No. 733,059. PATENTED JULY 7, 1903.

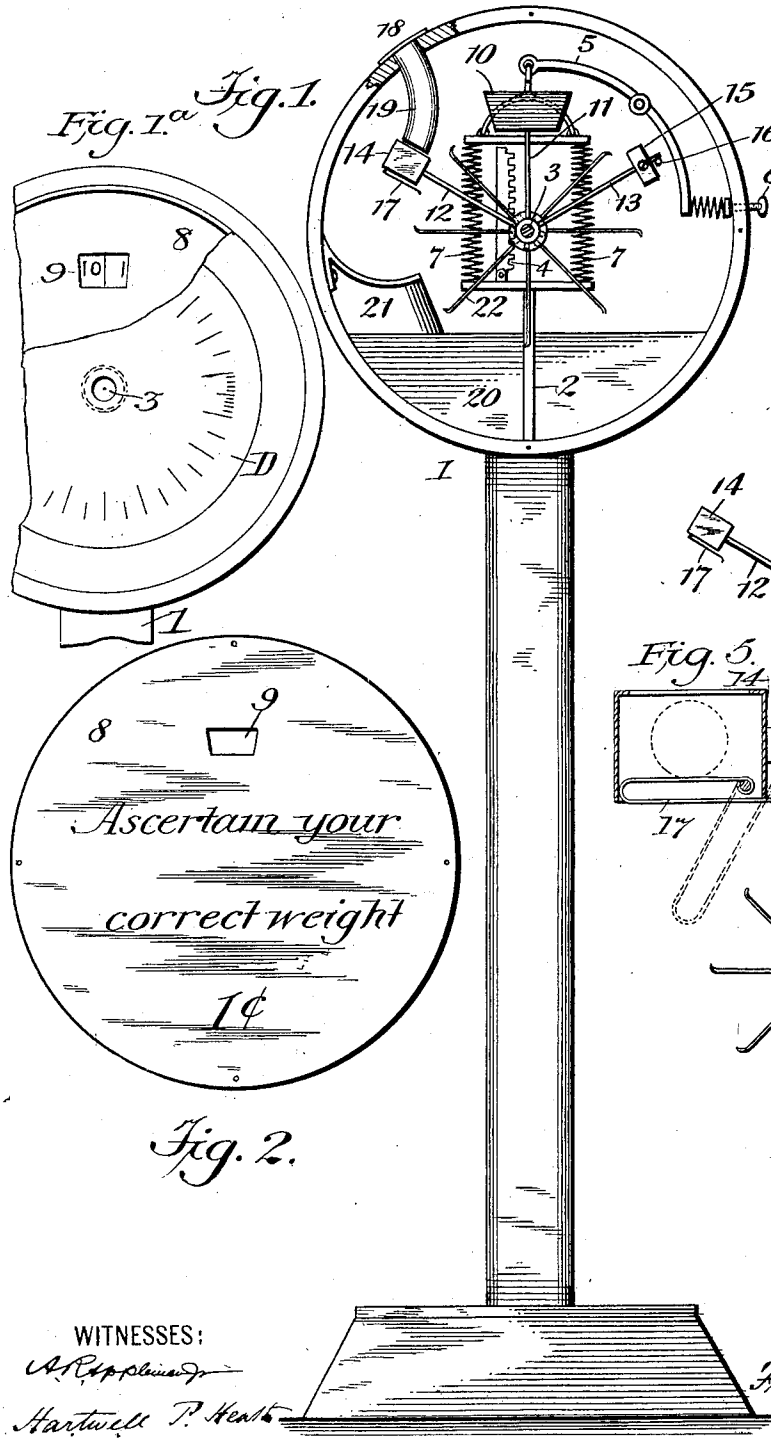
F. N. MAGEE.

AUTOMATIC WEIGHING MACHINE.

APPLICATION FILED NOV. 20, 1901.

NO MODEL.

Fig. 1a Fig. 1.



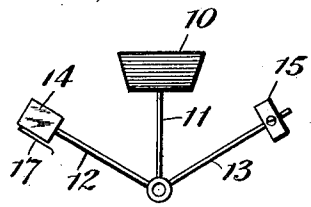


Fig. 5. Fig. 3.

Fig. 2.

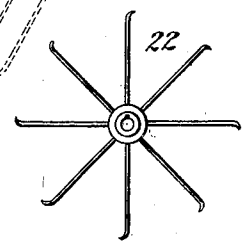


Fig. 4.

WITNESSES:

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No. 733,059. Patented July 7, 1903.

UNITED STATES PATENT OFFICE.

FREDERICK N. MAGEE, OF HOBOKEN, NEW JERSEY, ASSIGNOR TO MARTIN DAAB, JR., OF HOBOKEN, NEW JERSEY.

AUTOMATIC WEIGHING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 733,059, dated July 7, 1903.

Application filed November 20, 1901. Serial No. 82,964. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK N. MAGEE, a citizen of the United States, residing at Hoboken, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Coin-Controlled Weighing-Machines, of which the following is a specification.

This invention relates to automatic weighing-machines, and particularly to coin-controlled automatic weighing-machines, and has for its object to provide an improved device of the class described in which the numbers indicating the weight are covered from sight until a coin of a predetermined denomination is inserted into the machine.

In the drawings, Figure 1 is a front elevation of a weighing-machine embodying my improvements with the dial and glass removed and showing parts in dotted lines. Fig. 1ª is a front view of the head of the casing, broken away, showing parts of the graduated dial and dial-glass in relation thereto and to the central shaft. Fig. 2 is a front view of the dial-glass detached. Fig. 3 is a detail view of the shutter and connected parts. Fig. 4 is a detail view of the trip for throwing the coin out. Fig. 5 is an enlarged sectional detail showing coin-receiver and its bottom closure in a preferred form.

Corresponding parts in all the figures are denoted by the same reference characters.

In the drawings, 1 designates a spring platform-scale with a revolving dial D (shown in Fig. 1ª) of the ordinary type. 2 is the scale-rod; 3, the dial-shaft, provided with a pinion; 4, the rack meshing with the pinion for turning the shaft; 5, the weight-lever; 6, the regulating-screw, and 7 the springs connecting the scale-rod and the weight-lever.

In the form shown the dial-glass 8 is opaque, except for a single sight-opening 9 in the upper part over the normal zero-point of the scale. The dial-glass 8 may be rendered opaque in any suitable manner, preferably by painting it on the reverse side. The front of the dial-glass may be ornamented and have any suitable inscription placed thereon, herein shown as "Ascertain your correct weight, 1c."

A shutter 10 normally closes the sight-opening 9 and prevents the figures under such sight-opening 9 from being seen. Such shutter 10 is mounted on the end of an arm 11, the other end of which is revolubly mounted on the shaft 3 and rigidly connected with two other arms 12 and 13, which extend upward on either side of the arm 11 at a considerable angle thereto. The arm 12 carries at its upper end a coin-receiver 14, and the arm 13 has a weight 15 adjustably mounted on it. The weight 15 is sufficiently heavy to more than balance the coin-receiver 14 when it is empty; but the coin-receiver 14 when a coin of the predetermined denomination is placed therein will overbalance the weight 15. A stop 16 is provided, against which the arm 13 normally rests. The organization of the parts is such that when the arm 13 bears against the stop 16 the shutter 10 closes the sight-opening 9 and the coin-receiver 14 is in position to receive a coin.

The coin-receiver 14 consists of a suitable receptacle open at the top and of sufficient size to easily admit a coin of the required denomination. To one side and near the bottom of the inside of the coin-receiver 14 a finger 17 is pivoted and normally lies in the path of the coin and prevents its passing through the coin-receiver 14 until such finger 17 is tripped at a certain stage of the operation. Above and in suitable proximity to the coin-receiver 14 is a slot 18 in the casing communicating with a coin-tube 19, which guides the coin to the coin-receiver 14. Located at the bottom of the head portion of the casing is a suitable receptacle for the money, herein shown as a box 20, above which and extending under the coin-receiver 14 is a chute or guide 21, which turns the coin when released from the coin-receiver 14 into the money-box 20. Carried by the shaft 3 is a tripper 22, which at the proper stage of the operation releases the coin from the coin-receiver 14. The tripper 22 consists of a series of radial arms having their ends bent so that when the scale is pulled down they will pass the finger 17 without tripping it, and when the scale is released they will engage and trip the finger 17. This finger may be of any construction suitable to perform the above operation, it being manifest, however, that it must have a

returned end either weighted and pivoted or spring-retained within or upon the wall of the coin-receiver, whereby the bottom of the latter may be opened and the coin discharged when an arm of the tripper strikes the projecting point of the finger from the proper direction.

The operation and advantages of my invention will be readily understood and appreciated.

The parts being in the position shown in Fig. 1, a coin of the required denomination is inserted in the slot 18 and passes through the coin-tube 19 into the coin-receiver 14. This carries the shutter 10 to the left and uncovers the sight-opening 9, and upon stepping upon the platform of the scales 1 the figures indicating the weight of the person on the platform appear in the sight-opening 9. The tripper 22 is carried around with the shaft 3; but the rounded portions of the ends of the arms of the tripper 22 strike the finger 17 and pass without tripping it. When the person steps off the platform of the scales 1, the tripper 22 is revolved in the opposite direction and the pointed ends of the arms strike and trip the finger 17, releasing the coin, which falls onto the chute or guide 21 and is conducted into the money-box 20. The counterweight 15 will then restore the shutter 10 and coin-receiver 14 to their normal positions, the shutter 10 covering the sight-opening 9 and the coin-receiver 14 beneath the coin-tube 19.

I reserve the right to all such variations and modifications of construction and arrangement as properly fall within the scope of my invention and the terms of the following claims.

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

1. In a coin-controlled weighing-machine, the combination, with a scale-platform; a casing having a circular head provided with a coin-opening and an internal coinway leading therefrom; a scale-rod; a weight member; a dial-shaft centrally arranged in the circular head of the casing; means for connecting said rod and member with the dial-shaft; and means—as a rack and pinion—for turning the dial-shaft by the operation of the scale-platform; of a face for said casing having a sight-aperture; a graduated revoluble dial mounted upon the dial-shaft in concentric relation to said aperture; an instrumentality revolubly mounted and consisting of three radial arms carrying upon their outer ends, respectively, a shutter normally closing the sight-aperture, a coin-receiver normally under the end of the coinway and having a bottom closure with a projecting operating-finger, and a counterweight; and a multiple-armed tripper fixed upon the dial-shaft and having its arms adapted to pass the projecting finger of the coin-receiver in one direction without opening the closure and to trip said finger and open the closure to discharge the coin upon the reverse movement of the tripper as the platform is returning to normal position, substantially as and for the purpose set forth.

2. In a coin-controlled weighing-machine, the combination, with a scale-platform, a casing provided in its head portion with a coin-opening and a coinway leading therefrom, a dial-shaft arranged in said casing, scale mechanism provided in the casing, and means for operatively connecting the scale mechanism to turn the dial-shaft, of a face for said casing having a sight-aperture, a graduated revoluble dial mounted upon the dial-shaft and operating with respect to said sight-aperture, an instrumentality turnably mounted in said casing and carrying in radial position with respect to its axis a shutter normally closing the sight-aperture and a coin-receiver normally under the end of the coinway and a counterweight, a bottom closure for said coin-receiver having a projecting operating-finger, and a multiple-armed tripper carried upon the dial-shaft and having its arms adapted to pass over the projecting finger of the coin-receiver in one direction for opening the closure and to trip said finger and open the closure to discharge the coin upon the reverse movement of said tripper.

3. In a coin-controlled weighing-machine, the combination, with a scale mechanism, a casing inclosing the same and provided with a coin-opening and coinway leading therefrom, a dial-shaft mounted in said casing, and means for operatively connecting the scale mechanism and dial-shaft, of a face for said casing having a sight-aperture, a graduated dial mounted upon the dial-shaft with relation to said sight-aperture, an instrumentality turnably mounted in said casing and carrying in radial position with respect to its axis a shutter normally closing the sight-aperture and a coin-receiver normally under the end of the coinway and a counterweight, a bottom closure for said coin-receiver having a projecting operating-finger, and a tripper mechanism carried upon the dial-shaft and adapted in its operation to pass the projecting finger of the coin-receiver in one direction without opening the closure and to trip said finger and open the closure to discharge the coin upon the reverse movement of the dial-shaft.

In testimony whereof I have signed my name in the presence of the subscribing witnesses.

FREDERICK N. MAGEE.

Witnesses:
HARTWELL P. HEATH,
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