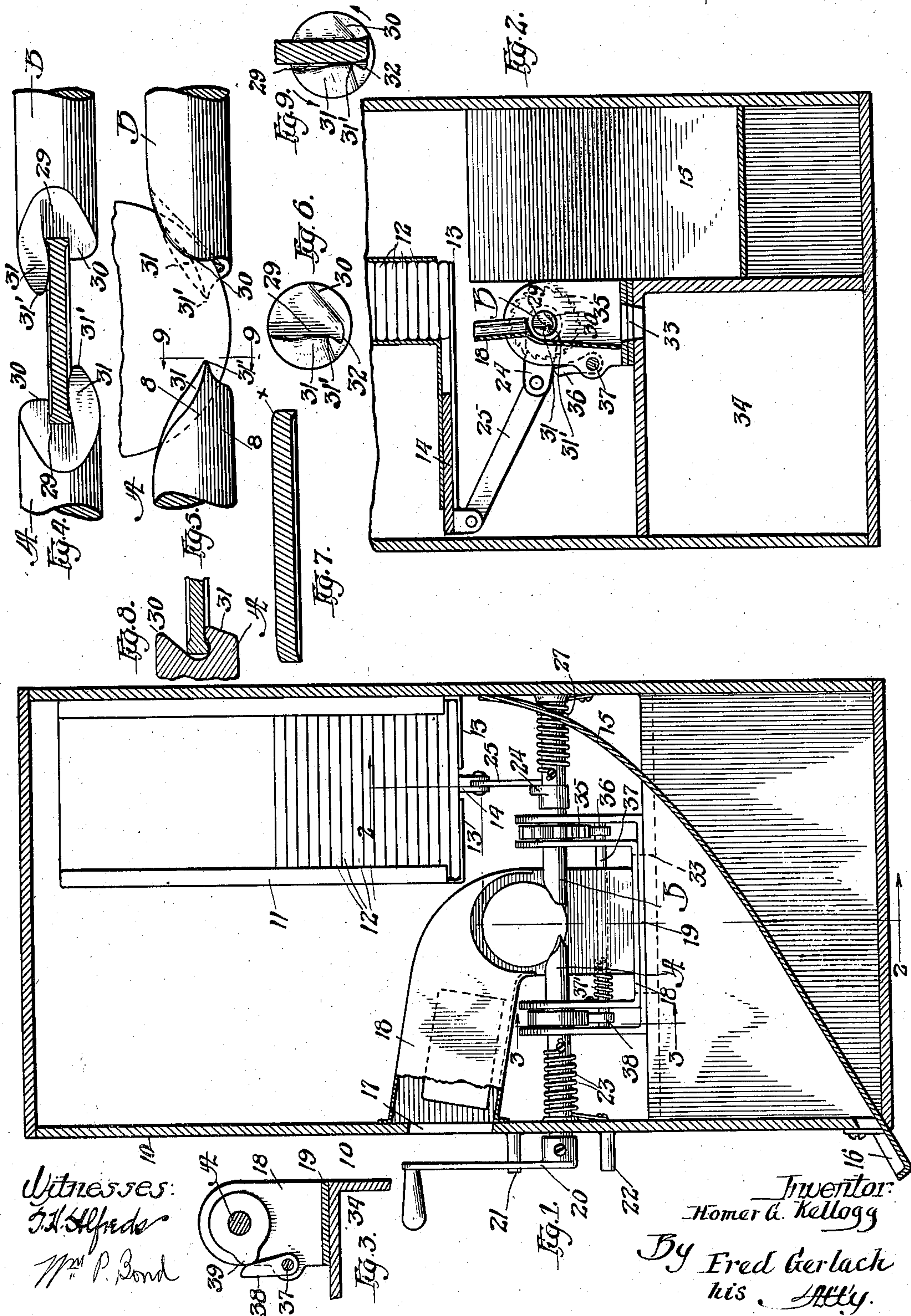


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PATENTED MAY 28, 1907.

H. G. KELLOGG.
COIN CONTROLLED APPARATUS.

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UNITED STATES PATENT OFFICE.

HOMER G. KELLOGG, OF CHICAGO, ILLINOIS.

COIN-CONTROLLED APPARATUS.

No. 855,008.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HOMER G. KELLOGG, a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Coin-Controlled Apparatus, of which the following is a full, clear, and exact description.

The invention relates to coin or check-controlled apparatus and one of its objects is to provide an improved device whereby a bogus-coin or slug will be eliminated so that it will not operate the coin-controlled apparatus or device.

In practice it has been found that nearly all slugs or bogus-tokens are formed in a punch-press or by a die which leaves a slightly curved edge or edge-portion adjacent one face of the slug and a bur or slightly projecting portion adjacent the other face of the slug. A truly formed coin or token is usually subjected to finishing dies whereby the round edge-portion and bur are removed and the coin is rendered true and flat, being usually formed with a slight bead around each face thereof. The present invention designs to utilize this peculiarity or characteristic of slugs or the difference between a slug and a coin or check in preventing the operation of a coin-controlled device or mechanism by any token other than a coin or check.

The invention further designs to provide improved coin-controlled mechanism which is responsive only to a coin or proper token and to provide a simple construction for such device.

The invention consists in the several novel features hereinafter set forth and more particularly defined by claim at the conclusion hereof.

In the drawings: Figure 1 is an elevation of a coin-controlled apparatus embodying the invention, the inclosing case being shown in section. Fig. 2 is a section taken on line 2—2 of Fig. 1. Fig. 3 is a detail section on line 3—3 of Fig. 1. Fig. 4 is a detail view on an enlarged scale of the two holding-members of the device to which the tokens pass and by which coins or checks are held to cause the operation of the coin-controlled device, and whereby a bogus-coin or slug will be eliminated, a fragment of the coin being shown in section therebetween. Fig. 5 is a front view of the same, and Fig. 6 is an end view of one of said members. Fig. 7 is a detail section of a slug or bogus-token. Fig. 8

is a section on line 8—8 of Fig. 5. Fig. 9 is a section on line 9—9 of Fig. 5, a slug being shown in the device.

10 denotes an inclosing casing which may be of any suitable construction. Any suitable delivery-mechanism or coin-controlled apparatus may be operated by the improved device as hereinafter set forth, an example whereof is shown, comprising a chute 11 supported in any suitable manner in the casing and designed to contain packages of merchandise 12 which rest on a base 13 and a reciprocally mounted ejector 14 whereby the lowest package of merchandise may be discharged forwardly from the chute onto a guide 15 which directs the package onto a receiver 16 on the outside of the case.

The case is provided with a coin admission-slot 17 through which a coin can be deposited into a run-way or channel 18 which directs the tokens to the holder of the coin-controlled mechanism. The means whereby a truly formed coin or token effects the operation of the coin-controlled apparatus and eliminates or rejects a slug, comprises two movable members A and B for holding the tokens, the first of which is adapted to be manually shifted and to shift a coin to cause the operation of the coin-controlled mechanism. Member A is mounted in frames or brackets 18 and 19 and has secured thereto a handle 20 whereby it can be manually operated or oscillated within the limits of stops 21 and 22, which determine the range or rotation of said member. A spring 23 retains the shaft in its normal position which is determined by engagement of handle 20 with stop 21. Member B is mounted in brackets 18 and 19 and may, if desired, be operatively connected to the ejector 14 of the delivery mechanism by an arm 24 which is secured to rotate with member B and is connected to ejector 14 by a link 25. Member B is held normally in position to receive a coin by a spring 27 which also restores said member to its normal position after each operation and retracts the ejector.

Members A and B constitute a holder adapted to receive a deposited token and are so constructed or formed that only a coin or truly formed token will be held therein during rotation of member A to connect the members so that upon operation of the coin-shifting means, member B will be operated, whereby a coin will cause the operation of the coin-controlled device and when a slug or

bogus token is deposited the coin-controlled mechanism will fail to respond to the operation of the coin-shifting means. This peculiar and important result is attained by forming members A and B so that a coin or truly formed token will be displaced to cause the operation of the coin-controlled or operated device while a slug will be rejected so that it will not operate such mechanism or device.

Each of the members is provided centrally with a recess or pocket 29 which is inclined or curved longitudinally to centralize a deposited token between the members. At one side of the recess 29 there is provided an inclined edge or surface 30 on which one of the edges of the token will rest. At the other side of the recess is provided means for engaging the opposite face of the token, consisting of an extension or lug 31 which is projected to extend into position to engage a coin closer to its vertical center than the edge 30 and is slightly undercut as at 32 to receive a bead on the coin or token, if there be one thereon. Member B has its recess 29, edge 30 and projection 31 reversely formed, that is to say, recess 29 is sloped or inclined so a token will be centralized longitudinally, edge or surface 30 and projection 31 are arranged to engage the opposite faces or edges of the token to those engaged by the corresponding parts of member A respectively. Recesses 29 being curved or tapered transversely, centralize a coin transversely. As a result of this peculiar arrangement and form of the members, a truly formed coin or token will, when member A is operated, remain in the bite of these parts until the coin has been swung into position to fall through a slot 33 which leads to a compartment 34 and rotate member B and operate the coin-controlled device. During rotation of member A the edge or surface 30 will impinge against the edge of a coin and press it against projection 31, and the coin will similarly engage the edge or surface 30 and projection 31 of member B and effect shift of the latter member. A slug having a curved edge-portion, *e. g.* as shown in Fig. 7 will be rejected and fail to rotate member B. This results because the curved edge-portion x of the slug, when engaged with projection 31 and when member A is rotated, said projection will operate as a cam and lift the slug free from said member. It will be observed that the inner end 31' of projection 31 engages the face of the coin near the periphery thereof and resultantly when the slug is deposited to bring its curved edge-portion near end 31, said end rotating about the axis of member A will ride under the curved edge and prevent the token from being held in member A. It is possible that a slug having a slight curved edge-portion may be deposited so that the bur edge of the slug will cause it to be held in member A. However if this occurs, the curved edge-portion of the

slug adjacent projection 31 of member B will cause the slug to ride over the latter projection instead of gripping the same. It will be observed that the members which engage the token are relatively off set, causing the bur to act as a cam which removes the slug therefrom. Furthermore if the token held in member A does not take hold of member B the token will not be held into the seat of member A and will therefore be rejected. Therefore, a slug will be rejected when the shifting-means is operated. A new coin is further distinguished from a slug by having a projecting rim or bead at its edge. This aids the projection 31 in gripping the coin, but in practice it has been found that a coin having its bead or rim substantially worn off will nonetheless be held by the members, while a slug having a dished face, or a very slight curved edge-portion will be rejected and fail to pass the test or operate the coin-controlled device. A soft metal slug, *e. g.* one formed of metal such as lead, will not operate the device because if it were truly formed it would be insufficient in rigidity to operatively connect the members and would therefore be rejected. Tokens rejected by the members will pass forwardly and fall on guide 15 and thereby return to the depositor. In many coin-controlled devices much trouble results from the deposit of bent coins or slugs. Manifestly the construction of the device is such that a bent coin cannot clog the machine in any way.

To prevent a coin from being retracted with the operating-member A, means are provided for deferring retraction of member B until the member A has been restored. This means consists of a ratchet wheel 35 secured to revolve with member B, a dog 36 pressed normally into engagement with the ratchet by a spring 37' and secured to a shaft 37 which is extended transversely and is provided with an arm 38 which is engaged by an abutment 39 rotating with member A and holds the dog 36 normally out of engagement with the ratchet. When, however, the operating-member A is in normal position, member B is free to be retracted. Resultantly, when members A and B are conjointly rotated by a coin, it will fall into the coin-compartment, when the handle 20 is released, the retraction of member B being deferred until the handle has been restored to approximately its normal position. By this means gravity alone is not depended upon to discharge the coin from members A and B.

Manifestly the invention provides an improved device in which the coins can be manually shifted and which rejects a slug having the usual characteristic. In an application filed by me in the United States Patent Office November 20, 1905, Serial No. 288,149, there is disclosed a coin-detector in which this result is accomplished and in which gravitation

is depended upon to effect rejection or elimination of a bogus-coin. The present invention designs more particularly to provide improved means for eliminating slugs in machines in which there is a manually operable element. Obviously the present invention provides a device which embodies an element which can be manually shifted and in which gravitation alone is not depended upon to move the coins or tokens. Furthermore, the invention provides a device in which force is applied to the coin to operate some element of the coin-operated mechanism.

The invention is not to be understood as restricted to the details of construction shown and described, but may be modified by the skilled mechanic without departing from the spirit and scope of the invention.

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

1. A coin-detector comprising the combination of means for directing a slug having a curved or inclined edge-portion or face in one direction and for differently disposing truly formed coins or tokens, and means for operating said means.

2. A coin-detector comprising the combination of means for directing a slug having a curved or inclined edge-portion or face in one direction and for differently disposing truly formed coins or tokens, and manually operable shifting means for the tokens.

3. A coin-detector comprising the combination of means for directing a slug having a curved or inclined edge-portion or face in one direction and for differently disposing truly formed tokens or coins, and means for positively shifting said means so a coin or token will be shifted thereby.

4. A coin-detector comprising the combination of means for directing a slug having a curved or inclined edge-portion or face in one direction and for differently disposing truly formed tokens or coins, said means comprising two members one of which is movable, and means for operating said movable member.

5. A coin-detector comprising the combination of means for directing a slug having a curved or inclined edge-portion or face in one direction and for differently disposing truly formed tokens or coins, said means comprising two movable members, and means for manually operating one of said members.

6. A coin-detector comprising the combination of means for directing a slug having a curved or inclined edge-portion or face in one direction and for differently disposing truly formed tokens or coins, said means comprising two rotatable members and means for rotating one of said members.

7. A coin-detector comprising the combination of means for directing a slug having a curved or inclined edge-portion or face in one

direction and for differently disposing truly formed tokens or coins, said means comprising means for engaging one of the faces of a token and the edge adjacent the other face.

8. A coin-detector comprising the combination of means for directing a slug having a curved or inclined edge-portion or face in one direction and for differently disposing truly formed tokens or coins, said means comprising a movable member provided with an element for engaging one of the edge-portions of one face of a token, and an inclined edge or cam for engaging the edge adjacent the other face.

9. A coin-detector comprising the combination of means for directing a slug having a curved or inclined edge-portion or face in one direction and for differently disposing truly formed tokens or coins, said means comprising a member having a longitudinally extending recess, and means at each side of said recess between which the token will be held and for rejecting a slug.

10. A coin-detector comprising the combination of means for directing a slug having a curved or inclined edge-portion or face in one direction and for differently disposing truly formed tokens or coins, said means comprising a rotatable member having a longitudinally extending recess, and means at each side of said recess between which the token will be held and for rejecting a slug.

11. A coin-detector comprising the combination of means for directing a slug having a curved or inclined edge-portion or face in one direction and for differently disposing truly formed tokens or coins, said means comprising a movable member provided with a longitudinally extending seat or recess, a projection adapted to engage one face of a token, and a cam edge or surface between which a truly formed token will be held and for rejecting a slug.

12. A coin-detector comprising the combination of means for directing a slug having a curved or inclined edge-portion or face in one direction and for differently disposing truly formed tokens or coins, said means comprising a rotatable member provided with a longitudinally extending seat or recess, a projection for engaging one face of a token, and a cam edge or surface between which a truly formed token will be held and for rejecting a slug.

13. A coin-detector comprising the combination of means for directing a slug having a curved or inclined edge-portion or face in one direction and for differently disposing truly formed tokens or coins, said means comprising two movable members, one of which is provided with means between which a coin will be held and for rejecting a slug and the other of which is provided with means for causing a coin to operate the member.

14. A coin-detector comprising the combination of means for directing a slug having a curved or inclined edge-portion or face in one

nation of means for directing a slug having a curved or inclined edge-portion or face in one direction and for differently disposing truly formed tokens or coins, said means comprising two rotatable members, one of which is provided with means between which a coin will be held and for rejecting a slug and the other of which is provided with means for causing a coin to operate the member.

15 15. A coin-detector comprising the combination of means for directing a slug having a curved or inclined edge-portion or face in one direction and for differently disposing truly formed coins, said means comprising a member having a recess, a projection for engaging one face of a truly formed coin or token, and an edge or surface adjacent the other face of the token, said projection being undercut to overlie a rim on a coin.

20 16. In coin-controlled mechanism the combination of two rotatable members, means for directing a slug having a curved or inclined edge-portion or face in one direction and for differently disposing truly formed coins or tokens, means for manually operating one of said members, and a device operatively connected to the other member.

25 17. In coin-controlled mechanism, the combination of means for directing a slug having a curved or inclined edge-portion or face in one direction and for differently disposing truly formed tokens or coins, said

means comprising a pair of rotatable members each having a longitudinally extending recess whereby the tokens will be centralized longitudinally and transversely, and means at each side of said recess between which a coin will be held and for rejecting a slug. 35

18. In coin-controlled mechanism, the combination of means for directing a slug having a curved or inclined edge-portion or face in one direction and for differently disposing truly formed tokens or coins, said means comprising a pair of members each having a longitudinally extending recess whereby the tokens will be centralized longitudinally and transversely, and means at each side of said recess between which a coin will be held and for rejecting a slug. 40 45

19. In coin-controlled mechanism, the combination of means whereby a slug having a curved or inclined edge-portion or face will be disposed differently from truly formed tokens or coins, said means comprising a pair of members each having a longitudinally extending recess whereby the tokens will be centralized longitudinally and transversely, and means at each side of said recess between which a coin will be held and whereby a slug will be rejected. 50 55

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