

O. OEHRING.
 COIN SWITCH FOR VENDING MACHINES.
 APPLICATION FILED NOV. 8, 1909.

943,636.

Patented Dec. 14, 1909.
 2 SHEETS—SHEET 1.

Fig. 1.

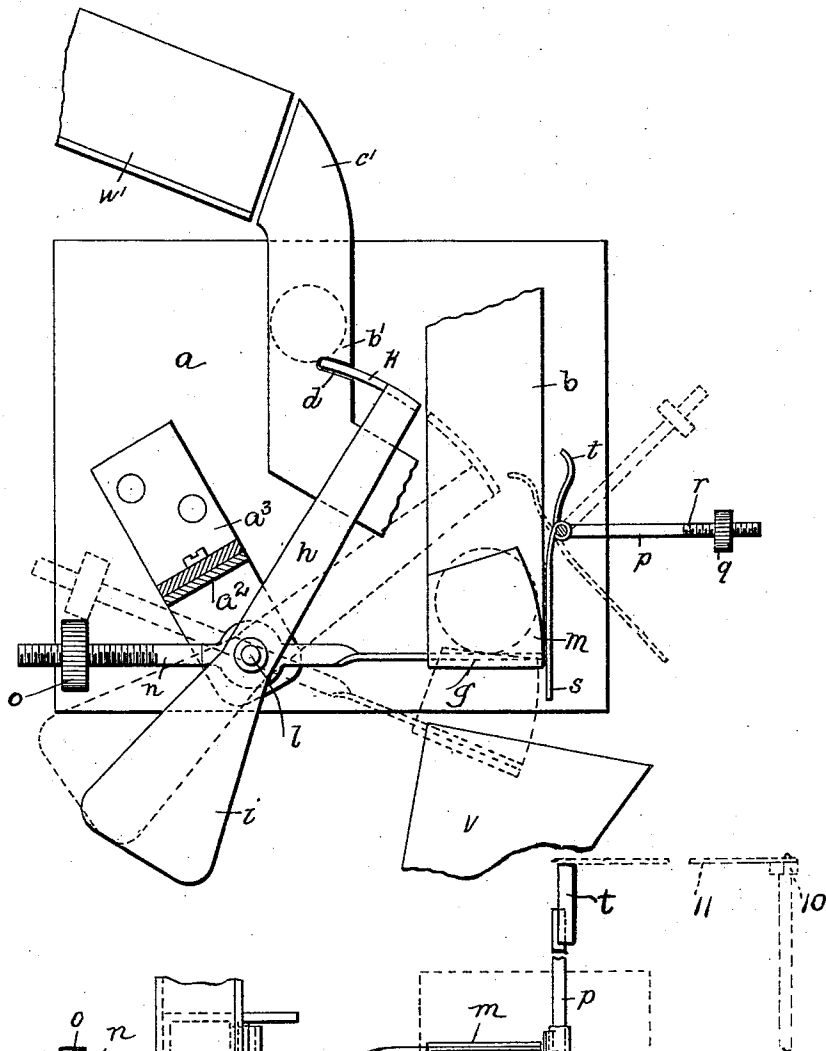
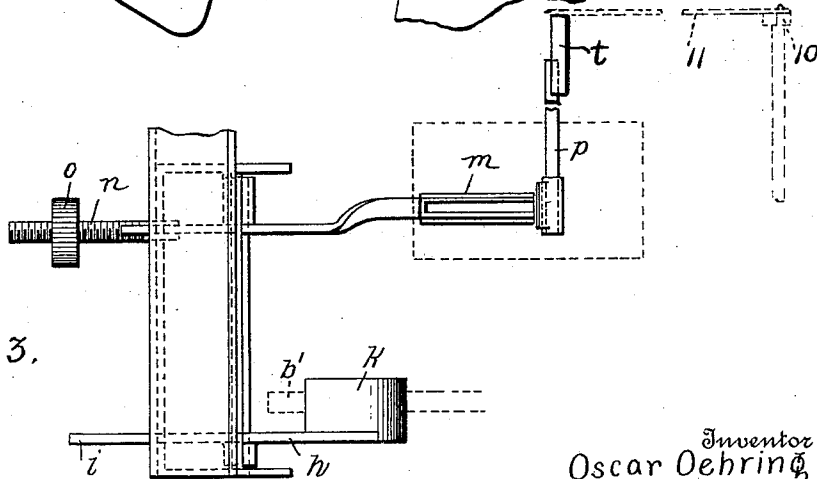


Fig. 3.



Witnesses

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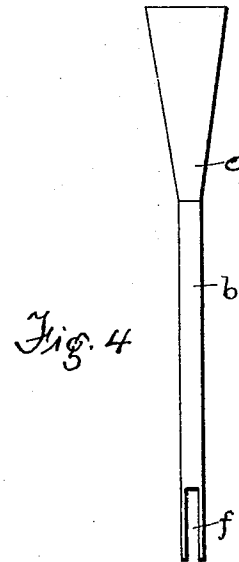
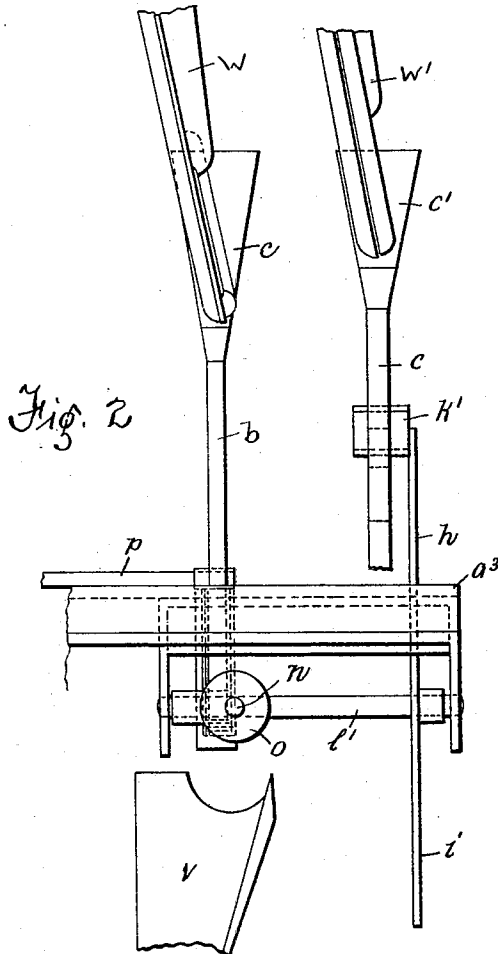
By Meyers, Cushman & Rea
 Attorney

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2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

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COIN-SWITCH FOR VENDING-MACHINES.

943,636.

Specification of Letters Patent.

Patented Dec. 14, 1909.

Original application filed September 30, 1909, Serial No. 520,391. Divided and this application filed November 8, 1909. Serial No. 526,744.

To all whom it may concern:

Be it known that I, OSCAR OEHRING, a subject of the Emperor of Germany, residing at Berlin, Germany, have invented new and useful Improvements in Coin-Switches for Vending-Machines, of which the following is a specification.

This invention relates to improvements in coin or check-controlled apparatus, and has particular relation to means for operating the releasing mechanism of the apparatus upon check insertion.

The subject matter hereof is disclosed in my co-pending application filed September 30, 1909, Serial Number 520,391, of which this application is a division, as one of the forms which may be employed for placing the coin controlled apparatus into operation by the insertion of more than a single coin, the present application being confined to the specific construction and arrangement of parts of one of the forms referred to.

Among the objects of my invention are to be found: (1) The provision of means whereby the releasing mechanism of a coin controlled apparatus becomes operative only upon the insertion of a selected one of a series of two or more coins or checks. (2) The provision of means whereby coins of different sizes and denominations may be combined in a series, the series being required to be complete prior to the operation of the apparatus release mechanism, the release of the apparatus being operative only upon the insertion of a selected one of a series of coins or checks. (3) The provision of means whereby coins of different denominations or value have separate coin-paths, each of which is controllable to permit or intercept the travel of a coin therethrough, the means being arranged in such manner that the movement of a selected one of the controlling devices provides a similar movement of the remaining devices.

Other and further objects are to provide a structure which is simple and efficient in operation, durable in construction, and by means of which an accurate and positive release of the apparatus is provided.

To these and other ends, the nature of which will be readily understood as the invention is hereinafter disclosed, said invention consists in the improved construction

and combination of parts hereinafter fully described, illustrated in the accompanying drawings, and particularly pointed out in the appended claims.

In the accompanying drawings, in which similar reference characters indicate similar parts in each of the views, Figure 1 is a front elevation partly in section, of one form of structure adapted to carry out the objects of the invention. Figs. 2 and 3 are a side elevation and a plan view respectively of the same. Fig. 4 is a side elevation of one of the coin chutes shown in Fig. 1.

In the drawings, *a* designates a base plate secured to the vending machine at the proper point. *b* designates a coin chute secured to the frame-work of the machine or apparatus in suitable manner, and having its upper end preferably flared outwardly, as at *c*, to receive coins, the latter, if desired, being delivered thereto by a coin tester *w* of any desired construction. The chute *b* preferably has, at a point below the end of the flared portion *c*, an interior cross-sectional area approximating that of the similar area of a coin or check adapted to be passed therethrough, said chute having its lower end open, as indicated in Fig. 4, and having also, at least one of its edges formed with a slot *f* extending upwardly from the bottom plane of the chute a suitable distance.

The lower end of the chute is normally closed by means of a weighted lever *n* mounted on a shaft *l* carried by a bracket *a*² secured on a bracket *a*³ carried by the plate *a*, said lever having its forward end *g* provided with a coin cup *m* which extends around the end of the coin chute on all sides with the exception of that in which the slot *f* is located. The opposite end of said lever is preferably screw-threaded, and mounted on its screw-threaded end is a counter-weight *o*, which is adapted to be adjustably moved on the lever to provide the proper effect on the operation of the lever.

b' designates a second coin chute which is also preferably flared outwardly as at *c'*, to receive the coins, and which may also have its coins tested by a tester *w'*, said chute *b'* leading to the mechanism for releasing the apparatus. The coin chutes *b* and *b'* preferably have a cross-sectional area

differing one from the other in order to provide separate paths for coins of different denomination and size; obviously, however, this variation in size may not be provided, both chutes being of approximately the same size to accommodate coins of the same value, the apparatus operating with equal facility in either event.

Mounted on the shaft *l* is an arm *h* having one end provided with an angular arcuate projection *k*, and having its opposite end provided with a counter-weight *i*, said projection *k* being adapted to be moved into and out of a slot *d* formed in the chute *b'*; said slot extending inwardly from the forward edge a distance sufficient to permit said projection *k* to intersect the coin path formed by the chute.

At a point below the lower end of the chute *b* is located an auxiliary chute *v*, which is adapted to receive the coins or checks passed out of the lower end of chute *b*. The opening left by the slot *f* is normally closed by a flap *s* pivotally mounted on a shaft *p*, and normally retained in closing position by a counter-weight *r* adjustably mounted on the screw-threaded end of a rod *q*, the shaft *p* being provided with an arm *t* which is adapted to be operated by the coin passing through the chute *b'*, or by the apparatus release mechanism, as the case may be, the movement of the shaft *p* releasing the flap *s* to permit the coin in the coin cup to escape into the auxiliary chute *v*. Any suitable or preferred mechanism may be employed for tripping the arm *t*. One form in which this tripping operation may be provided is illustrated by dotted lines in Fig. 3, 10 designating a movable member connected to the mechanism of the apparatus in such manner that it becomes operative after the releasing coin has been released from the restraint provided by the projection *k*, said member being connected to the arm *t* by a rod 11, the connection being such that the movement of the member 10 will rock the arm *t* on its pivot in an obvious manner.

The lever *n* and the arm *h* are mounted on the shaft *l* in such manner that when the coin cup *m* is in its normal position, the projection *k* will be within the slot *d* as shown in full lines in Fig. 1 of the drawing. When in this position the chute *b'* is closed to the passage of a coin or check therethrough, this being the normal position of the parts. With the parts in this position, a coin inserted within the chute *b* passes directly to the coin cup *m*, and if its weight be sufficient to overbalance the counter-weights *o* and *i*, the lever *n* will rock and withdraw the projection *k* from the slot *d*, leaving the chute *b'* open for the passage of a coin therethrough to the release mechanism of the apparatus. If the first coin be inserted within the chute *b'*, it will pass downward into contact with the

projection *k* and remain at the point of contact until the lever *n* has been caused to actuate by the insertion of a coin into the chute *b* and its passage to the coin cup *m*, whereupon the projection *k* is withdrawn and the coin in chute *b'* is permitted to pass to the release mechanism; in either case, the apparatus releasing coin brings into operation the mechanism for tripping the arm *t* to remove the flap *s* out of its coin-restraining position, permitting the coin to pass into the chute *v*, and placing into operation the counter-weights *o* and *i* to return the parts to normal position.

The adjustability of the counter-weights *o* and *r* permits of a variation in the number of coins required to release the mechanism, it being readily understood that if these counter-weights are positioned to prevent the rocking movement of the lever *n* upon the insertion of a single coin, the movement to position the projection *k* will not take place until a sufficient number of coins have been introduced into the coin chute to overbalance the counter-weight *o*, whereupon the coin in chute *b'* will be directed to its apparatus-release position. In other words, the apparatus is released by the last of a series of coins, all of which are required to be present in the apparatus before such release can take place.

From this description it will be understood that in the form presented there is a requirement for the use of more than a single check or coin to provide the release of the machine; that but a single coin is used to provide the actual release of the machine, and that there is a requirement that the remaining checks or coins required to complete the operation of the machine be in position before the apparatus-release coin or check may operate. It will also be understood that the present mechanism is exceedingly simple and efficient in operation, requires but few parts, and the principal operating mechanism, consisting of the parts carried by the shaft *l*, have no movements one relative to the other.

The terms "coin" and "check" used herein are to be understood as synonymous, both indicating an article representing a value necessary to complete the preliminary steps in obtaining the commodity being vended. As will be readily understood, the mechanism will operate by the use of both forms, as may be desired.

Having thus described my invention, what I claim is:

1. In coin or check-controlled apparatus, two coin paths, each adapted to receive a coin, and means intersecting both paths for normally obstructing the passage of a coin therethrough and operably connected together to move in unison in a manner whereby the insertion of a coin in one path will

operate to release the other path from obstruction.

2. In coin or check-controlled apparatus, two coin paths, each adapted to receive a coin, and means intersecting both paths for normally obstructing the passage of a coin therethrough and operably connected together to move in unison in a manner whereby the insertion of a coin in one path will operate to release the other path from obstruction, said paths being of different cross-sectional area one with respect to the other whereby coins of different denomination may be combined in series to provide release of the apparatus.

3. In coin or check-controlled apparatus, two coin paths each adapted to receive a coin, a coin cup at the outlet end of one path, and a member movable into and out of the other path, said cup and member serving to normally obstruct the passage of coins through the paths and being operably connected together to move in unison in a manner whereby the positioning of a coin within the coin cup will move said member out of obstructing position.

4. In coin or check-controlled apparatus, two coin paths each adapted to receive a coin, a coin cup at the outlet end of one path, and a member movable into and out of the other path, said coin cup and member having a common axis and being movable pivotally in unison, whereby the deposit of a coin in

the coin cup will release either path from obstruction by said member.

5. In coin or check-controlled apparatus, two coin paths, each adapted to receive a coin, a coin cup at the outlet end of one path, and a member movable into and out of the other path, said coin cup and member having a common axis and being movable pivotally in unison, whereby the deposit of a coin in the coin cup will release either path from obstruction by said member, the release of the apparatus by the passage of a coin through the member-obstructed path releasing the coin within the coin cup to permit the return of the parts to normal position.

6. In coin or check-controlled apparatus, two coin paths, each adapted to receive a coin, a coin cup at the outlet end of one path, a member movable into and out of the other path to control the passage of a coin therethrough, said coin cup and member having a common axis and movable pivotally in unison, the passage of the coin through the controlled path being prevented excepting by the movement of the cup under the action of a coin therein.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

OSCAR OEHRING.

Witnesses:

WOLDEMAR HAUPT,
HENRY HASPER.