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J. J. SCHERMACK

1,787,644

PHONOGRAPHIC ATTACHMENT FOR MERCHANDISE DISPENSING APPARATUS

Filed Aug. 27, 1928

2 Sheets-Sheet 1

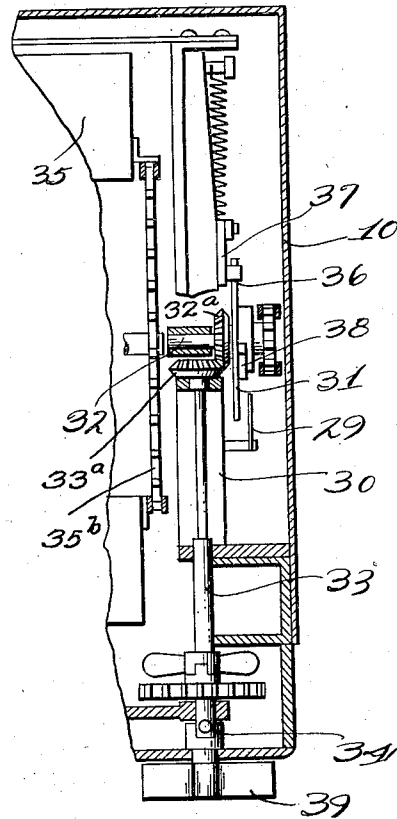
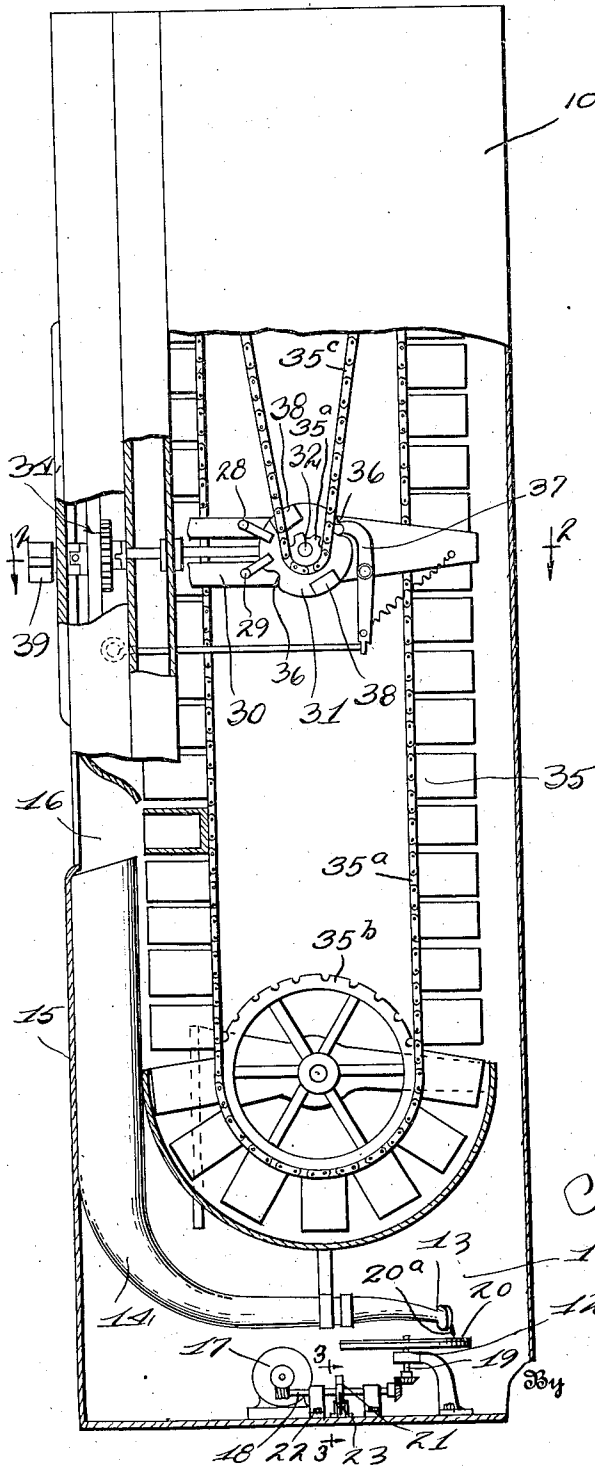


Fig. 2.

Fig. 1.

Inventor
Joseph J. Schermack

Whittemore Hulbert
Whittemore & Belknap

Attorneys

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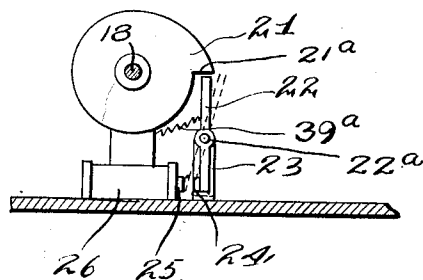
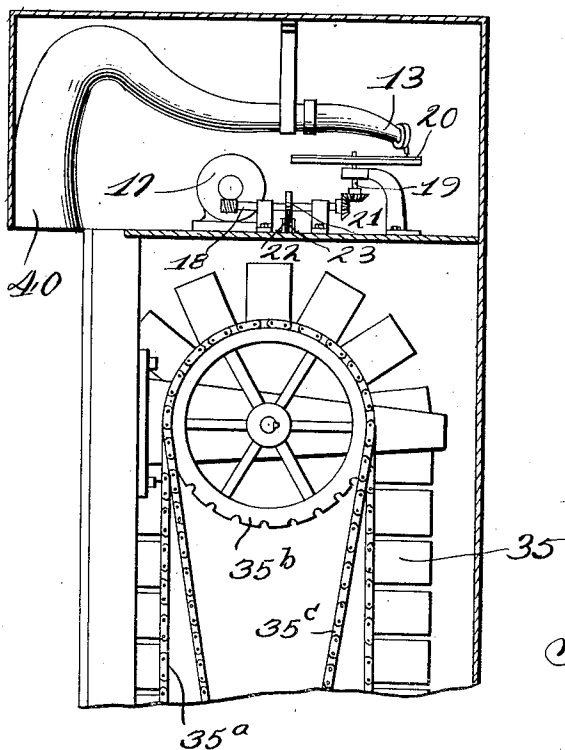


Fig. 3.

Fig. 5.

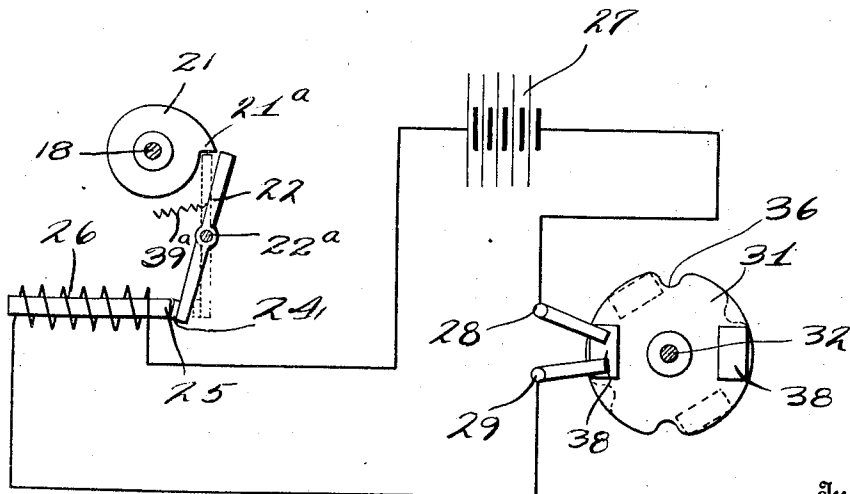


Fig. 4.

Inventor
Joseph J. Schermack

By Whittemore, Hulbert
Whittemore & Belknap

Attorneys

UNITED STATES PATENT OFFICE

JOSEPH J. SCHERMACK, OF NEW YORK, N. Y., ASSIGNOR TO AUTOMATIC MERCHANDISING CORPORATION OF AMERICA, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK

PHONOGRAPHIC ATTACHMENT FOR MERCHANDISE-DISPENSING APPARATUS

Application filed August 27, 1928. Serial No. 302,402.

This invention relates to merchandise dispensing apparatus and has particular reference to a device of the above character capable of transmitting audible sounds.

5 One of the primary objects of this invention is to provide means associated with apparatus of the foregoing character automatically operable upon actuation of the control mechanism for the apparatus to transmit
10 audible sounds.

Another object of the present invention is to provide an arrangement of the above character which may be installed with facility upon apparatus now in use without materially altering the standard construction thereof.

15 A further advantageous feature of the present invention resides in the relative simplicity of the mechanism utilized for accomplishing the foregoing results and the minimum number of parts employed, thus rendering the entire construction economical in manufacture.

While in particularizing upon the advantages and features of the present invention, 25 particular stress has been placed upon the association of the attachment with merchandise dispensing apparatus, it should be understood that the same may be utilized in connection with various other types of apparatus and the invention therefore contemplates
30 such an arrangement.

Other objects and novel features of construction reside in the arrangement of parts and the manner in which the same cooperate
35 with the control mechanism to produce the desired results.

In the drawings:

Figure 1 is a side elevational view partly in section of a dispensing apparatus with my
40 invention applied thereto;

Figure 2 is a sectional view taken on the plane indicated by the line 2—2 of Figure 1;

Figure 3 is a sectional view taken on the plane indicated by the line 3—3 on Figure 1;

45 Figure 4 is a diagrammatic view showing the phonographic control means; and

Figure 5 is a detail view of a slightly modified form of the invention.

While it will be apparent as this description proceeds that the present invention is

capable of numerous and diversified uses, nevertheless for the purpose of illustration, I have therein shown this invention as used in connection with merchandise dispensing apparatus. In this connection I have illustrated in Figure 1 a casing 10 having a compartment 11 at the lower end thereof for receiving a phonographic attachment 12. The latter may be of any suitable design, preferably of the disk type, and is provided with the usual diaphragm construction 13 connected in the usual way to a horn 14. As shown, the latter projects upwardly adjacent the front wall 15 of the casing and communicates with an opening 16 which is also utilized as a merchandise discharge opening as will be hereinafter more fully described, this opening being formed in the front wall 15 of the casing. The attachment is further provided with a motor shown conventionally at 17 having a drive shaft 18 geared to a vertical shaft 19 which, in turn, is connected to the revolving phonographic disk 20 engageable by a needle 20a adapted to support a suitable record 20'. The latter is provided with a continuous circular groove for actuating the stylus 20a. The groove may have recorded therein some suitable phrase such for example, as "Thank you". The drive shaft 18 is provided with a cam 21 adapted to engage one end of a lever 22 pivoted at 22a intermediate the ends thereof to a bracket 23 projecting upwardly from the bottom of the compartment 11. The opposite end of the lever is provided with a suitable armature 24 adapted to be attracted by the core 25 of a magnet 26, the latter being energized by any suitable source of current, herein shown as a battery 27. The magnet 26 is connected through the battery 27 to a pair of contact arms 28 and 29 secured to the frame 30 of the casing and extending in close proximity to a cam member 31. The latter is keyed to a shaft 32 which in turn is geared by intermeshing beveled gears 32a and 33a to a shaft 33 driven by any suitable dispensing control mechanism, preferably of the coin controlled type illustrated generally at 34.

Arranged within the casing 10 and driven by the shaft 32 upon which the cam 31 is

secured, is a conveyor comprising endless elements or sprocket chains 35a carrying a plurality of merchandise receiving containers 35 thereon. The sprocket chains 35a engage sprocket wheels 35b, with certain of which, connections may be made by the sprocket chain 35c which also runs over the small sprocket 35d on shaft 32. The arrangement is such that upon actuating the coin control mechanism 34, the conveyor will be moved to a position wherein one of the containers assumes a position opposite the discharge opening 16 in the casing to which opening the horn 14 is also connected as already described.

For preventing movement of the conveyor during the intervals of time between successive operations of the coin controlled mechanism 34, the cam member 31 is provided with locking or detent devices comprising a pair of diametrically opposed slots 36 for engagement with a spring influenced dog 37. As will be apparent, the slots 36 are so positioned that when the dog 37 is in engagement with either one of the slots, one of the containers is positioned adjacent the discharge opening 16. Projecting laterally from the cam member 31 is a pair of contact members 38 adapted to successively engage the free ends of the arms 28 and 29 and bridge the space therebetween. The position of the contact members 38 relative to the slots 36 is such that when the dog 37 is in engagement with one of the slots 36, the circuit to the magnet will be open, as clearly shown in Figure 1 of the drawings. When, however, a coin is placed within the mechanism 34 and the handle 39 upon the front wall of the casing is actuated to rotate the conveyor and accordingly the cam member 31, the dog 37 will travel out of the adjacent slot and one of the contact members 38 will bridge the space between the arms 28 and 29 and close the circuit to the magnet 26. The magnet is then energized and thereby causes the lever 22 to swing about its pivotal connection to the bracket 23. Upon this swinging movement of the lever 22, it will be apparent that the opposite end of the same is moved out of engagement with the shoulder 21a formed upon the cam member 21a which is carried by the drive shaft 18, thus permitting the latter to rotate a complete revolution and thereby rotate the disk 20 one complete revolution to produce the desired sound. The lever 22 is normally held in engagement with the cam 21a by means of a suitable spring 39a having one end secured to the lever adjacent the end adapted to engage the cam 21 and having the opposite end secured to a stationary part of the apparatus. The arrangement is such that upon disengagement of the contact member 38 with one of the arms 28 and 29, the magnet will be demagnetized and the lever will be permitted to ride along the periphery of the

cam 21 so as to be in a position to engage the shoulder 21a and stop the shaft 18 from rotation, and accordingly discontinue the operation of the disk 20. The member 31 constitutes with the small sprocket 35d and the contacts 38, a common operating member for the dispensing and phonographic mechanisms. Preferably associated with the described mechanism are devices for preventing the use of the mechanism except under control of the proper coin of the sort, for example, disclosed in applicant's application, Serial No. 277,774, filed May 14, 1928.

In the event that it is not convenient to place the phonographic attachment within the casing as illustrated in Figure 1, the same may be applied to the top of the casing as shown in Figure 5 of the drawings, the operation of the phonographic attachment and its particular connection to the dispensing mechanism being substantially the same as in the first described form of the invention. The particular configuration of the horn is slightly changed and a suitable deflector 40 is provided so as to direct the sound downwardly.

Thus from the foregoing it will be apparent that I have provided a phonographic attachment for dispensing apparatus automatically operable upon actuation of the dispensing mechanism to produce an audible sound, such for example as "Thank you" or the name of the particular merchandise contained within the apparatus. Moreover, it will be noted that the nature of the attachment is such as to enable the same to be readily applied to the apparatus and co-operate with the standard parts of the latter to produce the desired results.

While in describing the two forms of the invention heretofore set forth, particular stress is placed upon the association of the attachment with merchandise dispensing apparatus of the conveyor type, it is to be understood that the same may be used with equal facility upon various other types of dispensing apparatus and accordingly reservation is made to make such changes in construction and arrangements of parts as may fall within the purview of the accompanying claims.

What I claim as my invention is:

1. In a merchandise dispensing apparatus, dispensing mechanism having a cam member associated therewith, a dog for holding said cam in predetermined dispensing positions and adapted to permit movement of said cam between said dispensing positions, electrical contacts associated with said cam adapted to be open-circuited when the cam is in a dispensing position and adapted to make an electrical connection when the cam passes from one position to the next, a phonographic attachment adapted to be set into operation electrically, and connections between said

attachment and said contacts whereby said attachment is set into operation each time the cam moves from one dispensing position to another.

5 2. In merchandise dispensing apparatus, a conveyor for holding merchandise, means for moving said conveyor successively to predetermined delivery position, a cam associated with said means for holding the conveyor in each delivery position, electrical contact means carried by said cam and adapted to make an electrical connection as the conveyor passes from one delivery position to another, a phonographic attachment adapted to be set into operation electrically, and connections between said electrical contact means and said phonographic attachment for setting said attachment into operation as the conveyor passes from one delivery position to another.

20 3. In merchandise dispensing apparatus a casing having a discharge opening in one wall thereof, a conveyor for holding merchandise, dispensing mechanism for moving said conveyor to position an article opposite said opening, a notched cam movable with said mechanism, a spring operated dog for engaging said cam to hold said conveyor in position with an article opposite said opening, a contact member carried by said cam, contact arms positioned to be bridged by said member as the cam passes from one dog engaging position to another, a phonographic attachment for transmitting an audible sound through said opening, means for driving said attachment, a second cam associated with said attachment adapted to normally prevent rotation and to permit rotation after being released, electro-magnetic means for releasing said second cam, an electrical connection between said contact arms and said electro-magnetic means whereby said attachment is set into operation each time the conveyor passes from one delivery position to the next.

45 In testimony whereof I affix my signature.
JOSEPH J. SCHERMACK.

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