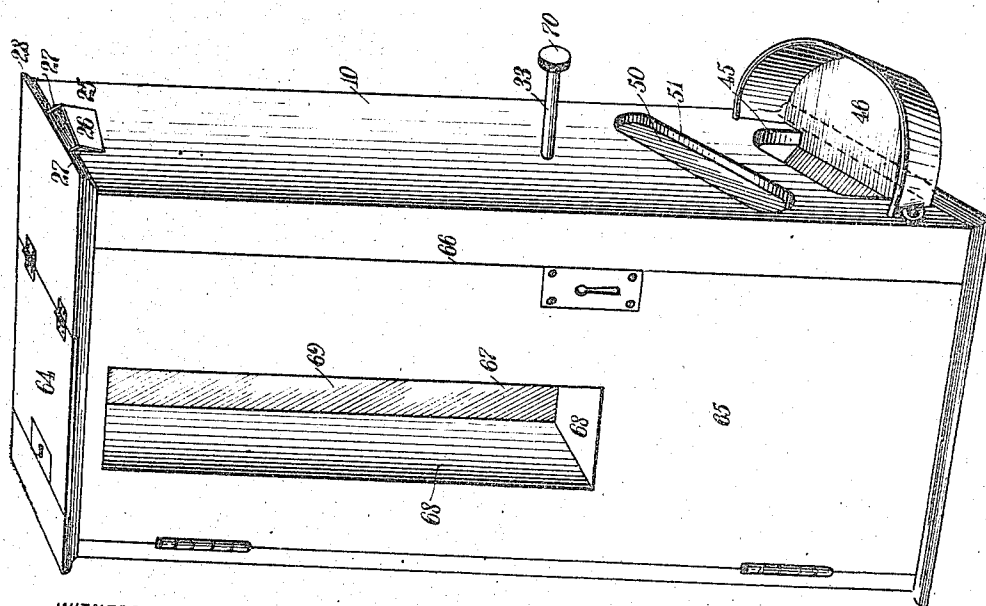
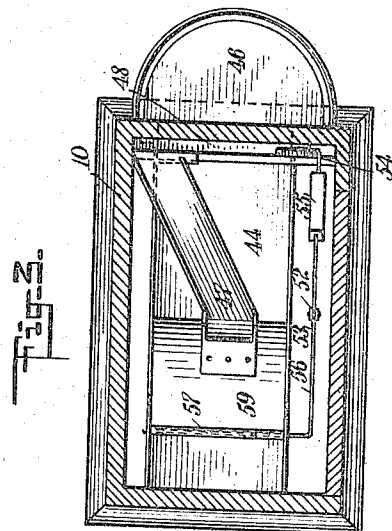
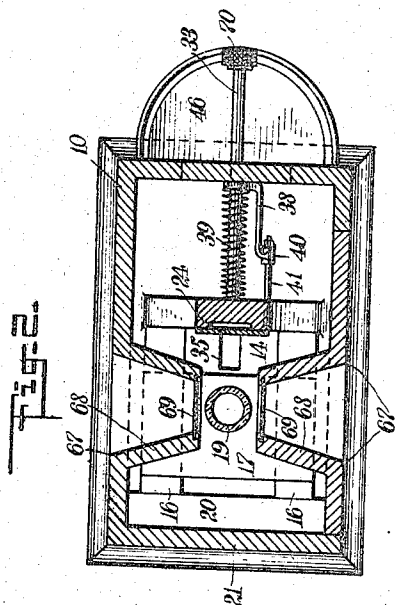


J. R. CONRAD.
CHANGE MAKING MACHINE.
APPLICATION FILED MAY 23, 1910.

1,002,039.

Patented Aug. 29, 1911.

3 SHEETS—SHEET 1.



WITNESSES:

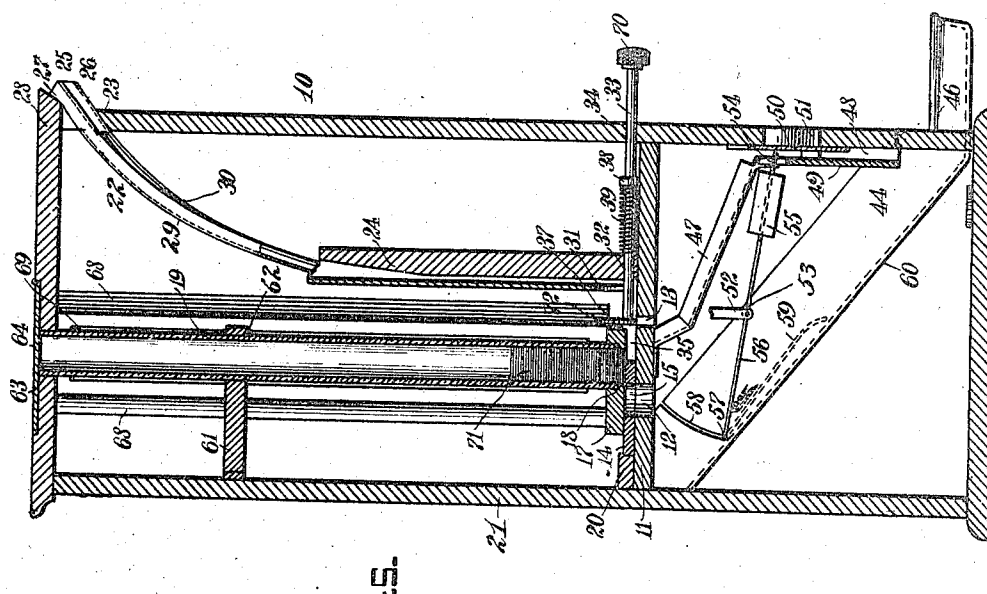
F. G. Hackenberg
E. B. Marshall

Fig. 3

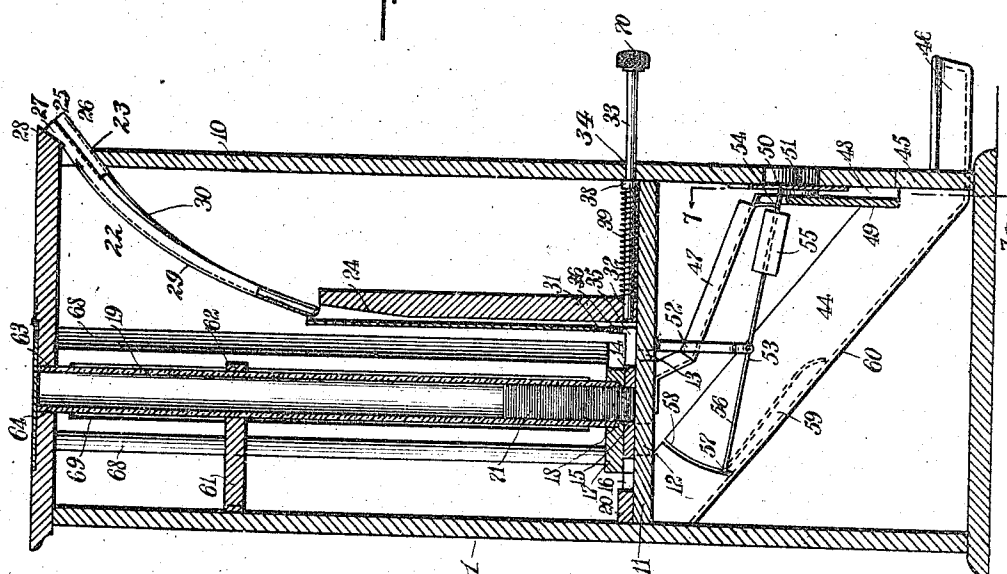
INVENTOR
John R. Conrad
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1,002,039.

3 SHEETS—SHEET 2.



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WITNESSES:
J. G. Hachenberg
E. B. Marshall

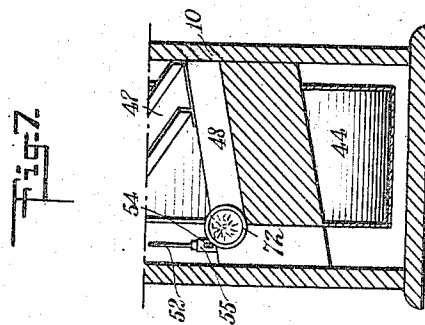
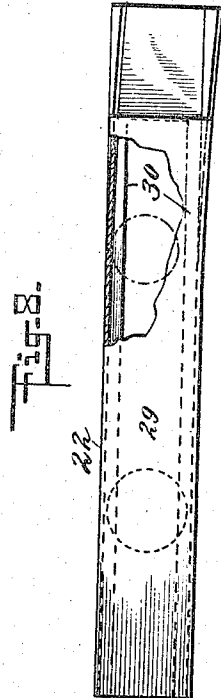
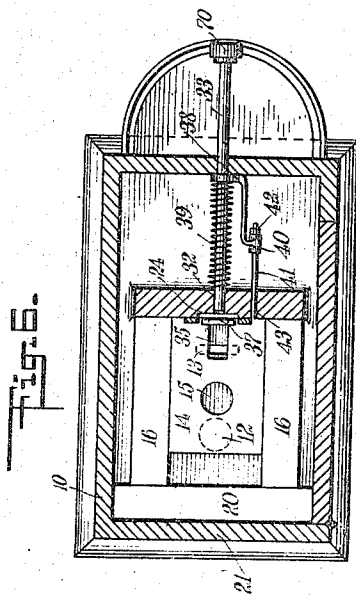
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3 SHEETS-SHEET 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN R. CONRAD, OF CANAJOHARIE, NEW YORK.

CHANGE-MAKING MACHINE.

1,002,039.

Specification of Letters Patent. Patented Aug. 29, 1911.

Application filed May 23, 1910. Serial No. 562,983.

To all whom it may concern:

Be it known that I, JOHN R. CONRAD, a citizen of the United States, and a resident of Canajoharie, in the county of Montgomery and State of New York, have invented a new and Improved Change-Making Machine, of which the following is a full, clear, and exact description.

My invention relates to change making machines, and it has for its object to provide one, through a slot in which the coin to be changed may be introduced and in which the coin will fall to a position in front of a plunger to operate a slide when the plunger is actuated, the slide having a circular opening therethrough, which is adapted to register with the coin cylinder disposed above an opening in the partition on which the slide rests, so that when the opening in the slide registers with the coin cylinder, the coins therein will descend until they rest on the partition, and when the slide is moved relatively to the partition, the coins within the opening between the upper and lower planes of the slide, will be moved with the slide until the opening therein registers with the opening in the partition, when the coins will fall through the last-mentioned opening.

Another object of the invention is to provide a chute in which the coin travels after becoming free from the plunger, there being mechanism by which the coin is held at rest in this chute until the machine is operated a second time, when the coin first introduced is freed by the said mechanism.

Another object of the invention is to provide a chute having a body, and flanges parallel therewith and disposed thereunder, coins of a predetermined size being supported by the flanges which, however, permit smaller coins to fall therefrom. The outer end of the coin chute is bent laterally so that when the coin is introduced, it is disposed at one side of the chute and when the coin is smaller than the coin for which the machine was designed, one of the edges of the coin will be unsupported and the coin will be permitted to fall from the chute.

Still other objects of the invention will appear in the following complete description.

In this specification I will describe the preferred form of my invention, it being

understood that the scope of the invention is defined in the appended claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a perspective view of the machine; Fig. 2 is a sectional plan view taken above the partition; Fig. 3 is a sectional plan view taken just below the partition; Fig. 4 is a sectional elevation of the machine; Fig. 5 is a view similar to that shown in Fig. 4, but showing the coin to be changed when it is in position to fall through a slot in the partition; Fig. 6 is a sectional plan view of the machine taken on the plane of the top of the slide; Fig. 7 is a fragmentary sectional view on the line 7—7 of Fig. 4; and Fig. 8 is a fragmentary view showing the coin chute in which the coin to be changed is introduced.

By referring to the drawings it will be seen that the machine has a casing 10, in which there is a horizontal partition 11, this partition having a circular opening 12 therethrough, there being also a slot 13 through this partition. A slide 14 rests on the partition 11, the slide 14 having a circular opening 15 therethrough which is adapted to register with the opening 12 in the partition. At each side of the slide 14 are members 16, which serve as guides for the slide, a cross member 17 resting on these members 16, the cross member 17 being disposed across the slide and having an opening 18 therethrough in which is inserted the lower terminal of a coin cylinder 19. A transverse member 20 is secured to the side 21 of the casing, the ends of the members 16 abutting against one of the sides of this transverse member 20, the transverse member 20 serving as a stop for the slide 14 to arrest its movement when the opening 15 of the slide registers with the opening 12 in the partition 11.

A coin chute 22 is disposed through the casing at 23, the coin chute 22 being disposed obliquely toward a vertical coin chute 24. The coin chute 22 extends a distance outwardly beyond the casing 10 and this portion 25 of the coin chute, disposed outside of the casing, is turned laterally. The

portion 25 of the coin chute has a lower member 26 extending from one side of the coin chute to the other, the sides 27 of the extending portion 25 of the coin chute being disposed upwardly and resting against the lower surface of a bead 28 on the upper portion of the casing. Within the casing, the coin chute 22 has an upper wall 29, to the sides of which are secured parallel flanges 30, which are disposed below the wall, the flanges being adapted to support the coins of a predetermined size as they travel through the chute but which will permit smaller coins to fall therefrom.

The vertical chute 24 extends down to the partition 11 and has an enlarged opening 31 through its wall, disposed in the direction of the slide 14, there being an orifice 32 in the opposite wall of the chute 24, a plunger 33 being disposed in this orifice 32, the plunger 33 extending out through the casing through an orifice 34. In the slide 14 there is a recess 35 disposed in the direction of the plunger 33, the inner terminal of the said plunger 33 being adapted to be introduced in the said recess 35. The ends of the slide 14, at each side of the recess 35, are extended upwardly, as at 36, there being a cross member or flange 37 secured to these upright portions 36, the cross member or flange 37 being disposed above the plane of the plunger 33, so that the plunger 33 may be projected into the recess 35 below the said cross member or flange. A member 38 is secured to the plunger 33, there being a spring 39 disposed around the plunger 33 between the vertical coin chute 24 and the said member 38 where it is secured to the plunger. The member 38 is bent in the direction of the vertical coin chute 34 and it has a sleeve 40 which is disposed on a rod 41, the rod 41 having a head 42 which is adapted to engage the sleeve 40, the rod 41 projecting through an orifice 43 in the vertical coin chute, the said rod 41 being secured to the slide 14.

Below the partition 11 there is a delivery chute 44, disposed downwardly from the rear of the front of the casing, there being an opening 45 in the front of the casing, affording communication between the delivery chute 44 and a cup 46, in which the change is delivered. The delivery chute 44 is disposed under the circular opening 12 in the partition 11, so that when coins fall therethrough, they will be caught by the delivery chute and will be conveyed to the cup 46. A coin chute 47 is secured to the under side of the partition 11, the coin chute 47 being disposed under the slot 13 and is disposed toward the front of the casing at one side. The lower vertical end of this coin chute 47 is secured to a coin chute 48, so that the coin to be changed, which is

conveyed by the said coin chute 47, is dropped into the coin chute 48, this coin chute 48 having an inner wall 49, a side of the casing and a piece of glass 50, disposed over an opening 51 in the casing, serving as the other side of the coin chute. This coin chute 48 is disposed across the front of the machine and a coin traveling therein may be seen from without the casing through the glass member 50.

A fulcrum member 52 is secured to the under side of the partition 11, the fulcrum member 52 projecting downwardly, a lever 53 being fulcrumed to the said fulcrum member 52. The arm 54 of the fulcrum member projects across the inner wall 49 of the coin chute 48 and in the path of the coin traveling in the said coin chute, so that when the arm 54 is downwardly disposed, it will stop the coin. A weight 55 is mounted on this arm 54, to keep the arm 54 normally downwardly-disposed. The other arm 56 of the lever 53 has a lateral extension 57, which projects through curved slots 58 in the side walls of the delivery chute 44, a trip 59 being secured to this extension 57, the trip 59 being disposed in the delivery chute 44 and normally out of contact with the bottom 60 of the said delivery chute.

A member 61 is secured to the casing 10, this member 61 having a circular opening 62 in which is disposed the coin cylinder 19. There is an opening 63 in the top of the casing, through which the coin cylinder 19 extends, a door 64 being hinged to the top of the casing to close the top of the coin cylinder 19. As best shown in Fig. 1 of the drawings, the casing 10 has a door 65 to close an opening 66 therein, this door 65 having an opening 67 cut therein above the plane of the partition 11, members 68 being secured to the inner side of the door 65 about the opening 67, and a glass member 69 being secured to the inner portions of the said members 68. The glass member 69 is disposed in close proximity to a side of the coin cylinder 19, so that any person desiring to change a coin may, without having the door opened, readily see if there are any coins in the coin cylinder 19. A similar opening 67 is made in the casing opposite the door 65, there being similar members 68 secured about the opening 67, the glass member 69 being secured to the inner edges of the members 68. It will therefore be seen that anyone desiring to change a coin, may examine the coin cylinder from either side of the casing, without opening the door.

In using the invention, a coin is introduced in the outer terminal 25 of the coin chute 22. As this outer terminal 25 is bent laterally, the coin, when it is introduced, will have one of its edges close against one

side of the coin chute and resting on one of the flanges 30. If the coin is of the size which the coin chute is designed to convey, the coin will travel down the coin chute and drop through the vertical chute 24, but if the coin is of a size smaller than that for which the coin chute is constructed to convey, the smaller coin will have one of its edges free from the flanges when its opposite edge rests on one of the flanges 30. As only one of the flanges will contact with one of the edges of the coin, the coin will not be supported and it will fall to the partition 11. When a coin of a proper size falls to the partition 11 in the vertical coin chute 24, the coin will be in alinement with the opening 31 in the coin chute and when the plunger 33 is pushed inwardly by the button 70, the plunger will contact with the coin and the coin will contact with the transverse member or flange 37, thereby pushing the slide 14 rearwardly until its opening 15 registers with the opening 12. As the slide 14 has been disposed with its opening 15 in alinement with the opening in the coin cylinder 19, the small coins 71 in the coin cylinder have been supported by the partition 11 and a number of them have been disposed between the upper and lower planes of the slide 14. These coins, which have been so disposed between the upper and lower planes of the slide 14, are pushed rearwardly when the slide is operated in the manner described, and these coins, when the opening 15 in the slide 14 registers with the opening 12, fall through the said opening 12 in the partition 11 and to the delivery chute 44. As the coins fall through the opening 12, they strike the trip 59 which operates the lever 53 and lifts, momentarily, the arm 54 which is disposed across the top of the chute 48. The coins which have fallen into the delivery chute 44 slide quickly down this chute and into the cup 46. As the plunger 33 is released, the coin 72 which has traveled down the coin chutes 22 and 24 and which has been engaged by the plunger 33 is freed from the plunger and falls through the slot 13 and the slot 47, down which it slides, the coin falling into the coin chute 48 and being engaged by the arm 54 of the lever 53 which prevents its downward progress and holds it so that it may be observed by any person looking through the glass member 50 which forms a portion of one of the walls of this coin chute 48. This coin is held in the coin chute 48 where it may be seen, until the machine is operated a second time, when it will be released by the action of the small coins delivered the second time, these small coins falling on the trip, as has been described, and pressing it and the arm 56 downwardly, thereby raising the arm 54 momentarily, to free the coins, the arm 54 then falling to a position

where it will arrest the second coin introduced into the machine and hold it where it may be seen through the glass member 50, as has been described. When the person operating the machine removes his hand from the button 70 on the plunger 33, the spring 39 on the plunger will press against the member 38, where it is secured to the plunger, and will cause the plunger to be moved outwardly and, as the plunger 33 moves outwardly, the sleeve 40 on the member 38 engages the head 42 on the rod 41, by which means the slide 14 will be drawn forwardly to a position where its opening 15 will register with the opening at the bottom of the coin cylinder 19.

It will be understood that my machine may be made for changing coins of any denomination, and it will also be understood that, if desired, merchandise in packages may be disposed in the cylinder 19, in which case the machine will be used to sell merchandise as a vending machine.

As the coin chute 22 is twisted as well as curved, when a coin smaller than that for which the coin chute is designed is introduced into the machine, the small coin travels down one side of the coin chute with one of its edges, unsupported by a flange 30, raised higher than its supported edge, until it reaches the twist in the coin chute, which lowers the raised, unsupported edge of the coin and permits the coin to fall through the opening between the flanges.

Having thus described my invention, I claim as new and desire to secure by Letters Patent:—

1. In a change making machine a frame having an opening, a plunger disposed through the opening, a slide, a member having a head secured to the slide, a member having a sleeve secured to the plunger, the first-mentioned member being disposed in the sleeve so that its head may abut against the sleeve to permit of the movement of the slide in one direction by the plunger, and a spring on the plunger disposed between the frame and the second-mentioned member.

2. In a change making machine a partition having an opening therethrough, a coin cylinder open at the bottom disposed above the partition and out of alinement with the opening therein, a slide having an opening therethrough disposed between the coin cylinder and the partition, a member having a head secured to the slide, means for operating the slide, and a member having a sleeve secured to the said means, the first-mentioned member being disposed in the sleeve, so that its head will contact therewith.

3. In a change making machine, a plunger, a slide, a member having a head secured

to the slide, and a member having a sleeve secured to the plunger, the first-mentioned member being disposed in the sleeve so that its head may abut against the sleeve to permit of the movement of the slide in one direction by the plunger.

In testimony whereof I have signed my

name to this specification in the presence of two subscribing witnesses.

JOHN R. CONRAD.

Witnesses:

F. J. REANNON,

VICTOR L. WAGNER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."