

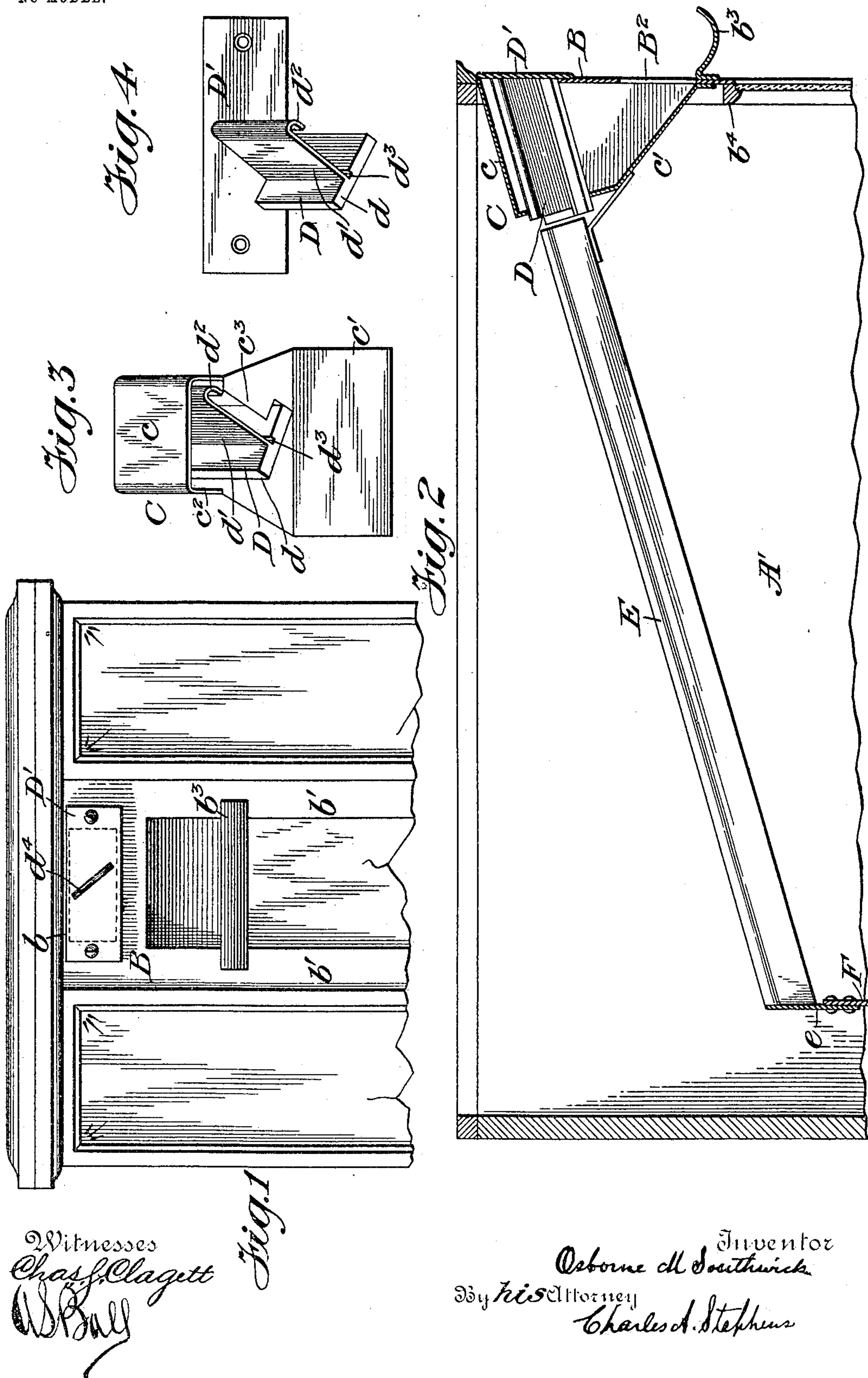
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O. M. SOUTHWICK.
VENDING MACHINE.

APPLICATION FILED SEPT. 9, 1903.

NO MODEL.



Witnesses
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OSBORNE M. SOUTHWICK, OF FLUSHING, NEW YORK.

VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 775,256, dated November 15, 1904.

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To all whom it may concern:

Be it known that I, OSBORNE M. SOUTHWICK, a citizen of the United States, and a resident of Flushing, in the county of Queens and State of New York, have invented certain new and useful Improvements in Vending-Machines, of which the following is a specification.

The subject of the present invention is a novel fraud-preventive means, more particularly designed for machines constructed for the delivery of goods in small packages or sections upon the introduction of a coin, the more prominent object of the said preventive means being the interchangeability of the same whereby the machine can be readily and conveniently adapted to serve with coins of different values and coins or slugs of a diameter less than that of the particular coin required diverted and promptly discharged external to the machine.

There are other important features connected with the invention, which, in addition to those alluded to, are clearly explained in the subsequent detailed description.

In the accompanying drawings, forming part of this specification, Figure 1 is a front view of the upper portion of a vending-machine embodying my invention. Fig. 2 is a vertical central longitudinal sectional view of said upper portion of the machine. Fig. 3 is a detail rear view of the coin-rejecting means and housing for the same. Fig. 4 is a similar view of said means minus the housing.

Similar reference characters are employed to designate corresponding parts throughout the several figures of the drawings wherein they occur.

The central portion of the front wall of the casing is formed in part by a sheet-metal frame B of about the width relatively indicated in Fig. 1, although the precise width is not material. A horizontal rectangular opening *b*, dotted lines, Fig. 1, is located in the upper part of the frame, while the latter a short distance below said opening is amply recessed to form side strips *b'* *b'*. Secured to

the strips *b'* so as to span the intervening opening is a shallow tray *b*³, slightly concavo-convex in longitudinal cross-section, as indicated in Fig. 2.

Attached to the rear of the front wall near the top of the casing and immediately back of the upper part of the frame B is a sheet-metal housing C of the shape generally indicated in Figs. 2 and 3 and comprising a top *c*, sloping toward the rear of the machine, and a forwardly-inclining bottom *c'*, the latter terminating and secured to the front wall contiguous to the opening *B*², formed by the frame-recess above the tray *b*³. The housing also has vertical side walls *c*².

It will be observed by reference to Fig. 1 that the upper portion of the housing incloses the area immediately at the rear of the upper horizontal opening *b* in the frame B. This provides for the introduction within the housing through said opening of a peculiar guide D, rigidly carried at its front end by a plate *D'*, adapted to be applied and secured to the frame B, so as to cover the opening *b* therein. The inclination of this guide when the plate *D'* is adjusted as stated conforms generally with that of the housing-top. The guide is of such length that a small portion thereof projects inwardly beyond the inner end of the housing.

The guide D embodies a rectangular base *d*, which not only inclines toward the rear of the machine, but occupies a transverse oblique position, so that a web *d'*, carried thereby and disposed at a right angle thereto, will not only correspondingly dip rearwardly, but will occupy the oblique position. (Illustrated most clearly in Figs. 3 and 4.) Said web has its upper edge portion turned to constitute the longitudinal rounded overhanging lip *d*². A longitudinal score or channel *d*³ is located in the upper surface of the base *d*, immediately adjacent to the intersection of the web therewith and at that side of the web at which the lip *d*² overhangs.

The guide D is so secured to the plate *D'* that the inclined and obliquely-disposed guide-

way presented by the web d' , lip d^2 , and lower channel d^3 registers at its front upper end with an oblique slot d^4 in said plate.

A wing c^3 of the housing at its rear extends transversely in the direction of the web, said wing being of such dimensions that it closely conforms to the base d at one side and leaves sufficient clearance between itself and the web to preserve the open rear end of the guideway for the passage of the coin.

An extended coin-chute E, of metal, is of such shape in cross-section as to present flattened parallel sides with rounded connecting edges. This chute is maintained in a rearwardly-inclined position by having its upper end connected with a portion projecting from the housing C, while the lower end of the chute has a depending plate e attached to a suitable fixed part within the machine. The supporting connections of the chute E are such that the latter registers both in inclination and obliqueness with the guide D, the upper open end of the chute being in close apposition to said guide, so that the coin in passing from the guideway of the latter will immediately enter the chute and continue its movement downward through the same without alteration in the relative position of the coin.

By introducing a coin of the proper diameter and thickness through the coin-slot d^4 said coin will pass by gravity downward along the guide D, the under edge of the coin being frictionally guided by the channel d^3 in the base d , while the coin is retained in proper position in the guideway by the upper lip d^2 engaging the top portion of said coin. It may be well to here state at this point that should the coin not be of the proper diameter the lip d^2 will fail to engage the same, with the result that the coin by reason of the oblique position of the guide will fall through the open side of the guideway, as indicated by the dotted lines in Fig. 4, and descend within the housing C, so as to slide downward along the inclined bottom c' thereof and be received in the tray b^3 externally at the front portion of the casing. This arrangement of coin-rejecting provision has the twofold advantage of diverting short-diameter slugs, as well as insuring the return to the intending purchaser of a smaller-size coin should the same be accidentally passed through the slot.

I attach considerable importance to the removable character of the guide D and its detachable plate D' , as this arrangement permits of said guide being superseded by another of similar construction and arrangement, but adapted to positively guide a coin of greater or less diameter, according to requirements. Thus the machine can be readily adapted when desired for serving either in connection with pennies, dimes, or nickels,

according to the value of the goods being vended.

From the foregoing description it will be appreciated that a vending-machine equipped by my improvements will be free from actuation by improper coins and can be readily adapted to meet varying requirements.

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

1. In fraud-preventive means for vending-machines, the combination with a casing-front having an upper opening and a distinct lower opening, and a housing located at and secured to the inner side of the casing-front immediately behind the upper opening, said housing provided with a rear aperture and having a bottom, the latter inclining to the lower opening, of a plate containing an oblique slot and secured to cover the upper opening, and a laterally-oblique and rearwardly-inclined coin-guide rigidly carried by said plate, communicating with the slot therein and insertible through said upper opening to occupy a position within said housing, with the rear end of the guide in discharge relation with the rear aperture of the housing, said coin-guide having its lowest lateral side containing an opening for delivering onto the housing-bottom.

2. In fraud-preventive means for vending-machines, the combination with a casing-front having an upper opening and a distinct lower opening and a housing located at and secured to the inner side of the casing-front immediately behind the upper opening and having a bottom extending to the lower opening, of a plate containing an oblique slot and secured to externally cover the upper opening, and a coin-guide rigidly carried by said plate, insertible through the upper opening to occupy a position within the housing and having its upper end registering with the plate-slot, said coin-guide comprising a laterally-oblique and rearwardly-inclined fixed base, and a rearwardly-inclined and laterally-oblique web at an angle to said base, the web having an upper overhanging lip.

3. In a fraud-preventive means for vending-machines, the combination with a casing-front having an upper opening and distinct lower opening of relatively larger dimensions, a housing located at and secured on inner side of the casing-front immediately behind said openings therein, said housing provided with a rear aperture and having a bottom, the latter inclining toward the lower opening, and a tray externally on the casing-front contiguous to the forward edge of the housing-bottom, of a plate containing an oblique slot and secured to cover the upper opening, and a laterally-oblique and rearwardly-inclined coin-guide rigidly carried by said plate, communicating with the slot therein and insertible through said upper opening to occupy a position within the

housing with the rear end of the guide in discharge relation with the rear aperture of the housing, said coin-guide having an opening in its lowest lateral side for delivering onto
5 the housing-bottom, said housing being provided with a rear inwardly-extending wing to aid in making the rear aperture conform to the coin-guide.

Signed at New York city, in the county of New York and State of New York, this 8th 10 day of August, A. D. 1903.

OSBORNE M. SOUTHWICK.

Witnesses:

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