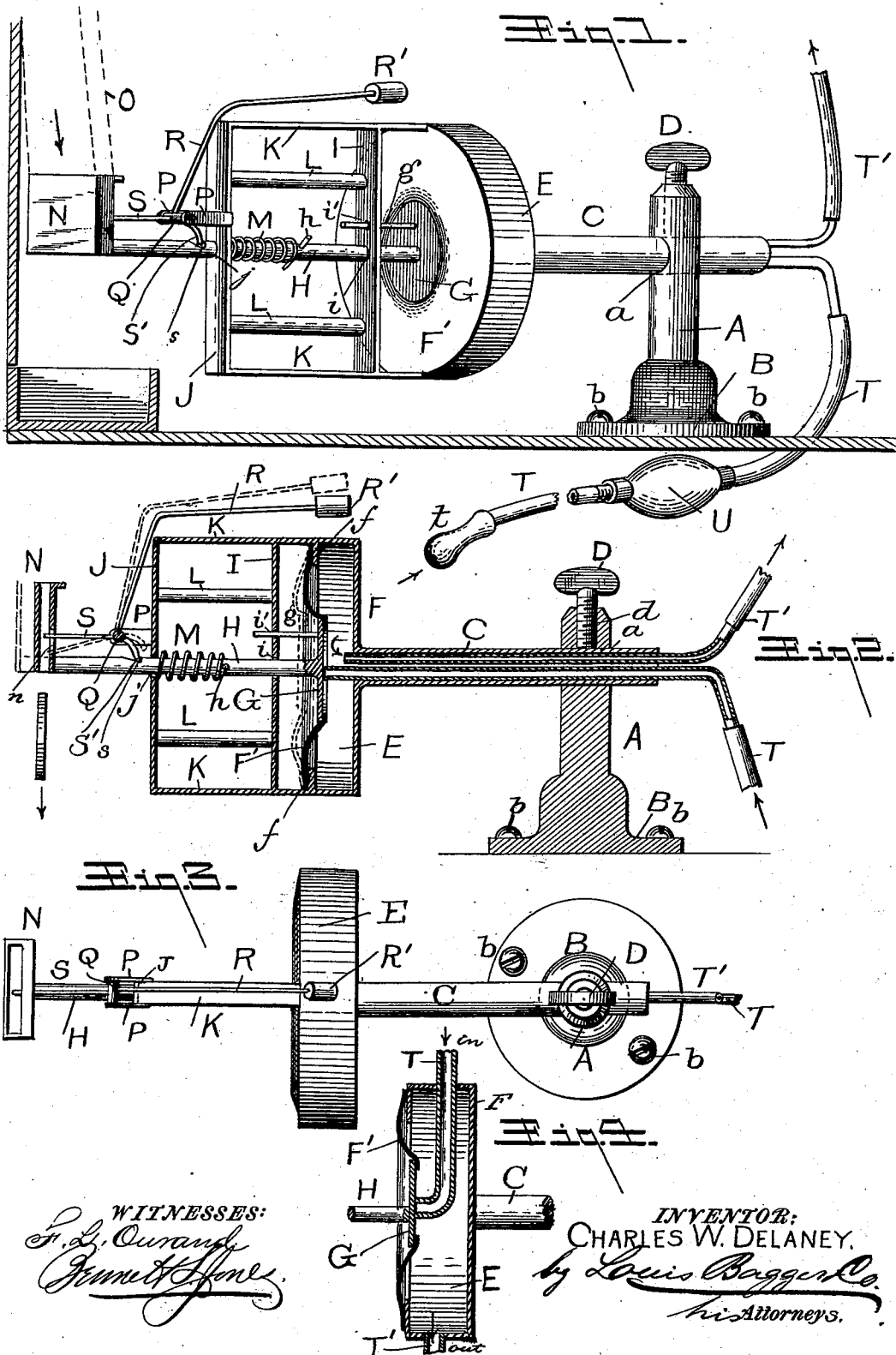


(No Model.)

C. W. DELANEY.
COIN CONTROLLED APPARATUS.

No. 511,594.

Patented Dec. 26, 1893.



WITNESSES:
F. L. Curran
James H. Jones

INVENTOR:
CHARLES W. DELANEY.
by Louis Baggett Co.
his Attorneys.

UNITED STATES PATENT OFFICE.

CHARLES WILLSON DELANEY, OF HAMMOND, INDIANA, ASSIGNOR TO
JOSEPH W. DYSARD, OF SAME PLACE.

COIN-CONTROLLED APPARATUS.

SPECIFICATION forming part of Letters Patent No. 511,594, dated December 26, 1893.

Application filed May 8, 1893. Serial No. 473,466. (No model.)

To all whom it may concern:

Be it known that I, CHARLES WILLSON DELANEY, a citizen of the United States, and a resident of Hammond, in the county of Lake and State of Indiana, have invented certain new and useful Improvements in Coin-Controlled Apparatus; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved apparatus. Fig. 2 is a sectional view of the same, on a vertical plane intersecting the inflation box at right angles; the dotted lines indicating the motion or play of the flexible diaphragm and its attachments when the apparatus is in operation. Fig. 3 is a plan or top view of the apparatus; and Fig. 4 is a sectional detail view, showing a somewhat modified construction and arrangement of the inflation box with its air-tubes.

Like letters of reference denote corresponding parts in all the figures.

This invention relates to coin-controlled apparatus of that particular class or type in which the machine is operated by blowing into a tube which communicates with a box having a flexible diaphragm, by the motion of which the operating parts are actuated; the dropping of the coin releasing a dog or pawl which permits the necessary motion of the flexible diaphragm; and it consists in the novel construction and combination of parts of the device or apparatus which will be hereinafter more fully described and claimed.

Referring to the drawings, the reference letter A denotes a short post or standard of wood or metal, secured in a base, B, which is permanently fastened in the bottom of a suitable box or casing (not shown) by the screws b. The standard A is bored through transversely, as shown at a, for the insertion of the horizontal tube C, which is held in place removably, in its seat or aperture a by means of a thumb-screw D, which works in a threaded socket, d, in the upper end of the standard, with its lower end bearing against tube C, as clearly shown in Fig. 2. To one end of this

horizontal tube C is fastened the inflation-box E, which is preferably of circular shape, with a rigid head F on one side, and, on the opposite side, a rim or annular flange f, which supports the flexible circular diaphragm F', made, preferably, of a thin sheet of india-rubber. To the middle of this flexible and elastic diaphragm or cover is suitably secured a circular plate or disk G, to the center of which is attached a stem or thin rod H, which projects through coinciding apertures, i and j, in the guide-plates I and J, which said plates are supported in parallel arms or brackets, K K, fastened to and projecting outwardly from the rigid rim of the box E. The movements of the disk G and its stem H are further guided and controlled by a short arm g, which is fastened upon the disk and works through an aperture i' in the innermost guide plate I. The two parallel guide-plates I and J are connected by braces, L L, on opposite sides of the central movable stem H. That part of said stem H which lies between the parallel guide-plates I and J is encircled by a coiled spring M, the outer end of which takes its bearing against plate J, while its other or inner end bears or presses against a pin, h, inserted crosswise through stem H, so that the tension of the coiled spring will operate, normally, or when the machine is at rest, to maintain the disk G, and with it the flexible diaphragm F', in its "down" or flat position, as shown in full lines in Fig. 2. To the outer end of the stem H is fastened, approximately at right angles, the coin-receiver N, which is in the nature of a shallow box or receptacle, with open top and bottom, and of such size, interiorly, that it will fit snugly a coin (for example, a "nickel," a "dime," or a "one cent piece") dropped into it through a chute O, the upper end of which communicates with a slot in the inclosing box or casing within which the apparatus is placed, but only part of which is shown on the drawings.

Upon the guide-plate J are fastened two forwardly projecting short parallel arms P P, between which is hung a short rock-shaft Q, in which is fastened a bent arm R, carrying a weight or counterpoise R' at its free end. In the rock-shaft Q is also fastened an arm S, the outer end of which projects into the mid-

dle part of the coin-receiver N on its under side, through a narrow vertical slot *n*, while its opposite or inner end is bent in a downward direction and beveled, as shown at S',
 5 to form a pawl adapted to engage or interlock with a notch, *s*, cut in the movable stem H. When the pawl, due to the operation of the weighted arm R, is in its "down" position, as shown in full line in Fig. 2, so as to
 10 engage the notch *s*, it will be seen that it will prevent the stem H from moving outwardly from box E; but such movement may take place freely when the pawl is lifted out of and disengaged from its notch *s*, as shown in
 15 dotted lines.

The tube C, to one end of which the inflation-box E is attached, and which, therefore, forms a support or bearing for said box and its attachments, also serves as a conduit or sup-
 20 port for two flexible tubes, shown at T and T'. One of these (T) has a mouth-piece *t*, which should project, with a suitable length of flexible tubing, outside of the box or casing which incloses the entire apparatus, and forms the
 25 blow-pipe or inflating-tube by and through which the apparatus is primarily operated (after the dropping of a coin into the receiver N), while the other tube T', which is of smaller dimensions (*i. e.* thinner) than the blow-tube,
 30 forms the outlet or exhaust for the air blown into the box E through tube T *t*. These two tubes, T and T', may be located and arranged in various ways; for example, as in Figs. 1, 2, and 3, where they both open up into box E
 35 through its rigid head F; or, as in Fig. 4, they may be inserted into the inflation-box through the sides or rim of the same. In any case, the inlet tube T is carried up against the middle part of the movable plate G, on the inside, while
 40 the exhaust-tube T' is clear and free from contact with the diaphragm. The other end of the exhaust tube may be connected with an automatic vending-machine, a lung-tester, or any other form of apparatus or contrivance
 45 adapted to be operated by a current of air. If desired, the blow-tube T may be provided with an enlargement or bulb, U, adapted to intercept dust, dirt, or any foreign matter which may pass through the mouth-piece *t*
 50 and tube T, and prevent the same from reaching and finding lodgment in the inflation-box E.

From the foregoing description, taken in connection with the drawings, the operation
 55 of this apparatus will readily be understood. When it is desired to operate the device, a coin of the proper denomination must first be deposited in the coin-receiver N through chute O. The lower rim of the coin, intercepted by
 60 and resting upon that end of the pawl-arm S

which projects into the bottom of the coin-receiver through the slot or opening *n*, will by its weight, overbalance the counterpoise R' on arm R so as to rock or tilt the shaft Q in its bearings between arms P P, thereby lifting the pawl S' out of the notch *s* in the movable stem H. By now blowing through the mouth-piece *t* and tube T into box E, the flexible diaphragm F' of the latter will be raised or bulged, as shown in dotted lines, thereby
 65 pushing upon disk G and its stem H so as to push the coin and coin-receiver at the outer end of the stem away from the end of the retaining arm S, thus permitting the coin deposited in the receiver to drop through the open
 70 bottom of the same into a suitable receptacle or drawer placed below. As long as the blowing continues, spring M will remain compressed and the air will pass from the inflation-box out through the exhaust tube T into
 75 the vending apparatus, tester, or whatever other contrivance is connected with the controlling device. But the moment the blowing stops, spring M will relax and force the diaphragm F' back into its normal flat position,
 80 carrying with it the disk G and stem H, so that the pawl (actuated by the weighted arm R and rock-shaft Q) will again drop back into and interlock with the notch *s*, thus locking
 85 the apparatus and preventing inflation of box E until its stem is again released from the retaining pawl by the dropping of another coin into the receiver, the bottom of which is now again closed by the end of arm S projecting
 90 into the receiver through the slot on one side thereof.

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

The combination in a coin-controlled apparatus of the described type, of the inflation-box having a flexible diaphragm provided with a central disk and projecting notched stem carrying a coin-receiver at its outer end, the inflation air-tube, the exhaust air-tube, the
 100 spring encircling the notched stem, the pawl engaging with one end the notch in the stem and projecting with its other end into the open bottom of the coin-receiver, the guide-plates, the rock-shaft and the weighted arm;
 105 all constructed and combined to operate substantially in the manner and for the purpose shown and set forth.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature
 115 in presence of two witnesses.

CHARLES WILLSON DELANEY.

Witnesses:

GEO. EHFFIELD,
 J. S. BLACKMAN.