No. 852,111. PATENTED APR. 30, 1907.

J. FRITSCHE.

FRAUD PREVENTIVE DEVICE FOR COIN MECHANISMS.

APPLICATION FILED JUNE 20, 1906.

2 SHEETS—SHEET 1.

Fig. 1.

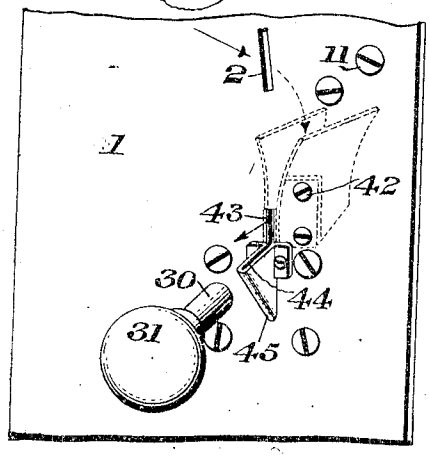


Fig. 2.

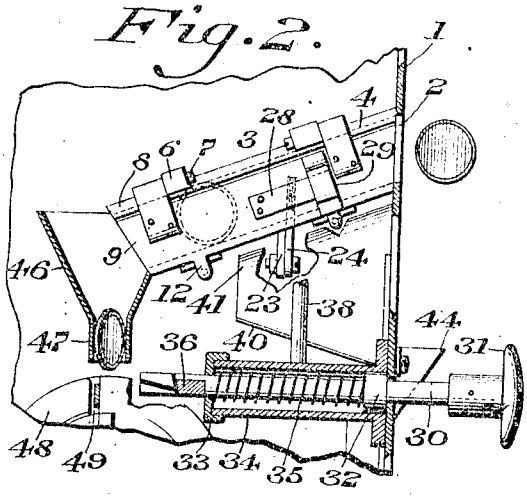


Fig. 3.

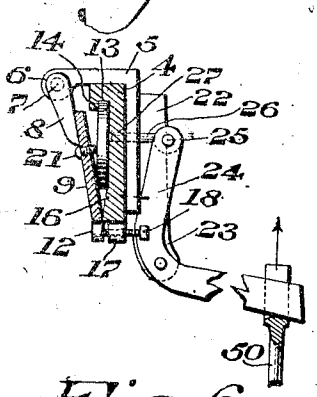


Fig. 4.

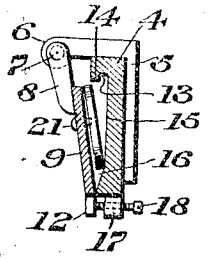


Fig. 5.

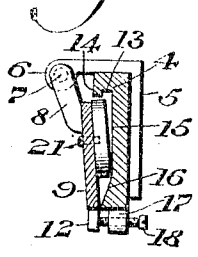


Fig. 6.

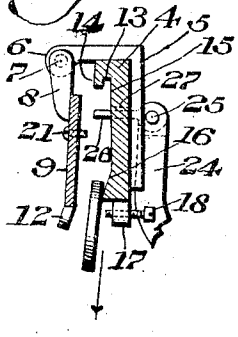


Fig. 7.

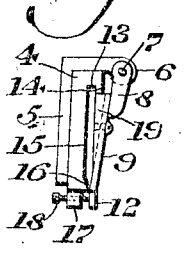
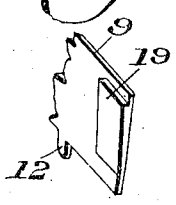


Fig. 8.



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2 SHEETS—SHEET 2.

Fig. 9.

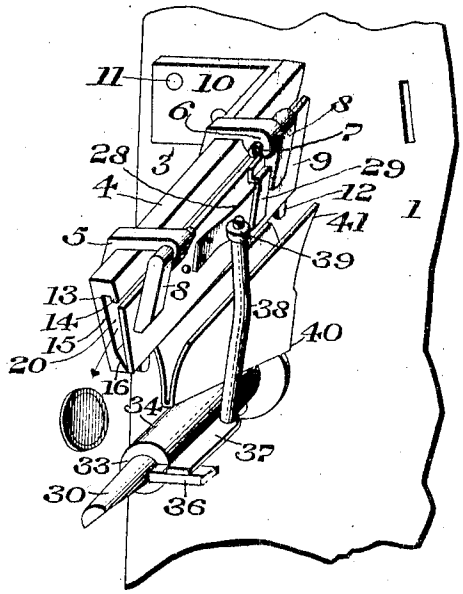


Fig. 10.

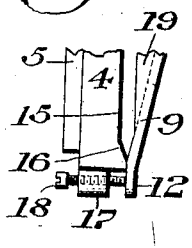


Fig. 11.

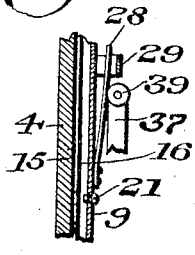
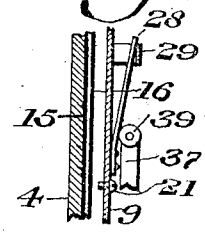


Fig. 12.



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UNITED STATES PATENT OFFICE.

JOHN FRITSCHE, OF PHILADELPHIA, PENNSYLVANIA.

FRAUD-PREVENTIVE DEVICE FOR COIN MECHANISMS.

No. 852,111. Specification of Letters Patent. Patented April 30, 1907.

Original application filed March 3, 1906, Serial No. 304,041. Divided and this application filed June 20, 1906. Serial No. 322,548.

To all whom it may concern:

Be it known that I, JOHN FRITSCHE, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Fraud-Preventive Device for Coin Mechanisms, of which the following is a specification.

In a pending application No. 304,041, filed March 3, 1906, of which this is a division, I have described and claimed novel construction of a vending apparatus in which an article is delivered to a position accessible to the purchaser.

My present invention consists broadly of a fraud preventive device adapted to be used in conjunction with a vending machine, in which means are provided for returning to the intending purchaser any coin of undesired dimensions or which has been mutilated, thus preventing in a positive manner the retention of a bogus coin or a coin of undesired dimensions in the machine in connection with which my device is employed.

My invention further consists of a novel construction of a coin chute comprising a stationary member and a member pivoted with respect thereto and novel means for maintaining said chute normally in closed position.

It further consists of novel means for permitting the pivoted member of the coin chute to open when the machine is actuated.

It further consists of novel means for preventing the passage of a coin of undesired dimensions through the coin chute.

It further consists of novel means for returning a coin, which has been stopped in the coin chute, to a receptacle outside of the machine from which the coin may be taken by the intending purchaser.

It further consists of a novel construction for guiding the coin in its passage from the coin chute.

It further consists of a novel construction of a stationary member having a longitudinally extending groove or recess near its upper end and having its inner face near its lower end inclined or beveled.

It further consists of novel means for securing the pivoted member with respect to the stationary member of the coin chute.

It further consists of novel means for adjusting the size of the coin chute.

It further consists of a novel construction of actuating lever which co-acts with the pivoted member of the coin chute to actuate said pivoted member.

It further consists of novel means for regulating the size of the coin chute near one end thereof.

It further consists of a novel construction of a stop mechanism for preventing the passage through the chute of a coin having the desired dimensions.

It further consists of other novel features of construction, all as will be hereinafter fully set forth.

For the purpose of illustrating my invention, I have shown but one form of a device, as this embodiment best illustrates the principle of my invention, although it is obvious that the principal instrumentalities of which my invention consists may be variously arranged and organized and in the accompanying drawings, I have shown one embodiment thereof which I have found in practice to give very good and satisfactory results, although it is to be understood that my invention is not limited to this specific arrangement and organization of these instrumentalities.

Figure 1 represents a front elevation of a portion of a machine showing the coin slots therein and the actuating handle of a fraud preventive device embodying my invention. Fig. 2 represents a sectional elevation of a portion of the device showing the coin slots and the manner in which the coin passes therethrough. Fig. 3 represents a sectional view of the coin slot and its adjuncts showing a coin of the desired dimensions in operative position therein. Fig. 4 represents a sectional view of a coin slot showing the manner in which a coin is stopped if one which has been worn too thin is employed. Fig. 5 represents a sectional view of a coin slot showing the manner in which the coin is stopped if the periphery of the coin has been worn away. Fig. 6 represents a sectional view of a coin slot showing means for stopping the coin when the machine is empty or is being actuated and also showing the pivoted member of the slot in its open position and a coin falling from the coin chute. Fig. 7 represents a front elevation of the coin slot. Fig. 8 represents a perspective view of the front portion of the pivoted member of the

coin slot showing the manner in which a substantially parallel groove is formed at the front end thereof. Fig. 9 represents a perspective view of a portion of Fig. 1, the same being viewed from the rear. Fig. 10 represents a front elevation on an enlarged scale of Fig. 7. Fig. 11 represents a sectional view of the coin chute in closed position and a roller co-acting therewith. Fig. 12 represents a sectional view similar to that shown in Fig. 11 but showing the parts in different relation to each other.

Similar numerals of reference indicate corresponding parts in the figures.

Referring to the drawings:—1 designates a front plate or casing member which is adapted to be secured in any suitable manner or form a part of a vending or other machine in connection with which my present invention is adapted to be employed.

2 designates a slot or aperture in the casing 1 through which the coins are passed by the intending purchaser.

3 designates a coin chute which comprises a stationary member 4 to which the arms 5 are secured in any suitable manner, said arms extending transversely across the top of the member 4 in the present instance and having at their outer ends lugs 6 to which are pivoted, by means of pins or equivalent devices 7, a block or bracket 8 to which the plate 9 is suitably secured, said plate forming the pivoted or movable member of the coin chute.

10 designates a bracket or angle arm which is secured to the stationary member 4 and to the casing 1 by means of any suitable fastening device such as screws or pins 11.

The member 9 is pivoted with respect to the stationary member 4 in such a manner that by reason of its own weight it will move outwardly from the plate 4 and normally assume an open position, as indicated in Fig. 6.

12 designates lugs carried by the pivoted member 9 and preferably extending downwardly therefrom. The stationary member 4 is recessed on the side contiguous the pivoted member 9 and has near its upper edge a longitudinally extending groove or recess 13, which forms a depending lip or flange 14. The inner face 15 of the stationary member 4 forms a substantially plane surface which has at its lower end an inwardly inclined or beveled face 16.

17 designates lugs carried by the stationary member 4 and preferably in alinement with the lugs 12 carried by the pivoted member 9, when the parts are in assembled position.

18 designates an adjusting device which, in the present instance, I have shown as having threaded engagement with the lug 17 and this adjusting device, such as a set screw 18, is adapted to engage or abut against the lug 12 carried by the pivoted member 9, whereby the distance to which the pivoted member 9 may approach the stationary member 4 may be adjusted according to the conditions and requirements of the case. The pivoted member 9 has secured thereto near its forward end a triangular or wedge-shaped block 19, in order to form, when the two members of the coin chute are in their initially closed position, as seen in Fig. 7, a substantially straight slot therebetween at their forward end, it being noted that owing to the employment of the beveled face 16 of the stationary member 4 and the manner in which the member 9 is pivoted with respect thereto, the lower end of the slot 20 formed between the members is substantially V-shaped, as seen most clearly in Figs. 7 and 10. When the parts are in assembled position, the coin slot 20 is in alinement with the opening or aperture 2 in the casing member 1 and the aperture 2 is so constructed that any coin which has been bent out of its normal shape cannot pass therethrough.

21 designates an adjustable stop carried by the pivoted member 9.

22 designates a plate or bracket secured in any suitable manner to the stationary member 4 and having a depending arm 23 in which is fulcrumed a lever 24, one end of said lever being suitably deflected and having pivoted thereto at its outer end at 25, a rod or pin 26, which is adapted to pass through an aperture 27 in the stationary member 4, in order to serve as a stop for the coins when the machine is inoperative or when it is desired to render inoperative the machine in conjunction with which my present invention is employed.

28 designates a spring which, as most clearly seen in Figs. 9, 11, and 12, is secured at one end by any suitable means to the pivoted member 9, the other end of said spring being free, in the present instance, and surrounded by or engaging with a stop 29 which is carried by the pivoted member 9.

Referring now more especially to Fig. 2, 30 designates a rod having a suitable handle 31 secured thereto, said rod extending through an aperture in the casing 1 and having a shoulder or set collar 32 between which and the removable cap or closure 33 of the casing 34 is interposed a spring 35, it being noted that the rod 30 extends through the casing 34 and also through the cap 33 which has threaded or other engagement with the end of the casing 34.

36 designates a cross rod connected with the rod 30 and having an arm 37 connected therewith, said arm 37 having mounted thereon or secured thereto in any suitable manner, a standard or upright 38 which is provided at its outer end with a roller 39, it being noted that in the present instance the upper end of the standard 38 has a reduced diameter, although this is not essential in all cases, but

the roller 39 would preferably be removably secured to the standard 38. The roller 39 is adapted to co-act with the spring member 28 to normally maintain the pivoted member 9 in closed position.

40 designates a return chute having its sides 41 deflected upwardly and outwardly, said chute being located directly under the coin chute 3 and being suitably secured to the casing member 1 by any suitable means, such as the screws or equivalent devices 42, it being noted that in the present instance the bottom wall of said chute 40 inclines downwardly toward the casing member 1 in order that when a coin falls in said chute it will be guided downwardly to a slot or opening 43 in the casing member 1. The coin will pass through the opening or aperture 43 and be received in the recess or chamber 44 of the bracket or receiver 45 which is suitably secured to the casing member 1. In the present instance I have shown the recess 44 in the bracket or receiver 45 as being adapted to receive a single coin and to retain the same in upright position.

46 designates a guide suitably supported in proximity to the end of the coin chute 3, the lower end of said guide being pressed together or flattened as seen at 47 in order to form a guide slot or passage to a coin wheel, such as is disclosed in my pending application hereinbefore referred to, and provided with a slot 49 into which the coin is adapted to pass from the guide or funnel 46.

50 designates a lever which is adapted to co-act with the lever 23 and with other suitable actuating mechanism.

The coin, if it has the proper dimensions, is placed by the intending purchaser in the slot 2 and since the pivoted member 9 of the coin chute 3 is normally maintained in operative position with respect to the member 4 by means of the roller 39 engaging the spring 28, a substantially straight slot 20 will be formed between the two members, and the coin will pass directly through this slot in the manner indicated most clearly in Fig. 2. The coin passes from the coin slot 20 through the guide 46 and is directed by the converging lower portion of this guide into the slot 49 of the coin wheel 48 or to any desired apparatus co-operating therewith. If a coin is passed through the aperture 2 which is much thinner than a standard coin, the V-shaped form of the lower portion of the slot 20 will cause the coin to assume a lower position in the coin chute and the periphery of the coin will not be guided in the longitudinal slot 13 as in the case of a standard coin. The coin will fall to one side as seen in Fig. 4, and be stopped by its engagement with the adjustable stop device 21. If a coin is employed, the outer periphery of which has as seen in Fig. 5, that in this case the flange 14 will not engage the coin in such a manner as to cause the same to be retained or guided in the groove and the coin will fall to one side, as seen in Fig. 5. In a similar manner to that shown in Fig. 4 in which case an extra thin coin was employed, the coin having a reduced diameter, will be stopped by the stop rod or pin 21. If a coin has been retained in the slot by its engagement with the stop rod or pin 21, said coin will fall into the inclined chute 40 and be returned to the receiver 45 as will be apparent from Figs. 1 and 9. When the handle 31 is moved inwardly the rod 30 will be moved forwardly and thereby the standard 38 carried by the arm 37. The roller 39 will travel along the spring 28 and owing to the manner in which the member 9 is pivoted with respect to the stationary member 4 so that it moves outwardly from its own weight, the member 9 will move outwardly and permit the coin which has been stopped in the slot 20 by the adjustable stop device 21 to fall into the chute 40 and be returned to the receiver 45, which is located in a position accessible to the purchaser.

I wish to call special attention to the manner in which the coin chute may be readily and quickly adjusted for coins of different dimensions. By means of the adjusting screw 18 the width of the coin slot 20 formed between the members 4 and 9 may be adjusted as desired, so that a coin of any desired or standard dimensions may be employed and the variation between a standard coin which will pass through the slot and a coin which will be returned to an intending purchaser may be regulated as desired, as will be apparent, since the V-shaped slot will permit the coin to assume a lower position in the coin chute 3 if the pivoted member 9 is moved away from the member 4.

It will be apparent that as soon as the pressure on the handle 31 has been released, the spring 28 interposed between the shoulder or set collar 32 and the cap or closure 33 of the casing will cause the member 30 to assume its normal position and the standard 38 will be moved in the opposite direction, the roller 39 traveling along the inclined face of the spring 28 and closing the coin chute.

If it is desired to positively prevent the passage of a coin of standard or desired dimensions through the coin chute 3, this may be prevented by actuating the lever 50 which causes the lever arm 23 to turn on its fulcrum and the stop rod or pin 26 pivoted thereto at 25 will pass through the aperture 27 and positively prevent the passage of a coin through the chute 3, since if the handle 31 is actuated the coin stopped in the coin chute will fall into the return chute 40 and be received in the chamber or recess 44 of the bracket 45.

which my novel construction of fraud preventive device is employed when said machine is empty or rendered inoperative.

It will be apparent from the foregoing that I have produced a novel and useful construction of fraud preventive device for coin mechanisms which embodies the features of advantage enumerated in the statement of invention and the above description, and while I have, in the present instance, shown and described a preferred embodiment thereof, it is to be understood that it is susceptible of modification in various particulars without departing from the spirit or scope of my invention or sacrificing any of its advantages.

1. In a coin controlled apparatus, a coin chute, comprising a stationary member and a pivoted member, said members forming a coin slot therebetween, means for adjusting the size of said slot, an adjustable stop carried by said pivoted member, and means for causing an abnormally thin coin to engage said stop.

2. In a coin controlled apparatus, a coin chute comprising a stationary member and a pivoted member, said members forming a coin slot therebetween, means for adjusting the size of said slot, an adjustable stop carried by said pivoted member, and means for causing a coin having a reduced diameter to engage said stop.

3. In a coin controlled apparatus, a coin chute comprising a stationary and a pivoted member forming a coin slot therebetween, an adjustable stop carried by one of said members, means for causing a coin of improper dimensions to engage said stop, and means for causing the return of said coin to the intending purchaser.

4. In a coin controlled apparatus, a coin chute comprising a stationary and a pivoted member having a coin slot therebetween, an adjustable stop carried by one of said members, means for causing a coin of improper dimensions to engage said stop, a second stop for the coin carried by one of said members, and means for actuating said last mentioned stop.

5. In a coin controlled apparatus, a coin chute comprising a stationary and a pivoted member having a coin slot therebetween, an adjustable stop carried by one of said members, means for causing a coin of improper dimensions to engage said stop, a second stop for the coin carried by one of said members, means for causing the return of said coin to the intending purchaser, and means for actuating said second stop.

6. In a coin controlled apparatus, a coin chute comprising a stationary and a pivoted member forming a coin slot therebetween, an adjustable stop carried by one of said members, means for causing a coin of improper dimensions to engage said stop, means for preventing the entrance of a bent coin into said slot, devices for adjusting the size of said slot, and means for causing the return of a coin of improper dimensions to the intending purchaser.

7. In a coin controlled apparatus, a stationary and a pivoted member having a coin slot therebetween, one of said members having a guide groove at the upper portion thereof and an inwardly extending angularly inclined face at the lower end thereof, the other of said members having a substantially plane surface, an adjustable stop carried by the latter member, means for adjusting the relative position of said members to vary the size of said slot, and means for causing the return of a coin held in said slot to the intending purchaser.

8. In a coin controlled apparatus, a coin chute comprising a stationary member and a pivoted member, said members forming a coin slot therebetween, the lower portion of which is V-shaped, means for causing a coin of improper dimensions to engage said stop an adjustable stop carried by said pivoted member, and means for permitting said pivoted member to move outwardly from said stationary member.

9. In a coin controlled apparatus, a coin chute comprising a stationary member and a member pivoted with respect thereto so as to normally move outwardly therefrom by its own weight, there being a coin slot between said members, means for adjusting the distance between said members to vary the size of said coin slot, means for normally maintaining said coin slot in closed position, an adjustable stop carried by one of said members for stopping a coin therebetween, and means for returning said coin to the intending purchaser.

10. In a coin controlled apparatus, a coin chute comprising a stationary member having a longitudinally extending groove therein, a member pivoted with respect thereto adapted to move outwardly therefrom by its own weight, the inner face of said stationary member extending downwardly from said groove forming a substantially plane surface, the lower end of said member being angularly inclined to the face contiguous thereto, an adjustable coin stop carried by said pivoted member, said members forming a coin slot therebetween, means for varying the relative position of said members to vary the size of said slot, and means for effecting the return of a coin stopped in said slot to the intending purchaser.

11. In a coin chute, a stationary member having a longitudinal groove therein, a member pivoted to said stationary member so as to move outwardly therefrom by its own weight, said members forming a coin slot therebetween, means carried by the pivoted member for preventing the entrance of a bent

coin, means for arresting the passage therethrough of a coin of improper dimensions, means for normally closing said slot and permitting the opening thereof, a return chute into which an arrested coin falls on the opening of said pivoted member, and a receiver without the machine into which the return coin is deposited.

12. In a coin chute, a stationary member, brackets extending outwardly therefrom, a pivoted member carried by said brackets, the upper portion of the inner face of said stationary member forming a substantially plane surface and having a lip overhanging the upper end thereof to form a longitudinally extending groove, the lower portion of said inner face being inwardly beveled, the inner face of said pivoted member forming a substantially plane surface, said stationary member having on its inner face at its forward end an angularly inclined block so as to form a substantially straight slot between said members at their forward end, an adjustable stop carried by said pivoted member, adapted to stop a coin of improper dimensions passing therethrough, means for adjusting said pivoted member relative to said stationary member to vary the size of said slot, and means co-acting with said pivoted member adapted to open said slot on its forward movement and to close said slot on its return movement.

13. In a coin controlled apparatus, a coin chute comprising a stationary and a pivoted member having a coin slot therebetween, an adjustable stop carried by one of said members, means for causing a coin of improper dimensions to engage said stop, said stationary member having an aperture therethrough, a second stop for the coin adapted to pass through said aperture, a lever to which said second stop is pivoted, and means for actuating said lever.

14. In a coin controlled apparatus, a coin chute comprising a stationary and a pivoted member forming a coin slot therebetween, an adjustable stop carried by one of said members, means for causing a coin of improper dimensions to engage said stop, a spring secured at one end to said pivoted member, a roller adapted to co-act with said spring, and a spring pressed plunger adapted to actuate said roller, and thereby maintain said pivoted member in open or closed position.

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