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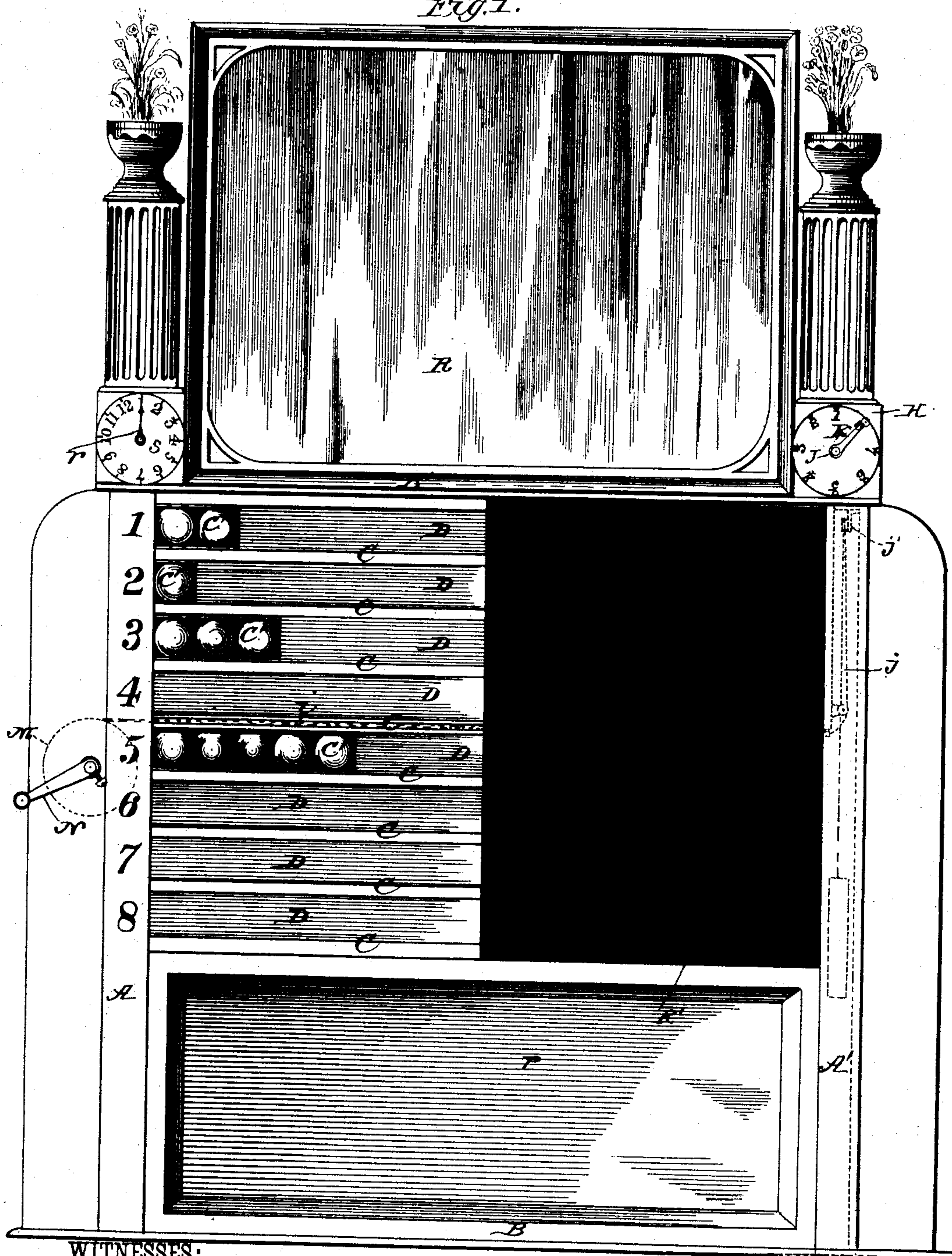
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T. C. DEVLIN.
AUTOMATIC POOL REGISTER.

No. 409,937.

Patented Aug. 27, 1889.

Fig. 1.



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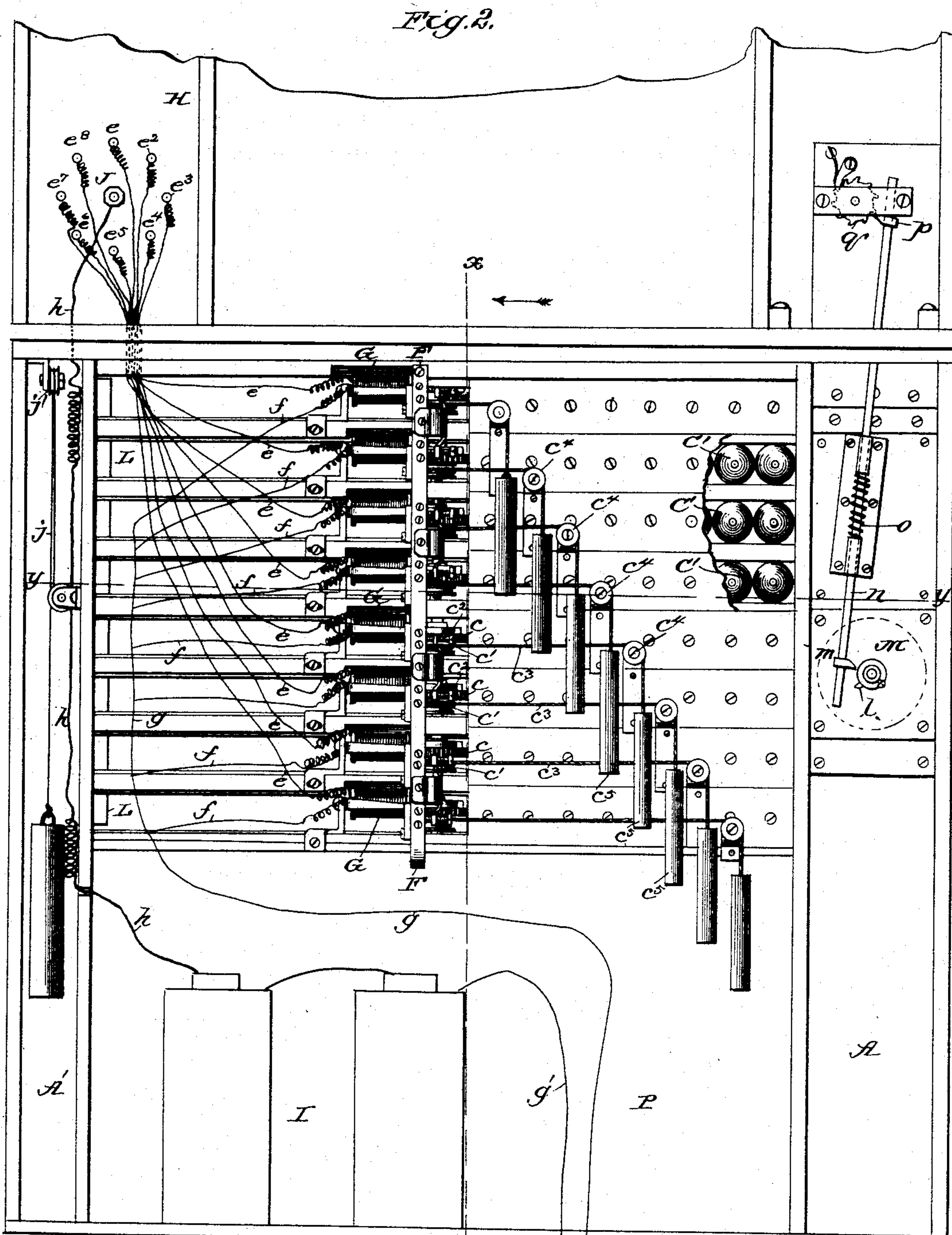
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Patented Aug. 27, 1889.



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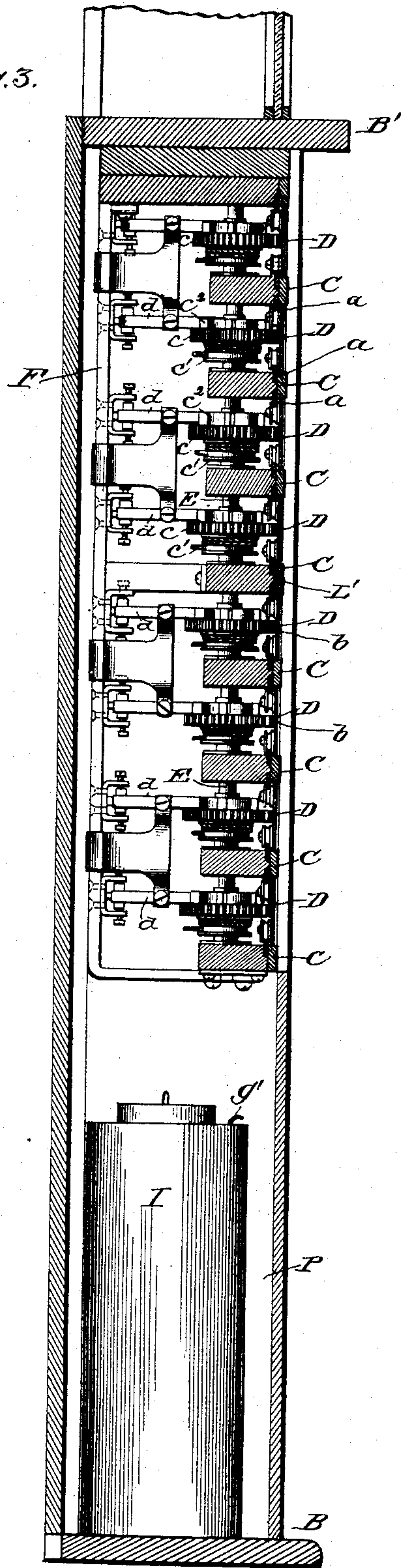
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Fig. 3.



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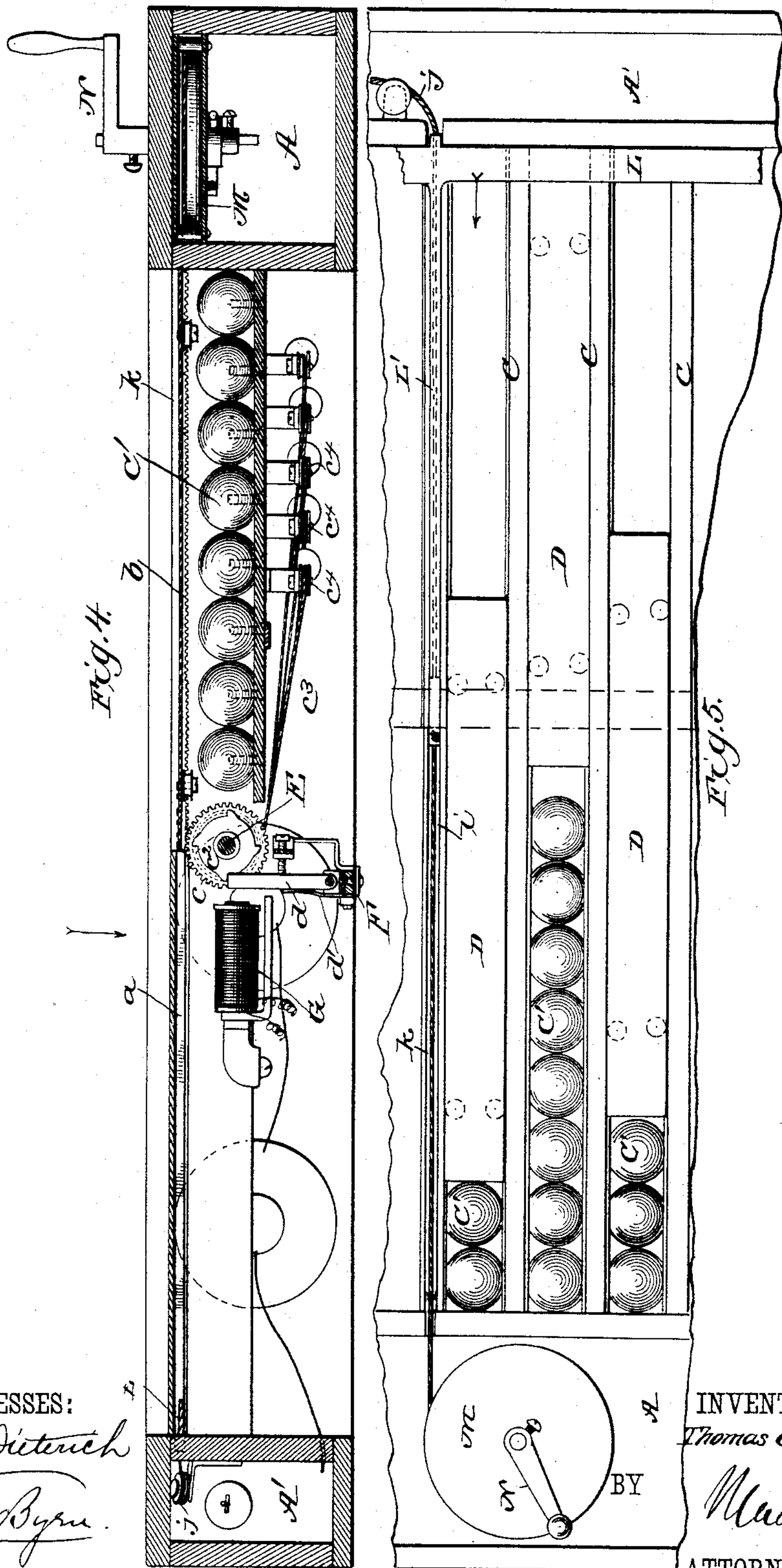
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T. C. DEVLIN.
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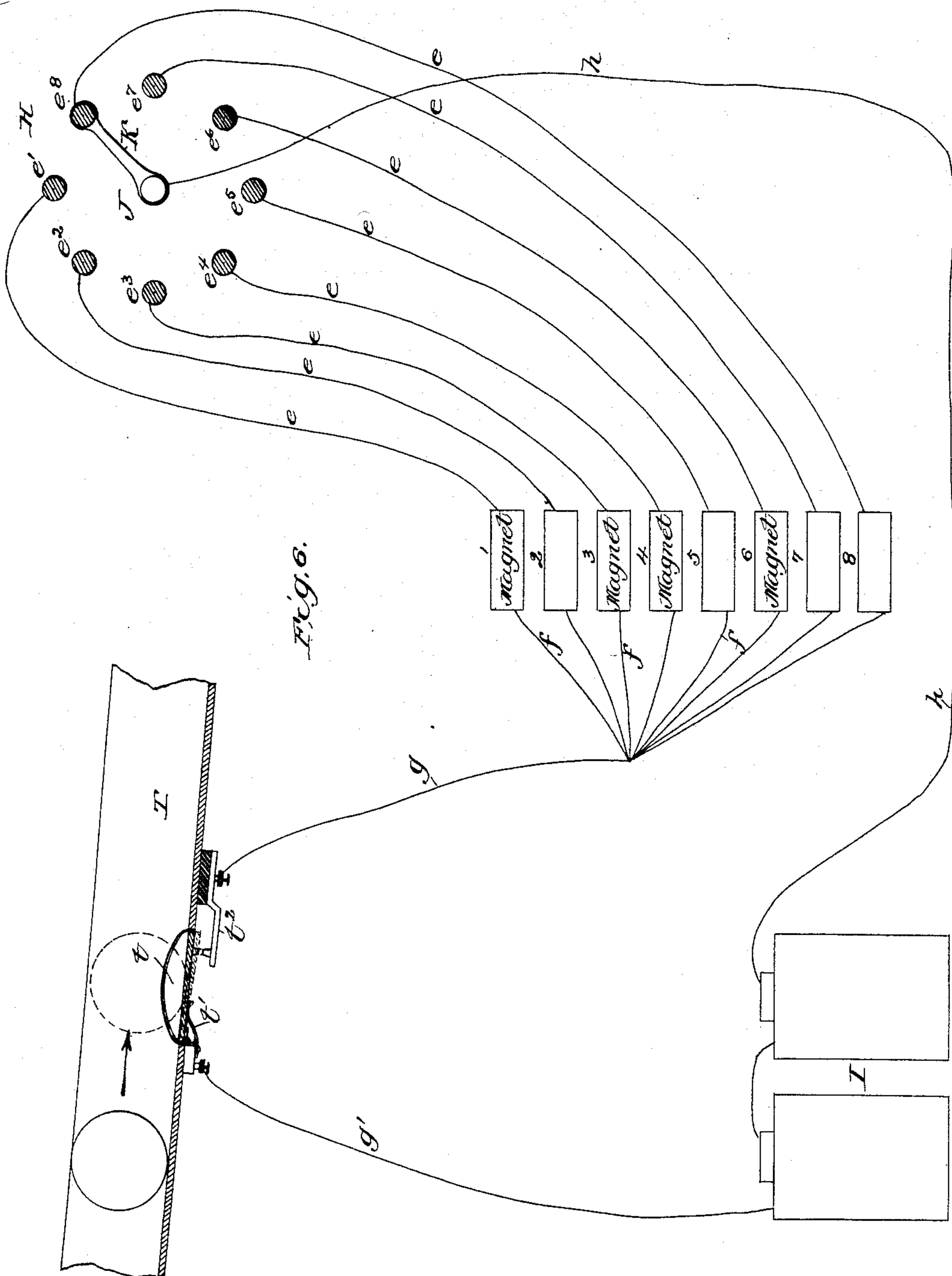
(No Model.)

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WITNESSES:

Fred G. Dieterich
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ATTORNEYS.

UNITED STATES PATENT OFFICE.

THOMAS C. DEVLIN, OF PUEBLO, COLORADO.

AUTOMATIC POOL-REGISTER.

SPECIFICATION forming part of Letters Patent No. 409,937, dated August 27, 1889.

Application filed January 8, 1889. Serial No. 295,810. (No model.)

To all whom it may concern:

Be it known that I, THOMAS C. DEVLIN, residing at Pueblo, county of Pueblo, and State of Colorado, have invented a new and Improved Automatic Pool-Register, of which the following is a full, clear, and exact description.

The object of my invention is to provide a device for automatically registering the number of balls pocketed by each player in the game of pool without the necessity of taking the balls out of the pocket, and the time, trouble, and danger of dropping and breaking them incident to handling the same.

Its object is also to automatically keep a correct tally or count of the game, so that the proprietor may not be imposed upon by the players.

For accomplishing these objects my invention consists in an electrical register of peculiar construction to be placed against the wall of the pool-room in an elevated position in full view of the players, where each player may observe his own score with that of the others, and with which electrical register there is connected a battery-circuit extending to the pool-table and having a circuit-breaker placed in a trough leading from the pockets of the pool-table, so that each ball as it is pocketed will alternately close and open the circuit and thus effect its own count on the register, as will be hereinafter fully described.

Figure 1 is a front elevation of the entire apparatus. Fig. 2 is a rear elevation of the lower part of the same, on a larger scale, with parts broken away. Fig. 3 is a vertical section through the line $x x$ of Fig. 2, looking in the direction of the arrow. Fig. 4 is a horizontal section through line $y y$ of Fig. 2. Fig. 5 is a front view of the device shown in Fig. 4, looking in the direction of the arrow; and Fig. 6 is a diagram of the circuits.

In the drawings, Fig. 1, $A A'$ are two upright hollow columns, mounted upon a base B and connected at the top by a shelf B' . Extending in horizontal direction from one column A to the other A' , and parallel with each other, are a series of shelves C , which correspond in number to the number of players that may engage in the game. Each one of these series of shelves has a number set opposite to it on column A , (see Fig. 1,) and

each shelf has a number of balls C' —eight altogether, as shown, or as many as may constitute enough to win the game. These series of balls are arranged upon the left-hand side of the shelves and remain stationary.

D are a series of sliding shutters, which slide or roll by means of friction-rollers on metal flanges a at the front edges of the shelves, Figs. 3 and 4. These shutters lie directly in front of the balls and obscure the same, but have a range of movement from a position in front of the balls, where they hide the balls, to a position on the right, which exposes the balls. These shutters, by automatic mechanism hereinafter described, are arranged to move to one side and expose one ball on the shelf for each ball that is pocketed by the player. For this purpose the back of each shutter is provided with a rack or toothed bar b , extending from one end to the other. This rack-bar engages a toothed wheel c , Figs. 2, 3, and 4, turning loosely upon a vertical shaft E , which passes through the middle of each shelf. This wheel has a drum or hub c' on its lower side and a ratchet-wheel c^2 on its upper side. Around the drum is wound a cord c^3 , which passes over a fixed pulley c^4 in the rear, and is attached to a weight c^5 , which serves to rotate the toothed wheel and slide the shutter away from its position in front of the balls. Instead of this weight and cord a coiled spring may be located in the drum below the wheel. This toothed wheel is held against rotation by a horizontal detent d , Fig. 4, which is pivoted to an upright bar F in rear of the register and which detent is held by a spring d' against one of the teeth of the ratchet on the upper surface of the wheel. This detent is constructed as the armature to a magnet G , and when this magnet attracts the armature the latter is drawn away from the ratchet-wheel for an instant, and the ratchet and toothed wheel, responding to the strain of the weight, rotates one tooth and moves the shutter a sufficient distance to expose one ball.

Each shutter is provided with a set of devices corresponding to those just described, and each magnet for each shutter (see Figs. 1 and 6) has one wire e leading to a switch-board H and connecting with a separate in-

insulated contact-plate e' e^2 e^3 e^4 e^5 e^6 e^7 e^8 , arranged thereon in circular series. The other wires of the magnet lead to the automatic circuit-closing device in the trough of the pool-table, hereinafter described, and thence through wire g' leads to one pole of the battery I. A wire h from the other pole of the battery extends to a central shaft J of the switch-board, and is electrically connected to the swinging key or crank K, whose platinum face may be turned upon any one of the contact-plates e' to e^8 .

T is a section of the trough which carries the balls from the pockets of the pool-table to any suitable receptacle to receive them. In the bottom of this trough is a hinged section t , held up by a spring t' . This section t is electrically connected to one circuit-wire g' , and a bracket t^2 is connected to the other circuit-wire g . Whenever one of the balls pocketed by a player runs down the trough, it for an instant depresses section t and closes contact between it and bracket t^2 , thus transmitting an electrical impulse through any one of the magnets, according to the position of the lever K on the switch-board. When the switch-lever is on plate e' , the magnet No. 1 is in circuit for automatic action from the passage of the balls in the trough, and magnet No. 1 registers the score of the first player by exposing the same number of balls in the first row as there are balls made by this player. When the next player takes his turn, the key-lever is swung over to the next plate of the switch-board and the circuit is thereby established through the magnet No. 2 for the second row of balls, and so on.

After the game has been played the shutters are slid back again over the balls preparatory to commencing a new game. To do this a vertical bar L, Figs. 5 and 4, is arranged in front of the shelves and in the same plane with the shutters, and this bar is made to travel from right to left and to strike against the ends of all of the shutters and force them simultaneously back over the balls, so as to hide them from view. To accomplish this the vertical bar L is attached to a horizontal bar L', that slides in a groove i in the middle shelf. These bars are drawn to the right by a cord j , Figs. 1 and 2, which passes over a pulley j' and is attached to a weight, and are drawn to the left by a cord k , Figs. 4 and 1, which passes around a grooved pulley M, journaled in the hollow left-hand column A of the register. One turn of this pulley takes up sufficient of the cord to close all the shutters, which is effected by a crank-handle N, attached to the pulley-shaft. On this shaft, just in rear of the pulley, is a tappet-arm l , Fig. 2, which as the pulley is rotated strikes a lug m on a vertical sliding bar n . This bar is normally held down by a spiral spring o , and its upper end carries a tooth p , that when raised engages a tooth on a ratchet-wheel q and turns this ratchet-wheel one notch. This ratchet-wheel is fast on a shaft which extends

through the casing and carries an index-hand r ; Fig. 1, that traverses a dial s and at each movement registers for the benefit of the proprietor the game that has just been played. After the game has been played then a single turn of the crank-handle N serves to effect the resetting of the shutters in front of the balls, and the tappet-arm l on the crank-shaft also lifts the lug m on the sliding vertical bar n , and this by turning the ratchet-wheel above moves the index-hand and registers the game. From this construction and arrangement of parts it will be seen that it is impossible at the close of one game to go to the next without first registering the game, so that the proprietor of the table cannot be imposed upon by the reporting of a smaller number of games than have been played.

In the construction of the case of the register the space at P between the columns A A' and the shelves and base B is utilized for the batteries that are employed. The right-hand portion of the shelves into which the shutters slide is covered by a screen constructed as a blackboard R' for memoranda or independent counting. The players' switches are at the right-hand upper corner. The proprietor's register is at the left-hand upper corner, both being surmounted by vases or suitable ornaments, while a mirror R is arranged between, thus making a very useful and ornamental piece of furniture, in which the count is surely and automatically effected without fraud, without danger of dropping and breaking the balls, and without prejudice to the interests of the proprietor.

I prefer to use on the shelves balls of the same size and appearance as the pool-balls as counters; but painted figures, blocks, or other counters may be substituted for said balls on the shelves.

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

1. An automatic pool-register consisting of an electric circuit and battery, an inclined trough or way for the balls having a movable plate or bar in the same for making and breaking said circuit by the passage of the balls, a series of counters for the different players, an electro-magnetic adjusting device for the counter, and an electric switch for throwing the circuit through any one of the electro-magnetic adjusting devices, substantially as described.

2. In a pool-register, the combination, with a series of shelves, of a series of balls or counters arranged thereon, a series of shutters arranged in front of the same, and adjusting devices for removing the shutters from their position in front of the ball, consisting of a rack-bar on the back of the shutter, a toothed wheel engaging the same and provided with a ratchet and a hub, a cord and pulley actuating the hub, and an electro-magnet and detent-armature engaging the ratchet, as described.

3. In a pool-register, the combination of a series of shelves bearing balls or counters, a series of sliding shutters covering the same, a vertical resetting-bar for pushing the shutters over the counters again, a game-counter dial and index-hand for registering the number of games, and an adjusting-handle and connecting devices for resetting the shutters and actuating the game-register with a single movement, as set forth.

4. In a pool-register, the combination of the series of horizontal shelves with balls or counters arranged thereon, of a series of sliding shutters D, having toothed racks *b* on their rear sides, the vertical shaft E, with wheels *c* arranged thereon and provided with hubs *c'* and ratchets *c''*, the magnets G, with detent-armatures *d*, a series of weights and cords or springs for moving the shutters away from the balls, and an electric circuit and circuit-closer for actuating the magnets, substantially as shown and described.

5. The combination, with the shelves, the counters, and the sliding shutters, of the re-

setting-bars L L', the cord *k*, grooved pulley M, crank-handle N, fixed upon a shaft having tappet *l*, the vertical bar *n*, with lug *m*, spring *o*, and tooth *h*, and the dial *s*, index-hand *r*, and ratchet *q*, substantially as described.

6. The pool-register consisting of the columns A A', base B, shelves C, with ball-counters between them and a space for the battery below them, the shutters arranged in front of the balls upon one side and a blackboard arranged upon the other side, electric devices for operating the shutters, a player's switch-board arranged at the top of column A', and a game-counter arranged at top of column A, and a mirror R, arranged between the two, substantially as shown and described.

The above specification of my invention signed by me in the presence of two subscribing witnesses.

THOMAS C. DEVLIN.

Witnesses:

EDWD. W. BYRN,
 SOLON C. KEMON.