

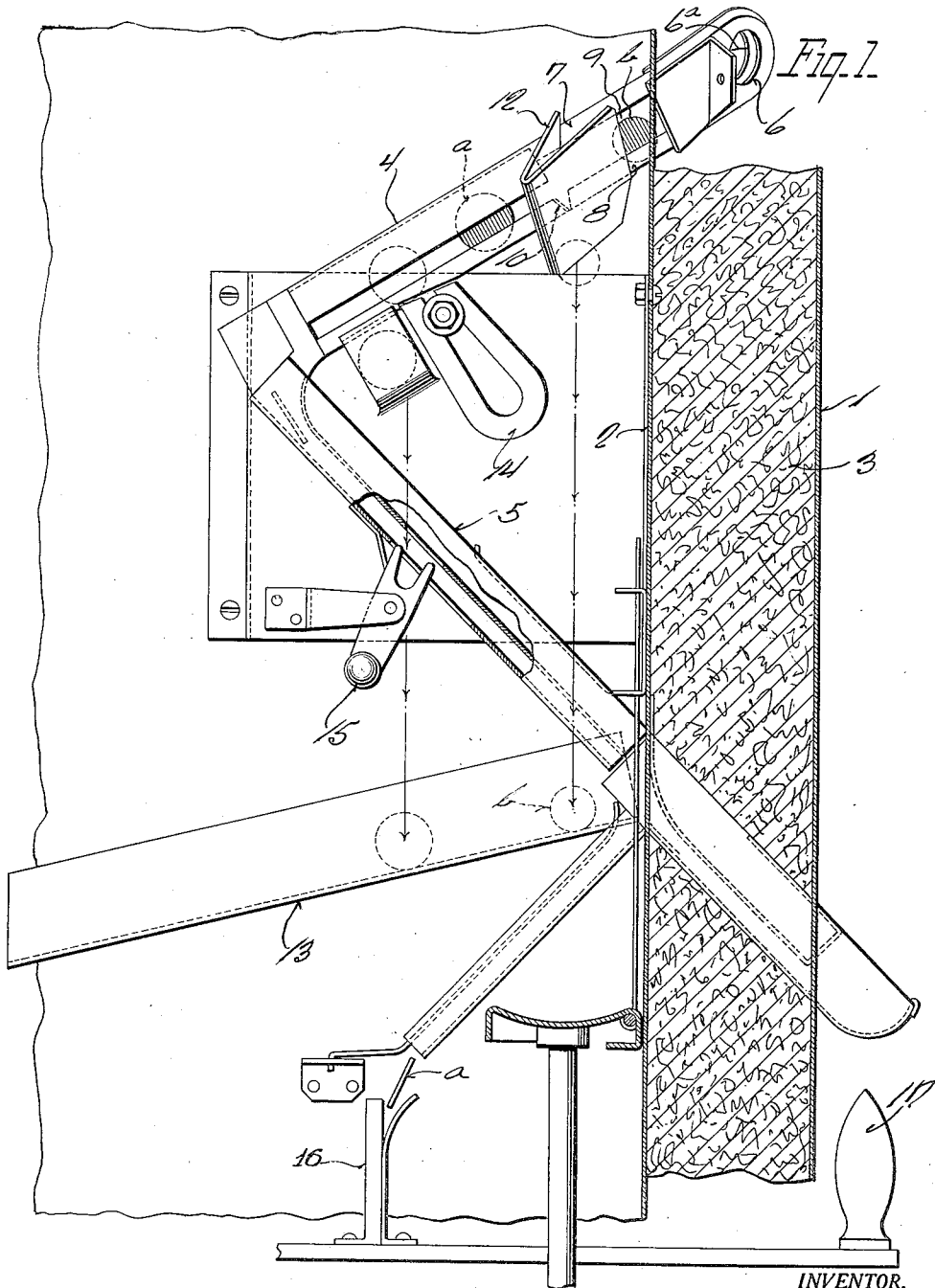
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R. D. PARKS ET AL

1,933,752

COIN CHUTE FOR VENDING MACHINES

Original Filed Nov. 11, 1929 2 Sheets-Sheet 1



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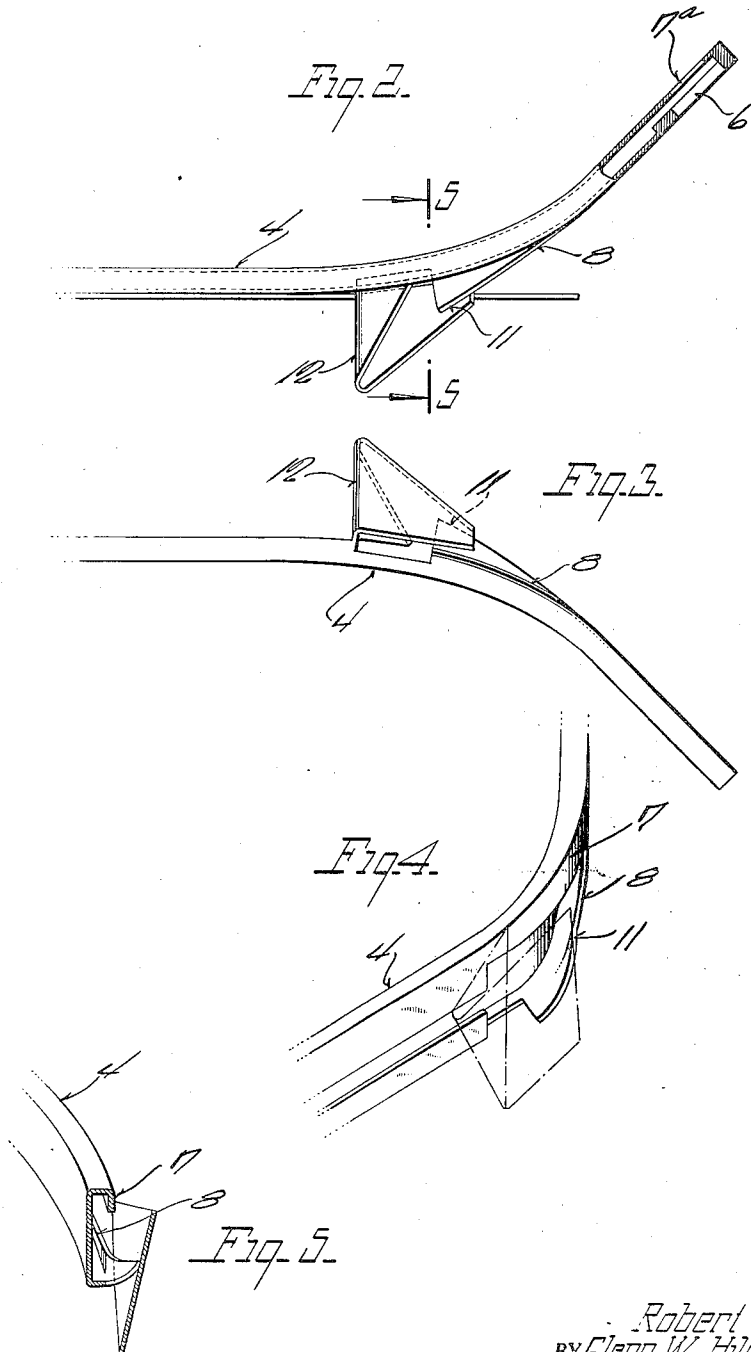
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COIN CHUTE FOR VENDING MACHINES

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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COIN CHUTE FOR VENDING MACHINES

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Original application November 11, 1929, Serial
No. 406,240. Divided and this application
March 13, 1931. Serial No. 522,248

2 Claims. (Cl. 194-102)

This invention relates to coin chutes for vending machines and more particularly to bottle vending machines of the character disclosed in our co-pending application, Serial No. 328,190, filed December 24, 1928. The present application is a division of our co-pending application Serial No. 406,240 filed November 11, 1929.

The invention of the present application relates to the portion of the coin chute at the entrance end thereof, and the object of the invention is to provide such chute portion in laterally curved form with an opening or slot on the outer side of the curve whereby spurious tokens or coins inserted in the chute of a diameter less than the width of the slot will be ejected from the chute, and thus not condition the machine for operation.

In the accompanying drawings:—

Fig. 1 is a view of a coin chute having its entrance portion or section constructed in accordance with our invention;

Fig. 2 is a top plan view with parts in section of the entrance portion of the chute;

Fig. 3 is a bottom plan view of the chute section;

Fig. 4 is a perspective view of the section; and

Fig. 5 is a vertical sectional view taken on line 5-5 of Fig. 2.

In Fig. 1, 1 and 2 indicate the inner and outer casings, respectively, of a vending machine, and 3 indicates a filling of heat insulating material between said casings. This construction is employed with a vending machine which vends cold drinks in bottled form as in our co-pending application.

The coin chute of the machine is arranged within the inner casing 2, and is suitably supported thereby. The chute comprises upper and lower downwardly inclined sections 4, 5, arranged at a V-angle, with the lower end of the upper section discharging into the upper end of the lower sections. The upper end of the upper section 4 projects forward through the front of the machine, and is there provided with means whereby a coin or token may be inserted into the chute to condition the machine for operation.

This means as shown in Figs. 1 and 2 comprises aligned openings 6, 6^a in the upright side walls of the section at the outer end of the chute. One opening is larger than the other, so that the coin or token may be inserted into the chute through the larger opening only. The other opening permits a finger of a hand inserting the coin to right it for starting the coin down the chute in case the coin or token should stick or tend to bind.

The distance between the side walls in which these openings are provided is a few thousandths of an inch more than the thickness of the coin or token required to operate the machine. Thus, a thicker coin or token will be prevented from passing down the chute even though it has a diameter allowing it to pass through the larger of the openings.

The upper section 4 of the chute is made in the form of a vertically disposed tubular member and is inclined downwardly, so that the coins or tokens which will pass the entrance end of the chute will roll on edge down the section along its bottom wall as indicated in Fig. 1. The section is made wide enough to accommodate the diameter of the particular coin required to operate the machine, and in the drawings I have shown such coins at *a* in the form of a dime. The section is completely closed on one side, and has its other side formed of upper and lower flanges 7, 8, which extend toward each other in the same plane, and prevent the coin or token of the proper diameter from falling laterally out of the section on its open side. The upper flange 7 is cut away at the upper end of the section, where it joins the coin intake to provide a relatively wide space 9 between said flanges. A dime will bridge this space as it passes the same, but a smaller coin or token as *b* will not as shown in Fig. 1. The portion of the section provided with this space is curved outward or lateral as shown in Figs. 2 to 4, so that centrifugal force will act on the coin or token as it rolls along the section to roll against the inner surface of the lower flange 8, and thus be maintained in proper position to pass through a notch 10 in said lower flange at the lower end of the space 9. The portion of the flange 8 above or on the forward side of the notch is flared outward in substantially tangential relation to the curve as shown at 11 in Figs. 2 to 4, so as to guide the smaller coin or token out of the chute and into a V-shaped deflector 12, which is open along its bottom to allow the coin or token to drop by gravity into a receiving trough 13 arranged below the chute as indicated by the arrows *x* in Fig. 1. Trough 13 is downwardly inclined, and discharges into a receptacle (not shown) for collecting the spurious coins or tokens which are deflected from the chute.

A permanent magnet 14 is associated with the upper section 4 of the chute at a point below the curved portion just described for the purpose of removing magnetic tokens from the chute. A washer separator 15 is associated with the lower

section 5 of the chute. The magnet and the washer separator are not claimed in this application, and no further reference need be made thereto, except to say that by the provision of the various ejecting devices associated with the chute only a coin or token of the proper size and denomination may reach the discharge end of the chute for conditioning the machine for operation. After the proper coin or token has passed through the chute, it is discharged into the receiving part 16 of the machine for conditioning the machine for operation. In the particular form of machine shown in Fig. 1, this receiving part is associated with a handle 17 located outside of the machine for operating the vending mechanism to eject the vendable articles from the machine after the proper coin or token has reached the receiving member 16. It is, of course, understood that such type of machine has been shown for illustrative purposes only, and that the proper coin or token may be employed in this passage through the chute or after it leaves the chute to condition the machine for operation through electrical or other means.

We claim as our invention:

1. A coin chute for vending machines having a downwardly inclined section arranged for coins or tokens to roll edgewise down the same, said section being bent to provide a laterally curved portion to cause the coins or tokens passing therethrough to be maintained by centrifugal

force against the side wall of the section along the outer side of the curve, said side wall having a relatively wide opening extending along the curved portion of the section, and a discharge passage for said opening disposed substantially tangential to the curved portion of the section for directing coins or tokens not bridging the opening out of the section.

2. A coin chute for vending machines having a downwardly inclined section arranged for coins or tokens to roll edgewise down the same, said section being closed on one side and having upper and lower flanges on the other side extending toward each other to provide a relatively wide opening therebetween, the portion of the section provided with the opening being curved laterally by bending the section with the opening on the outer side of the curve whereby a coin or token rolling along the curved portion of the section will be maintained by centrifugal force against the inner sides of either or both the said flanges depending on whether the coin or token is of a size to bridge the opening between them, and a discharge notch in the lower flange at the lower end of the opening, the portion of said lower flange in advance of said notch being flared outward and disposed substantially tangential to the curved portion of the section for guiding out of the notch coins or tokens not bridging the opening.

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