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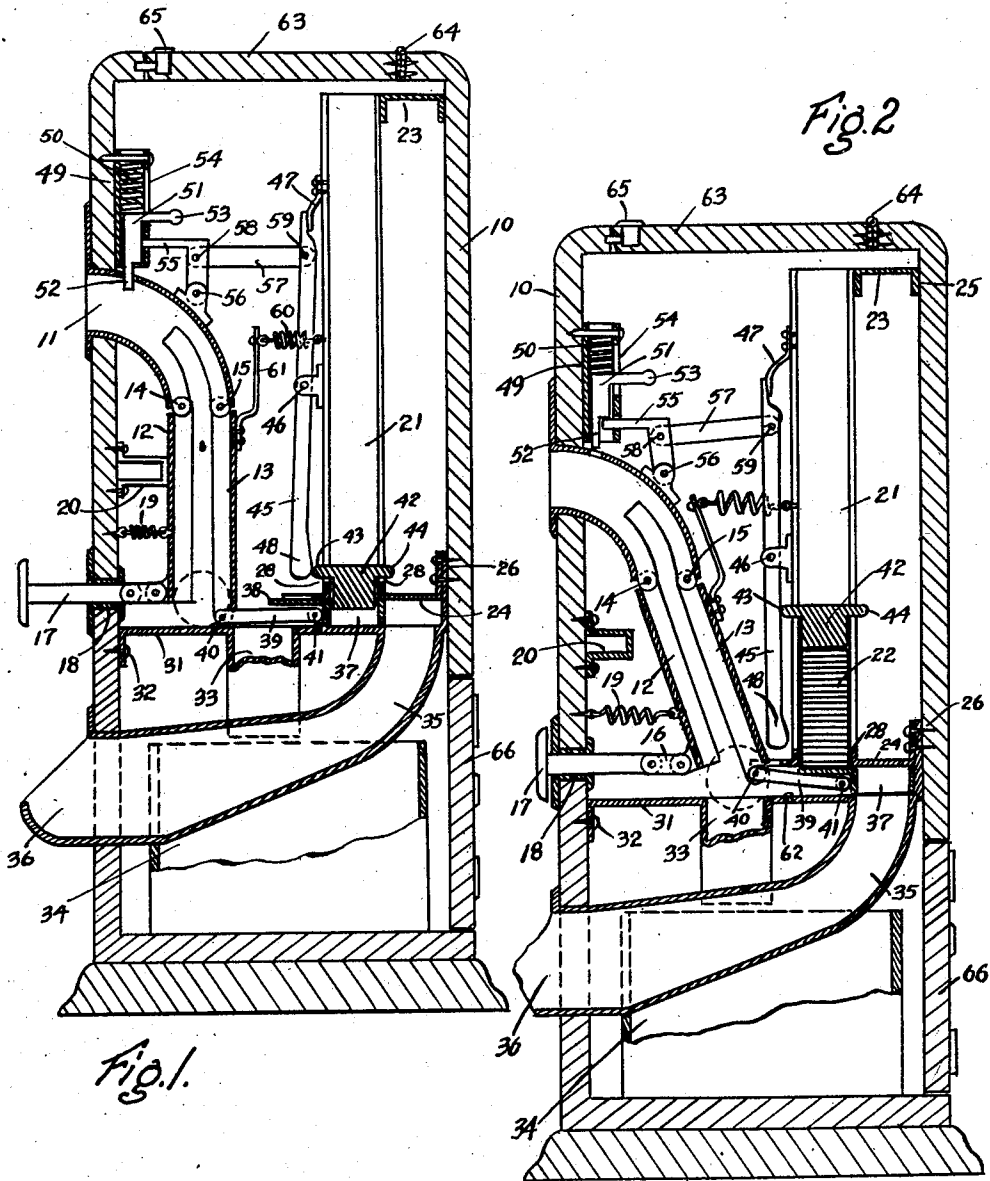
J. P. KOEHLER, JR

2,363,426

DISPENSING MACHINE

Filed Dec. 12, 1941

2 Sheets-Sheet 1



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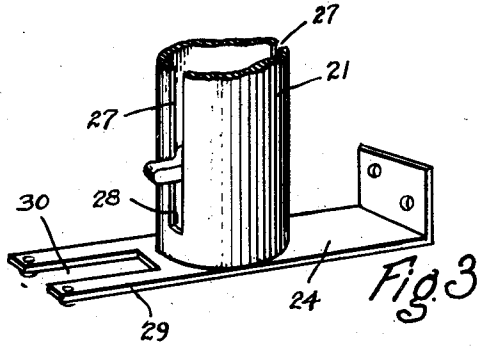
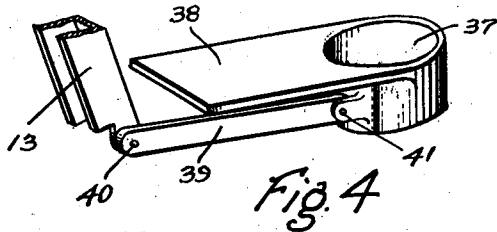
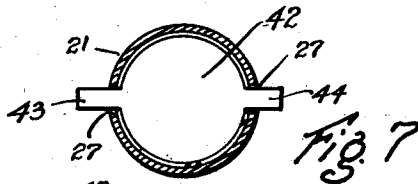
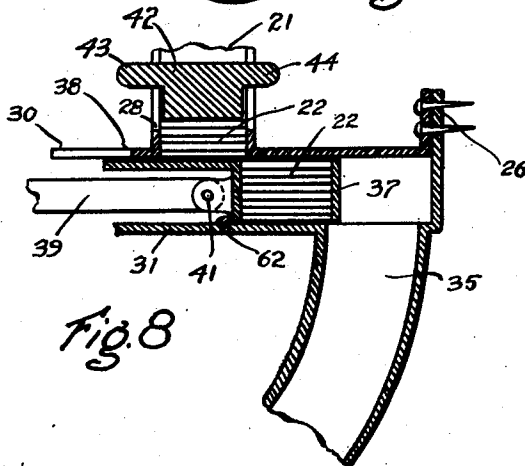
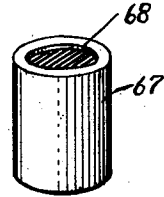
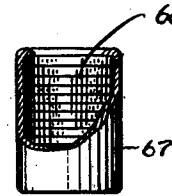
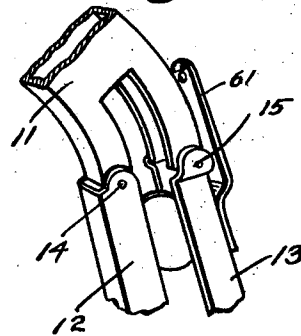
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DISPENSING MACHINE

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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

2,363,426

DISPENSING MACHINE

John P. Koehler, Jr., Rockford, Ill.

Application December 12, 1941, Serial No. 422,765

2 Claims. (Cl. 194—88)

My invention relates to improvements in dispensing machines and more particularly to a type of machine that will dispense coins or tokens.

The object of my invention is to provide a device that will dispense a quantity of coins corresponding in number to the value of the coin of a higher denomination that is inserted into the machine.

Another object of my invention is to provide an arrangement that will permit the coins or tokens to be dispensed in tubes or containers.

Still another object of my invention is to provide a means to accommodate various coins or tokens of any denomination.

A still further object of my invention is to so arrange the machine that it will not accept a coin unless there are a sufficient number of coins to be dispensed, corresponding with the value of the coin inserted.

A further object of my invention is to provide a device of the character described that will not function unless a coin is inserted.

Other and further objects of my invention will become more apparent as the description proceeds when taken in conjunction with the drawings in which

Figure 1 is a fragmentary view of the device in a locked position,

Figure 2 is a similar view of the device in an unlocked position,

Figure 3 is a fragmentary perspective view of the lower portion of the coin reservoir,

Figure 4 is a fragmentary perspective view of the dispensing shoe,

Figure 5 is a perspective view of a tube containing coins,

Figure 6 is a fragmentary cross-sectional view of the tube of coins as shown in Figure 5,

Figure 7 is a plan view of the coin reservoir with the locking weight inserted,

Figure 8 is a cross-sectional view of the dispensing shoe and its relation with the coin reservoir, and

Figure 9 is a fragmentary perspective view of a portion of the hinged coin chute.

Similar characters of reference indicate corresponding parts throughout the several views and referring now to the same, the character 10 shows an enclosure having a coin chute 11 inserted into its front wall. The chute 11 has a radial contour as shown and is provided with hinged chute sections 12 and 13 respectively. These sections 12 and 13 are in the form of

channels and are hingedly supported by the chute 11 at 14 and 15 respectively.

At the lower end of the chute section 12 is a link 16 pivotally connected thereto and to a push button 17 which is guided through the front wall of the enclosure 10 by a thimble 18. A resilient member 19 attached to the inside of the front wall and to the section 12 is adapted to retain the section 12 against a stop member 20 fastened to the inside of the front wall of the enclosure 10.

Within the enclosure 10 immediately behind the coin chute 11 is a vertical coin reservoir 21 which is in the form of a tube and contains the supply of coins or tokens 22 to be dispensed. This reservoir is supported by an upper supporting member 23 and a lower supporting member 24, both attached to the back wall of the enclosure 10 at 25 and 26 respectively. The reservoir 21 is equipped with vertical slots 27 extending longitudinally thereto to a point 28 near the bottom of the reservoir 21 and a horizontal guide member 29 extending outward from and at right angle to the reservoir 21, provided with a slot 30 as shown in Figure 3.

A plate 31 suspended horizontally below the reservoir 21 is attached to the inner walls of the enclosure 10 at 32 and 26 respectively. This plate 31 is provided with a coin receiving chute 33 leading to an open container 34 which rests on the bottom in the inside of the enclosure 10, and a coin dispensing chute 35 leading to a pocket member 36 disposed within the front wall of the enclosure 10.

There is a dispensing shoe 37 provided with a projecting member 38 extending horizontally from the cylindrical body of the shoe 37. A link member 39 is pivotally attached to the hinged chute section 13 at 40 and to the dispensing shoe 37 at 41.

A locking weight 42 engages the reservoir 21 and has outwardly projecting members 43 and 44 respectively. These members slidably engage the slots 27 in the walls of the reservoir 21 and are guided by these slots. Obviously the weight 42 rests on the top of the coins or tokens 22 to be dispensed and follows them in a downward path due to gravity.

On the outside of the reservoir 21 and disposed parallel thereto is a lever 45 pivotally mounted to the side of the reservoir 21 at 46. The upper end of the lever 45 is urged away from the reservoir 21 by means of a resilient member 47 fastened to the outer wall of the reservoir 21, or in any other convenient manner, while the

lower end of the lever 45 is provided with a wider portion 48 acting as a cam for engagement with the member 43 of the locking weight 42.

Above the coin chute 11 and fastened against the inner face of the front wall of the enclosure 10 is a tubular member 49. This tube 49 retains a compression spring 50, which urges a sliding member 51 downward so that a projecting key 52 is permitted to enter the coin chute 11 as shown in Figure 1.

The member 51 is also provided with an arm 53 projecting outward therefrom through a slot 54 in the wall of the tube member 49. The arm 53 when rested against the tension of the spring 50 brings the sliding member 51 into position as shown in Figure 2 drawing the key 52 out of the chute 11 thereby clearing the coin chute 11 for the insertion of a coin. The sliding member 51 is retained in an arrested position by the latch 55 entering through the tube 49 and resting against the shoulder on the member 51. The latch 55 is hingedly supported at 56 on the upper face of the coin chute 11. This latch 55 is connected to the lever 45 by means of a link member 57 at 58 and 59 respectively and is urged forward by the resilient member 47. Its function is to retain the sliding member 51 and its projecting key 52 in a raised position until released by contact of the projecting member 43 on the locking weight 42 in the coin reservoir 21 with the lower end 48 of the lever 45.

There is a resilient member 60 attached to the projecting member 61 fastened to the chute section 13 and the coin reservoir 21, to keep the chute section 13 in a forward position against the stop 62 on the plate 31.

The enclosure 10 is provided with a door 63 hinged at 64 and equipped with a lock 65. This door 63 being on the top of the enclosure 10 permits access to the latch 53 for resetting and the coin reservoirs 21 for refilling. Another door 66 also locked and hinged is shown at the lower back wall of the enclosure 10 and permits ready access to open container containing the coins.

In Figure 5 and Figure 6, I show a tube 67 in which coins 68 are encased. These tubes may be inserted into the coin reservoir 21 and are the same height as a dispensing shoe 37 to permit one tube at a time to be dispensed.

In operation the device functions as follows: A casing or enclosure 10 may contain one or more tubes 21 which act as reservoirs for tokens or coins. For example, 5-cent pieces and the face of the enclosure 10 would be provided with a corresponding number of coin chutes 11. These chutes 11 are adapted to receive coins of various denominations each. For example, one chute will take 50-cent pieces, another 25-cent pieces, another dimes, each chute being constructed in size to accommodate the coin to be inserted. Obviously, the dispensing shoes 37 below the tubes 21 are constructed to a height corresponding with the number of 5-cent pieces amounting to the coin inserted. For example, the tube 21, in direct alignment with the chute in which 25-cent pieces are inserted, would have a dispensing shoe of a height to accommodate five 5-cent pieces. As the 25-cent piece is inserted into the chute 11 it will find its way downward by gravity between the hinged chute sections 12 and 13 respectively and will rest on the plate 31 in an upright position supported by the sections 12 and 13 as shown in phantom in Figure 1. The push button 17 is next manually pressed inward which will operate the chute sections 12

and 13 spaced apart by means of the coin and the coin will be forced over the receiving chute 33 and at the same time the dispensing shoe 37 will force the 5-cent pieces within it to the dispensing chute 35 where they will drop to the pocket 36, and the 25-cent piece will drop to the open container 34 after which the resilient members 19 and 60 will return the hinged chute sections 12 and 13 to their normal position, ready to receive another 25-cent piece, and the dispensing shoe will also be brought into position at the bottom of the reservoir permitting five more 5-cent pieces to enter it ready for a repeated operation when the next 25-cent piece is inserted.

It is manifest that if a 25-cent piece is not inserted, the hinged sections of the chute will not function in a manner to push the dispensing shoe.

The locking weight 42 resting on top of the coins in the reservoir 21 will slide downward by gravity and when the weight 42 reaches a low point in the tube 21 it will extend into the dispensing shoe 37 and its projecting member 43 will contact and act on the cam end 48 of the lever 45, thereby releasing the latch 55 from under the sliding member 51 causing the key 52 to enter the top of the chute 11 and preventing any more coins from being inserted.

If desired, the coins to be dispensed may be put up in tubes 67 as shown in Figure 6, but the height of these tubes must correspond with the height of the shoe 37.

The projecting member 32 on the dispensing shoe closes off the bottom of the reservoir 21 while the coins are being dispensed.

The machine may be serviced through the doors 63 and 66 placed in any convenient manner to provide access to the coin reservoirs 21 and the open containers 34.

In the chosen embodiments of my invention, exemplified by the accompanying drawings, there are present certain novel refinements and improvements not heretofore disclosed in the prior art. It will be manifest, however, that many changes in the general arrangement, form and configuration of the structure may be made and parts thereof may be varied within the scope of the appended claims.

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

1. A device of the character described comprising an enclosure, a coin reservoir, a coin receiving chute, said coin receiving chute comprising an upper and lower portion, said upper portion of said chute being stationary, said lower portion of said chute comprising two channels, each pivoted at its upper end, a push button, said push button projecting through the wall of said enclosure, said push button being operatively connected to the lower end of one of said channels, a coin ejector shoe having a capacity for a plurality of coins, the lower end of the other channel being connected to the said coin ejecting shoe, said channels being constructed to receive a coin between them and movable forwardly upon actuation of said push button, said coin ejector shoe being slidably supported in alignment with and below said coin reservoir, and a dispensing chute to receive coins from said ejecting shoe when said push button is manually actuated.

2. A coin dispensing device of the character described comprising an outer casing, said casing supporting a coin reservoir provided with a dis-

dispensing shoe at its lower end, said shoe being slidably mounted and having a capacity to accommodate a plurality of coins, a receiving chute through the wall of said casing, said chute comprising an upper and lower portion, the upper portion being stationary, the lower portion being 5 provided with two hingedly supported channels arranged in opposed relation and adapted to receive a coin therebetween, a push button pivotal-

ly connected to the outermost channel for moving said channels when a coin is interposed therebetween, a link member connecting the innermost of said channels with said dispensing shoe, and receiving means for accepting the coin from said receiving chute when the coins from said reservoir are dispensed by said shoe.

JOHN P. KOEHLER, JR.