

(No Model.)

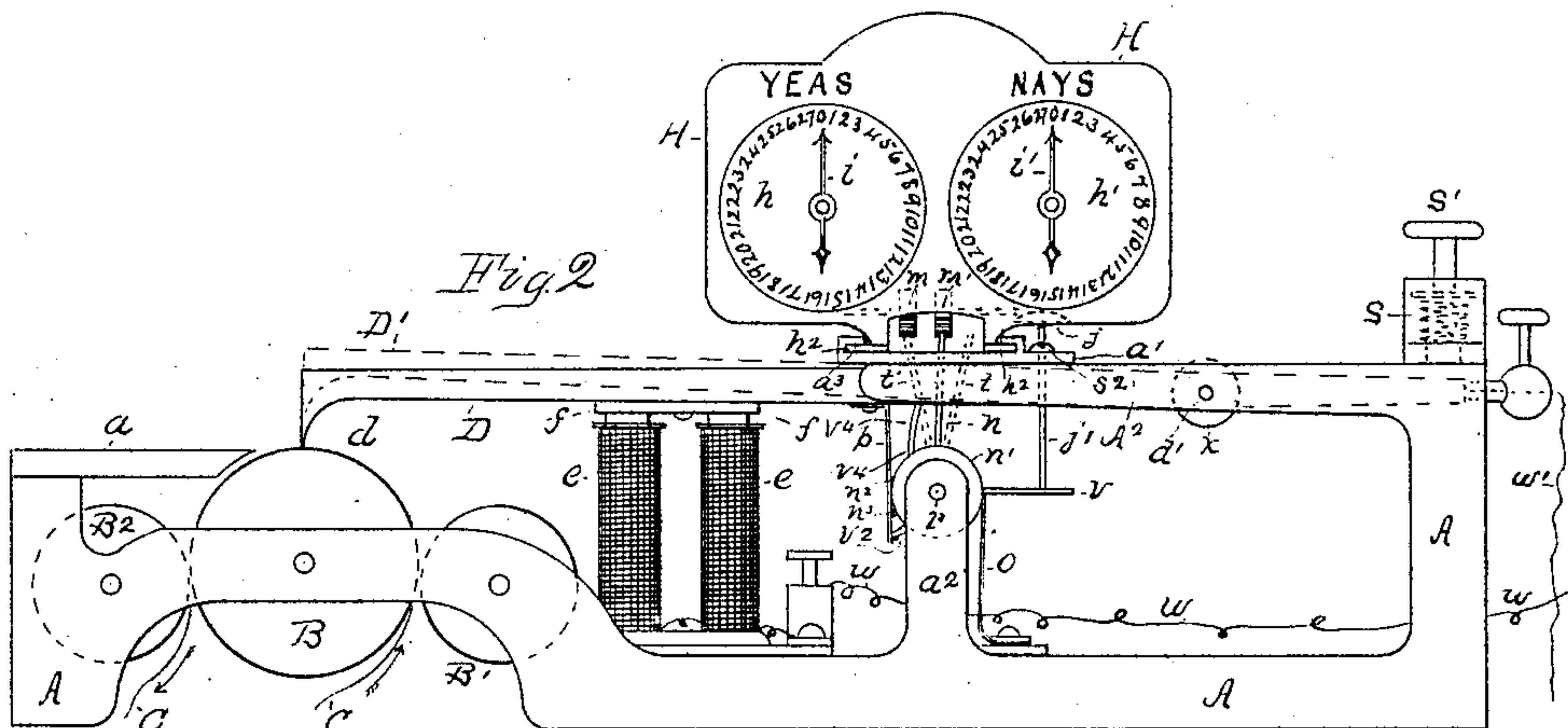
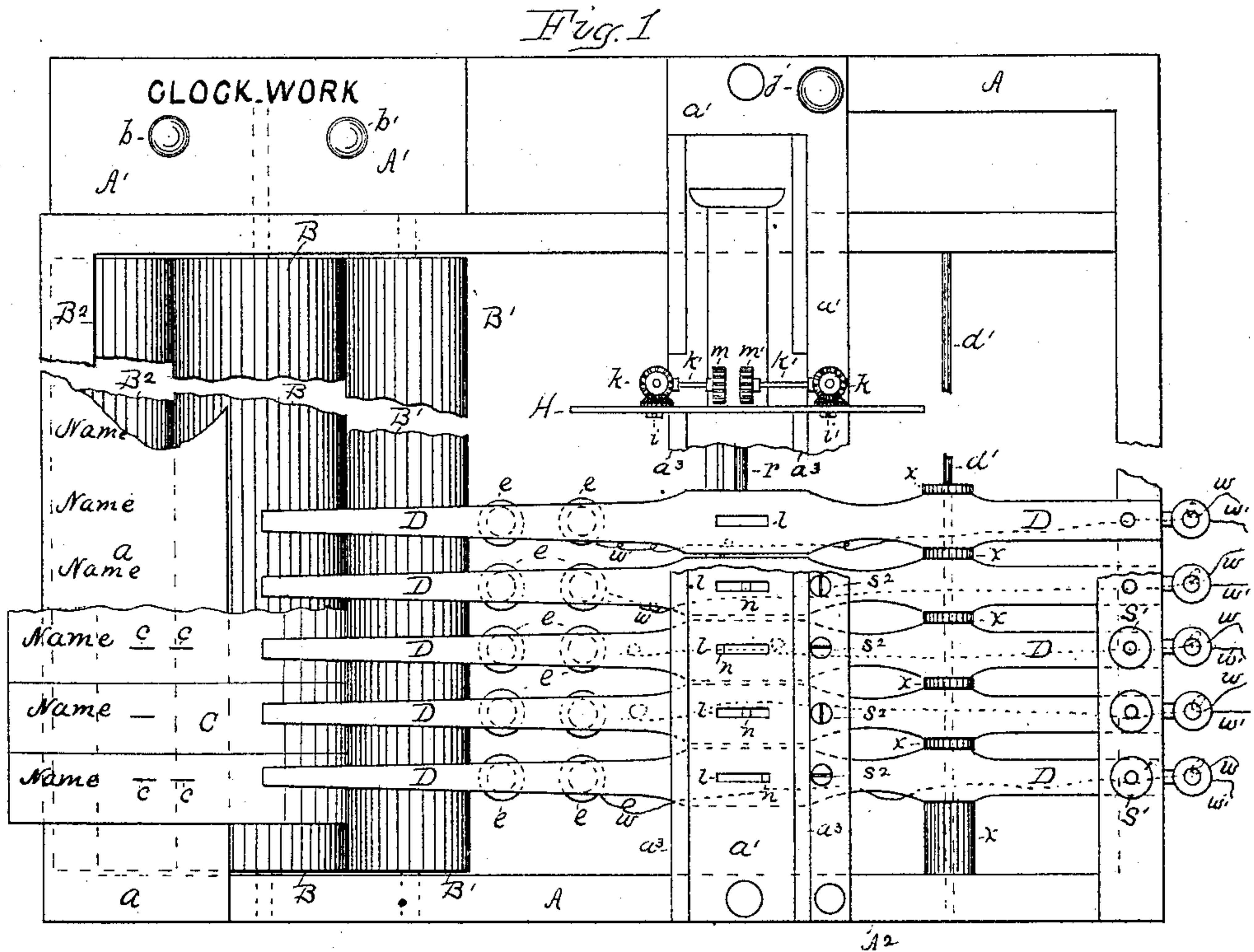
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B. S. MOLYNEUX.

VOTING AND RECORDING APPARATUS FOR LEGISLATIVE BODIES.

No. 369,608.

Patented Sept. 6, 1887.



Witnesses

W. M. Wait
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Inventor:

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(No Model.)

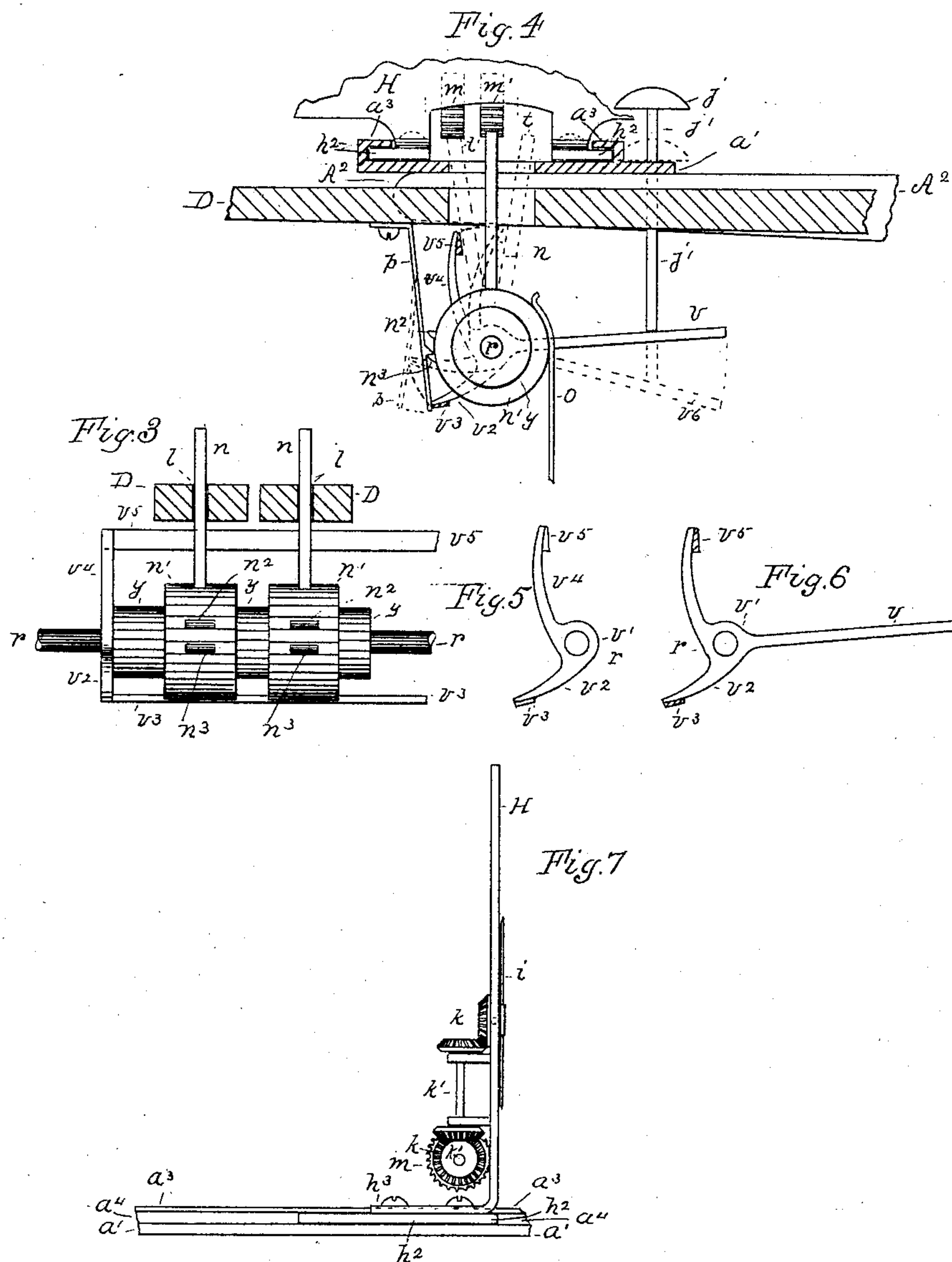
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UNITED STATES PATENT OFFICE.

BARTON S. MOLYNEUX, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR OF ONE-HALF TO ALFRED HUMPHREYS, OF SAME PLACE.

VOTING AND RECORDING APPARATUS FOR LEGISLATIVE BODIES.

SPECIFICATION forming part of Letters Patent No. 369,608, dated September 6, 1887.

Application filed March 29, 1887. Serial No. 232,835. (No model.)

To all whom it may concern:

Be it known that I, BARTON S. MOLYNEUX, 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 and Recording Apparatus for Legislative Bodies, of which the following is a specification.

My improvements relate to apparatus designed, primarily, for use by legislative and other assemblies for casting and recording votes.

The object of the invention is to enable a large number of persons to vote and record their votes in a brief period of time, and thus save much of the time consumed by casting votes in any of the usual ways; and the invention consists, generally, in a registering apparatus having separate electrically-actuated registering-keys connected by wires with operating-buttons at the desks of the several members to operate the keys and make proper signs on a moving paper to record the votes, and, further, in devices for adding up and indicating the respective totals of the affirmative and negative votes.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 represents a top view of portions of the apparatus. Fig. 2 is an end view of the same, and Figs. 3 to 7 are detached views of portions of the indicator-operating devices.

A in the drawings designates a frame of any suitable form for supporting the operative mechanisms.

B is a cylinder over which is fed a sheet of paper, C, by means of the feed-rollers B' B², which may be operated by clock-work or other suitable devices located in a box, A', at one end of the frame, and b b' are buttons for operating the clock-work or other feed devices.

D D are keys for puncturing or otherwise marking the paper C when the keys are depressed. The keys are pivoted on a rod, d', secured in the end pieces, A², of the frame, and are held from lateral movement by the washers x. The rear ends of the keys are depressed by springs s, to lift the forward ends to the position indicated by dotted lines D', and the forward ends have downwardly-projecting points d, for marking or puncturing the paper. The

pressure of the springs s upon the keys may be regulated by the adjusting-screws s', so that the force to be overcome in depressing the key-points can be properly proportioned to the force of the electric current which operates the keys. The height to which the forward ends of the keys can be lifted by the pressure of the springs s on their rear ends is regulated by adjustable stops s², screwed through the plate a' above the keys.

Beneath each of the keys are the electromagnets e, and to the magnets are connected the wires w, that extend to the different desks (not shown) or other points in a room, where they are provided with the usual operating buttons or keys. w' are the ground-wires, connected to the rear ends of the keys D.

Attached to the under sides of the keys D are armatures f, by means of which, when the electric current is made to flow to the magnets by operation of the buttons, the keys are drawn down to the magnets and the key-points are brought in contact with the paper C. Thus each depression of one of the buttons causes its appropriate key to make a mark upon the paper. These marks or punctures c are elongated by the onward movement of the paper during the periods of depression of the key-points, and the length of the marks, obviously, may be regulated by the length of time the buttons are held down. To make a second mark, the button is pressed down after a suitable interval. By prearrangement it may be understood that a single mark shall indicate an affirmative and two marks a negative vote. In voting it will be apparent that a voter wishing to record an affirmative vote can do so by pressing down the button but once, and a negative by a second depression after a short interval.

At the head of the sheet of paper are the names of the persons entitled to vote, as indicated by the word "Name," Fig. 1, placed in line with the proper keys. The names may also be placed on a plate, a, extending parallel with the line of the key ends and in position to coincide with the names on the paper, so that the names can be read on the face of the machine after the heading of the paper has passed beneath the roller B², as shown in Fig. 2. The paper in Fig. 1 is, for conven-

ience of illustration, shown drawn out over the top *a* of the machine.

H is a plate set either in vertical or horizontal position, and has on its face two circular series, *h h'*, of numbers having appropriate superscriptions—as, for illustration, the word “Yeas” over the one and “Nays” over the other circle of numbers—and pivoted pointers *i i'* at the centers of the circles are operated by the bevel-gearing *k*, or other suitable devices, connected by the spindles *k'* with the ratchet or cog wheels *m m'*. Over the keys D is a plate, *a'*, through which and through the keys D are coincident slots, *l*. Below the keys is a rod, *r*, mounted in posts *a²* at the ends of the frame A, and on the rod are pivoted the levers *n*, which project above the keys and plate *a'* through the slots *l*. Between the bosses *n'* of the levers *n* are washers *y*, to prevent them from sliding on the rod. At the back of each lever *n* is a spring, *o*, which is fastened to the base of the frame A and presses against the boss *n'* of the lever with just enough force to hold the lever in any position to which it is rotated. On the front of each boss *n'* are two teeth or lugs, *n² n³*, the one above the other, and attached to the under side of each key D is a spring-dog, *p*, which engages the teeth *n² n³* to turn the lever *n* on its axis.

The original position of the levers *n* is at the rear of the slots *l*, as shown by dotted lines *t*. A single depression of a key, D, causes its dog *p* to turn the lever to the upright position in which it is shown in Figs. 2 and 4, and a second depression of the key will carry the lever along to the position indicated by dotted lines *t'*. Thus the levers *n* of all the keys which have been operated but once will be in upright position, while those of the keys twice depressed will be in the outer position shown by *t'*.

To indicate on the dials the totals of the two ranks of levers, and thus ascertain the totals of the affirmative and negative votes, the dial-plate is pushed manually or by means of suitable mechanism, its course being guided by inward overhanging flanges, *a³*, forming ways *a⁴*, wherein slide the horizontal pieces *h²*, attached to the foot-pieces *h³* of the dial-plate. The ratchets *m m'*, being in position to be engaged by the projecting ends of the levers *n*, are so engaged by the lever ends as the plate is moved along, and the pointers *i i'*, respectively, are turned far enough by each such engagement to point to the next number on its dial, so that when the indicator-plate has traversed all the keys the pointers will indicate on the dials the two totals.

The levers *n* may be simultaneously thrown back to their original positions by pressure on the button *j*. The shank *j'* of the button bears upon a lever, *v*, which is fulcrumed on the rod *r*, near its end. The lever has a boss, *v'*, from which extends a lower arm, *v²*, (see Figs. 4 and 6,) to which arm is attached a cross-bar, *v³*,

extending to a similar arm (see Figs. 3 and 5) pivoted at the opposite end of the rod *r*. The bar *v³* is for holding the dogs *p* free from the teeth *n² n³* when the lever is pressed down. From the boss *v'* projects an upper arm, *v⁴*, from which a cross-bar, *v⁵*, extends to a similar pivoted arm at the opposite end of the rod *r*, and the bar *v⁵* engages the levers *n* and carries them back to the positions *t*, when the lever *v* is depressed to the position indicated by dotted lines *v⁶*, Fig. 4. When so returned, the levers *n* are ready to be again operated by the keys.

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

1. In combination in a registering apparatus, a suitably-inscribed paper, mechanism for feeding the same, electrically-actuated keys for marking the paper, an indicator having dials and pointers, gearing for rotating said pointers, guides for sliding said indicator over said keys, and devices whose positions are regulated by the key movements for engaging and operating separately the said pointers as the indicator is moved in said guides, substantially as set forth.

2. The combination, with the paper C, its feed devices, and the marking-keys D, carrying dogs, of the levers *n*, having teeth engaged by said dogs, as described, the dials and pointers, their operating-gearing, and the cog-wheels operated by said levers *n*, substantially in the manner set forth.

3. In a voting and recording apparatus, the combination, with a series of electrically-actuated marking-keys, of a tally-sheet and mechanism for feeding the same to the keys, so that each stroke of a key will make a separate mark on the paper, dogs carried by the keys, levers moved by the dogs into ranks corresponding with the number of key-strokes, a sliding dial-plate provided with pointers, and operating-gearing therefor arranged to be engaged by said levers as the dial-plate is advanced and operate the pointers to indicate the number of levers engaged in each rank.

4. The combination, with the marking-keys and their dogs *p*, the levers *n*, having the teeth *n² n³* on their bosses, of the cross-bars *v³ v⁵*, their supporting-arms *v² v⁴*, and the operating-lever *v*, for the purpose set forth.

5. The combination, in a voting-machine, with levers operated by the marking-key movements to move them into ranks, of a dial and pointers therefor, ratchets for engaging the levers to rotate the pointers, and ways and slide-pieces for the dial arranged to cause the levers of each rank to engage one of said ratchets as the dial is made to advance in said ways, substantially as set forth.

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Witnesses:

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