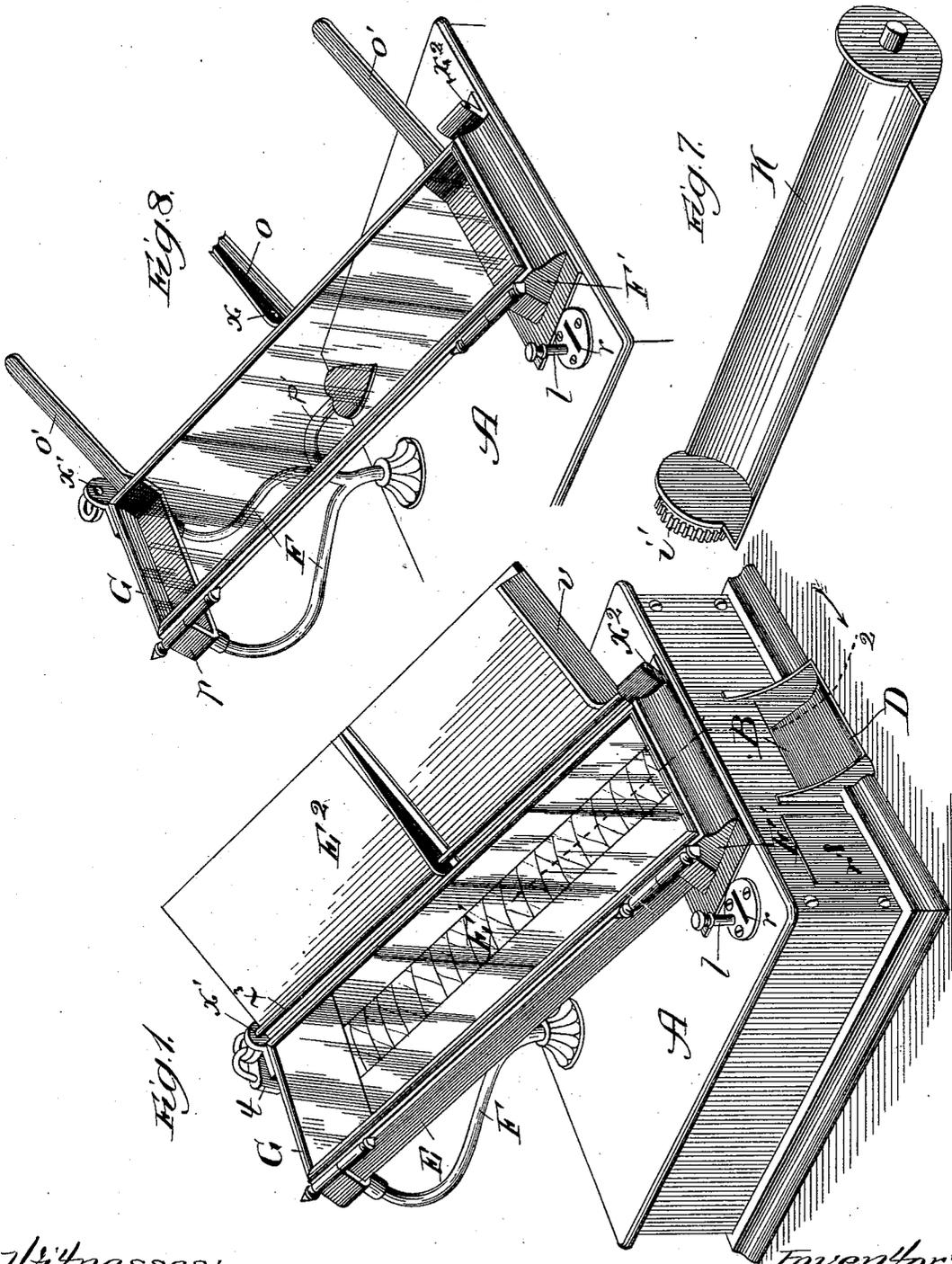


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COIN OPERATED VENDING APPARATUS.

No. 484,573.

Patented Oct. 18, 1892.



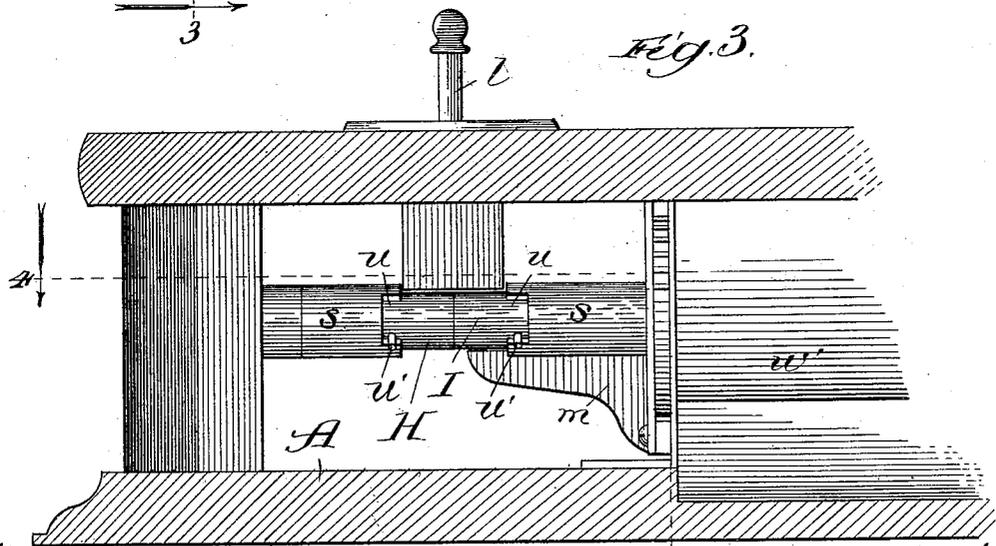
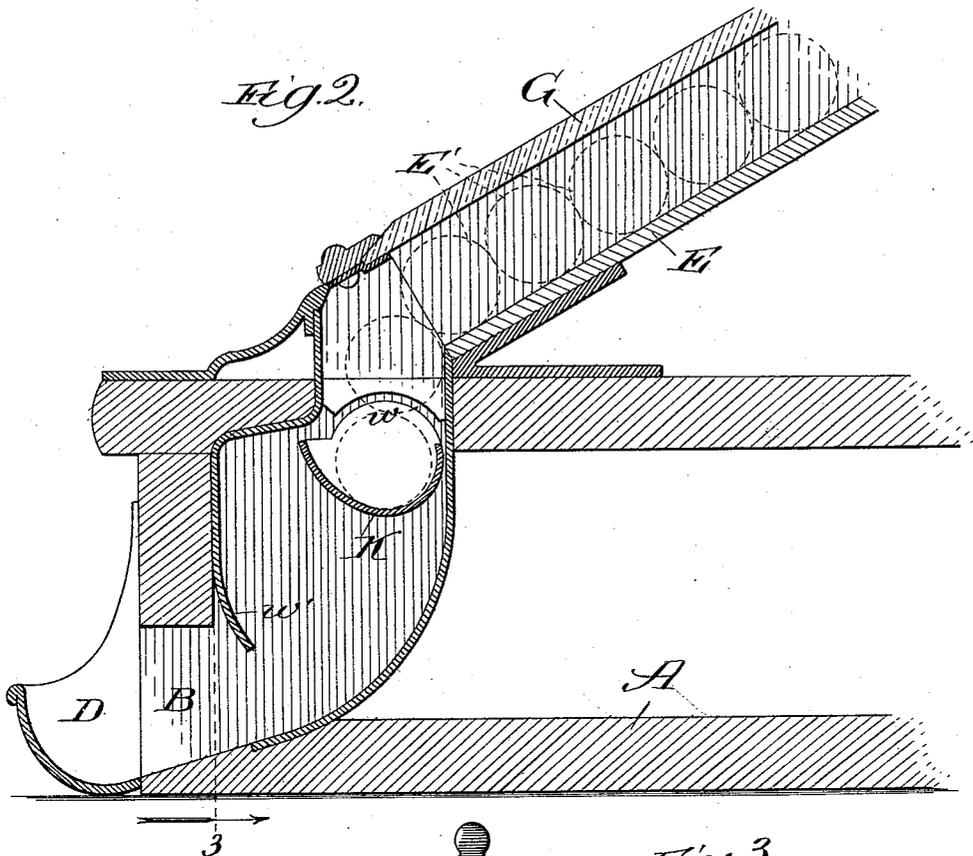
Witnesses:  
*Paul Claydon,*  
*Clifford White.*

Inventor:  
*Christian F. Schnoor,*  
 By *Dyrenforth and Dyrenforth,*  
*Attorneys*

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Witnesses:  
*Ed. Gaylord*  
*Clifford White*

← Inventor:  
 6 *Christian F. Schnoor*  
 By *Dyrenforth and Dyrenforth*,  
*Attys*

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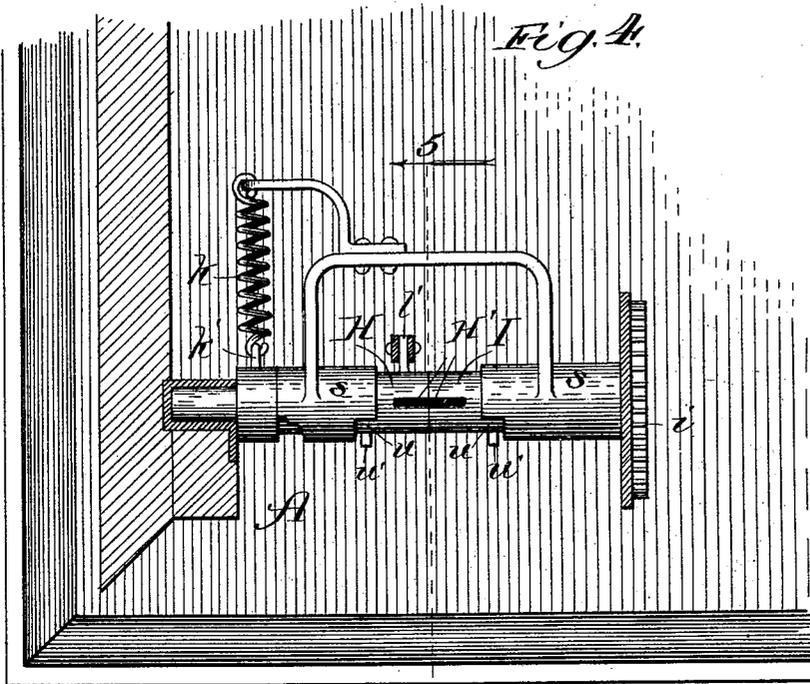
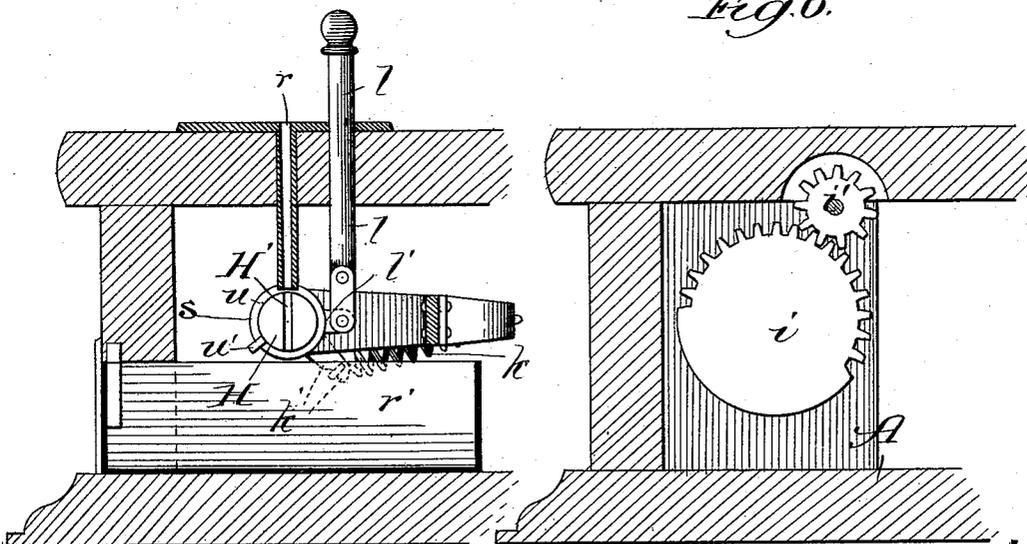


Fig. 5.

Fig. 6.



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*Carl Claydon,*  
*Clifford White.*

Inventor:  
*Christian F. Schnoor,*  
 By *Dyrenforth and Dyrenforth,*  
*Attys.*

# UNITED STATES PATENT OFFICE.

CHRISTIAN F. SCHNOOR, OF GANO, ILLINOIS.

## COIN-OPERATED VENDING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 484,573, dated October 18, 1892.

Application filed June 25, 1892. Serial No. 437,950. (No model.)

*To all whom it may concern:*

Be it known that I, CHRISTIAN F. SCHNOOR, a citizen of the United States, residing at Gano, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Coin-Operated Vending Apparatus, of which the following is a specification.

My invention relates to an improvement in vending apparatus of the class wherein the articles to be vended are inaccessibly inclosed by the apparatus to be delivered, usually one at a time, by mechanism adapted to perform its delivering function by the insertion of a coin of certain denomination.

My object is to provide a novel and improved device in the class referred to adapted to contain and deliver cigars, cigarettes, lead-pencils, or the like, and more especially articles, like cigars, which the law requires shall be visibly sold from original packages, whereby when the device is actuated the delivery shall be directly from such a package.

I illustrate my improvement as adapted for vending cigars in the accompanying drawings, in which—

Figure 1 is a perspective view of the entire apparatus. Fig. 2 is a section taken at the line 2 on Fig. 1, viewed in the direction of the arrow and enlarged. Fig. 3 is a section taken at the line 3 on Fig. 2 and viewed in the direction of the arrow. Fig. 4 is a section taken at the line 4 on Fig. 3 and viewed in the direction of the arrow. Fig. 5 is a section taken at the line 5 on Fig. 4 and viewed in the direction of the arrow. Fig. 6 is a section taken at the line 6 on Fig. 3 and viewed in the direction of the arrow. Fig. 7 is a perspective view of the rocking receptacle for delivering the cigars. Fig. 8 is a perspective view showing the entire box-support provided on the case.

Generally stated, my apparatus involves in its entirety a case-containing mechanism normally holding the rocking delivery receptacle or trough in position to stop the discharge of cigars from the outlet in their containing-box, and which mechanism is so connected by a coin inserted through a slot with the rocking trough as to adapt the latter to be tipped to deliver a cigar from the box. On

the case is supported a frame to sustain the cigar-box in inclined or chute-like position with relation to the rocking delivery-receptacle at its open base, the frame carrying a glass cover to be adjusted over the face of the opened cigar-box and display its contents, the cover of the box being raised and held to one side, in which position it is locked, the locking means also serving to lock down the hinged glass cover.

A is the case, having an opening B in its front side extending upward from the base, at which it is provided with a stationary concave receiver D for the cigars as they are discharged from the apparatus, and to one side of the discharge-opening D in the top of the case is the coin-insertion slot *r*, leading to a drawer *r'*, adapted to be locked.

On the top of the case is the support for a cigar-box E, containing cigars E'. The preferred form of the cigar-box is that illustrated of a length and depth to adapt it to snugly accommodate twenty-five cigars in a single layer, the cover E<sup>2</sup> of the box differing from other cigar-box covers in carrying at one end the strip *v* for closing the adjacent open discharge end of the box when the cover is down. The box-support comprises a bracket F, having a head-piece *p* for the upper end of the box and a branch piece *p'* on a lower plane than the head-piece to support the box near its center, and the lower discharge end of the box rests in a bearing F' on the top of the case A near its front side adjacent to an opening *w*, leading to the delivery-opening B, above which in the case is the deflecting-shield *w'*. (See Fig. 2.)

To the left side (regarded from the front of the case) of the supports F F' is hinged a glass cover G or glass-covered frame, and from the right-hand side of each extends an upwardly and outwardly inclined finger *o'*, affording rests for the cover E<sup>2</sup> when open, and from the outer edge of the frame G, between its ends, extends a similar finger *o* to bear against the inner face of the raised box-cover and having an eye *x* to align with eyes *x'* and *x<sup>2</sup>* in the head-piece *p* and bearing F', whereby a rod *x<sup>3</sup>*, passed through the aligning eyes, locks the cover in its raised position. A padlock *t* serves to lock the rod at

its upper end, provided with an eye, to an eye on the adjacent end of the head-piece *p*, as indicated in Fig. 1.

Inside the case A is a rotary horizontal cylinder H and a similar cylinder I, the two cylinders or tubes being supported at contrary ends in cylindrical bearings *s s*, to extend transversely across the plane of the drawer *r'* above the latter and to adapt them to be normally independent of each other as to rotation. The extent of turning of the tubes H and I is limited by a stop *u'* on each in a recess *u* in the inner edge of each cylindrical bearing *s*. The rotary tubes coincide at their inner ends, where each is slotted lengthwise, as shown at H' in Fig. 4, the slot extending through the tubes and aligning with each other and normally coinciding with the insertion-slot *r*, so that a coin inserted into the slot *r* will enter the aligning-slots H' and thus form a junction between the two tubes H and I, whereby when the tube H is turned the tube I will be turned with it. A stationary finger *m*, Fig. 3, extends at the base of the tube I along a portion of its slot H' when the tube is in its normal position, to shorten the slot and prevent an inserted coin falling through till the tube H is turned, whereby the plane of the stop *m* is passed by the slot and the coin drops through it into the drawer *r'*. The turning of the tube H is effected through the medium of a push-rod *l*, linked at its lower end to an arm *l'*, extending eccentrically from the tube, which is returned to its normal position when pressure on the push-rod is released by a spring *k*, connected with an arm *k'*, extending from the tube. The other tube I is returned to its normal position under the condition mentioned by the weight of the parts connected with it, as hereinafter described.

On the outer end of the tube I is a pinion *i*, which need have only a few teeth on a portion of its periphery, as represented, (see Figs. 3 and 6,) and which meshes with a pinion *i'* on the adjacent end of the delivery-receiver K, Figs. 2 and 7, journaled to extend across the opening *w* and thus form, practically, a closure for the open end of the chute (cigar-box) G to receive the last of the series of cigars E' when in its normal position and to obstruct, when turned as hereinafter described, the dislodgement of the next-adjacent cigar by presenting its rear surface to the latter.

When a coin of proper denomination is dropped through the slot *r* into the slot H', it lodges in the latter and, as hereinbefore stated, connects the two rotary tubes or cylinders H and I. On then pressing upon the push-rod *l* both tubes will be turned, thereby causing their slot to pass the stop *m* and permit the coin to drop into the drawer *r'* and effecting by the turning of the tube I and with it the pinion *i* that of the receiver K, which thus empties itself of its contained cigar E', which drops and rolls out through the opening B into the tray D, being thus de-

livered. With release of the pressure on the push-rod the parts resume their normal relative positions, as hereinbefore described.

When a box E has been emptied, on unlocking and withdrawing the rod  $x^3$  the cover G may be raised and the empty box be removed to be replaced by another filled with cigars, and which is adjusted by placing it upon its inclined support on the case, then raising its lid, whereby its lower end is opened, and covering the opened box by the hinged glass cover G and fastening the raised box-lid in the manner described.

For the sake of clearness I have shown and herein described my improved vending apparatus in quite minute detail. I believe, however, that the general construction involved in the apparatus and parts thereof are broadly novel. Hence I do not wish to be understood as limiting my invention to exact details, except in such of the appended claims wherein they are specifically set forth.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a vending apparatus, the combination of a covered case containing coin-operated delivery mechanism, a support for the box of the article to be vended, mounted on the case-cover and inclining and leading to the delivery mechanism in the case, a glass cover for the said box, hinged on the support, and locking means on the said glass cover and support co-operating to lock the box between them, substantially as described.

2. In a vending apparatus, the combination, with a case containing coin-operated delivery mechanism, of a support on the case for the box of the article to be vended and inclining and leading to the delivery mechanism in the case, fingers inclining upward and outward from one side of the support near its opposite ends, a glass cover hinged to one side of the support and provided with an inclining finger extending outward from its free edge, and a locking-rod engaging the said support and cover-finger and adapted to be locked in place, substantially as described.

3. In a vending apparatus, the combination, with a case containing coin-operated delivery mechanism, of a support on the case for the box of the article to be vended, comprising a bracket F, having a head-piece *p*, provided with an eye  $x^1$ , and a branch *p'* on a lower plane than the head-piece, a bearing F' on the case over an opening *w* therein and having an eye  $x^2$  and fingers *o'*, extending from the said head-piece and bearing, a glass cover G, hinged to one side of the support and provided with a finger *o*, having an eye  $x$ , and a locking-rod  $x^3$ , passing through the said eyes and adapted to be locked in place, substantially as described.

4. In a vending apparatus, the combination, with a case containing coin-operated delivery mechanism, of a support on the case for the box of the article to be vended and inclining and leading to the delivery mechanism in the

case, and a box E, having an open end, and a cover E<sup>2</sup>, carrying the end piece *v* for the said open end and removably secured on the inclined support with its open end communicating with the delivery mechanism, substantially as described.

5. In a vending apparatus, the combination, with a case containing coin-operated delivery mechanism, of a support on the case for the box of the article to be vended and inclining and leading to the delivery mechanism in the case, fingers *o'*, extending from the support near its opposite ends, a glass cover G, hinged to one side of the support and provided with a finger *o*, a box E, having an open end, and a cover E<sup>2</sup>, carrying the end piece *v* for the said open end and imposed on the support with its lid raised against the finger *o'* and the open end communicating with the delivery mechanism, the glass cover extending over the open box with the finger *o* bearing against the box-cover and locked, substantially as described.

6. In a vending apparatus, the combination, with a case for supporting the article to be vended and provided with an inlet and an outlet for the said article, and with a coin-insertion slot, of coin-operated delivery mechanism having a pair of rotary cylinders H and I, provided with coincident slots H', normally coinciding with the coin-insertion slot, a rotary delivery-receiver K at the said inlet and connected with the cylinder I, and means for turning the cylinder H, substantially as described.

7. In a vending apparatus, the combination, with a case for supporting the article to be vended and provided with an inlet and an outlet for the said article and with a coin-insertion slot, of a drawer below the said slot and coin-operated delivery mechanism comprising a pair of rotary cylinders H and I, provided with coincident slots H', leading into the drawer and normally coinciding with the coin-insertion slot, a stop *m*, extending nor-

mally under the slot H' in the cylinder I, a rotary delivery-receiver K at the said inlet and geared to the cylinder I, and means for turning the cylinder H, substantially as described.

8. In a vending apparatus, the combination, with a case for supporting the article to be vended and provided with an inlet *w* and an outlet B for the said article and with a coin-insertion slot *r*, of a drawer *r'* below the said slot, a receiver D at the said outlet, and coin-operated delivery mechanism comprising a spring-controlled rotary cylinder H, provided with an arm *l'*, having connected with it a push-rod *l* and provided with a slot H', a rotary cylinder I, having a slot H' coinciding with its companion slot in the cylinder H, a stop *m*, extending normally under the slot in cylinder I, and a rotary delivery-receiver K, geared to the cylinder I, substantially as described.

9. A vending apparatus comprising, in combination, a case A, having an inlet *w* and an outlet B, provided with a receiver D, a support on the case inclining toward the said inlet and provided with fingers *o'*, and a glass cover G, having a finger *o*, a box E for the article to be vended, open at an end and having a cover E<sup>2</sup> provided with an end piece *v* for the open end of the box, said box being locked on the support with the glass cover over it, and its open end leading to the inlet *w*, a coin-insertion slot *r* and a drawer *r'* in the case, a rotary delivery-receiver K, supported at the said inlet, and normally-disconnected delivery mechanism in the case geared to the delivery-receiver and operatively connected by a coin inserted through the said insertion-slot, the whole being constructed and arranged to operate substantially as described.

CHRISTIAN F. SCHNOOR.

In presence of—

M. J. FROST,

J. N. HANSON.