Feb. 19, 1935. J. H. TODD 1,991,827

CONTAINER AND FASTENER THEREFOR

Filed July 1, 1933

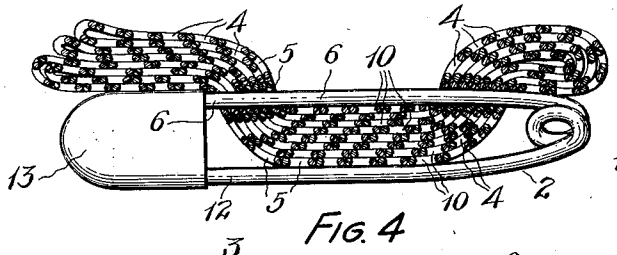


FIG. 4

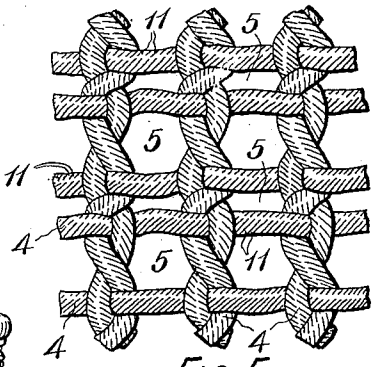


FIG. 5

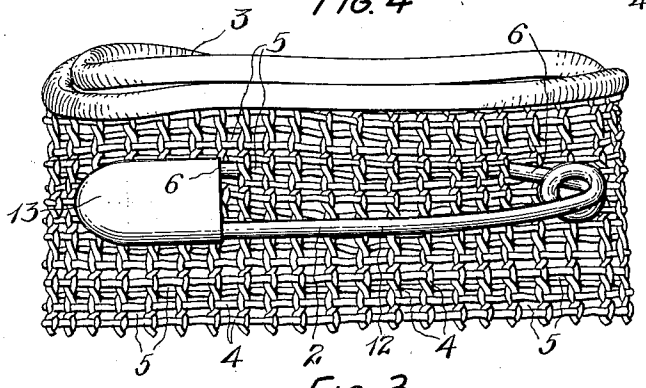


FIG. 3

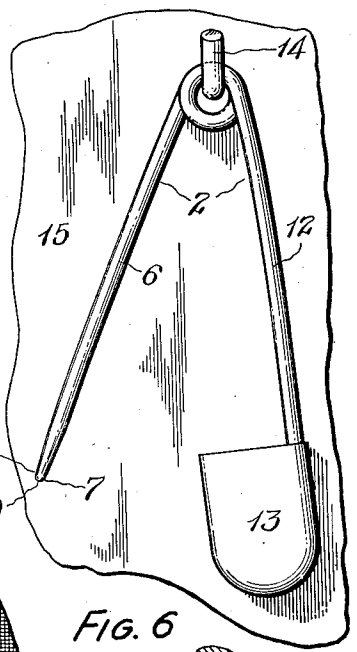


FIG. 6

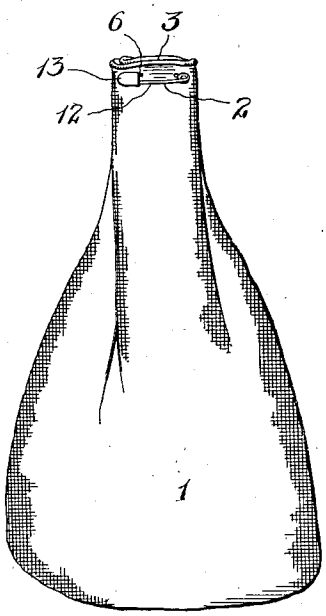


FIG. 1

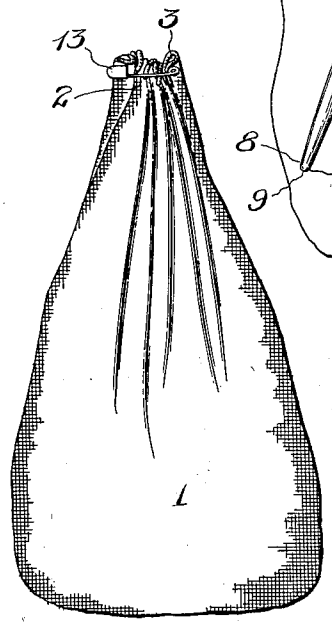


FIG. 2

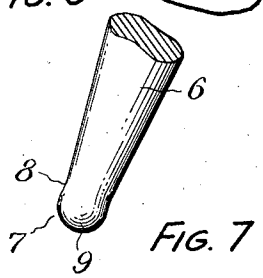


FIG. 7

INVENTOR:
JOHN H. TODD

BY Saywell and Wesseler
ATTORNEYS

Patented Feb. 19, 1935

1,991,827

UNITED STATES PATENT OFFICE

1,991,827

CONTAINER AND FASTENER THEREFOR

John H. Todd, Cleveland, Ohio, assignor to The Key-Tag Checking System Company, Cleveland, Ohio, a corporation of Ohio

Application July 1, 1933, Serial No. 678,653

4 Claims. (Cl. 150—3)

My invention particularly relates to containers formed of reticulated material and having an open end which is closed by one of my improved fasteners when the container contents are under treatment or being transported, the container being further characterized in that it is made of flexible material so that the portion thereof adjacent the open end or adjacent the plane in which it is desired to affix the fastener can be folded or compressed into comparatively small compass and then the fastener passed through the mesh of the folded reticulated material and locked.

My invention is particularly adaptable for use as a laundry net which serves to hold a plurality of articles while they are being washed. These laundry nets are used for the most part in comparatively large establishments such as public laundries. My invention is illustrated in the accompanying drawing and hereinafter described by reference to such laundry nets.

The annexed drawing and the following description set forth in detail certain means embodying my invention, such disclosed means constituting, however, only a few of the various forms in which the principle of the invention may be embodied.

In said annexed drawing:

Figure 1 is a side elevation of a laundry net whose mouth is closed by one of my improved fasteners, the closure being effected by folding the portion of the net adjacent the mouth into a plurality of plies and inserting the fastener through the mesh of the several plies;

Figure 2 is a view similar to Figure 1 but showing the closing of the net mouth by means of whipping the fastener several times over the net material adjacent the mouth and passing the fastener through the mesh of the net each time;

Figure 3 is a view upon an enlarged scale of that part of Figure 1 adjacent to and including the fastening element;

Figure 4 is a plan sectional view of the elements shown in Figure 3;

Figure 5 is a view upon an enlarged scale of a fragmentary portion of the net material commonly used for laundry nets, clearly showing the reticulated formation thereof and also the multiple threads of which each strand of the material is comprised;

Figure 6 is an elevation of my improved fastener and illustrates how the same may be safely stored in unfastened condition when not in use; and

Figure 7 is a view upon an enlarged scale of the terminal portion of the pin end of one form of my improved fasteners.

It is common practice in public laundries to assemble in a so-called net 1 all or a definite portion of the articles to be laundered belonging to one customer, and to wash such articles while in the net. The nets are normally made of tough woven cord, usually of high quality, the weaving thereof being such as to form a reticulated member with meshes 5 of comparatively large size through which the wash water has access to the contained articles. The net cord is comprised of a large number of threads. In Figure 5 it will be clearly seen that the meshes 5 are comparatively large and that the cord strands 4 are comprised of a plurality of threads 11. It is also common practice to close the open ends or mouths 3 of the nets, during the washing operation, by large safety pins of standard design. In some cases, the pin is passed through several plies 10 into which the bag material adjacent the opening 3 is folded, and in other cases the pin is repeatedly whipped over the opening edge of the net 1 and passed through the net each time, to close the net in the manner shown in Figure 2.

There are difficulties and losses occasioned by the above-described customary operations. Injury to employees is caused by the usual sharp points of the fastening pins. These pins are comparatively large, four inches or more in length, and, due to their comparatively great tension, require considerable power to open and close. Hence, employees are often injured by them. Furthermore, injury is occasioned by reason of accidentally encountering the sharp points of the pins when they are not in use. Usually, when not in use, the pins are hung from nails 14 upon suitable panels 15, as clearly shown in Figure 6. When thus hung, the pins must be fastened on the downwardly and laterally extended sharp points of the same subject employees to accidents. On the other hand, the fastening of the pins and the unfastening when it is desired again to use them consumes considerable time and is also frequently the cause of accidents. Other disadvantages of sharp pointed pins are that they catch between the separate threads 11 of the net strands 4 and thus prevent ready insertion of the pins for fastening purposes and also tear the nets, which latter is a source of considerable expense. Also oftentimes the sharp point of the pin when caught in the thread of the net will be bent into fish-hook shape by the pounding of the wash wheel, during the washing operation, which necessitates tearing the net in

order to remove the pin from the net after the net has been taken from the wash wheel.

My invention is designed to obviate the above-mentioned disadvantages and I attain this object by a structure whose fastening element passes through the container material and is not merely an exterior hasp or clamp.

Referring further to the annexed drawing in which the same elements are indicated by the same several numbers in the different views, the laundry net 1 having the open end 3 is shown closed by a pin 2 fastened through the net adjacent the open end 3 thereof. This net 1 is comprised of woven strands 4 of flexible material, preferably heavy cord formed of a plurality of threads 11. The weaving of the strands 4 into the net 1 is such as to form a reticulated article having comparatively large mesh areas 5. In order to close the opening 3 by the fastener 2, the pin end of the latter is passed through the meshes 5, after the net material adjacent the opening 3 is folded into a plurality of plies 10, such as shown in Figures 3 and 4, or the pin end is first passed through the meshes 5 adjacent one end of the opening 3 and then thrown over the peripheral edge of the opening 3 and again inserted through the mesh 5, and the operation repeated a number of times, as clearly shown in Figure 2. In order to assure the finding of the mesh areas 5 by the pin end, without the latter catching in the threads 11 of the strands 4, and without any hunting for or any definite prior locating of these areas, and in order to assure the clean and smooth passing of the pin end through these areas 5, even when the pin end must be passed through a comparatively large number of plies of net material, such as illustrated by the eight plies, Figure 4, I make the terminal 7 of the pin end 6, Figure 6, of blunt formation and, in some instances, also enlarge the cross-sectional area of the terminal portion 9, Figure 7, of the pin end, by forming a slightly restricted neck portion 8 adjacent the terminal 9. Preferably, the blunt terminal is of semi-spherical formation, as substantially indicated in Figure 7.

My improved fastener 2 is of safety pin formation, being a wire bent into substantially U-shape formation and having the pin end 6 with its blunt terminal, and the head end 12 with a suitable latch 13 within which the pin end may be locked during use of the pin.

My improved fastener with its blunt terminal when used with a container of the character described serves as a pilot or finder to insure convenient and secure fastening of the container, and also obviates the injuries and losses which have been mentioned.

Laundry nets may obviously be made of materials other than woven cord material, which has been specifically referred to since it is the material commonly used in practice. My improved fastener, however, is clearly adapted for use with laundry nets of any flexible reticulated material, although its use is particularly advantageous with laundry nets made of such materials as are subject to being caught by the sharp points of the safety pin fasteners heretofore used with laundry nets.

What I claim is:

1. A container comprising an open-ended bag-like member of non-metallic flexible reticulated material, and a fastener for the open end of the bag of safety pin formation having a pin end and a latch for the latter, said pin end having a blunt terminal adapted to serve as a pilot for finding and passing through the mesh of multiple plies of the bag.

2. A container comprising an open-ended bag-like member of woven cord flexible reticulated material, and a fastener for the open end of the bag of safety pin formation having a smooth rounded pin terminal adapted to serve as a pilot for finding and passing through the mesh of multiple plies of the bags, and means for releasably holding the pin terminal in fastened condition.

3. A fastener of safety pin formation comprising a body portion, a pin end extending therefrom, and a latch for the pin end, said fastener being adapted for use with laundry nets of non-metallic flexible reticulated material, said pin end including a blunt terminal and a relatively elongated main portion, and said blunt terminal being of such cross-sectional size relative to said main portion as to be adapted to serve as a pilot for finding and passing through the mesh of multiple plies of said flexible reticulated material.

4. A fastener of safety pin formation comprising a body portion, a pin end extending therefrom, and a latch for the pin end, said fastener being adapted for use with laundry nets of woven cord flexible reticulated material, said pin end having a blunt terminal the largest cross-sectional area of which is smaller than that of the body portion, and said blunt terminal being adapted to serve as a pilot for finding and passing through the mesh of said flexible reticulated material.

JOHN H. TODD.