h is provided with a pulley h^5 , which is connected by a belt h^6 with a pulley h^7 , affixed to the shaft of the receiving-

roll e^2 , so that said receiving-roll receives motion through the belt h^6 . As the receiving-roll increases in diameter the belt h^6 slips sufficiently to compensate for this increase. If desired, the belt may be elastic or composed of a helical spring. It will be seen that each movement of the lever g will produce a uniform feed movement of the tally-sheet regardless of the size of the accumulation on the receiving-roll, the result being the arrangement of the holes in the sheet in uniform or straight rows extending across the sheet at right angles with its length. I do not limit myself, however, to the described means for causing a uniform feed movement and may adopt any other suitable devices adapted to produce the same result.

Each row of punches, as already stated, represents one party ticket, so that the highest punch of each row will represent candidates for the same office and so on throughout the entire length of the rows. In order that the holes made by the punches of each row which represent the same office may occupy its own distinctive position on the sheet, it is necessary that each punch be out of alignment with the corresponding punches of the other rows, as indicated in Fig. 3, where the dotted circles represent the positions of the different punches. In order that the sample ballots b and the rows of push-pieces may be conveniently and symmetrically arranged upon the exterior of the casing, I do not carry out the same arrangement as in the punches, each push-piece being in line with all the other push-pieces representing the same office, as shown in Fig. 2. The ballots b are correspondingly arranged, the space appropriated for each office in each ballot being in line with the corresponding spaces in the other ballots. In order that this discrepancy between the positions of the punches and the push-pieces may not affect the operativeness of the machine, I provide the push-pieces with enlarged heads c' , the inner faces of which are of such area that they compensate for the want of alignment that may exist between each push-piece and the accompanying punch.

In Figs. 5, 7, and 8 I show means for locking the push-pieces in their inwardly-projected position, so that after a voter has projected a push-piece it will remain projected until he has finished voting, as an indication to him of the character of his vote. Said means comprise a series of latches k , pivoted at k' to the casing and adapted to drop into depressions k^2 in the push-pieces when the latter are projected, as shown in Fig. 8, each latch being adapted to drop independently into the accompanying notch when the push-piece is projected. After the voter has finished the latches k are raised simultaneously by the following means: A horizontal bar k^3 , fitted to slide in the casing, is engaged, by means of downwardly-projecting studs k^3 k^3 , with the arm g^2 of the operating-lever g . (See

Fig. 9.) Said bar has upon its upper edge a series of inclines k^4 , which act upon pins k^5 , affixed to slides k^6 , movable vertically in guides k^7 in the casing. The slides k^6 have pins k^8 , which project under the latches k .

It will be seen that when the bar k^2 is moved in the direction indicated by the arrow marked thereon in Fig. 7 some of its inclines k^4 will raise the slides k^6 and with them the latches k , thus releasing the push-pieces and punches and permitting the springs d' to retract the same. This movement of the slide k^2 takes place during the first part of the movement of the operating-lever g , the connection between said lever and the feed-operating dog g^5 being such that the dog does not move to feed the strip until after the latches have been raised. This result may be produced by providing a lost motion in the connection between the rod g^3 and lever g^4 by means such as a slot x in the said rod and a pin x' on the lever, Fig. 9.

The push-pieces c are provided with detachable knobs 4 on their outer ends containing suitable inscriptions, such as abbreviations of the party represented by the knob. (See Fig. 6.)

i i represent wings or shields which are placed at the ends of the casing and project forward therefrom to screen the voter, so that a bystander cannot readily determine what particular push-pieces he has manipulated. Said wings are connected by hinges i' i' to the casing, said hinges being adapted to permit the wings to swing outwardly, their inward movement being limited by suitable stops, against which the wings are held by means of a spring i^2 , Fig. 2, extending from one wing to the other. The object of the hinges and spring is to enable the wings to yield or swing outwardly in case the voter in leaving the machine strikes against one of the wings.

The casing is supported by a standard m at a sufficient height to permit a voter to manipulate the push-pieces while in a standing position. To provide convenient means for the accommodation of short voters, I hinge to the base m' of the standard a platform or stool m^2 , which when not required for use may be turned up against the standard, as shown in Figs. 1 and 2, and may be readily turned down to serve as a platform upon which an undersized voter may stand.

The standard m is shown in Fig. 1 as telescopic and composed of a section 5, affixed to the floor, and the section 6, movable in the section 5. A lever 7, pivoted at 8 to an ear on the section 5, has a gear-segment 9, meshing with a rack 10 on the section 6. By moving said lever the section 6 and the machine thereon may be raised or lowered. Any suitable means may be employed to lock the lever and hold the machine at any desired height.

To provide against failure of the described sheet-feed operating mechanism to act prop-

erly, I provide means whereby the rolls e' e^2 , or either of them, may be retracted by a pin, wire nail, or other device likely to be readily obtained. To this end the heads or flanges e^6 on said rolls are provided with orifices e^7 , formed to receive a device of the character above indicated, so that the machine will still be operative although its feed mechanism may become inoperative.

I claim—

1. In a voting-machine, the combination of a tally-sheet, mechanism for feeding the same, punches arranged to perforate said sheet, and chutes communicating with said punches for assembling or collecting the chips or blanks formed thereby, said chutes having orifices in one side to receive the punches and coact therewith as female dies in removing portions of the sheet.

2. In a voting-machine, the combination of a tally-sheet, mechanism for feeding the same, a series of vertical rows of punches arranged to perforate said sheet, and a system of chip or blank collecting chutes or guides comprising vertical portions extending along the said punches, inclined portions connecting the lower ends of said vertical portions, and an outlet portion connected with said inclined portions.

3. A voting-machine comprising a casing, fixed guides therein, a series of vertical rows of punches movable in said guides and arranged so that the punches of each row are out of alinement with the punches of all the other rows, and a series of push-pieces movable in the front of the casing and provided with enlarged heads on their inner ends bearing on said punches.

4. A voting-machine comprising a casing, a frame detachably secured thereto and having parallel side pieces, one having smaller guides d^4 and the other larger guides d^5 , and a removable strip or bar having smaller guides d^8 coinciding with the guides d^5 , and a series of punches having collars d^6 of larger diameter than the guides d^8 and formed to fit the guides d^5 .

5. A voting-machine comprising a casing having a tally-sheet, sheet-perforating punches, punch-operating devices, and hinged wings or shields yieldingly held in their operative position and adapted to swing outwardly therefrom.

6. In a voting-machine, the combination of a casing, punch-operating push-pieces in guides in said casing, latches to lock said push-pieces in their inward position, a latch-releasing slide, an operating-lever engaged therewith, a tally-sheet-feeding roll having a ratchet, a lever carrying a pawl in engagement with said ratchet, and a link connecting said lever with the operating-lever before mentioned and slotted to allow for lost motion for the purpose described.

7. In a voting-machine, the combination of a casing, a series of punch-operating push-

pieces in the front of the same, a series of
latches to engage and lock said push-pieces
when the latter are moved inward, a latch-
releasing bar, a slide coacting with said bar,
5 and tally-sheet-feeding mechanism opera-
tively connected with said slide.

In testimony whereof I have signed my

name to this specification, in the presence of
two subscribing witnesses, this 13th day of
November, A. D. 1895.

JOHN McTAMMANY.

Witnesses:

C. F. BROWN,

A. D. HARRISON.