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Patented Aug. 30, 1898.

P. A. MACDONALD.

VOTING MACHINE.

(Application filed Apr. 3, 1897.)

(No Model.)

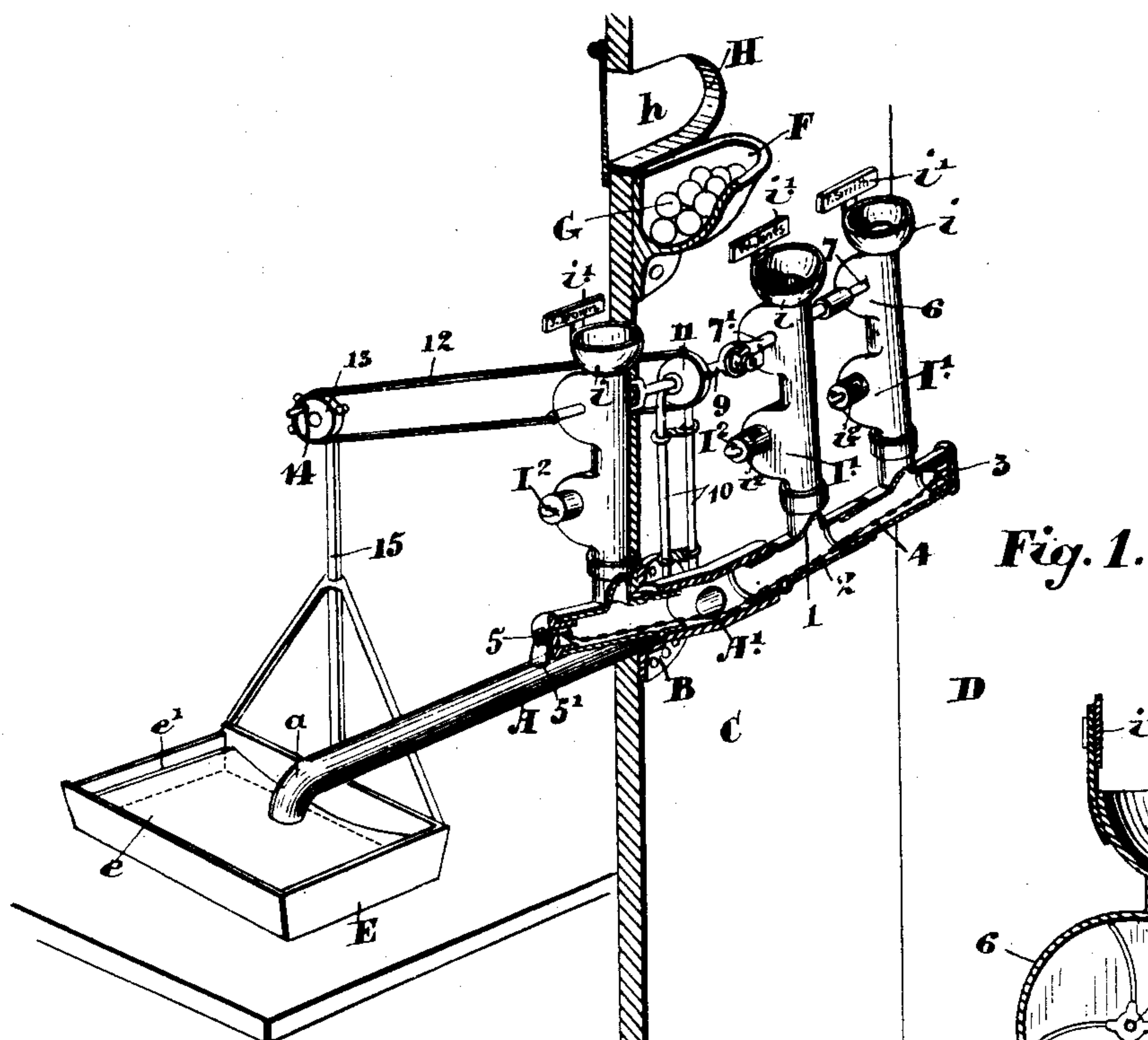


Fig. 1.

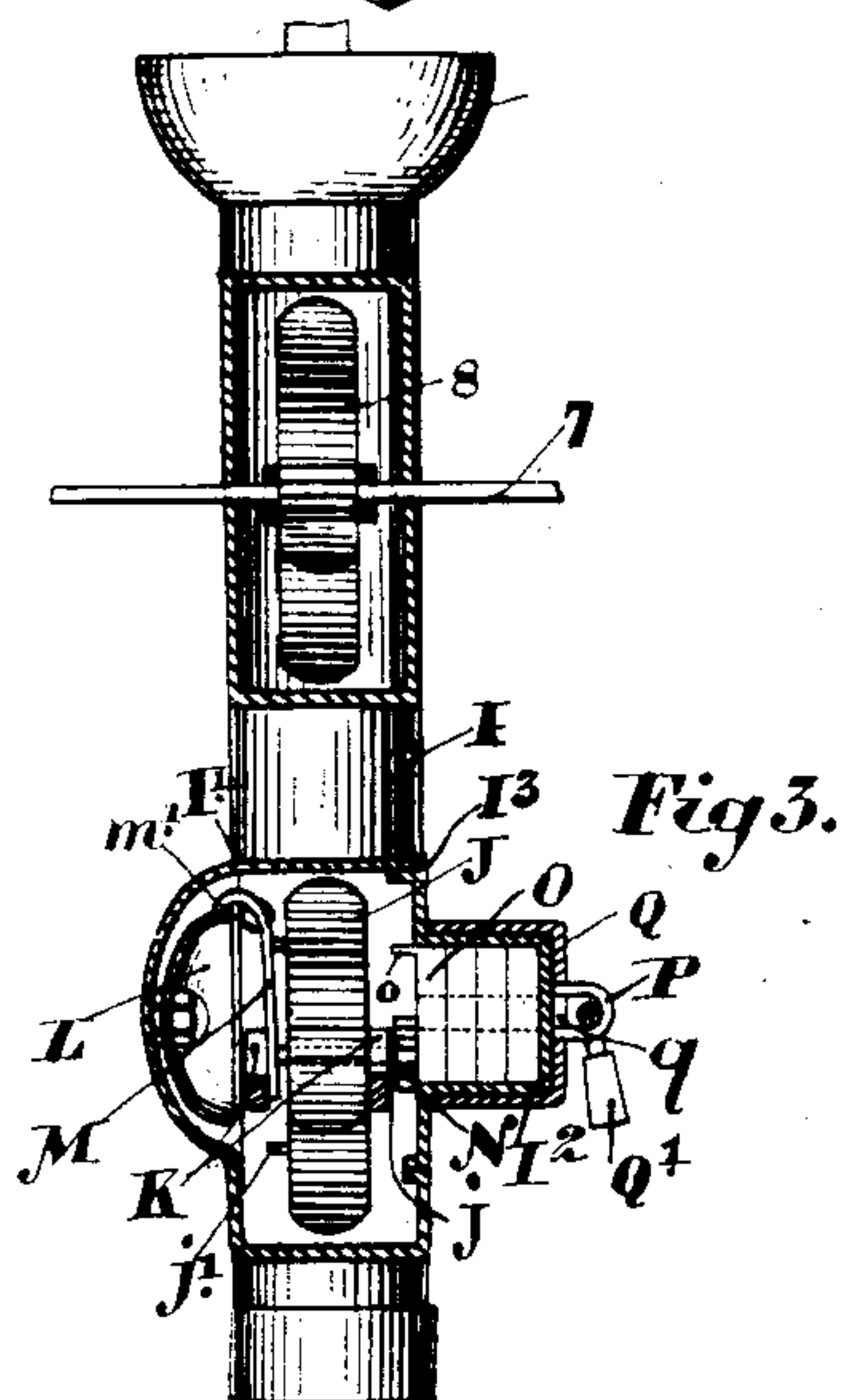


Fig. 3.

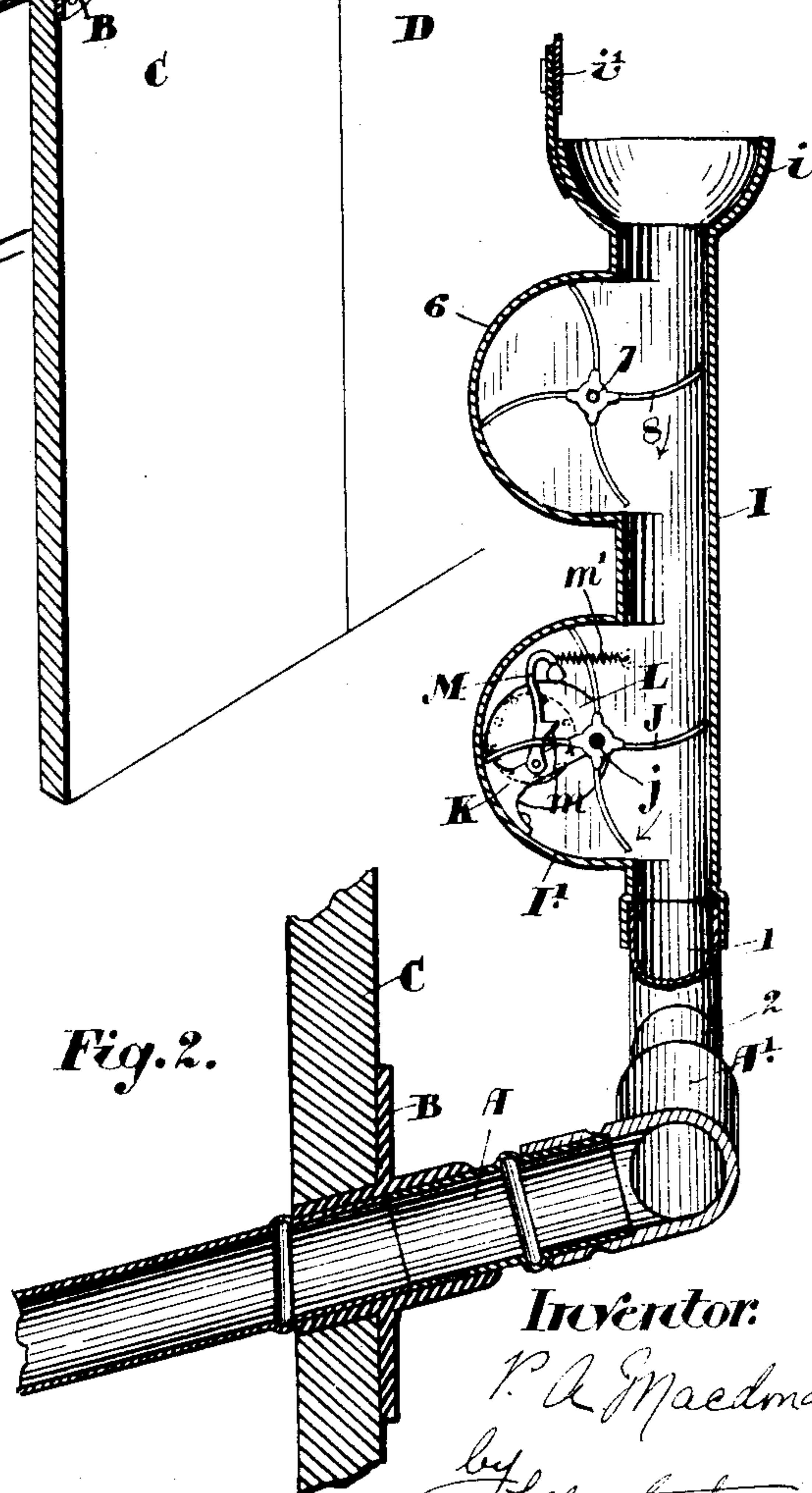


Fig. 2.

Witnesses.

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PATRICK ANDERSON MACDONALD, OF WINNIPEG, CANADA.

VOTING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 609,825, dated August 30, 1898.

Application filed April 3, 1897. Serial No. 630,582. (No model.)

To all whom it may concern:

Be it known that I, PATRICK ANDERSON MACDONALD, master in chancery, of the city of Winnipeg, in the county of Lisgar, in the Province of Manitoba, Canada, have invented certain new and useful Improvements in Voting-Machines, of which the following is a specification.

My invention relates to improvements in voting-machines; and the object of the invention is to design a device of this class whereby the votes of the electors at an election may be registered with absolute correctness and without it being known for whom such votes are registered until the registering devices have been opened at the end of the poll and the total number of votes cast for each candidate disclosed to the returning-officer and scrutineers; and it consists, essentially, of a tube which is suitably supported and arranged, preferably, at an incline, one end extending into the compartment in which the returning-officer is located and the other into the private apartment in which the elector registers his vote, the end of the tube in the apartment where the vote is registered being provided with branch tubes and suitable registering apparatus for each, the branch tubes being preferably of different colors corresponding to the color of the candidates and having their names on suitable tablets and the parts being otherwise arranged and constructed in detail, as hereinafter more particularly explained.

Figure 1 is a perspective view, partly in section, of my device. Fig. 2 is a longitudinal section disclosing the mechanism for receiving and depositing the ball and operating the registering mechanism and bell. Fig. 3 is a back view of the registering mechanism with a portion of the case broken away and in section to exhibit the construction.

In the drawings like letters and figures of reference indicate corresponding parts in each figure.

In this invention, which is designed to be operated by a heavy ball to register each vote, it may be stated that it would be advisable to have a main tube for each office to be filled and as many branch tubes for the main tube as there are candidates running for the vacant office. In the present instance

I have shown a very simple form, in which I show a main tube with three branch tubes—that is to say, in this case there would be three candidates running—although it will be seen from what is hereinafter described that three or more branch tubes might be used in the form shown.

A is the main tube, which is preferably curved at its lower end at *a*, as shown in Fig. 1. The tube A is intermediately supported by a tubular bracket B, secured to the partition C. The partition C is provided with a door D, shown at one side of the tube A, and a similar door (not shown) at the opposite side. E is a receptacle which is designed to be placed beneath the lower end of the tube A and is provided with a loose rubber or cloth bottom *e*, fixed to a frame *e'*, inserted in the receptacle. The lower end of the tube A and receptacle E are located in the apartment or room in which the returning-officer and scrutineers are located. The upper end of the tube A is located in the apartment into which the voter retires through the door in order to register his vote.

F is a receptacle fastened to the partition C above the tube A. The receptacle F is designed to hold the heavy leaden balls or balls of a heavy material by which the voter is to register his vote. An opening H is provided with a shutter or curtain *h*, closing it on that side of the partition C in which the returning-officer and scrutineers are situated, as before referred to.

A' is a T-shaped joint at the upper end of the tube A, the sides of the T having a slight incline laterally.

I are the branch tubes, which are provided with T-shaped lower ends 2, which fit into the joint A' and into each other stovepipe-fashion, as indicated.

3 are end caps which fit into the outer ends of the T-shaped ends of the branch tubes I, the caps being connected by chain or cord 4, fastened to the staple in one cap and having a link extending through a slot 5 in the other cap. A padlock 5' is provided, which extends through the end link, and thereby prevents the caps from being removed.

6 are enlargements at the upper end, in which are held on rods 7, journaled therein, the rotatable rings 8, which extend into the

branch tubes I, as indicated. The wings are arranged in a series of four, and the rods 7 are connected by a universal joint 7' to a central spindle 9, journaled on suitable standards 10 and having a pin or sprocket wheel 11, situated between the bearings. The rods 7 are connected between the outlying branch tubes by any suitable coupling. The pin-wheel 11 is connected by a band 12 to a smaller pin-wheel 13, provided with a crank-handle 14. The pin-wheel 13 is suitably journaled on the top of the standard 15, attached to or forming part of the receptacle E. This pin-wheel 13 is designed to be rotated by the returning-officer.

i are the cup-shaped upper ends of the tubes I. These upper ends may be colored to suit the color the candidate wishes to run under, and each may be supplied with the index-plate i' , containing the name of the candidates.

In order to register the votes registered by the number of balls deposited in the branch tubes I, I provide the following simple registering mechanism:

J are a series of four wings secured to a common arbor j . One of the wings J normally extends into the tube I, and the others are held in the casing I', forming part of the tube I. K are bracket-arms which are secured to the casing I' and have formed at their outer ends bearings for the spindle j of the rotatable wings J.

L is a bell which is suitably held in the casing I', and M is a hammer which is pivoted at the lower end on one of the brackets K. The hammer M is provided with an intermediate V-shaped projection m and is connected at the top by a spiral spring m' to a suitable portion of the casing, as indicated.

J^2 is a slot in the tube through which the wings pass as they are caused to rotate.

j' are laterally-extending pins connected to the wings J. When a ball G is deposited in the upper end of the tube I, it falls upon a wing 8 and then upon a wing J, which it causes to pass around in the direction indicated by arrow, the weight of the ball of course being sufficient to readily overcome the tension of the spring m' . As the pins j' of the wings in revolving come in contact with the V-shaped projection m of the hammer M they force the upper end of the hammer backwardly, and when each pin passes the apex of the projection the upper striking end of the hammer is brought back forcibly by the spring m' against the bell. It will thus be seen that as each ball passes down the tube I and turns a wing J it rings the gong, thereby apprising the returning-officer of a vote cast.

To register this vote, I provide a pinion N on the opposite end of the arbor j , which has a corresponding number of teeth to the wings J and arranged opposite them. The teeth of the pinion N are designed to come in contact with the laterally-extending pins o on the registering-wheel O. There are ten pins on the wheel O, so that this wheel registers from "1"

to "9" and changes at "0," when it carries to the next adjacent wheel. Any suitable mechanism may be used for carrying from one registering-wheel O to the adjacent one.

In the drawings I show the registering-wheels located within an extension I² of the casing I', which is preferably screwed into corresponding openings I³ in the casing I'. A slot i^2 is provided, which is indicated by dotted lines, it being on the opposite side to that shown in Fig. 3. A staple P is provided in the end of the casing, and a cap Q is also provided with a slot q , which fits over the staple P. The cap Q serves to conceal the number appearing before the slot i^2 . A padlock Q' is also provided to securely hold the cap in position and prevent it from being removed during the period that the voting is going on.

When the ball or balls are deposited in the tops of the tubes I, they will be received upon one of the wings 8, in which position it may be held by the returning-officer until the voter has moved from behind the screen or partition, when the wheel 13 may be turned, and thereby drop the ball so that it will be deposited upon one of the wings J.

It will now be seen that upon each depositing of a ball each wing J will pass downwardly, thus registering a vote through the pinion N and registering-wheel O. The bell also will be sounded, so that no tampering with the wings can be effected without the knowledge of the returning-officer, who first has the deposit of the ball in the receptacle E to show him that a vote has been registered, although he would not know into which branch tube the ball had been placed.

At the end of the poll the cap Q may be removed and the total vote of each candidate noted by the returning-officer in the presence of the scrutineers.

In the use of my voting-machine it will be understood that instead of having a supply of balls in the voters' apartment the returning-officer may hand each voter as he goes into the apartment a ball, which will of course be returned to the officer immediately the vote takes place through the tube A.

It will be seen that the wings 8, controlled by the mechanism hereinbefore described, will not only serve to prevent the registering apparatus from being tampered with, but will also serve to provide a means whereby the returning officer is checked by the scrutineers and also prevent a voter from depositing more than one ball in each tube without the knowledge of the returning-officer.

What I claim as my invention is—

1. A voting-machine comprising an inclined tube, a partition-screen intermediately supporting the tube, a T-shaped upper end joint for the tube, branch tubes having T-shaped lower ends designed to be inserted into the joint and each other, balls for depositing in such tubes and receiving and registering mechanism operated by the balls, caps for closing the extreme ends of the T-shaped lower ends

of the branch tubes and a connecting-chain for the caps having one end extending through a slot in one cap, and a padlock for the end projecting link as and for the purpose specified.

5 2. The combination with the main tube and intermediate screen supporting the same, branch tubes connected to the upper end of the main tube, the controlling rotating wings
10 for each branch tube suitably journaled in enlargements of the tube and designed to have one wing normally extending into the tube, the rods to which the rotating wings are affixed, the central spindle journaled on suitable standards and provided with a pin-wheel,
15 universal joints between the ends of the spindle and the rods, a pin-wheel journaled on a suitable standard on the opposite side of the screen and provided with a suitable handle and a band connecting both pin-wheels
20 as and for the purpose specified.

3. The combination with the main tube and intermediate screen supporting the same, of the branch tubes connected to the upper end
25 of the main tube, the rotating wings for each branch tube suitably journaled and designed to have one wing normally extending into the tube, a pinion on the end of the arbor of the wings, and registering-wheels operated from
30 such pinion, a casing covering the registering-wheel provided with a slot to expose the

numbers, a cap for such casing, a slot in the end of the cap, a staple extending from the end of the casing through the slot in the cap, and a padlock for the staple as and for the
35 purpose specified.

4. The combination with the main tube and intermediate screen supporting the same, of the branch tubes connected to the upper end of the main tube, the rotating wings for each
40 branch tube suitably journaled and designed to have one wing normally extending into the tube, a bell in the case and mechanism operated from the wings to strike the bell upon each depression of the wing in the tube as
45 and for the purpose specified.

5. The combination with the main tube and intermediate screen supporting the same, of the branch tubes connected to the upper end of the main tube, the rotating wings for each
50 branch tube suitably journaled and designed to have one wing normally extending into the tube, a bell in the casing, laterally-extending pins from the wings, a hammer pivoted in proximity to the wings provided with a V-
55 shaped projection and spring-held as and for the purpose specified.

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Witnesses:

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