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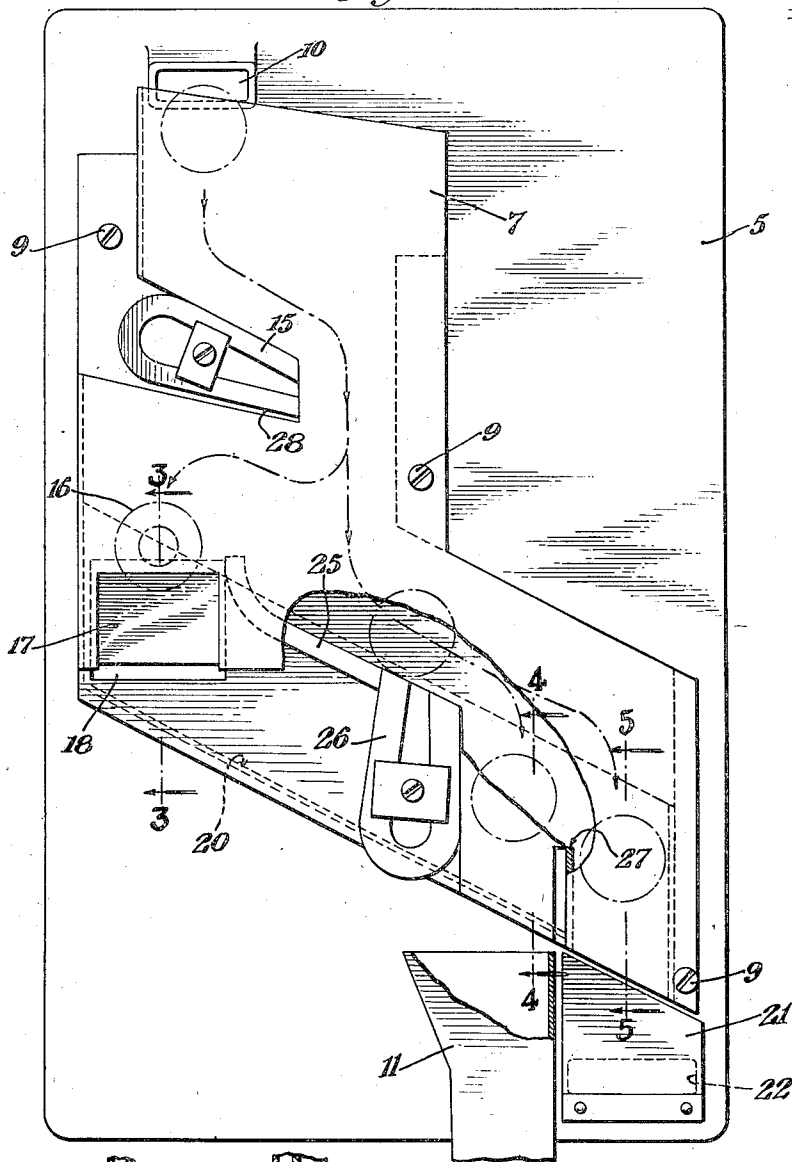
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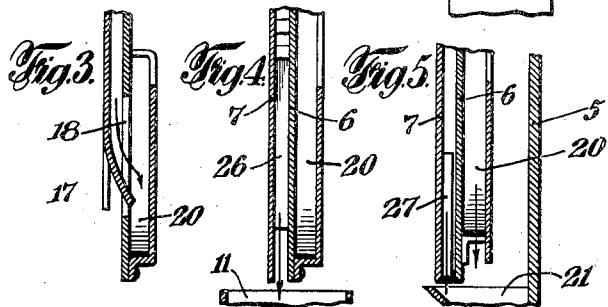
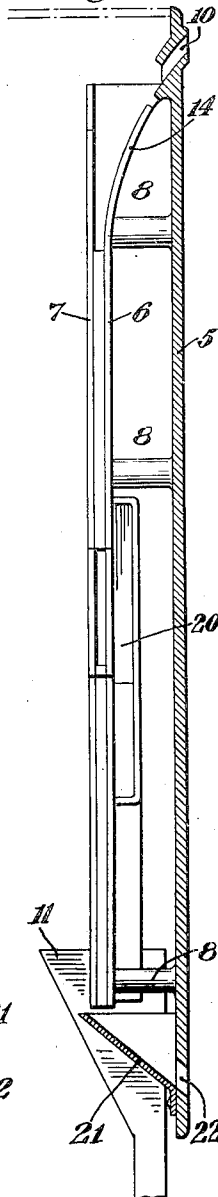
COIN SELECTING APPARATUS

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*Fig. 1.*



*Fig. 2.*



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## UNITED STATES PATENT OFFICE

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## COIN SELECTING APPARATUS

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The present invention relates to fraud preventives for use particularly in coin controlled machines, and has for its principal object the provision of new and improved coin selecting and eliminating devices of the character stated.

To the above and other ends which will subsequently appear the invention consists in the features of construction, combinations of devices and arrangements of parts hereinafter described and particularly pointed out in the claims.

The invention makes use of magnetic devices to influence the courses or paths of coins to enable false coins to be eliminated, in such manner that where the true coin is somewhat magnetic, as for example the Canadian five-cent piece for which the embodiment disclosed herein was more particularly designed, a simple apparatus which functions with certainty in practice is possible. It is to be understood that while the disclosed embodiment aforesaid was designed primarily for use with the Canadian five-cent piece, the principles of the invention may be availed of in the selection of true coins other than such five-cent pieces.

The invention is especially adapted for use in selecting true coins of particular paramagnetic qualities from other coins including false coins which are ordinarily denominated as slugs, and the preferred form of the invention is illustrated as embodied in coin controlled apparatus.

The invention will be described in detail in connection with the accompanying drawing, wherein

Figure 1 is a view in elevation of an apparatus constructed in accordance with the invention, the cover of the same being removed for clearness of disclosure and a portion of one side wall of the coin chute being shown broken away to show certain parts of the apparatus more clearly.

Figure 2 is a side view of the apparatus shown in Fig. 1, and

Figures 3, 4 and 5 are sectional views taken, respectively, on the lines 3—3, 4—4 and 5—5 of Fig. 1.

The apparatus shown for the purposes of

illustrating the invention comprises a front plate 5 on which is mounted, but in slightly spaced relation, a coin chute made up of parallel front and back plates 6 and 7 secured to spacing posts 8, 8 by screws 9. The chute formed by the spaced plates 6 and 7 is designed to provide a path of travel for a coin from the coin slot 10 at the top of the plate 5 to a receiving element 11 which may constitute a funnel from which coins pass to the machine or apparatus to be operated by such coins.

Provision is made for diverting from this normal path of travel coins which are more or less magnetic than the standard coin which the apparatus is devised to select. The structure illustrated is designed to select for use Canadian five-cent pieces and to reject other coins which are more or less magnetic. The coin slot 10 is of a size to admit the desired coin but no larger coin. The coin passing through said slot engages the upper curved portion 14 of the front wall 6 of the coin chute and drops to the point where it engages the upper edge of a magnet 15. This magnet forms therefore the bottom of the coin runway for a certain distance and the coin rolls therealong.

Iron washers and other slugs or coins having more than a predetermined degree of magnetic quality will be diverted from the normal path of movement substantially to the position indicated at 16 in Fig. 1, whence they will drop onto the forwardly bent portion 17 of the rear wall 7 to be diverted thereby through the aperture 18 in the front plate and into the runway 20 to be carried to the discharge chute 21, whence they are returned through the aperture 22 in the plate 5. Other coins of a less degree of magnetic quality will drop vertically after passing over the magnet 15 onto the bottom wall member 25, whence they will roll over the magnet 26 forming a continuation of said bottom wall.

In the apparatus described, the magnet 15 is shown as arranged at an angle to the horizontal with one side forming the bottom of the inclined coin runway, the position being such that gravity tends to carry the coin

forward and free of the magnet while the magnetic attraction acts in opposition to draw the coin around the magnet and to the left in Fig. 1. It will be understood that the magnet may be otherwise arranged while still accomplishing the function of diverting the more magnetic coins and permitting the less magnetic to pass.

Coins rolling along the bottom wall 25 and over the magnet 26 and which are to a certain degree magnetic will be sufficiently attracted by the magnet 26 to cause them to drop vertically between the said magnet and the dividing wall 27 to the chute 11, whence they will be lead to the machine or apparatus to be operated, but coins which are entirely nonmagnetic or not substantially magnetic will be carried by the inertia of rolling over the division wall 27 and will drop vertically into the chute 21, whence they will be returned through the aperture 22.

In order to prevent iron washers or coins being held by the magnet 15 against falling this magnet is shielded on its underside as indicated at 28. This shield may consist merely of a heavy coat of paint which ordinarily will be sufficient to prevent coins from clinging to the magnet.

The foregoing particular description is illustrative merely and is not intended as defining the limits of the invention.

Various changes may be made without departing from the spirit and scope of the invention.

I claim:

1. A coin selecting device comprising a coin chute arranged in a vertical plane and comprising a main passage and diverging passages in said plane, a permanent magnet disposed in the common plane of the chute with its upper portion underlying a vertical entrance portion of the chute and forming the inclined floor of a portion of the main passage of said chute over which the coins roll with the upper magnet pole at the lower end of the incline, said magnet pole being arranged to attract a coin having a predetermined magnetic quality and to cause said coin to roll around said pole and vertically downward over the other magnet pole and to be deflected backward from the normal path into a diverging outlet passage in the same vertical plane as the main passage, and a second permanent magnet adjacent said chute and arranged vertically with its poles in the floor of said chute, said chute beyond said magnet poles being provided with vertical passageways, said second magnet operating to direct true coins into the nearer of the two passageways while permitting coins less magnetic to be diverted into the other of the two passageways to hold within a predetermined path coins which are magnetic to a predetermined extent while

permitting coins which are less magnetic to be diverted from said path into a diverging passage.

2. A coin selecting device as set forth in claim 1 further characterized by the provision of shielding means on the lower side of said first recited magnet whereby a highly magnetic coin rolls in an inclined path along the upper side of said magnet and thence vertically over the poles of said magnet to be released when reaching a predetermined position determined by the termination of the shielding means extending along the under side of the magnet.

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