

No. 793,584.

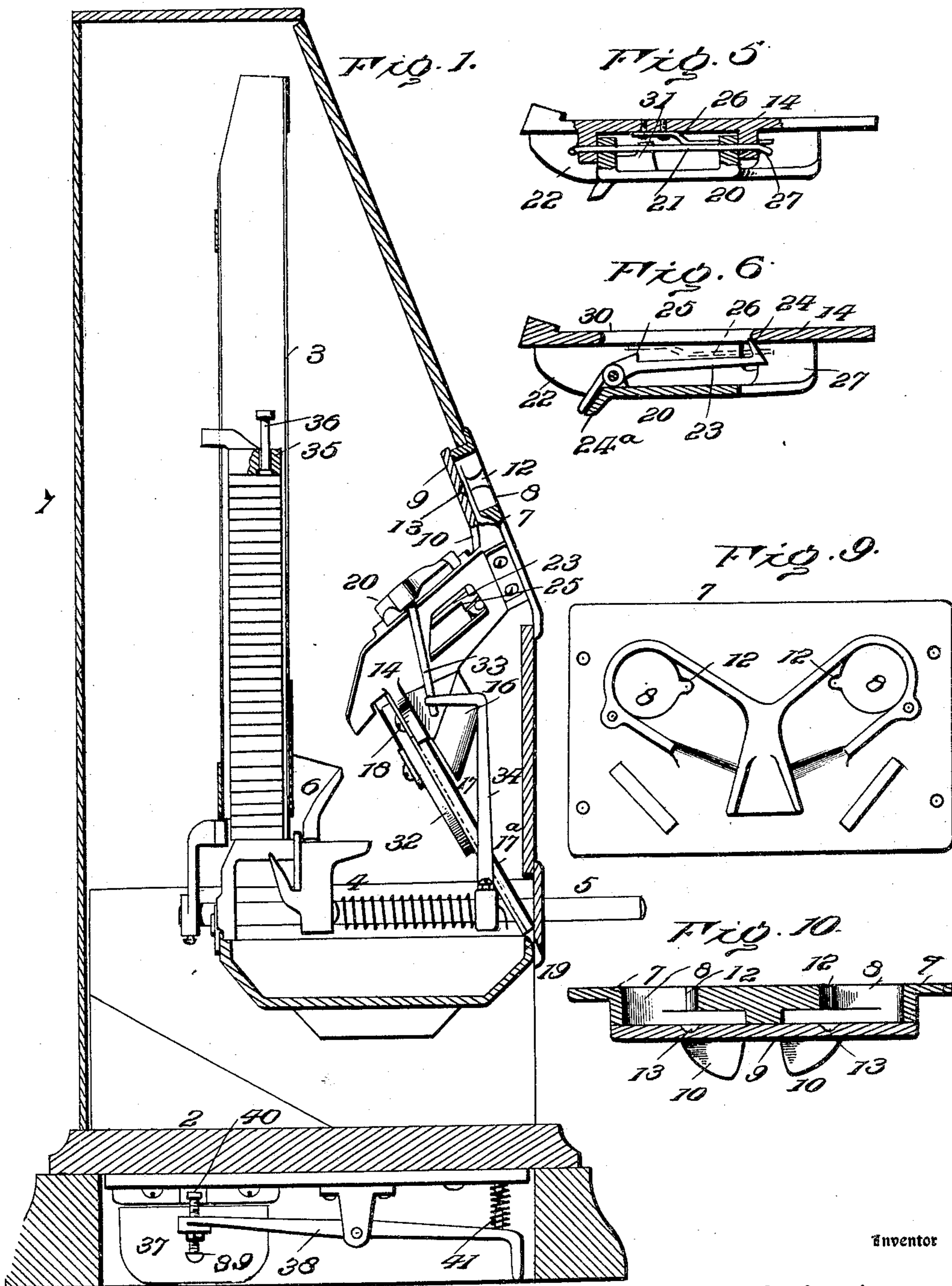
PATENTED JUNE 27, 1905.

M. HOFHEIMER.

FRAUD PREVENTIVE FOR COIN CONTROLLED MACHINES.

APPLICATION FILED AUG. 10, 1904.

2 SHEETS—SHEET 1.



Inventor

Maurice Hofheimer

Witnesses

Francis S. Higgins

By

J. H. M. D. R.

Attorney

No. 793,584.

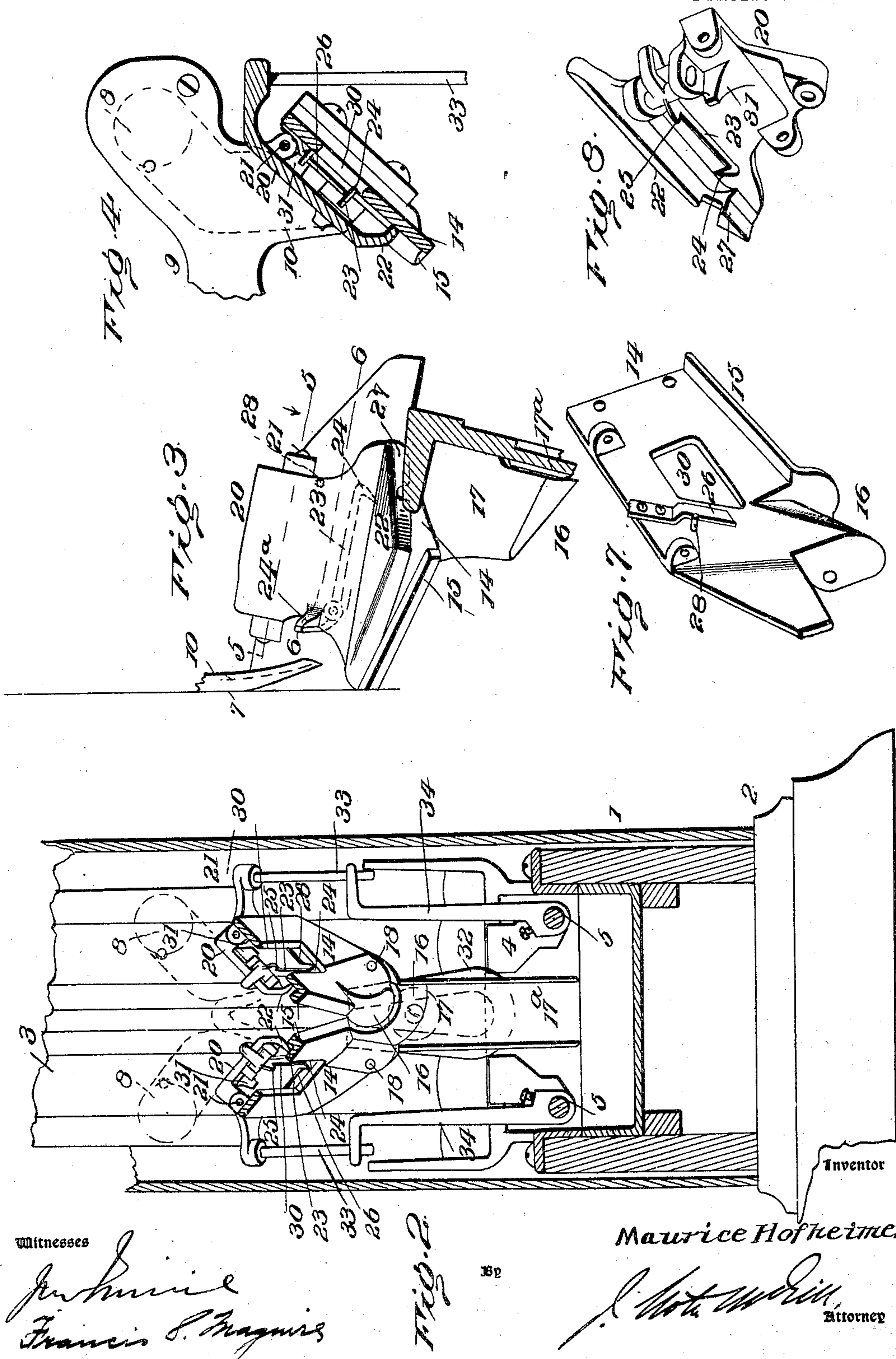
PATENTED JUNE 27, 1905.

M. HOFHEIMER.

FRAUD PREVENTIVE FOR COIN CONTROLLED MACHINES.

APPLICATION FILED AUG. 10, 1904.

2 SHEETS—SHEET 2.



UNITED STATES PATENT OFFICE.

MAURICE HOFHEIMER, OF NEW YORK, N. Y., ASSIGNOR TO UNITED STATES VENDING CORPORATION, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MAINE.

FRAUD-PREVENTIVE FOR COIN-CONTROLLED MACHINES.

SPECIFICATION forming part of Letters Patent No. 793,584, dated June 27, 1905.

Application filed August 10, 1904. Serial No. 220,194.

To all whom it may concern:

Be it known that I, MAURICE HOFHEIMER, of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Fraud-Preventives for Coin-Controlled Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

The primary object of this invention is to provide improved means for preventing the fraudulent operation of coin-controlled machines by spurious disks or tokens, the coin passage-way being readily cleared of all arrested articles and imperfect coins returned to the depositors.

A further object is to provide for giving a signal in the event of any attempt at tampering with the machine by tipping or removing it from its support.

The invention will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a vertical sectional view of a vending-machine equipped with my improvements, parts being shown in side elevation. Fig. 2 is a front view, partly in section, with parts broken away. Fig. 3 is an enlarged view of one of the coin-guideways and its movable casting, parts being in section. Fig. 4 is another view of the same elements. Figs. 5 and 6 are cross-sectional views taken on line 5 5 and 6 6, respectively, Fig. 3. Fig. 7 is a view in perspective of the coin-guideway. Fig. 8 is a similar view of the pivoted casting looking at the under side. Fig. 9 is a rear view of the coin-inlet casting. Fig. 10 is a cross-sectional view thereof with the back plate in position.

Referring to the drawings, 1 designates the inclosing casing, mounted on a base 2 and having merchandise-holding tubes 3, from which the lowermost packages may be removed by an ejector 4 when a coin of the proper valuation is positioned therein and the spring-held

ejector-rod 5 is moved rearward. The coin is directed into its position in the ejector by a beveled wall 6. The ejector shown in the present instance is constructed in accordance with the invention patented to me April 26, 1904, by Letters Patent No. 758,180.

7 is a casting secured to the front of the casing and formed with coin-inlet openings 8 extending therethrough, such openings being usually arranged in pairs. To the back of this casting extending over these openings is secured a plate 9, having depending wings 10 after the manner contemplated by the invention embraced by my pending application for Letters Patent, filed February 3, 1904, Serial No. 191,891. A recess 12 intersects one side of each opening 8 to accommodate an instrument to remove a coin or disk that might be wedged in the opening. To the end that such instrument may be freely inserted beneath such coin or disk, a further recess 13 is formed in the face of plate 9 coincident with the recess 12.

14 14 designate plates forming coin-guideways intermediate the beveled walls 6 and the passages leading from the openings 8. These plates are inclined both laterally and longitudinally and on their lower edges are equipped with flanges 15, such flanges of two adjacent plates converging toward their lower rearward ends. Each plate is formed with a lower curved wing 16, that of one of the plates being carried around and beneath the other to form a common chute 17, into which coins or washers arrested in the coin-guideways will be deposited. From this chute such arrested coins or disks will fall onto a second inclined chute 17^a, secured by screws 18 to the coin-guideway plates 14. This chute 17^a occupies a plane about parallel with the upper portion of casing 1, so that coins or disks falling thereon will be returned to the front of the machine through an opening 19 formed therein.

20 20 designate two castings pivotally mounted by rods 21 on the upper side edges of the coin-guideway plates 14. These castings

are formed on their under sides with depending flanges 22, which rest upon the surfaces of plates 14 and against which the coins travel while bearing against the guideway-plates 14. On the under side of each casting is pivotally mounted a finger 23, having a hooked end 24 for arresting washers and disks of less than the proper thickness, as pointed out in my before-noted pending application for patent. The upper forward end of each finger is bent outwardly, so as to contact with a beveled shoulder 24^a, formed in the casting, with the result that while the finger is free to move on its pivot when its shoulder 25 is engaged by a coin of the proper thickness, yet when the casting is turned on its pivot the finger will rise with it, so as to clear the coin-guideway plate 14, and thus disengage the hooked end of the finger from disks which may be arrested thereby. To further facilitate such disengagement, I provide a stripper-plate 26, which is secured to the coin-guideway plate 14 at one end and occupies a position parallel to the upper surface of such plate. The free end of this stripper-plate is in close proximity to the hooked end of finger 23, so that a disk arrested by the latter which might otherwise be lifted thereby in the raising of the casting is prevented from moving upwardly with the hooked finger. This stripper-plate is so positioned relatively to the face of the coin-guideway as to allow a clear space for the passage of good coins. Each casting 20 is provided at its outer lower end with a second flange 27 on a plane slightly above the plane of the adjacent flange 22, the object thereof being to offer a momentary impediment to coins and disks, so as to insure the arrest of washers by the hooked finger. Through plate 14 is passed a flexible pin 28 at such distance from flange 27 as to allow a proper coin to pass through the intermediate space, while a disk of greater diameter will be arrested. In the bottom of each guideway-plate 45 is formed a slot or opening 30, through which coins of insufficient diameter will fall, while coins of proper diameter will span the upper wall of such slot or opening. To guard against the passage of disks or tokens thicker than the proper coins, I form a lug 31 on the under side of each casting, the space between the end thereof and the face of the guideway being such as to permit proper coins to pass, while those of increased thickness will be arrested and fall into chute 17 when the casting is raised. To the rear side of chute 17 is secured a magnet 32, whose poles intersect the planes of flanges 27 of the adjacent guideways. Disks of steel or iron inserted into the machine will be whirled sidewise by the magnet if they should succeed in passing the other arresting devices.

It will be understood that coins of proper value will freely pass over the coin-guideway plates notwithstanding the momentary im-

pediment offered by the raised flanges 27 and will fall into the pocket formed by the beveled wall 6; but imperfect coins and disks are in the main arrested while on the coin-guideway. Now by raising the casting such coins and disks will be deprived of the support offered by the flanges 22 and 27 and will immediately fall against the flanges 15 of the coin-guideway plates and be directed into the chute 17 and thence fall flat onto the return-chute 17^a, and hence discharged at the front of the machine. To enable each casting to be raised at each operation of its respective ejector, a rod 33 is secured in a boss in the outer end of such casting. This rod is engaged by the upper angular end of an arm 34, mounted on the ejector-rod. Hence as the ejector-rod is pushed rearwardly the angular end of its respective arm 34 by engaging the depending rod 33 will force the latter to one side, and thus turn the casting 20 on its pivot and deprive the arrested coins or disks of the support afforded by the flanges 22. To hold each ejector retracted when its respective supply of vendible articles is exhausted, I provide the weight 35, which normally rests upon the topmost article, with a vertically-movable pin 36, which is normally held raised by contact with the top of the pile. When, however, the last article has been delivered from the tube, this pin being deprived of its support will drop back of the ejector, and thus hold it locked in its rearward position. In this position also the push-rod and the arm 34 will be held, the respective casting 20 remaining in its raised position. If, now, a would-be purchaser deposits a coin without knowing that the tube is empty, such coin will be returned to him, since upon contacting with the flange 15 of the coin-guideway plate it will be directed into chutes 17 and 17^a, as before described.

In order to prevent the fraudulent operation of the machine or tampering with its contents by tipping it over on edge, I provide an alarm-bell 37, mounted in the base 2, and which is designed to ring whenever the machine is lifted or disturbed. To accomplish this, I fulcrum within the base a lever 38, which carries at one end an adjustable screw 39, which is normally in close proximity to the bell-operating lever 40. The other end of lever 38 is bent downwardly, so as to rest upon the table or shelf upon which the machine is supported, being so held by a spring 41. When the machine is lifted or tilted on its support, spring 41 so acts upon lever 38 that the set-screw thereof will press lever 40 and cause the bell to ring.

I claim as my invention—

1. In a coin-controlled machine, a casting having a coin-inlet opening extending there-through and a groove or recess also extending through the casting and intersecting one side of the opening, and a plate secured to the rear

side of the casting and extending over said opening and also formed with a recess coincident with the former recess.

2. In a coin-controlled machine, an inclined stationary plate forming a coin-guideway against which a coin bears in its travel, a casting pivotally mounted on such plate and having means with which the edges of the coins or disks contact in their passage over the guideway-plate, means for arresting spurious and imperfect coins within the plane covered by said casting, and means for positively raising the casting and the arresting means at each operation of the machine for allowing spurious and imperfect coins to fall laterally from the guideway.

3. In a coin-controlled machine, an inclined stationary plate forming a coin-guideway against which a coin bears in its travel, a casting pivotally mounted on such plate and having means with which the edges of the coins or disks contact in their passage over the guideway-plate, means for arresting spurious and imperfect coins within the plane covered by said casting, means for positively raising the casting and the arresting means at each operation of the machine for allowing spurious and imperfect coins to fall laterally from the guideway, and a chute into which such coins are discharged for delivering them at the front of the machine.

4. In a coin-controlled machine, an inclined stationary plate forming a coin-guideway against which a coin bears in its travel, a casting pivotally mounted on such plate and having at its lower side a flange with which the coins or disks contact in their passage over the guideway-plate, means carried by such casting for arresting spurious and imperfect coins, means for positively raising the casting and the arresting means at each operation of the machine to deprive arrested coins of the support afforded by said flange, and a chute into which such coins fall from the guideway.

5. The combination with two coin-guideway plates inclined longitudinally, and also transversely toward each other, and a chute at the lower sides of the inner ends of such guideway-plates, of means on said guideway-plates for arresting spurious and imperfect coins, means for releasing such arrested coins at each operation of the machine to permit them to fall into said chute, and a second chute leading from the first-mentioned chute for discharging such coins at the front of the machine.

6. The combination with two coin-guideway plates inclined longitudinally, and also transversely toward each other, said plates having curved wings at their lower ends forming a chute, of means on said guideway-plates for arresting spurious and imperfect coins, means for releasing such arrested coins at each operation of the machine to permit them to fall

into said chute, and a second chute leading from the first-mentioned chute for discharging such coins at the front of the machine.

7. The combination with the stationary coin-guideway plate inclined transversely and longitudinally, of a casting located over said plate and pivoted at one side to the upper side thereof, and having a depending lug to arrest coins and disks of undue thickness, and means for positively raising such casting at each operation of the machine to allow arrested coins or disks to fall from the guideway-plate.

8. The combination with the coin-guideway plate inclined transversely and longitudinally, of a casting pivoted at one side to said plate and having a device mounted on its under side for arresting washers, coins or disks of insufficient thickness, means for raising such casting at each operation of the machine to allow articles so arrested to fall from the guideway-plate, and a stripper extended over the latter for preventing arrested articles from moving upwardly with the casting.

9. The combination with the coin-guideway plate inclined transversely and longitudinally, of a chute at the lower side of such plate, a casting pivoted at one side to said plate and having a shoulder, a hooked finger pivoted on said casting for arresting washers, coins or disks of insufficient thickness and having its end bent to engage said shoulder, and means for raising such casting and finger at each operation of the machine to allow arrested articles to fall into said chute.

10. The combination with the coin-guideway plate inclined transversely and longitudinally, of a chute at the lower side of such plate, a casting pivoted at one side to said plate and having means for arresting spurious and imperfect coins, a rod depending from such casting, the ejector, and an arm carried thereby having a bent end for engaging said rod and turning said casting on its pivot.

11. In combination with a coin-controlled machine having a casing, an alarm device mounted beneath such casing and normally held inoperative, and means for actuating such device in the event of the casing being moved out of its normal position.

12. The combination with a coin-controlled machine having a base, of an alarm-bell, a lever mounted in said base for acting on said bell one end of said lever being designed to engage the stand or support upon which the machine is mounted, and a spring for actuating such lever in the event of the machine being tilted or removed from its support.

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

MAURICE HOFHEIMER.

Witnesses:

ROBT. H. O. SCHULZ,
GEORGE E. SEWALL.