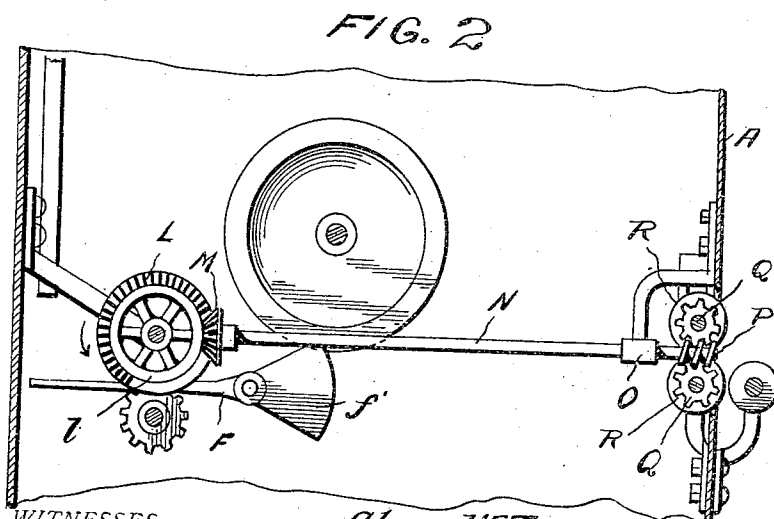
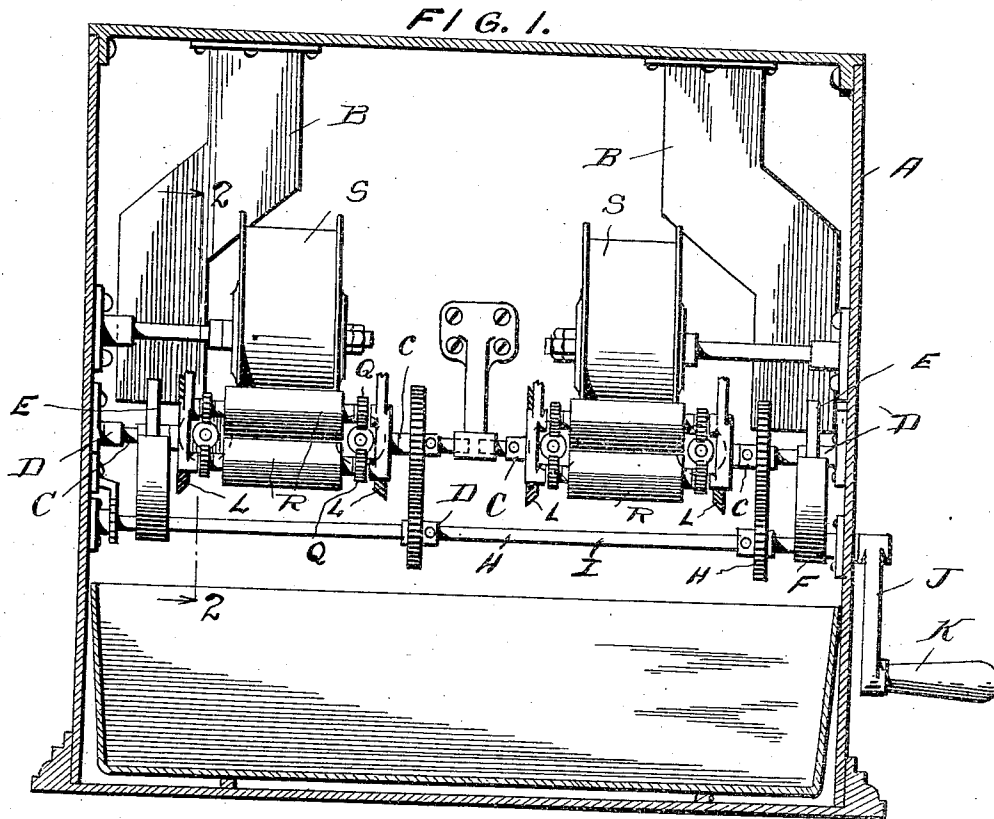


C. W. TIMMONS.  
STAMP VENDING MACHINE.  
APPLICATION FILED JAN. 19, 1909.

943,285.

Patented Dec. 14, 1909.

2 SHEETS—SHEET 1.



WITNESSES  
C. H. Davies  
R. E. Burdine

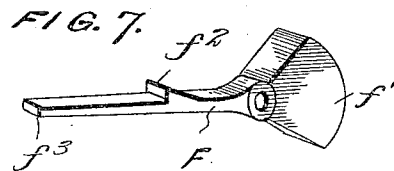
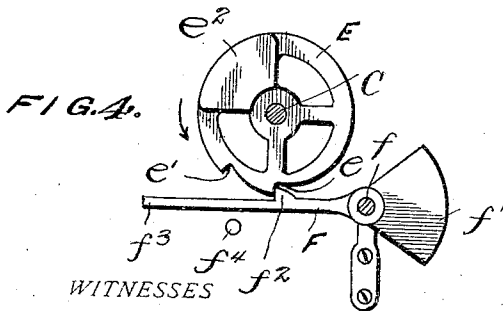
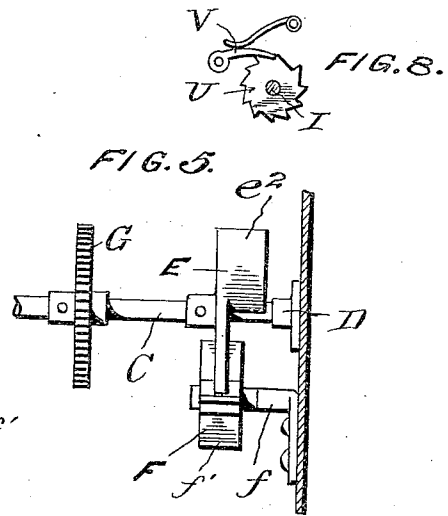
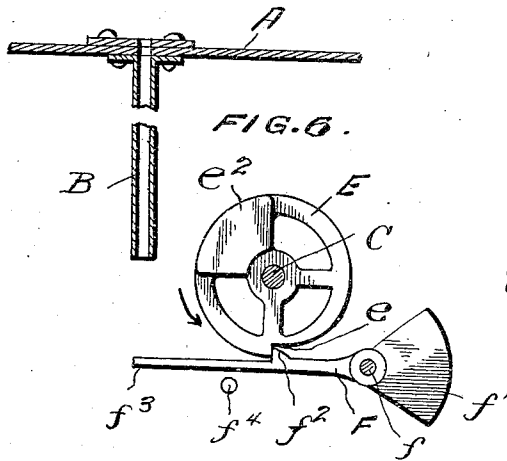
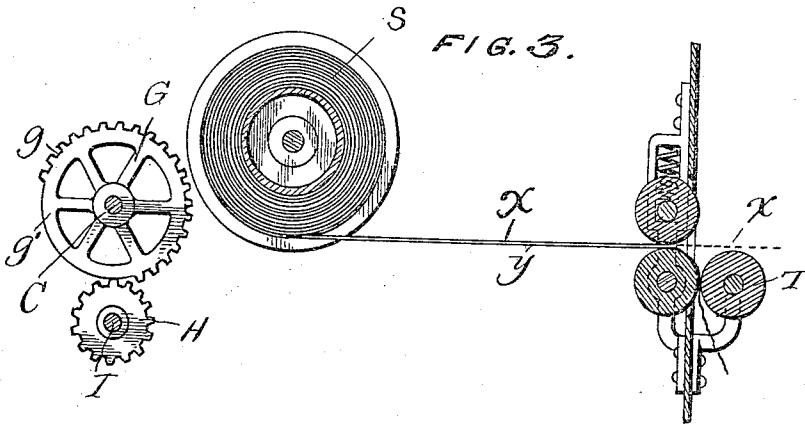
Chas. W. Timmons, INVENTOR

C. L. Parker.  
Attorney

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 D. E. Burdine.

# UNITED STATES PATENT OFFICE.

CHARLES W. TIMMONS, OF WOLCOTT, INDIANA.

## STAMP-VENDING MACHINE.

943,285.

Specification of Letters Patent.

Patented Dec. 14, 1909.

Application filed January 19, 1909. Serial No. 473,080.

*To all whom it may concern:*

Be it known that I, CHARLES W. TIMMONS, a citizen of the United States, residing at Wolcott, in the county of White and State of Indiana, have invented certain new and useful Improvements in Stamp-Vending Machines, of which the following is a specification.

My invention relates to machines for distributing stamps, tickets and the like, and operative only when a suitable coin or coins is introduced to release the mechanism so that it may act in the manner desired.

The primary object of my invention is to provide a machine of this character which will distribute two one cent stamps or a two cent stamp when two pennies are introduced, but the structure of the machine is such, that by slight variations of the arrangement of its details, it can be used to vend a single stamp or several stamps on the introduction of a single coin of a denomination the same or higher than one cent. Its structure renders it of equal value for the purpose of distributing checks, and tickets of various kinds.

Another object of the invention is to provide a machine having the above characteristics so that there is great simplicity in its working parts and which can be manufactured at a small expense.

With these objects in view my invention consists of the combination of parts hereinafter described and claimed, and shown in the accompanying drawings, which latter, I wish it understood, with the exception of a figure representing a slight modification, show the preferred embodiment of my invention, viz.: a machine which will vend two one cent stamps or a two cent stamp on the introduction of two pennies and which cannot operate until the second penny has been introduced.

In the drawings, Figure 1 represents a front elevation of the machine; Fig. 2 a vertical section taken on the line 2—2 of Fig. 1; Fig. 3 is a detail view of the stamp delivery mechanism; Figs. 4 and 5 represent a side elevation and bottom plan view respectively of the releasing mechanism; Fig. 6 is a modification of the releasing mechanism; Fig. 7 is a perspective view of the weighted lever employed in connection with the releasing mechanism, and Fig. 8 is a detail view of the means for locking the

shaft against rotation in a contrary direction.

Referring more particularly to the drawings, A represents the external casing of the machine, which may be of any preferred material and construction. In a position corresponding to slots or openings in the top of the said casing are coin passages or ways B. I have shown a single casing as including two separate but exactly similar releasing and delivery mechanisms, though this is not necessary in practice to the working of my invention.

The delivery and releasing mechanism consists of a shaft C (two are shown) mounted in suitable bearings D, and having rigidly secured thereon a wheel E, which has at suitable position on its periphery the notches, or serrations,  $e$ ,  $e^1$ , and has, covering an extent of about one quadrant, a weighted portion  $e^2$  all for purposes hereinafter described. The notches  $e$  and  $e^1$ , it should be here stated, are located a comparatively short distance apart, preferably, for instance, a distance equal to about one-eighth the circumference of the wheel E. Immediately beneath the wheel E is a lever F, pivoted on a small shaft  $f$ , and provided with a weighted portion  $f^1$  and projection or stop  $f^2$ , which normally engages the notch  $e$  of wheel E, by virtue of the weighted portion  $f^1$  of the lever F forcing this portion of the lever in an upward direction. The end  $f^3$  of the said lever lies directly beneath the end of the coin chute B, so that by the impact of a coin on the end, the lever will be temporarily forced downward until it strikes the stop  $f^4$ , permitting rotation of the wheel E and the shaft on which it is secured, in the direction indicated by the arrow in Figs. 4 and 6. On the shaft C, before referred to, is rigidly secured a mutilated gear wheel G, having teeth  $g$  and portion  $g^1$  plain or devoid of teeth, the said teeth gearing with a spur wheel H rigidly secured to a shaft I, which extends entirely across the machine, and, passing outside, the casing thereof, is connected with a crank J having a handle K, so that, as will be hereinafter more fully described, rotation can be given by hand to the various internal parts, when once the mechanism has been set free by the introduction of a coin. On the shaft C is also, rigidly secured the bevel gears L, this gear also having a portion of

its periphery  $l$  plain or without teeth. The bevel gear  $L$  meshes with a smaller bevel gear  $M$  which is rigidly mounted on a shaft  $N$  extending horizontally toward the front of the casing of the machine where it has a suitable guide or bearing  $O$ , and is provided on its front end, with a worm  $P$  which engages the teeth of two cog-wheels  $Q$ ,  $Q$ , one above and one directly below the worm  $P$ . These cog-wheels are rigidly secured to shafts on which are mounted the stamp delivery rollers,  $R$ ,  $R$ , preferably constructed of rubber, and which are in sufficiently close contact as to firmly hold between them a length of stamp strip, and prevent its withdrawal, except when the same is fed forward by the rollers when in operation. It should be here stated that the rollers  $R$ ,  $R$ , are positioned at an opening in the front casing of the machine. A reel  $S$  has wound upon it a strip  $x$  of the stamps which are to be vended and a strip of oiled paper  $y$ , both of which strips pass between the rollers  $R$ ,  $R$ , the strip  $y$  of oiled paper passing also between the lowermost of the rollers  $R$  and an auxiliary roller  $T$ , while the protruding length of stamp may be detached by the operator. The relation of the various intermeshing gears described and the rollers  $R$ , is such that one complete revolution of the shaft  $C$  will cause exactly the length of a single stamp or of two or more stamps to be fed forward as the case may be; all of which may result from adjustment of the relative number of gear teeth on the various wheels, according to a predetermined arrangement. A ratchet wheel  $U$  is rigidly secured at any suitable point on the shaft  $I$ , and by its engagement with a pawl  $V$ , prevents rotation of the said shaft in a contrary direction to the one which it assumes when in operation.

The operation of the machine will be apparent to any one skilled in the art. The form of the apparatus hereinbefore described adapts it for use especially in selling an ordinary stamp or two one cent stamps, for two pennies, or for selling a strip containing five two cent stamps for two nickels, etc. It will be clear that when a single coin is introduced into the machine it will strike the end  $f^2$  of lever  $F$  and depress it and release the stop  $f^2$  from its engagement with notch  $e$ , so that the weight  $e^2$  on wheel  $E$ , which is in the position shown in Figs. 4 and 6 when the machine is at rest will descend and start to rotate the wheel  $E$  a certain distance in the direction of the arrow. This will happen whether or not the operator's hand be on the crank handle  $K$ , if the weight be made sufficiently heavy. But the lever  $F$  being weighted at its opposite end, its disengagement from the wheel  $E$ , will permit the said wheel to travel only a very short distance before the lever returns to its upward position and engages the second notch

$e^1$  of the wheel  $E$ , which has traveled just far enough to be caught by the stop  $f^2$  on the quickly-returning lever. The parts will thus be locked in position again; during this preliminary movement of the wheel  $E$ , there has been no feeding forward of the stamp strip, because the mutilated gear  $G$  and mutilated bevel gear  $L$  are so placed on the shaft  $C$  in relation to wheel  $E$ , that their plain portions  $g^1$  and  $j$  respectively pass the gears  $H$  and  $N$ , but of course do not engage therewith, and there can be, therefore, no feeding action of the rollers  $R$ ,  $R$ . But at the end of the operation after the introduction of the first coin the teeth of the said wheels will be in such position that they will engage their corresponding intermeshing wheels. At the introduction of the second coin, the lever  $F$  being again depressed, the weight  $e^2$  or wheel  $E$  will carry the notch  $e^1$  past the point where it can be immediately engaged by the stop  $f^2$  and the operator on turning the crank handle  $J$  will cause the spur wheel  $H$  to rotate the wheel  $G$ , whose teeth have now been brought into intermeshing relation. The bevel gear  $L$ , whose teeth have also been brought into intermeshing relation with bevel gear  $M$ , will likewise rotate, as both  $L$  and  $G$  are fast on the same shaft, and as before pointed out, the rotation of shaft  $N$ , worm  $P$  and cog-wheels  $Q$ , will cause the rollers  $R$  to rotate and feed forward a predetermined length of stamp strip. The rotation of the parts with the resulting feeding forward of the stamp strip by the said rollers will continue until the wheel  $E$  has made a complete revolution, where the notch  $e$  of the latter will catch with the stop  $f^2$  of the lever which has, of course, returned to its upward position.

When it is desired to adapt the machine to be operated by the introduction of a single coin, I provide the arrangement shown in Fig. 6 of the drawing, in which I have shown the wheel  $E$  provided with but one notch  $e$ , normally engaging the stop  $f^2$  on lever  $F$ . When the lever is released as before described, the weight  $e^2$  will carry the wheel in the direction indicated by the arrow, and the operator's hand being on the crank, the parts will operate as before described, as the weight will travel far enough to rotate the shaft  $C$  sufficiently to bring the toothed portion of gear  $G$  into position for intermeshing engagement with spur wheel  $H$ . In the case of using this form of my machine, I would increase the relative number of teeth on gear  $G$  and reduce the relative size of the plain portion  $g^1$  thereof.

Having thus described my invention, what I claim is:—

1. In a vending machine, the combination of a lever having a stop, said lever being weighted at one end and having its opposite end adapted to be depressed by the im-

5 pact of a coin, a wheel having a notch adapted to lock with said stop, a weight on said wheel opposite said notch, a shaft carrying said wheel, a crank and crank shaft, means carried by said first mentioned shaft for engaging said crank shaft whereby the shaft may be rotated after said notch is disengaged from said stop, and article delivery means actuated from said first mentioned shaft, substantially as described.

10 2. In a vending machine, the combination of a lever and a stop thereon, a wheel provided with notches for engaging said stop, means associated with said wheel for starting its rotation when one of the notches is disengaged from said stop, a shaft carrying said wheel, means for continuing the rotation of said shaft, a gear wheel on said shaft, article delivery mechanism actuated by said gear wheel, and disengaging mechanism between said gear wheel and the article delivery mechanism whereby the latter is not actuated until said first mentioned wheel has had its second notch engaged by the stop on said lever.

25 3. In a vending machine, the combination of a lever and a stop thereon, a wheel provided with notches for engaging said stop, means associated with said wheel for starting its rotation when one of the notches is disengaged from said stop, a shaft carrying

said wheel, a crank and crank shaft, a pinion carried by said crank shaft, means on said first mentioned shaft engaging said pinion, a gear wheel on said first mentioned shaft, article delivery mechanism actuated by said gear wheel, and disengaging mechanism between said gear wheel and the article delivery mechanism whereby the latter is not actuated until said first mentioned wheel has had its second notch engaged by the stop on said lever.

4. In a vending machine, the combination of a lever and a stop thereon, a wheel having a weighted portion and notches for engaging said stop, a shaft carrying said wheel, a mutilated gear mounted on said shaft, a crank and crank shaft, a pinion carried by said crank shaft for engaging said mutilated gear, a second mutilated gear mounted on said first-mentioned shaft, a shaft carrying a worm, a gear wheel mounted on said shaft for engaging said second mutilated gear, and article delivery rollers actuated by said worm, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

CHAS. W. TIMMONS.

Witnesses:

CLOYD ELLIS,  
BERT E. BROWN.