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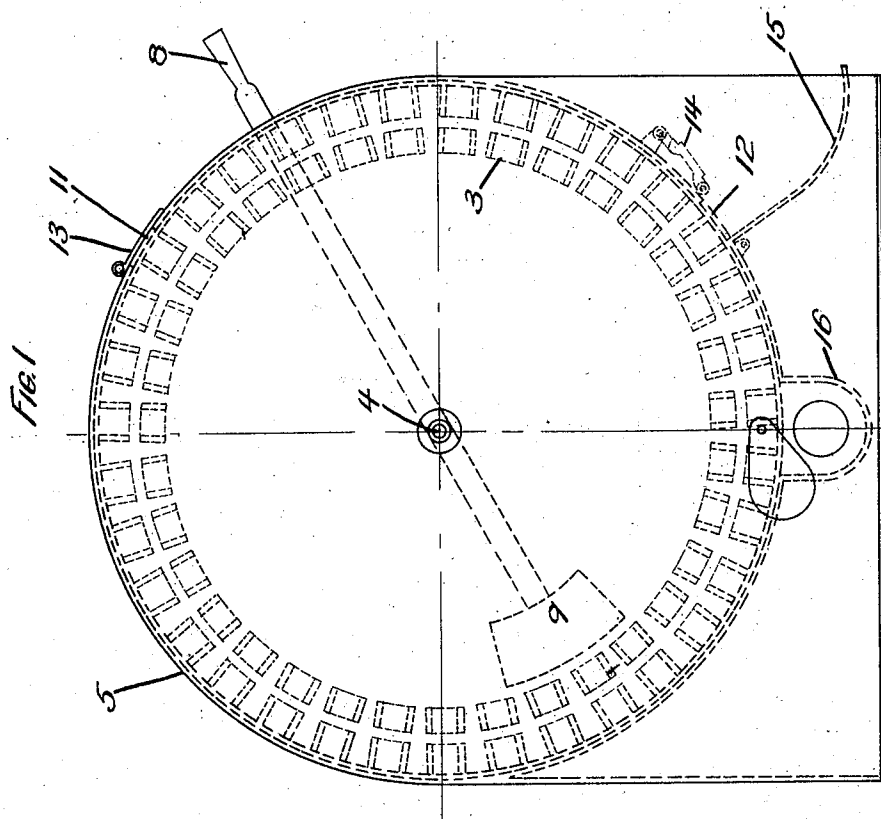
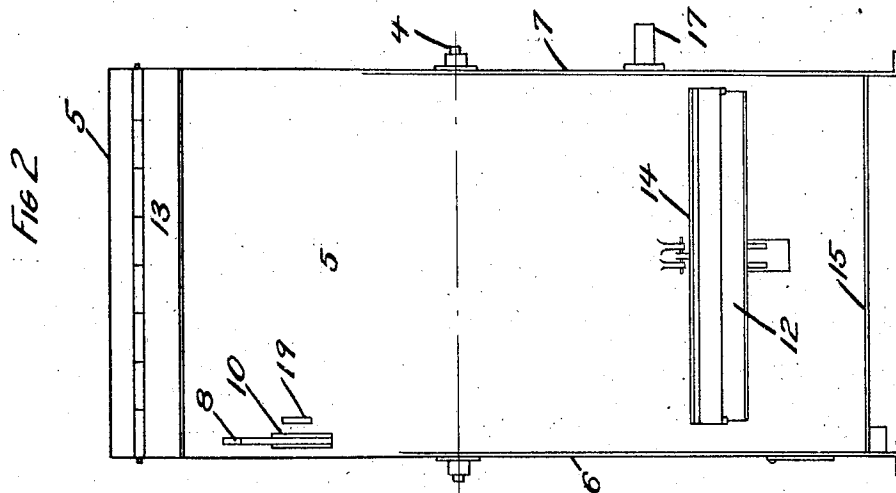
1,645,442

A. A. MEYER

NEWSPAPER VENDING MACHINE

Filed Nov. 12, 1924

3 Sheets-Sheet 1



INVENTOR.

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Oct. 11, 1927.

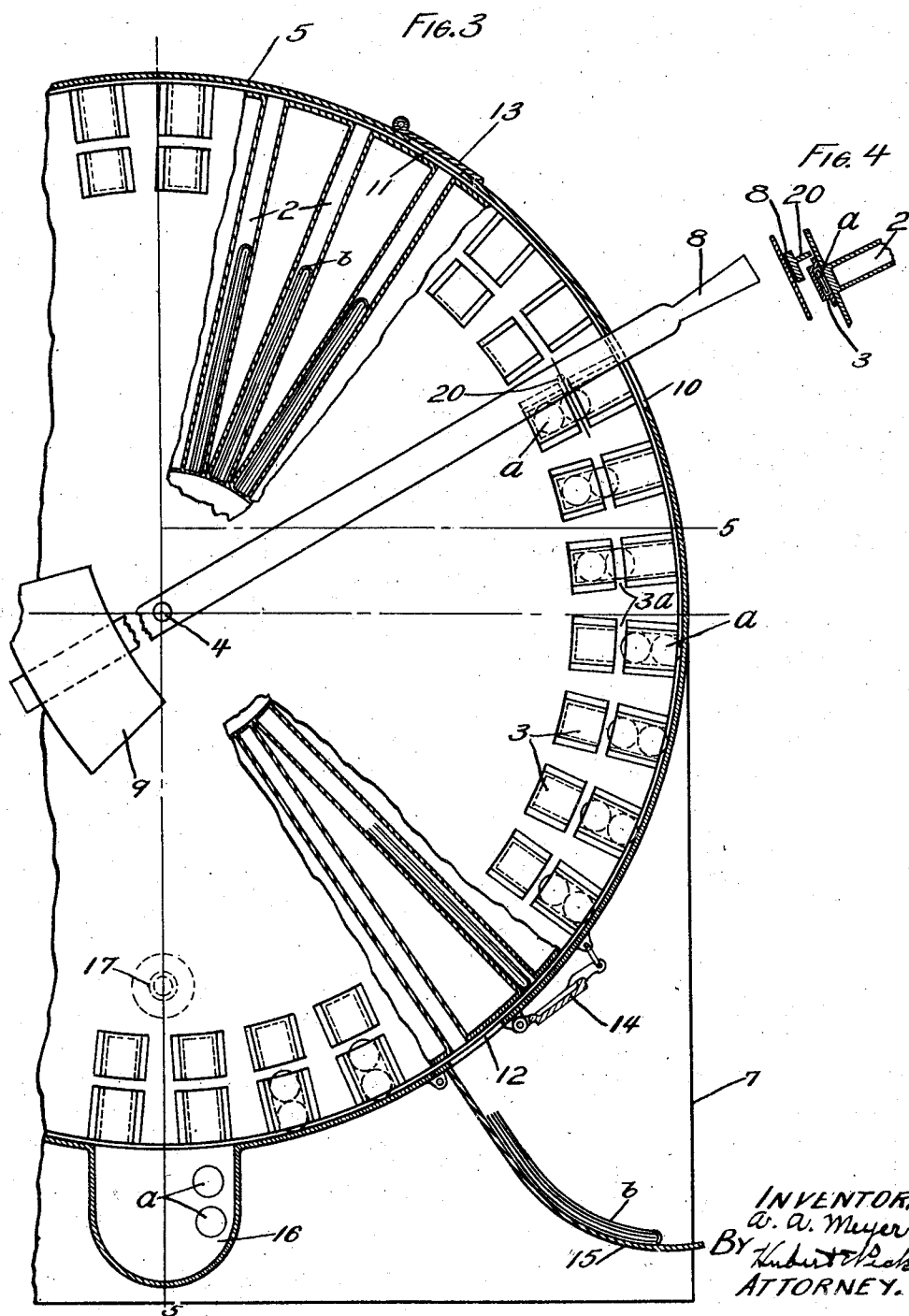
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NEWSPAPER VENDING MACHINE

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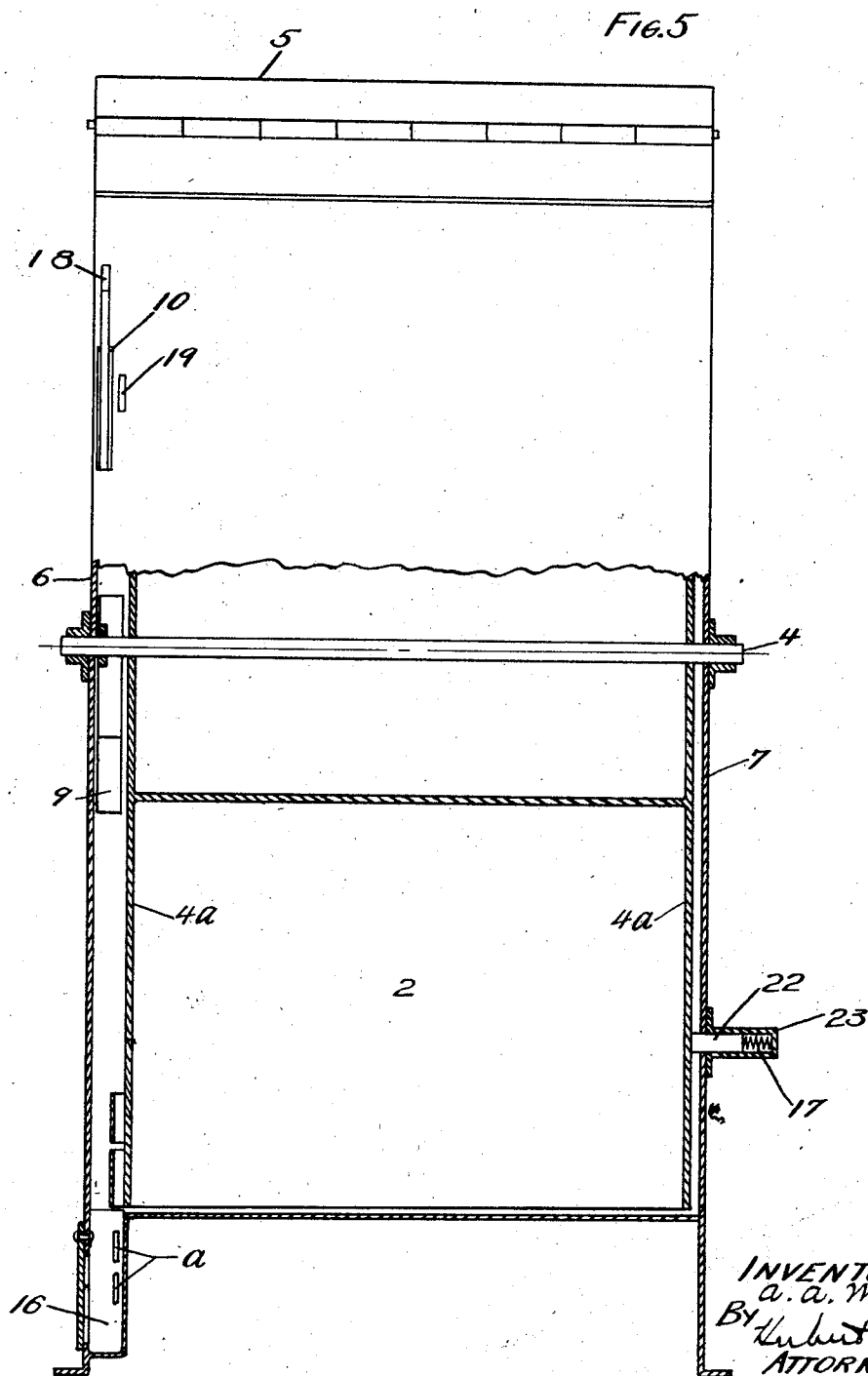
A. A. MEYER

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NEWSPAPER VENDING MACHINE

Filed Nov. 12, 1924

3 Sheets-Sheet 3



UNITED STATES PATENT OFFICE.

ALCID A. MEYER, OF MINNEAPOLIS, MINNESOTA.

NEWSPAPER-VENDING MACHINE.

Application filed November 12, 1924. Serial No. 749,420.

This invention relates to certain improvements in coin controlled vending machines; and the objects and nature of the invention will be readily understood by those skilled in the art in the light of the following explanation of the accompanying drawings that illustrate what I now believe to be the preferred mechanical expression or embodiment of my invention from among other forms, constructions and arrangements within the spirit and scope of the invention.

An object of the invention is to provide a comparatively simple and efficient apparatus of an improved character for retailing newspapers and other articles of merchandise under the control of the purchaser through the insertion of a coin or coins or other token or tokens.

With this and other objects in view my invention consists in certain novel features of construction and in combination and arrangements as more fully and particularly set forth and pointed out hereinafter.

Referring to the accompanying drawings forming a part hereof:

Fig. 1, is a side elevation of a newspaper vending machine embodying my invention, dotted lines indicating certain hidden parts.

Fig. 2 is a front elevation of the machine.

Fig. 3 is a detail vertical section on an enlarged scale.

Fig. 4 is a detail sectional view.

Fig. 5 is a sectional front elevation taken in the plane of the line 5—5, Fig. 3.

The particular embodiment of my invention illustrated comprises a drum rotatable on a horizontal shaft or axis 4, and this drum is made up of end heads or plates 4^a with intervening radial pockets or receptacles 2 open at their outer ends through the rim or periphery of the drum.

These pockets are preferably similar in form, construction, and dimensions and are uniformly spaced apart and form a circle completely around the drum.

In the particular example illustrated these pockets are peculiarly designed to receive newspapers 6 in such manner that the pockets can be filled by inserting a newspaper in each pocket as the pockets are in an upright position with their open ends uppermost and so that the newspapers will slide by gravity from the pockets when in a downwardly inclined position with the open ends of the pockets at the under side

of the drum. Each pocket is designed to receive one newspaper.

The newspapers are retained in the pockets until each pocket reaches the delivery or discharge station, by the rim portion of a suitable housing. For instance, I show a housing consisting of vertical end plates 6, 7, that can be extended downwardly to form the supporting base of the machine. These end plates 6 and 7 are connected by a rim 5 covering the rim of the rotary drum or carrier and usually concentric therewith.

The housing at the upper portion of the rim 5 is preferably formed with a charging or loading opening 11 through which the pockets 2 can be charged with newspapers as these pockets are successively brought into alinement with the opening. This opening is normally closed by a cover 13.

The lower front portion of the housing is formed with a discharge or dispensing opening, such as 12 through the rim portion 5 of the housing through which the newspapers can be discharged from the pockets 2 by gravity as the pockets pass successively into alinement with said opening 12.

A cover 14 is provided for closing the opening 12 during the operation of charging the drum or carrier with newspapers through the opening 11.

This door or cover 14 is normally held, after the drum has been charged with newspapers, in the open position as shown in Figs. 1, 2 and 3.

The housing is preferably provided with a suitable holder or table 15 to receive the newspaper discharged from a pocket 2. This holder 15 can be in the form of a downwardly inclined and forwardly curved plate as shown more particularly in Fig. 3 onto which the newspaper from a pocket will slide downwardly and forwardly; the curvature being sufficient to hold the newspaper against dropping from the holder.

A suitably manually operated means is provided to feed the drum forward a stroke under certain conditions.

For instance, I show a lever 8 freely mounted on the shaft 4 to normally oscillate thereon independently of the drum and without rotating the drum. This lever is arranged beyond one end of the drum and within the housing and projects forwardly and upwardly from the housing through slot 10 in the rim 5 of the housing. The project-

ing exposed upper end of the lever forms a handle. This lever is acted on by suitable means to constantly tend to hold its handle end at its limit of upward movement. For instance, I show the lever provided with counterweight 9 for this purpose.

The ends of the slot 10 form the limits of up and down movement of the lever 8, and the length of the slot 10 is approximately equal to the distance between two adjacent pockets 2.

The lever 8 is normally swingable the distance prescribed by the slot 10, independently of the drum or carrier that embodies the pockets 2, and suitable coin controlled mechanism is provided for operatively connecting the lever and the drum through the medium of a coin, so that when the coin is present, downward stroke of the lever will advance the drum an operative step, namely; the approximate distance between two adjacent pockets, to move an empty pocket from registration with the discharge station 12 and to bring a loaded pocket into registration with said discharge station 12 so that the newspaper in the last named pocket will drop by gravity onto the holder 15.

In the particular embodiment illustrated the lever 8 is formed or provided with a lateral pin 20 projecting toward the adjacent end of the drum, and the adjacent end of the drum is provided with a circular series of similar uniformly spaced radially arranged coin receptacles 3.

The series of coin receptacles 3 corresponds to the series of newspaper pockets 2, and the coin receptacles are spaced, in this embodiment, a distance equal to the spacing of the newspaper pockets. It will hence be noted that there is a coin receptacle for each pocket 2.

Each coin receptacle is arranged on the outer side face of the end head of the drum adjacent the lever 8, and each pocket is open at its outer end so that the outer open ends of these coin receptacles are successively passed into registration with the coin slot 19 through the rim 5 of the housing and adjacent to the slot 10 that limits the swing of the lever 8.

After each operative stroke or step of the drum, the drum comes to rest with a coin receptacle 3 alined with the coin slot 19 in position to receive coins through said slot.

The coin receptacles are traversed by alined slots 3^a. Each coin receptacle is formed with a slot 3^a intermediate its length and these slots are all concentric with the longitudinal axis of the shaft 4. In other words, the slots form segments of a circle the center of which is the axis or fulcrum of the lever 8.

These slots 3^a are of the same radius as the pin 20 of the lever 8 with respect to

the axis 4, so that the path of movement of the pin 20 when the lever 8 swings is coincident with the circle in which the slots 3^a are located. Hence vertical swing of the lever 8 does not move or cause rotation of the drum inasmuch as the pin 20 moves freely through the slots when these slots are unobstructed.

These slots are so arranged, however, that when the purchase price of a newspaper, in the form of a coin or coins *a* is inserted through the coin slot 19 and allowed to drop into the coin receptacle 3 under said slot, such coin or one of such coins will traverse and obstruct the slot 3^a so that when the lever 8 is swung down its pin 20 will engage the coin and advance the drum an operative step to cause discharge of a paper onto the holder 15.

When the lever is swung down, it engages the lower end of the slot 10 and moves the drum forward but one step. When the lever is released the weight 9 causes the lever to swing back to normal position against the upper end of the slot.

Any suitable coin box 16 is provided at the lower end of the housing preferably depending from the rim 5 in registration with an opening through said rim, so that the coins can drop from the receptacles 3 into the coin box as said receptacles reach the lower part of the drum.

In the particular embodiment illustrated each coin receptacle is formed of a longitudinal depth with a closed inner end and of such cross sectional dimensions as to require the presence of two coins, such as two pennies, to bring about the operative connection between the handle lever 8 and the drum as to cause a forward newspaper delivering step of the drum on operation of the handle. However, my invention is not so limited as the formation of each coin receptacle can be varied according to the price of the newspaper.

For the purpose of preventing overthrow of the drum, any suitable brake or other mechanism is provided to prevent movement of the drum except under the driving action of the hand lever.

For instance I show a suitable brake consisting of a brake block 22 held in frictional engagement with an end of the drum by a spring 23 in a tube or cap 17 projecting from the end wall 7 of the drum housing.

It is obvious that my invention is not limited to the particular embodiment disclosed for dispensing newspapers, as the machine can be adapted for carrying and dispensing various articles of merchandise.

It is evident that various changes, modifications and variations might be resorted to, that features might be added or parts omitted, all without departing from the spirit and scope of my invention, and hence

I do not wish to limit myself to the exact disclosures hereof:

What I claim is:

In combination, a rotary drum formed
5 with a series of longitudinally disposed
radially arranged pockets therearound open
at their outer ends for reception and dis-
charge of articles to be dispensed, a housing
for said drum providing a discharge sta-
10 tion for successive gravity discharge of said
pockets, a shaft extending through said
housing on which said drum is rotatably
mounted, a series of coin holders radially
arranged on one end of said drum in the
15 transverse plane thereof, one holder for each
longitudinal pocket, said holders having
their outer ends open, said housing provid-
ing a coin slot from which said holders are
arranged to successively receive coins as the
20 drum is advanced step by step, a manually-
operable lever rotatably mounted on said

shaft within the housing adjacent the coin
holders and swingable independently of the
drum, said lever extended radially from the
shaft outwardly through and accessible for 25
operation on the exterior of said housing
which forms a stop limiting movement
thereof, said coin holders slotted and ar-
ranged so a coin therein obstructs such slot,
and said lever provided with a laterally pro- 30
jecting pin arranged to pass freely through
the slots of the coin holders upon operation
of said lever but to engage across the edge
of a coin obstructing a slot to advance the
drum a step and place a pocket in discharge 35
position with said housing discharge station,
the inner end of said lever weighted to re-
turn and maintain the same in normal posi-
tion after operation thereof.

Signed at Minneapolis, Minnesota, this 40
27th day of October, 1924.

ALCID A. MEYER.