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F. P. PARISH

2,587,515

COILED END WITHDRAWAL STRING FOR TAMPONS

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FIG. 1

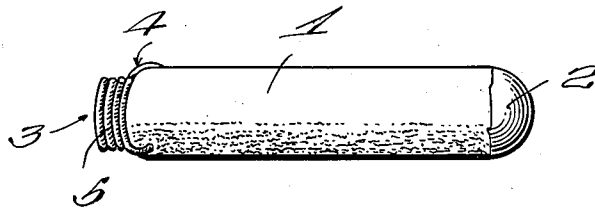


FIG. 3

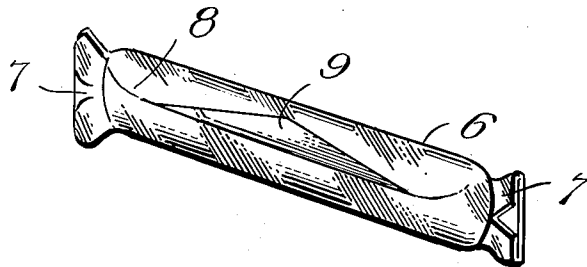
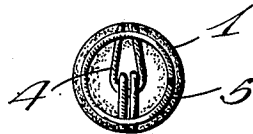


FIG. 2



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COILED END WITHDRAWAL STRING FOR TAMPONS

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6 Claims. (Cl. 128—285)

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This invention relates to tampons of the type formed of absorbent material compressed to cylindrical form and provided with an associated withdrawal string and with a sanitary wrapper with a readily accessible opening means that facilitates practically instantaneous removal of the tampon and coiled withdrawal string. The withdrawal string is so arranged that it will not materially increase the bulkiness of the article, is adapted to facilitate the automatic wrapping of the tampon together with the withdrawal string in a sanitary wrapper and yet the withdrawal string is readily available for instant use when the wrapper is removed.

An object of the invention is to provide a cylindrical compressed tampon with a withdrawal string having its loose end arranged in a neatly set coil at the end of the tampon to which is secured.

A further object of the invention is to set the coils of the withdrawal string at the end of the tampon so that the same will remain in place during further automatic wrapping operations in applying a sanitary wrapper to the tampon.

Another object of the invention is to provide a sanitary wrapper for the tampon and end coiled withdrawal string that will seal the same against dust, dirt, moisture, etc., and yet is conveniently and quickly removable.

Still another object of the invention is to provide the sanitary wrapper with a readily accessible opening means that facilitates practically instantaneous removal of the same from the tampon.

These and other objects of the present invention will appear as the following description thereof proceeds, and in order to more clearly understand the invention, reference may be had to the accompanying drawing in which an embodiment of the invention is shown.

In the drawing:

Figure 1 is a side elevation of a cylindrical compressed tampon with the withdrawal string coiled at one end thereof, all in accordance with the invention;

Figure 2 is an end view of Figure 1.

Figure 3 is a perspective view of the article shown in Figure 1, sealed in a sanitary wrapper.

In the embodiment disclosed, there is illustrated in Figure 1, a cylindrical tampon 1 formed of the usual absorbent material compressed to the form shown. A preferred type of tampon is disclosed in U. S. Patent Nos. 2,340,311 and 2,440,141. The insertion end of the tampon is provided with a coating 2 to facilitate insertion in body cavities. At the opposite end of the tampon 1 is secured

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a withdrawal string 3 having an end loop 4 preferably secured to the tampon in a manner described in my copending application Serial No. 106,843, filed July 26, 1949, now Patent Number 2,553,000. In the usual tampon of this character, the free ends of the withdrawal string ordinarily hang loose in a haphazard fashion or are roughly bunched at the end of the tampon. This increases the bulkiness of the finished article and renders difficult further automatic wrapping operations usually employed to seal the article in a wrapper for packaging, handling and sale.

In carrying this invention into practice, the free ends of the withdrawal string 3 are neatly formed into a coil 5 which is closely compacted against the end of the tampon 1 to which loop 4 of the withdrawal string is secured. The convolutions of the coil 5 are within the diameter of the body of the tampon 1 and as the coil 5 is pressed against the end of the tampon the compacted coil does not materially increase the overall length of the article. For best results, it is preferred to shape the coil in the form of a helix.

The end coil 5 is preferably formed by automatic means, but whatever the means employed it is essential that the coil 5 be pressed into a compact helical form with the convolutions in engagement with adjacent ones. After forming the coil, it is preferably set by heat treatment so that it will not be disarranged or pushed out of position by subsequent wrapping operations for packaging the articles. However, the pressing and setting operations do not stiffen the ends of the strings 3 to such an extent as to prevent instant uncoiling of the string when the tampon is used. The primary purpose of the coil pressing and setting is to condense the overall length of the article and to maintain the coil in place during subsequent wrapping operations.

In Figure 3 is illustrated a sanitary wrapper for sealing the article against dust, dirt, moisture, etc., prior to use. By thus sealing the article, the tampon is not touched by hands until it reaches the user. The wrapper 6 is formed of suitable sheet material, such as cellophane, cellulose acetate, Pliofilm, etc., and is longer than the tampon and coil and is of sufficient width to wrap around the same. The extending ends 7 are pressed together and these ends as well as a longitudinal overlapping edge 8 are sealed by heat and pressure which is common practice with such material. The wrapper is usually applied by automatic machinery and when applied forms an effective seal for the tampon and coil withdrawal string.

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To facilitate a quick and ready unwrapping of the articles, there is provided medially on the overlapping edge 8 of the wrapper a reverse flap 9 which normally hugs the adjacent portion of the wrapper but which may be easily lifted and used as a hold to remove the wrapper 6 preferably by reverse unwrapping. This affords a means for almost instantaneous removal of the sealing wrapper for use of the tampon.

Although the improved coiled end withdrawal string and package for a tampon has been illustrated and described herein to a detailed extent, it will be understood, of course, that the invention is not to be regarded as limited correspondingly in scope, but includes all variations coming within the terms of the appended claims.

I claim:

1. A tampon having a withdrawal string secured to one end thereof and free at the other end thereof, and the free end of said string arranged in a compact coil at said end of the tampon.

2. A tampon having a withdrawal string secured to one end thereof and free at the other end thereof, and the free end of said string arranged in a compact coil at said end of the tampon, said coil having convolutions in engagement with adjacent ones and set in said position to facilitate the wrapping of the article in a sanitary wrapper while permitting the uncoiling in the use of the tampon.

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3. The combination of a substantially cylindrical tampon and a secured withdrawal string arranged in a compact coil at one end thereof.

4. The combination of a substantially cylindrical tampon made of a compressed absorbent material, and a secured withdrawal string arranged in a compact helical coil at one end thereof and within the diameter of the body of said tampon.

5. The combination of a substantially cylindrical tampon and a secured withdrawal string coiled and set at one end thereof.

6. An article of the character described including a tampon made of absorbent material and compressed to cylindrical form, and a withdrawal string having a loop at one end thereof and terminating in a pair of free ends, said loop secured to one end of said tampon and said free ends being compactly coiled at said end of the tampon.

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REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
2,057,206	Pohl	Oct. 13, 1936
2,176,114	Wells	Oct. 17, 1939
2,227,236	Vogt	Dec. 31, 1940
2,440,141	Donovan	Apr. 20, 1948
2,464,310	Harwood	Mar. 15, 1949