Oct. 3, 1933. A. KENNEDY 1,928,624

CLOSURE FOR COIN SLOTS

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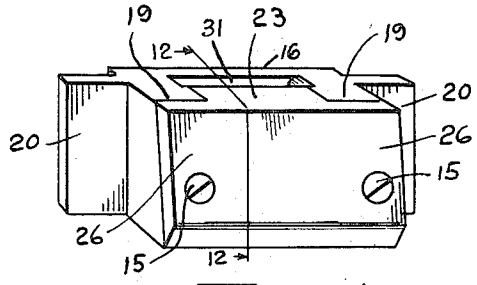


Fig. 1

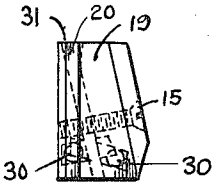


Fig. 2

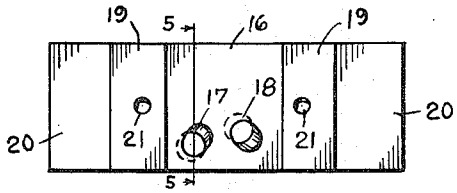


Fig. 3

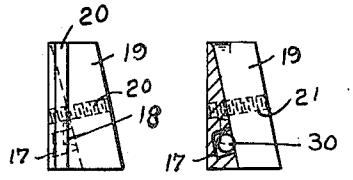


Fig. 4 Fig. 5

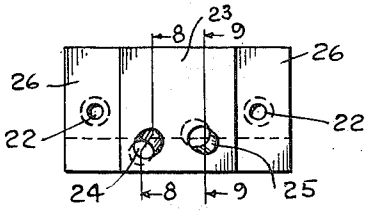


Fig. 6

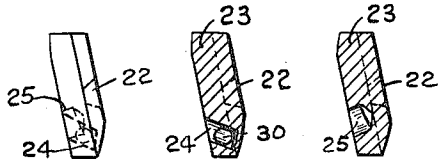


Fig. 7 Fig. 8 Fig. 9

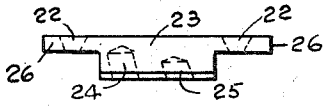


Fig. 10

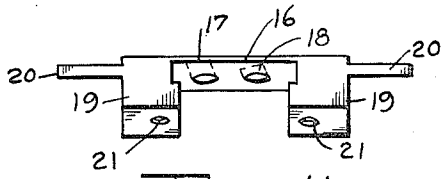


Fig. 11

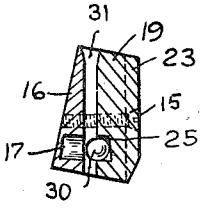


Fig. 12

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CLOSURE FOR COIN SLOTS

Andrew Kennedy, Brooklyn, N. Y., assignor to Crescent Specialty Company, Inc., a corporation of Delaware

Application February 14, 1931. Serial No. 515,764

1 Claim. (Cl. 232—62)

My invention relates to that class of devices which are provided with an inlet in the form of a slot for the reception of a coin, in order that the coin may either serve to set in operation certain functions of the apparatus or may be merely held within the apparatus, or otherwise, but in any case that the coin after having been inserted cannot easily be withdrawn from the apparatus under the normal operation of the same. The invention particularly relates to coin slots forming part of apparatus of the kind above referred to or other apparatus, provided with particular devices for closing or locking such slot in such a manner that while coins may be inserted through the same into the receptacle or apparatus, they cannot be removed therefrom.

One of the principal objects of the invention is to provide an apparatus of the character described which shall be efficient and infallible in operation and immune from disorder, and so designed as to be simple, cheap and expeditious in manufacture and assembly.

Further objects and advantages of the invention will be in part set forth in the following specification, and in part will be obvious therefrom without being specifically pointed out, the same being realized and attained by means of the instrumentalities and combinations pointed out in the claim hereof.

With the above and other objects of the invention in view, the invention consists in the novel, construction, arrangement and combination of various devices, elements and parts set forth in the claim hereof, one embodiment of the same being illustrated in the accompanying drawing and described in this specification.

In the accompanying drawing,

Fig. 1 represents a perspective view of a device embodying my invention;

Fig. 2 is an end view of the same;

Fig. 3 is a face view of the back plate forming part of the invention;

Fig. 4 is an end view of the said back plate shown in Fig. 3;

Fig. 5 is a transverse vertical section of the same, taken along the line 5—5 of Fig. 3;

Fig. 6 is an inside or back view of the face plate forming part of the device;

Fig. 7 is an end view of Fig. 6, looking towards the left;

Fig. 8 is a section along the line 8—8 of Fig. 6;

Fig. 9 is a section along the line 9—9 of Fig. 6;

Fig. 10 is a bottom view of the face plate member;

Fig. 11 is a top view of the back plate member; and

Fig. 12 is a section along the line 12—12 of Fig. 1, showing the device tilted in such a manner as to bring one of the locking devices into closing position.

In carrying my invention into effect in the embodiment thereof which has been selected for illustration in the accompanying drawing and for description in this specification, I provide a back plate, the inner side of which is shown in Fig. 3, and a front plate, the inner side of which is shown in Fig. 6, the same being capable of assembly into a unitary structure, shown in perspective in Fig. 1, the two parts being there shown as secured together by screws 15. Referring particularly to Figs. 1 and 3, it will be seen that the back plate comprises a middle portion 16, in which are formed two cavities or sockets, one of which, marked 17, extends backwardly and downwardly into the body of the device, and the other, marked 18, extends backwardly and upwardly, likewise into the body of the device but not for so great a distance as the socket 17. On each side of the portion 16 of this back plate are ribs or ridges 19, and externally of these are thinner wing members 20. At 21—21 in Fig. 3 are shown the screw-threaded openings for the reception of the ends of the screws 15 when the back plate and front plate are assembled together.

Referring particularly to Fig. 6, it will be seen that the front plate comprises a middle portion 23, in which are formed two cavities or sockets, analogous to the sockets 17 and 18 in the back plate, one of which, marked 24, extends forwardly and downwardly (see Fig. 8) into the body of the device, and the other, marked 25, extends forwardly and upwardly (see Fig. 9) likewise into the body of the device, but not for so great a distance as the socket 24.

When the two plates are assembled, as shown in Fig. 1, the central portion 23 of the front plate lies in between the ribs 19 of the back plate. The front plate is also provided with thinner lateral wing portions 26, which in the assembled position as shown in Fig. 1, lie against and in front of the rib portions 19 in the back plate. At 22, 22, in Fig. 6, are shown openings through which the screws 15 pass, the said openings being countersunk for the reception of the heads of the screws.

In connection with the parts of the device above described, I provide two locking devices, which are preferably two hard metallic balls, shown in position in Figs. 5 and 12. These balls are of such a size relative to the sockets 17, 18, 24 and

25, that one of the balls may be entirely contained within the longer or downwardly extending sockets 17 or 24, but will only half-way enter the shorter or upwardly extending sockets 18 or 25. When the parts are assembled together, in the position shown in Figs. 1, 2 and 12, the inside of the face plate lies towards the inside of the back plate, the openings of the sockets 17 and 25 being in register with each other and the openings of the sockets 18 and 24 being in register with each other. The surfaces are not, however, in contact, as a space is left between the same sufficient to permit the passage of a coin; the opening of this coin channel or coin inlet forms a slot which is shown in Fig. 1 and designated 31. When assembled, the sockets 17 and 25, and likewise the sockets 18 and 24, form a pair of almost continuous sockets, interrupted only by the thickness of the coin channel, these sockets being adapted to hold the balls 30. This construction will be evident from an examination of Fig. 2, and also of Fig. 12. When the device is in its normal perpendicular position, the balls lie in the longer and downwardly extending sockets 17 and 25, but when the device is tilted out of the perpendicular, as shown in Fig. 12, one or the other or perhaps both of the balls 30 pass out of the longer socket and half way into the adjacent shorter socket, whereupon, as a ball cannot enter completely into the shorter socket, the coin channel is closed. This condition of the device is shown in Fig. 12, which is a cross-section along the line 12—12 of Fig. 1, but showing the device slightly tilted so that the ball channel 17—25 is tilted into such a position that the ball 30 runs out of the longer socket 17 and into the short socket 25, thereby closing the coin channel 31. In Fig. 2, on the other hand, the device is set entirely level and the balls 30 are in the longer sockets, one in the face plate and the other in the back plate, and the coin channel is left entirely free.

The operation of the device has been adverted to in the foregoing description of its construction, and it will only be necessary to sum up the operation in a few words, by saying that when the device is in its normal perpendicular position and a coin is inserted into the coin slot 31 (see Fig. 1), it is able to pass down through the slot and into the coin receptacle beneath the device, the coin slot being entirely free and unobstructed, as shown in Fig. 2. If, however, an attempt is made to remove coins from the device in an unauthorized way, that is, in any other way than by opening the normal coin-withdrawal openings by an authorized person provided with the key thereto, and if the device is turned upside down in the hope of obtaining coins backward through the slot, one or both of the balls 30 will roll from the longer socket into the shorter socket and thereby obstruct the coin channel to such an extent that no coin will pass. In other words, with my device it is only possible for a coin to pass through the coin channel in one direction, that is, downward, when the device is in its normal perpendicular position, and it is not possible for the coin to pass backward through the coin channel, because the same change in the position of the device which will allow gravity to act upon the coin, also allows gravity to act upon the balls 30, and closes the coin channel.

The advantages of my invention will be obvious from what has been above said with regard to its construction and operation, and need not be specially further described.

I do not limit myself to the particular details of construction set forth in the accompanying drawing, as the same refer to and set forth only one embodiment of the invention, and it is obvious that the same may be modified within the scope of the appended claim without departing from the spirit and scope of the invention.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is as follows:

An automatic coin receiving device provided with a coin-slot adapted to permit the passage of coins therethrough in one direction but to prevent the passage of coins in a reverse direction, comprising in combination a back plate member, a front plate member and means for securing said plates together, said plates being provided with a coin-channel therebetween, each of said plates having a plurality of sockets formed therein, each socket in each plate registering with a corresponding and co-acting socket in the other plate, so as to form a plurality of pairs of co-acting sockets, the axes of the sockets of each pair being in the same line, whereby the sockets of each pair taken together form a continuous socket except for the width of said coin-channel, the axes of said pairs of sockets opening into the said coin-channel at an angle inclined with the horizontal and the axis of each pair of sockets being inclined to the axis of the other pair of sockets, and a locking device in each of said pairs of sockets adapted to move therein: the sockets of each of said pairs being of different lengths, each of said sockets which extends downwardly being of sufficient length to fully contain one of said locking devices and each of the corresponding sockets which extends upwardly being of such length that the portion of said locking device having the largest diameter may pass into said shorter socket but that a portion of said locking device of less than its largest diameter will always remain outside of said shorter socket, and said pairs of sockets respectively being inclined at such an angle with the horizontal and with each other that when the device is in the normal perpendicular position each locking device will pass completely into its corresponding downwardly-extending longer socket and leave the coin-channel free but when the device is in any abnormal position, that is to say, in any position other than its normal perpendicular position, one or the other of said locking device will pass partly into its shorter socket and obstruct the coin-channel.

ANDREW KENNEDY.