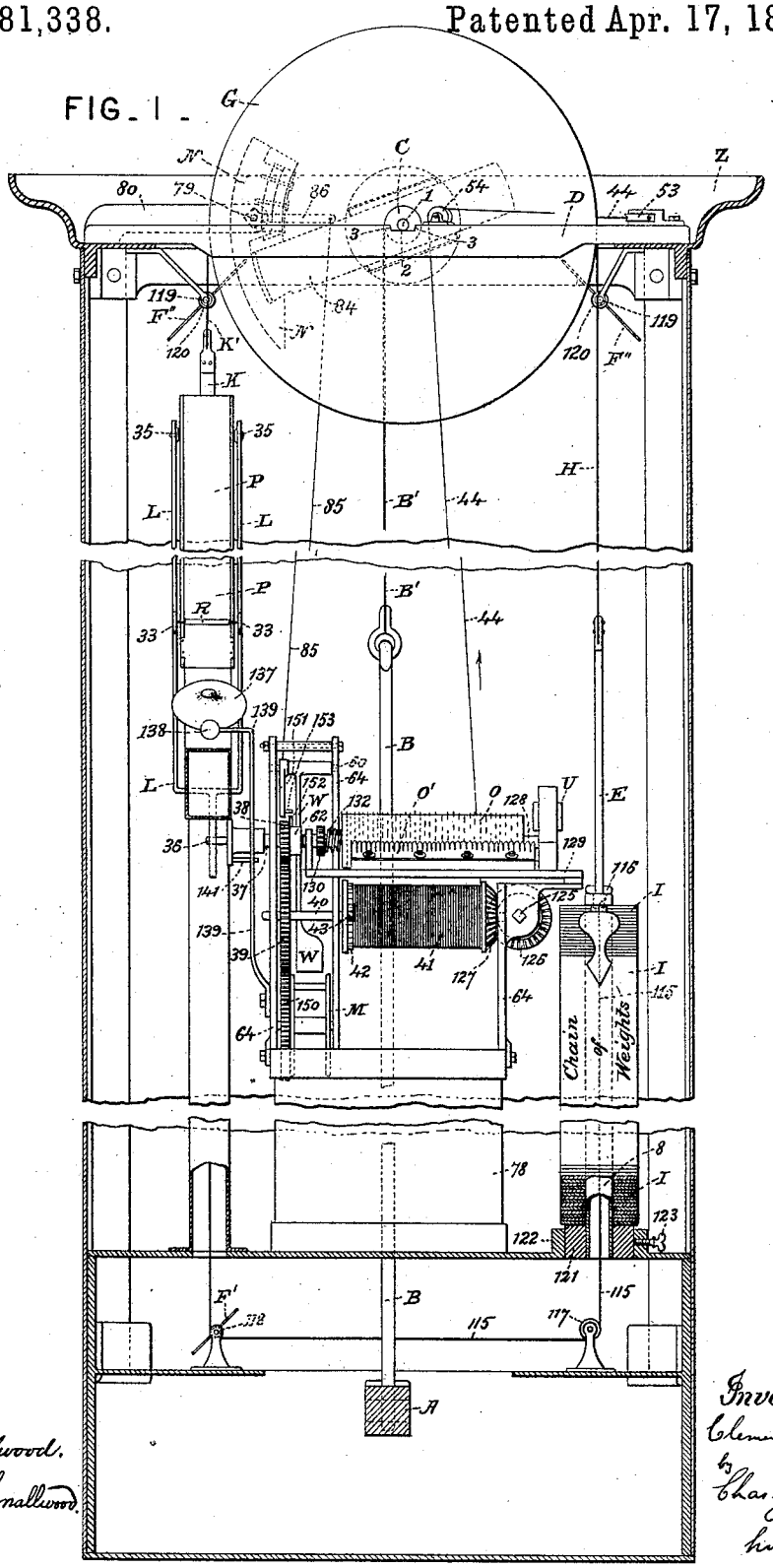
(No Model.) 3 Sheets—Sheet 1.

C. C. CLAWSON.

COIN CONTROLLED MUSICAL WEIGHING AND WEIGHT PRINTING MACHINERY.

No. 381,338. Patented Apr. 17, 1888.

FIG. 1.



Attest:
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Clement Smallwood.

Inventor:
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by Chas. J. Hedrick.
his attorney.

(No Model.) 3 Sheets—Sheet 2.

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FIG. II.

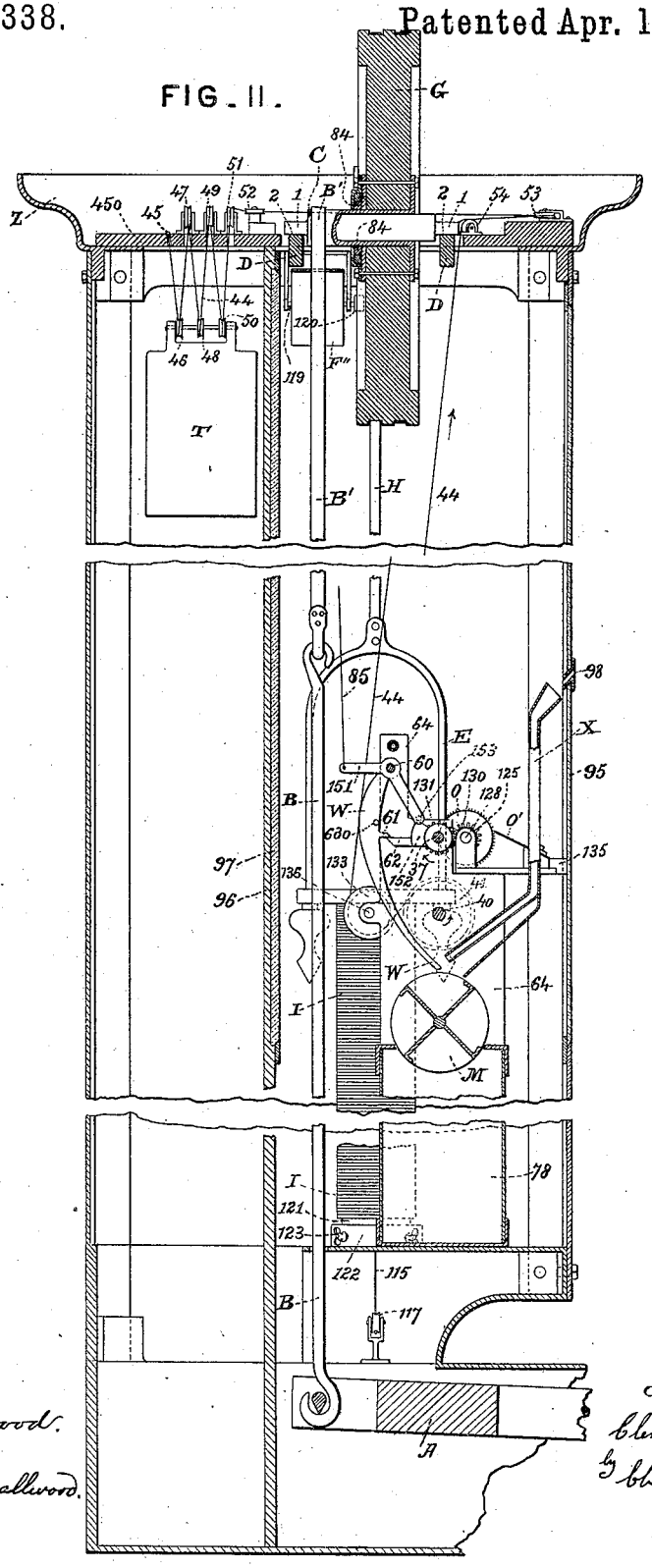

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FIG. III.

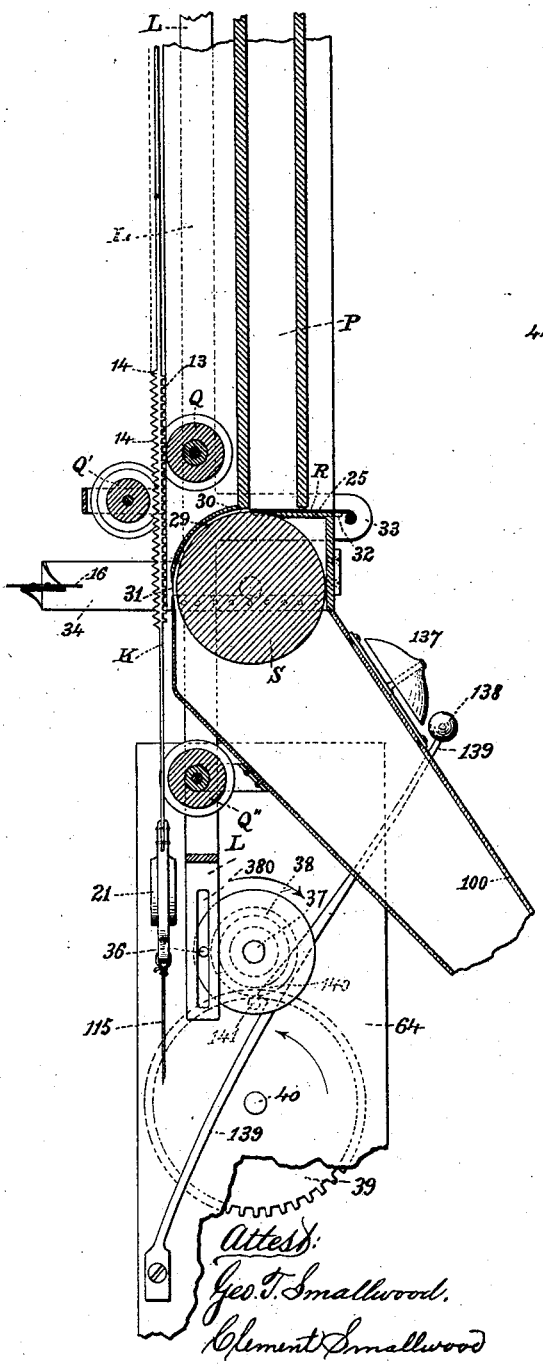

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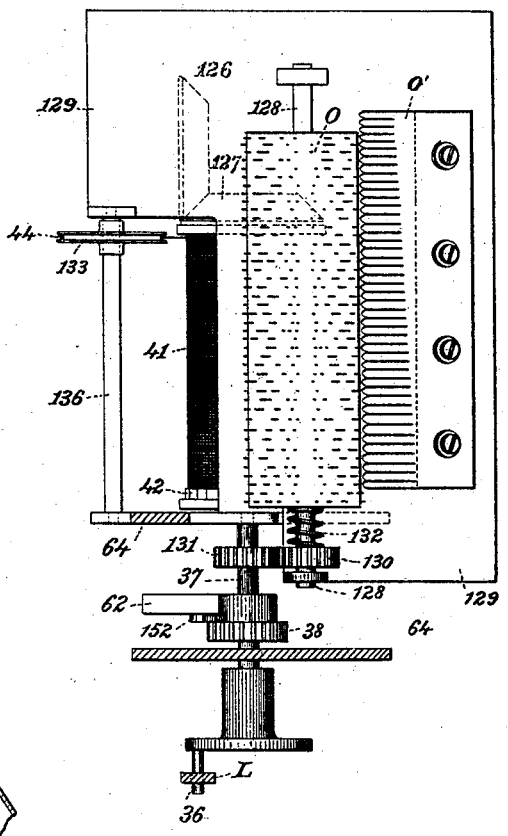
FIG. IV.



Inventor:
Clement C. Clawson.
by Chas. J. Hedrick.
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UNITED STATES PATENT OFFICE.

CLEMENT COLERIDGE CLAWSON, OF NEWARK, NEW JERSEY, ASSIGNOR TO THE UNITED STATES MACHINE AND INVENTIONS COMPANY, OF NEW YORK, N. Y.

COIN-CONTROLLED MUSICAL WEIGHING AND WEIGHT-PRINTING MACHINERY.

SPECIFICATION forming part of Letters Patent No. 381,338, dated April 17, 1888.

Application filed January 26, 1888. Serial No. 261,946. (No model.)

To all whom it may concern:

Be it known that I, CLEMENT COLERIDGE CLAWSON, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Coin-Controlled Weighing and Weight-Printing Machinery, of which the following specification is a full, clear, and exact description.

This invention relates more particularly to machinery whereby a person may receive a ticket printed with his weight on depositing a proper coin or coins in the machine; and it is designed as an improvement upon or modification of the machine described in my application of December 2, 1887, Serial No. 256,798; but the several improvements constituting the present invention may be embodied in any machine to which they are or may be applicable.

The invention comprises, first, certain improvements in the means for moderating the motion of the balancing mechanism when a person steps on or off of the scale. The balancing mechanism includes the counterpoise and the devices, of whatever description, through which the pressure to be balanced is conveyed to the said counterpoise. The counterpoise to be employed is of that kind whose counterbalancing power increases with the motion of the balancing mechanism. Such counterpoises are known in different forms—such as springs, weighted lever-arms, and the like; but preference is given in this specification to a chain or series of weights so connected as to be lifted in succession, and the use of such a chain or series of weights is especially included in the invention. The devices through which the pressure is conveyed to the counterpoise preferably comprise, among others, a drum or other rotatory device provided with bearings, whereon it may roll or traverse from side to side, as well as turn about a fixed axis, as described in said application, the action being that when a person steps on the scale the drum first rolls to one side against one of the stops, which limits its traversing motion on either side, then turns on a fixed axis, and after vibrating back and forth finally, as the result of the continually-decreasing force of vibration, comes to rest out of contact with either stop. Consequently equilibrium is established without sliding friction.

The new or improved means for moderating the motion of the balancing mechanism are (*a*) the combination, with such mechanism, of a traveling belt directly or indirectly connected at both ends with said mechanism so as to be drawn back and forth thereby, and a regulating-fan which is engaged by said belt, so that when the balancing mechanism moves it is obliged to work the fan through said belt; (*b*) the combination, with a drum or rotatory device which has a traversing motion, as well as a rotation about a fixed axis, of a brake or brakes, especially a brake or brakes in the form of a regulating fan or fans, which is or are so arranged as to engage the balancing mechanism when the said drum rolls to one side or the other, and consequently to be out of action when the scale is in equilibrium.

The invention comprises, secondly, new or improved means whereby the position of the weight-printing type (or other weight-indicator, whether making a record or giving a visual indication by a pointer, or both) is controlled. These new or improved means are (*a*) the combination, with a drum forming part of the balancing mechanism, a printing-form connected by a flexible band with said drum on one side of its axis, and a counterpoise connected by a flexible band with said drum on the opposite side of its axis, of a belt fastened at one end to said form and at the opposite end connected with the band which lifts the counterpoise, said belt being suitably guided in its motion by pulleys or otherwise. The belt keeps the type-form in proper position, while allowing it and the balancing mechanism to move with practical freedom. This belt is or may be engaged by the regulating-fan, hereinbefore mentioned. (*b*) the combination, with the drum, the printing-form, and the counterpoise composed of the series of connected weights, of a vertically-adjustable block on which the said weights rest. The adjustment of the block regulates the position of the printing-type with respect to the counterpoise, so that the said type will correctly indicate the weight balanced by the counterpoise.

The invention comprises, thirdly, a certain improvement in the power-driven mechanism which effects the printing of the weight or performs other useful purpose in the machine—such as releasing a detent or driving a musical instrument, as hereinafter explained. This power is preferably furnished by a weight suspended by a cord or wire which is wound upon a drum, and in unwinding actuates the printing mechanism or other parts to be driven by the power of said weight.

The present improvement consists in a grooved distributing-wheel for the wire or cord whereby the driving-weight is suspended, which wheel is loosely mounted on a plain shaft parallel with the axis of the drum, and is moved back and forth longitudinally of said shaft under the pressure of the wire or cord which it distributes. This power mechanism is preferably combined with a coin-motor, so as to be released on the introduction of a proper coin or coins.

The invention comprises, fourthly, a coin-controlled weighing-machine having a music-box or other mechanical playing instrument connected with the weighing machinery, or a suitable portion thereof, and the coin-motor, so that the coin directly or indirectly controls both the weighing machiney, or a part thereof, and the musical instrument in such a way that the latter plays during or about the time of the weighing.

The weighing may be effected in any known or suitable way or ways. The following may be mentioned as being known modes—to wit: the release of the balancing mechanism; the release of an indicator, which then moves under a previously-applied power into a position controlled by the balancing mechanism; the actuation of an indicator by a newly-applied force, so as to cause it to assume such a position; the printing and delivering of a ticket or otherwise making a record, and the removal of an obstruction which prevents an indicator from being seen.

The present improvement includes especially a combined weighing-machine and musical instrument, in which the former prints the weight on a ticket and delivers the same by means of power-driven mechanism, and the musical instrument (whether driven or not by the same power which does the printing) plays during the printing and delivery of the tickets; also, an arrangement whereby the means for effecting the weighing (by release of the balancing mechanism and by printing and delivery of a ticket, or by either mode, or in other known or suitably ways) and the musical instrument are driven by the same power common to both.

The invention comprises, fifthly, a weighing-machine with or without a musical attachment, but containing a power-driven mechanism for effecting the weighing, and provided with a gong, which is rung by said power-driven mechanism at the end of the weighings.

The invention also comprises the particular combinations and arrangements of parts hereinafter pointed out.

In the accompanying drawings, which form part of this specification, what is considered the best mode of applying the principle of the invention is illustrated.

Figure I is a front view, in sectional elevation, of a machine constructed in accordance with the invention; Fig. II, a vertical section in elevation, looking to the right of Fig. I; Fig. III, a partial view, on an enlarged scale, in sectional elevation in a plane to the left, as seen in Fig I, of that of Fig. II; and Fig. IV, a partial view in plan, partly in horizontal section.

The balancing mechanism shown is the same as described in my aforesaid application—that is to say, the lever A of an ordinary platform-scale is connected by the rod B (see Figs. I and II,) with the lower end of a steel band, B′, which is wound on the axle C of a drum, G, so that when the platform is depressed the band is drawn down and the drum G is turned. This drum G constitutes the rotatory device through which the pressure of the object weighed is conveyed to the counterpoise I, formed, as shown, of a chain of weights, as described in my Patent No. 366,303, dated July 12, 1887, the top weight of the chain being connected through the stirrup E with the steel band H, whose upper end is fastened to the drum G, so that as the drum G is turned by the pull on the band B the band H is wound on its periphery and the weights I lifted in succession until the weight on the scale-platform is balanced. The double bearing for this rotatory device is formed by the journals 1, which are upheld by stationary cross-pieces D. They rest upon the level bearing-surfaces 2 between the stops 3, but normally out of contact therewith.

When the scale-platform is depressed and the drum G is turned, the journals 1 roll on the surfaces until they strike stops 3, whereupon they turn, like ordinary journals or pivots, until the increasing force of the counterpoise I arrests the motion of the drum G. As this will not take place until the parts have passed the point of balance, the force of the counterpoise will turn the drum in the opposite direction, the journals rolling to the stops 3 at the other end of the surfaces 2, when they again turn or may turn as pivots. Finally, the vibration results simply in rolling the journals 1 on the surfaces 2, and the balance is secured with the journals 1 out of contact with the stops 3 by means of a bearing without sliding friction.

In order to moderate the motion of the balancing mechanism and reduce the extent of its vibration, the fan F′, journaled in stationary bearings in the base of the machine, is connected with the drum G through the belt 115, so as to be revolved rapidly by the rotation of the drum G. The belt 115 passes up through the weights I. It is fastened at one end to the block 116, Fig. I, on the stirrup E, and at the

other end, through the weight 21, Fig. III, to the lower end of the printing form or band K, whose upper end is connected with the band K′, fastened in and adapted to wind upon the drum G, so that the belt 115 is indirectly connected at both ends with the drum G, and is consequently drawn back and forth by the rotation thereof. It is guided by the pulley 117, mounted on a shaft under the weights I, and the pulley 118 on the shaft of the fan F′. The stationary post 8, inside the counterpoise-weights I, is made hollow for the passage through it of the belt 115.

As a further means of moderating the motion of the balancing mechanism, a fan, F″, on each side of the drum G is provided. The shaft 119 of each fan F″ is journaled in stationary bearings, and is provided with a pulley or friction-wheel, 120, (see Figs. I and II,) which occupies such relation to the drum G that it is engaged thereby only when the said drum rolls to one side. When, therefore, the journals 1 of said drum are against either of the stops 3, one of the fans F″ is revolved by the periphery of the drum engaging the pulley 120, and acts as a brake; but when the drum G is in an intermediate position, which is the position occupied at equilibrium, the brakes or fans F″ are out of action and do not interfere with the accuracy of weighing.

The post 8 (see Fig. I) is fastened at the bottom in the block 121, which is made vertically adjustable by being held in a stationary socket, 122, (see also Fig. II,) by set-screws 123. If the block 121 is shifted up or down, all the counterpoise-weights I are shifted in like manner independently of the weight on the scale, and the printing form or band K is shifted in the opposite direction. If, therefore, when the machinery is put together it should be found that the impression from the type of the form K should not correspond with a test-weight placed on the scale-platform, the error (which would be a few pounds at most) can be corrected by adjusting the block 121 in its socket 122.

The printing form or band K and other parts of the printing and delivery mechanism are (with the exception of a few details) as described in my aforesaid application.

The band K, of soft rubber, strengthened by a strip of cloth, has the type 13, Fig. III, in front, and the holding-teeth 14 at the back, opposite the spaces between the type, and is adjusted by the drum G in front of the reciprocatory printing-finger 16. It is inked by the roller Q, and is guided by it in connection with the guide-roller Q′. As shown herein, there is an additional roller, Q″, which guides the band, and which may or may not be adapted to ink the type 13 as they are drawn over it by the motion of the balancing mechanism.

The tickets to be printed with the results of the weighings are supplied from the card-box P, whose bottom is formed by the piece 25, (see Fig. III,) in connection with the roller S. A curved discharge-passage, 29, formed between the periphery of the roller S and the concave 30, extends from the back of the card-box down in front of the printing-finger 16. The concave 30 is provided with an opening, 31, through which the type 13 may be pushed by the printing-finger, in order to make an impression on the card in the lower end of the discharge-passage 29. The bottom card is pushed from the card-box into the discharge-passage 29 by the reciprocatory pusher R, whose thickness is that of a card. It has depending side flanges, 32, (see Fig. III,) so that it will be impossible for a card to get under the pusher. The discharge-passage 29, when the machine is in use, contains several cards, which are pushed through each by the card behind when the pusher advances, the roller S rotating with the cards, so that there is but little friction. The pusher R is fastened to arms 33 on the front and the printing-finger 16 to arms 34 on the rear of the printing-lever L, pivoted at 35, Fig. I, to the card-box P, and operated by a crank-pin, 36, Figs. I, III, and IV, on the shaft 37. The crank-pin 36 works in a slot, 380, in the lower end of the printing-lever L. When the lever L is moved forward, the printing-finger 16 enters between two of the teeth 14, and presses the type opposite into contact with the card, and on the return movement of the said lever L the pusher R forces a new card into the discharge-passage 29 and forces out the printed card. The shaft 37 is geared by a fast pinion, 38, and fast spur-wheel 39 to the shaft 40, on which is a loose drum, 41, provided with a ratchet-wheel, 42, which is engaged by the pawl 43, carried by a disk fixed on the shaft 40, so that the drum 41 can be turned independently of the shaft 40 for winding. It is wound through the shaft 125 and bevel-gears 126 and 127.

The weight T, Fig. II, which furnishes the power for printing and delivering the cards or tickets, is suspended in loops of the wire 44, which has one end fastened at 45, Fig. II, to the cross-piece 450 in the top Z, runs around the pulleys 46, 47, 48, 49, 50, 51, 52, 53, and 54 and the distributing-wheel 133, and is wound upon the drum 41. The descent of the weight tends to rotate the shafts 37 and 40 in the direction of the arrows, Fig. III.

The distributing-wheel 133 is mounted loosely on a plain shaft, 136, (see Fig. IV,) so that it may turn thereon and also slide lengthwise of the same, and it has in the periphery a groove which receives the wire 44. The side pressure of this wire, as it is wound on the drum 41, carries the wheel 133 lengthwise of the shaft 136.

The escapement-lever W, Fig. II, fulcrumed on the rock-shaft 60, has a tooth, 61, which engages an arm, 62, fast on the shaft 37, and prevents the rotation of the mechanism driven by the weight T. When the escapement-lever W is moved back, the tooth 61 is removed from the path of the arm 62 and rotation of the mechanism is permitted. The escapement-

lever W is so weighted that it tends to swing forward and place the tooth 61 in the path of the arm 62. The ends of a cross-piece, 630, fastened to the lever W, act as stops to limit this forward motion by contact with the frame 64, by which the various parts of the mechanism driven by the weight T are supported.

The lower end of the escapement-lever W is just below the lower end of the coin-spout X, which directs a proper coin against said lever W, so as to release the mechanism driven by the weight T. The coins, after acting on the escapement lever, are each received in one of the compartments of the coin-holder M, which is revolved by the spur-wheel 150, Fig. I, engaging the wheel 39, and which, after exposing the coins for a time to view discharges them into the money-box 78.

The weight T not only operates the ticket printing and delivery mechanism, but it also drives the cylinder O of a music-box, so that the latter plays a tune during the printing and delivery of each ticket. This cylinder is mounted on a shaft, 128, journaled in bearings of a bed-plate, 129, which is fastened to the frame 64, and is geared to the shaft 37 by means of the spur-pinions 130 and 131, Fig. IV. The cylinder is of any ordinary or suitable form, and it plays by acting upon the teeth of a metallic comb, O', as well understood. It is or may be provided with the ordinary means (of which the spiral compression-spring 132 is part) for shifting the cylinder to play a different tune at each revolution, and it is connected by the ordinary train of gears (not shown) with a regulating-fan, U, Fig. I, such as commonly used in music-boxes. This fan regulates both the music-box and the ticket printing and delivery mechanism. In order that the sound of the music may be louder outside the case of the machine, a sound-conveying block, 135, (wood will answer,) is interposed (see Fig. II) between the glass front 95 of the case and the frame which supports the music-box.

The weight T also furnishes the power to ring a bell, 137, at the end of the printing operation. The hammer 138 is carried by an elastic arm, 139, which is fixed at its lower end (see Fig. III) to the frame 64 of the clockwork or mechanism driven by the weight T, and carries near its middle a projection, 140, inclined on its rear face and terminating abruptly at the bottom. This projection is normally in the path of the pin 141, which is carried around with the shaft 37, (see Figs. I and III,) and when near the end of its rotation moves over the projection 140, pushing it out and moving the hammer 138 away from the bell 137. When the pin 141 reaches the lower end of the projection 140, it suddenly releases the same, whereupon the elasticity of the arm 139 throws the hammer 138 against the bell or gong 137.

The weight T, lastly, as in my aforesaid application, furnishes power to withdraw the detent N, (shown in dotted lines in Fig. I,) which, when the machine is not in use, engages the locking-plate 84, fastened to the side of drum G, and until withdrawn prevents the balancing mechanism from moving when a person steps on the scale-platform. The detent N is mounted on a stud, 79, carried by the bracket 80, and is turned so as to release the locking-plate 84 by a pull on the cord or wire 85, which is connected with an operating-lever arm, 86, on the lock or detent N. The lower end of the wire 85 is connected with the rear end of a bent lever, 151, which is fulcrumed on the shaft 60, and whose front end is lifted by the action of a small plate, 152, attached to and rotating with the arm 62, against the pin 153, which projects from one side of the lever.

The standard of the machine is inclosed on all sides. The front is of glass at 95, Fig. II, so as to expose the works to view, and on the front of the vertical partition 96 is a mirror, 97, to reflect them.

When a person desires to use the machine, he steps upon the platform thereof. No movement takes place, the balancing mechanism being locked by the detent N. He then introduces a proper coin through the slot 98 into the coin spout X, Fig. II. This coin is directed by said spout against the escapement-lever W and pushes it back, releasing the shaft 37 and allowing it and the other parts connected therewith to be rotated by the weight T. The cylinder O begins to play a tune. The small plate 152 rocks the lever 151, and through the cord or wire 85 withdraws the detent N, releasing the balancing mechanism, which is immediately operated by the weight on the scale-platform, and the crank-pin 36 commences to advance the printing-lever L, bringing up the printing-finger 16 and withdrawing the pusher R from the bottom of the card-box P. The motion of the balancing mechanism is moderated by the fan F' and the fans or brakes F'', and said mechanism soon comes to rest with so many of the counterpoise-weights I suspended from the band H as will balance the weight on the scale-platform, and with the printing-form K so far lowered as to bring the type 13, representing said weight, opposite the printing-finger 16. The parts will under ordinary conditions come into equilibrium before the printing-finger 16 has reached the printing-form K. The continued rotation of the shaft 37 and crank-pin 36 inserts the finger between the teeth 14 behind the type 13, which has been brought into printing position, and pushes it forward through the opening 31 against the card in the discharge-passage 29. The type 13, having been inked by moving over the ink-roller Q or Q'', or both, prints the weight on the card. During the advance of the printing-finger 16 the pusher R has been removed from under the pile of cards in box P, which pile then drops down, bringing the bottom card in front of the pusher R. After the printing has been effected, the crank-pin 36 moves back the printing-lever L, and the pusher R, acting against

the edge of the bottom card or ticket, forces it edgewise into the passage 29, rotating the roller S and discharging the newly-printed card, which falls upon the incline 100, Fig. III, and slides out of the machine, to be received by the person weighing.

The cylinder O has continued playing during the printing and delivery of the card or ticket, and at or about the end of the latter operation the pin 141, which meanwhile has pushed back the arm 139 and hammer 138, passes from behind the projection 140 and allows the elasticity of the arm 139 to throw the hammer 138 against the bell or gong 137 to ring the same.

The power-driven mechanism after one revolution of the shaft 37 is automatically arrested by the escapement-lever W engaging the arm 62, and so remains until another coin is introduced. When the person steps off the scale, the weights I descend and the drum G is revolved until the locking-plate 84 is engaged by the detent or lock N, which holds it stationary until the said detent is disengaged by the power-driven mechanism on the introduction of another proper coin. This reverse revolution of the drum G of course winds up the bands B′ and K′, ready for a new operation. The coin remains exposed to view in the coin-holder M until the next operation of the machine, when it is discharged into the money-box 78.

In the foregoing particular description details are given for the purpose of enabling others to make and use the invention; but it will be understood that the invention is not limited to them.

The term "coin-motor" as employed herein signifies a contrivance of any suitable description, whose condition or operation is effected by the introduction of a coin, such coin-motors being known in a variety of forms for various purposes.

The term "power-driven mechanism" is intended especially to cover a mechanism driven by a mechanical power of which weights and springs are familiar examples; but it also includes mechanism driven by other known forces.

The term "weighings controller" is intended especially to cover, first, a lock or detent for the balancing mechanism, and, second, a ticket printing and delivering mechanism (separately or in conjunction with each other;) but it also includes, generally, devices which directly or indirectly control the weighings, either in the balancing of the objects weighed or in the indication or disclosure of the results, and whose operation depends more or less upon the application or removal of some force outside of the gravity of the object weighed. Such means are known in various forms, and effect the weighings according to various modes, as hereinbefore indicated. The weight indications or disclosures may be by printing or otherwise. As exhibited in the machine shown in the drawings, the weighings-controller is operated by a power-driven mechanism, and the latter is controlled by a coin-motor; but while this arrangement is specially included in the invention, the latter is not restricted thereto.

I claim as my invention or discovery—

1. The combination, with balancing mechanism having a counterpoise whose counterbalancing effect increases with the motion of said mechanism, of a traveling belt connected at both ends with said mechanism, so as to be drawn back and forth thereby, and a regulating-fan driven by said belt, substantially as described.

2. The combination, with a balancing mechanism comprising a drum in connection with a counterpoise whose counterbalancing effect increases with the motion of said drum, of a belt having its ends connected with said drum on opposite sides of the axis thereof, and a regulating-fan driven by said belt, substantially as described.

3. The combination, with balancing mechanism having a drum or rotary device mounted in bearings whereon it may roll, as well as rotate, about a fixed axis, of a brake or brakes arranged at or near the end of the drum's traverse, so as to be engaged when the drum rolls to one side and disengaged in equilibrium when the drum is in an intermediate position, substantially as described.

4. The combination, with a drum forming part of the balancing mechanism, a printing-form connected by a flexible supporting-band with said drum on one side of its axis, and a counterpoise connected by a flexible supporting-band with the said drum on the opposite side of its axis, of a belt connected at one end with the said drum through said printing-form and its supporting-band, and at the other through the band which supports said counterpoise, substantially as described.

5. The combination, with a drum forming part of the balancing mechanism, a printing-form connected by a flexible supporting-band with said drum on one side of its axis, and a counterpoise connected by a flexible supporting-band with the said drum on the opposite side of its axis, of a belt connected at one end with the said drum through said printing-form and its supporting-band, and at the other through the band which supports said counterpoise, and a regulating-fan driven by said belt, substantially as described.

6. The combination, with balancing mechanism having a counterpoise composed of a series of weights connected together, so as to be automatically lifted in succession by the motion of said mechanism, and the printing-form adjusted or controlled by said mechanism, of a vertically-adjustable block or support whereon the weight rests when not suspended, so that the adjustment of said block or support regulates the position of the printing-form, substantially as described.

7. The combination of the printing-form, its supporting-band, the drum, the series of counterpoise-weights, their supporting-band, the hollow post over which the counterpoise-weights pass, and the belt connecting the said printing-form with the aforesaid band for supporting the counterpoise-weights, said belt running over guides and through said hollow post, substantially as described.

8. The combination, with a weighing-scale, of a power-driven mechanism connected with said scale and containing a drum, a wire or cord wound upon the said drum, a grooved distributing-wheel engaged by said wire or cord, and a plain shaft on which said wheel is loosely mounted, so as to be capable of sliding back and forth on said shaft, the operating power being conveyed through said cord or wire to the said drum, substantially as described.

9. The combination, with the traversing and rotating drum and its counterpoise, of the fan or fans arranged at or near the end of the drum's traverse, so as to be engaged or disengaged by the motion of said drum, substantially as described.

10. The combination, with the drum forming part of the balancing mechanism, the flexible printing-band connected with said drum on one side of its axis, and the counterpoise connected by a flexible supporting-band with the drum on the opposite side of the axis, of a belt connecting the lower end of the printing-band with the lower end of the counterpoise-supporting band, and guides or pulleys over which said belt is drawn, substantially as described.

11. The combination, with the drum, the flexible printing-band, the counterpoise, the counterpoise-supporting band, and the belt connecting the lower ends of said bands, of the regulating-fan driven by said belt, substantially as described.

12. A musical weighing-machine comprising, first, the weighing machinery composed of balancing and weight-indicating mechanisms with a platform or support for the persons or objects weighed arranged outside the standard containing said mechanisms; second, an automatic musical instrument, and, third, connections between the weighing machinery and the musical instrument, so that the latter plays a tune whenever a weighing takes place, substantially as described.

13. A musical weighing-machine comprising, first, the weighing machinery composed of balancing and weight-indicating mechanisms with a platform or support for the persons or objects to be weighed arranged outside the standard containing said mechanisms; second, an automatic musical instrument, and, third, connections between the weighing machinery and the musical instrument composed of a lock or detent for one of the elements mentioned under first and second, and means for releasing it by the operation of the other of said elements, so that the instrument plays a tune whenever a weighing takes place, substantially as described.

14. A musical weighing-machine comprising, first, balancing mechanism; second, a weighings-controller, as hereinbefore defined, and, third, an automatic musical instrument connected with said weighings-controller, so that the instrument plays a tune whenever a weighing takes place, substantially as described.

15. A musical weighing-machine comprising, first, a balancing mechanism; second, an automatic musical instrument, and, third, a weighings-controller, as hereinbefore defined, connected with said instrument and operated by stored power, substantially as described.

16. A coin-controlled musical weighing-machine comprising, first, a balancing mechanism; second, an automatic musical instrument; third, a weighings-controller, as hereinbefore defined, and, fourth, a coin-motor which controls the weighings-controller and the musical instrument, so that on the introduction of proper coins weighings are effected and tunes played at the same time, substantially as described.

17. A coin-controlled musical weighing-machine comprising, first, a balancing mechanism; second, a musical instrument; third, a weighings-controller; fourth, power-driven mechanism, whereby said instrument and said weighings-controller are operated, and, fifth, a coin-motor which controls both the said instrument and the said weighings-controller through the power-driven mechanism, substantially as described.

18. A coin-controlled musical weighing-machine comprising, first, a balancing mechanism; second, a lock or detent for said balancing mechanism; third, a clock-work connected with said detent so as to release the said detent when operated; fourth, a musical instrument connected with or driven by said clock-work, and, fifth, a coin-motor which controls said clock-work, and through it the detent and the musical instrument, substantially as described.

19. A coin-controlled musical weighing and weight-printing machine comprising, first, a balancing mechanism; second, a lock or detent for said balancing mechanism; third, a ticket printing and delivering mechanism whose type are adjusted and controlled by said balancing mechanism; fourth, a clock-work connected with said detent and said ticket printing and delivery mechanism, so as to release the detent and after a time print and deliver a ticket; fifth, a musical instrument connected with or driven by said clock-work, and, sixth, a coin-motor which controls said clock-work, and through it the detent, the ticket printing and delivery mechanism, and the musical instrument, substantially as described.

20. A musical coin-controlled machine having a movable platform, an upright glass case

or standard, and coin-controlled weighing and tune-playing machinery exposed to view in said case, the balancing mechanism of such machinery being connected with the said platform, substantially as described.

21. A weighing-machine comprising a coin-controlled power-driven mechanism connected with the weighing machinery, so that it operates during the weighing, and a gong or bell which is sounded by said mechanism after the latter has run for a suitable time, substantially as described.

In testimony whereof I have signed this specification in the presence of two witnesses.

CLEMENT COLERIDGE CLAWSON.

Witnesses:

T. A. BERMINGHAM,

F. R. STAATS.