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2,035,559

COIN CHUTE

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FIG. 3

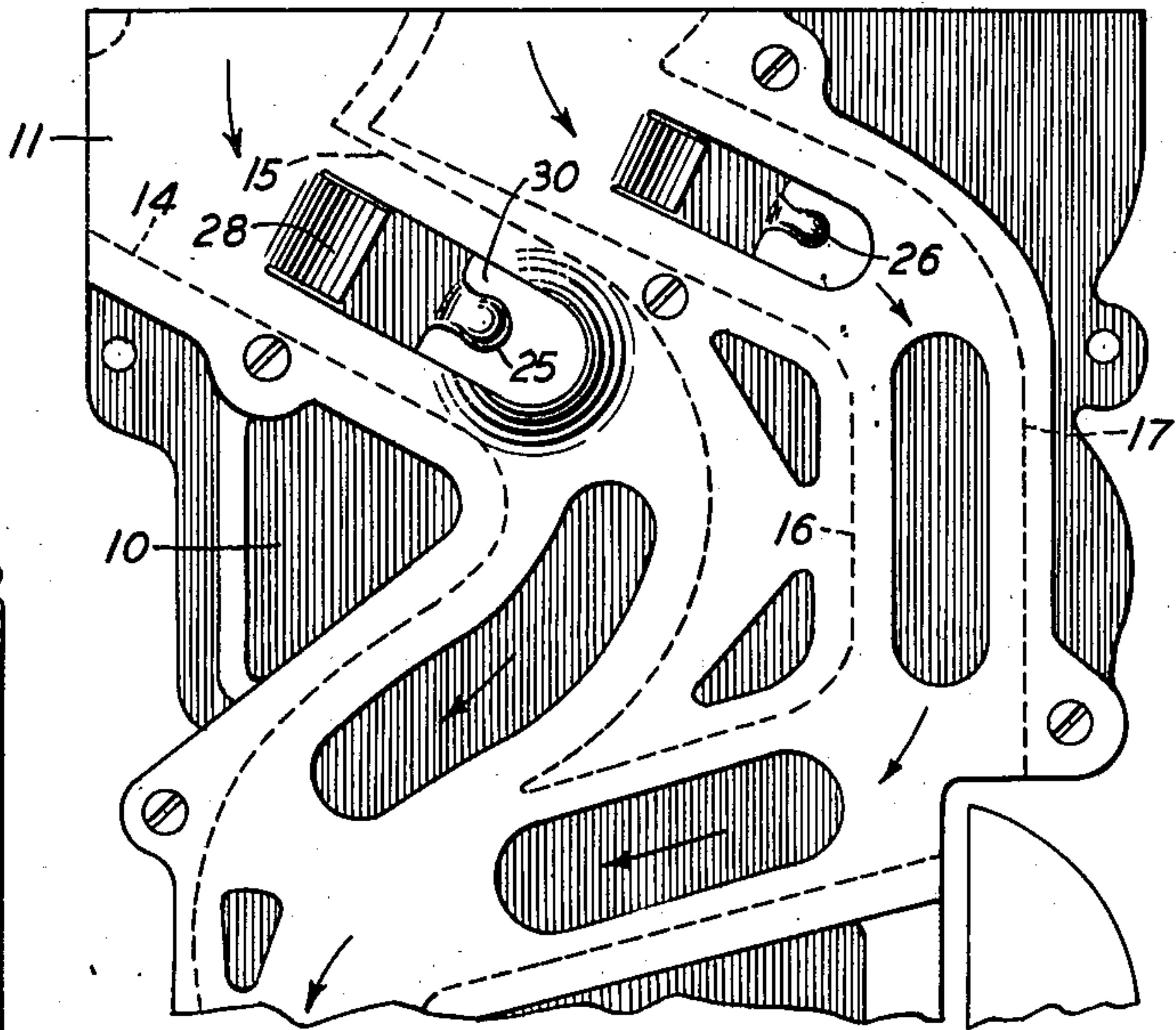


FIG. 4

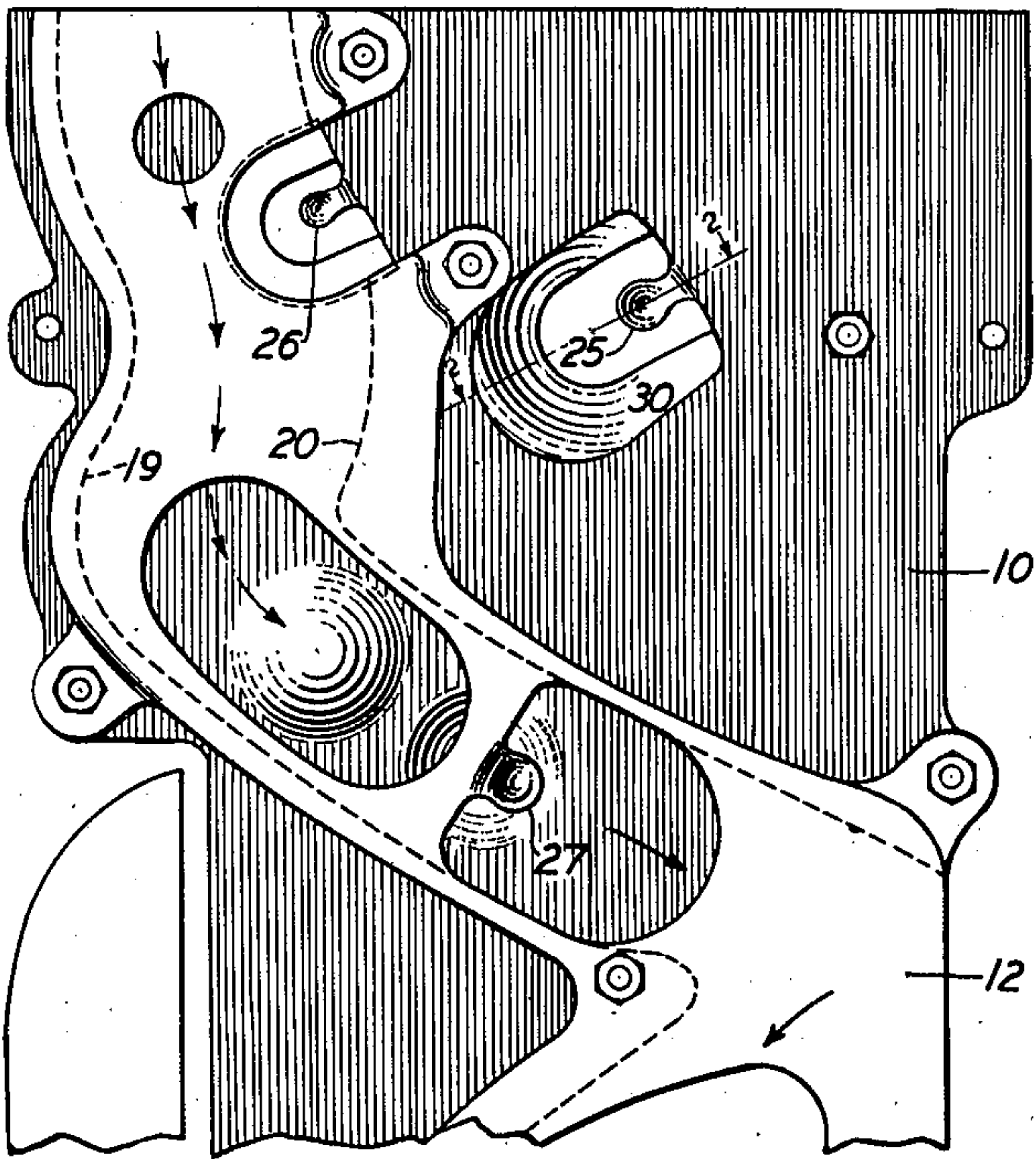


FIG. 1

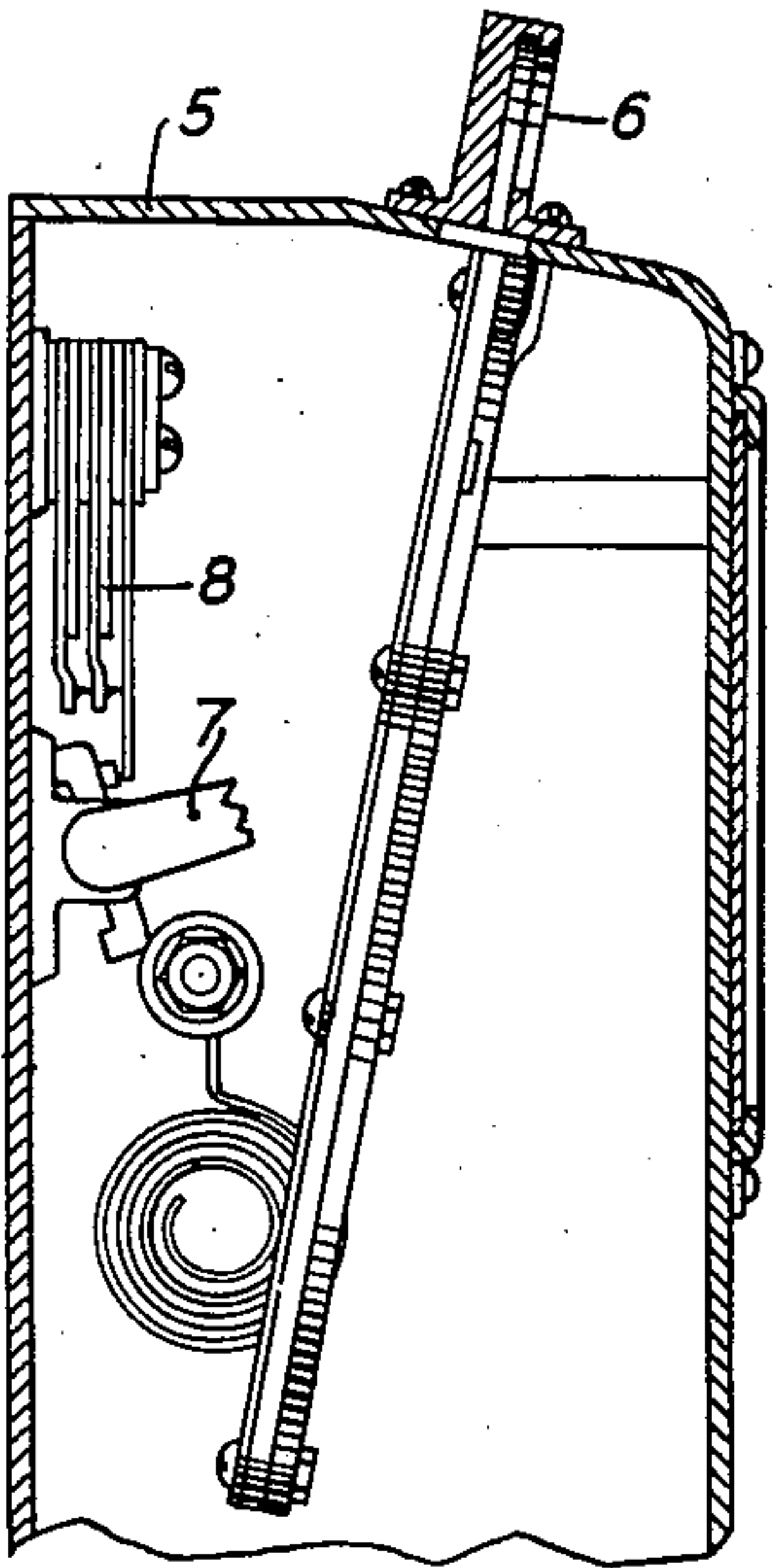
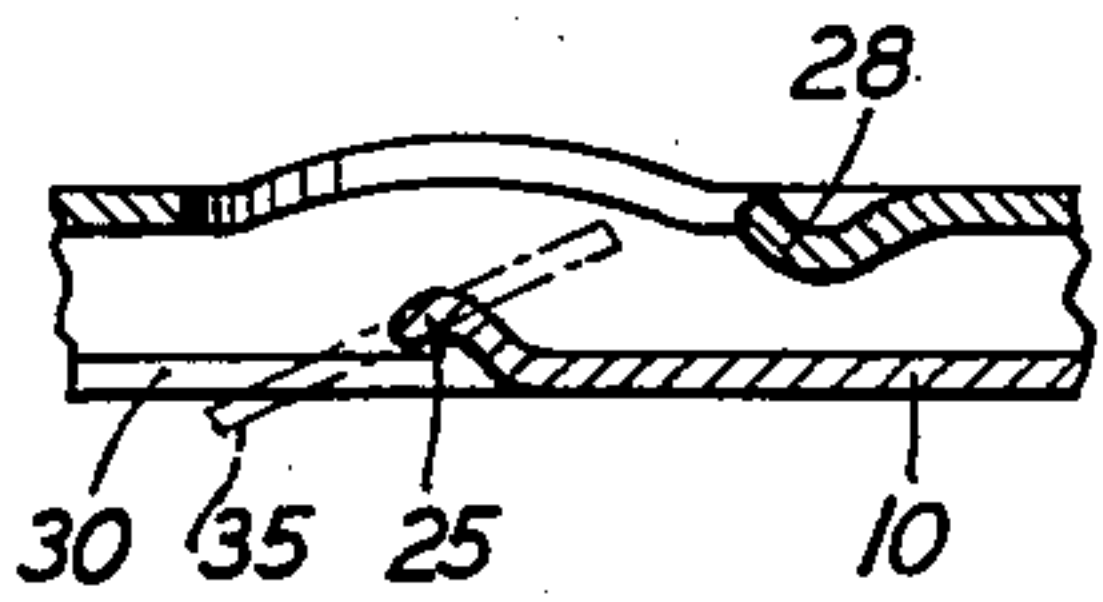


FIG. 2



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COIN CHUTE

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3 Claims. (Cl. 194—97)

This invention relates to coin operated apparatus and more particularly to coin chutes for such apparatus.

The object of the invention is to provide in a coin chute means for efficiently rejecting washers and slugs of like character of the same overall diameter as genuine operating coins or checks.

The invention particularly relates to washer rejectors for coin chutes of a type in which the principal motion of the coin is rolling. The chute is preferably inclined only sufficiently from the vertical so that the coins or washers will have a tendency to roll against one side which is provided with an opening, the vertical dimension of which is at least the diameter of a legitimate coin. A tongue projects from the forward edge of the opening in the direction of the motion of the coin midway between the upper and lower edges of the runway and extends obliquely therein. This tongue prevents the legitimate coins from escaping through the opening, but enters the opening in the washers and causes them to turn under their own momentum and be discharged through the opening in the side of the chute. A baffle is placed in the passage in advance of the opening to slightly retard and deflect the washers against the tongue which in turn deflects them against the opposite wall of the chute. This abrupt change in the motion of the washer causes the tongue to definitely engage the washer in its opening and cause it to turn out of the chute.

In the drawing illustrating this invention Fig. 1 is a sectional view of a coin box illustrating the position of the coin chute and associated apparatus.

Fig. 2 is a cross-sectional view taken upon line 2—2 of Fig. 4.

Fig. 3 is one face view of the coin chute assembly.

Fig. 4 is a view similar to 3 but showing the opposite face.

The coin box illustrated is of the conventional pay station type adapted to receive coins of the 5, 10 and 25-cent denominations and comprises generally a casing 5 with a graduated coin receiving baffle 6 secured to it in suitable position for receiving coins. Mounted within the box is a switchhook lever 7 adapted to operate a conventional spring pile-up 8 for making the necessary circuit connections. Secured to the inside of the casing and angularly disposed with respect to the side walls of the casing 5 is a coin chute comprising a central or core member 10 to the opposite faces of which are secured plate members 11 and 12. The core member 10 and the plate members

11 and 12 are grooved and formed to constitute three runways for carrying the inserted coins from the top of the box to the coin receptacle at the bottom of the casing. As viewed in Fig. 3 the chute for 5-cent pieces is at the extreme left and is roughly defined by the dotted lines 14 and 15. The 10-cent chute in the middle is defined by dotted lines 16 and 17. In Fig. 4 the chute for the 25-cent pieces is at the extreme left and its general contour is defined by dotted lines 19 and 20.

As pointed out previously the object of the invention is to prevent the illegitimate use of the apparatus by means of ordinary machine washers and for this purpose each chute is provided with a tab or catch designated as 25 for the 5-cent chute, 26 for the 10-cent chute and 27 for the 25-cent chute. Each of these tabs projects slightly into the path of the coin and as more clearly illustrated in Fig. 2 there is just preceding this tab or projection in the direction of movement of the coin a baffle 28 on the wall of the chute opposite to the wall carrying the tab 25, 26 or 27 of the corresponding chute. Directly opposite the projecting tab 25 for illustration there is a depression in the opposite wall of the chute and just succeeding the tab in the line of travel of the coin is an opening 30 of sufficient width and length to permit the ejection of a washer the size of the coin for which the particular chute is designed.

In the operation of the device a legitimate coin of the desired denomination passing through its chute will first strike projection or baffle 28 in the case of the 5-cent piece and will be deflected over the projecting tab 25 which together with the momentum of the token will cause it to slide past the rejecting opening 30 and be deposited in the receptacle provided for it. On the other hand, if attempt is made to use a washer as indicated at 35 in Fig. 2 the projection 25 will enter the hole in the washer 35 and it will be swung around this projection 25 as an axis and rejected through the opening 30. The depression opposite the tab 25 provides a sufficient radius of curvature to permit this turning movement of the washer. It is obvious that the necessary space upon the opposite wall might be an opening narrower than the total diameter of the coin.

In the description of the operation the direction of movement of the coin or token with respect to Fig. 2 is from right to left.

What is claimed is:

1. In coin controlled apparatus, a coin chute having a runway in which the traveling coins roll edgewise, said runway having opposed side walls,

one of said walls having an opening therein, the vertical dimension of which is sufficient to permit the rejection of a legitimate operating coin, a tongue extending into the runway for a distance approximately the thickness of a legitimate coin for directing a legitimate coin past said opening and for engaging a washer in its center opening to cause it to turn out of said chute under its own momentum, said other side wall opposite said opening having means to engage a legitimate coin near both the upper and lower edges for retaining it in the runway, said opening and said tongue being located in a portion of said runway where said runway is longitudinally inclined.

2. In coin controlled apparatus, a coin chute having a runway in which a coin travels upright, said runway having opposed side walls, one of said side walls having an opening the vertical dimension of which is sufficient to permit the rejection of a legitimate coin, said one side wall having a narrow tongue projecting obliquely into the runway from the forward edge of said opening to momentarily retard washers and eject them from said chute through said opening, said other

side wall opposite said opening having means to engage a legitimate coin near both the upper and lower edges for retaining it in the runway, said opening and said tongue being located in a portion of said runway where said runway is longitudinally inclined.

3. In coin controlled apparatus, a coin chute having a runway in which a coin travels upright, said runway having opposed side walls, one of said side walls having an opening the vertical dimension of which is sufficient to permit the rejection of a legitimate coin, said one side wall having a narrow tongue projecting obliquely into said runway from the forward edge of said opening to momentarily retard and eject washers from said runway through said opening, said other side wall opposite said opening having means to engage a legitimate coin near both the upper and lower edges for retaining it in the runway, said opening and said tongue being located in a portion of said runway where said runway is longitudinally inclined, and means for momentarily retarding coins and washers and deflecting them against said tongue.

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