

(No Model.)

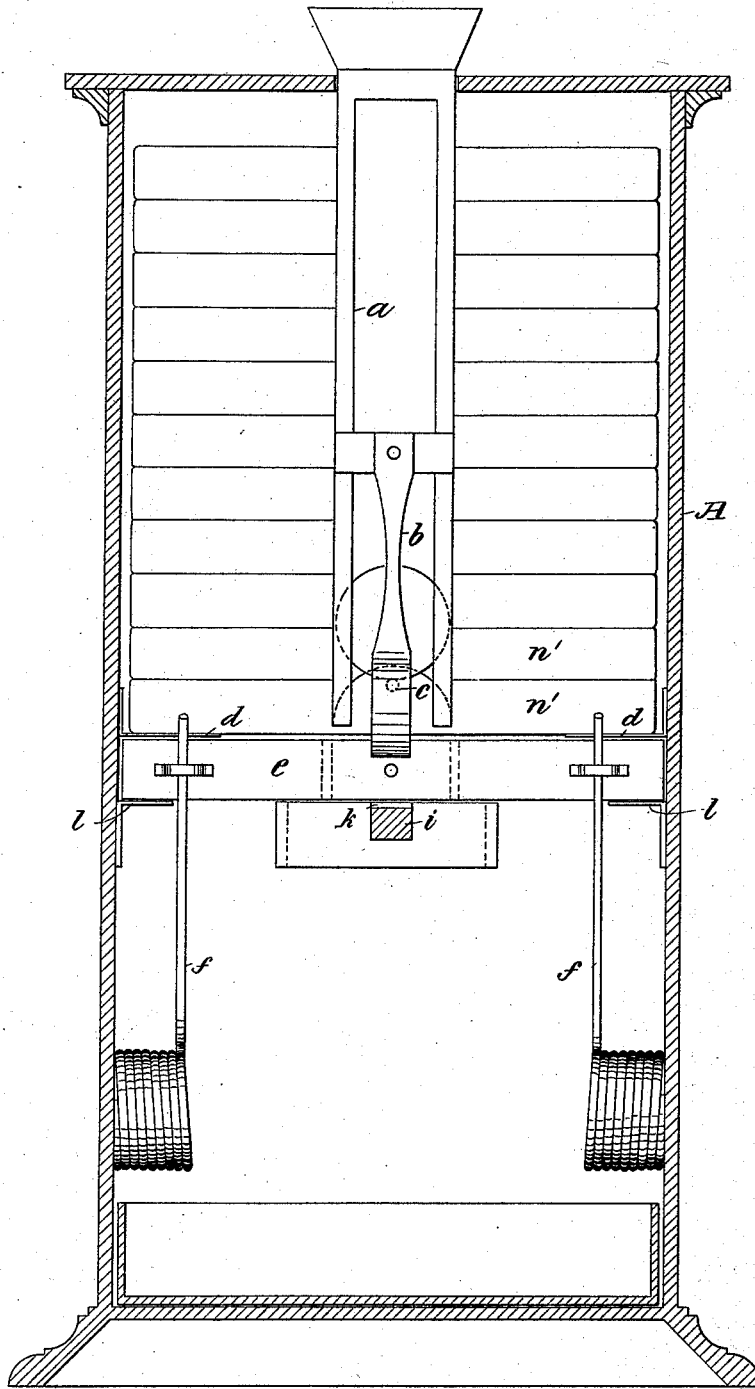
3 Sheets—Sheet 1.

L. STOLLWERCK.
VENDING APPARATUS.

No. 384,939.

Patented June 19, 1888.

Fig. 1.



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(No Model.)

3 Sheets—Sheet 2.

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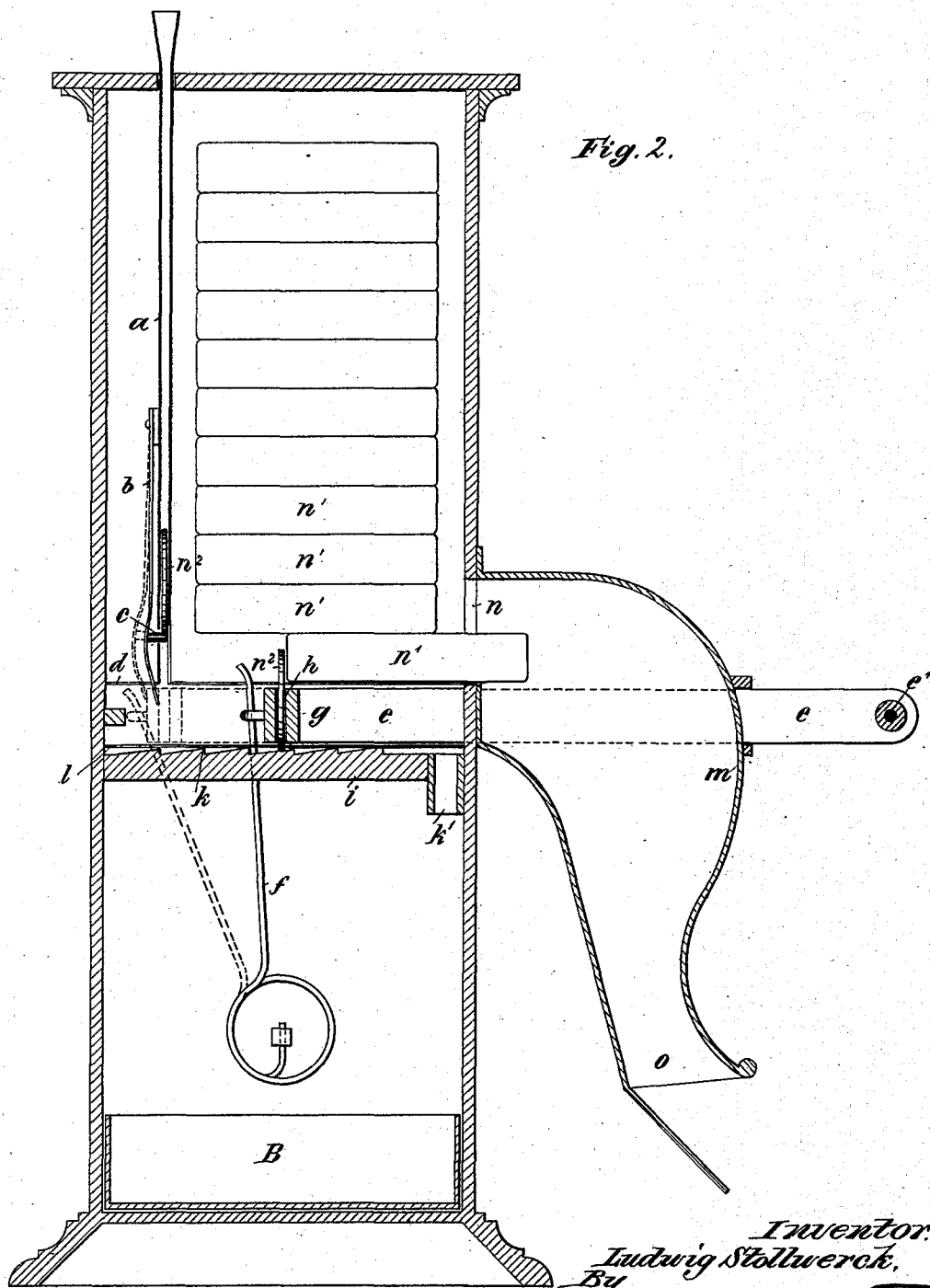


Fig. 2.

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Fig. 3.

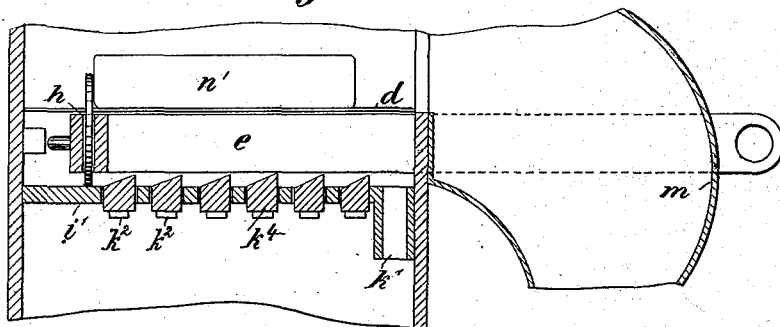


Fig. 4.

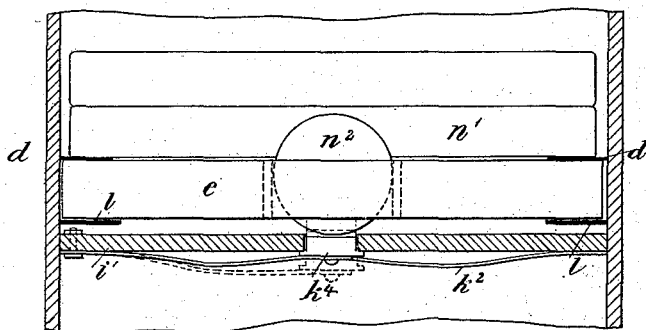


Fig. 5.

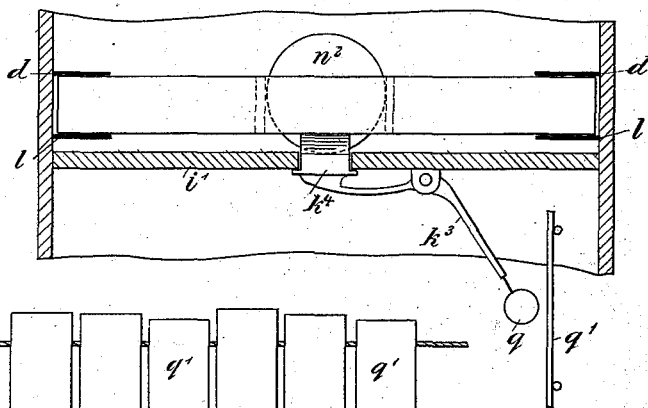
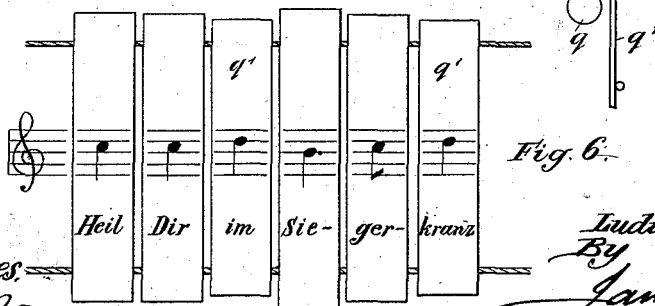


Fig. 6.



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UNITED STATES PATENT OFFICE.

LUDWIG STOLLWERCK, OF COLOGNE-ON-THE-RHINE, PRUSSIA, GERMANY,
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VENDING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 384,939, dated June 19, 1888.

Application filed February 25, 1888. Serial No. 265,278. (No model.)

To all whom it may concern:

Be it known that I, LUDWIG STOLLWERCK, of the city of Cologne-on-the-Rhine, in the Kingdom of Prussia and German Empire, have
5 invented a certain new and useful Improvement in Vending Apparatus, of which the following is a specification, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

10 This invention relates to an improvement in apparatus for the delivery of prepaid goods; and its object is to prevent the coin once paid into the apparatus from dropping into the cash-box without delivering the prepaid article—a difficulty which is now often experienced
15 with apparatus of this kind as heretofore constructed, particularly in such cases where children were too timid to pull out all at once the drawer delivering the prepaid article.

20 In the accompanying drawings, forming part of this specification, Figure 1 is an end view of my improved apparatus, the casing thereof being partly cut away. Fig. 2 is a side view partly in vertical transverse section; and Figs.
25 3, 4, 5, and 6 illustrate modifications hereinafter referred to.

Referring to Figs. 1 and 2 of the drawings, *a* is a conduit into which the coins are dropped by the purchaser, and *b* is a spring the one end
30 of which is fixed to the rear side of the conduit *a*, while its free end carries the pin *c*. Below the money-conduit *a* is arranged a skeleton drawer, *e*, in connection with the free ends of the coiled retracting-springs *f*, by means of
35 which the cross-bar *g* of the drawer *e* is held normally against the lower free end of the spring *b*, so that the latter is pressed backward and its pin *c* drawn out of the conduit *a*, which it will enter through an opening or slot under
40 the action of its spring *b* when the latter is not acted upon by the cross-bar *g*.

The cross-bar *g* is provided with a slot, *h*, which in the normal position of the drawer *e* is in line with the money-conduit *a*, and below
45 the slot *h* is arranged a bar, *i*, provided with steps *k*, and having the slot or opening *k'* at its front end. The steps *k* are arranged so that the inclined upper surface of each step is rising in the direction from the money-conduit
50 *a* toward the slot *k'*, and the rear side of each

step is vertical, or nearly so, in relation to the plane of the drawer *e*. The drawer *e* is arranged so as to slide upon the brackets *l* and passes through the funnel-shaped box *m*. The forward end of the driver is provided with a
55 cross-bar, *e'*, or other handle, by means of which the drawer may be shoved to and fro. Above the drawer *e*, on each side of the casing *A* of the apparatus, are arranged the brackets *d*, sustaining the lowermost of a pile of pack-
60 ages of chocolate, tobacco, and similar articles for sale piled the one above the other.

A coin, *n*², dropped into the money-conduit *a*, will enter the slot *h* in the cross-bar *g* of the drawer *e*, the retaining-pin *c* being pushed out
65 of the conduit *a* by the cross-bar *g* of the closed drawer being pressed against the lower end of the spring *b*, as shown in dotted lines in Fig. 2 of the drawings. The said coin is held by the bar *i* within the slot *h*, so as to project
70 therefrom above, and will thus catch behind the lowermost of the pile of articles *n'*, resting upon the brackets *d*, so that on pulling the drawer *e* forward the said article or package will be drawn out through a slot, *n*, connect-
75 ing the box *m* with the interior of the casing *A*. The article thus drawn out will drop into the box *m* and come out through the opening *a* at the lower end thereof, so that it can be taken hold of by the purchaser, while the coin
80 will fall through the opening *k'* into the cash box or receiver *B*.

It will be seen that the coin can drop into the box *B* only after the package has been pushed through the slot *n* and delivered into the box
85 *m*, and that it is impossible to push back the drawer unless the package has been delivered, for the reason that so long as the coin is behind the said package it is prevented from returning by coming in contact with the vertical
90 sides of the steps *k* on the upper surface of the bar *i*, as will be readily understood. Moreover, by the arrangement described of the spring *b* having the retaining-pin *c* it is rendered impossible that a coin can drop from the
95 conduit *a* in case that the drawer *e* is pulled forward prematurely. This arrangement of the spring *b* and retaining-pin *c* will also allow of inserting into the conduit *a* two or more
100 coins at a time, in order to obtain two or more

packages of chocolate or other article for sale. The apparatus will thus deliver just the quantity of articles paid for, and the purchaser, not as heretofore, lose his money if he pays into the apparatus more pieces than necessary.

It is evident that instead of the rigid steps k , I may as well arrange in the path of the moving coin movable steps k^1 , constructed as before described, which are depressed by the coin on its way to the slot k' , while they will prevent its retrograde movement, such modified arrangement being indicated in Figs. 3, 4, and 5 of the drawings.

In the arrangement shown in Figs. 3 and 4 the bar i has been replaced by a plate, i' , provided with a straight line of openings, wherein the steps k^1 are supported by means of the springs k^2 . The steps k^1 have here the form of blocks, but correspond in every respect to the steps k before described, and may be obtained by cutting a bar, i , into so many pieces as there are steps required. The operation is likewise the same as before described, and will be readily understood from the preceding description, the only difference of importance being that in this modification the steps are made elastic and yield under the pressure of the coin drawn toward the point of delivery, while by reason of their construction they cannot yield under the pressure of the coin shoved in the opposite direction.

In the modification shown in Fig. 5 the blocks or steps k^1 , which may be made of light wood, as well as of metal or other suitable material, are counterbalanced by weights g , substituted for the springs k^2 . The steps are here carried upon the end of an elbow-lever, k^3 , having its fulcrum in a bracket fastened to the lower surface of the plate i' , the other end of the said lever being provided

with the counter-weight g . These counter-weights may have the shape of bell-hammers and be combined with tuned bells or plates g' , so that they will strike against the latter in successive order, and thus produce during the delivery of the prepaid article some popular song or melody—as, for instance, that in Fig. 6—when they are depressed in succession by the coin being drawn across their inclined surfaces, as will be readily understood, and thus require no further description.

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

1. The combination of the case having a coin conduit or chute, a bar having steps and a coin-opening, a drawer having a slot for receiving the coin, and a drawer-retracting spring, substantially as described.

2. The combination of the case having a coin conduit or chute provided with a slot, a bar having steps and a coin-opening, the drawer having a slot for receiving the coin, the drawer-retracting spring, and the spring having a pin to enter the slot in the conduit or chute, substantially as described.

3. The combination of the case having a coin conduit or chute, the movable steps, the pivoted levers supporting the steps and having counter-weights g , adapted to strike chimes located in their path, and the drawer having a slot for receiving the coin, substantially as described.

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

LUDWIG STOLLWERCK.

Witnesses:

GUSTAVE ALBERT OELRICHS,
WM. D. WARNER.