June 9, 1931. H. D. GREGORY 1,809,691

DISPENSING DEVICE FOR STACKED ARTICLES

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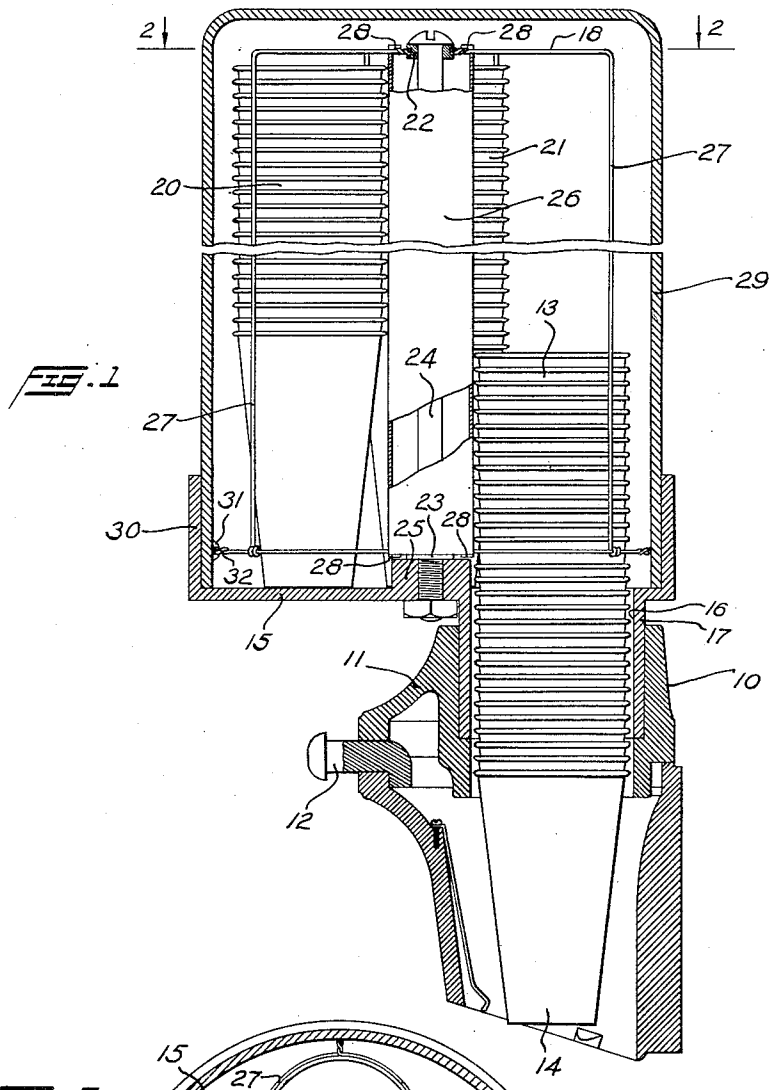


FIG. 1

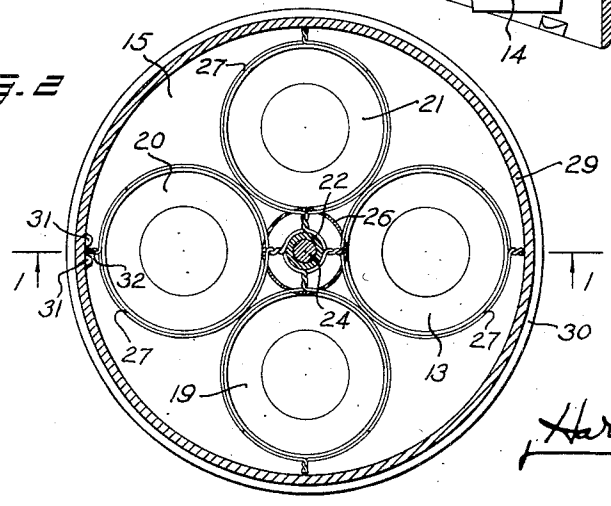


FIG. 2

INVENTOR

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UNITED STATES PATENT OFFICE

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DISPENSING DEVICE FOR STACKED ARTICLES

Application filed February 19, 1929. Serial No. 341,063.

This invention relates to improvements in dispensing devices for stacked articles, and to subject-matter divided from my copending application filed August 17, 1925 and bearing Serial No. 50,819.

One of the objects of the present invention is to provide improved apparatus of the character referred to wherein the same has a greater capacity than such apparatus constructed heretofore.

Other objects and advantages will hereinafter appear.

For the purpose of illustrating the invention, one embodiment thereof is shown in the drawings, wherein

Figure 1 is a vertical sectional view, partly broken away, of a dispensing device embodying the present improvements, the section being taken on the line 1—1 in Fig. 2; and

Fig. 2 is a sectional view, the section being taken on the line 2—2 in Fig. 1.

Referring more particularly to Fig. 1, an escapement device, indicated generally by reference numeral 10, comprises the casing 11 and a manually-operable element 12, and is shown, for the purpose of illustration, as being of the general type used for dispensing a column 13 of nested cups. The construction and manner of operation of the particular escapement device shown are well known to those skilled in the art, reference, in this connection, being made to patent No. 1,260,432 of March 26, 1928, to Nias. The action, generally, is that upon movement of element 12 to the right, the device operates to release the lowermost cup 14, while, at the same time, supporting the remaining cups for subsequent release individually and in like manner upon repeated actuation of element 12.

A base member 15 is provided with the opening 16 accommodating the column of cups 13 in operative association with escapement device 10, such column passing downwardly through this opening as the cups comprising the same are ejected or released by device 10 and individually from the lower end of the column in a direction axially thereof. The base member 15 is further provided with a sleeve portion 17 concentric with opening 16 and fitting snugly in telescopic relation with casing 11, as shown, whereby the base member and the associated device 10 are connected in cooperative relationship with respect to each other.

Associated with base member 15 is a member, indicated generally by reference numeral 18, and operable to receive and support additional columns of cups 19, 20 and 21. Member 18 is provided at its upper and lower ends with bearings 22 and 23 in the form of hollow rivets or grommets and through which a pivot element or shaft 24 loosely passes. The lower bearing 23 seats upon the enlarged central portion 25 of base member 15 in which the lower end of shaft 24 is threaded and fixed as shown.

Member 18 is shown as being made of wire pieces shaped and connected to form the various compartments or chambers for receiving the columns of stacked articles or cups, this member including the central tubular part 26 through which shaft 24 passes and which provides with the upright wire portions 27 of member 18 a three-point support for each of the columns of articles 13, 19, 20 and 21. The tubular part 26 is provided at its upper and lower ends with the ears 28 bent inwardly as shown over the central parts of the wire structure at bearings 22 and 23 to hold the same in assembled relation.

The member 18 is shown and described in detail in my copending application above referred to.

A protective casing 29, which may be made of transparent glass, is disposed over the columns of articles, as shown, and fits loosely at its lower end portion in telescopic relation with the upwardly directed flange or rim portion 30 of base member 15.

Lugs or ears 31, with which casing 30 is provided, are spaced as shown to receive one of the outwardly projecting studs 32 of member 18, whereby the latter is connected to the casing for rotation therewith.

In the operation of the present improved dispensing device, the manually-operable element 12 may be actuated to dispense or eject the articles or cups of column 13 individually and in a direction axially of the column until

the entire number of cups have been removed, after which casing 29 is grasped by the operator and rotated in the desired direction to impart rotary movement to member 18 connected thereto, thereby causing rotary movement of columns 19, 20 and 21 over base 15 by such amount as to effect movement of the next succeeding column 19 over opening 16 to permit the same to drop into operative association with escapement device 10. In like manner, movement of columns 20 and 21 into operative association with device 10 is effected upon removal by the latter of the entire or substantially the entire number of articles or cups of the respective preceding column.

While the escapement device 10 has been shown as being of the specific construction disclosed in the Nias patent above referred to, it will be appreciated that any other device of this general type may be employed, that is, a device operable to permit or provide for removal of articles, stacked to form a column, from one end of the column individually and in a direction axially thereof.

The member 18, also, may be of any suitable construction other than that shown.

Furthermore, it will be understood that various changes may be made such as in the size, shape and arrangement of the parts without departing from the spirit of the invention or the scope of the claims.

The invention claimed is:

1. A dispensing device including a base having a discharge opening therein, a member rotatably supported by the base and adapted to support a plurality of stacks of articles to be dispensed with one of the stacks normally in alignment with the opening for discharge of articles therethrough and the lowermost articles of the remaining stacks resting upon the base for support thereby and operation thereover, an outwardly extending projection on the rotatable member, and a cover rotatably supported by the base for enclosing the articles and provided with an inwardly directed lug, the outwardly directed projection of the rotatable member engaging the lug on the cover whereby the member may be rotated by the cover to successively bring the stacks of articles into alignment with the discharge opening.

2. A dispensing device including a base having a discharge opening therein, a member rotatably supported by the base and adapted to support a plurality of stacks of articles to be dispensed with one of the stacks normally in alignment with the opening for discharge of articles therethrough and the lowermost articles of the remaining stacks resting upon the base for support thereby and operation thereover, an outwardly extending projection on the rotatable member, and a cover rotatably supported by the base for enclosing the articles and provided with inwardly directed spaced lugs, the outwardly directed projection of the rotatable member engaging between the lugs on the cover whereby the member may be rotated by the cover to successively bring the stacks of articles into alignment with the discharge opening.

3. A dispensing device including a base having a discharge opening therein, a member rotatably supported by the base and adapted to support a plurality of stacks of articles to be dispensed with one of the stacks normally in alignment with the opening for discharge of articles therethrough and the lowermost articles of the remaining stacks resting upon the base for support thereby and operation thereover, circumferentially spaced outwardly extending projections on the rotatable member, and a readily removable cover rotatably supported by the base for enclosing the articles and provided with inwardly directed spaced lugs, the cover being adapted to be positioned over the rotatable member to engage one of the circumferentially spaced projections between the lugs carried thereby, the rotatable member being rotated by the cover to successively bring the stacks of articles into alignment with the discharge opening.

In witness whereof, I hereto affix my signature.

HAROLD D. GREGORY.