

No. 649,659.

Patented May 15, 1900.

C. A. DREISBACH & R. E. FUDGE.

VENDING MACHINE.

(No Model.)

(Application filed Mar. 21, 1899.)

2 Sheets—Sheet 2.

Fig. 2.

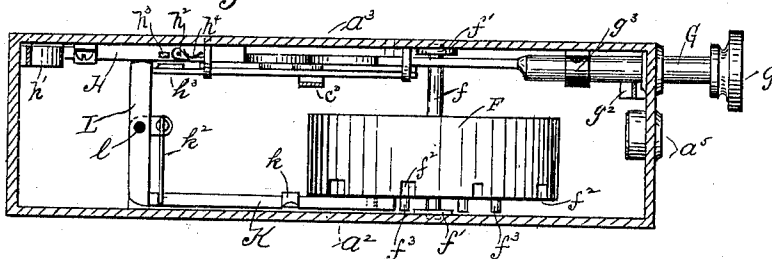


Fig. 3.

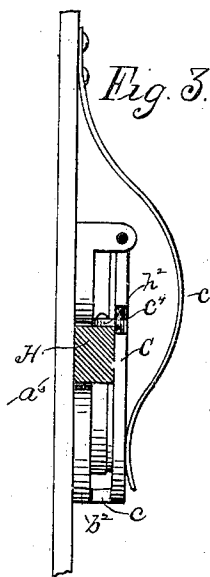


Fig. 4.

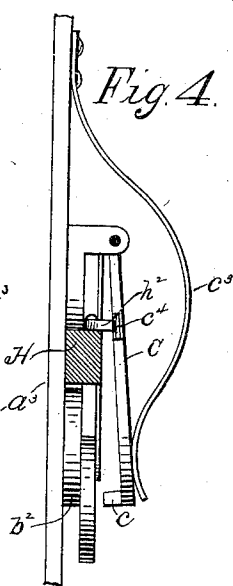


Fig. 6.

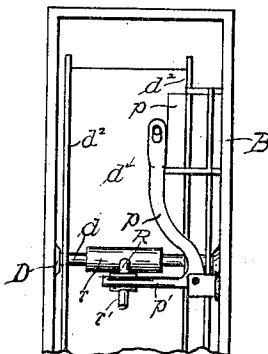
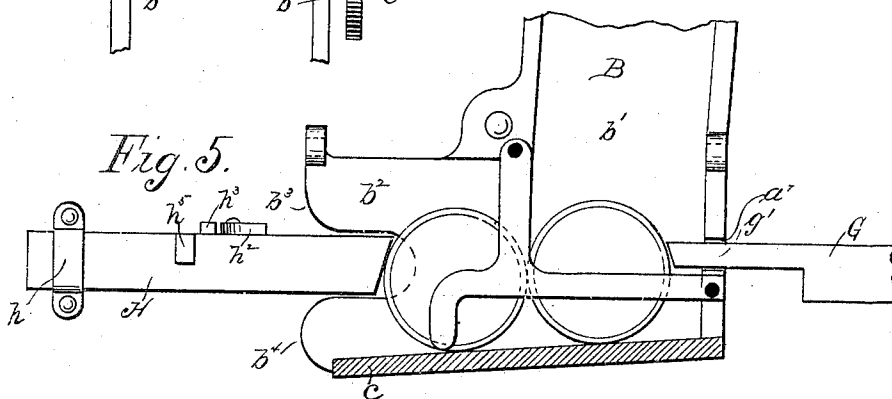


Fig. 5.



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VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 649,659, dated May 15, 1900.

Application filed March 21, 1899. Serial No. 709,954. (No model.)

To all whom it may concern:

Be it known that we, CHARLES A. DREIBACH and RAYMOND E. FUDGE, of the city and county of New Haven, in the State of Connecticut, have invented a new and useful Improvement in Vending-Machines, which is fully set forth and described in the following specification, taken in connection with the drawings, which form a part thereof, and in
10 which—

Figure 1 is a side elevation with side casing removed; Fig. 2, a plan sectional view on lines 2 2 of Fig. 1; Fig. 3, a detail view of the coin-receptacle closed; Fig. 4, a detail view of the
15 coin-receptacle open; Fig. 5, a detail view of the coin-frame, showing the front and rear bolts; and Fig. 6, an elevation of the shut-off slide.

In all figures similar letters of reference
20 represent like parts.

Our invention relates to an improvement in vending-machines, and more particularly to a machine for the vending of postage-stamps, in connection with the use of a coin
25 or coins placed therein, which is capable of attachment to a letter-box or may be constructed as a part thereof or set up independently in any suitable place.

The object of our invention consists in the
30 construction of a vending-machine in which the deposit of a coin or coins of proper denomination will set in motion upon pressure of a button or bolt mechanism for ejecting or delivering into a proper tray, where they
35 may be removed by the operator, a postage-stamp, ticket, or other similar article which is capable of being fed from said machine.

In the drawings, A represents the casing, divided into an upper and lower portion A' and A² and consisting of a front *a*, back *a'*, and sides *a*² and *a*³. The upper portion A' of said casing is hinged at *a*⁴ to the lower portion A² and secured to the front *a* of said lower portion A by a lock *a*⁵. The front *a* of
45 said casing A is provided with a coin-slot *a*⁶, perforation *a*⁷, and receiving-tray *a*⁸, while in the back *a'* of said casing A is an aperture *a*⁹, in which a coin-receiving box *a*¹⁰ is adapted to fit and be secured therein by means of a
50 lock *a*¹¹.

An inclined coin-chute B, consisting of two

sections *b* and *b'*, is secured to the side *a*⁸ of the casing A in any well-known manner, the section *b* of said chute being secured to the upper portion A' of said casing A and the section *b'* to the lower portion A² thereof, so that
55 when said casing A is closed the sections *b* and *b'* will form a continuous chute. The coin-chute B communicates at its upper end with the coin-slot *a*⁶ and has formed at its
60 lower end a horizontal skeleton frame *b*² (into which the coin or coins are adapted to roll) and has at its end arms *b*³ and *b*⁴.

A U-shaped plate C, having a flange *c* and arms *c'* and *c*², is hinged to the side *a*³ of the casing A and is held in its normal or closed
65 position by means of a spring *c*³, secured to the side of casing A, so that said flange *c* fits against the frame *b*² and prevents the coins from falling out, as shown in Fig. 3, while
70 the outer edges of said arm *c'* are beveled at *c*⁴ for purposes hereinafter described.

Within the casing A and secured to the sides *a*² and *a*³ thereof are bearings D, in which is adapted to rotate an axle *d*, having at the
75 outer ends thereof thin circular plates *d*², of metal or other suitable material, forming a spool *d*³, on which a roll of stamps *d*⁴ or other material to be vended is wound.

A pressure wheel or roll E the width of the
80 stamp and of hard rubber or other suitable material, having an axle *e*, is adapted to rotate in adjustable bearings *e'*, secured to the sides *a*² and *a*³ of casing A, and bear against the upper surface of the stamps *d*⁴ as they are
85 being fed from the spool *d*³.

A feed-wheel F, having an axle *f*, is adapted to rotate in bearings *f'* on sides *a*² and *a*³ of casing A and bear on the under side of the stamps *d*⁴ as they are fed from the spool
90 *d*³, the rim of said wheel F, over which the stamps are being fed, being directly underneath and in line with that portion of the rim of the pressure-roll E under which the stamps are passing, thus causing the roll E
95 to revolve by frictional contact. On the periphery of the feed-wheel F are a series of slots *f*², each slot being beveled on one side thereof and of equal distance apart, while on the side of said wheel F are a series of lugs
100 *f*³, corresponding in number to the slots *f*² and of equal distance apart, so that the wheel

F by pressure of a bolt hereinafter described and adapted to bear against one of said lugs may be fed the distance from one slot to the succeeding one. (See Fig. 1.)

- 5 A horizontal reciprocating bolt G, having at one end a push-button g and at its other end a beveled arm g' , extends through the perforation a' in the front a of casing A and a channel-plate g^3 , secured to the side a^3 of said casing A, into one end of frame b^2 of coin-chute B and engages the edge of one of the coins, while a spring g^2 is adapted to engage a lug g^4 on said bolt and hold the same in its normal position when the machine is not in operation.

- 15 A horizontal reciprocating rear bolt H is adapted to pass through a channel-plate h , secured to the side a^3 of the casing A, and bear at one end against a spring h' , secured to the back a' of casing A in well-known manner, while the other end of said bolt H, which is beveled, as shown in Fig. 5, enters between the arms b^3 and b^4 of frame b^2 and bears against the opposite edge of the other coin from that which the arm g' of bolt G engages. On the top of said bolt H and pivoted thereto is a cam h^2 , one side of which is adapted to bear against a lug h^3 on said bolt and the other side against the tension of a spring h , also secured to said bolt H, so that as said bolt H is forced rearward the cam h^2 will come in contact with the beveled arm c^4 of the plate C and be forced inward thereby against the tension of spring h^4 and slide across said arm c^4 until clear of the same, when spring h^4 will force cam h^2 outward against lug h^3 , so that upon the forward movement of the bolt H the cam will engage the arm c' and force the same outward, thereby forcing plate C outward until flange c is clear of the side of frame b^2 , when the coins will drop into a secondary coin-chute I, secured to the side a^3 of casing A, and into the coin-box a^{10} , as shown in Figs. 1 and 4.

- 45 A horizontal reciprocating feed-bolt K passes through a channel-plate k , secured to the side a^3 of the casing A. An arm k' at the outer end of said bolt K and formed integral therewith is adapted to engage one of the lugs f^3 and the inner end of said bolt K to engage one end of a horizontal lever L, pivoted at l to the side a^2 of the casing A, while the other end of said lever L engages a lug h^5 on the bolt H. A spring k^2 is adapted to return said bolt to its normal position when the machine is not being operated.

- Secured to the front a of the casing A in well-known manner is an inclined feedway M, consisting of the arms m and m' , the lower opening of said way M being directly above and in line with the mouth of the receiving-tray a^8 , while the upper ends of arms m and m' end in such relation to the rims of pressure-roll E and feed-wheel F that the stamps are fed into the feedway M upon rotation of said pressure-roll and feed-wheel, as shown in Fig. 1.

A U-shaped lever N, pivoted at n to the side a^2 of casing A, has vertical arms n' and n^2 . Rigidly secured to the arm n' is a cutting-blade n^3 , which is adapted to fit when the device is in its normal position between the lower opening of feedway M and the mouth of the receiving-tray a^8 to close the same, while the arm n^2 , which is beveled at its end, engages with one of the slots f^2 in feed-wheel F, being held in position by a flat spring n^5 , one end of which is secured to side a^2 of casing A, as shown in Fig. 1.

Pivoted at o to the side a^2 of casing A is a lever O, on one end of which is an arm o' , and the other end of which is adapted to rest on a lug n^4 on arm n^2 of lever N. The arm o' of lever O is underneath and in line with the next succeeding slot f^2 on wheel F to that in which the arm n^2 of lever F is engaged and is held in that position against the tension of a spring o^2 , which is of less strength than spring n^5 , which holds arm n^4 in position.

A lever P, having secured to its upper end a slide p and to its lower end an arm p' , is pivoted to the front a of casing A in a well-known manner.

A lever R, having at one end formed integral therewith a weight r and at its other end an arm r' , is pivoted at r^2 to the side a^2 of the casing A and in such manner that when the stamps are all fed from the spool the arm r' will engage with the arm p' of lever p and force the same upward a sufficient distance to force lever P sidewise and force the slide p between the coin-slot a^6 and mouth of the chute B, as shown in Fig. 6.

In operation, as herein shown, two pennies are dropped into the coin-chute B through slot a^6 in casing A and fall into the skeleton frame b^2 between the beveled edges of bolts G and H in the position shown in Figs. 1 and 5. The operator then pushes the button g , which forces bolt G rearward, thus forcing the coins rearward against the beveled end of bolt H, which is in turn forced rearward against the tension of the spring h' . The rearward action of the bolt H causes the lug h^5 to press against one end of lever L and force the same rearward, thus forcing the other end of said lever L forward, which in turn forces feed-bolt K slightly upward and forward against the tension of spring k^2 and lug f^3 sufficiently to rotate the feed-wheel F the distance between two of the slots f^2 , which is sufficient to feed one stamp through the feedway M and into the receiving-tray a^8 . As feed-wheel F revolves the arm n^2 of the lever N is forced out of the slot f^2 in which it is engaged onto the rim of said feed-wheel and against the tension of spring n^5 , thus causing the lever N to turn on its pivot a sufficient distance to withdraw cutting-blade n^3 from between the lower opening of feedway M and the mouth of receiving-tray a^8 , thus allowing the stamp to be fed into the receiving-tray, as above described. The forcing of the arm n^2 out of the slot f^2 in feed-wheel F also causes spring o^2 to force arm o'

upward against the rim of said feed-wheel F, so that when the next succeeding slot f^2 is reached if the cutting-blade should not return to its normal position, so that arm n^2 would engage said succeeding slot f^2 , as hereinafter described, arm o' would be forced into the next succeeding slot to prevent a further rotating of the wheel F. As the bolt H is forced rearward the cam h^2 slides over the beveled surface of arm c' of plate C against tension of spring h^4 , and when said bolt is in its most rearward position said cam h^2 is clear of said arm c' and forced against the lug h^3 by spring h^4 . When the feed-wheel F has been revolved the distance from one slot to the succeeding one, one stamp has been fed into the mouth of the receiving-tray a^3 in such a position that the inner end of said stamp is directly in line with the cutting-blade. The arm n^2 of the lever N now also having reached the succeeding slot to that in which it was engaged is forced into said slot by spring n^5 , thus returning said cutting-blade to its normal position, thereby severing the stamp from the roll and enabling it to drop into the receiving-tray a^3 , where it is removed by the operator. The returning of said lever N to its normal position also returns lever O to its normal position, as shown in Fig. 1. The operator then releases button g , when, as will be readily seen, the bolts G and H, lever L, and feed-bolt K return to their normal positions, with the bolt K engaging the next succeeding lug f^3 on wheel F. The return of the bolt G forces the cam h^2 into engagement with arm c' , and forces the same outward, thereby forcing plate C outward to release the coins, as more fully described heretofore, when the device will be in position to be again operated.

In its normal position or when the spool has thereon a roll of stamps the weight r of lever R will rest lightly on said roll, as shown in Fig. 1, and as said roll is gradually fed from the spool will fall until the end of said roll is fed from said spool, when it will drop into the position shown in Fig. 1 and the arm r' engage with the arm p' of lever P and force the slide across the coin-slot a^6 to close the same.

The device as shown is for two-cent stamps where two pennies are used, but can easily be adjusted for a single coin without departing from the spirit of our invention.

Having now described our invention, what we claim, and desire to secure by Letters Patent, is—

1. In a vending-machine the combination with a feed-wheel; of a bolt; mechanism engaging with said bolt to operate said feed-wheel; a coin-holding frame; a hinged plate, having at its lower end a flange adapted to fit against said frame, when in its normal position, and a cam pivoted to said bolt to engage said plate and force the same outward, substantially as described.

2. In a vending-machine the combination with a pressure-roll; of a feed-wheel, having a series of slots on its periphery, and a series of lugs corresponding in number to said slots on one side of said wheel; a feed-bolt one end of which is adapted to engage one of said lugs; a horizontal lever one end of which is adapted to engage the other end of said bolt; a coin-frame adapted to hold one or more coins; a push-bolt, one end of which is adapted to enter one end of said coin-frame and engage the edge of one of said coins; a rear bolt adapted to enter the other end of said coin-frame and engage the edge of one of said coins; a lug on said rear bolt adapted to engage the other end of said lever; a U-shaped lever having at one end thereof a cutting-blade, and having its other end adapted to engage with one of the series of slots in said feed-wheel; a spring adapted to bear against the rear end of said rear bolt, and a cam on said bolt adapted to engage with said hinged plate and open the same a sufficient width to drop the coins, substantially as described.

In testimony whereof we have hereunto set our hands, at New Haven, in the county of New Haven, State of Connecticut, this 11th day of March, 1899.

CHARLES A. DREISBACH.
RAYMOND E. FUDGE.

Witnesses:

EDWIN J. DREISBACH,
GEO. H. HILLS.