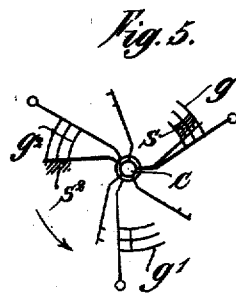
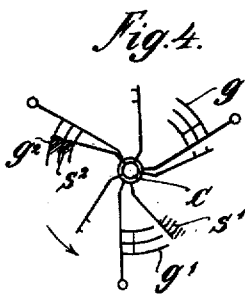
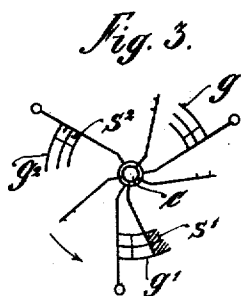
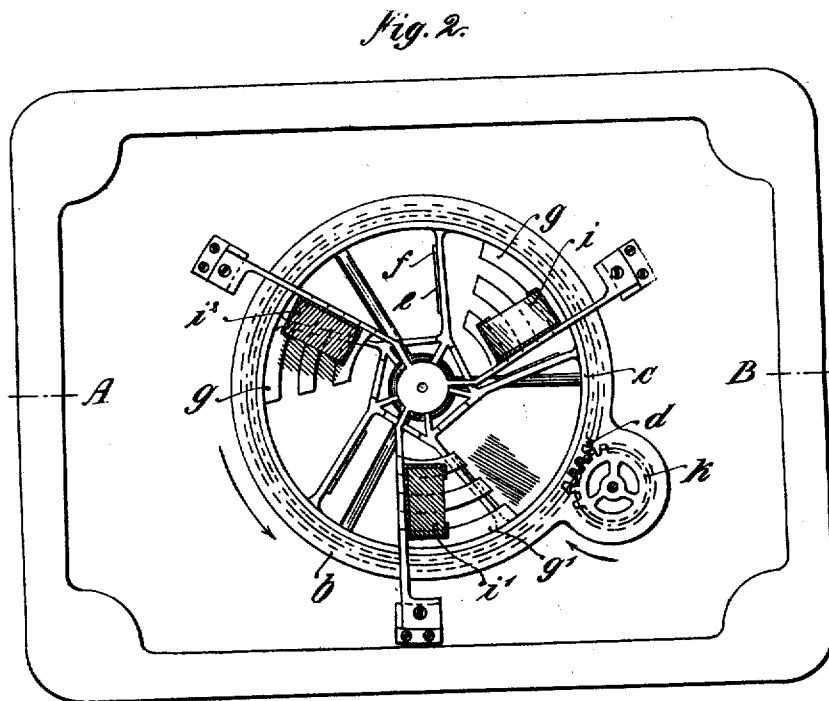
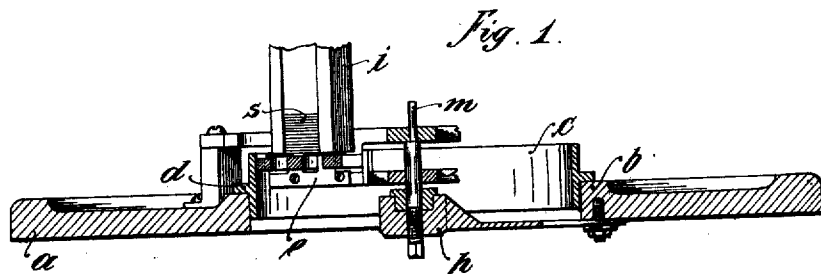


F. RAFOTH.
 AUTOMATIC SELLING APPARATUS.
 APPLICATION FILED SEPT. 27, 1907.

Patented Nov. 3, 1908.

2 SHEETS—SHEET 1.

902,908.



Witnesses:
 P. F. Nagle
 L. Douville.

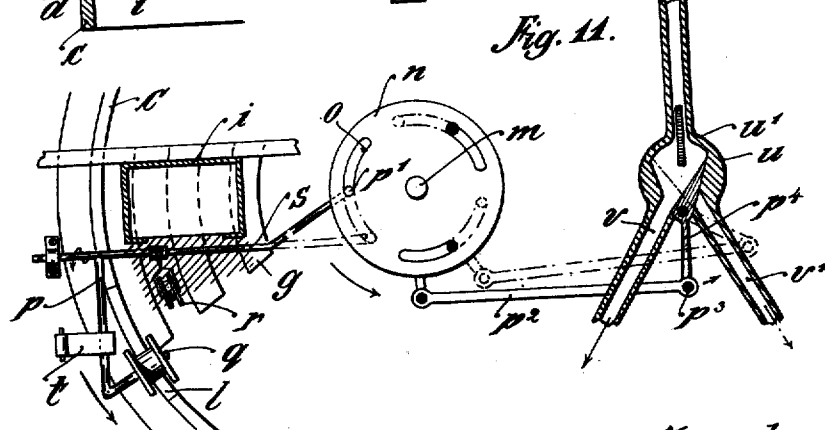
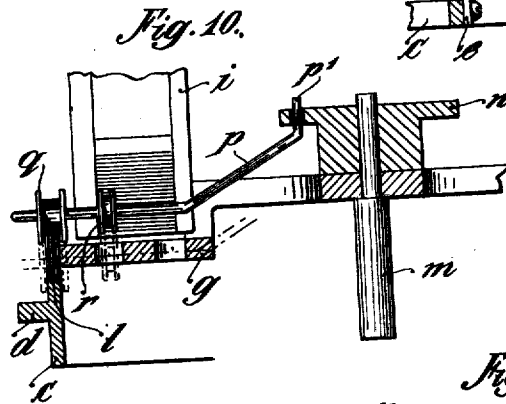
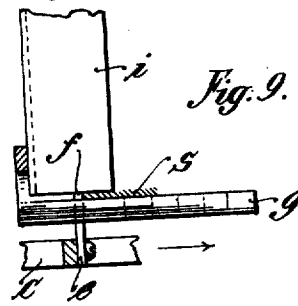
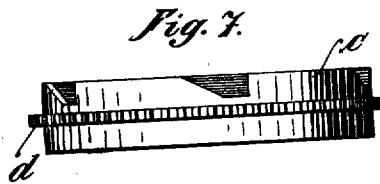
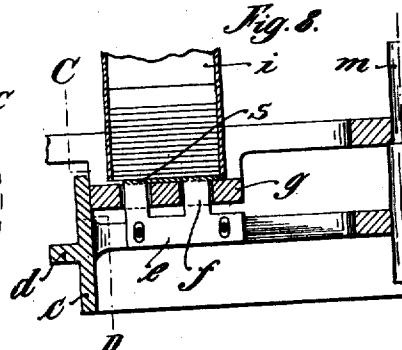
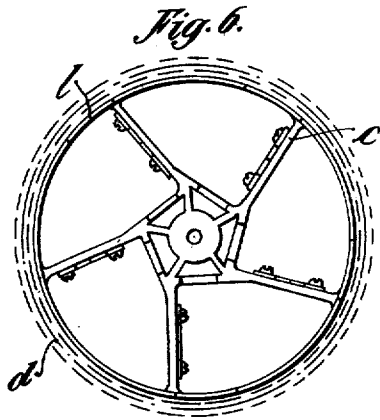
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F. RAFOTH.
AUTOMATIC SELLING APPARATUS.
APPLICATION FILED SEPT. 27, 1907.

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2 SHEETS—SHEET 2.

902,908.



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UNITED STATES PATENT OFFICE.

FRITZ RAFOTH, OF CHARLOTTENBURG, GERMANY, ASSIGNOR TO EUGEN BRINCKMEYER,
OF BERLIN, GERMANY.

AUTOMATIC SELLING APPARATUS.

No. 902,908.

Specification of Letters Patent.

Patented Nov. 3, 1908.

Application filed September 27, 1907. Serial No. 394,889.

To all whom it may concern:

Be it known that I, FRITZ RAFOTH, a citizen of the German Empire, and resident of Charlottenburg, Germany, have invented certain new and useful Improvements in an Automatic Selling Apparatus for Goods of Every Description, Especially Tickets, of which the following is a specification.

This invention has for its object an automatic selling-apparatus with a fixed receptacle for the goods and a rotating advancing device, which is able to deliver goods of any kind and shape, especially tickets, post-cards, newspapers, pamphlets and similar flat objects. The essential feature of the invention resides in the construction, which aims at great efficiency and reliability and economy of space.

The drawing shows one form of construction.

Figure 1 is a section through the plan view on the line of A—B of Fig. 2, Fig. 2 the plan view, Figs. 3, 4, 5 are diagrammatic views of the phases of positions. Fig. 6 is the cog-wheel viewed from above, Fig. 7 is the same viewed from one side. Fig. 8 the arrangement of the cog-wheel and of the guide with the projecting receptacle for goods, Fig. 9 is a section on the line of C, D of Fig. 8, Figs. 10 and 11 show the device for returning the piece of money in the case of disorders in the working, or when the receptacle for the goods is empty.

Similar letters refer to similar parts throughout the several views.

The bottom plate *a* has a central guide opening *b* which receives the cog-wheel *c*, fastened on the axle *m*, which with its spur-gear *d* engages the guide *b*. The cog-wheel *c* is provided with 5 spokes, which carry each an adjustable cog or catch *e*. The catches *e* (Figs. 1, 8) consist of a piece of hardened metal with 2 teeth *f*, which enter between the pins *g* which at the same time carry the receptacles for the wares *i*, *i*¹ and *i*². The axle of the cog-wheel *c* is journaled in a bearing *h* in the middle of the bottom-plate *a* and can be raised and lowered by a screw.

At a small distance above the spokes of the cog-wheel *c* are the pins *g* which carry in groups one or the other of the receptacles *i*, *i*¹ and *i*² for the goods in a manner that

there remains so much space between the pins *g* and the lower edge of the reservoir *i* that one card fits or fills the same. The pins *g*, with the receptacles *i*, are firmly screwed on correspondingly high legs on the bottom plate *a*. The driving works *k* (Fig. 2) engage with their toothed driving wheel the spur-gear *d* of the cog-wheel *c*, in order to move the same in the direction indicated by an arrow in Fig. 2. The upper edge of the cog-wheel *c* is provided with 5 incisions *l* (Fig. 7). On the axle *m* is arranged a circular disk *n* (Figs. 10 and 11) provided with 3 concentric slots *o*, which disk can be turned at the top. Into these slots *o* project 3 lever-bars *p* connected each with a roller *q* preferably of a conical shape, sliding on the upper edge of the cog-wheel *c*, as well as with another roller *r*, likewise of a conical shape, arranged above the pins. The disk *n* with the lever-bars *p* and the rollers *q*, *r* serves to remove the coin out of the apparatus when the same is empty.

Instead of 3 receptacles and 5 cogs there may also be a larger number of receptacles and cogs in the apparatus.

The automatic selling apparatus works as follows: After releasing the driving-works *k* by the coin, the cog-wheel *c* is turned in the direction of the arrow (Fig. 2) by hand, for a certain distance (with 3 receptacles and 5 cogs this distance is 1/15 of a circle). As the cogs *e*, with their teeth *f*, project above the pins *g* by the thickness of a card, they carry away with them the bottom card on being moved. By the arrangement of 5 cogs *e* and 3 receptacles *i* the bottom-card *s*² (Figs. 2 and 4) of one of the receptacles is pushed off half way, but without dropping, at the moment the bottom-card *s*¹ of the receptacle in front is delivered.

Figs. 3, 4, 5 show the process in diagrams, Fig. 3 shows the card *s*² at the moment it is about to be pushed forwards by one half, and the card *s*¹ fully pushed forwards; in Fig. 4 the card *s*² is pushed forwards half way, while the card *s*¹ is given out, and in Fig. 5 card *s*² is given out and card *s* half advanced. The exactness of the action can also be shown if the three receptacles *i* are presumed to be distributed over 120° of a circle and the distributors 72°, and if the latter are then turned 24° at a time. From

this it will at once be seen in what proportion the number of cogs must stand to the number of receptacles.

In case the receptacle is empty or the mechanism through any cause out of order, the arrangement shown in Figs. 10 and 11 is set to act. Supposing the card-receptacle is empty, the roller *r* of the respective receptacle is then no longer supported by a card and as a consequence, the roller *q* is pressed into the next section *l* of the cog-wheel *c* by the spring *t*. The consequence of this is that the respective bar *p*, and thereby also the disk *n*, is turned. The disk *n* then turns, by means of the bars *p*², *p*³ and *p*⁴, the flap *u* in the widened part *v*¹ of the passage for the coin, so that any coin thrown in after this, instead of going through the channel *v* into the inside of the apparatus, passes out again through the channel *v*¹ to the outside.

What I claim as my invention and desire to secure by United States Letters Patent is:—

1. An automatic selling apparatus for cards etc., comprising receptacles arranged in a circle, a rotating device for pushing the articles in succession out of said receptacles, radially arranged drivers, and pins carrying the receptacles, said pins reaching concentrically over the receptacles in the direction in which said pins turn to move an article entirely out of one receptacle and only partially out of the next succeeding one.

2. An automatic selling apparatus for cards etc., comprising receptacles arranged in a circle, a rotating device for pushing the articles in succession out of said receptacles, radially arranged drivers, and pins carrying the receptacles, said pins reaching concentrically over the receptacles in the direction in which said pins turn to move an article entirely out of one receptacle and only par-

tially out of the next succeeding one, and means for pressing the articles against said pins.

3. In vending apparatus for goods (in pieces), stays, a driver device radially arranged drivers, and a similar number of goods receptacles, which when the driver device is rotated pass between said stays and eject the lowermost articles from the one receptacle wholly, and from the next receptacles partially.

4. The combination of a plate having a circular opening forming a guide, a cog wheel received therein, catches mounted on spokes of said cog wheel, pins carrying the receptacles for the goods, and teeth on said catches adapted to enter between said pins for ejecting articles through said receptacles.

5. The combination of a plate having a circular opening forming a guide, a cog wheel received therein, catches mounted on spokes of said cog wheel, annularly-arranged pins carrying the receptacles for the goods, and teeth on said catches adapted to enter between said pins for ejecting articles through said receptacles.

6. The combination of a plate having a circular opening forming a guide, a cog wheel received therein, catches mounted on spokes of said cog wheel, pins of different lengths carrying the receptacles for the goods, and teeth on said catches adapted to enter between said pins for ejecting articles through said receptacles.

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

FRITZ RAFOTH.

Witnesses:

HENRY HASPER,
WOLDEMAR HAUPT.