

[54] **APPARATUS FOR PREVENTING FRAUDULENT OPERATION OF PARKING METERS**

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[58] Field of Search 194/18, 97 R, 97 A, 102, 194/99, DIG. 22, 1 E, 1 C, 1 K

[56] **References Cited**

UNITED STATES PATENTS

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2,547,272 4/1951 Lawson et al. 194/DIG. 22

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3,536,177 10/1930 Foster et al. 194/97 R
3,701,600 10/1972 Guillot 194/DIG. 22

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[57] **ABSTRACT**

Operation of a parking meter by an undersized coin of lesser value than the intended coin, for example, a penny in place of a nickel, is prevented by providing a relatively narrow exit slot at the bottom of the coin receiving recess. The coin receiving recess terminates downwardly in at least one narrow shoulder and continues downwardly in the relatively narrow slot, so that an undersized coin, placed in the slot, will fall through; while the coin of the proper denomination and hence the intended thickness will be retained in the coin receiving slot for consequent operation of the parking meter.

1 Claim, 5 Drawing Figures

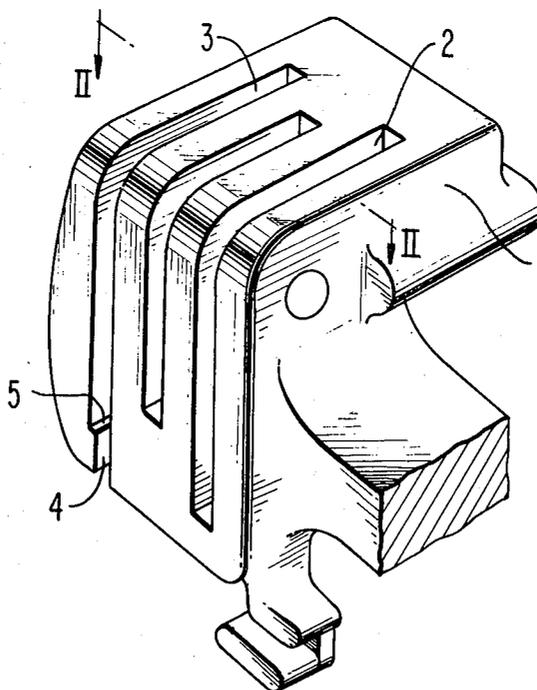


FIG. 1

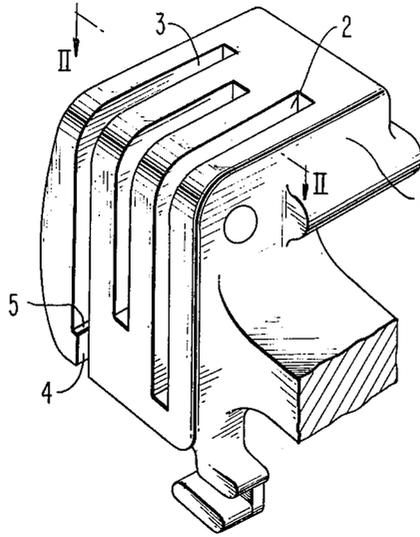


FIG. 2

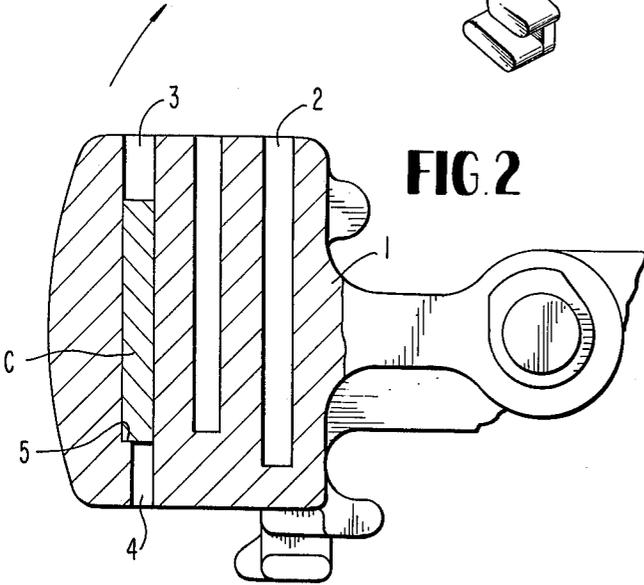


FIG. 3

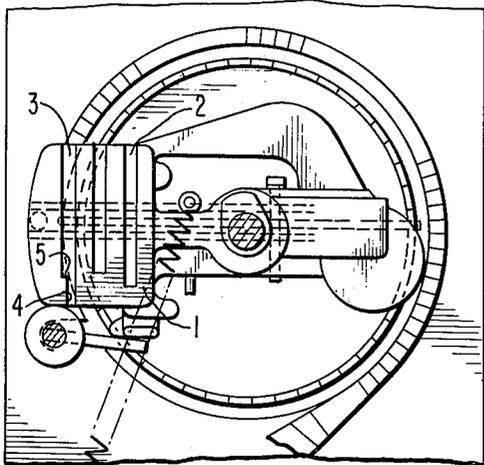
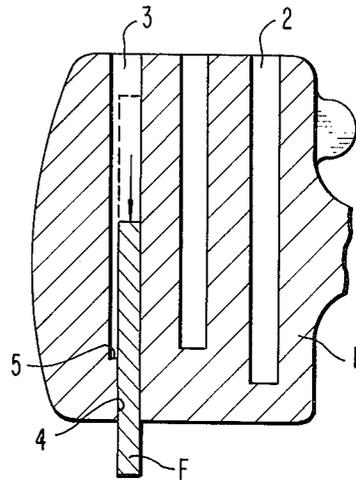


FIG. 4

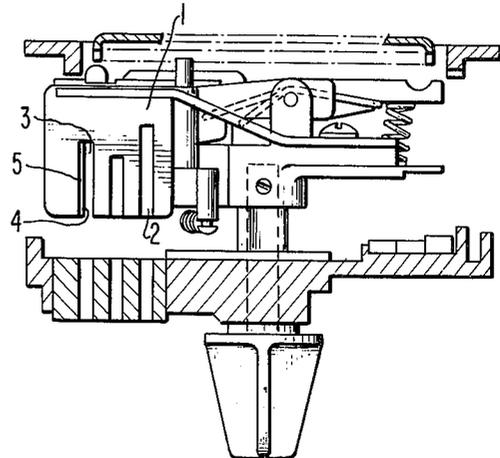


FIG. 5

APPARATUS FOR PREVENTING FRAUDULENT OPERATION OF PARKING METERS

The present invention relates to parking meters of the coin operated type, having means for preventing fraudulent operation thereof.

In my earlier U.S. Pat. No. 3,701,600, I disclosed a parking meter of this type, in which the fraudulent use of a relatively thin coin in place of a relatively thick coin of higher denomination, is detected by means of a lever having a notch therein of a size to receive the fraudulent thinner coin but not of a size to receive the intended thicker coin. The fraudulent coin thus enters the notch without disturbing the lever; while the intended coin is too large to be received in the notch and instead pivots the lever to permit operation of the meter.

The present invention is an improvement over the construction disclosed in my earlier patent, in that I have been able to eliminate the lever which moves relative to the coin receiving slot, and have instead replaced it with structure which bodily removes the fraudulent coin itself, while providing an anti-fraud parking meter that has no more parts than a parking meter that has no anti-fraud arrangement.

The present invention is in the field of those parking meters which have one or more fixed coin slots for the reception of a coin or coins of the proper denomination, in register with a slotted coin receiving block which is rotated by an external handle that also winds the timing device of the parking meter, rotation of the block with a coin of the proper denomination therein serving to actuate the meter and/or to discharge the coin from the block. Such meters operate, as can the present meter, by any of the well-known conventional means, such as switch operation upon contact with the coin rotated conjointly with the rotatable block, or switch operation by a coin discharged from the rotated block, or mechanical latch release by a coin in the slot to permit rotation of the block, or other well-known arrangements.

It is an object of the present invention to provide a parking meter having means to eliminate bodily from the coin-receiving block the fraudulent coin when the fraudulent coin is thinner than the intended coin.

Another object of the present invention is the provision of such a parking meter, which will be relatively simple and inexpensive to manufacture, easy to operate, maintain and repair, and rugged and durable in use.

Broadly, the objects of the present invention are achieved by providing in such a parking meter, a block rotatable about a horizontal axis and having one or more coin slots therein which are vertical in the initial or receiving position of the block. At least one of the slots terminates downwardly in at least one laterally extending shoulder and continues downwardly in a slot of reduced width sufficient to pass a relatively thin fraudulent coin such as a penny, but of insufficient width to pass an intended thicker coin of higher denomination, such as a nickel.

Other objects, features and advantages of the present invention will become apparent from a consideration of the following description, taken in connection with the accompanying drawings, in which:

FIG. 1 is a fragmentary perspective view of the rotatable block of the parking meter according to the present invention;

FIG. 2 is an elevational view thereof, in the direction of the axis of rotation of the block, partly in cross section and containing an intended coin;

FIG. 3 is a fragment of FIG. 2, showing a fraudulent coin being eliminated from the block;

FIG. 4 is a front elevational view, with the cover removed, of a parking meter embodying the present invention; and

FIG. 5 is a top plan view of what is shown in FIG. 3, with the cover in place.

Referring now to the drawing in greater detail, there is shown a parking meter according to the present invention whose construction apart from what is illustrated in the drawing can be entirely conventional and so need not be disclosed in detail, comprising a slotted block 1 mounted for rotation about a horizontal axis and having conventional rotating means (not shown) to perform the functions above described, including setting the timing device (not shown) of the meter.

Block 1 is provided with a plurality of conventional coin receiving slots 2, and a modified coin receiving slot 3 according to the present invention. The upper part of slot 3 is of a width sufficient to receive an intended coin such as a nickel. Slot 3, however, has a downwardly extending portion that extends through the bottom of block 1 in the coin receiving position, this downwardly extending portion comprising a relatively narrow slot 4 which is separated by a horizontal shoulder 5 from the wider portion of slot 3.

It is important that shoulder 5 be relatively sharply defined, and preferably horizontal, in the coin receiving position of block 1, in contrast to a gradual or steeply inclined shoulder which would merely cause coins of the proper denomination to wedge at the entry to slot 4.

In FIG. 2, a coin C of the intended denomination, such as a nickel, is shown retained in slot 3 by shoulder 5; slot 4 is too narrow to receive it. But in FIG. 3, a fraudulent coin F, for example a penny, is shown falling through slot 4 which is wide enough to receive it. The penny then drops into a return slot or the like (not shown) and is thus gravity rejected.

Upon rotation of block 1 about the horizontal axis shown in FIG. 2, intended coin C is gravity discharged to a receptor (not shown), in the conventional manner. Thus when block 1 returns to its FIG. 2 position, another coin may be inserted in slot 3.

FIGS. 4 and 5 show respectively elevational and top plan views of the present invention set in a typical environment comprising a parking meter which may for example be for the type shown in U.S. Pat. No. 3,262,540, to which reference is had for conventional details of the environment in which the present invention is practiced. It will of course be understood that the disclosure of environment for the present invention is merely by way of example and is not limiting, and that the patentable novelty of the invention is fully shown in FIGS. 1-3.

From a consideration of the foregoing disclosure, therefore, it will be evident that the initially recited objects of the present invention have been achieved.

Although the present invention has been described and illustrated in connection with a preferred embodiment, it is to be understood that modifications and variations may be resorted to without departing from the spirit of the invention, as those skilled in this art will readily understand. Such modifications and variations are considered to be within the purview and scope of

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the present invention as defined by the appended claims.

What I claim is:

1. In a parking meter having a coin-receiving block having a plurality of coin-receiving slots each opening through at least two sides of the block, said block being rotatable about a horizontal axis from a coin-receiving position to a position in which the meter is actuated when the coin of proper denomination has been inserted in a slot in the block and the block rotated about said axis; the improvement in which said slot is positioned vertically in said coin-receiving position of said

block parallel to and spaced from said horizontal axis and comprises an upper portion that is relatively wide in the direction of the thickness of an inserted coin and a lower portion that is relatively narrow in the direction of the thickness of an inserted coin, said relatively narrow portion opening through the bottom of the block, and at least one horizontal shoulder on the inner surface of the slot separating said upper portion from said lower portion of the slot, said horizontal shoulder extending lengthwise of the bottom of the slot.

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