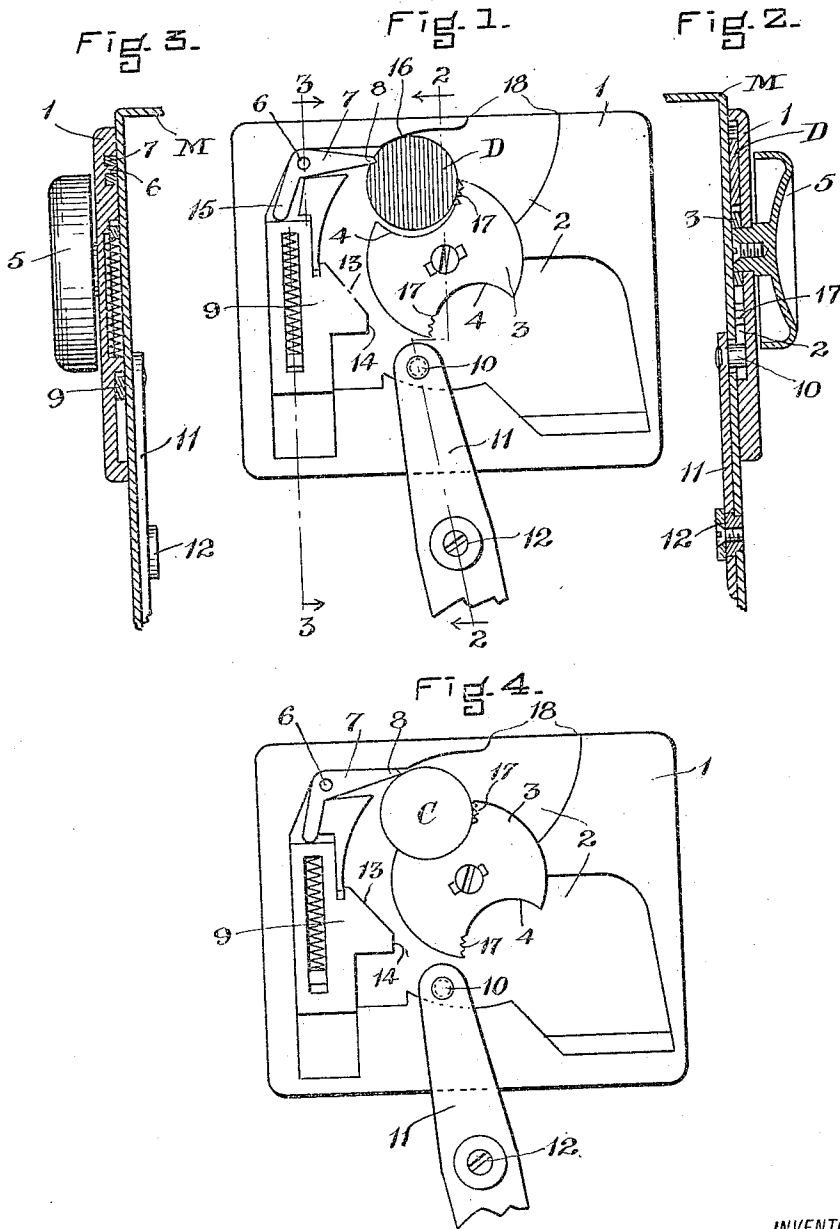


A. D. GROVER.
 COIN TESTING DEVICE FOR COIN CONTROLLED MACHINES.
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UNITED STATES PATENT OFFICE.

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COIN-TESTING DEVICE FOR COIN-CONTROLLED MACHINES.

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Specification of Letters Patent. Patented June 14, 1921.

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To all whom it may concern:

Be it known that I, ALBERT D. GROVER, a citizen of the United States, and a resident of New York city, in the county of New York and State of New York, have invented certain new and useful Improvements in Coin-Testing Devices for Coin-Controlled Machines, of which the following is a specification.

The object of my invention is to provide a coin-testing device for use in coin-controlled machines for testing the deposited check as to hardness. That is to say, when an improper check is deposited, of a material having a less degree of hardness than a proper coin, the check is prevented from passing into the machine, but may be withdrawn from the coin-entrance slot.

In the accompanying drawings, which show a preferred embodiment of my invention,

Figure 1 is a view in elevation of a portion of a coin-controlled machine provided with my invention, showing how a soft check is locked against movement into the machine;

Fig. 2 is a section approximately on line 2—2 of Fig. 1, looking in the direction of the arrows;

Fig. 3 is a cross-section approximately on line 3—3 of Fig. 1 looking in the direction of the arrows; and

Fig. 4 is a view similar to Fig. 1, showing how a good coin is allowed to pass into the machine.

The operative parts of my mechanism are mounted on any suitable support, such as the plate 1, which is adapted to be mounted in any suitable coin-controlled machine. For the sake of illustration, I have shown the plate 1 secured to the front wall of a casing M. As the construction of the casing and the delivery mechanism contained therein form no part of my present invention, I have not deemed it necessary to show more of the machine than a portion of the casing M. The supporting plate 1 is provided with a coin-passage 2, in which operates the coin-carrier 3. This coin-carrier is in the present instance shown in the form of a flat disk provided with semi-circular recesses 4 adapted to receive the deposited check or coin. The coin-carrier 3 is connected with any suitable member on the outside of the machine, such as a knob 5.

On the pin or stud 6 of the plate 1 is

pivoted the coin-testing pawl 7, having a pointed end 8. The pawl 7 hangs normally in such position that the pointed end 8 extends into the path of the coin as it is carried through the coin-passage 2 by the coin-carrier 3. If the deposited check is a proper coin, the pointed end 8 will ride over the hard edge of the coin, as shown in Fig. 4, where the coin is indicated at C. Continued rotation of the coin-carrier will carry the coin C past the pawl 7, depress the spring-pressed stop 9, and then engage the pin 10 of a suitable operating member 11. The member 11 may be of any form or construction and may have any desired function. For the sake of convenience, I have shown the coin-actuated member 11 in the form of a lever pivoted to the front wall of the casing at 12. The spring-pressed slide 9, which has a beveled coin-engaging edge 13 and an abrupt shoulder 14, is for the purpose of locking the coin and coin-carrier against return movement after the coin has been carried a sufficient distance between the shoulder 14 and the pin 10. Also, if desired, the spring-pressed slide 9 may be so arranged that the upper end thereof engages the lower end 15 of the pawl 7, for yieldably holding the pawl approximately in the position shown in Fig. 1 during the normal position of the parts.

When a check or disk of soft material—such as lead, fiber, soft composition metal, etc.—is inserted in the machine and the coin-carrier rotated, the pointed end 8 of the pawl 7 will bite into the edge of the soft disk D and the latter will be jammed or wedged between the coin-carrier and the opposite wall 16 of the coin-passage. This is clearly shown in Fig. 1. It should be noted that the pressure brought to bear against the disk D by attempted rotation of the coin-carrier is not borne by the pawl 7, at least not to a large extent, but is taken up by the opposing wall 16 of the coin-passage. This is an important feature of my invention, for in this way, the pawl 7 may be of light and small construction, as it does not have to bear any appreciable amount of strain. Also it will be seen from Fig. 1 that whatever thrust the pawl 7 has to bear is approximately in a line between the pivot 6 and the pointed end 8, which imparts to the pawl a maximum of resistance power.

The intercepted check is readily withdrawn through the coin-entrance slot 18 by

simply rotating the coin-carrier 3 in the reverse direction. This causes the check to be projected sufficiently through the coin-slot to be removed, as will be clear from Fig. 1.

5 This removal of the intercepted check is an important feature of my invention, as otherwise the machine would become clogged and put out of commission by the first soft check that was deposited.

10 It will be clear from Figs. 1 and 4 that the pointed end 8 of the pawl 7 is at all times out of engagement with the coin-carrier 3, and that the latter is normally free to rotate in opposite directions. In other
15 words, the pawl 7 does not act as a stop for the disk 3 when the latter is rotated empty, and consequently there is no such wear on the pointed end 8 as would be the case if it engaged the coin-carrier to form a stop.

20 In order to prevent disks of hard fiber from accidentally passing by the pointed end 8 of the pawl 7, under pressure of the coin-carrier, I provide the coin-seat 4 with teeth 17 which bite into the edge of the
25 check and thereby positively prevent the same from slipping or whirling around its own axis when strong pressure is brought to bear on the coin-carrier by attempted turning of the knob 5.

30 It will be seen from the foregoing that I have provided an exceedingly simple and efficient device for intercepting soft checks. The pawl 7 occupies but little space and may be readily applied to vending machines
35 of small dimensions, such as are used in theaters. It should be noted that the coin-testing pawl is at some distance from the coin-entrance slot 18, so that it cannot easily be tampered with from the outside.

40 Having thus described my invention, what I claim as new and desire to secure by Letters Patent of the United States, is:

1. In a coin-controlled machine, a casing provided with a coin-entrance slot and a
45 coin-passage leading therefrom, a rotatable disk provided with a recess for receiving the deposited coin and carrying the same through said passage, and a pivoted pawl having a pointed end extending into said
50 passage to enter the edge of a soft check in said coin disk and cause said check to be jammed between the coin disk and the opposite wall of said passage, said coin disk being reversely rotatable to bring the inter-
55 cepted check back through the coin-entrance slot, said pawl riding over the hard edge of a proper coin to allow the same to be carried into the machine.

2. In a coin-controlled machine, a casing
60 provided with a coin-entrance slot and a coin passage leading therefrom, a rotatable disk provided with a recess for receiving the deposited coin and carrying the same through said passage, a pivoted pawl hav-
65 ing a pointed end extending into said pas-

sage to enter the edge of a soft check in said coin disk and cause said check to be jammed between the coin disk and the opposite wall of said passage, said coin disk being reversely rotatable to bring the intercepted
70 check back through the coin-entrance slot, said pawl riding over the hard edge of a proper coin to allow the same to be carried into the machine, and teeth at one end of said coin-recess to engage the edge of the jammed
75 check and prevent the same from being forced out of engagement with said pawl under attempted forward rotation of said coin disk.

3. In a coin-controlled machine, a casing
80 provided with a coin-entrance slot and a coin passage leading therefrom, a movable coin-carrier for receiving the deposited coin and carrying the same through said coin pas-
85 sage, and a pivoted pawl having a pointed end extending into said passage to enter the edge of a soft check on said carrier and cause said check to be jammed between said carrier and the opposite wall of said passage, said carrier being reversely movable to
90 bring the intercepted check back to said coin-entrance slot, said pawl riding over the hard edge of a proper coin to allow the same to be carried into the machine.

4. In a coin-controlled machine, a casing
95 provided with a coin-entrance slot and a coin passage leading therefrom, a movable coin-carrier for receiving the deposited coin and carrying the same through said coin pas-
100 sage, a pivoted pawl having a pointed end extending into said passage to enter the edge of a soft check on said carrier and cause said check to be jammed between said carrier and the opposite wall of said passage, said carrier being reversely movable to bring
105 the intercepted check back to said coin-entrance slot, said pawl riding over the hard edge of a proper coin to allow the same to be carried into the machine, and teeth on said coin-carrier to engage the edge of the
110 jammed check and prevent the same from being forced out of engagement with said pawl under attempted forward movement of said coin-carrier.

5. In a coin-controlled machine, a casing
115 having a flat plate provided with a coin-entrance slot and a coin-passage leading therefrom, a rotatable disk mounted on said plate and provided with a recess for receiving the deposited coin and
120 carrying the same through said passage, and a pivoted pawl mounted on said plate to operate in said passage and having a pointed end adapted to enter the edge of a soft check in said disk and thereby lock said disk
125 against further forward rotation, the direction of thrust against said pawl by the locked disk being approximately in a line between the pivot and the pointed end of
130 said pawl, said disk being reversely rotatable.

ble to bring the intercepted check back through the coin-entrance slot, the pointed end of said pawl being always out of engagement with said disk and riding over the hard edge of a proper coin to allow the same to be carried by said disk into the machine.

6. In a coin-controlled machine, a casing provided with a coin-entrance slot and a coin-passage leading therefrom, a disk mounted to rotate in said coin-passage and provided with a recess for receiving the deposited coin and carrying the same through said passage, means for rotating said disk from the outside of said casing, a pivoted pawl operable in the plane of said disk and having a pointed end extending into said passage to enter the edge of a soft check in said disk and thereby lock said disk against further forward rotation, said disk being reversely rotatable to bring the intercepted check back through the coin-entrance slot, and means for holding the pointed end of said pawl at all times out of contact with said disk, the pointed end of said pawl riding over the hard edge of a proper coin to allow the same to be carried into the machine.

7. In a coin-controlled machine, a casing provided with a coin-entrance slot and a coin-passage leading therefrom, a hand-operable coin-carrier for receiving the deposited coin and carrying the same through said coin-passage, a pivoted pawl mounted to operate in the plane of operation of said coin-carrier and having a pointed end extending into said passage to enter a soft check on

said carrier and thereby lock said carrier against further forward movement, said carrier being reversely movable to bring the intercepted check back to the coin-entrance slot, and means for holding the pointed end of said pawl at all times out of engagement with said coin-carrier, whereby the latter is free to be moved in opposite directions when empty, the pointed end of said pawl riding over a proper coin to allow the same to be carried into the machine.

8. In a coin-controlled machine, a casing provided with a coin-entrance slot and a coin-passage leading therefrom, a rotatable disk provided with a recess for receiving the deposited coin and carrying the same through said passage, a pivoted pawl having a pointed end extending into said passage to enter the edge of a soft check in said disk and thereby lock said disk against further forward rotation, said disk being reversely rotatable to bring the intercepted check back through the coin-entrance slot, the pointed end of said pawl being at all times out of engagement with said disk and riding over the hard edge of a proper coin to allow the same to be carried by said disk into the machine, and teeth at one end of said coin-recess to engage the edge of the intercepted check and prevent the same from being forced out of engagement with said pawl under attempted forward rotation of said coin disk.

In witness whereof, I hereunto subscribe my name this 6th day of August, 1917.

ALBERT D. GROVER.