

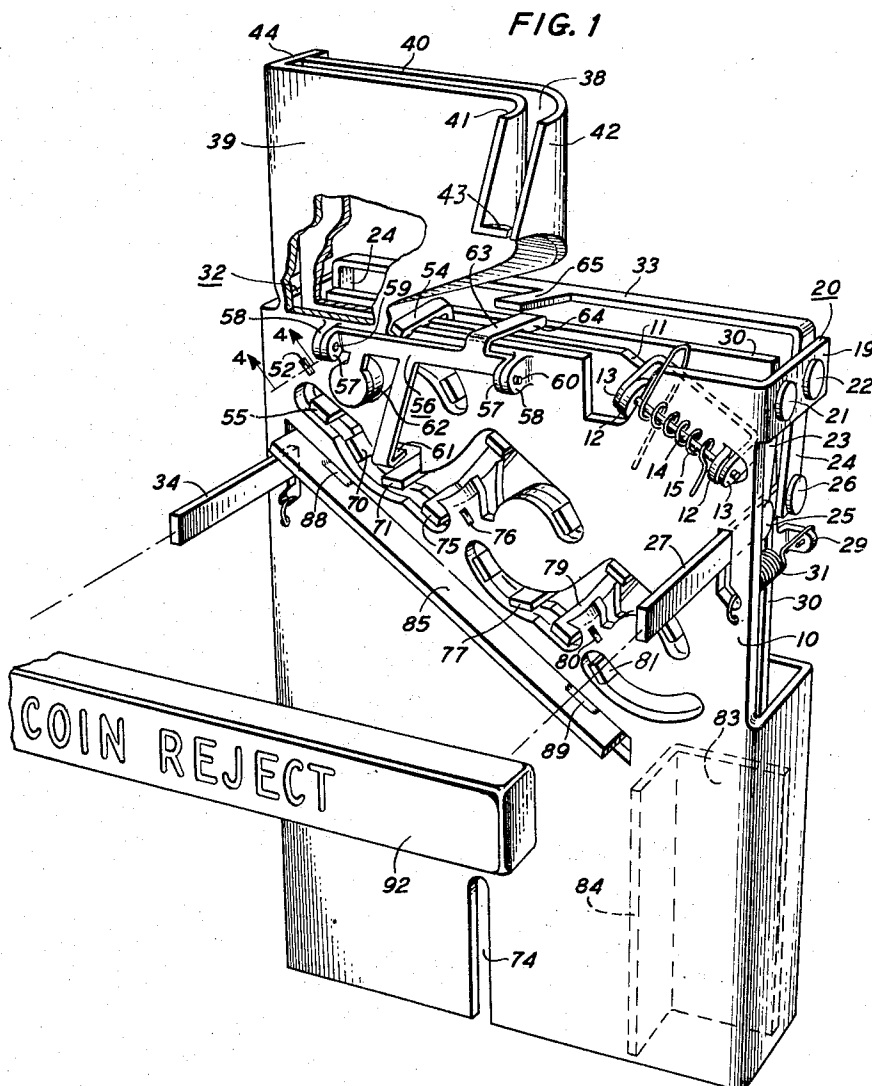
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3 Sheets-Sheet 1



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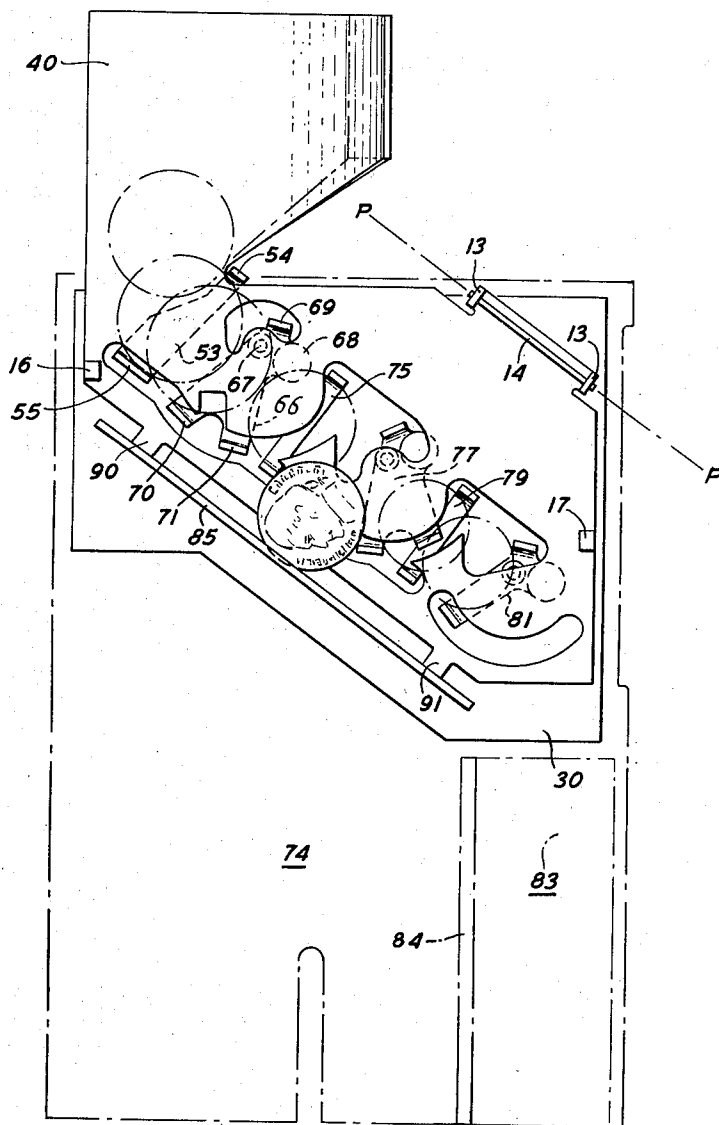
C. KOWALESKI ET AL
COIN TESTING MECHANISM

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FIG. 2



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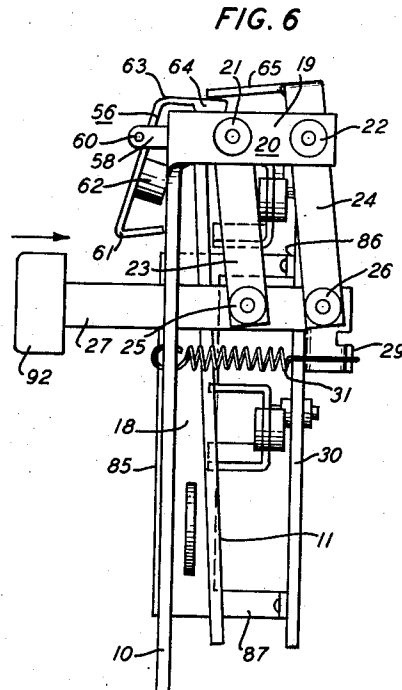
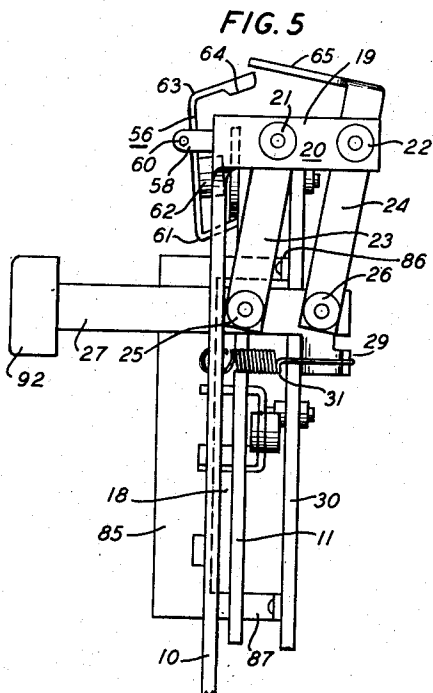
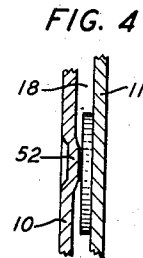
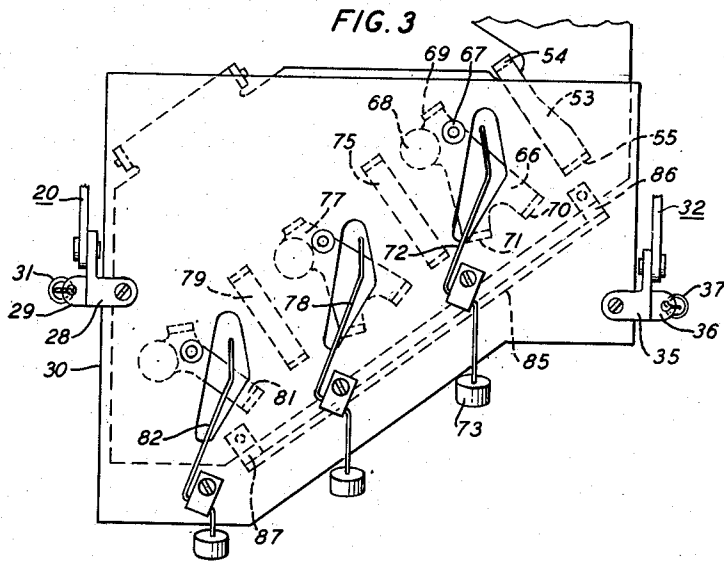
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3 Sheets-Sheet 3



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2,903,117

COIN TESTING MECHANISM

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Application August 19, 1958, Serial No. 756,010

10 Claims. (Cl. 194—97)

This invention relates to coin testing mechanisms and more particularly to a multiple coin tester adapted to separate spurious or unacceptable coins from genuine coins and thereby prevent the spurious coins from operating the apparatus with which the tester is associated.

An expanded utilization of coin operated apparatus has created an increased demand for dependable coin testing mechanisms which, first, effectively detect spurious coins and, second, readily eject the detected spurious coins. Detection is accomplished by means of gauges which check deposited coins for various physical properties, such as diameter, thickness, weight, metallic content and the existence of an aperture. Some gauges in the process of detecting spurious coins also eject the coins. Most gauges, however, simply stop and retain the unacceptable coins. Ejection is then accomplished by moving a sweep arm through the gauges to dislodge the coins from the gauges, by retracting the gauges from the coin passageways to allow the coins to fall free of the gauges, or by a combination of the two.

It is desirable that the above mentioned functions be performed by a compact mechanism. Coin operated apparatus vary in size, and to be adaptable to the small apparatus as well as to the large, the coin tester should be a closely united structure.

Thus, an object of this invention is to provide a dependable and compact coin testing mechanism.

More specifically, an object of the invention is to provide an improved arrangement of gauges whereby coins of various denominations are inspected along a single compact pathway.

Another object of the invention is to provide an improved means of ejecting detected spurious coins whereby effective scavenging of the gauges is afforded and increased control of the rejected coins is maintained.

These and other objects of the present invention are realized in an illustrative embodiment thereof wherein a coin tester comprises a testing channel, a mounting plate situated parallel to and a spaced distance from the testing channel and a means for moving the mounting plate in an approximately rectilinear manner. Affixed to the mounting plate are an inclined reject ramp which normally lies outside the testing channel and a plurality of gauges portions of which normally lie inside the testing channel. The gauges are arranged in three consecutive groups, the bottom portion of the gauges forming a single inclined intermittent ramp on which all deposited coins roll. The combined gauge groups test, in decreasing order of size, the three different coins normally deposited in coin operated apparatus, each group testing a coin of a single denomination for maximum thickness, maximum diameter, minimum diameter, weight and the existence of an aperture.

When a spurious coin is detected by one of the gauges, the coin is stopped and held by the detecting gauge. Ejection of the coin is accomplished by the use of a coin reject bar mounted on the face of the coin operated apparatus. Depression of the reject bar actuates the means

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for giving the mounting plate approximately rectilinear motion, moving the mounting plate away from the testing channel. The gauges are thereby removed from the testing channel and the reject ramp simultaneously placed within the testing channel. The reject ramp receives the spurious coins released from the gauges and directs the coins to a reject chute.

Accordingly, a feature of the invention resides in the grouping of a plurality of gauges to form a single inclined intermittent ramp on which coins roll.

A further feature is found in the generally rectilinear movement of the gauges and the reject ramp, whereby the gauges are removed from the testing channel and the reject ramp simultaneously placed within the testing channel.

A complete understanding of the invention and of these and other features and advantages thereof may be gained from consideration of the following detailed description taken in conjunction with the accompanying drawing wherein one embodiment of the invention is illustrated. It is to be expressly understood, however, that the drawing is for the purposes of illustration and description, and is not to be construed as defining the limits of the invention.

In the drawing:

Fig. 1 is a perspective view of the coin testing mechanism of this invention;

Fig. 2 is a front view of the intermediate and mounting plates of the coin testing mechanism;

Fig. 3 is a rear view of the intermediate and mounting plates;

Fig. 4 is a sectional view taken along the lines 4—4 of Fig. 1 depicting the operation of the thickness gauges;

Fig. 5 is a right side view of the upper portion of Fig. 1 showing the magnetic gauge actuated by a magnetic slug; and

Fig. 6 is similar to Fig. 5 except that the reject bar is actuated.

Although not limited thereto, the invention is particularly applicable to telephone pay stations and may be used in conjunction with a coin totalizer such as disclosed in application Serial No. 518,070, filed by W. Pferd on June 27, 1955.

Referring to the drawing, a stationary plate 10 (Fig. 1) provides a foundation for the entire coin testing mechanism. An intermediate plate 11 is pivotally mounted to an upper corner of the stationary plate 10 by tabs 12—12 and 13—13 projecting from the stationary and intermediate plates, respectively, the tabs having a pintle 14 therethrough. A torsion spring 15, positioned around the pintle 14 and having its opposite ends bearing against the stationary plate 10 and the intermediate plate 11, respectively, urges the intermediate plate into proximity with the stationary plate.

Spacing fingers 16 and 17 (Fig. 2), projecting forward from the sides of the intermediate plate 11, normally bear against the rear surface of the stationary plate 10. The proper spaced parallel relationship between the stationary plate and the intermediate plate is thereby established and a testing channel 18 (Figs. 5, 6) provided.

Extending rearward from the right side of the stationary plate 10 and integral therewith is a fixed arm 19 of a four-bar linkage 20 (Figs. 1, 5, 6). Pivotaly mounted to the fixed arm by means of pins 21 and 22 are rocker arms 23 and 24, respectively, and movably mounted to the rocker arms by means of pins 25 and 26 is a driver arm 27, which arm extends through the right side of the stationary plate 10.

The rear portion of the driver arm 27 is bent to form ears 28 and 29 (Fig. 3). The ear 28 is affixed to a mounting plate 30, while the ear 29 is grasped by one end of an extension spring 31 (Figs. 1, 3, 5, 6), the other

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end of which wraps around a portion of the stationary plate 10.

As indicated in Fig. 1, a duplicate four-bar linkage 32 is located opposite to and is a mirror image of the four-bar linkage 20. Common to both of the four-bar linkages is the rocker arm 24 having a tie bar portion 33 which maintains a symmetrical relationship between the linkages.

The forward portion of a driver arm 34 (Fig. 1) of the four-bar linkage 32 extends through the left side of stationary plate 10, while the rear portion is bent to form ears 35 and 36 (Fig. 3). The ear 35 is affixed to the mounting plate 30, and the ear 36 is grasped by one end of an extension spring 37. The other end of the spring 37 wraps around a portion of the stationary plate 10.

The ears 28 and 35 hold the mounting plate 30 parallel to stationary plate 10, while actuation of the four-bar linkages 20 and 32 gives the mounting plate approximately rectilinear motion. Thus, a parallel relationship between the mounting plate 30 and the stationary plate 10 is maintained at all times. In addition, the extension springs 31 and 37 bias the four-bar linkages against the rear surface of the stationary plate 10 thereby establishing a normal spaced relationship between the mounting plate 30 and the stationary plate 10.

Coins enter the coin testing mechanism by way of a coin entrance channel 38 (Fig. 1), defined by a forward wall 39 and a coin guide member 40. The forward wall 39 is an integral part of the stationary plate 10, while the coin guide 40 is an integral part of the intermediate plate 11. Arcuate portions 41 and 42 of the forward wall 39 and the coin guide 40, respectively, curve to project in front of and generally perpendicular to the stationary plate 10, thereby establishing a vertical slot whereby coins are deposited into the entrance channel 38 edgewise.

Deposited coins descend on an inclined arcuate runway 43 (Fig. 1) which is an integral part of the forward wall 39. The runway 43 extends transversely from the arcuate portion 41 of the forward wall 39. A portion of the left side of the forward wall 39 is bent to form a side wall 44 which projects beyond the left side of the coin guide 40 and directs deposited coins from the entrance channel 38 to the testing channel 18.

On entering the testing channel 18, a coin initially encounters a quarter thickness gauge 52 (Figs. 1, 4) consisting of a protrusion formed on the rear surface of the stationary plate 10. The thickness gauge constricts the testing channel 18 to a width which permits the passage of a coin the thickness of a genuine quarter or less and prohibits the passage of thicker coins which are of the diameter of a quarter.

A coin accepted by the quarter thickness gauge 52 passes to a quarter maximum diameter gauge 53 (Figs. 2, 3), which gauge is an I-shaped member affixed to the forward surface of the mounting plate 30. Arms 54 and 55 extend forward from the extremities of the gauge through openings in the intermediate plate 11 and the stationary plate 10. The arms restrict the height of the testing channel 18 to the diameter of a genuine quarter, allowing a coin of such diameter or less to proceed past a magnetic slug detector 56 (Figs. 1, 5, 6) and withholding the passage of a coin of a greater diameter.

The magnetic slug detector 56 is pivotally secured to the forward surface of the stationary plate 10 by tabs 57—57 and 58—58 which projects from the magnetic slug detector and the stationary plate, respectively. Pins 59 and 60, extending through the left and right-hand pair of tabs, respectively, allow the detector to swing freely.

A lower extremity of the magnetic slug detector 56 is bent at about a 60-degree angle to form a blocking arm 61, the end of the blocking arm 61 extending toward and in juxtaposition with openings in the stationary plate 10 and the intermediate plate 11. Similarly, a permanent magnet 62 affixed to the magnetic slug detector 56 extends

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toward and is in juxtaposition with an opening in the stationary plate 10.

An upper extremity of the magnetic slug detector 56 is bent at about a 90-degree angle to form a counterbalancing arm 63 and a weight 64 is attached thereto. The counterbalancing arm extends rearward and above the testing channel 18. In superposition with the counterbalancing arm 63 is a tilting arm 65, which arm is attached to and extends forward from the tie bar portion 33 of the rocker arm 24.

When, as illustrated in Fig. 5, a magnetic coin rolls through the testing channel 18, the permanent magnet 62 is attracted thereto. The magnetic slug detector gauge is thereby pivoted in a counterclockwise direction placing both the permanent magnet 62 and the blocking arm 61 within the testing channel 18. The magnetic coin adheres to the face of the permanent magnet and is thereby restrained from proceeding any further. The blocking arm, extending transversely through the testing channel 18, prevents the magnetic slug from being forced from the face of the permanent magnet by the insertion of additional coins. Any downward pressure on the blocking arm 61 tends to cause further counterclockwise rotation of the magnetic slug detector.

Normally, however, the weight 64 attached to the counterbalancing arm 63 rotates the magnetic slug detector 56 away from the testing channel 18 so that neither the permanent magnet 62 nor the blocking arm 61 enter the openings in the stationary plate 10 and interfere with the passage of coins through the testing channel 18. Thus a nonmagnetic coin rolls past the magnetic coin detector to a quarter cradle gauge 66 (Figs. 2, 3).

The quarter cradle gauge 66 is rotatively fastened to the forward surface of the mounting plate 30 by means of a hub 67. A counterbalance weight 68 attached to the quarter cradle gauge 66 normally maintains the cradle gauge in an inoperative position whereby it is an inverted Y-shaped member. Extending forward from each of the extremities of the quarter cradle gauge 66 and projecting through openings in the intermediate plate 11 and the stationary plate 10 are arms 69, 70 and 71. The arms 69 and 70 define a quarter minimum diameter gauge in that the distance between the arms is slightly less than the diameter of a genuine quarter. Thus, a coin the diameter of a genuine quarter is arrested by the arms 69 and 70, while a coin of a smaller diameter rolls through the cradle gauge using the arms 70 and 71 as a ramp. A coin stopped by the arms 69 and 70 weighing less than a genuine quarter remains stationary, whereas a coin the weight of a genuine quarter causes the cradle to rotate. The direction of rotation when the cradle is viewed as shown in Fig. 2 is counterclockwise.

Pivotaly secured to the rear of the mounting plate 30 and adjacent to the quarter cradle gauge 66 is a washer detector 72 (Fig. 3). A weight 73 fixed to the base of the washer detector 72 biases it for movement through openings in the mounting plate 30, the intermediate plate 11 and the stationary plate 10. When the quarter cradle gauge 66 is in an inoperative position, a portion of the gauge blocks the washer detector 72 and prevents it from moving through the opening in the intermediate plate 11 and into the testing channel 18. When, however, the quarter cradle gauge 66 is rotated by a properly sized coin, the portion of the gauge blocking the washer detector 72 moves from the path of the washer detector and allows it to pivot forward into the testing channel. The upper end portion of the washer detector 72 thereby comes in contact with the coin which causes the rotation of the quarter cradle gauge. If the coin has an aperture, the biasing action of the weight 73 causes the washer detector to pass through the aperture and rest on a portion of the stationary plate 10. The apertured coin is suspended on the washer detector and further movement of the coin is prevented. A solid coin, on the other hand, falls from the arms 69 and 70 of the rotated cradle

and is not stopped by the washer detector because the downward force of gravity is greater than the restricting force due to the friction between the upper end portion of the washer detector and the coin. The solid coin is deposited into a totalizing channel 74 (Fig. 2) wherein the coin is directed by well-known means past a coin totalizer.

It will be noticed that the above described gauges, except for the magnetic slug detector, comprise a gauge testing group which directs a coin the size and weight of a genuine quarter from the testing channel 18 while arresting all other quarter-sized coins within the testing channel.

Similar testing groups are provided for coins the size of a nickel and a dime. As shown in Figs. 1, 2 and 3, the nickel testing group is comprised of a maximum diameter gauge 75, a thickness gauge 76, a cradle gauge 77 and a washer detector gauge 78. In a like manner, the dime testing group comprises a maximum diameter gauge 79, a thickness gauge 80, a cradle gauge 81 and a washer detector 82.

In all three of the gauge testing groups, the structure and operation of the maximum diameter gauges, the thickness gauges and the washer detectors are in all respects identical except that the dimensions of the gauges are adjusted to accommodate the particular size coin with which each gauge is concerned.

The cradle gauges, except for the dime cradle gauge 81, are also similar in structure and operation. The dime cradle gauge differs in that it is an approximately I-shaped member rather than an inverted Y-shaped member. Coins smaller in diameter than a genuine dime, rather than rolling through the dime cradle gauge to another gauge, fall directly to a coin reject chute 83 (Figs. 1, 2) which is set off from the totalizing channel 74 by a dividing bar 84. Furthermore, the cradle gauges have, in addition to changes in dimensions, changes in the size of the counterbalance weights attached thereto. Here again the variations are prescribed by the size of the coin being dealt with.

The maximum diameter gauges and the cradle gauges are spacially affixed to the mounting plate 30 in a manner whereby the arms extending forward from the lower extremities of the gauges provide a generally linear, inclined, intermittent ramp on which deposited coins roll in traversing through the testing channel 18. Fig. 2 displays coins in phantom rolling over the intermittent ramp.

Lying in a plane below and parallel to the intermittent ramp is a reject ramp 85 (Figs. 1, 2, 5, 6) which is attached to the lower portion of the mounting plate 30 by means of spacing arms 86 and 87 (Figs. 5, 6). The spacing arms extend beneath the intermediate plate 11 and through an opening in the stationary plate 10, suspending the reject ramp forward of the stationary plate 10 and outside of the testing channel 18. Portions of the rear edge of the reject ramp 85 are cut away to form delay notches 88 and 89 (Fig. 1). The delay notches are situated in front of pivoting fingers 90 and 91 (Fig. 2) which extend downward from and are integral with the intermediate plate 11. The delay notches coact with the pivoting fingers in the ejection of spurious coins as hereinafter described.

Secured to the forward ends of the driver arms 27 and 29 is a coin reject bar 92 (Figs. 1, 5, 6). The bar is located on the face of the coin operating apparatus with which the coin tester is associated and is employed by the user of the coin operated apparatus to recover unacceptable coins from the coin testing mechanism.

Depression of the coin reject bar 92, as illustrated in Fig. 6, moves the four-bar linkages 20 and 32 and thereby the mounting plate 30 rearward. The maximum diameter gauges, the cradle gauges, the washer detectors and the reject ramp, which are all attached to the mounting plate 30, move rearward also. The arms of the gauges and the upper portion of the washer detectors are

thus withdrawn from the testing channel 18. Coins held in the arms of the gauges and washers suspended on the upper portion of the washer detectors are prevented from moving rearward by the intermediate plate 11. The coins and washers therefore fall free of the gauges.

Rearward movement of the four-bar linkages 20 and 32 also tilts the tie bar portion 33 of the rocker arm 24 forward. The tilting arm 65 attached to the tie bar thereby contacts the counterbalancing arm 63 of the magnetic slug detector 56 and pushes it downward. The magnetic slug detector is pivoted in a clockwise direction removing the blocking arm 61 and the permanent magnet 62 from the testing channel 18. A magnetic slug which has adhered to the face of the permanent magnet is prevented by the stationary plate 10 from moving with the gauge and is thus released.

Simultaneous to the withdrawal of the arms of the gauges from the testing channel 18 and before any coins are released from the gauges, the reject ramp 85 is inserted into the testing channel, blocking the totalizing channel 74. After a predetermined initial travel, the delay notches 88 and 89 of the reject ramp contact the pivot fingers 90 and 91 of the intermediate plate 11. As the rearward movement of the reject ramp continues, the lower and left-side portion of the intermediate plate 11 is pivoted away from the stationary plate 10 releasing the coins arrested by the thickness gauges and forming an inverted funnel which aids in the directing of the released coins to the reject ramp.

The intermediate plate 11 in being pivoted away from the stationary plate 10 in turn pivots the lower portion of the coin guide 40 away from the forward wall 39. The lower portion of the entrance channel 38 is thereby widened clearing any blockage that may have occurred in that area.

Depression of the coin reject bar 92 thus releases detected spurious coins from the gauges and frees any blocked coins from the entrance and testing channels. The coins fall to the reject ramp 85 which directs the coins to the reject chute 83 whereby the coins are returned to the user of the coin operated apparatus.

Although but one embodiment of the invention has been illustrated and described in detail, it is to be expressly understood that the invention is not limited thereto. Various changes can be made in the design and arrangement of the parts without departing from the spirit and scope of the invention as the same will now be understood by those skilled in the art.

What is claimed is:

1. In a coin testing mechanism, a stationary plate having a first and second side, an intermediate plate pivotally mounted parallel to and at a spaced distance from said first side of said stationary plate, said stationary plate and said intermediate plate having openings formed therein, said stationary plate and said intermediate plate further defining a testing channel, a mounting plate, four-bar linkages having a common coordinating member for maintaining said four-bar linkages in a parallel relationship, said four-bar linkages attached to both said stationary plate and said mounting plate and holding said mounting plate parallel to said stationary plate and giving generally rectilinear motion to said mounting plate, biasing means attached to said four-bar linkages and said stationary plate for maintaining a spaced relationship between said mounting plate and said stationary plate, said intermediate plate situated between said mounting plate and said stationary plate, a plurality of fraudulent coin detecting gauges affixed to said mounting plate and extending through said openings in said intermediate plate and said stationary plate, said gauges providing a generally linear inclined intermittent ramp within said testing channel whereupon deposited coins roll through said gauges and whereby spurious coins are detected and held by said gauges, a coin return chute located at the lower end of said intermittent ramp, a reject ramp, tabs attached to

said mounting plate and said reject ramp, said tabs extending below said intermediate plate and through said opening in said stationary plate and suspending said reject ramp outside of said testing channel adjacent to said second side of said stationary plate, said reject ramp lying in a plane parallel to and below said intermittent ramp, arms projecting from said four-bar linkages beyond said second side of said stationary plate, a coin return bar attached to the extremities of said arms whereby depression of said coin return bar pivots said four-bar linkages, which in turn impart to said mounting plate generally rectilinear movement away from said testing channel, thereby withdrawing said gauges from said testing channel and inserting said reject ramp within said testing channel to receive spurious coins released from said gauges and to direct said spurious coins to said coin return chute.

2. In a coin testing mechanism, a stationary plate having a first and second side, an intermediate plate pivotally mounted parallel to and at a spaced distance from said first side of said stationary plate, said stationary plate and said intermediate plate having openings formed therein, said stationary plate and said intermediate plate further defining a testing channel, a mounting plate, linkages attached to both said stationary plate and said mounting plate and holding said mounting plate parallel to said stationary plate and giving generally rectilinear motion to said mounting plate, biasing means attached to said linkages and said stationary plate for maintaining a spaced relationship between said mounting plate and said stationary plate, said intermediate plate situated between said mounting plate and said stationary plate, a plurality of fraudulent coin detecting gauges affixed to said mounting plate and extending through said openings in said intermediate plate and said stationary plate, said gauges providing a generally linear inclined intermittent ramp within said testing channel whereon deposited coins roll through said gauges and whereby spurious coins are detected and held by said gauges, a coin return chute located at the lower end of said intermittent ramp, a reject ramp, tabs attached to said mounting plate and said reject ramp, said tabs extending below said intermediate plate and through said opening in said stationary plate and suspending said reject ramp outside of said testing channel adjacent to said second side of said stationary plate, said reject ramp lying in a plane parallel to and below said intermittent ramp, arms projecting from said linkages beyond said second side of said stationary plate, a coin return bar attached to the extremities of said arms whereby depression of said coin return bar pivots said linkages, which in turn impart to said mounting plate generally rectilinear movement away from said testing channel, thereby withdrawing said gauges from said testing channel and inserting said reject ramp within said testing channel to receive spurious coins released from said gauges and to direct said spurious coins to said coin return chute.

3. In a coin testing mechanism, a stationary plate having a first and second side, an intermediate plate mounted parallel to and at a spaced distance from said first side of said stationary plate, said stationary plate and said intermediate plate having openings formed therein, said stationary plate and said intermediate plate further defining a testing channel, a mounting plate, linkages attached to both said stationary plate and said mounting plate and holding said mounting plate parallel to and at a spaced distance from said stationary plate and giving generally rectilinear motion to said mounting plate, said intermediate plate situated between said mounting plate and said stationary plate, a plurality of fraudulent coin detecting gauges affixed to said mounting plate and extending through said openings in said intermediate plate and said stationary plate, said gauges providing a generally linear inclined intermittent ramp within said testing channel whereupon deposited coins roll through said gauges and whereby spurious coins are detected and held by said gauges, a coin return chute located at the lower

end of said intermittent ramp, a reject ramp, tabs attached to said mounting plate and said reject ramp, said tabs extending below said intermediate plate and through said opening in said stationary plate and suspending said reject ramp outside of said testing channel adjacent to said second side of said stationary plate, said reject ramp lying in a plane parallel to and below said intermittent ramp, arms projecting from said linkages beyond said second side of said stationary plate, a coin return bar attached to the extremities of said arms whereby depression of said coin return bar pivots said linkages, which in turn impart to said mounting plate generally rectilinear movement away from said testing channel, thereby withdrawing said gauges from said testing channel and inserting said reject ramp within said testing channel to receive spurious coins released from said gauges and to direct said spurious coins to said coin return chute.

4. In a coin testing mechanism, a stationary plate having a first and second side, an intermediate plate mounted parallel to and at a spaced distance from said first side of said stationary plate, said stationary plate and said intermediate plate having openings formed therein, said stationary plate and said intermediate plate further defining a testing channel, a mounting plate, moving means attached to both said stationary plate and said mounting plate and holding said mounting plate parallel to and at a spaced distance from said stationary plate and giving generally rectilinear motion to said mounting plate, said intermediate plate situated between said mounting plate and said stationary plate, a plurality of fraudulent coin detecting gauges affixed to said mounting plate and extending through said openings in said intermediate plate and said stationary plate, said gauges providing a generally linear inclined intermittent ramp within said testing channel whereon deposited coins roll through said gauges and whereby spurious coins are detected and held by said gauges, a coin return chute located at the lower end of said intermittent ramp, a reject ramp, tabs attached to said mounting plate and said reject ramp, said tabs extending below said intermediate plate and through said opening in said stationary plate and suspending said reject ramp outside of said testing channel adjacent to said second side of said stationary plate, said reject ramp lying in a plane parallel to and below said intermittent ramp, a coin return bar attached to the extremities of said moving means whereby depression of said coin return bar actuates said moving means, which in turn imparts to said mounting plate generally rectilinear movement away from said testing channel, thereby withdrawing said gauges from said testing channel and inserting said reject ramp within said testing channel to receive spurious coins released from said gauges and to direct said spurious coins to said coin return chute.

5. In a coin testing mechanism, a stationary plate having a first and second side, an intermediate plate mounted parallel to and at a spaced distance from said first side of said stationary plate, said stationary plate and said intermediate plate having openings formed therein, said stationary plate and said intermediate plate further defining a testing channel, a mounting plate situated parallel to and at a spaced distance from said testing channel, a plurality of fraudulent coin detecting gauges affixed to said mounting plate and extending through said openings in said intermediate plate and said stationary plate, said gauges arranged to provide a generally linear inclined intermittent ramp within said testing channel whereon deposited coins roll through said gauges and whereby spurious coins are detected and held by said gauges, a coin return chute located at the lower end of said intermittent ramp, a reject ramp, tabs attached to said mounting plate and said reject ramp, said tabs extending below said intermediate plate and through said opening in said stationary plate and suspending said reject ramp outside of said testing channel adjacent to said second side of said stationary plate, said reject ramp lying in a plane parallel

to and below said intermittent ramp, means for giving fairly rectilinear motion to said mounting plate whereby actuation of said means imparts to said mounting plate generally rectilinear movement away from said testing channel, thereby withdrawing said gauges from said testing channel and inserting said reject ramp within said testing channel to receive spurious coins released from said gauges and to direct said spurious coins to said coin return chute.

6. In combination, a stationary plate having a first and second side, an intermediate plate mounted parallel to and at a spaced distance from said first side of said stationary plate, said stationary plate and said intermediate plate defining a testing channel, a mounting plate situated parallel to and at a spaced distance from said testing channel, a plurality of fraudulent coin detecting gauges affixed to said mounting plate and extending into said testing channel, said gauges arranged to provide a generally linear inclined intermittent ramp within said testing channel whereon deposited coins roll through said gauges and whereby spurious coins are detected and held by said gauges, a coin return chute located at the lower end of said intermittent ramp, a reject ramp attached to said mounting plate, said reject ramp extending outside of said testing channel adjacent to said second side of said stationary plate, means for giving approximately rectilinear motion to said mounting plate whereby actuation of said means imparts to said mounting plate generally rectilinear movement away from said testing channel, thereby withdrawing said gauges from said testing channel and inserting said reject ramp within said testing channel to receive spurious coins released from said gauges and to direct said spurious coins to said coin return chute.

7. In combination, a testing channel, a mounting plate situated parallel to and at a spaced distance from said testing channel, a plurality of fraudulent coin detecting gauges affixed to said mounting plate and extending into said testing channel, said gauges arranged to provide a generally linear inclined intermittent ramp within said testing channel whereon deposited coins roll through said gauges and whereby spurious coins are detected and held by said gauges, a reject ramp attached to said mounting plate and

extending outside of said testing channel, means for giving approximately rectilinear motion to said mounting plate whereby actuation of said means imparts to said mounting plate generally rectilinear movement away from said testing channel thereby withdrawing said gauges from said testing channel and inserting said reject ramp within said testing channel to receive spurious coins released from said gauges.

8. In combination, a mounting plate, a reject ramp and a plurality of fraudulent coin detecting gauges affixed to said mounting plate, said gauges arranged to provide an inclined intermittent ramp, a coin testing channel situated in front of and parallel to said mounting plate, said intermittent ramp extending into said testing channel and said reject ramp extending outside said testing channel, means for giving said mounting plate approximately rectilinear motion away from said testing channel whereby said gauges are withdrawn from said testing channel and said reject ramp placed within said testing channel.

9. In combination, a mounting plate, a reject ramp and a plurality of fraudulent coin detecting gauges affixed to said mounting plate, a coin testing channel situated in front of and parallel to said mounting plate, said fraudulent coin detecting gauges extending into said testing channel and said ramp extending outside said testing channel, means for giving said mounting plate approximately rectilinear motion away from said testing channel whereby said gauges are withdrawn from said testing channel and said reject ramp placed within said testing channel.

10. In combination, a mounting member, means for detecting unsatisfactory coins and a roadway for receiving unsatisfactory coins joined to said mounting member, a coin testing area situated adjacent to said mounting member, said means for detecting unsatisfactory coins extending into said coin testing area and said roadway for receiving unsatisfactory coins extending beyond said coin testing area, means for giving said mounting member approximately rectilinear motion away from said coin testing area whereby said means for detecting unsatisfactory coins are withdrawn from said coin testing area, and said roadway for receiving unsatisfactory coins placed within said coin testing area.

No references cited.