No. 665,152. Patented Jan. 1, 1901.

S. WHEELER.

DELIVERY MECHANISM.

(Application filed June 4, 1898.)

(No Model.) 3 Sheets—Sheet 1.

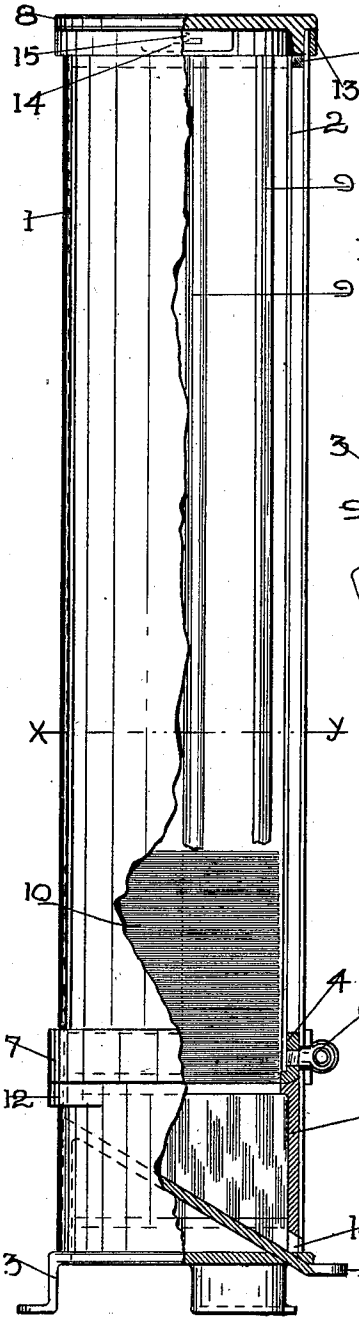


Fig. 1.

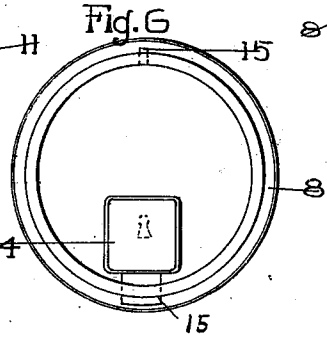


Fig. 6.

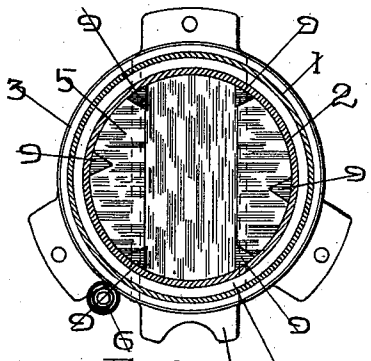


Fig 2.

Sec. X. Y.

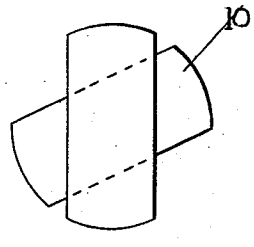


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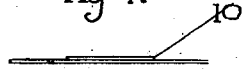


Fig 5.

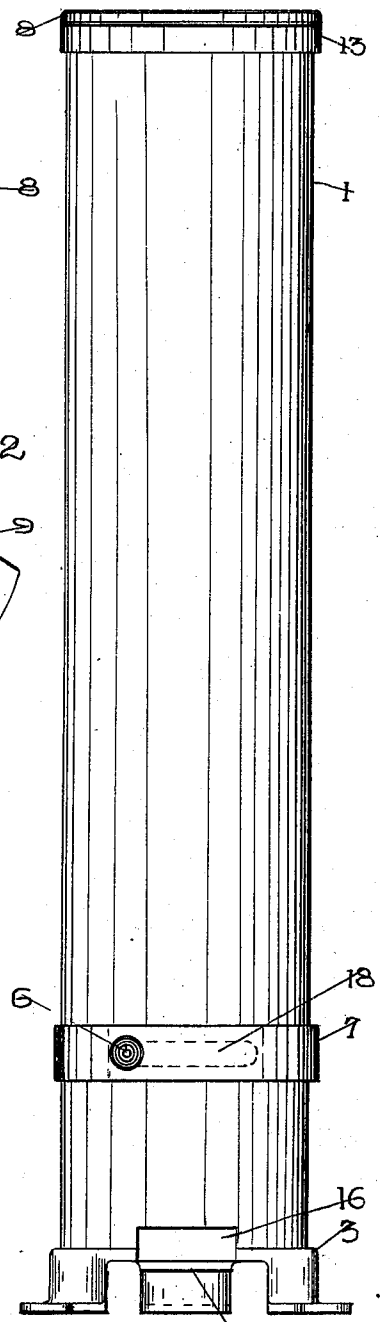


Fig 3.

Witnesses.

Inventor.

Scott Wheeler

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 665,152.

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S. WHEELER.

DELIVERY MECHANISM.

(No Model.)

(Application filed June 4, 1898.)

3 Sheets—Sheet 2

Fig. 7

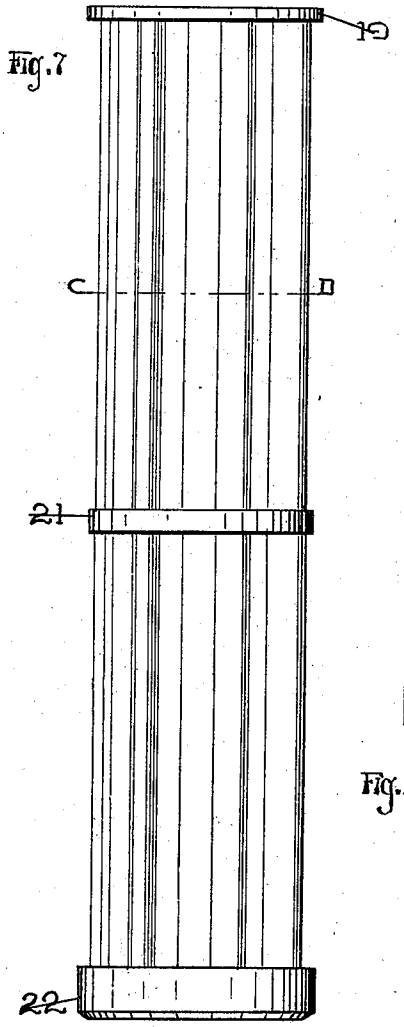


Fig. 14.

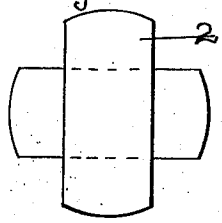


Fig. 15.

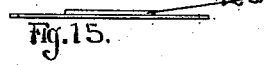


Fig. 16.

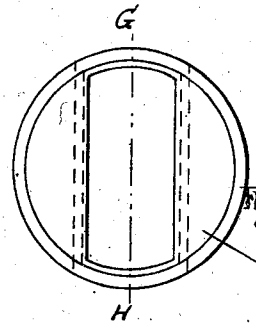


Fig. 17.

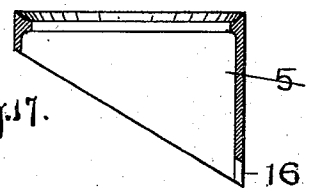
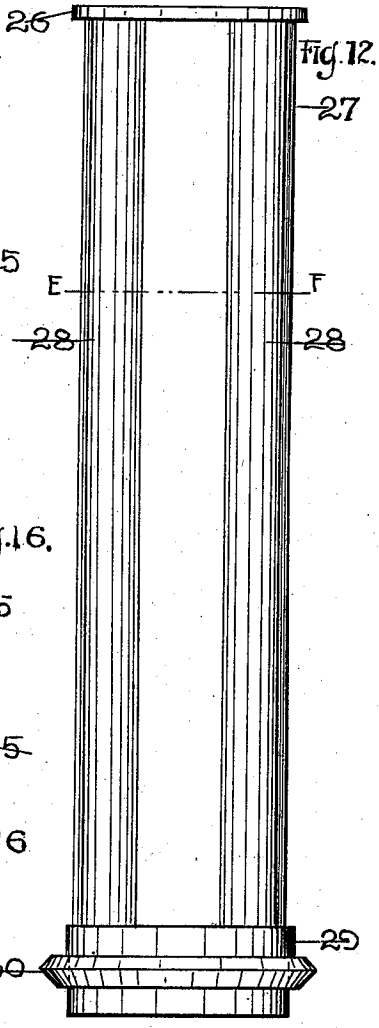


Fig. 12.



Sec. C.D.

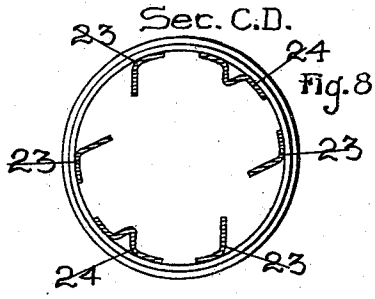


Fig. 8.

Sec. E.F.

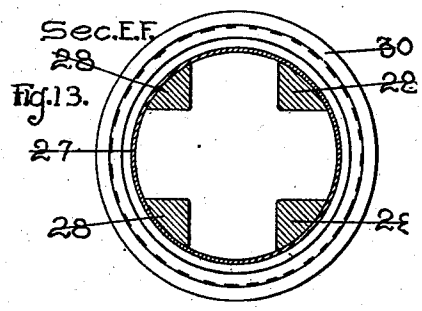


Fig. 13.

Witnesses.

Inventor.

Scott Wheeler.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 665,152. Patented Jan. 1, 1901.

S. WHEELER.

DELIVERY MECHANISM.

(Application filed June 4, 1898.)

(No Model.) 3 Sheets—Sheet 3.

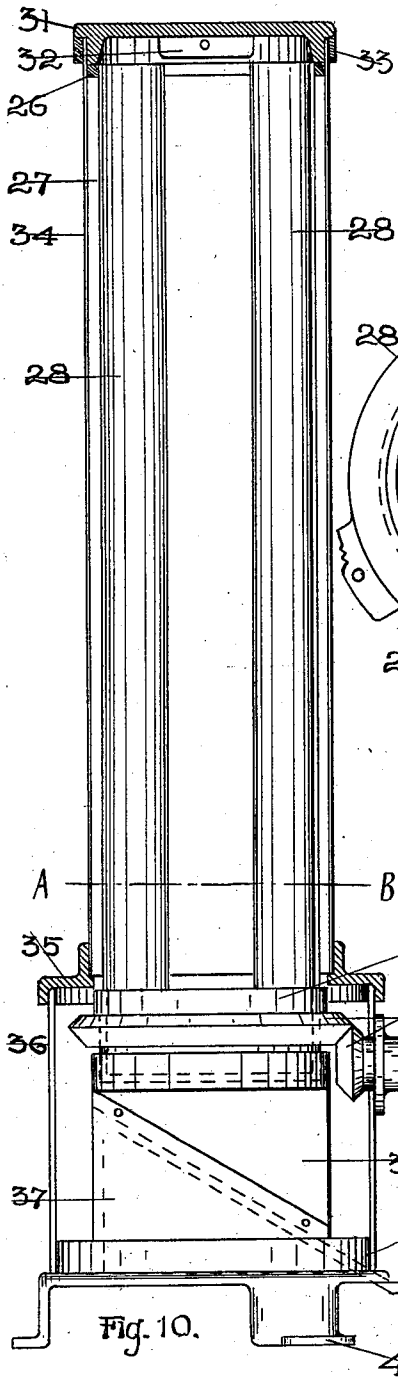


Fig. 10.

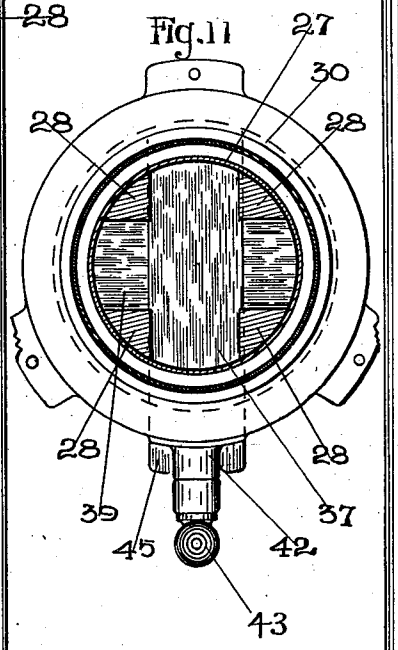


Fig. 11.

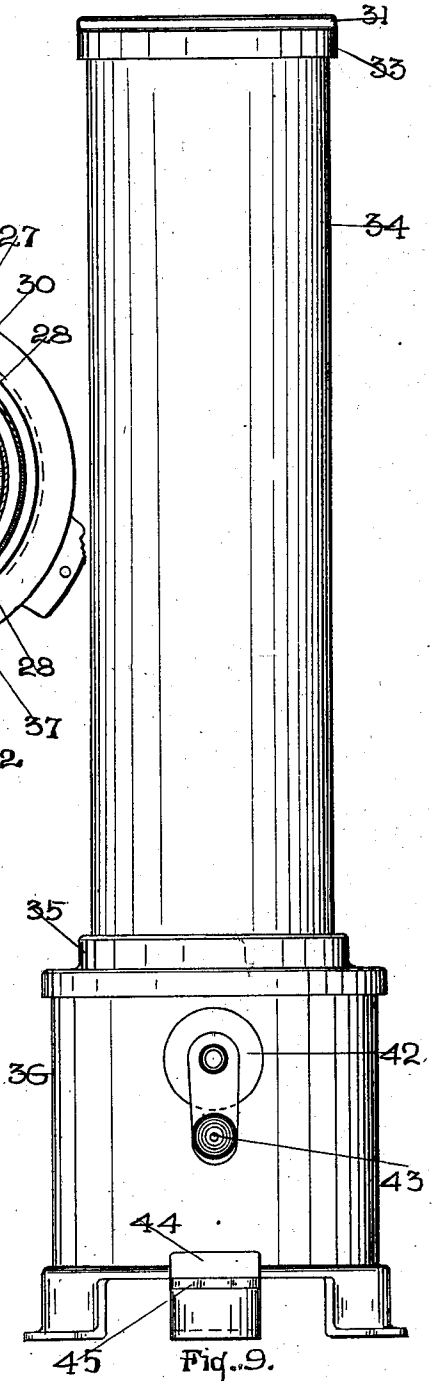


Fig. 9.

Witnesses.

Inventor.

UNITED STATES PATENT OFFICE.

SETH WHEELER, OF CASTLETON, NEW YORK.

DELIVERY MECHANISM.

SPECIFICATION forming part of Letters Patent No. 665,152, dated January 1, 1901.

Application filed June 4, 1898. Serial No. 682,531. (No model.)

To all whom it may concern:

Be it known that I, SETH WHEELER, a citizen of the United States of America, and a resident of Castleton, Rensselaer county, State of New York, have invented certain new and useful Improvements in Delivery Mechanism, of which the following is a specification.

My invention relates to delivery mechanism which may conveniently be attached to or be a part of a vending-machine, or such mechanism may be used separately as a complete machine for positively delivering articles contained therein one at a time or in any predetermined order or number.

My invention consists in a receptacle or magazine for containing the articles to be delivered, so arranged that alternate articles therein contained shall be set at an angle relatively to the others, a casing inclosing it, a discharge-plate having an orifice through which one article will pass, means for rotating or partially rotating the magazine relatively to the discharge-plate, and a delivery slot and chute for delivering said articles as they are discharged from the magazine.

The object of my invention is to simplify the construction of such mechanism and reduce the working parts to a minimum, at the same time to insure the accurate and positive delivery of the articles singly or in any predetermined order or number; and my invention further consists in certain novel details of construction and combination of parts, as shall hereinafter be more fully set forth.

I will now proceed to describe mechanism embodying my invention with reference to the accompanying drawings and will then point out the novel features in claims.

Figure 1 is a side elevation, partially in section, of a machine embodying my invention. Fig. 2 is a transverse horizontal section taken on the plane of the line X Y of Fig. 1. Fig. 3 is a front elevation of the machine. Fig. 4 is a detail view showing the relative position of two adjacent articles when in different channels in the magazine. Fig. 5 is an edge view of the same. Fig. 6 is a detail view of the cap or cover of the machine, which is removable to permit the insertion of the articles. Fig. 7 is a view in detail of a magazine of slightly-different construction. Fig. 8 is a horizontal transverse section of the same on the plane of the line C D of Fig. 7. Fig. 9 is a front elevation of a machine embodying the same principle, but operated in a slightly-different manner. Fig. 10 is a side elevation of the same, certain parts being in central vertical section. Fig. 11 is a horizontal transverse section of same, the plane of the section being taken on the line A B of Fig. 10. Fig. 12 is a detail view of the magazine detached. Fig. 13 is a horizontal section on the plane of the line E F of Fig. 12. Fig. 14 is a detail view showing the relative position of two adjacent articles when in different channels in a magazine of this type. Fig. 15 is an edge view of same. Fig. 16 is a top view of a discharge-plate suitable for both forms of apparatus, and Fig. 17 is a central vertical section through same, taken on the line G H of Fig. 16.

Similar reference characters designate corresponding parts in all the figures.

Referring first of all more particularly to Figs. 1, 2, 3, 4, 5, and 6 of the drawings, numeral 1 designates an inclosing case mounted upon a suitable support 3 and surmounted by a cap or cover 8. The cap or cover 8 is removable for the purpose of obtaining access to the interior of the case. 14 designates a lock, and 15 a bolt or pin for locking the said cover to the case. The case 1 may conveniently be made of light material. I therefore preferably provide a reinforcing-ring 13 on the exterior thereof, into which the bolt of the lock may engage.

Numeral 2 designates the package or ticket magazine, which consists of an inclosing cylinder mounted on a hollow circular base-piece or ring 4 and having at its top a reinforcing-ring 11. Within this cylinder and extending from the top to the bottom thereof are a series of strips 9 of substantially triangular shape in cross-section, (see particularly Fig. 2,) and the disposition of these strips as shown forms two channels of equal size within the cylinder in which may be deposited a series of tickets, packages 10, or the like, the said articles being placed in the different channels alternately, (see detail in Figs. 4 and 5,) in which case they will be delivered singly, or a plurality may be placed alternately, in which case more than one will be delivered at a time, as may be predetermined,

or any number in regular or irregular order alternately or alternately with single articles may be arranged as may be desired and so delivered.

I will now describe the means for accomplishing the delivery.

5 designates a supporting-plate fitted to the lower end of the machine and upon the top of which the magazine 2 rests. The shape of the supporting-plate will be seen more readily by referring to Figs. 16 and 17, in which views it is shown in detail. As will be seen, it is provided with a discharge-opening corresponding in size and shape with one of the articles to be delivered.

6 designates a knob or handle secured to the base 4 of the magazine and projecting through a slot 18 in the casing 2. A ring 7 surrounds the casing at this point and closes the slot, the said ring being carried by the magazine 2 by its engagement with the knob or handle 6. It is supported on the opposite side by a bearing-piece 12, secured to the casing.

17 is a delivery-plate secured within the casing below the supporting-plate 5, and 16 is a delivery-slot.

In operating the machine the handle or knob 6 will be seized and will be moved from one end of the slot 18 to the other. This will rotate the magazine upon the supporting-plate 5 until one of the channels therein comes in line with or in the same plane as the discharge-opening in the plate 5. The article or articles in this channel which are below a corresponding article in the other channel will now drop through the said discharge-opening, down the delivery-plate 17, and through delivery-slot 16. The remainder of the articles will be held from discharge by support of the article or articles in the other channel, the ends thereof being supported upon the portion of the plate 5 which is not cut away. The next delivery will be made by a reversal of the last movement, bringing the knob or handle to the opposite end of the slot and the other channel in the magazine opposite the discharge-opening. The slot 18 is so arranged as to limit the movement of the magazine in order to bring the channels in correct alinement with the discharge-opening.

Figs. 7 and 8 illustrate a modified form of construction of the magazine in which the cylinder is dispensed with and the magazine composed of longitudinal strips of metal 23 and 24, which being bent in the manner shown constitute the channels and which are held together by the base-piece 22 and the rings 19 and 21.

Figs. 9, 10, 11, 12, and 13 illustrate a slight modification of the apparatus in which the magazine is arranged to be rotated through the medium of bevel-gear 40, mounted upon a bearing 42, secured to the lower casing 36 of the machine and engaging with another bevel-gear 30, secured to the magazine. A handle is secured on the axle of the gear 40 for convenience in turning same. In these figures 34 is the upper casing, surmounted by the cap 31, having the lock 32, engaging with the reinforcing-ring 33 of the casing 34. The casing 34 is secured to the lower casing 36 by a shouldered ring 35, and the lower casing is supported in the base 45. 38 is the supporting-plate, which is the equivalent of the plate 5 in the other form of machine and which supports the magazine. 37 is the delivery-plate, and 44 the delivery-slot. 27 is the magazine, having the spacing-strips 28, here arranged to form two channels at right angles to each other and secured at their lower end to the hub 39 of the gear 40 and at their upper end secured together by the ring 26. The channels being at right angles to each other the relative positions of adjacent articles in the two channels will be as illustrated in Figs. 14 and 15, in which 25 designates the said articles. It will of course be understood that the exact angle at which the channels are placed with reference to each other is immaterial. In the first form of the device they are arranged in such a way as to require as small a movement of the magazine as possible. In the latter form this is not so material, and hence they are so arranged that a quarter of a revolution of the magazine will cause a fresh delivery.

I do not wish to limit myself to the exact details of construction as set forth, as they may be obviously modified within wide limits without departing from the spirit and scope of my invention.

What I claim is—

1. In a delivery apparatus the combination of a magazine having a plurality of channels for the reception of articles to be delivered, said channels being arranged at an angle to each other so that articles contained in one shall overlap articles contained in another, a stationary casing within which said magazine is adapted to rotate, a support below said magazine for the articles in the channels, said support being provided with a discharge-opening through which the lowermost article or articles in the several channels are permitted to pass successively as the magazine is rotated, a delivery-slot below said discharge-opening, an inclined chute below said discharge-opening arranged to guide the article or articles to said delivery-slot, and means for rotating the magazine substantially as specified.

2. In a delivery apparatus, the combination of a magazine having a plurality of channels for the reception of articles to be delivered, said channels being arranged at an angle to each other so that articles contained in the one shall overlap articles contained in the other, a stationary casing within which said magazine is adapted to rotate, a support below said magazine for the articles in the channels, said support being provided with a discharge-opening through which the lowermost article or articles in the several channels are

permitted to pass successively as the magazine is rotated, a delivery-slot below said discharge-opening, an inclined chute below said discharge-opening arranged to guide the articles to the delivery-slot, another slot in said casing, a knob or handle secured to said magazine and projecting through said last-mentioned slot, and a shield carried by said knob or handle and adapted to cover said slot substantially as specified.

3. In a delivery apparatus, the combination of a rotatable magazine for containing overlapping articles, a support for the articles in said magazine having a discharge-opening, means for rotating said magazine to permit an article or articles to drop from said magazine, a casing inclosing the magazine and support and means for delivering an article or articles from said casing.

Signed by me at Albany, New York, this 27th day of May, 1898.

SETH WHEELER.

Witnesses:
EDGAR WHEELER,
WM. A. WHEELER.