

(No Model.)

G. F. W. SCHULTZE.
COIN CONTROLLED APPARATUS.

No. 475,743.

Patented May 24, 1892.

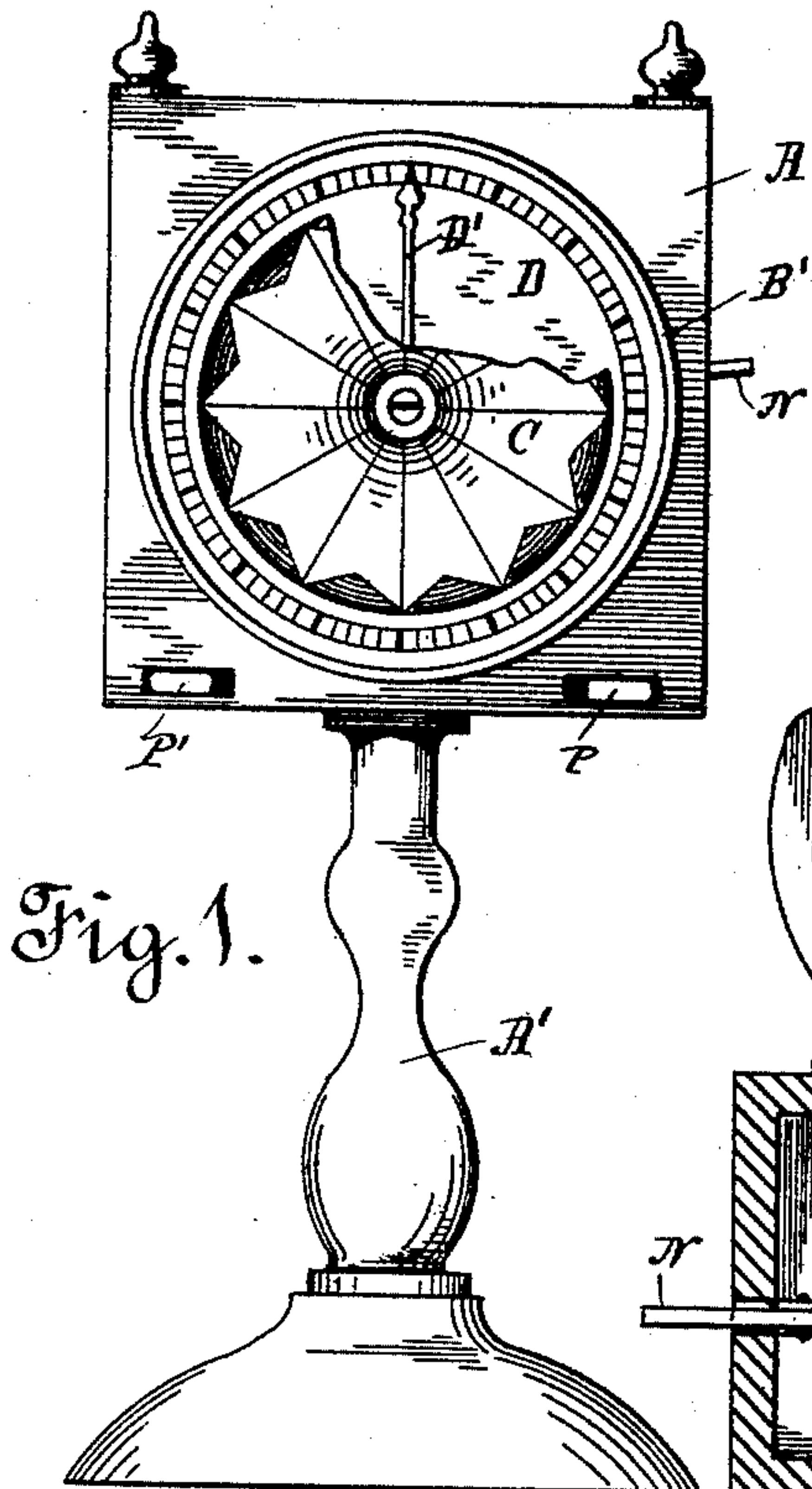


Fig. 1.

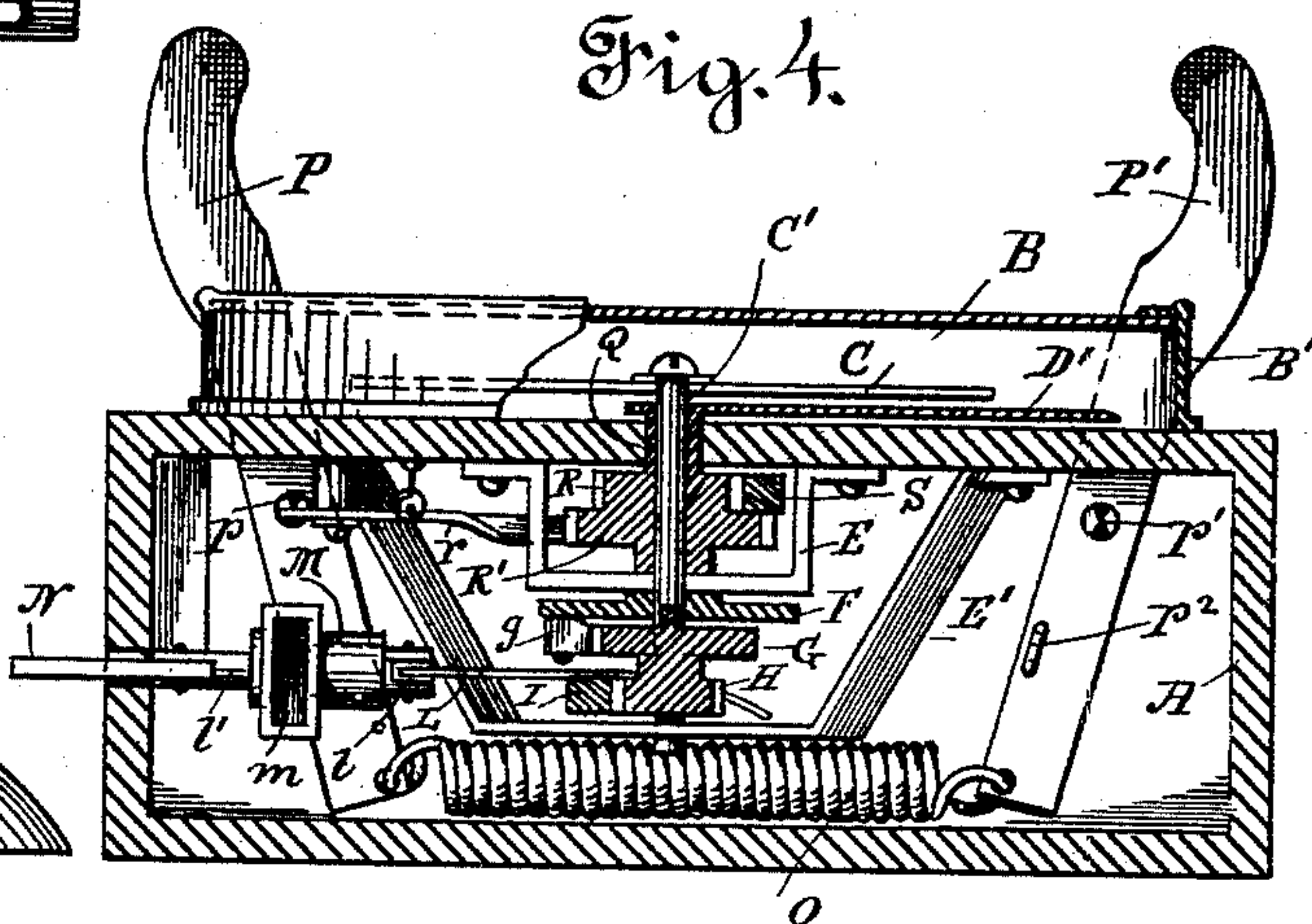


Fig. 4.

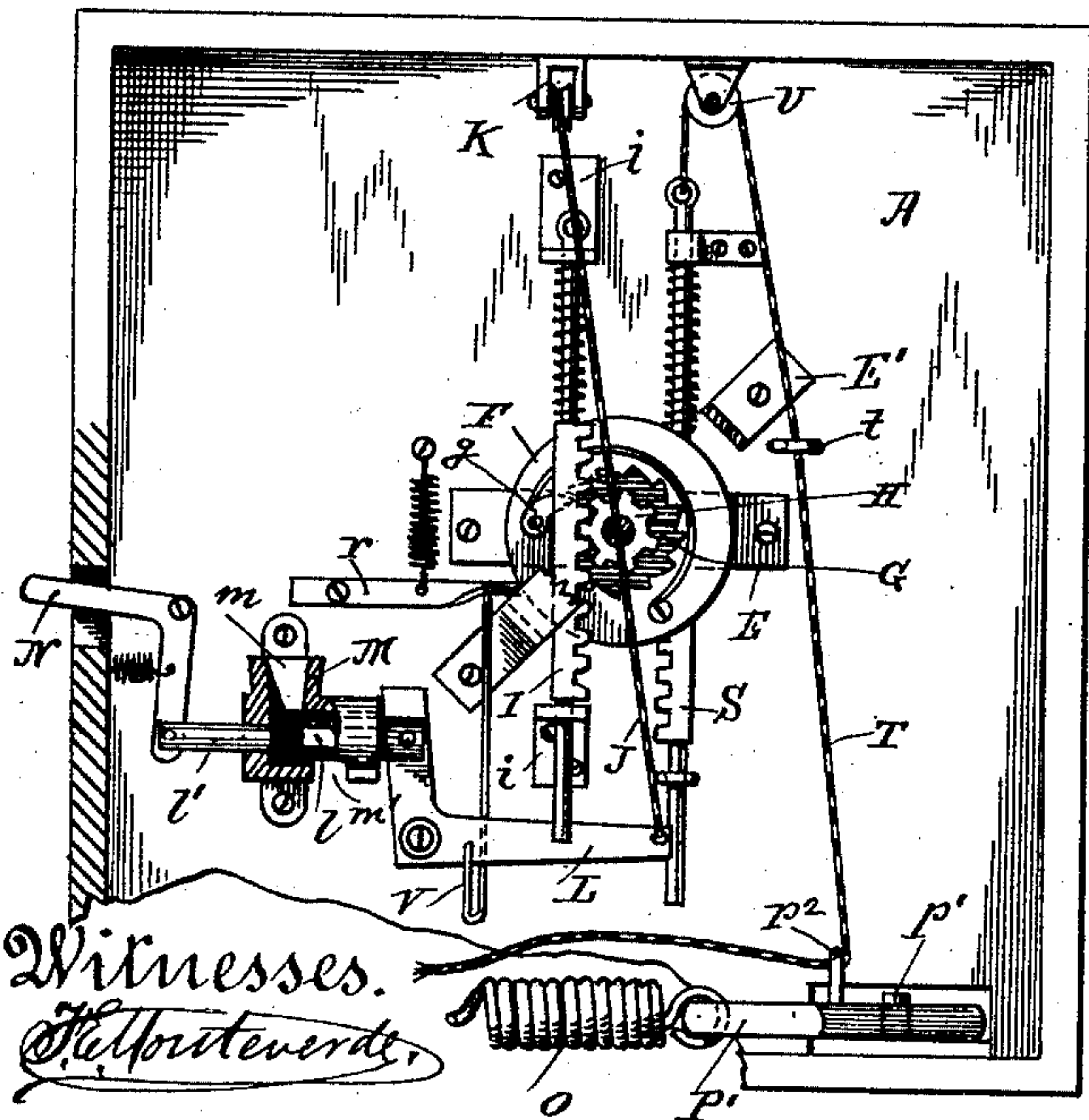


Fig. 2.

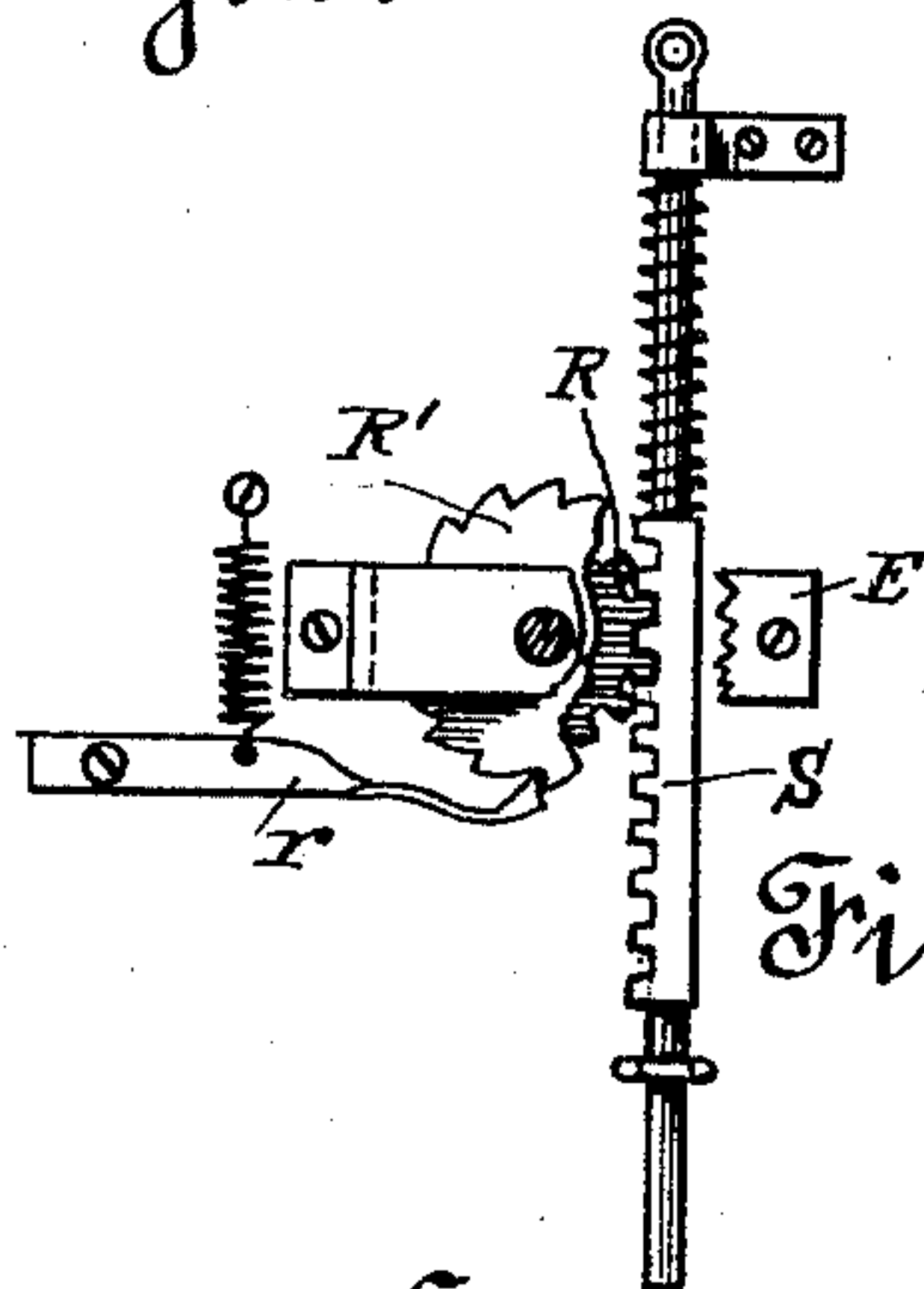


Fig. 3.

Witnesses.

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UNITED STATES PATENT OFFICE.

GUSTAV F. W. SCHULTZE, OF SAN FRANCISCO, CALIFORNIA.

COIN-CONTROLLED APPARATUS.

SPECIFICATION forming part of Letters Patent No. 475,743, dated May 24, 1892.

Application filed November 9 1891. Serial No. 411,387. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV F. W. SCHULTZE, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented an Improvement in Coin-Controlled Apparatus, of which the following is a specification.

This invention has been devised to afford the public a new source of amusement and healthful exercise in providing a combination of devices whereby patrons may for one price be told what their good star has in store for them and be enabled, besides, to ascertain the measure of their strength.

Referring to the accompanying drawings, Figure 1 is a front elevation of the whole machine, with the disk partly broken. Fig. 2 is an enlarged back view of the working parts, partly broken away. Fig. 3 is a similar view, partly broken, of the strength-registering mechanism, which is hidden in Fig. 2; and Fig. 4 is a sectional plan taken from a line above the center of Fig. 3.

The letter A represents a box or casing supported by a pedestal A'.

Under a glass cover B, set in a metallic frame B' on the face of A, is a circular disk C, which is mounted on and rotatable with a short shaft C'. This disk has been made to represent a many-pointed star, the diverse points or colors of which serve to tell one's fortune or decide wagers between friendly contestants; but any sign, symbol, type, emblem, mark, letter, or figure, or combination thereof, best calculated to afford innocent amusement of this nature may as well be placed thereon. A pointer (not shown) may be used in connection with the disk C to locate with accuracy some particular part or color thereof at the moment it comes to a full stop. Back of C is a registering or numbered dial D, which is painted on or otherwise affixed to the face of the box. A hand D' indicates on this dial the power exerted upon the strength-testing mechanism described below.

The shaft C' above mentioned is supported within the casing by means of a bracket E and is normally at rest. To impart it a rotary motion, and hence to the disk C, I provide it with a wheel F, which is keyed to its inner end and carries a pawl g, acted upon

by a ratchet-wheel G and accompanying pinion H, both actuated by a spring-controlled rack I, held in and vertically movable between guides *i i*. The axle of the ratchet-wheel and pinion is set between the inner face of the wheel F and a bracket E' and is movable independently of the shaft, so that when the rack goes up the pawl slips over the teeth of the ratchet-wheel and allows it, together with the pinion, to turn backwardly without moving the shaft or the disk, though upon the rack coming down the pawl is forced into engagement and therefore urges the wheel F and connected parts forward. The rack I is raised and the spring controlling it compressed by means of a string or chain J, passed over a pulley K and fastened to the lower arm of a bell-crank lever L, which, however, can be operated only through the medium of a coin of predetermined dimensions. The other arm of this lever is jointed to a tubular bar *l*, which is of about the same diameter as the operative coin, and is fitted in and adapted to move longitudinally through a casing M, reaching in its travel from a point past an outlet *m'* in the under side of this casing to a point next an inlet *m* in the upper part of the same. Directly opposite this bar enters into the casing M a solid rod of smaller diameter *l'*, also adapted to slide therein from the inlet *m* to the outlet *m'*. The inner ends of the bar *l* and rod *l'* normally remain opposite each other, one on each side of the inlet, the bar being held in through the action of the spring-controlled rack upon the string J and lever L and the rod kept back by one arm of a spring-actuated bell-crank lever N, the other arm of which projects outwardly through the side of the outer box. Thus arranged the lever N may be worked at all times; but if the required coin be not forthcoming the rod *l'* will simply be driven into the tubular bar *l* without moving in any wise the other parts of the working mechanism. If, on the other hand, the coin called for be dropped, through any suitable opening or chute provided for this purpose, down the inlet *m* into the casing M, it will be caught standing on edge between the opposite ends of the rod and bar, and then the depression of the outer arm of the lever N will have the desired effect in shoving back both rod and bar and swinging the lever L,

thereby raising the rack I until the deposited coin has been brought to and made to fall out of the casing through the outlet m' , whereupon the compressed spring of the rack will recoil and force it to revolve the shaft C and disk C' by turning the pinion H, ratchet-wheel G, and wheel F. Any suitable receptacle may be placed below the coin-outlet of the casing M. No special device is required to disengage the coin from between the ends of the bar l and rod l' when the discharge-opening is reached, since the bar and rod part so quickly upon the release of the spring-controlled lever N as to render this unnecessary.

The strength-testing mechanism, previously referred to, is available at the same time and for the same price as the other part of the apparatus, as already stated. The test of power is made with a stout spring O, connecting the inner ends of two levers P P', which are fulcrumed at p p' on the bottom of the box A and project in the ordinary handle form through slots in front. The strength displayed is indicated on the dial D by the hand D', which is attached to the end of a sleeve Q, rotatable upon the shaft C and formed with a pinion R, engaged by a spring-controlled rack S, connected to both levers by a string or chain T. The string T passes over a pulley U and through one or more guides t and is fastened to only one of the levers, it being connected to the other merely by an eye-screw or guide p^2 , through which it slips and which can pull it only by frictional contact. This is done to divide the strain undergone by the mechanism and require the use of both levers to have any marked effect upon the spring, so that the user may not be tempted to test his strength by working one handle alone, and thus be apt to wrench the machine off its bearings. If the force be applied to a single lever, part of the power exerted will be spent pulling unto the farther end of the other on the opposite side of the box, and there will be a poor showing of strength. The spring controlling the rack S tends to force it down as soon as it has been raised and allow other trials of strength to be made. This tendency is, however, checked by the use of a ratchet-wheel R', formed upon the sleeve Q next to the pinion R, and a spring-controlled catch r , normally engaged with R'. This catch will not prevent the working of the handles and a first rise of the rack and turning of the dial-hand, but it will stop these two from flying back into place, with the twofold result of permanently registering the effort on the spring and keeping men of average strength from displaying their powers with this apparatus more than once for the payment of a

single coin. Subsequent trials of strength will be permissible only after the release of the ratchet-wheel R' and rack S, which is effected by means of a hook V, connecting the catch r with the lever L and adapted to pull down the catch when the lever is oscillated by the push-rod after the interposition of a coin, as hereinbefore explained.

Having described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination of a design-bearing disk, a shaft therefor, a pawl-carrying wheel adapted to rotate the same, a ratchet-wheel and pinion connected with said pawl-carrying wheel, but backwardly movable independently of said shaft, a spring-controlled rack engaging said pinion, a string fastened to said rack, and a coin-actuated mechanism, substantially as described, to first pull said string and afterward release the same, substantially as set forth.

2. The combination of a spring, levers adapted to pull on each end thereof, a registering-dial, an index movable over the face of said dial, an index-shaft, a string fastened to one of said levers and loosely connected with the other, and intermediate connections enabling said string to move said index, substantially as set forth.

3. The combination of a spring, levers acting thereupon, a registering-dial, a hand movable over said dial, a shaft-supported sleeve to move said hand, a pinion on said sleeve, a normally-depressed rack engaged with said pinion, a ratchet-wheel moved by said rack and pinion, and a catch engaged with said ratchet-wheel and adapted to keep up said rack when once raised and permanently register the tension of said spring upon said dial, substantially as set forth.

4. The combination of a spring, levers acting thereupon, a registering-dial, a hand movable over said dial, a shaft-supported sleeve to move said hand, a pinion on said sleeve, a spring-controlled rack engaged with said pinion, a ratchet-wheel moved by said rack, together with said pinion, a catch engaging said ratchet-wheel to keep said rack raised and the spring thereof compressed, a hook depending from said catch, and a coin-actuated mechanism adapted to release said rack by pulling on said hook, substantially as set forth.

In witness whereof I have hereto set my hand and seal.

G. F. W. SCHULTZE. [L. s.]

In presence of—

J. A. SMITH,
R. R. STRAIN.