A dispenser which simultaneously dispenses and unseals wrapped articles is that separate operations are needed for the dispensing and unwrapping of the articles. The dispenser has an article (9) sealed in a wrapper (8) which is attached to perforations (10) and to an elongated tab (5) which is fixed to a surface (7). When the article (9) to be unwrapped from the wrapper (8), and continuous pulling then dispenses the articles (9) through outlet (2) of the dispenser.
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CONTAINER AND METHOD FOR DISPENSING SEALED ARTICLES

Background - Field of the Invention

This invention relates to article dispensers, particularly to such dispensers designed to dispense by stripping off surface adhered articles.

Background - Description of Prior Art

Commonly, dispensers are designed to deliver individually wrapped or unwrapped articles to the user. Such dispensers have been designed and used in the following ways; by consumers to organize and dispense personal items, such as medications; by businesses to deliver products to customers; and by manufacturers to contain and dispense materials needed in the manufacturing process. No dispenser has been invented, however, that can unwrap an individual article in the process of dispensing the article - thereby adding immensely to the user's convenience in using the article dispensed.

In the case of wrapped articles, inventors have created several types of dispensers. For example, U.S. Patent 4,767,002 to Oldorf (1986) describes a packet dispenser. Oldorf's invention, however, does not provide for unwrapping the article but instead merely dispenses it. Also, U.S. Patent 5,007,540 to Beasley and Dinand (1990) describes multiple dispensers; again, however, the articles are not unwrapped as part of the dispensing process.
Prior art does not show a wrapper that works in conjunction with a dispenser to unwrap the article as it is dispensed. While U.S. Patent 3,652,006 to Trewella (1970) discloses a wrapper that can be easily peeled apart by the user, it does not describe a wrapper, mechanism or method whereby a wrapped article is removed from its wrapping while being dispensed.

Neither the dispensers or wrappers described above nor any other prior art describes the release of an article from its individual wrapper as the user pulls the wrapped article from the dispenser; nor do the dispensers or prior art show a wrapper that is attached to a dispenser in such a manner that the wrapped item is ejected from the wrapper as the user removes the article from the dispenser. Prior art, then, does not offer a dispenser which economically enhances the speed and ease with which a sealed article is delivered to the user - attributes which would facilitate and/or encourage the use of the article.

Two examples are illustrative:

First, convenient and easy access to clean medical products in a doctor's office or emergency room frequently is hampered by current methods and designs for storing and dispensing products such as sutures, bandages, and other wrapped articles. Currently, most sutures and bandages are packaged in boxes. The user must search for the box and then for the individual item before even opening the item's sterile wrapper. The boxes are generally stored in drawers, cabinets or shelves. For example, in a medical emergency, the need for fast, efficient dispensing of articles can be critical to positive outcomes of treatment. The current invention obviates all these inconveniences and inefficiencies. Medical workers would find greater access to and improved ease-of-use for various wrapped products through use of the Huck/Barbieri
dispenser described by the present invention.

Second, increased ease and more frequent use of certain articles such as condoms by users could reap substantial social benefits if a dispenser is available to them to unwrap and dispense the article. For example, the federal government now openly promotes the use of condoms to avert the spread of the AIDS virus and other sexually transmitted diseases. However, as currently packaged and dispensed, condoms are inconvenient and difficult to use. People are likely to store the condoms in purses, wallets, bathroom cabinets, under the bed, and in many other inconvenient places. This discourages use at a time when the condom is actually needed. If the condom is not readily accessible, the likelihood of its use diminishes. More specifically, male condoms are often packaged in individual wrappers which are joined together using perforations between the wrappers. The user must therefore undertake, usually in a poorly-lit (night-time) environment; the following steps to use the condom: 1) locate the condom, 2) separate a wrapped condom from the other wrapped condoms, 3) tear open a wrapped condom, and 4) determine how to position the condom so that it unrolls properly. Each of these steps, inconvenient and frustrating to the user, is remedied by the present Huck/Barbieri invention.

All dispensers heretofore known suffer from the following disadvantages:

(a) Once dispensed, the wrapped articles must still be unwrapped by the user, adding frustration or error if time is of the essence to the user, a problem compounded if multiple dispensings are necessary in a short period of time. Moreover, if the user is wearing latex gloves, the difficulty is further aggravated.
The appropriate positioning of the article must be determined by the user, perhaps in a hurried or dimly lit environment.
Objects and Advantages

The present Huck/Barbieri invention is uniquely designed to organize and dispense individual articles conveniently, quickly, safely, and economically. Articles that the dispenser is well suited to dispense include bandages, sutures and condoms, electronic or other small parts - where cleanliness, convenience and safety are important considerations. The user may also easily and flexibly locate, mount, color-code and label the Huck/Barbieri dispenser, adding to the ease and convenience of dispensing the articles.

For example, the present invention permits sterile sutures or gauze bandages to be dispensed free from their wrappers, thereby allowing quicker use of the items in emergency situations. Moreover, the dispensers for these items can be easily mounted on a wall or the underside of a cabinet, improving accessibility to the items. In a hospital emergency room, the convenience of many such properly marked Huck/Barbieri dispensers would be invaluable.

Accordingly, the objects and advantages of the present invention are:

(a) The invention can be installed in a convenient location and in any position;
(b) The invention can dispense articles individually;
(c) The invention can dispense articles such that they become unwrapped as they are dispensed;
(d) The invention can dispense articles such that they are presented to the user in a known position, making use of the article easier.
(e) In the case of condoms, the resulting ease-of-use may encourage the use of condoms and, therefore, may reduce the spread of sexually-transmitted diseases.
Drawing Figures

Figure 1 is a perspective view of the invention as it might look with a simple semi-circular-shaped container.

Figure 2 is a detail of how the wrappers are fastened to the dispenser.

Figure 3 shows the method of removing articles from the dispenser in which the wrapper is opened in the process.

Reference Numbers in Drawing Figures

1. Dispenser casing
2. Opening in dispenser casing
3. Wrapped article
4. Pull-tab on wrapper
5. Elongated attachment tab
6. Fastener
7. Surface onto which wrappers are affixed
8. Tear-open sealed wrapper
9. Article inside wrapper
10. Perforation on wrapper
13. Coil spring
14. Mounting bracket or adhesive surface attached to surface
Description - Figs. 1 and 2

A typical embodiment of the invention is illustrated in Fig. 1. Inside dispenser casing 1 is a platform 7 onto which elongated tabs 5 from the wrapped articles 3 are attached using a fastener 6. Pull tabs 4 on the wrapped articles 3 are visible to the user through an opening 4. The dispenser may be mounted to a wall or other surface using the mounting bracket or adhesive surface 14.

Fig. 2 shows a detail of how the wrapper is sealed and then attached to the dispenser. The article 9 is wrapped in a tear-open sealed wrapper 8. An elongated tab 5 attaches to the sealed wrapper on the side of the wrapper opposite the side containing the pull-tab at the perforation 10. The free end of the elongated tab - the end not attached to the sealed wrapper - is affixed to the dispenser surface using a fastener 6.

Figs. 3-A to 3-E show the operation of the invention.
Operation of Invention - Figs. 3-A to 3-E

The operation of the invention is shown in Figs. 3-A through 3-E. An article 9 has previously been packaged in a tear-open sealed wrapper 8 which is attached at perforation 10 to an elongated tab 5, the free end of which is affixed to the dispenser surface 7. When the article 9 is needed, the user grasps pull-tab 4, pulling it away from the dispenser. As the tear-open sealed wrapper 8 is pulled from the container, the elongated tab 5 stays affixed to dispenser, causing the seal to tear on the sealed edge nearest the pull-tab. As the user continues to pull the pull-tab away from the dispenser, the wrapper's seal breaks or tears, freeing the article 9 from the wrapper (Fig. 3-C). The article 9 is exposed or falls free (Fig. 3-D) as the tear-open wrapper 8 breaks from elongated tab 5 at perforation 10 (Fig. 3-E).

Conclusions, Ramifications, and Scope

Accordingly, the reader will see that this invention provides a convenient, easy-to-use yet economical method for dispensing and simultaneously unsealing wrapped articles.

Although the description above contains many specificities, these should not be construed as limiting the scope of the invention but as merely providing illustrations of some of the presently preferred embodiments of this invention. For example, the invention could be housed within furniture or accessories; or, could be used in hotel and dormitory rooms; or, could be shaped differently; or, could be labeled clearly, or color-coded; or, could be used in multiple combinations for different articles; etc.
Thus, the scope of the invention should be determined by the appended claims and their legal equivalents, rather than by the examples given.
Claims: We claim:

1. The dispenser containing tear-open wrapped or sealed articles wherein each article's wrapping has a part, such as a pull-tab, which can be pulled by the user in order to remove the article from the dispenser through an opening in the dispenser.

2. The dispenser device of claim 1 wherein one side of each article wrapper is attached to one end of an elongated tab, the opposite end of which is affixed to the dispenser.

3. The dispenser of claim 2 wherein the wrapper side affixed to the elongated tab is the side opposite to and facing the wrapper side containing the pull-tab.

4. The dispenser device of claim 3 wherein the wrapper detaches from the elongated tab after the article is dispensed.

5. The dispenser device of claim 2 wherein the wrapped articles are arranged in a fan-like manner with the ends of the elongated tabs fastened together at the same place or places on the dispenser.

6. The dispenser device of claim 2 wherein a spring-like device presses the articles toward an opening in the dispenser.

7. The dispenser of claim 6 wherein the spring-like device is a coil spring.
8. In a dispenser containing articles in wrappers, the improvement wherein an elongated tab is attached to each wrapper and also to the dispenser.

9. The improvement of claim 8 wherein the wrappers are tear-open and have a pull-tab on one side.

10. The improvement of claim 9 wherein the wrapper or series of wrappers are contained within a dispenser.

11. The improvement of claim 9 wherein the wrapper side affixed to the elongated tab is the side opposite to and facing the wrapper side containing the pull-tab.

12. The improvement of claim 11 wherein the wrapper detaches from the elongated tab.

13. The improvement of claim 12 wherein the wrapped articles are arranged in a fan-like manner within the dispenser with the ends of the elongated tabs fastened together at the same place or places on the dispenser.

14. The improvement of claim 8 wherein a spring-like device presses against the wrapped articles in a manner which assists the dispensing of the articles.
15. The improvement of claim 14 wherein the spring-like device is a coil spring.

16. The method for removing sealed, wrapped articles from a dispenser wherein the sealed wrapper has a pull-tab and the articles are pulled from the dispenser by means of the pull-tab.

17. The method of claim 16 wherein an elongated tab is attached to the wrapper and to the dispenser.

18. The method of claim 17 wherein the wrapper side affixed to the elongated tab is the side opposite to and facing the wrapper side containing the pull-tab.

19. The method of claim 17 wherein the elongated tab and the wrapper are joined at a perforation so that they become detached after the article is dispensed.
20. A dispensing apparatus comprising:
   a dispenser having an opening;
   a plurality of wrapped articles disposed within said dispenser, each of said wrapped
   articles having a first and second end;
   a pull-tab attached to the first end of each of said wrapped articles; and
   a plurality of elongated tabs, each of said elongated tabs having opposed ends, one
   end of each of said elongated tabs being attached to the second end of one of each of said
   wrapped articles and the other end of each of said elongated tabs being attached to said dispenser,
   wherein when the pull-tab is pulled outwardly the respective article unwraps and is dispensed
   through the opening of said dispenser.

21. The dispensing apparatus of claim 20, wherein each of said wrapped articles is
   wrapped in a wrapper, said pull-tab being attached and extending from one end of the wrapper
   and the respective elongated tab being attached to another end of the wrapper, the wrapper
detaching from the respective elongated tab after the article is dispensed.

22. The dispensing apparatus of claim 21, wherein the wrapper is joined to the respective elongated tab via a perforation.

23. The dispensing apparatus of claim 20, wherein said plurality of wrapped articles are arranged in a fan-like manner within said dispenser, the other end of each of said elongated tabs being attached to said dispenser at the same place on said dispenser.

24. The dispensing apparatus of claim 20, further comprising spring means for pressing said plurality of wrapped articles toward the opening in said dispenser.

25. The dispensing apparatus of claim 24, wherein said spring means is a coil spring.

26. A dispensing apparatus comprising:
   a dispenser having an opening;
   a plurality of articles disposed within said dispenser;
   a wrapper wrapped around each of said articles, each said wrapper having a first and second end;
   a pull-tab attached to the first end of each said wrapper; and
   a plurality of elongated tabs, each of said elongated tabs having opposed ends, one end of each of said elongated tabs being attached to the second end of one of each said wrapper via a perforation and the other end of each of said elongated tabs being attached to said dispenser, wherein when the pull-tab is pulled outwardly, the wrapper and respective elongated tab separate and the respective article unwraps from the wrapper and is dispensed through the opening of said dispenser.
27. A method for dispensing wrapped articles from a dispensing apparatus, comprising the steps of:

   locating a plurality of wrapped articles within said dispenser, each of said wrapped articles having a first and second end, the first end of each of said articles including a pull-tab attached thereto, and the second end of each of said articles including an elongated tab attached to said dispenser;

   pulling the pull-tab of a respective wrapped article outwardly through an opening in said dispenser; and

   unwrapping the article as the pull-tab is pulled outwardly through the opening.
STATEMENT UNDER ARTICLE 19

Newly submitted claims 20-27 include the subject matter of original claims 1-19. The claims have been amended to more clearly recite the relationship between the wrapped articles, the pull-tab of each of the articles, and the elongated tab of each of the articles, and to improve the form of the originally filed claims. Moreover, newly submitted claims 20-27 mirror the claims of the corresponding priority, allowed United States Patent.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
IPC(6) : B65H 5/28; G07F 11/00; A61B 17/06  
US CL : 221/70, 59; 206/440  
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED
Minimum documentation searched (classification system followed by classification symbols)
U.S. : 221/25, 70, 89, 90, 263, 47, 48; 206/804, 828, 438, 440

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<td>US, A, 4,913,311 (Garcia) 03 April 1990 Note in figure 6 the pull tab 56 and the wrapper 34, 36</td>
<td>1, 16</td>
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<td>US, A, 3,674,176 (Sagi) 04 July 1972 Note in figure 2 the wrapper 400 and the pull tab (to the right) and an elongated tap 40, to the other end. Note also the fan-like arrangement of the wrappers and the spring-like device 82, 83.</td>
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Date of the actual completion of the international search  
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Date of mailing of the international search report  
04 APR 1995

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