W. HOLLINGSWORTH.

TICKET VENDING MACHINE.

APPLICATION FILED OCT. 19, 1909.

954,393. Patented Apr. 5, 1910

2 SHEETS—SHEET 1

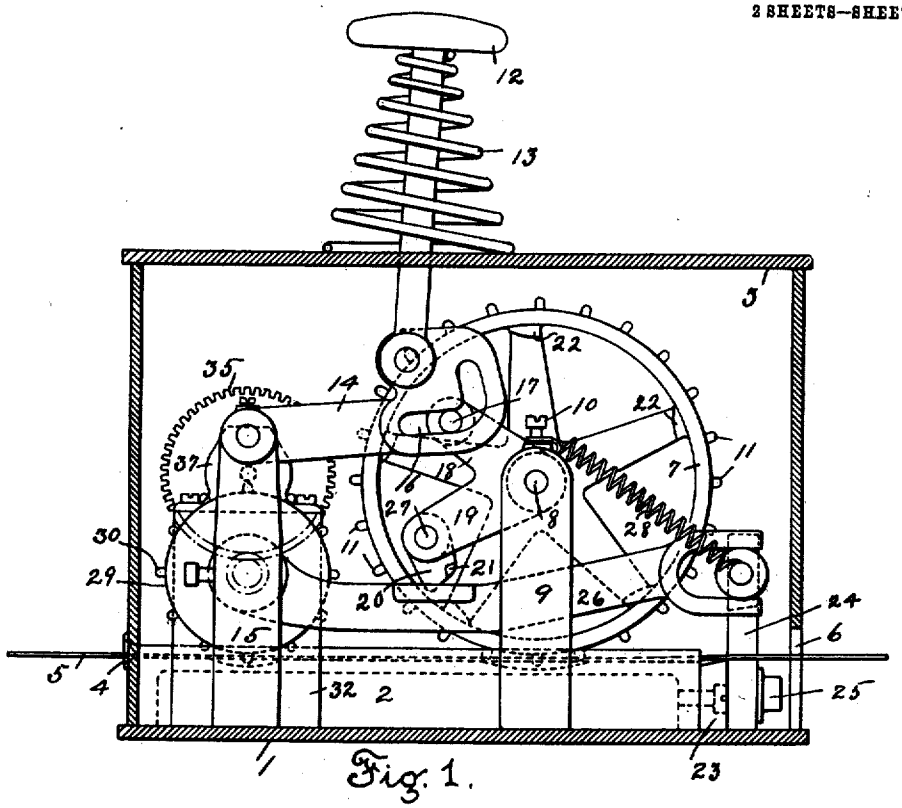

Fig. 1.

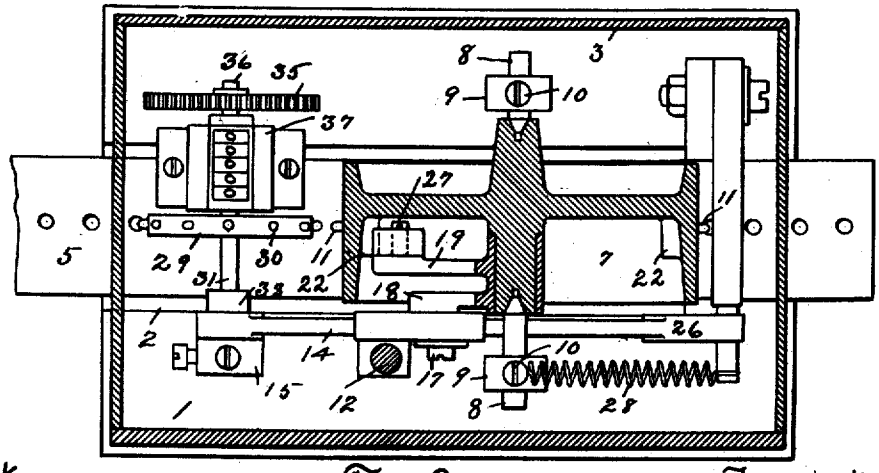

Fig. 2.

Witnesses:

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Fred Arntz.

Inventor:

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2 SHEETS—SHEET 2.

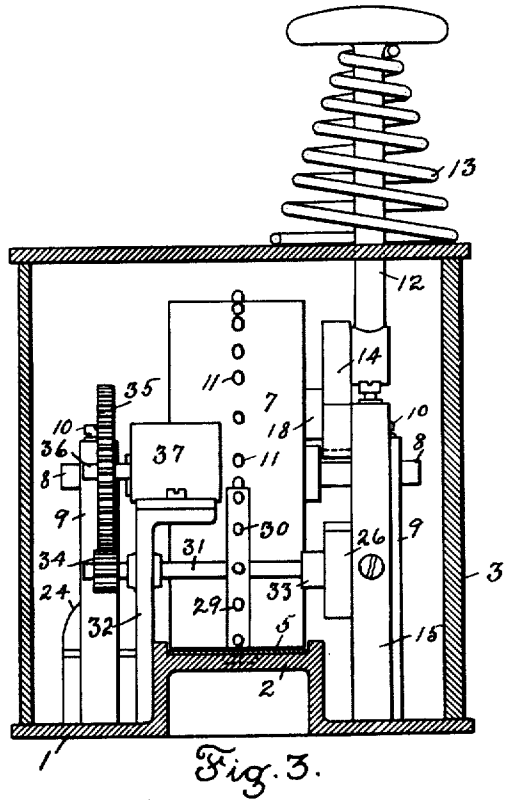

Fig. 3.

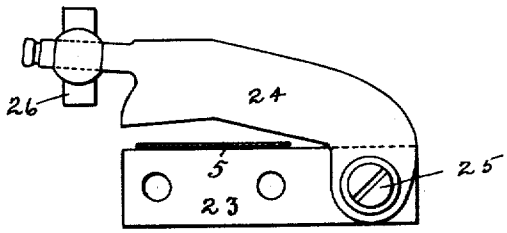

Fig. 4.

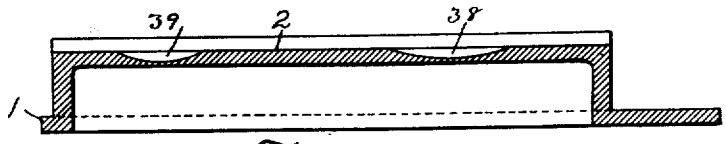

Fig. 5.

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UNITED STATES PATENT OFFICE.

WILLIAM HOLLINGSWORTH, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF TO EDWARD HANZSCHE, OF BALTIMORE, MARYLAND.

TICKET-VENDING MACHINE.

954,393. Specification of Letters Patent. Patented Apr. 5, 1910.

Application filed October 19, 1909. Serial No. 523,516.

To all whom it may concern:

Be it known that I, WILLIAM HOLLINGSWORTH, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Ticket-Vending Machines, of which the following is a specification.

This invention relates to improvements in ticket vending machines, and has for its object to provide a simple, cheap, and efficient machine for vending tickets and for registering the number of tickets sold. The registering being accomplished by the coöperation of the tickets, which have previously been prepared, and independent of the feeding and discharging mechanism, whereby should the machine be operated when there are no tickets therein the registering mechanism will not be operated.

The invention consists of the novel construction and arrangement of the parts and combination of parts hereinafter more fully set forth in the following specification and pointed out in detail in the claims.

In the accompanying drawings,—Figure 1 is a side elevation of my invention. Fig. 2 is a top plan view, partly in section. Fig. 3 is a rear end view. Fig. 4 is a detailed front view of the knives. Fig. 5 is a vertical sectional view of the base taken through the ticket runway.

Referring to the accompanying drawings, forming part of this specification, and in which like reference numerals designate like parts throughout the several views thereof, 1 designates the base having a ticket runway 2 extending along the upper surface thereof, and a casing 3 which latter has an opening 4 at the rear through which the strip of tickets 5 passes to the runway 2, and an opening 6 at the front through which the tickets drop after being cut from the strip. The casing 3 may be made of glass, so that the tickets and the operative parts may be seen therein, or one or more sides may be of glass, as desired.

A feed wheel 7 is revolubly mounted on the plugs 8, which latter pass through the posts 9 and are held in position by the set-screws 10. The said posts 9 are secured to the base 1 in any suitable manner. The feed wheel 7 is provided with a number of teeth 11 on the outer edge thereof which cooperate with the apertures in the strip of tickets 5, and is operated by a plunger 12, which latter has its upper end projecting through the top of the casing and is held to its normal position by a coiled spring 13. The lower end of the plunger is pivoted to a cam lever 14, which latter is also pivoted at its rear end to a post 15. The front end of the lever 14 is provided with a cam slot 16 into which projects a pin 17 on one arm 18 of a bell-crank lever which latter is mounted on the hub of the wheel 7. The other arm 19 of the bell-crank lever carries a dog 20 pivoted at 27 which rests on the inner rim of the wheel 7 and has a lug 21 to prevent it turning over. On the inner rim of the wheel 7 are a number of lugs 22 against which the dog 20 impinges when the plunger is forced down to revolve said wheel. The said dog being pivoted to the arm 19 rides over the next lug on the wheel 7 when the plunger is returned to its normal position.

At the front of the runway 2 is a stationary knife 23 over which the tickets project, and a knife 24 having one end pivoted at 25 and an arm 26 connected to the other end, the rear end of said arm 26 being pivoted to the post 15. The front end of the arm 26 being held up to its normal position by the coiled spring 28. The pivoted knife 24 coöperates with the knife 23 to cut the tickets from the strip, as hereinafter described.

Back of the feed wheel 7, and in line therewith, is a registering wheel 29, which latter is provided with teeth 30 in line with the teeth on the feed wheel 7 and adapted to project into the apertures in the strip of tickets 5. The said wheel 29 is mounted on a shaft 31 which latter has its bearing in the post 32 and in the pin 33. On one end of the shaft 31 is a small gear wheel 34 which is in mesh with a large gear wheel 35 on the shaft 36 of the counter 37. The said counter being secured on the post 32. The runway 2 is provided with depressions 38 and 39, into which the teeth of wheels 7 and 29, respectively, project.

The operation of the device is as follows: The strip of tickets 5 is run through the opening 4 and along the runway 2 to the feed wheel 7 and extend out to the edge of the knife 23, with the teeth on the wheels 7 and 29 extending through the apertures in the said strip. By depressing the plunger 12 the bell-crank lever will be forced around

on its bearing causing the dog 20 to strike against one of the lugs 22 and turn the wheel 7 moving the strip of tickets out over the knife 23 the distance of one ticket, at which point the bell-crank lever ceases to revolve owing to the cam slot 16 having passed a point where the cam-lever 14 operates on the pin 17; the plunger continues down causing the lower end of the cam-lever 14 to strike the arm 26 forcing the latter down and causing the pivoted knife 24 to shear one ticket from the strip 5. When the plunger is released it is returned to its normal position by the spring 13, causing the cam-lever 14 to return the bell-crank lever to its normal position. The knife 24 and arm 26 are returned to their normal position by the spring 28. This operation is repeated as often as it is desired to cut a ticket from the strip. The teeth on the wheel 29 project into the apertures in the strip of tickets and as the latter is drawn along the runway it causes the said wheel 29 to revolve, which in turn revolves the shaft 31, on the outer end of which latter is a small gear wheel 34 in mesh with a large gear wheel 35 on the shaft 36 on the counter 37. Thus it will be seen that as the tickets pass under the wheel 29 each ticket will be registered as there are a predetermined number of apertures to each ticket on the strip. It will also be seen that the registering of the tickets is done by the passing of the tickets and independent of the feeding and discharging mechanism.

While I have shown and described the feed wheel and registering wheel provided with teeth to coöperate with the apertures in the strip of tickets, it is obvious that the said wheel may be changed to coöperate with the tickets prepared in any other manner, such as crimping, perforating, embossing, notching, etc. Other changes in the construction and arrangement of the parts may be made, within the scope of the appended claims, without departing from the spirit of my present invention.

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

1. In a ticket-vending machine, the combination of a strip of tickets having interruptions in the surface thereof, means cooperating with the said interruptions to feed the strip through the machine, and means cooperating with the said interruptions to register each ticket as it passes.

2. In a ticket-vending machine, the combination of a strip of tickets having interruptions in the surface thereof, means cooperating with said interruptions to feed the strip through the machine, means to cut the tickets from the strip as it is fed from the machine, and means coöperating with the said interruptions to register each ticket as it passes.

3. In a ticket-vending machine, the combination of a strip of tickets having apertures therein, means coöperating with said apertures to feed the strip through the machine, and means coöperating with said apertures to register each ticket as it passes.

4. In a ticket-vending machine, the combination of a strip of tickets having apertures therein, means coöperating with said apertures to feed the strip through the machine, means to cut each ticket from the strip as it is fed from the machine, and means coöperating with said apertures to register each ticket as it passes.

5. In a ticket-vending machine, the combination of a strip of tickets, a wheel to feed the tickets through the machine, a plunger to operate said wheel, and means operated by the said strip to register each ticket as it passes.

6. In a ticket-vending machine, the combination of a strip of tickets, a wheel to feed the tickets through the machine, a plunger to operate said wheel, a knife operated by the plunger to cut each ticket from the strip, and means operated by the said strip to register each ticket as it passes.

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

WILLIAM HOLLINGSWORTH.

Witnesses:

CHAPIN A. FERGUSON,

WM. H. WATSON.