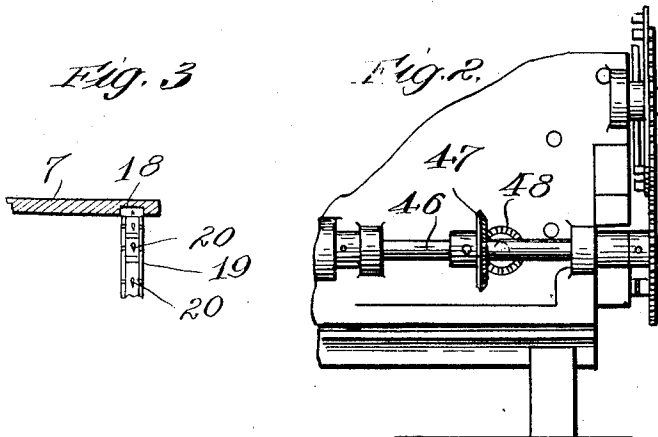
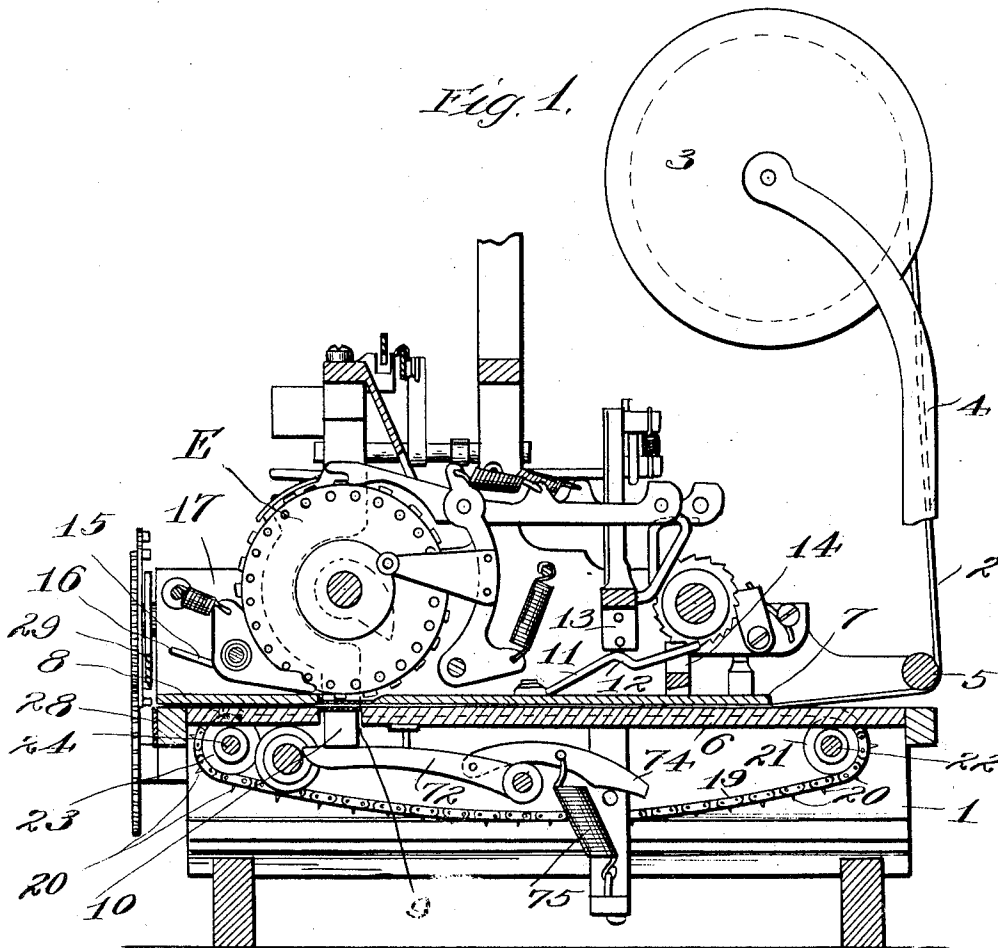


A. COFFMAN & R. B. CRAIG.
 AUTOMATIC VENDING MACHINE.
 APPLICATION FILED FEB. 13, 1912.

1,055,966.

Patented Mar. 11, 1913.

3 SHEETS—SHEET 1.



Witnesses

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3 SHEETS-SHEET 2.

Fig. 4.

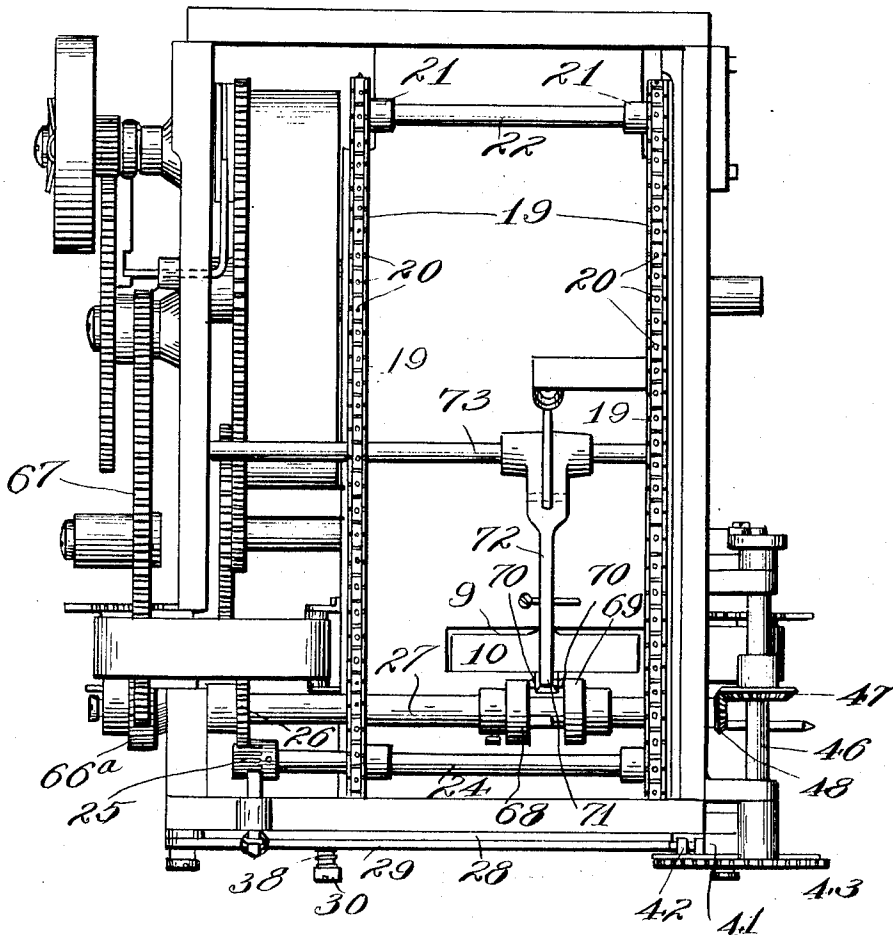
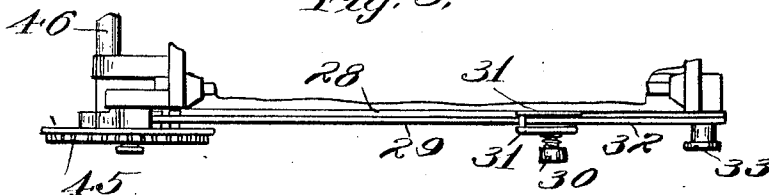


Fig. 5.



Witnesses

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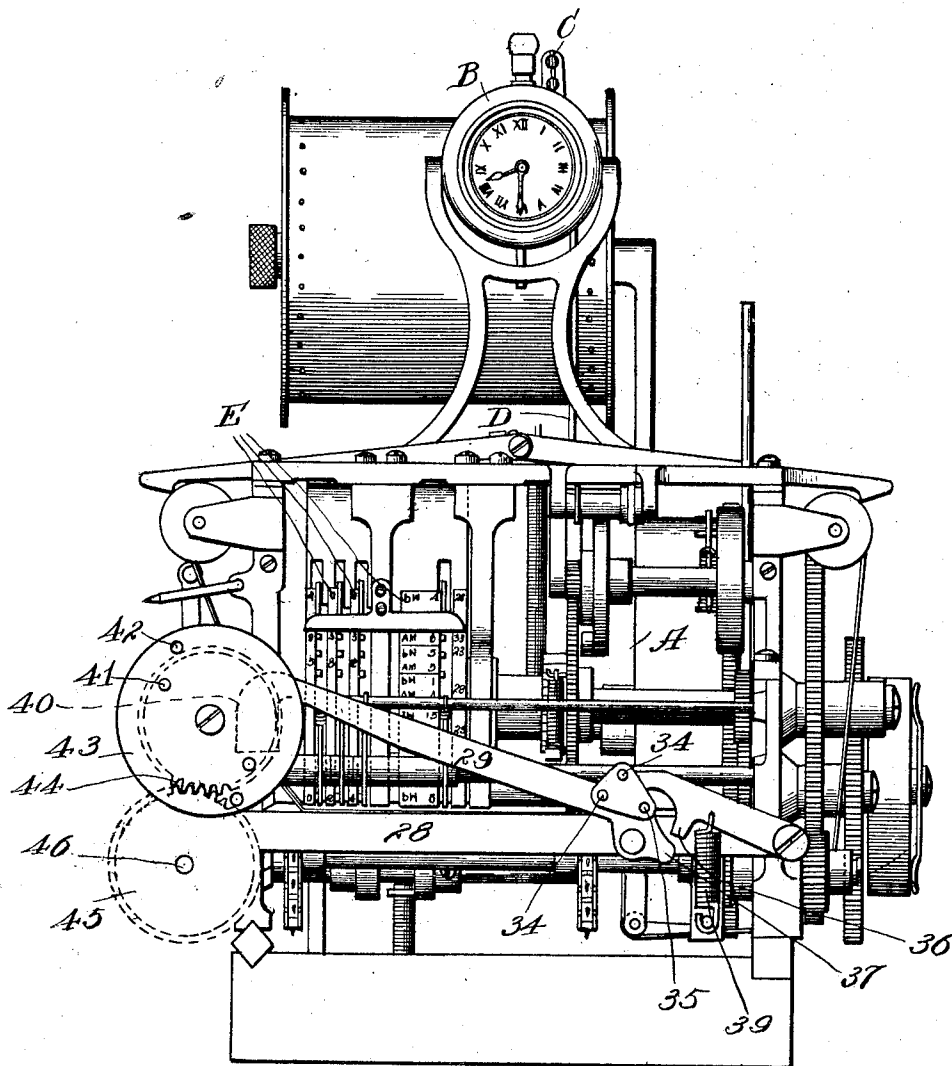
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3 SHEETS-SHEET 3.

Fig. 6.



WITNESSES

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UNITED STATES PATENT OFFICE.

ALBERT COFFMAN AND ROBERT B. CRAIG, OF KANSAS CITY, MISSOURI, ASSIGNORS TO
THE AUTOMATIC VENDING MACHINES CO., OF CLEVELAND, OHIO, A CORPORATION
OF NEW MEXICO.

AUTOMATIC VENDING-MACHINE.

1,055,966.

Specification of Letters Patent.

Patented Mar. 11, 1913.

Original application filed February 25, 1911, Serial No. 610,916. Divided and this application filed
February 13, 1912. Serial No. 677,334.

To all whom it may concern:

Be it known that we, ALBERT COFFMAN and ROBERT B. CRAIG, citizens of the United States, and residents of Kansas City, in the county of Jackson and State of Missouri, (whose post-office address is 2113 East Fifteenth street, Kansas City, Missouri,) have invented certain new and useful Improvements in Automatic Vending-Machines, of which the following is a specification.

The present invention relates to coin controlled machines of that type wherein a deposited check or other token actuates means that releases mechanism operable to vend a printed sheet or card, as for instance, an insurance policy, as shown in our application Serial No. 610,916 filed Feb. 25, 1911 of which this is a divisional application.

The present application relates more specifically to the ticket severing and delivering mechanism.

Figure 1 is a detailed longitudinal sectional view through our improved machine; Fig. 2 is a detail elevation; Fig. 3 is a detailed sectional view; Fig. 4 is a bottom plan view; Fig. 5 is a detail top plan view; and Fig. 6 is a front elevation of the machine.

Specific reference to and description of the general machine will not be made in this application inasmuch as such description is contained in our application Serial No. 610,916.

A is the spring motor and B is a time piece which is suitably connected by means of the lever C and the rod D to the operating parts of the machine, as clearly disclosed in the above identified application.

E are the printing wheels which are by the mechanism shown in our prior application, designed to be advanced a distance corresponding to five minutes under the impulse of the recorder actuating means as fully described in said prior application.

According to our invention, the web of paper 2 is fed from a roll 3 that is supported by the arm 4 and passes under a guiding bar 5, and thence between two confining surfaces which prevent buckling of the strip. These confining surfaces consist of the bed plate 6 and the top plates 7 and 8. The plate 6 has an opening 9 and the plates 7 and 8 are separated to afford room for the platen 10.

In order to produce impressions from the

printing characters upon the policies or other articles vended, a shaft 27 having a pinion 66^a is adapted to be driven one revolution for each article to be vended through the medium of the spur wheel 67, which is actuated through the medium of the weight of the purchaser as disclosed in our said prior application. The shaft 27 is provided with a pair of disks 68 and 69 which disks carry on their inner faces oppositely projecting pins 70. These pins are designed to successively engage with a shoulder 71 on the arm 72 that is mounted to swing on the shaft 73 within the machine frame. The arm 72 is bifurcated to receive a lever 74 that extends over the shaft 73 and connects with an impelling spring 75, which spring is tensioned with the depression of the arm 72 by the pin 70, and on the release of the latter, the spring 75 throws the arm 72 upward, thus elevating the platen which works through the opening 9 in the bed plate and forces the web of paper, together with the interposed inking ribbon, against the printing surface made up of the characters on the recording wheels.

The top plate 7 is removable to permit of ready access to the machine, and for holding said plate in place, it is provided with a spring 11 having a shoulder 12 which seats against the under side of the cross bar 13 of the machine frame. The spring 11 is held rigid through the medium of a slotted stud 14. The plate 8 is likewise fitted with a spring 15 which engages at one end with the side 17 of the machine frame.

The upper plates 7 and 8 are recessed as shown at 18, in Fig. 3, to admit endless chains 19, having spurs 20 that extend through marginal perforations in the strip of paper 2, in order to feed the latter at a predetermined rate and to a certain extent. The chains 19 travel around idlers 21 on the shaft 22 and driving sprockets 23 on the shaft 24, which shaft is geared through the pinions 25 and 26 from the driving shaft 27.

The paper strip emerges at the front of the machine from between the confining plates 6 and 8 where it passes over the fixed blade 28 of the severing device comprising, in addition to said fixed blade, a movable blade 29 fulcrumed at 30. The movable blade 29 is connected through the medium of links 31 with an impelling lever 32 piv-

oted at 33. The links 31 connect the blade 29 and the lever 32 through pins 34; a third pin 35 acts to seat against and limit the blade 29 in one direction of its movement against the lever 32 in the reverse movement of said blade. The lever 32 has a projection 36 which coöperates with a heel 37 on the movable blade 29, which heel is to the opposite side of the blade fulcrum, and in their coöperation the projection 36 engages the heel 37 on the cutting stroke of the blade 29 and the effect of this coöperation is to break the downward throw of said blade 29 immediately after the blade has cut the strip of paper, and then to restore the blade to its normal position. The lever 32 receives its impelling force from the spring 39, and the blade 29 is provided on its fulcrum 30 with a torsion spring 38.

For tensioning the spring 39, the blade 29 has its free end constructed with a foot 40 along the under side of which is adapted to ride in succession, the pins 41 and 42 carried by the disk 43, which in their movement cause the blade 29 to be lifted and released for the shearing stroke. The inertia of the blade 29, however, drives it past the normal position when it executes its stroke causing a reaction of the spring 39, thus bringing the projection 36 and the heel 37 into engagement which restores the blade 29 to normal position.

The disk 43 carries a pinion 44 that meshes with a pinion 45 on the shaft 46, which shaft is in turn driven through the beveled gearing 47 and 48 from the shaft 27. Inasmuch as the shaft 27 effects the feeding of the paper strip, and causes the printing stroke, it will be evident that these latter mentioned operations and the shearing action of the movable blade 29 will occur in their proper sequence.

We claim:—

1. In a vending machine, the combination of means for feeding a web of paper, and means for severing portions of said web consisting of, a fixed blade over which the web is fed, a pivoted blade movable in shearing relation to the fixed blade, a spring tensioned lever connected with the movable blade and adapted to impart the shearing stroke thereto; and members carried by said movable blade and lever adapted to engage on the downward stroke of the movable blade and effect to restore the movable blade to its elevated position through the medium of said spring.

2. In a vending machine, the combination of means for feeding a web of paper, and means for severing portions of said web consisting of a fixed blade over which the web is fed, a pivoted blade movable in shearing relation to the fixed blade, a spring

tensioned and pivotally mounted lever, a link connection between the lever and the movable blade, pins on said link connection providing stops for limiting the movement of the pivoted blade, a movable member having pins adapted to raise and release the movable blade, and projections on the movable blade and lever adapted to engage on the shearing stroke of the movable blade and effect to return the same to its normal position.

3. In a vending machine, the combination of means for feeding a web of paper, and means for severing portions of said web consisting of, a fixed blade over which the web is fed, a pivoted blade movable in shearing relation to the fixed blade, a spring tensioned and pivotally mounted lever, a link connection between the lever and the movable blade, pins on said link connection providing stops for limiting the movement of the pivoted blade, a gear wheel, a disk mounted on said gear wheel, a second gear wheel connected to a source of power to drive the first named gear wheel, pins on said disk adapted to raise and release the movable blade, and projections on the movable blade and lever adapted to engage on the shearing stroke of the movable blade and effect to return the same to its normal position.

4. In a vending machine, the combination of means for feeding a web of paper, and means for severing portions of said web consisting of a fixed blade over which the web is fed, a pivoted blade movable in shearing relation to the fixed blade, a spring tensioned and pivotally mounted lever, a link connection between the lever and the movable blade, pins on said link connection providing stops for limiting the movement of the pivoted blade, a gear wheel, a disk mounted on said gear wheel, a second gear wheel, a shaft mounted on each side of second gear wheel, said shaft being geared to operate in proper sequence with the paper feeding and printing movements of the machine, and to drive the first named gear wheel, pins on said disk adapted to raise and release the movable blade, and projections on the movable blade and lever adapted to engage on the shearing stroke of the movable blade and effect to return the same to its normal position.

The foregoing specification signed at Kansas City, Mo., this 23rd day of January, 1912.

ALBERT COFFMAN.
ROBERT B. CRAIG.

In presence of—

S. J. MATTOCKS,
W. IRVING LAKE.