

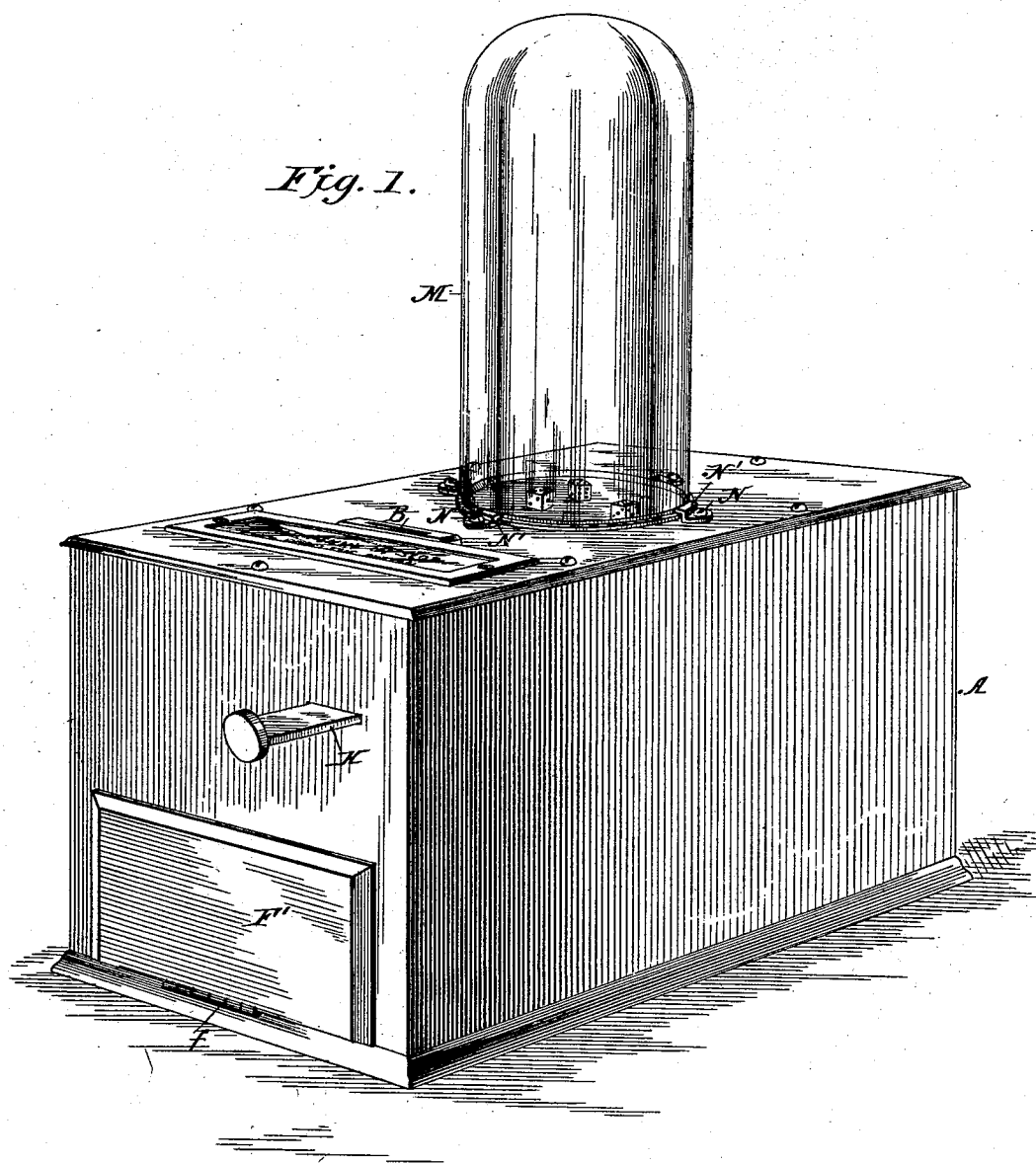
(No Model.)

4 Sheets—Sheet 1.

R. M. SHAFFER.
COIN CONTROLLED APPARATUS.

No. 508,848.

Patented Nov. 14, 1893.



WITNESSES:

Fred G. Dieterich
P. B. Furpien

INVENTOR

Richard M. Shaffer
BY *Munn & Co*
ATTORNEYS.

(No Model.)

4 Sheets—Sheet 2.

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Fig. 2.

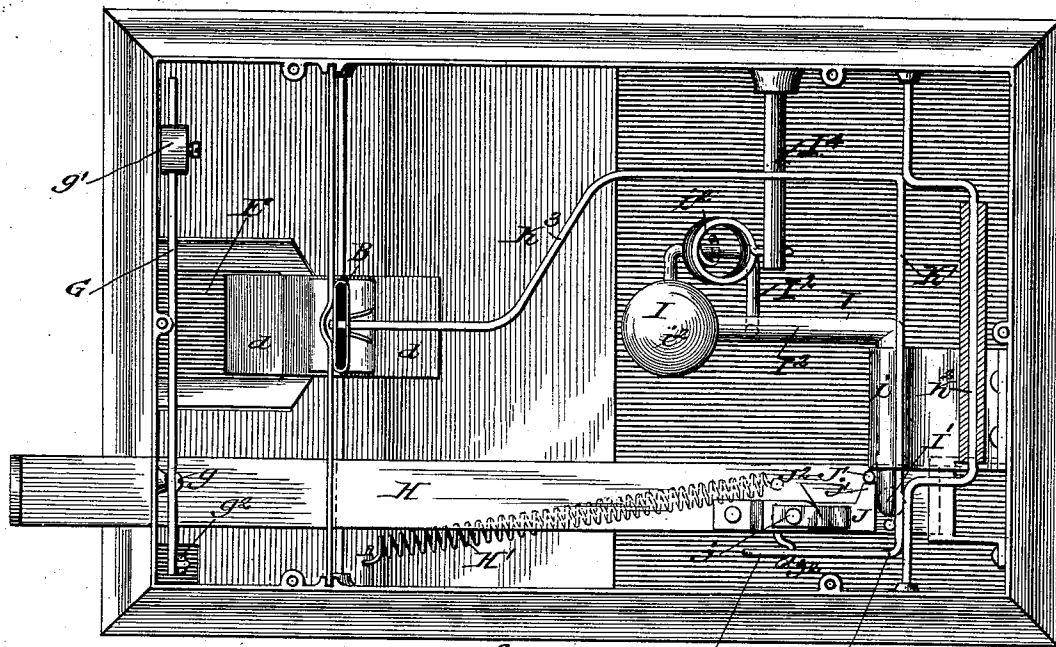
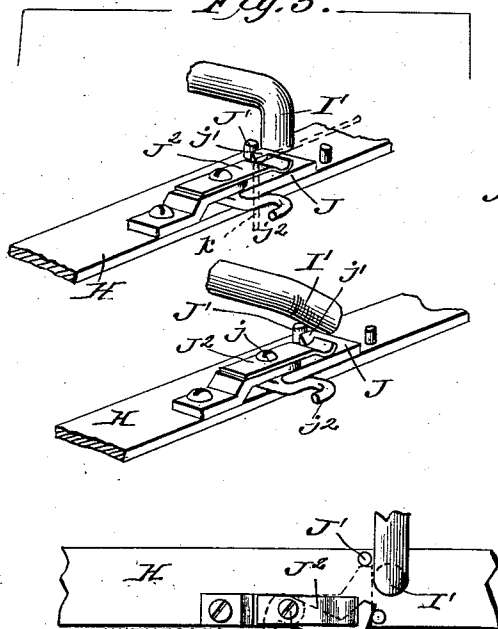


Fig. 5.

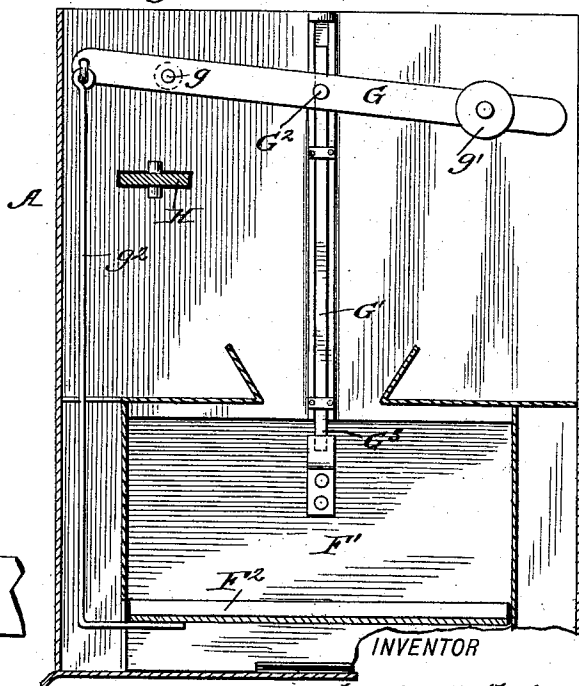


WITNESSES:

Fred G. Deterich

P.B. Furpine

A Fig. 6. K K



INVENTOR

Richard M. Shaffer:

BY

Marion L.

ATTORNEYS.

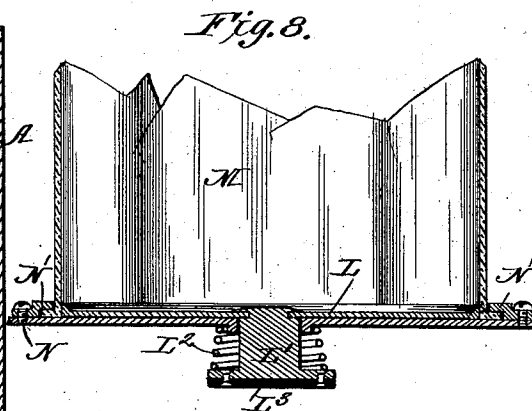
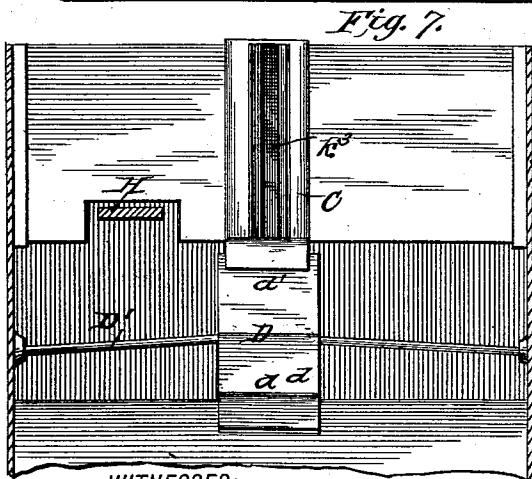
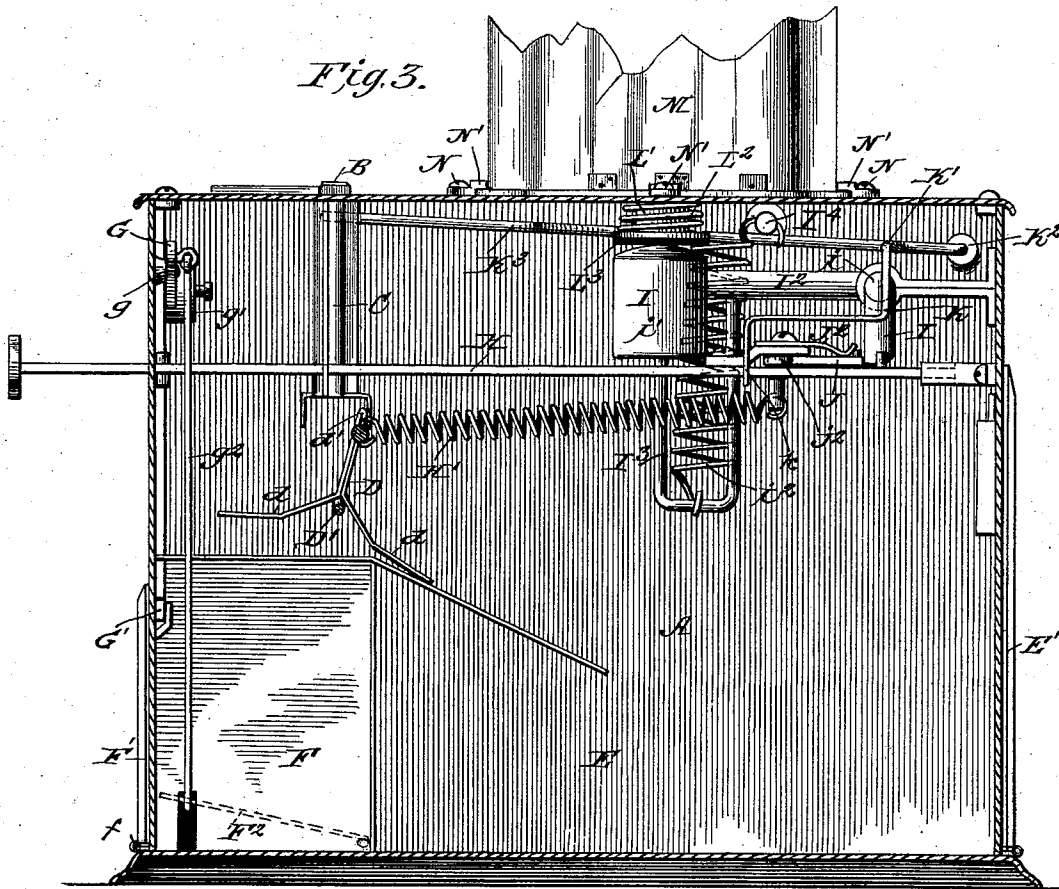
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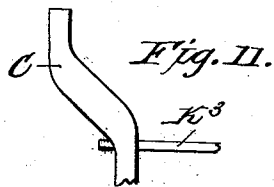
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WITNESSES:
Fred Goettersch
P. B. Turpin.



INVENTOR
Richard M. Shaffer.
BY *Munn & Co.*
ATTORNEYS.

(No Model.)

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Fig. 4.

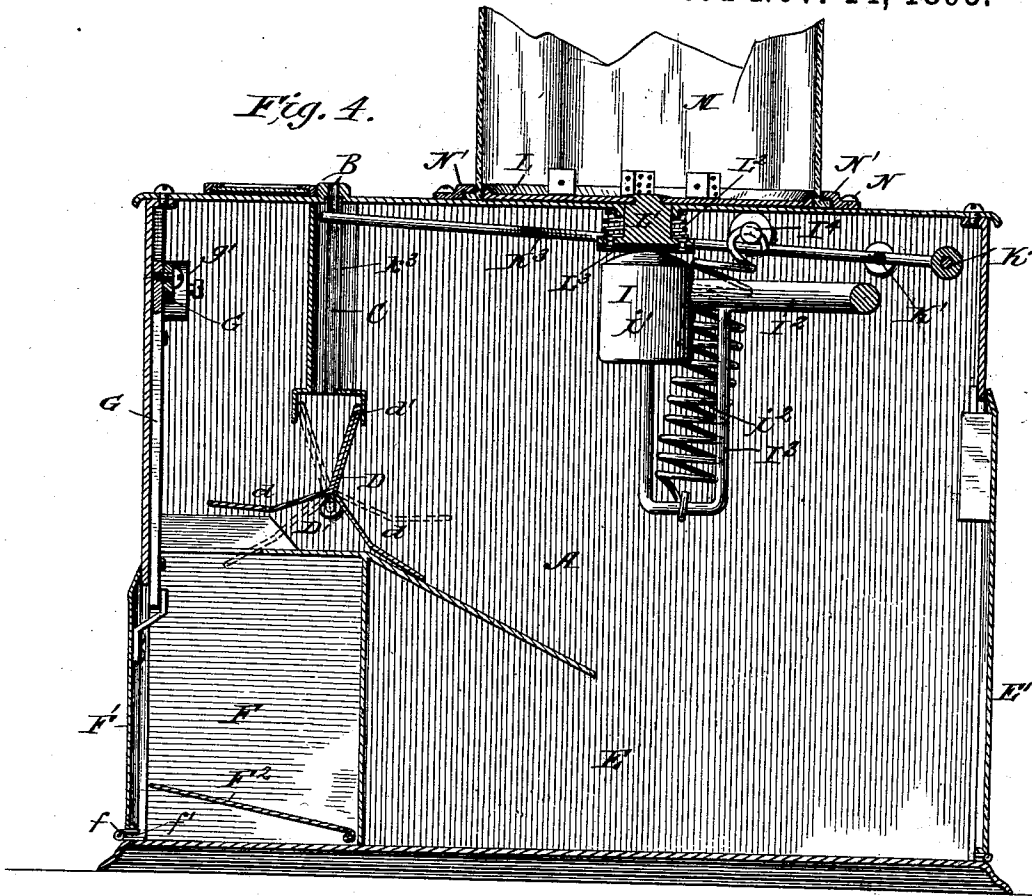


Fig. 9.

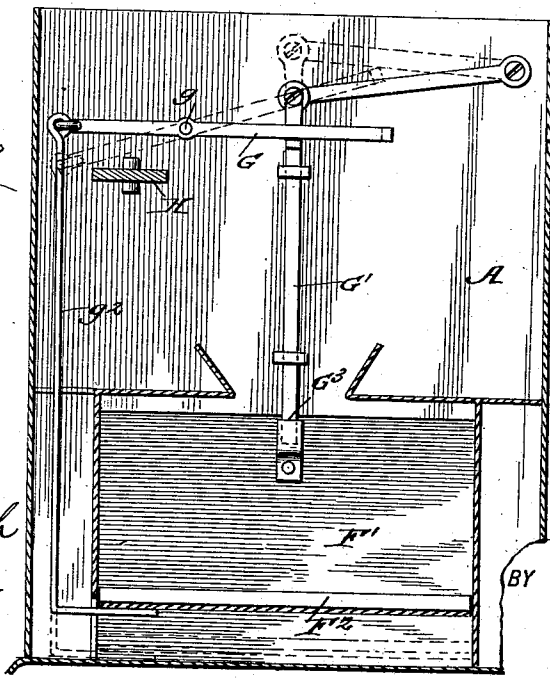
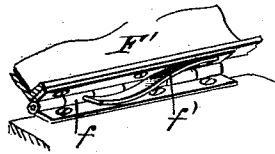


Fig. 10.



WITNESSES:
Fred G. Dietrich
P. B. Turpin.

INVENTOR
Richard M. Shaffer.
BY *Munn & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

RICHARD M. SHAFFER, OF BALTIMORE, MARYLAND, ASSIGNOR OF TWO-THIRDS TO EUGENE P. CLARK, OF SAME PLACE, AND SAMUEL WELSH, OF PHILADELPHIA, PENNSYLVANIA.

COIN-CONTROLLED APPARATUS.

SPECIFICATION forming part of Letters Patent No. 508,848, dated November 14, 1893.

Application filed December 23, 1892. Serial No. 456,112. (No model.)

To all whom it may concern:

Be it known that I, RICHARD M. SHAFFER, of Baltimore city, in the State of Maryland, have invented a new and useful Improvement in Coin-Controlled Apparatus, of which the following is a specification.

My invention is an improvement in coin controlled apparatus and has for its objects among others to provide simple means whereby the insertion of a coin or token will throw the operating rod into operative connection with the hammer, means for dividing the inserted coins into parts, means whereby the access to one of such parts is automatically afforded, and other improvements as will be described; and the invention consists in certain novel constructions and combinations of parts as will be hereinafter described and pointed out in the claims.

In the drawings—Figure 1 is a perspective view of the improved apparatus. Fig. 2 is a plan view thereof the lid being removed and parts being broken away and others shown in section. Fig. 3 is a side view of the apparatus the side of the casing being broken away. Fig. 4 is a vertical longitudinal section of the apparatus drawn through the coin chute. Fig. 5 is a detail view illustrating the devices for throwing the slide rod into operative connection with the hammer. Fig. 6 is a face view of the inner side of the front of the case. Fig. 7 is a detail cross section alongside the shaft of the dividing switch. Fig. 8 is a detail cross section through the dice throwing plate. Fig. 9 shows a modified construction of the automatic latch devices. Fig. 10 is a detail view showing the hinge actuating spring and Fig. 11 shows a deflected coin chute.

The casing A is provided with a coin slot B, communicating with a coin chute C which leads down to a switch D which operates automatically to deliver the inserted coins alternately into receptacles E or F the coins in the former being the compensation of the owner of the machine and those in the latter going to form a "pot" or pocket the ownership of which is decided by the automatic opening of the door F' through which access is had to said pot. This door F' is suitably hinged at f and may have an actuating spring f' to cause

the door to positively open when its latch is released. This pot has a movable depressible, counterbalanced bottom or pan F² onto which the coins directed into the pot fall. When a sufficient number of coins have accumulated on the bottom or receiver F² to overcome its counterbalance it will descend and release the latch securing the door F' and permit the door to open, the person inserting the coin which opens the pot being thus given access thereto.

The latch and counterbalance devices are shown in Fig. 6 and includes a lever G pivoted at g and having a weight g' on one arm and its other arm connected by a wire g² or otherwise with the bottom or receiver F² so that the weight will normally hold the receiver or bottom up and the accumulation of weight on the said bottom will overcome the gravity of the weight and fall, causing the weight end of the lever to rise. If desired the weight may be adjustable along the lever to vary the amount necessary to open the pot or weights of different gravity may be employed. The latch G' which secures the door F' is connected at G² pivotally with the weight arm of the lever and moves with said lever whereby in the normal position of the lever the point or head G³ of the latch is adapted to engage and secure the door closed while when the weighted end of the lever is raised the latch is moved up to release the door as before indicated.

While the described construction and arrangement of the latch and counterbalance mechanism are preferred it is manifest that it may be varied and other constructions, such for instance as that shown in Fig. 9 may be employed, the operation of the latter being easily understood from the drawings.

The switch D arranged at the lower end of the coin chute operates to direct one coin into receptacle E, the next into receptacle F, next into receptacle E and so on. Now if it be desired to subdivide the alternately switched amounts, similar switches may be employed to receive and divide the coins discharged from the first switch as will be readily understood, and manifestly the pots or pockets and coin receptacles can be multiplied as may be

necessary. The switch D is in the nature of an inverted V shaped plate having at its ends wings d of less angle and the point at d' being arranged to oscillate from one side of the coin chute to the opposite side, the plate being supported on a rocking shaft D' and preferably above the center thereof so that when rocked to one or the other side it will rest by gravity in such position. This arrangement of the plate above the center of motion is preferably effected by bending or arching the shaft upward as shown.

In operation the coin discharged from the chute strikes one side of the switch and is directed thereby into one of the receptacles operating at the same time to tilt the switch toward the side into which the coin is delivered so that the next coin will pass on to the opposite side of the switch and into the other receptacle and operate to properly tilt the switch for the next coin and so on. Access to the receptacle E may be had by a door E' which may be fastened by an ordinary lock the key of which is controlled by the owner of the machine. The inserted coin operates to throw into operative connection or engagement an operating slide rod or bar H and a striker or hammer I.

In the construction shown the slide rod is movable longitudinally and is provided with a movable pawl or abutment J pivoted at j and having one end or arm j' arranged to adjust into and out of position to engage an arm I' of the hammer and also has a stem or arm j^2 which is engaged by a crank arm k of the tripping lever K. This lever K has a shaft K' and is provided in rear thereof with a counter-balance weight K^2 and in front with an arm K^3 which extends to position for operation by the inserted coin being preferably extended through a slot k^3 into the coin chute and formed so that the arc or curve of movement of its extremity will carry it out of the said chute when the lever is depressed to its full extent and so operate to permit the coin to pass into the receptacle provided for it. The tilting of the lever K causes its arm k to move back and by engagement with the arm j^2 adjust the pawl J to set its arm j' into position to engage the arm I' of the hammer, a stop pin J' being provided to brace and strengthen the abutment in such position. The hammer I is pivoted at i and has the arm I' and also the head arm I^2 the latter being provided with a head i' and a spring i^2 being provided to actuate said hammer into striking position. This spring i^2 is secured at one end to a frame I^3 dropped from the hammer arm I^2 and at its other end to a post or bar I^4 projecting from the casing. Manifestly the arrangement and application of the spring may be varied as numerous modes of securing the spring actuation of the hammer will be readily apparent.

In operation the inserted coin will by the intermediate lever adjust the pawl or abut-

ment to position to engage the arm I' of the hammer. It should be stated that a spring J^2 is arranged to engage the pawl and operate to prevent the same from being jarred into one or the other position and at the same time permits it to be positively moved as may be desired. When so moved by the lever, the arm j' is thrown into position to engage the arm I' of the hammer. Now when the slide rod is pushed back its abutment will engage the arm I' and as the movement is continued the abutment will finally pass the hammer arm and the latter will be released and the hammer will strike. As the slide bar is retracted by its spring H' the front side of the pawl J will engage the rear side of the hammer arm I' and the pawl will be turned by such engagement back to its normal position and when the pawl is in such position the slide rod may be reciprocated without in any way affecting the hammer so that the operation of the slide rod will not affect the hammer until the pawl is readjusted which may be accomplished by the introduction of the proper coin as before described. The hammer blow is directed against a stem or portion L' of a dice plate L which is covered by a glass case M which serves to retain the dice or other suitable devices and yet permit them to be seen and it is evident that the blow of the hammer head will throw the dice or other devices placed upon the dice plate, which will settle again upon the plate. By preference the dice plate is movably supported and has centrally the depending stem L' on which the tension spring L^2 of said plate is fitted the lower end of the stem being formed into an impact surface to receive the stroke of the hammer head and it may be padded slightly by a leather cap L^3 or other suitable construction if desired.

The glass case M is preferably secured by providing at its lower end or base a lateral flange on which is lapped the washers N' held by the screws N as clearly shown in the drawings.

The coin chute is shown in most of the figures as straight. It is obvious however that it may be deflected as shown in Fig. 11 or be otherwise formed to avoid tampering.

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

1. In an apparatus substantially as described, the dice plate and the hammer arranged to strike said plate and a tension spring to press said plate in opposition to the stroke of the hammer, combined with coin controlled apparatus whereby to govern the operation of said hammer substantially as set forth.

2. In an apparatus substantially as described, the combination of the dice plate, the spring actuated hammer having its head arranged to strike said plate, an operating bar or rod a movable abutment or pawl whereby

said operating bar and the hammer may be thrown into engagement and coin operated devices for adjusting said abutment substantially as set forth.

3. The combination with the hammer and the slide bar, of the pivoted abutment on said slide bar arranged at one end to be adjusted into engagement with the hammer and a lever having an arm to engage the abutment and another arm for operation by an inserted coin all substantially as set forth.

4. In an apparatus substantially as described, the combination with the hammer and the slide bar of an abutment supported on the slide bar and having a portion movable into and out of position to engage the hammer and coin controlled mechanism by which to operate said abutment substantially as set forth.

5. In an apparatus substantially as described, the combination of the coin chute, the slide bar or rod, the part operated thereby, the movable abutment arranged for adjustment to operatively engage said parts and a counterbalanced lever having one arm arranged to operate the abutment and another arm projected into the coin chute all substantially as and for the purposes set forth.

6. In an apparatus substantially as described, the combination of the dice plate, the hammer having a head arm and a crank arm, the slide rod or bar an abutment whereby to operatively engage said bar and crank arm and coin controlled devices for operating said abutment substantially as set forth.

7. In a coin controlled apparatus the combination of the switch by which to direct the coins part into one and part to another receptacle and the said receptacles one of said receptacles being provided with a movable coin receiver and with a latch operated by the

movement of said receiver substantially as set forth.

8. A coin receptacle having a movable coin receiver, a door through which access is gained to the interior of said receptacle, a counterbalanced latch for securing said door closed and intermediate devices between said latch and receiver whereby the accumulated coins on said receiver may release the latch substantially as set forth.

9. A coin receiver having a door, a latch for securing said door and counterbalanced devices for automatically releasing said latch to permit the door to open when coins aggregating a sufficient weight have been inserted substantially as set forth.

10. The combination of the coin receptacle having a movable coin receiver and a door a spring by which to open said door, a counterbalanced latch for securing said door, and connections between the latch and movable coin receiver substantially as set forth.

11. The combination of the receptacle having a movable receiver, and a door, the latch having a pivoted lever and a pendent latch bar for securing the door and connections between the movable receiver and the latch whereby the weight of an accumulation of coins will operate to depress the receiver and release the latch and permit the door to open all substantially as set forth.

12. In an apparatus substantially as described, the combination of the movable dice plate, a spring for giving tension to said plate, and a hammer having its head arranged to strike said plate substantially as set forth.

RICHARD M. SHAFFER.

Witnesses:

THOS. M. DOBBIN,
WILLIAM H. BERRY.