

SPECIFICATION

Apparatus and method for dispensing articles

- 5 This invention relates to a dispensing device for dispensing articles, and more particularly, to a dispenser for pre-moistened towels or tissues, wherein the dispenser has a removable closure with a slitted opening therethrough through which the
10 towels or tissues and the like are removed one at a time.

The slitted opening, as contemplated herein, encompasses narrow slots where the sides of the opening are not in contact with each other as well as
15 those where the sides are in contact with each other but can be displaced to define the opening. The essential requirement is that the opening be too narrow to permit convenient withdrawal of the contents of the container by merely inserting one's
20 fingers therein.

An example of a prior art dispenser of the type with which this invention is concerned is disclosed in U.S. Patent 4,017,002. In order to initiate threading of towels through the slitted opening in the dispenser
25 described in this patent, it is necessary for the user to push a leading part of a towel through the slitted opening, e.g., with a finger, so that it may be grasped from outside the container to thereafter draw the towel from the container through the slitted opening.
30 The towels are arranged in the container such that withdrawal of one towel causes threading of a subsequent towel through the slitted opening so that it may be grasped.

Another type of dispenser is described in U.S. Patent 4,101,026, in which a threading implement or device 6 is used for withdrawing an initial towel from the container. However, in this patent, the threading device or implement is separate from the container and after its initial use may become lost or misplaced.
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In a dispensing device currently on sale, the closure cap has a finger tab integral therewith, which could, in theory, be employed as a threading device to initiate dispensing. However, the finger tab of this
45 device, which contains an aperture in the mid-portion thereof, is of a size, rigidity and alignment such that it would be highly impractical to employ it in this manner.

According to one aspect of the present invention
50 there is provided a dispensing device for an article comprising a container having a removable closure with a slitted opening, and a cap integral with said closure for closing the opening, said cap being integrally joined with the closure via a flexible strap,
55 said cap having a threading protrusion integral therewith for insertion into the opening, said threading protrusion being sufficiently thin and having sufficient compressive rigidity so that it can be pushed through the slit in an edgewise direction,
60 whereby an article can be engaged with the threading protrusion and drawn from the container through the opening.

According to another aspect of the present invention there is provided a method of initiating dispensing of an article from the inside of a container having

a removable closure with a slitted opening there-through and a cap for closing the opening, said cap being integrally joined with the closure via a flexible strap, a threading protrusion integral with said cap, which is sufficiently thin and has sufficient compressive rigidity so that it can be pushed through the slit in an edgewise direction, comprising the steps of: removing the closure; inserting the threading protrusion into the opening in the closure; engaging
70 a part of said article from the container with the threading protrusion; replacing the closure in the container; and with drawing the threading protrusion from the opening to draw the article through the opening thereby enabling the article to be grasped to remove it from the container.
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In the usual practice of the invention the article comprises a succession of moist towels arranged in the container so that removal of one towel from the container initiates removal of a subsequent towel.

85 The present invention may be used to provide a device associated with a dispenser having a slitted opening therein, which may be extended through the slitted opening, which preferably has cross slits, to facilitate threading of towels therethrough.

90 For a better understanding of the invention, and to show how the same may be carried into effect, reference will now be made, by way of example, to the accompanying drawings in which:

Figure 1 is a top perspective view of a dispenser
95 according to the invention.

Figure 2 is a top plan view of a dispenser according to the invention showing the closure cap in open position.

Figure 3 is a fragmentary exploded view in elevation and shown partly in section of the dispenser of the invention.

Figure 4 is a fragmentary view in elevation of the dispenser of the invention showing the threading device inserted through the opening in the container closure.
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Figure 5 is a fragmentary view in elevation shown partly in section of a dispensing device according to the invention wherein the threading device or protrusion is withdrawn from the opening in the container closure for drawing a towel therethrough.
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Figure 6A is a top view of a preferred embodiment with the closure cap in the open position.

Figure 6B is a top plan view of the closure of *Figure 6A*, with its cap closed.

115 In the drawings, wherein like reference numerals indicate like parts throughout the several views, a container 10 has a removable closure 11 on one end thereof with a slitted opening 12 surrounded by an upstanding wall or rib 13 and a cap 14 for closing the opening 12 integrally joined therewith by means of a strap 15, as described in more detail in U.S. Patent No. 4,017,002, for example. Of course, other means for securing the removable closure 11 to the container 10 could be provided, such as threads 16 shown in
120 *Figure 3*, for example. A finger engaging tab or flange 17 is formed on one side of the cap 14 to facilitate removal of the cap from the upstanding flange or neck 13 surrounding the slitted opening 12 for access to towels or tissues or the like T pulled through the slitted opening 12. The finger tab is
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preferably aligned substantially parallel to the strap.

In order to facilitate threading of the towels or tissues and the like through the slitted opening, a threading protrusion 18 having a hole or opening 19 formed therethrough is integral with the cap 14 on one side thereof. In use, the closure 11 is removed from the container 10 as seen in Figure 3, for example, and the threading protrusion 18 on the cap 14 is inserted through the slitted opening 12 in the closure 11. One end of a towel or tissue or the like T is then grasped with the fingers of the hand H of a user and inserted through the opening 19 in the threading protrusion 18, and the closure 11 may then be placed back on the container 10 as seen in Figure 4. Thereafter, the cap 14 is pulled upwardly, withdrawing the threading protrusion from the slitted opening before the closure is placed back on the container if desired. The end of the towel or tissue or the like is then removed from the opening 19 in the threading protrusion 18 and the dispensing container of the invention is ready for use. Subsequent towels are automatically threaded through the slitted opening in a manner well known in the art. However, in the event a towel fails to thread through the slitted opening, the above process can simply be repeated to once again initiate a dispensing cycle.

It is of course possible to vary the disposition axis of the protrusion with respect to the longitudinal axis of the strap, but the nearer these axes came to being aligned i.e. parallel, the more difficult it is to insert the protrusion 18 into slitted opening 12. Therefore, it is preferred that these axes be transverse; and in particular it is preferred that the axes be substantially perpendicular.

Figure 6A and B depict a preferred embodiment wherein cap 14 is recessed in closure 11 to facilitate stacking and prevent accidental opening. Recess or indentation 20 facilitates easy access to and provides a nest for finger engaging tab or flange 17 and recess 21 provides a next for threading protrusion 18.

It is, of course, desirable that threading protrusion 18 be sufficiently rigid, narrow and thin to permit ready exit and entry into the slitted opening, i.e. cross slits 12 and that the protrusion be laterally disposed i.e. in the same plane as the flexible strap.

It is also preferred that threading protrusion 18 be wedge-shaped and that the threader eye 19 be relatively small and tapered so as to hold the towelette or the like securely when it is pulled through the dispenser slits.

The provision of at least one slit parallel to the longitudinal axis of the flexible strap is also preferred.

The strap or hinge 22 preferably contains a slit 23 to facilitate storage of the dispenser by hanging. The strap nests in recess 24.

By means of the present invention, all of the components are integrally formed with one another whereby there is little likelihood of the threading device becoming lost or separated from the dispensing container but rather is always associated with the container for use in initiating threading of a towel or the like from the container. Additionally, the structure provided by the present invention is exceptionally simple and economical and does not require

any modification of the existing dispensing container other than the provision of the threading protrusion on the side of the cap 14 and suitable recesses in the closure, if desired.

The present invention is not limited to a dispensing device for pre-moistened towels or tissues and the like, but could be applied to many other types of articles which make it difficult for the user to initiate threading or feeding of the articles through the opening.

CLAIMS

1 A dispensing device for an article comprising a container having a removable closure with slitted opening, and a cap integral with said closure for closing the opening, said cap being integrally joined with the closure via a flexible strap, said cap having a threading protrusion integral therewith for insertion into the opening, said threading protrusion being sufficiently thin and having sufficient compressive rigidity so that it can be pushed through the slit in an edgewise direction, whereby an article can be engaged with the threading protrusion and drawn from the container through the opening.

2 A device as claimed in claim 1, wherein said protrusion has an opening therethrough through which part of an article in the container is inserted when the protrusion is inserted into the opening in the closure, so that withdrawal of the protrusion from the opening in the closure pulls a part of the article along with it, whereby the article can be engaged and pulled from the container through the opening in the closure.

3 A device as claimed in claim 1 or 2, wherein the slitted opening has cross slits.

4 A device as claimed in any one of the preceding claims, wherein the article comprises a succession of moist towels arranged in the container so that removal of one towel from the container initiates removal of a subsequent towel.

5 A device as claimed in any preceding claim, wherein the protrusion extends in a direction transverse to the longitudinal axis of the strap.

6 A device as claimed in claim 5, where the protrusion extends substantially perpendicular to the longitudinal axis of said flexible strap.

7 A device as claimed in any one of the preceding claims, wherein said strap has an elongated perforation about the midportion thereof to facilitate storage by hanging said container.

8 A device as claimed in any one of the preceding claims, wherein the top surface of said closure has indentations therein for nesting said flexible strap and said cap therein.

9 A device as claimed in any one of the preceding claims, wherein the cap has a finger tab thereon aligned substantially parallel to said strap.

10 A device as claimed in claim 9, wherein the top surface of said closure has an indentation therein for the nesting of said finger tab.

11 A device as claimed in any one of the preceding claims, wherein the slitted opening has at least one slit parallel to the longitudinal axis of said strap.



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It is of course possible to vary the disposition axis of the protrusion with respect to the longitudinal axis of the strap, but the nearer these axes came to being aligned i.e. parallel, the more difficult it is to insert the protrusion 18 into slitted opening 12. Therefore, it is preferred that these axes be transverse, and in particular it is preferred that the axes be substantially perpendicular.

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disposed i.e. in the same plane as the flexible strap.

It is also preferred that threading protrusion 18 be wedge-shaped and that the threader eye 19 be relatively small and tapered so as to hold the towelette or the like securely when it is pulled through the dispenser slits.

The provision of at least one slit parallel to the longitudinal axis of the flexible strap is also preferred.

The strap or hinge 22 preferably contains a slit 23 to facilitate storage of the dispenser by hanging. The strap nests in recess 24.

By means of the present invention, all of the components are integrally formed with one another whereby there is little likelihood of the threading device becoming lost or separated from the dispensing container but rather is always associated with the container for use in initiating threading of a towel or the like from the container. Additionally, the structure provided by the present invention is exceptionally simple and economical and does not require

any modification of the existing dispensing container other than the provision of the threading protrusion on the side of the cap 14 and suitable recesses in the closure, if desired.

70 The present invention is not limited to a dispensing device for pre-moistened towels or tissues and the like, but could be applied to many other types of articles which make it difficult for the user to initiate threading or feeding of the articles through the opening.

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1 A dispensing device for an article comprising a container having a removable closure with slitted opening, and a cap integral with said closure for closing the opening, said cap being integrally joined with the closure via a flexible strap, said cap having a threading protrusion integral therewith for insertion into the opening, said threading protrusion being sufficiently thin and having sufficient compressive rigidity so that it can be pushed through the slit in an edgewise direction, whereby an article can be engaged with the threading protrusion and drawn from the container through the opening.

2. A device as claimed in claim 1, wherein said protrusion has an opening therethrough through which part of an article in the container is inserted when the protrusion is inserted into the opening in the closure, so that withdrawal of the protrusion from the opening in the closure pulls a part of the article along with it, whereby the article can be engaged and pulled from the container through the opening in the closure.

3. A device as claimed in claim 1 or 2, wherein the slitted opening has cross slits.

4. A device as claimed in any one of the preceding claims, wherein the article comprises a succession of moist towels arranged in the container so that removal of one towel from the container initiates removal of a subsequent towel.

5. A device as claimed in any preceding claim, wherein the protrusion extends in a direction transverse to the longitudinal axis of the strap.

6. A device as claimed in claim 5, where the protrusion extends substantially perpendicular to the longitudinal axis of said flexible strap.

7. A device as claimed in any one of the preceding claims, wherein said strap has an elongated perforation about the midportion thereof to facilitate storage by hanging said container.

8. A device as claimed in any one of the preceding claims, wherein the top surface of said closure has indentations therein for nesting said flexible strap and said cap therein.

9. A device as claimed in any one of the preceding claims, wherein the cap has a finger tab thereon aligned substantially parallel to said strap.

10. A device as claimed in claim 9, wherein the top surface of said closure has an indentation therein for the nesting of said finger tab.

11. A device as claimed in any one of the preceding claims, wherein the slitted opening has at least one slit parallel to the longitudinal axis of said strap.



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12. A device as claimed in any one of the preceding claims, wherein the top surface of said closure is substantially flat to facilitate storage by stacking of similar containers.

5 13. A device as claimed in any one of the preceding claims, wherein the threading protrusion is wedge-shaped.

14. A method of initiating dispensing of an article from the inside of a container having a removable closure with a slitted opening therethrough and a cap for closing the opening, said cap being integrally joined with the closure via a flexible strap, a threading protrusion integral with said cap, which is sufficiently thin and has sufficient compressive
15 rigidity so that it can be pushed through the slit in an edgewise direction, comprising the steps of: removing the closure; inserting the threading protrusion into the opening in the closure; engaging a part of said article from the container with the threading
20 protrusion; replacing the closure on the container; and withdrawing the threading protrusion from the opening to draw the article through the opening thereby enabling the article to be grasped to remove it from the container.

25 15. A method as claimed in claim 14, wherein the article comprises a succession of moist towels to be dispensed from the container.

16. A dispensing device for articles, substantially as hereinbefore described with reference to any one
30 of the figures of the accompanying drawings.

17. A method of initiating dispensing of articles from a container, substantially as hereinbefore described with reference to any one of the figures of the accompanying drawings.