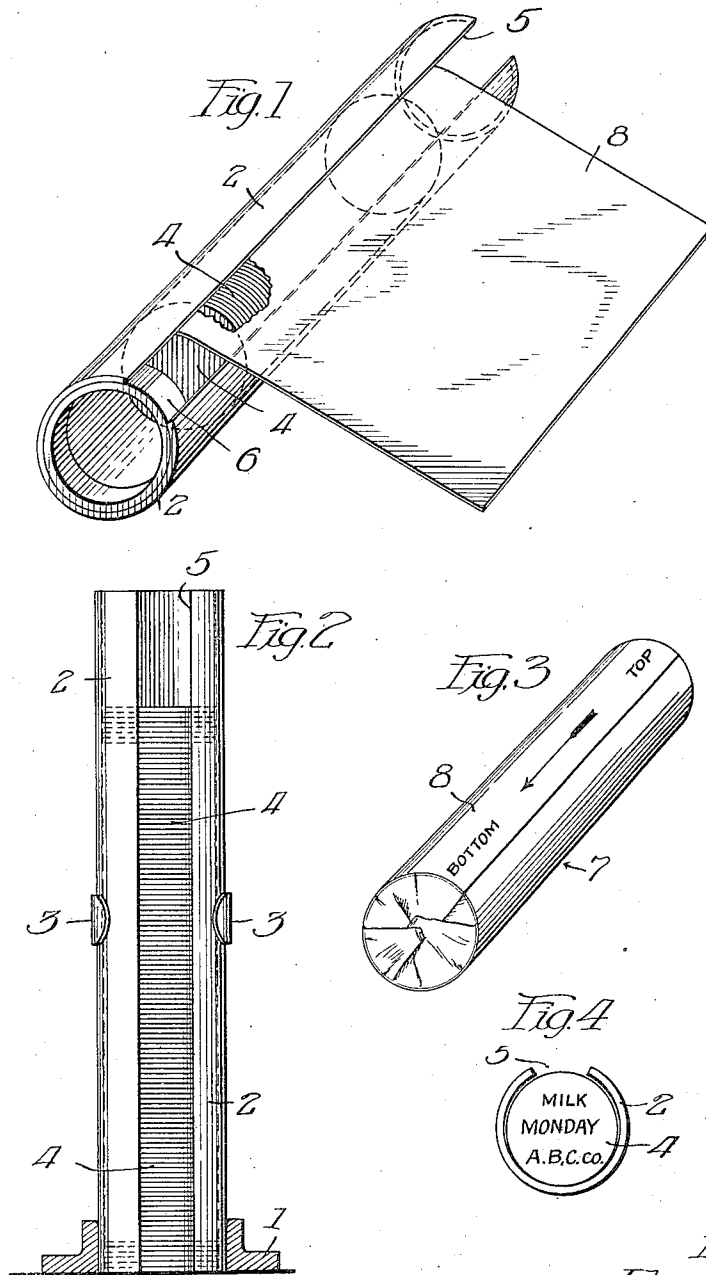


J. BRICKEN.
METHOD OF SUPPLYING A MAGAZINE WITH BLANKS.
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UNITED STATES PATENT OFFICE.

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METHOD OF SUPPLYING A MAGAZINE WITH BLANKS.

Application filed February 17, 1919. Serial No. 277,537.

To all whom it may concern:

Be it known that I, JOHN BRICKEN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Methods of Supplying a Magazine with Blanks, of which the following is a specification.

My invention relates to improvements in method of supplying a magazine with blanks. For the purpose of illustration I shall describe the invention in connection with a device for feeding cardboard discs or caps to a milk bottle capping machine.

The paper caps, as purchased from the manufacturer heretofore, are delivered in tubes made preferably of paper or cardboard, the ends of which are either closed or crimped inwardly to prevent the paper caps from falling out and to keep them clean. There is some inconvenience attending the removal of the paper caps from the cardboard container, as it is necessary to cut off the end of the container, fit it onto the capping machine with the open end down and allow the contents to descend and be fed to the machine one at a time. The tube or container, therefore, constitutes a temporary magazine and is thrown away when empty. Furthermore, the actual cost of the cardboard container is an appreciable amount and inasmuch as said containers are used in considerable quantities by large dairies, their aggregate cost over a period of months is very considerable. Also such containers as are merely crimped at the end are not as sanitary as they should be, as they fail to exclude dust.

The general object of the present invention is to overcome the present objections and also to reduce the cost of the package or container and hence of the caps as a whole.

Referring to the drawings—

Figure 1 is a perspective view of a package partly unwrapped within its container;

Fig. 2 is an elevation of a modified form of container filled with the caps or discs;

Fig. 3 is a perspective view of a package of caps before they are unwrapped, and

Fig. 4 is an end view of the container with the caps therein.

The bottle capping machine may be of any suitable construction and is provided with a collar 1 adapted to form a seat for and hold the container or magazine 2. The

magazine may also be secured by a clip 3. The rest of the machine is not illustrated as it forms no part of the present invention. The caps for the bottles are stored in the container or magazine and consist, in the present instance, of cardboard discs 4 arranged in a vertical pile. These caps are removed from the bottom of the pile one at a time during the operation of the machine and pressed into the mouths of the bottles to close the latter. The magazine is preferably cylindrical and has a longitudinal slot 5 which may be of less length than the magazine or which may extend from end to end. In Fig. 1 the upper end of the magazine is reinforced by a metal ring 6 which also acts as a stop to prevent the caps 4 from falling out of the magazine, if the latter is inverted.

In Figs. 2 and 4 the magazine consists simply of a sheet of metal 2 rolled to cylindrical form, the edges of which do not meet, thus providing a slot as long as the magazine itself. The cardboard caps are furnished in a package 7, shown in Fig. 3, said package consisting simply of a plurality of caps rolled up in a sheet of paper 8, the paper at the ends of the package being folded down, as shown, to prevent unwrapping. The paper is preferably of a distinctive color for the reason that it is customary in many cases to provide caps which have the day of the week, Monday, Tuesday, Wednesday, &c., printed thereon, and by using one color for caps printed "Monday" and another color for caps printed "Tuesday," the operator is assured that he is inserting the proper caps in the magazine without opening the package. An arrow or other symbol or words indicate the top and bottom of the package and hence the side of the discs on which the printing appears. The caps are introduced into the magazine by slipping the package bodily into one end thereof. In using the device of Fig. 1, the magazine is simply lifted from the machine 1 and is partially inverted, after which the package, which has a diameter somewhat less than the inner diameter of the tube, is slipped thereinto with the edge of the paper 8 accessible through the slot or opening 5. The operator then simply seizes the edge of the paper and draws it out tangentially, as shown in Fig. 1, thereby unwrapping the package by imparting a rotary motion thereto, the discs remaining in the maga-

zine in a compact group. In restoring the magazine to the machine, the operator simply inserts his finger partway through the slot or through the bottom opening thereby keeping the discs from falling out until the magazine is seated, as in Fig. 2.

In the form of device shown in Fig. 2 it is not necessary to remove the magazine from the machine as the package is simply dropped through the open upper end thereof and the wrapper thereafter removed in the manner previously described, leaving the discs in the magazine in a vertical pile. In some cases, it facilitates the unwrapping operation to partially unfold the folded-over ends of the package, although in most cases such preliminary step is not necessary, as the ends unfold themselves as the paper is pulled through the slot. The discs or caps are somewhat smaller than the inner diameter of the magazine, sufficient clearance being provided to facilitate the ready removal of the wrapping paper, which is thereafter thrown away.

Where the contents of the package are cylindrical in shape, as in the present instance, the wrapper, as it is removed, imparts a rotary motion to the contents, the wrapper sliding against the magazine and simply rolling off of the contents without slipping thereover except to a limited extent. Where the contents are non-cylindrical, however, or where, for other reasons, the shapes of the contents and of the magazine or container are such that said contents cannot turn within said container, the outer wrapper may be removed by simply forcibly sliding it over the contents and out of the opening in the container.

It is apparent that the invention is capable of various applications and, therefore, is not to be limited to the embodiment thereof described herein except where limitations appear in the appended claims.

What I claim is:—

1. The method of supplying blanks to a machine, which consists in introducing said blanks into said machine in a compact group surrounded by a wrapper and thereafter removing said wrapper laterally with refer-

ence to said group, leaving said blanks in said compact relation in said machine.

2. The method of introducing blanks into a magazine which consists in wrapping said blanks, introducing the package thus formed into said magazine and withdrawing said wrapper laterally with reference to said package without withdrawing said blanks.

3. The method of introducing cylindrical blanks into a cylindrical magazine, which consists in enclosing said blanks in a wrapper forming a cylindrical package, introducing said package into one end of said magazine and withdrawing said wrapper through the side of said magazine.

4. The method of introducing cylindrical blanks into a cylindrical tube which consists in first enclosing a compact group of said blanks in wrapping paper forming a cylindrical package, introducing said package longitudinally into said tube, and withdrawing said wrapper tangentially through the side of said tube, thereby rotating said blanks and unwrapping them by a tangential movement of the paper with respect thereto.

5. The method of supplying a magazine with blanks, which consists in laterally winding a wrapper around a sufficient quantity of said blanks, introducing the package thus formed into said magazine, and thereafter removing said wrapper laterally therefrom.

6. The method of supplying blanks to a magazine, which consists in completely enclosing said blanks in a wrapper, inserting the package thus formed into said magazine, and thereafter withdrawing said wrapper, leaving said blanks in the same relative arrangement in said magazine.

7. The method of supplying a magazine with blanks which consists in enclosing a number of said blanks in a wrapper, inserting the package thus formed in said magazine and thereafter removing said wrapper in a plane tangential to the circumference of said blanks.

In testimony whereof, I have subscribed my name.

JOHN BRICKEN.