

(No Model.)

2 Sheets—Sheet 1.

J. W. VAUGHN.
AUTOMATIC TICKET SELLING MACHINE.

No. 404,450.

Patented June 4, 1889.

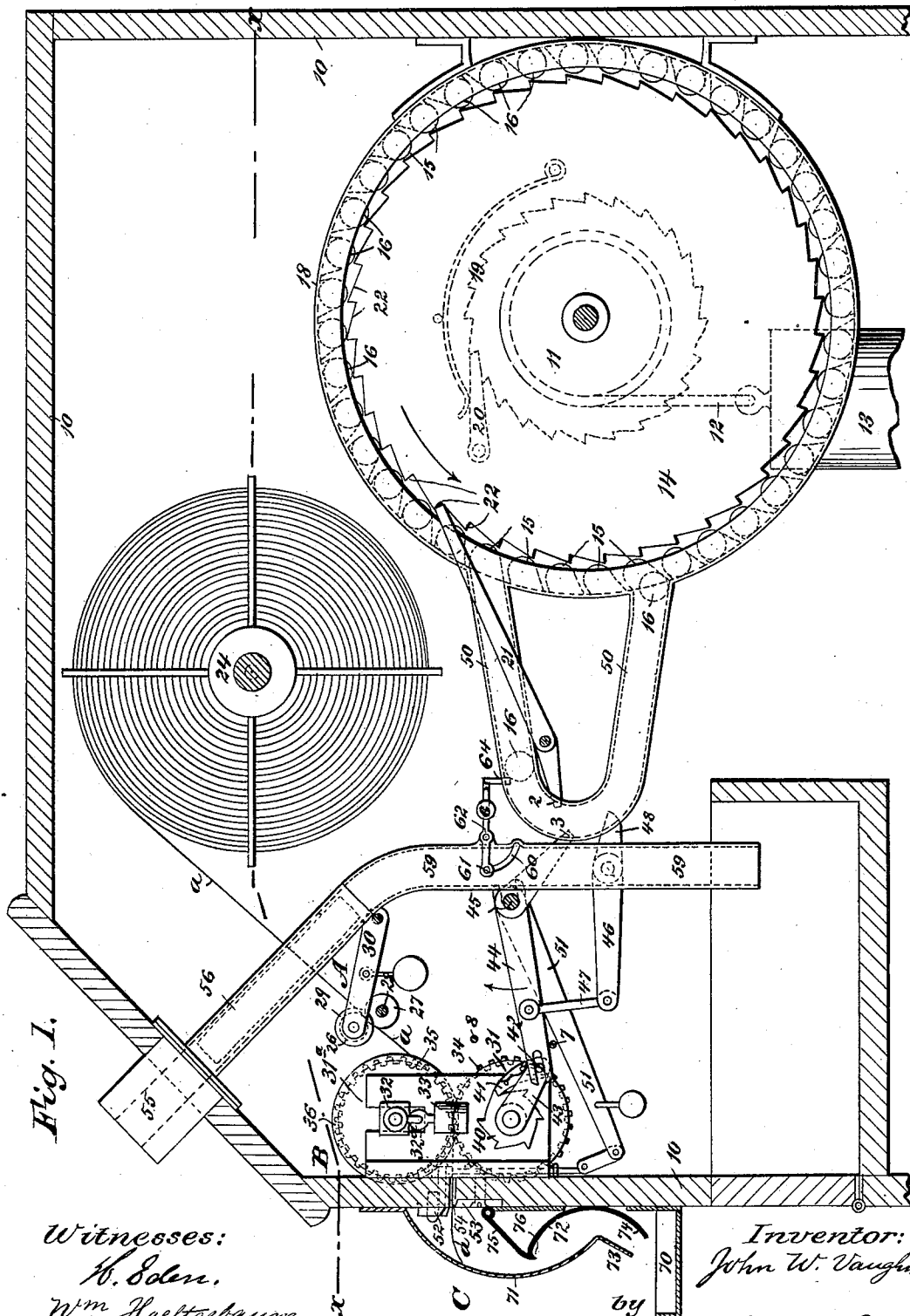


Fig. 1.

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Inventor:
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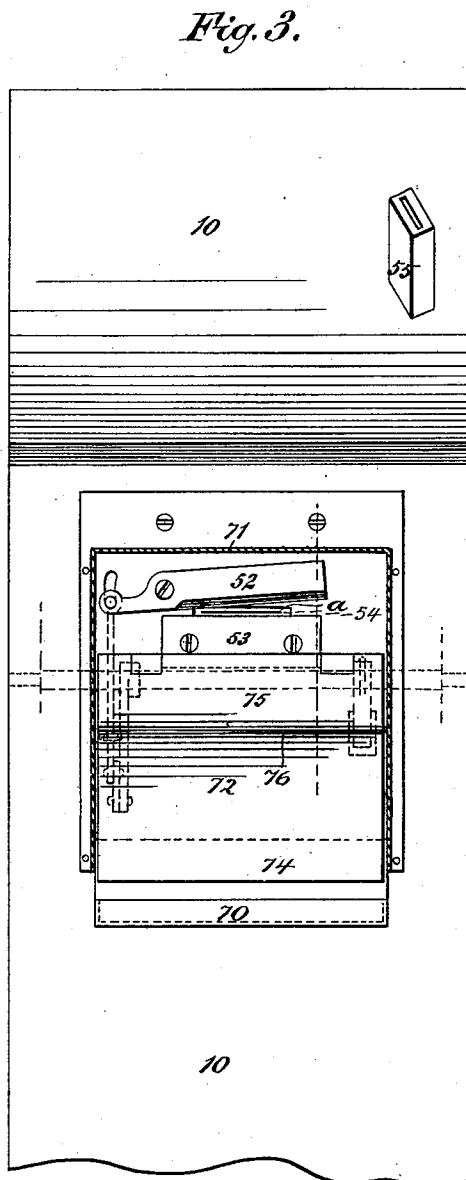
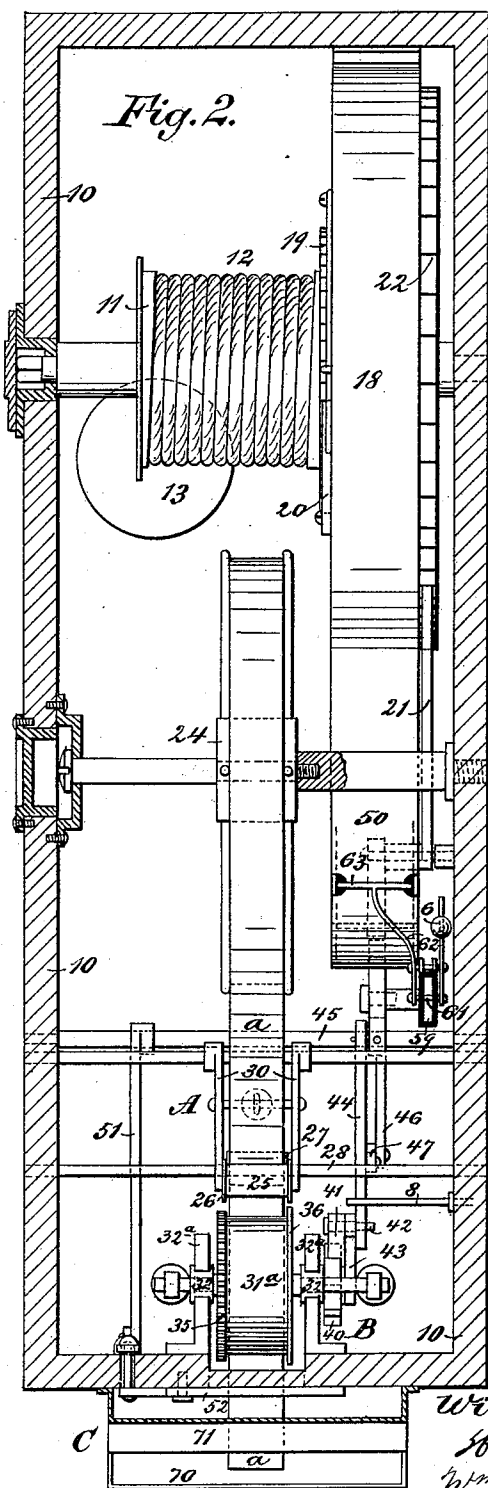
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UNITED STATES PATENT OFFICE.

JOHN W. VAUGHN, OF JERSEY CITY, NEW JERSEY.

AUTOMATIC TICKET-SELLING MACHINE.

SPECIFICATION forming part of Letters Patent No. 404,450, dated June 4, 1889.

Application filed July 7, 1888. Serial No. 279,328. (No model.)

To all whom it may concern:

Be it known that I, JOHN W. VAUGHN, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey; have invented certain new and useful Improvements in Automatic Ticket-Selling Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain improvements in apparatus for the reception of a coin of prescribed value and the automatic delivery of articles or goods in exchange therefor, the object being to provide for the delivery of a ticket, stamp, or any like article; and to this end the invention consists, essentially, of a ticket-delivery mechanism of novel construction, which mechanism will be hereinafter explained, and more specifically pointed out in the claims.

In this application I have found it necessary to illustrate and describe a coin-receiving device and a releasing mechanism; but such device and mechanism are not specifically claimed herein, as they form the subject-matter of my prior application, Serial No. 277,087, which was executed under oath the 4th day of June, A. D. 1888.

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

Figure 1 is a longitudinal sectional view of my improved ticket-selling apparatus, the view being taken on a line just within the side wall of the case. Fig. 2 is a sectional plan view of the same taken on line *xx* of Fig. 1. Fig. 3 is a front view, parts being broken away.

The machine shown in the drawings is designed to deliver ferry-tickets; but it will of course be understood that the machine could be organized to deliver other kinds of tickets, or postal stamps, or any other articles which might be printed on a continuous strip or web.

Referring now to the specific construction shown in the drawings, 10 is a case in which there is mounted a drum 11, upon which

there is wound a cord 12, that supports a weight 13.

The shaft of the drum supports a cylindrical carrier 14, in the peripheral face of which there are a number of pockets or receptacles 15, that are adapted to receive weights 16, the weights being normally held within their pockets or receptacles 15 by a shield 18.

In order that the cord 12 may be wound upon the drum 11 without disturbing the position of the carrier 14, and in order that said carrier may be advanced when the weight 13 acts to turn the drum in the direction of its arrow, I provide the drum with a ratchet 19, which is engaged by a spring-pressed pawl 20, that is pivotally connected to the end of the carrier and arranged to engage the ratchet 19, and in order that the carrier may be held against any movement except upon the deposit of a coin I provide a retaining-lever 21, which engages a ratchet 22, that is formed upon or rigidly connected to the carrier, as shown best in Fig. 1, this lever being tripped at times, as will be hereinafter explained.

Above the carrier 14, I arrange a reel 24, upon which there is wound a strip *a*, the tickets being printed on this strip. The strip *a* is carried from the reel to a tension device A, which tension device consists of a roller 27, mounted upon a fixed shaft 28, and a second roller 29, having an elastic face 25 and end flanges 26, the roller 29 being mounted in a weighted swinging frame 30. The strip *a* passes between the rollers 27 and 29 and thence onto the feeding mechanism, which is shown at B, the two rollers coacting to impart a proper tension to the strip, while the flanges of the roller 29 serve as guides, as will be readily understood.

The feeding mechanism consists, essentially, of two rollers 31 and 31^a, of which the lower roller 31 is revolubly mounted in fixed bearings and preferably formed with a corrugated peripheral face, while the upper roller 31^a is carried by a shaft that is mounted in movable bearings 32, said bearings being arranged to move upward and downward in ways formed in the supporting-frame 32^a. Weights 33 act to hold the roller 31^a in yielding contact with the strip *a* and impart sufficient pressure thereto to insure the feeding

of the strip when the roller 31 is turned, as will be presently explained.

To insure a uniform synchronous movement of the rollers 31 and 31^a, I provide said rollers with intermeshing gears 34 and 35, which gears, in connection with a flange 36, that is formed on or carried by the roller 31^a, serve as guides for the strip *a*.

To the shaft of the roller 31 there is rigidly connected a ratchet 40, said ratchet being engaged by a spring-pressed pawl 41, that is loosely mounted on a pin 42, carried by an arm 43, said arm being loosely mounted on the shaft of the roller 31. The pin 42 is engaged by a lever 44, that is supported at one end by a shaft or rod 45, the other end of the lever being slotted to receive the pin, and this lever 44 is connected to a tripping-lever 46 by a link 47, said tripping-lever being formed with a toe 48, which enters a U-shaped weightway 50. The weightway leads from and back to the space between the jacket 18 and the carrier 14, and is entered by a toe 2, formed on the retaining-lever 21, and also by a toe 3, formed on a lever 51, that is mounted on the shaft or rod 45. By means of intermediate connections of proper form—such, for instance, as those shown in the drawings—the lever 51 is connected to a shear-blade 52, that is pivotally connected to the outside of the case in position to coact with a fixed shear-blade 53, that is secured to the case just below a slot or opening 54.

Upon the outside of the case 10, I secure the mouth-piece 55 of a coin-chute 56, said mouth-piece being provided with an opening of proper size to admit a coin of the prescribed value.

In the walls of the lower chute-section 59 there are formed curved slots 60, through which slots there is passed a pin 61, said pin being supported by the arms of a bifurcated lever 62, that is pivotally mounted just to the rear of the chute. The inner end of the lever 62 is provided with a cross-piece 63, the ends of which cross-piece are turned down, as shown at 64, to enter the weightway 50, there to act as stops to check the movement of the weight in the weightway until a coin enters the chute-section 59. When a coin does so enter the chute-section 59, it will strike the pin 61 and depress the forward end of the lever 62, thus raising the downturned end 64 of the cross-piece 63 out of the weightway, so that the weight 16 in the weightway may move downward into the lower leg of the way and thence into one of the receptacles of the carrier 14. As the weight moves, as above described, it first bears against the toe 2, and in passing this toe depresses it and raises the rear end of the lever 21 from engagement with the ratchet 22, thus permitting the weight 13 to act to advance the carrier 14 to a position such that another of the weights 16 will be delivered to the upper leg of the way 50, the lever 21 dropping back in

time to engage the next tooth of the ratchet 22, the weight 16 delivered to the way 50, as just described, being stopped by the projections 64, which are returned to the position in which they are shown in Fig. 1 by a weight 6, that is carried by the lever 62. After passing the toe 2 the falling weight strikes the toe 3, and, through the connections above referred to, moves the shear-blade 52, and a ticket is thereby severed from the web and delivered to a chute C, that will presently be described. Passing from engagement with the toe 3, the weight strikes the toe 48, and as such toe is depressed the lever 46 will be moved so as to carry the lever 44 in the direction of its arrow, and as the lever 44 is so moved the arm 43 will be carried upward and with it the pawl 41, which movement of the pawl will carry the roller 31 forward, and another ticket will be fed to a position such that upon the deposit of another coin it will be severed from the strip or web *a*. The movement of the lever 44 is controlled by stop or limit pins 7 and 8, placed as shown, the lever being normally held against the pin 7 by its own weight.

The chute or casing C is of novel construction, and serves not only to guide the severed ticket to a receiving-tray, as 70, but also as a shield to protect the leading end of the strip or web *a*, the chute or casing consisting of a casing proper, as 71, that is secured to the front wall of the case 10, and a swinging trap 72, that is mounted within the casing 71. The front wall of the casing 71 is curved, as shown, the lower end of this wall being, however, bent out at 73, so that the bent-out section will extend in a line that is substantially parallel with the lower curved end of the swinging trap 72.

At the point where the curved section 74 joins the outwardly-extending upper section 75 there is a hook-like projection 76, the arrangement being such that should any wire or instrument be passed up between the swinging trap and the inner face of the front wall of the casing proper such wire or instrument would strike the projection 76 and move the shield to a position such that the passage of the extending end of the strip *a* would be closed, the swinging trap being of proper width to fit snugly within the casing 71.

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

1. A delivery-chute for automatic selling-machines, consisting, essentially, of a casing and a pivoted trap mounted therein and formed with a forwardly-extending projection 76, as and for the purpose stated.

2. In an automatic selling-machine, the combination, with a weightway and a weight-releasing mechanism, substantially as described, of a reel, feeding-rollers mounted in advance of the reel, a tripping-lever provided with a toe which enters the weightway, and

connections, substantially as described, between said lever and one of the feeding-rollers, as and for the purpose stated.

3. In an automatic selling-machine, the
5 combination, with a weightway and a weight-releasing mechanism, substantially as described, of a reel, feeding-rollers mounted in connection therewith, web-severing shear-blades, tripping-levers provided with toes
10 which enter the weightway, and connections between one of the levers and one of the feeding-rollers and between the other lever and one of the shear-blades, substantially as described.

4. The combination, with a motor, of a coin- 15 chute, a locking-lever for said motor, which lever can be operated by a coin passing through the coin-chute, a reel, a pair of feed-rollers operated by the motor, and a ticket-severing device, substantially as set forth, and also op- 20 erated by the motor, substantially as herein shown and described.

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

JOHN W. VAUGHN.

Witnesses:

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WM. HOELTGEBAUM.