

No. 683,660.

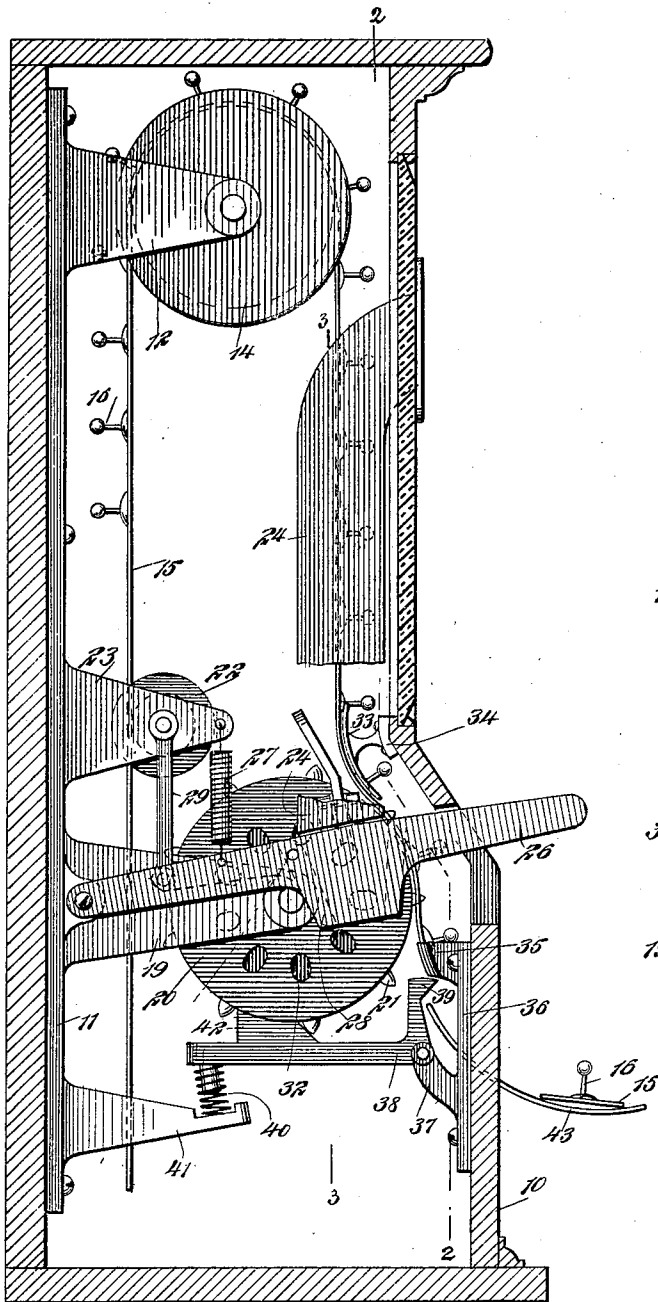
Patented Oct. 1, 1901.

M. F. PRICE.
VENDING MACHINE.

(Application filed May 18, 1900.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES:

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Fig. 1

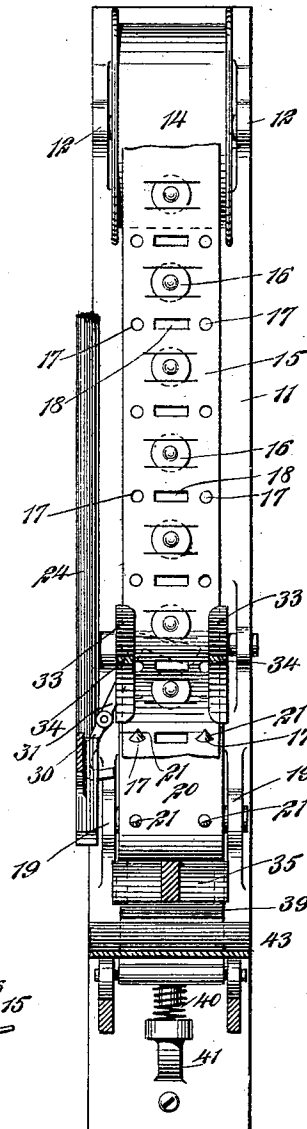


Fig. 2

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No. 683,660.

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(Application filed May 16, 1900.)

(No Model.)

2 Sheets—Sheet 2.

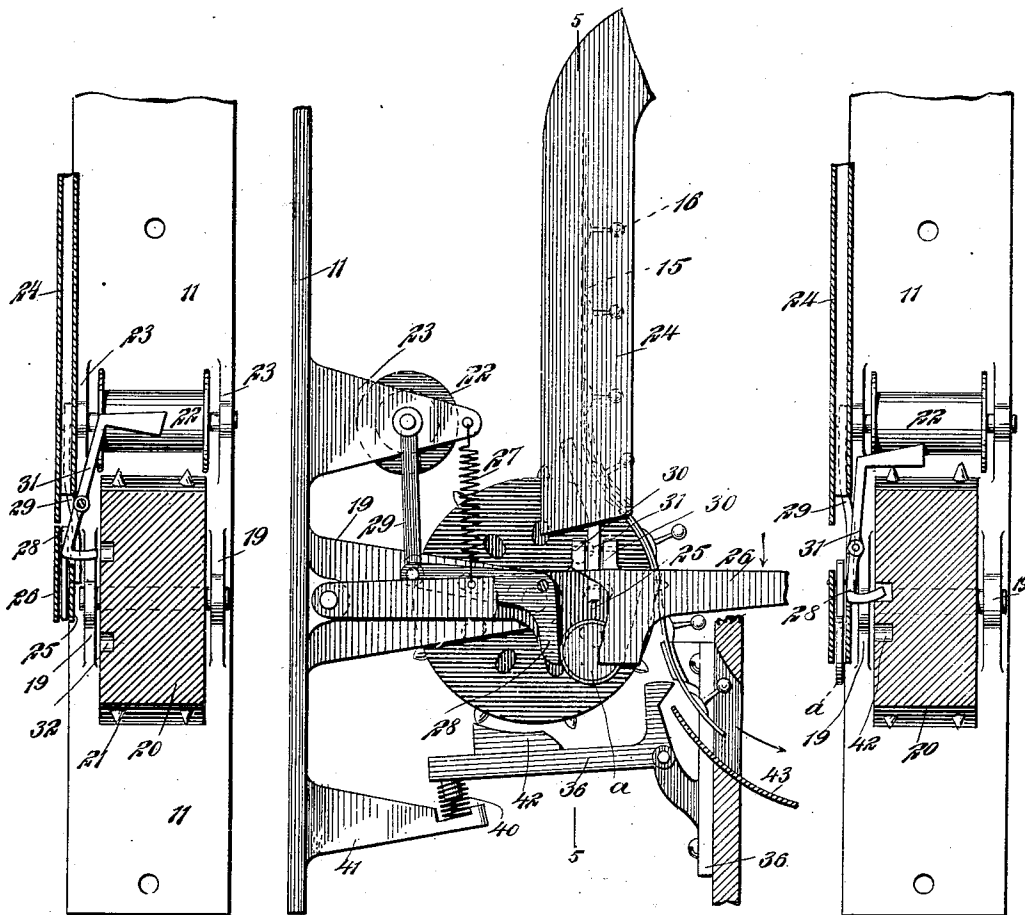


Fig. 3

Fig. 4

Fig. 5

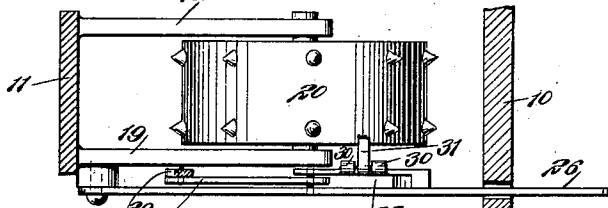


Fig. 6

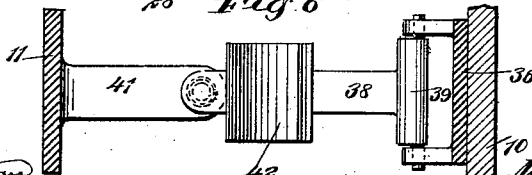


Fig. 7

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UNITED STATES PATENT OFFICE.

MILBERT FRANKLIN PRICE, OF IOWA CITY, IOWA.

VENDING-MACHINE.

SPECIFICATION forming part of Letters Patent No. 683,660, dated October 1, 1901.

Application filed May 16, 1900. Serial No. 16,866. (No model.)

To all whom it may concern:

Be it known that I, MILBERT FRANKLIN PRICE, a citizen of the United States, and a resident of Iowa City, in the county of Johnson and State of Iowa, have invented a new and Improved Vending-Machine, of which the following is a full, clear, and exact description.

The purpose of this invention is to provide a vending apparatus especially adapted for vending collar-buttons, which end I attain by mounting the collar-buttons on a strip of severable material and providing certain mechanism for cutting the strip of material into separate lengths individually to deliver the collar-buttons.

The invention may be used to advantage in connection with coin-controlled operating devices, and in the accompanying drawings such devices are shown, although it should be understood that they form no part of the present invention.

This specification is the disclosure of one form of the invention, while the claims define the actual scope thereof.

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

Figure 1 is a vertical section of my invention. Fig. 2 is a front elevation of the mechanism, parts being in section, on the line 2 2 of Fig. 1. Fig. 3 is a sectional elevation on the line 3 3 of Fig. 1. Fig. 4 is an enlarged side elevation illustrating the parts in operation. Fig. 5 is a vertical section on the line 5 5 of Fig. 4. Fig. 6 is a plan view of the tape-advancing wheel, and Fig. 7 is a plan view of the cam on the knife-lever.

A casing 10 of any desired sort is provided, and at the back of this casing, inside thereof, is fastened a frame-plate 11. The frame-plate 11 carries at its top brackets 12, between which is mounted a roller 14, and over this roller passes a tape 15, of paper, cloth, or the like. This tape 15 carries collar-buttons, which are indicated at 16, and the tape is also formed at equidistant points with pairs of openings 17, having transverse slots 18 situated between them. Brackets 19 are fastened to the lower part of the frame-plate 11 and carry a drum 20, which is provided with a number of pairs of peripheral teeth 21,

which are arranged to enter the openings 17 in the tape 15, so that the tape may be moved by the revolution of the drum 20, or, if desired, the tape may be used without the perforations, thus allowing the teeth 21 to make their own perforations. An idler-roller 22 is mounted on brackets 23, also carried by the frame-plate 11, just above the brackets 19. Any desired length of the tape 15 may be inserted in the lower part of the casing 10 and should have the collar-buttons attached to it throughout its length. A coin-chute 24 is arranged to receive the coin and to deliver it into a pocket 25, formed on an operating-lever 26, which is fulcrumed to the frame-plate 11 adjacent to the brackets 19 and which extends forwardly, with its free end projected through a vertical slot in the front wall of the casing 10. A retractile spring 27, connected to the lever 26 and to one of the brackets 23, serves to hold the lever 26 normally raised, as shown in Fig. 1, in which position it contacts with the lower end of the coin-chute 24, so that the coin in passing from the chute will drop into the pocket 25, which is formed on the hand-lever 26. The outer wall of the pocket 25 is stationary; but the inner wall, formed by the vertical arm of an elbow-lever 28, is movable toward and from the front wall, so that the coin may be released. Normally the vertical arm of the elbow-lever 28 stands in the position indicated by dotted lines in Fig. 1, so as to confine the coin within the pocket. The horizontal arm of the elbow-lever 28 is connected with a link 29, which is hung on one of the brackets 23. When the lever 26 is thrown down from the position shown in Fig. 1 to that shown in Fig. 4, owing to the link 29, it moves relatively to the elbow-lever 28, and thereupon the coin is released from the pocket 25, as is indicated in Fig. 4.

The inner side wall of the pocket 25 carries two lugs 30, which project upwardly and have pivoted between them a dog 31, which is hung so that it will by force of gravity or by a small spring, if desired, normally assume the position shown in Fig. 3. This dog is adapted to engage its transversely-extended lower end in the grooves 32, which are formed in the adjacent side of the drum 20. Normally the dog hangs with its lower end with-

in the pocket 25, and when a coin falls down the chute 24 and into the pocket 25 it throws the dog into the position shown in Fig. 5, in which view, as well as in Fig. 4, the coin is indicated by the letter *a*. The dog 31 is now fastened to the drum 20, and when the operator pushes down the hand-lever 26 the drum 20 is given a partial revolution, whereby the tape 15 is advanced. The movement of the lever 26 causes the coin to be released, and then the dog 31 regains its normal and active position.

The tape is guided in its movement to the wheel by two shoes 33, having shanks 34, fastened to the front wall of the casing at the inner side thereof. As the tape passes from the drum 20 it is engaged with a guide 35, carried on a frame-plate 36, which is fastened to the front wall of the casing. This frame-plate is orificed to permit the passage of the tape through it, and the front wall of the casing is also formed with an orifice, so that the tape may be passed out of the machine. The frame-plate 36 carries a bracket 37, on which is fulcrumed a lever 38, one arm of which carries a knife 39, that works with the guide 35, such guide forming a ledger-plate for the knife 39, so as to sever a part of the tape 15. In this connection it is explained that the slots 18 in the tape 15 serve to weaken the tape and facilitate the operation of cutting the same. The holes 17 also serve this purpose, in addition to that of providing openings in which the teeth 24 of the drum 20 may be engaged. The lever 38 is pressed upward to the position shown in Fig. 1 by means of an expansive spring 40, bearing on a bracket 41, attached to the lower extremity of the frame-plate 11, and the lever has a cam-like portion 42, which bears under the drum 20 and which is engaged by the teeth 21, so that the lever 38 is periodically thrown down. In other words, every time the hand-lever 26 is operated the lever 38 is operated to cut off a length of tape on which is carried one collar-button.

In the use of the invention a coin of predetermined value is placed in the coin-chute and falls into the pocket 25, where it actuates the dog 31 and causes it to engage with the drum 20. The operator should then throw down the hand-lever 26, which causes the drum 20 to perform a partial revolution, thus moving the tape past the idler-roller 22 and over the roller 14. Simultaneously the lever 38 will be thrown to cause the operation of the knife 39, and a length of tape will be severed on which one collar-button is carried.

This length of tape, with the attached collar-button, will fall through the orifices in the plate 36 and in the front wall of the casing 10 and be delivered upon a slide 43, carried by the casing.

It is pointed out that the tapes or belts 15 may be of any material desired and of any construction so long as they are susceptible of the operations herein explained; also, the tape need not be perforated for the teeth on the wheel 20, since these teeth can be made sufficiently sharp to pierce the tapes.

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

1. A vending apparatus, having a tape bearing articles of merchandise permanently attached thereto, a drum serving to engage and impart movement to the same, a guide through which the tape is projected as it passes from the drum, the guide permitting the passage of the articles of merchandise with the tape, a knife arranged to sever the tape as it passes from the guide whereby to deliver a part of the tape with an article attached, and mechanism for operating the drum and knife in the manner specified.

2. A vending-machine, having a tape to which articles of merchandise are attached, means for carrying and progressively feeding the same, a guide for the tape, which guide permits the passage of the articles of merchandise attached to the tape, a knife working with a part of the guide to form a device for cutting the tape to deliver a part thereof with all articles attached, and mechanism for actuating said tape carrying and feeding means and the knife, in the manner specified.

3. A collar-button-vending machine, comprising a tape or ribbon to which collar-buttons are attached, means for carrying and progressively feeding the same, a guide through which the tape or ribbon is passed, such guide comprising parts engaging the edges of the ribbon and having a space between them to permit the passage of the collar-button through the guide, and a knife actuated in time with said ribbon carrying and feeding means to sever the ribbon into lengths, whereby to individually deliver the articles of merchandise.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MILBERT FRANKLIN PRICE.

Witnesses:

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