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A. E. GEBERT ET AL

2,304,996

COIN DETECTING APPARATUS

Original Filed Dec. 23, 1939

Fig. 1

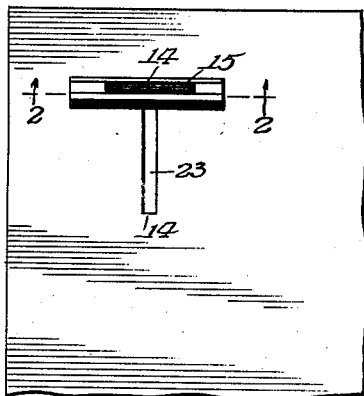


Fig. 2

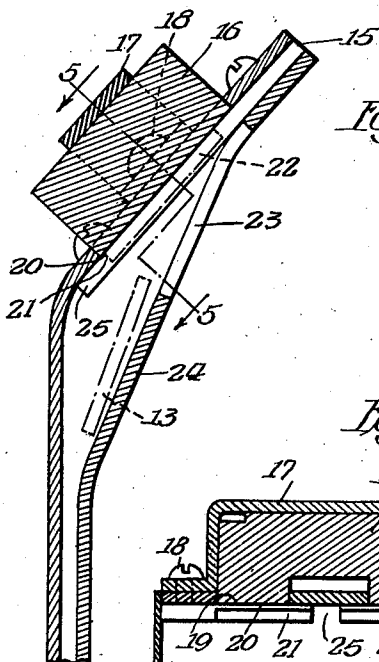
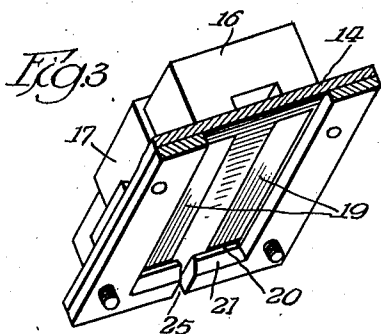
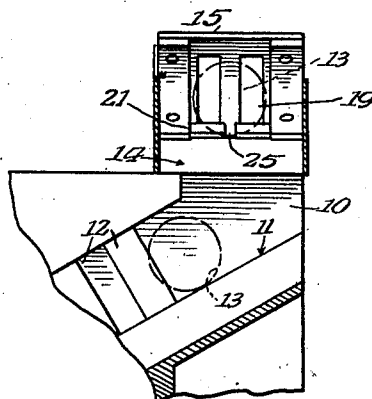


Fig. 4

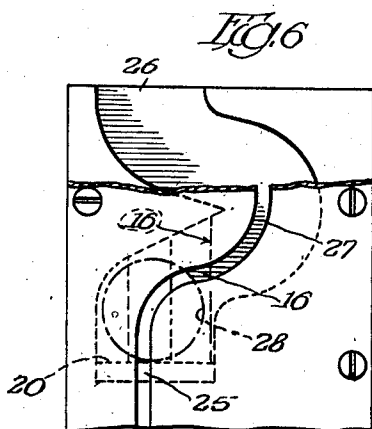
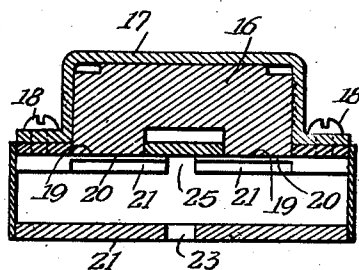


Fig. 6

Fig. 5



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COIN DETECTING APPARATUS

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Original application December 23, 1939, Serial No.
310,748. Divided and this application Novem-
ber 6, 1940, Serial No. 364,474

2 Claims. (Cl. 194—101)

This application is a division of application
Serial #310,748 filed December 23, 1939.

The present invention relates to improvements
in coin detecting apparatus particularly adapted
though not necessarily limited in use with vend-
ing or coin actuated mechanism which requires
the deposit of a coin or token to render the mech-
anism active.

In devices of this character it is customary
to provide a runway or chute through which
the coin will pass before it is deposited into the
mechanism which it is to render active.

It is one of the objects of the present inven-
tion to provide improved means, preferably in
proximity to the entrance opening of the chute,
for separating or detecting the coins or tokens
that are deposited therein so that improper ones
will be arrested and prevented from traveling
through the runway, but which arresting means
will not interfere with the passage of proper coins
or tokens through the chute.

A further object is to provide improved means
for retaining the improper coin or token in prox-
imity to the entrance opening of the chute, and
improved means whereby the coins or tokens thus
retained may be engaged by an implement and
passed back through the receiving opening, to be
returned to the operator.

To the attainment of these ends and the ac-
complishment of other new and useful objects
as will appear, the invention consists in the fea-
tures of novelty in substantially the construction,
combination and arrangement of the several
parts hereinafter more fully described and
claimed, and shown in the accompanying draw-
ing illustrating this invention, and in which:

Figure 1 is a detail view in elevation of the en-
trance portion of the coin slot or chute.

Figure 2 is a detail sectional view taken on line
2—2 Figure 1.

Figure 3 is a detail perspective view, partly in
section, of a portion of the coin chute.

Figure 4 is an enlarged detail sectional view
taken on line 4—4 Figure 1.

Figure 5 is an enlarged sectional view taken
on line 5—5 Figure 4.

Figure 6 is a view partly in elevation, partly
in section, and partly broken away, of another
form of coin chute.

Referring more particularly to the drawing, the
numeral 10 designates generally a runway or
chute along which the coins are adapted to
travel, the runway being provided with a bottom
11.

A magnet 12 (Fig. 2) is arranged adjacent one

of the sides of the runway to create a magnetic
field through which field the coin or token 13
is to pass as it passes down the runway, the pole
or free ends of the magnet passing through suit-
able openings of the wall of the runway.

This runway is preferably arranged in an in-
clined position and is provided with an entrance
opening 14 and arranged in alinement with this
opening is a coin receiving slot 15 which has com-
munication with said entrance. The entrance
slot 14 is preferably arranged in an inclined po-
sition although if desired it may be arranged
uprightly. A magnet 16 is held in position in
any suitable manner such as by means of a band
or strap 17 anchored at its ends, as at 18.

The poles or free ends 19 of the magnet project
through suitable openings in the wall of the en-
trance slot 14 and this slot 14 is provided at its
bottom with a shoulder 20 having an inclined or
beveled portion 21, so that when the coin 13
which is of a proper denomination and charac-
teristic is inserted in the slot 15 it will strike
and be deflected by the inclined portion 21 into
the entrance opening 14 of the chute or runway.

When, however, a token or slug 22, which is
of an improper value or characteristic, is depos-
ited into the slot 15, if such slug is of a metallic
construction, it will be attracted by the poles or
ends 19 of the magnet so that the periphery of
the slug will engage and rest upon the shoulder
20 and the slug will thereby be prevented from
passing into the entrance opening 14 of the run-
way and will be maintained in this position.

In these circumstances, should it be attempted
to dislodge the slug 22 from the magnet 16 by
the insertion of other tokens or by an imple-
ment inserted into the slot 15 in an attempt to
force the slug 22 downwardly into the runway
10, the shoulder 20 upon which the slug rests will
prevent such operation, due to the fact that the
magnet 16 will hold the slug in a position that it
will rest upon the shoulder 20.

In the event that such a slug is inserted into
the slot 15, and in order to remove the same,
there is provided a slot 23 in the casing wall 24,
a portion of which slot is in alinement with a
slot 25 that passes through the shoulder 20 and
also the inclined portion 21 thereof.

With this arrangement when the slug 22 is held
adjacent the magnet 16 an implement may be
inserted through the slot 23 below the slot 25
in the shoulder 20, and then by raising the im-
plement so as to move the same toward the other
end of the slot 23, the end of the implement will
pass through the slot 25 and engage the edge

of the slug 22 and raise the latter, forcing the same along the magnet 16 so as to project the slug a sufficient distance beyond the entrance end of the slot 15 to permit the operator to grasp the slug and withdraw it from the slot.

In order to prevent the insertion of a card or other article into the slot 15 so as to cover the poles of the magnet 16 and thereby permit the insertion of spurious coins, the entrance slot may be shaped to form a tortuous passage 26 as shown in Figure 6, the magnet 16 being preferably arranged adjacent the discharge outlet end of the passage.

In this form of the invention a slot 27 in one of the walls of the passage which permits the insertion of an implement to remove the coin 28 which has adhered to the magnet 16, or which is held within the slot, conforms to the configuration of the passage 26, a portion of the slot 27 being in register with the slot 25 through the shoulder 20 so as to permit the implement to be inserted beneath the lowermost edge of the coin or token. By then manipulating the implement to raise the coin and pass it back through the passage 26 it will be returned to the operator.

While the preferred form of the invention has been herein shown and described, it is to be understood that various changes may be made in the details of construction and in the combination and arrangement of the several parts, within the scope of the claims, without departing from the spirit of this invention.

What is claimed as new is:

1. Detecting mechanism for coins and like metallic disc shaped elements, embodying an element receiving passage of substantial length, a portion of one of the walls being shaped to form a shoulder in the path of movement of the said

element through the passage, a portion of the said shoulder being beveled to deflect predetermined elements past said shoulder and into the passage, and a permanently stationary magnet in proximity to said shoulder and operating to hold other predetermined elements in alinement with said shoulder, whereby upon insertion of another coin into said passage, the coin held by the magnetic means will be caused to abut said shoulder, there being a slot in a wall of said mechanism and an opening through said shoulder and through which slot and opening an implement may be inserted to engage and force out of the entrance of said passage, the said element which has been retained in engagement with said shoulder.

2. Detecting mechanism for coins and like metallic disc shaped elements embodying an element receiving passage of substantial length, a shoulder formed in said passage in the path of movement of an element through the passage, a portion of the said shoulder being beveled to deflect predetermined elements past said shoulder and into the passage, and a permanently fixed and stationary magnet in proximity to said shoulder and operating to hold other predetermined elements in alinement with said shoulder, whereby upon insertion of another coin into said passage the coin held by the magnet will be moved against said shoulder and maintained against further advancement in said passage, there being a slot in a wall of the passage, and an opening through said shoulder and said beveled portion for the passage of an implement to engage under the edge of the coin to move the latter backwardly in said passage.

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