C. M. LINDE & F. C. FRANKE.

COIN CONTROLLED DELIVERY MECHANISM FOR VENDING MACHINES.

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909,100.

Patented Jan. 5, 1909.

Fig. 1.

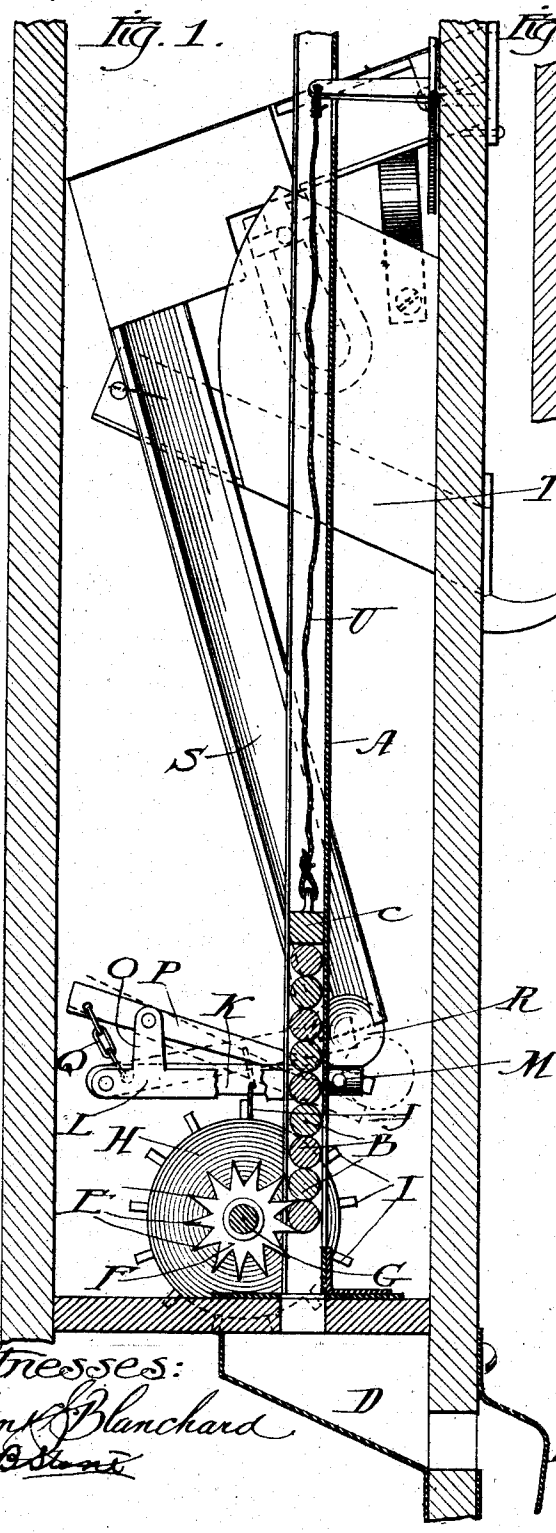
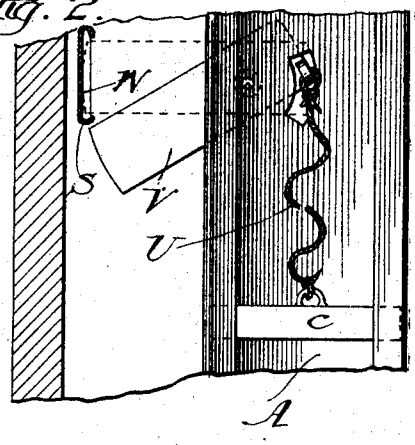


Fig. 2.



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UNITED STATES PATENT OFFICE.

CHARLES M. LINDE, OF FULLERSBURG, AND FREDERICK C. FRANKE, OF CHICAGO, ILLINOIS, ASSIGNORS TO HILO GUM COMPANY, OF CHICAGO, ILLINOIS, A CORPORATION OF ILLINOIS.

COIN-CONTROLLED DELIVERY MECHANISM FOR VENDING-MACHINES.

No. 909,100. Specification of Letters Patent. Patented Jan. 5, 1909.

Application filed August 21, 1907. Serial No. 389,550.

To all whom it may concern:

Be it known that we, CHARLES M. LINDE, residing at Fullersburg, Dupage county, and FREDERICK C. FRANKE, residing at Chicago, in the county of Cook, both in the State of Illinois, citizens of the United States, have invented certain new and useful Improvements in Coin-Controlled Delivery Mechanism for Vending-Machines; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a novel construction in coin controlled delivery mechanism for vending machines, the object being to provide simple and efficient means actuated by the merchandise to be vended and controlled by the coin to deliver said merchandise in measured quantities, and consists in the features of construction and combinations of parts hereinafter fully described and claimed.

In the accompanying drawings illustrating the invention: Figure —1— is a central vertical longitudinal section of a vending machine equipped with coin controlled delivery mechanism constructed in accordance with our invention. Fig. —2— is a fragmentary detail view partly in section showing means employed for automatically closing the slot through which coins are inserted as soon as the merchandise to be vended is exhausted.

The main object of the device is to provide vending merchandise actuated by gravity, the merchandise to be vended serving as the actuating means preferably assisted by a suitable weight, and which is released by the coin to deliver a specified predetermined quantity of the merchandise.

The accompanying drawings show a convenient embodiment of the invention in which the merchandise is contained in cylindrical packages, but the shape of the package and the corresponding construction of the delivery mechanism to receive and deliver same are immaterial and may be changed and varied without departing from the invention.

Our said mechanism comprises a vertical disposed chute A in which the packages B are contained, being disposed one upon the other and forced downwardly by a weight C resting upon the uppermost package B. Said chute A is open at its lower end where it communicates with a suitable discharge chute D.

The packages B are supported upon the teeth or arms E of one or more wheels F rigidly disposed upon the horizontal shaft G which is journaled in suitably disposed bearings and carries the rigid wheel H provided on its periphery with projections I corresponding in number and relative location with the teeth or arms E of the wheel or wheels F, said last named arms traveling in the path of the packages of merchandise and being spaced a distance apart at their free ends substantially equal to the vertical height of each package B. Hence, as each tooth moves out of the path of and releases the lowermost package B, the next succeeding tooth passes into the path of the next succeeding package and supports the same and those above it. The weight of the merchandise actuates said shaft G, the latter being held against rotation by means of the projection or dog J disposed between the ends of a lever K pivotally secured at one end to the free end of an arm L mounted on the chute A and at its free end carries a weight M which is adjustable thereon. Pivotally secured between its ends to the free end of a projection O of the arm L, is a lever P. Said lever P is connected at one end by means of links Q with the lever K adjacent the pivot of the latter, the other end of said lever P being disposed in the path of a coin R passing downwardly through the coin chute S. Said coin strikes said free end of said lever P, thereby depressing the said end and raising the other end thereof, thereby raising said lever K and throwing the projection or dog J momentarily out of the path of the projections I of the wheel H, the release and return of said projection being so rapid as to permit only one of said projections I to pass and thus causing only one of said packages B to be released and discharged.

The coin chute employed is of ordinary construction equipped with a permanent magnet to deflect iron or steel slugs which drop in to the chute T and are discharged from the machine.

The weight C serves to maintain operating pressure on the arms of the wheels F when the merchandise is nearly exhausted, said

weight being connected by means of a cord U with one end of a lever V which is pivotally secured between its ends to the machine casing and serves when turned to close the slot W through which the coin is inserted, said cord being of such length as to cause said lever to be turned when the merchandise is almost or entirely exhausted.

Our said device is very simple and efficient and cannot easily get out of order.

We claim as our invention:

1. In a vending machine, a chute through which packages of merchandise pass singly by gravity, rotating means disposed in the path of said packages and adapted to successively engage the same, the shaft of said rotating means being disposed to one side of the path of the packages a wheel on the shaft of said rotating means having radial projections, an arm mounted on the chute above said rotating means, a lever pivotally secured at one end to the free end of said arm, a dog carried by said lever between the ends thereof to engage said projections, a lever pivotally mounted on said arm above the first-named lever and having one end connected therewith by a link and the other end of said lever disposed in the path of a coin.

2. In a vending machine, a substantially vertically disposed chute through which packages of merchandise pass singly by gravity, a rotary device having portions disposed in the path of said packages to successively engage the same, the shaft of said rotating means being disposed to one side of the path of the packages a wheel on the shaft of said rotary means having lateral projections, an arm extending horizontally from the chute, an adjustable weight on the free end of said lever, a lever pivotally secured at one end to the free end of said arm and having a depending projection in the path of the projections on said wheel, an upward projection on said arm, a lever pivotally secured to one side of its center upon said projection, links pivotally connecting the short arm of said lever with the first-named lever adjacent the pivot thereof, the other end of said lever being disposed in the path of a coin, a coin-chute, a weight supported on the packages, and pivoted means actuated thereby for closing the entrance to the coin-chute.

In testimony whereof, we have signed our names in the presence of two subscribing witnesses.

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Witnesses:
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