

Dec. 21, 1965

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3,224,544

ARTICLE DISPENSING CONTROLLED MESSAGE PRODUCING MEANS

Filed May 29, 1963

3 Sheets-Sheet 1

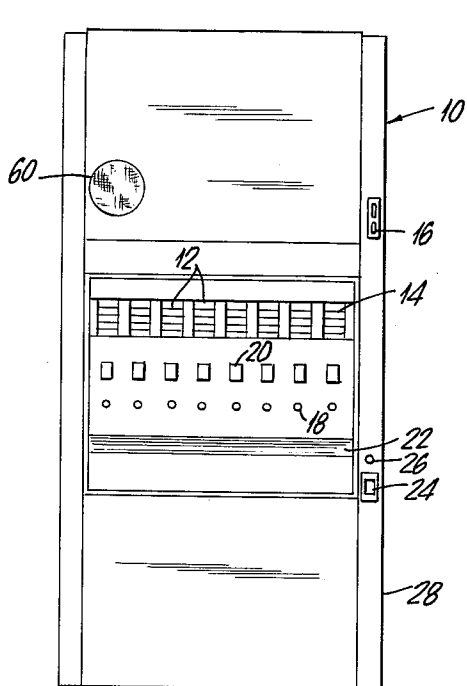


FIG. 1

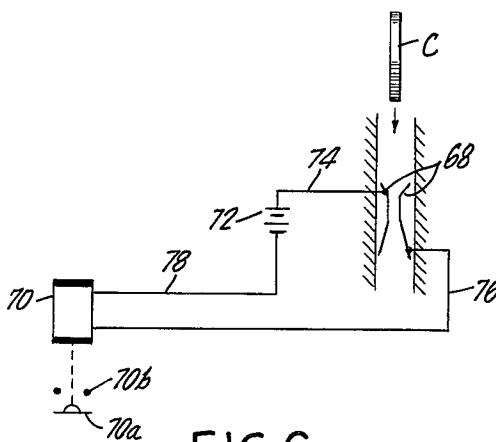


FIG. 6

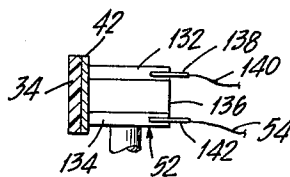


FIG. 7

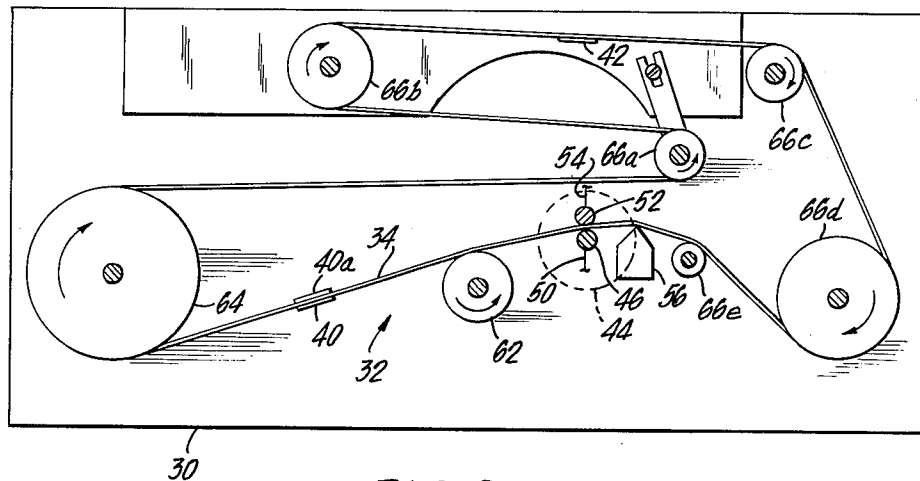


FIG. 3

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3 Sheets-Sheet 2

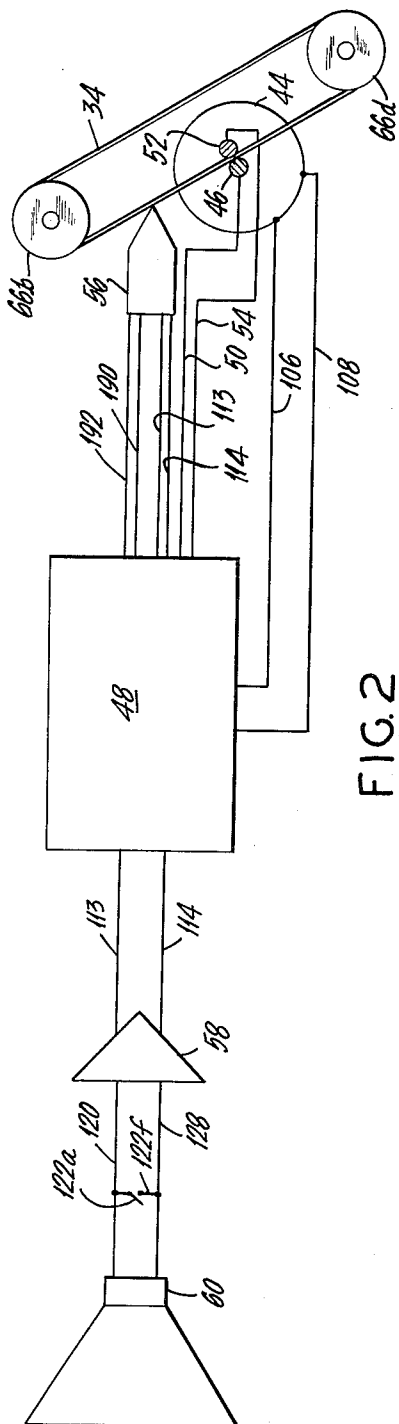


FIG. 2

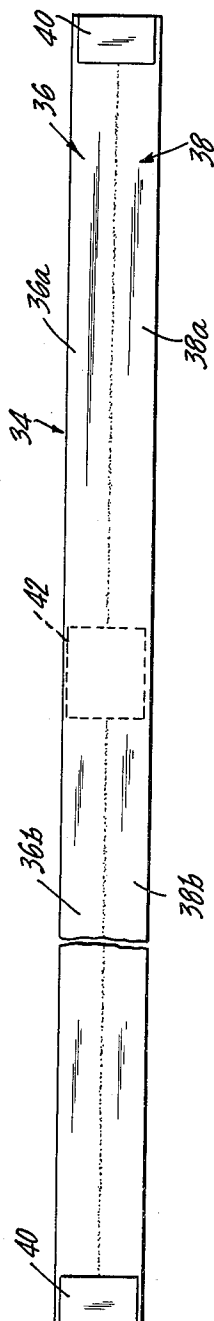


FIG. 4

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3 Sheets-Sheet 3

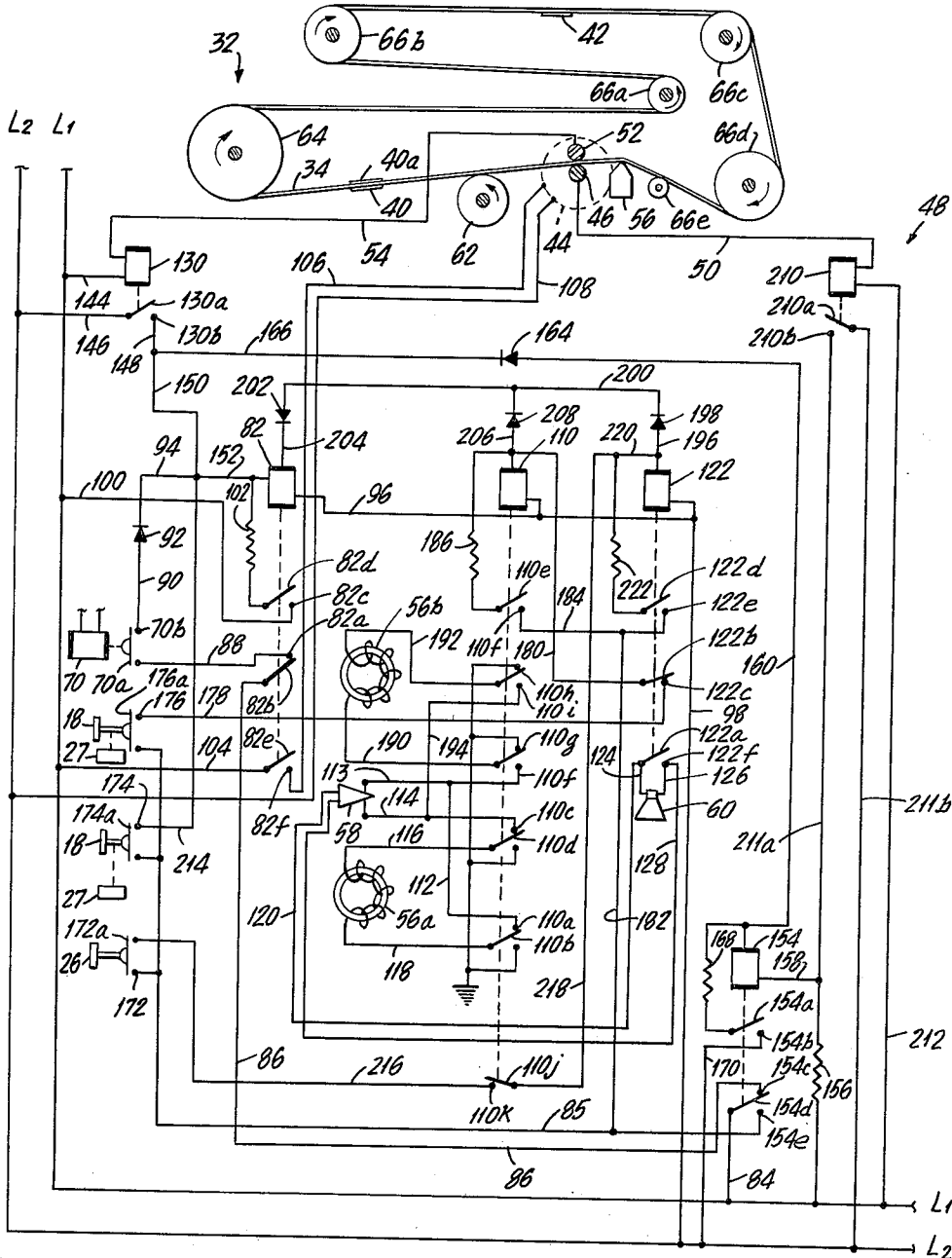


FIG. 5

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ARTICLE DISPENSING CONTROLLED MESSAGE PRODUCING MEANS

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Filed May 29, 1963, Ser. No. 284,170
24 Claims. (Cl. 194—10)

This invention relates to article dispensing apparatus and, more particularly, to apparatus for providing audible messages in accordance with the article dispensing operation of the dispensing apparatus.

An object of the present invention is to provide, in an article dispensing apparatus, audible message producing apparatus operable to induce the operator of the dispensing apparatus to select a particular article among a plurality of articles.

Another object is to provide means, in association with an article dispensing apparatus, for delivering an audible message to the operator of the apparatus, in response to initial operation of the apparatus and before a selection is made, to induce the operator to select a particular article among a plurality of articles and after the selection is made, to deliver another audible message of a type depending upon the selection made.

A further object is to provide audible message delivering means in association with a coin-operated cigarette dispensing means to induce the operator and prospective purchaser to purchase a particular brand of cigarettes among a plurality of different brands.

Another object is generally to provide an improved article dispensing apparatus and message producing apparatus therefor.

The above and other objects, features and advantages of the invention will be more fully understood from the following description of the invention considered in connection with the accompanying illustrative drawing of a presently preferred embodiment of the invention in which:

FIG. 1 is a front elevational view of a coin-operated cigarette dispensing machine incorporating the audible message delivery apparatus of the present invention;

FIG. 2 is a more-or-less block diagram illustrating the audible message transcribing apparatus and controls therefor;

FIG. 3 is a top plan view of the tape mechanism of the apparatus;

FIG. 4 is a view of the tape stretched-out for purposes of illustration;

FIG. 5 is a combined diagrammatic and electrical wiring diagram illustrating the controls for the apparatus;

FIG. 6 is a combined diagrammatic and electrical wiring diagram of part of the controls of the apparatus; and

FIG. 7 is a vertical section through the tape and a contact roller.

According to the invention, briefly described, the coin-operated cigarette dispensing machine is provided with audible message means for inducing the prospective purchaser to buy a particular brand of cigarettes from a plurality of different brands. Upon dropping of the coins into the slot therefor and prior to the making of a selection by the purchaser, the message means is operated and an audible message is transmitted to the purchaser suggesting the purchase of a particular brand. Thereafter, a selection is made by the purchaser and another message is transmitted to the purchaser depending upon the brand selected. If the selected brand is the same as the one originally suggested, then the message is in the form of a thank you, whereas if the selected brand is different from what was originally suggested, then the message is in the form of a reminder or inducement to

try the suggested brand next time. In this manner the cigarette dispensing machine is provided with audible message means for inducing purchase of a particular brand of cigarettes. The invention will now be described in detail with respect to the drawing.

The coin-operated cigarette dispensing machine 10 is of the usual type and has a series of vertical chutes 12, in side-by-side relation, which hold different brands of cigarettes. The cigarette package 14 is dispensed from its respective chute by inserting the necessary coins in a coin slot 16 and pulling a knob 18 at the bottom of the chute of the particular brand desired, the brand in each chute being identified by a cigarette package 20 placed at the bottom of the respective chute and visible through a transparent window provided in the casing of the machine as is well known. The dispensed cigarette package is guided into a receiving chute 22 where it may be removed by the operator, and the machine is also provided with a refund slot 24 through which coins are returned by operation of refund knob 26. It will be understood that the machine 10, as just described, is well-known and therefore need not be described any further. Any well-known dispensing mechanism 27 may be provided in the machine for each chute. Mechanism 27 is operated in response to the operation of the corresponding knob 18, in the usual fashion, and as diagrammatically illustrated in FIG. 5.

Incorporated within the housing 28 of the dispensing machine, in any suitable manner, is a support plate 30 on which is mounted a magnetic tape operating mechanism 32 for driving an endless magnetic tape 34 on which is provided a plurality of recorded messages. More particularly, and as best seen in FIG. 4, the tape comprises an upper channel 36 and a lower channel 38 and each of the channels is divided into two sections, 36a and 36b for the upper channel and sections 38a and 38b for the lower channel. An aluminum foil strip 40 is suitably secured to the front or outside of the tape at the beginning of channels 36 and 38 and another aluminum foil strip 40a is suitably secured to the back of the tape, behind strip 40a. A foil strip 42 is suitably secured to the back or inside of the tape at the junction between sections 36a and 38a and sections 36b and 38b.

Channel 36b has a sales message of inducement recorded thereon such as, for example, "For a treat instead of a treatment, buy brand X." As will be more clearly understood hereinafter, the sales message recorded on channel 36b is played upon insertion of the coins into the dispensing machine in order to induce the prospective purchaser to select the particular brand of merchandise, i.e., brand X in the present illustrative example.

Channel 38a has a thank you message recorded thereon and this channel is played after the purchaser selects brand X. In the event that the purchaser selects a brand other than brand X, then channel 38a is not played, as will be more clearly understood hereinafter, and channel 36a is played instead. Channel 36a has a message recorded thereon which is an inducement to buy brand X next time. For example, the message may be "Buy brand X next time." There is no message recorded on channel 38b.

The tape is threaded about a series of rollers mounted for rotation on board 30. More particularly, the tape is driven by a unidirectional motor 44 (FIG. 3) suitably mounted on the undersurface of the board and the electrical contacting capstan or roller 46 of the motor extends above the board and is in frictional driving contact with the outside of the tape. In addition to driving the tape, the capstan is in position to contact the electrically conducting strip 40 to transmit a control signal to the control system 48 (FIG. 5) via a lead 50, in a manner which will

be more fully explained hereinafter in reference to FIGS. 5 and 7.

An electrical contacting roller 52 is in engagement with the inside or back of the tape so that it may contact the inside conducting strips 40a and 42 to transmit a control signal to control system 48 via a lead 54, in the same manner as motor capstan 46.

The recorded message are picked up by an ordinary dual-channel pickup head 56 which is under the control of the control system 48 for playing back the messages recorded on sections 36a, 36b and 38a of the tape. The signal from the pickup head is amplified by a conventional amplifier 58 (FIGS. 2 and 5) powered from a suitable source, not shown, and the amplified signal is transmitted to a loudspeaker 60 for delivering the message to the operator. The loudspeaker, as shown in FIG. 1, is conveniently mounted in back of the front cover of the dispensing machine so that the message may be readily audible to the prospective purchaser, and it will be understood that the loudspeaker is energized in the usual fashion from a power source not shown.

The remaining parts of the tape operating mechanism 32 are conventional and include a spring loaded pressure roller 62, a roller 64 for maintaining tension on the tape, and idler rollers 66a, 66b, 66c, 66d and 66e.

The operation of the apparatus will now be described in detail and with particular reference to the control system 48, illustrated by FIG. 5. Operation is initiated, as indicated above, by the dropping of the required coins in the coin slot 16. As illustrated by FIG. 6, the falling coin C completes an electrical connection between a pair of spring contacts 68 to energize a battery-operated relay 70 via a circuit which may be traced as follows; battery 72, lead 74, contacts 68, lead 76, relay 70 and back to the battery via lead 78. Energization of the relay moves movable contact 70a of the relay into contact with stationary contact 70b of the relay. This completes an energization circuit to relay 82 which may be traced as follows: power line L₁, lead 84, normally closed contacts 154c and 154d of a relay 154, lead 86, closed contacts 82a and 82b of relay 82, lead 88, now closed contacts 70a and 70b of relay 70, lead 90, diode 92, lead 94, relay 82, leads 96 and 98 and power line L₂. Energization of relay 82 completes a holding circuit for the relay which may be traced as follows: power line L₁, lead 100, now closed contacts 82c and 82d of relay 82, resistor 102, relay 82, leads 96 and 98 and line L₂. Accordingly, as the coin passes contacts 68, de-energizing relay 70 so that contacts 70a and 70b disengage, relay 82 still remains energized, and any further closing of contacts 70a and 70b, for whatever reason during the operation of the cycle, is ineffective while relay 82 is energized due to the opening of contacts 82a and 82b.

Energization of relay 82 closes contacts 82e and 82f of the relay which completes an energization circuit to motor 44 of the tape operating mechanism 32 which may be traced as follows: power line L₁, lead 104, now closed contacts 82e and 82f of relay 82, lead 106, motor 44, lead 108 and line L₂. The motor rotates and the induced message on upper section 36b is played through the upper pickup channel 56a of pickup head 56 through a circuit which may be traced as follows; normally closed contacts 110a and 110b of relay 110, leads 112 and 113, amplifier 58, lead 114, normally closed contacts 110c and 110d of relay 110, lead 116, through the coil of the upper pickup channel 56a, lead 118 and back to closed contacts 110a and 110b. The amplified signal is transmitted from the amplifier 58 to the loudspeaker 60 through a lead 120, movable contact 122a of a relay 122, lead 124, loudspeaker 60, lead 126 and back to amplifier 58 via lead 128. It is to be noted that for purposes of explanation, in FIG. 5 the control system 48 is shown in an inoperative position, while the tape operating mechanism is shown in position after initial movement of the tape has begun.

The tape continues to move until roller 52 contacts inside foil 42 to complete a circuit to relay 130. FIG. 7 illustrates how a circuit is completed through the tape conducting foil strips and contact rollers. More particularly, each contact roller 46, 52 has an upper conducting part 132 and a lower conducting part 134 insulated from the upper part by a non-conducting intermediate part 136. The upper part has a spring contact 138 in sliding engagement therewith and a lead 140 connected thereto and to power line L₂. The lower part has a spring contact 142 in sliding engagement therewith and lead 54, in the case of roller 52, is connected thereto. It is to be observed that as the foil strip of the tape comes in contact with the contact rollers, the conducting parts 132 and 134 are electrically connected to each other to provide an energization signal to the control system 48.

Relay 130 is energized through a circuit which may be traced as follows: line L₁, lead 144, relay 130, lead 54, roller contact 52 and line L₂. Energization of relay 130 closes contacts 130a and 130b of the relay and relay 82 is de-energized since there is no longer a potential drop across its coil, one end of its coil being connected to line L₂ through lead 146, now closed contacts 130a and 130b, and leads 148, 150 and 152. The other end of its coil is connected to line L₂ via leads 96 and 98.

De-energization of relay 82, opens its contacts 82e and 82f to de-energize the motor which brings the tape to rest.

Closing of the contacts 130a and 130b of relay 130 also energizes a relay 154 through a circuit which may be traced as follows: line L₁, resistor 156, lead 158, relay 154, lead 160, diode 164, leads 166 and 148, now closed contacts 130a and 130b, lead 146 and line L₂. Energization of relay 154 closes contacts 154a and 154b to complete a holding circuit for relay 154 which may be traced as follows: line L₁, resistor 156, lead 158, relay 154, resistor 168, now closed contacts 154a and 154b, lead 170 and line L₂. Also contacts 154c and 154d of relay 154 open to prevent energization of relay 82 again during the cycle by the closing of contacts 70a and 70b.

Energization of relay 154 moves movable contact 154d of the relay into contact with stationary contact 154e of the relay connecting power line L₁ to stationary contacts 172, 174 and 176 of switches (not shown) having movable contacts 172a, 174a and 176a, respectively, which are operated, by any suitable means, in response to operation of any one of selector pull-knobs 18 or coin-return pull-knob 26. The circuit may be traced as follows: line L₁, lead 84, now closed contacts 154d and 154e and lead 85. Movable contact 176a is operated in response to operation of pull-knob 18 which selects the particular brand desired to be purchased by the operator of the machine, which is brand X in the present illustrative example. Contact 174a is operated in response to operation of any one of pull-knobs 18 which select brands other than brand X in the illustrative example, and contact 172a is operated in response to operation of coin-return knob 26.

If the operator actuates knob 18, selecting brand X, a circuit is completed through relay 110 which may be traced as follows: line L₁, lead 84, now closed contacts 154d and 154e, lead 85, now closed contacts 176 and 176a, lead 178, normally closed contacts 122b and 122c of relay 122, lead 130, relay 110, leads 96 and 98, and line L₂. Energization of relay 110 closes contacts 110e and 110f of the relay completing a holding circuit for the relay which may be traced as follows: line L₁, lead 84, closed contacts 154d and 154e, leads 85, 182 and 184, closed contacts 110e and 110f, resistor 186, relay 110, leads 96 and 98, and line L₂. Energization of relay 110 opens contacts 110c and 110d thereby disconnecting upper pickup channel 56a from the amplifier and connecting lower pickup channel 56b to the amplifier through a circuit which may be traced as follows: amplifier 58, lead 113, now closed contacts 110f and 110g of relay 110, lead

190, the coil of lower pickup channel 56b, lead 192, now closed contacts 110h and 110i, leads 194 and 114 and back to the amplifier. Contacts 110j and 110k of relay 110 also open preventing relay 122 from being operated during this cycle in the event that the coin-return contact 172a is operated after a selection has been made.

Energization of relay 110 also energizes relay 82 since the relays are connected in parallel. More particularly, one end of each of the coils of relays 82, 110 and 122 are connected to each other by lead 96. The opposite ends of coils 110 and 122 are connected to the opposite end of the coil of relay 82. With respect to relay 122, the connection comprises lead 196, diode 198, lead 200, diode 202, and lead 204. With respect to relay 110, the connection comprises lead 206, diode 208, lead 200, diode 202 and lead 204. In other words, energization of either relay 110 or 122 results in the energization of relay 82, but energization of relay 82 does not result in the energization of either relays 110 and 122 because of the diodes.

Energization of relay 82 closes contacts 82e and 82f to energize motor 44 and the tape is moved to play the "Thank you" message on lower channel section 38a of the tape. The motor continues to operate until metal foil strip 40 contacts roller 46 to complete an energization circuit to relay 210 which may be traced as follows: line L₁, lead 212, relay 210, lead 50, roller 46, strip 40, and line L₂. Energization of relay 210 closes its contacts 210a and 210b whereby the opposite ends of the coil of relay 154 are connected to line L₂, via leads 211a and 211b, resulting in the de-energization of relay 154. De-energization of relay 154 opens contacts 154d and 154e thereby de-energizing relay 110. De-energization of relay 110 places its contacts in the position shown in FIG. 5 whereby the upper pickup channel 56a is again in position to transmit the message recorded on channel section 36b of the tape, which is the message played at the beginning of the cycle.

Foil 40a simultaneously contacts roller 52 which results in the energization of relay 130 wherein the opposite ends of the coil of relay 82 are connected to line L₂ thereby de-energizing the relay and opening contacts 82e and 82f to stop motor 44. The cycle has now been completed.

If, in lieu of operating contacts 176a and 176 in the selection of brand X, another selection is made by actuating knob 18 so that a brand other than brand X is selected, contacts 174a and 174 are closed in response to the operation of the knob and relay 82 is energized. The energization circuit for the relay may be traced as follows: line L₁, lead 84, closed contacts 154d and 154e, lead 85, now closed contacts 174a and 174, leads 214 and 152, relay 82, leads 96 and 98 and line L₂. Motor 44 operates again and the upper pickup channel 56a continues to operate and picks up the message which is recorded on upper section 36a of the tape, and thereafter the cycle is completed and the relay contacts repositioned for commencement of a new cycle as previously described.

If the coin reject knob 26 is operated in lieu of any of knobs 18, contacts 172a and 172 are closed to complete an energization circuit to relay 122 which may be traced as follows: line L₁, closed contacts 154d and 154e, lead 85, closed contacts 172a and 172, lead 216, closed contacts 110j and 110k, leads 218 and 220, relay 122, lead 98 and line L₂. Energization of relay 122 completes a holding circuit for the relay through line L₁, lead 84, closed contacts 154d and 154e, leads 85, 182 and 184, now closed contacts 122d and 122e of relay 122, resistor 222, lead 220, relay 122, lead 98 and line L₂. Energization of relay 122 also energizes relay 82 so motor 44 operates to return the tape to its initial starting point, as previously described. During this movement of the tape, no sound is transcribed since the loudspeaker 60 is short-circuited due to the closing of contacts 122a and 122f of relay 122.

While we have shown and described the preferred embodiment of the invention, it will be understood that the invention may be embodied otherwise than as herein specifically illustrated or described, and that certain changes in the form and arrangement of parts and in the specific manner of practicing the invention may be made without departing from the underlying idea or principles of this invention within the scope of the appended claims.

We claim:

1. In an article dispensing apparatus, a plurality of storage means for a plurality of different articles, respectively, a plurality of corresponding dispensing means under the control of the operator of the apparatus for dispensing the article from its storage means, presetting means under the control of the operator adapted to be actuated prior to the actuation of any one of said dispensing means to render the latter operative, means responsive to the operation of said presetting means for producing a message for the operator prior to the operation of any one of said dispensing means, another message producing means associated with a predetermined set of one or more of said dispensing means, and means operable in response to the operation of one of said predetermined set of dispensing means for automatically actuating the message producing means corresponding to said predetermined set dispensing means.

2. In a coin-operated article dispensing apparatus, a coin slot, a plurality of storage means for a plurality of different articles, respectively, dispensing means for each of said storage means for selective dispensing of any one of said articles from its storage means, means responsive to the dropping of the coin through said coin slot for producing an audible message for the operator prior to the operation of any one of said dispensing means, other audible message producing means associated with a set of predetermined one or more of said dispensing means, and means operable in response to the operation of one of said predetermined dispensing means for automatically actuating the audible message producing means corresponding to the predetermined dispensing means operated by the operator.

3. In a coin-operated article dispensing apparatus, a coin slot, a plurality of storage means for a plurality of different articles, respectively, dispensing means for each of said storage means for selective dispensing of any one of said articles from its storage means, audible message transcribing means having first, second and third audible recorded messages, means responsive to the dropping of the coin through said coin slot for operating said audible message transcribing means to transcribe said first message, means operable in response to the operation of any one of said dispensing means to operate said audible message transcribing means and transcribe one of said second and third messages according to which dispensing means is operated, and means for preventing said last mentioned operation of said message transcribing means until the completion of the transcribing of said first message.

4. In a coin-operated article dispensing apparatus, a coin slot, a plurality of storage means for a plurality of different articles, respectively, dispensing means for each of said storage means for selective dispensing of any one of said articles from its storage means, audible message playing means including first, second and third channels having correspondingly first, second and third audible messages recorded thereon and transcribing means for playing said recorded messages, means for controlling the operation of said message playing means including first electric means operable in response to the dropping of the coin through said coin slot for operating said playing means to play said first recorded message, second electric means operable in response to the operation of one of said dispensing means for operating said playing means to play said second recorded message, third electric means oper-

able in response to the operation of another one of said dispensing means for operating said playing means to play said third recorded message, and means to prevent the operation of said playing means to play said second and third recorded messages until said first message is played.

5. In a coin-operated article dispensing apparatus, a coin slot, coin return means, a plurality of storage means for a plurality of different articles, respectively, dispensing means for each of said storage means for selective dispensing of any one of said articles from its storage means, audible message playing means including first, second and third channels having correspondingly first, second and third audible messages recorded thereon and transcribing means for playing said recorded messages, means for controlling the operation of said message playing means including first electric means operable in response to the dropping of the coin through said coin slot for operating said playing means to play said first recorded message, second electric means operable in response to the operation of one of said dispensing means for operating said playing means to play said second recorded message, third electric means operable in response to the operation of another one of said dispensing means for operating said playing means to play said third recorded message, fourth electric means operable in response to the operation of said coin return means for rendering said transcribing means inoperable during the operation of said message playing means, and means to prevent the operation of said playing means to play said second and third recorded messages until said first message is played.

6. In a coin-operated article dispensing apparatus, a coin slot, a plurality of storage means for a plurality of different articles, respectively, dispensing means for each of said storage means for selective dispensing of any one of said articles from its storage means, audible message playing means including first, second and third channels having corresponding first, second and third audible messages recorded thereon and transcribing means for playing said recorded messages, and control means for controlling the operation of said playing means, said control means comprising first switch means operable in response to the dropping of the coin through said coin slot and first circuit means electrically connected to said first switch means for operation by the latter, second switch means operable in response to the operation of one of said dispensing means and second circuit means electrically connected to said second switch means for operation by the latter, third switch means operable in response to the operation of another one of said selecting means and third circuit means electrically connected to said third switch means for operation by the latter, motor means for driving said playing means and electrically connected to said first circuit means for control by the latter, and means responsive to the operation of said playing means for controlling the operation of said first, second and third circuit means and the operation of said transcribing means to play said first, second and third messages according to the operation of said dispensing means.

7. In a coin-operated article dispensing apparatus according to claim 6, wherein said apparatus includes coin return means and said control means includes fourth switch means responsive to the operation of said coin return means and fourth circuit means electrically connected to said fourth switch means for operation by the latter, and other circuit means interconnecting said fourth circuit means to said transcribing means for rendering the latter inoperable in the event said coin return means is actuated.

8. In a coin-operated article dispensing apparatus according to claim 3, wherein said audible message transcribing means comprises an endless tape having an upper part having two sections and a lower part, said first message being recorded on one of said sections and said second message being recorded on said other section, and said

third message being recorded on said lower part, and electrical conducting means secured to said tape and in position to control the operation of said transcribing means according to the operation of said dispensing means.

9. In a coin-operated article dispensing apparatus, a coin slot, a plurality of storage means for a plurality of different articles, respectively, dispensing means for each of said storage means for selective dispensing of any one of said articles from its storage means, audible message playing means including a movable member having first, second and third messages recorded thereon and transcribing means for playing said recorded messages, and control means for operating said playing means, said control means comprising means responsive to the dropping of the coin through said slot for moving said member and operating said transcribing means for playing said first message, means rendering said dispensing means inoperable during said playing of said first message, and means operable in response to the operation of one of said dispensing means to move said member and operate said transcribing means to play one of said second and third messages according to the dispensing means operated.

10. In a coin-operated article dispensing apparatus, a coin slot, a plurality of storage means for a plurality of different articles, respectively, dispensing means for each of said storage means for selective dispensing of any one of said articles from its storage means, audible message playing means including a movable member having first, second and third messages recorded thereon and transcribing means for playing said recorded messages, and control means for operating said playing means, said control means comprising electrical conducting means on said member positioned at locations on said member corresponding to the locations of the beginnings and ends of said recorded messages, contact means in engagement with said member to contact said conducting means and provide signals indicating the beginning and ends of said messages, a motor for moving said member, circuit means connected to said contact means, said transcribing means and said motor for controlling the operation of said transcribing means and said motor, said circuit means including means responsive to the dropping of the coin through said slot for moving said member and operating said transcribing means for playing said first message, means rendering said dispensing means inoperable during said playing of said first message, and means operable in response to the operation of one of said dispensing means to move said member and operate said transcribing means to play one of said second and third messages according to the dispensing means operated.

11. In a coin-operated article dispensing apparatus according to claim 10, wherein said apparatus includes coin return means, and said circuit means includes means to operate said motor in response to operation of said coin return means and to render said transcribing means inoperable during the resulting movement of said member.

12. In an article dispensing apparatus, a plurality of storage means, a plurality of means under the control of the operator for dispensing said articles, one for each storage means, preparing means under the control of the operator adapted to be actuated prior to actuation of one of said dispensing means to render any one of said dispensing means operative, a plurality of electrically operated voice message producing devices, means to actuate one of said electrically operated devices upon actuation of said preparing means, and means to actuate another of said electrically operated devices upon actuating any one of a predetermined one or more of said dispensing means after actuation of said preparing means.

13. In an article dispensing apparatus, a plurality of storage means, a plurality of means under the control of the operator for dispensing said articles, one for each

storage means, preparing means under the control of the operator adapted to be actuated prior to actuation of one of said dispensing means to render said dispensing means operative, a plurality of electrically operated voice message producing devices, means to actuate one of said electrically operated devices upon actuation of said preparing means, means to actuate another of said electrically operated devices upon actuating any one of a predetermined one or more of said dispensing means after actuation of said preparing means, and means to actuate still another of said electrically operated devices upon actuating any one of the other predetermined one or more of said dispensing means after actuation of said preparing means.

14. In combination, a plurality of storage means for storing articles to be dispensed, a plurality of dispensing means, one for each storage means, manually controlled means to selectively actuate one of said dispensing means for dispensing articles from a selected storage means, coin receiving means, coin controlled means to render all of said dispensing means operable upon insertion of the coin into the coin receiving means prior to operating one of said dispensing means, a plurality of sound recordings, means controlled by said coin controlled means to reproduce one of said recordings, and means controlled by one of said dispensing means to reproduce another of said recordings.

15. In combination, a plurality of storage means for storing articles to be dispensed, a plurality of dispensing means, one for each storage means, manually controlled means to selectively actuate one of said dispensing means for dispensing articles from a selected storage means, coin receiving means, coin controlled means to render all of said dispensing means operable upon insertion of the coin into the coin receiving means prior to operating one of said dispensing means, a plurality of sound recordings, means controlled by said coin controlled means to reproduce one of said recordings, means controlled by operation of one of said dispensing means to reproduce another of said recordings, and means controlled by operation of another of said dispensing means for reproducing still another of said recordings.

16. In combination, a plurality of storage means for storing articles to be dispensed, a plurality of dispensing means, one for each storage means, manually controlled means to selectively actuate one of said dispensing means for dispensing articles from a selected storage means, coin receiving means, coin controlled means to render all of said dispensing means operable upon insertion of the coin into the coin receiving means prior to operating one of said dispensing means, a plurality of sound recordings, means controlled by operation of one of said dispensing means to reproduce one of said recordings, and means controlled by operation of another of said dispensing means for reproducing another of said recordings.

17. In article dispensing apparatus, a plurality of storage means for storing articles to be dispensed, manually controlled dispensing means for each of said storage means for selective dispensing of the articles from their respective storage means, coin receiving means, sound producing apparatus having at least three recorded messages for reproducing, coin controlled means for operating said sound producing apparatus upon insertion of the coin in said coin receiving means prior to the operation of said dispensing means to reproduce a first message, and means controlled by said dispensing means to operate said sound producing apparatus to reproduce another of said messages according to the dispensing means operated, said coin controlled means including switch means operable in response to the insertion of the coin in said coin receiving means, first relay means operable by said switch means, and motor means operable by said first relay means for operating said sound producing means.

18. In article dispensing apparatus according to claim 17, wherein said sound producing apparatus comprises a movable recording having said messages recorded thereon in predetermined relative positions, said motor means being operatively connected to said recording for moving the latter, said sound producing apparatus also including sound pickup means, second switch means operable in response to the operation of one of said dispensing means, second relay means operable by said second switch means for controlling the operation of said pickup means, third switch means operable in response to the operation of another of said dispensing means, and third relay means operable by said third switch means for operating said second relay means and thereby operate said pickup means.

19. In article dispensing apparatus according to claim 18, manually operated coin reject means, fourth switch means operable in response to the operation of said coin reject means, fourth relay means operable by said fourth switch means to short-circuit a part of said pickup means so that no message is reproduced during a part of the operation of said motor means.

20. In article dispensing apparatus in accordance with claim 19, electrically conducting means positioned on said recording at the beginning and ends of said messages, and means for interconnecting said conducting means and said first, second, third and fourth relays for control of the latter in accordance with the positions of said recording and the positions of the recorded messages thereon.

21. In combination, a first manually actuated means, a set of more than two manually actuated means, a first electrically operated sound signal producing means, a second electrically operated sound signal producing means, a third electrically operated sound signal producing means, means to actuate the first signal producing means upon actuating the first manually actuated means, means to actuate the second signal producing means upon actuating a predetermined one of said set of manually actuated means only after first actuating the first manually actuated means, and means to actuate the third signal producing means upon actuating any of a plurality of other of said set of manually actuated means only after first actuating the first manually actuated means.

22. In combination, a first manually actuated means, a set of manually actuated means, a first electrically operated sound signal producing means, a second electrically operated sound signal producing means, means to actuate the first signal producing means upon actuating the first manually actuated means, and means to actuate the second signal producing means upon actuating a predetermined one of said set of manually actuated means only after first actuating the first manually actuated means.

23. In combination, a plurality of article storage means, a manually actuable means for each of said storage means, separate means for dispensing articles from each storage means, each controlled by the manually actuable means associated with the corresponding storage means, a single means to precondition the plurality of dispensing means for actuation of any one of said dispensing means upon actuating the manually controlled means associated therewith, a first signal means, means to actuate the first signal means upon actuating said preconditioning means, a second signal means, means to actuate said second signal means upon actuating a predetermined one of said manually controlled means only after first actuating the preconditioning means, a third signal means, and means to actuate said third signal means upon actuating any one of a plurality of other manually controlled means only after first actuating said preconditioning means.

24. The combination of claim 23, said first, second and third signal means constituting parts of a single sound reproducing mechanism.

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References Cited by the Examiner

UNITED STATES PATENTS

2,712,887	7/1955	King -----	194—10	X
2,792,920	5/1957	Sutphen et al. -----	194—6	
2,944,116	7/1960	Vershoven -----	194—15	X
3,023,874	3/1962	Zindel -----	194—10	

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FOREIGN PATENTS

305,267 2/1929 Great Britain.

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