Oct. 20, 1942. W. F. GRUBER 2,299,697

LOCKING BAND

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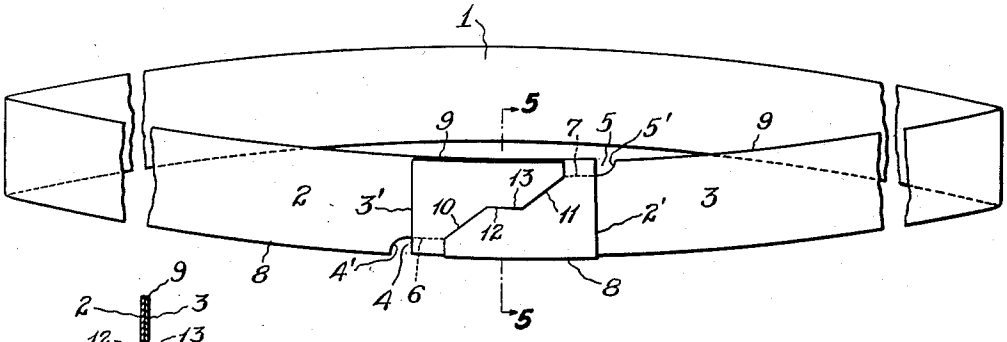


FIG. 4.

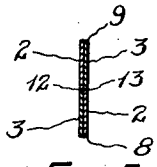


FIG. 5.

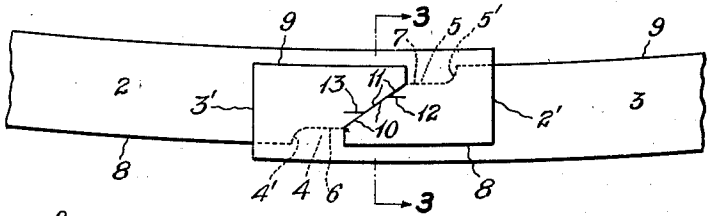


FIG. 2.

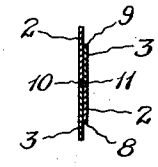


FIG. 3.

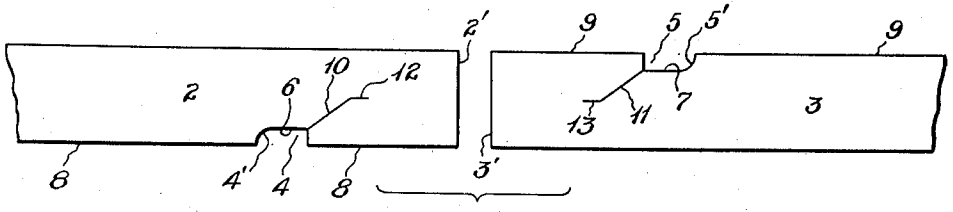


FIG. 1.

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LOCKING BAND

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7 Claims. (Cl. 24—17)

The invention relates to locking bands, and is illustrated herein by a description and drawing of an article of this character particularly adapted to serve as a shirt band. Preferably, the band is made of thin cardboard.

One object of the invention is to provide a locking band that can be securely fastened about the enfolded article quickly and conveniently.

Another object of the invention is the provision of an endless band formed of a strip of uniform length having interlocked ends which will not catch on adjacent articles in a stack of articles, such as a stack of freshly laundered and folded shirts.

Still another object is the provision of notched structures adjacent the two ends of the strip which can be conveniently engaged and provide a guide for the meshing of the notches of the two ends, and then adjusting the notched ends to final locked position by a slight and straight pull of the strip.

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

In said annexed drawing:

Figure 1 is a fragmentary elevation of the cardboard strip in unlocked position, the figure particularly showing the structure of the two end portions of the strip;

Figure 2 is a view similar to Figure 1, in which the two end portions of the strip are in partially locked condition, the figure particularly showing the initial meshing of two end notched structures through easily manipulated guiding means, to provide, first, both relative endwise and vertical movements of the two end portions and, secondly, relative endwise movements only to a final locked position;

Figure 3 is a transverse vertical section, taken in the plane indicated by the line 3—3, Figure 2;

Figure 4 is a perspective view of the entire strip in completely locked condition; and

Figure 5 is a transverse vertical section, taken in the plane indicated by the line 5—5, Figure 4.

Referring to the annexed drawing in which the several parts are indicated by the same respective numbers in the different views, a strip 1 of thin cardboard has its two end portions 2 and 3 formed with cut-out areas 4 and 5 in opposite edges 8 and 9, respectively. The cut-outs 4 and 5 have inner walls 4' and 5' of curved formation. In the illustrative form of the invention shown in the accompanying drawing, the lower edge 8 of the end 2 is formed with the cut-out 4, and the upper edge 9 of the end portion 3 is formed with the cut-out 5. The top wall or base of the cut-out 4 is indicated by 6, and the bottom wall or base of the cut-out 5 by 7.

Intersecting the cut-outs 4 and 5, and preferably intersecting the respective bases 6 and 7 thereof adjacent the corners thereof nearest the terminal edges 2' and 3' of the end portions 2 and 3, respectively, are upwardly and downwardly directed respective slits 10 and 11 which also are directed toward the respective terminal edges 2' and 3'. Preferably, the slits 10 and 11, if extended, would make substantially a 45° angle with the upper and lower strip edges 8 and 9. Also, preferably, the upper and lower points of the respective slits 10 and 11 are disposed in a plane substantially midway the planes containing the upper and lower edges 8 and 9 so that, if the strip end portions 2 and 3 are interlocked through the medium of the slits 10 and 11 to the fullest extent to which said end portions 2 and 3 can be relatively moved through the slits 10 and 11, one end portion will be substantially superposed upon the other end portion, as illustrated in Figure 5. Figure 5 actually shows a completely locked position, but shows no relative change in the relative vertical positions of the end portions 2 and 3 over and above what has just been described, since the further relative movements of the end portions 2 and 3, after the relative movements by means of slits 10 and 11, are endwise only to produce the condition shown in Figure 5. This final endwise movement is effected by a slight pull in a straight line upon the end portions 2 and 3 causing them to be moved relatively endwise by means of respective slits 12 and 13 which extend from the respective upper and lower points of the slits 10 and 11 in planes parallel to the edges 8 and 9 toward the terminal edges 2' and 3'.

Referring particularly to the use of the described structure, the strip blank is passed around the article to be enfolded and then the end portions 2 and 3 are respectively warped in opposite directions edgewise and the edges 8 and 9 brought into juxtaposed positions with the cut-outs 4 and 5 engaging, which brings the slits 10 and 11 into meshing position. The cut-outs 4 and 5 readily are engaged, especially so by reason of the curvature of the inner walls 4' and 5' thereof. Then opposite endwise pulls upon the end portions 2 and 3 in directions away from the overlapping area causes the walls of the slits 10 and

11 to ride over each other until the upper point of the slit 10 registers with the lower point of the slit 11, at which time the two end portions 2 and 3 are superimposed so as to present a two-ply thickness having the same vertical dimension as one of the end portions 2 and 3. A further continued pull upon the end portions 2 and 3 in opposite directions away from the superimposed areas causes these end portions to be moved endwise relatively in the straight slits 12 and 13 and effects the completely locked condition of the shirt band which is shown in Figure 4.

What I claim is:

1. A shirt band comprised of a cardboard body strip having cut-outs formed upon opposite edges thereof adjacent its ends, slits formed in the body end portions and extended from the respective cut-outs at an angle to the axis of the strip, and other slits communicating respectively with the aforementioned slits and extended toward the respective strip ends substantially parallel to the axis of the strip.

2. A shirt band comprised of a cardboard body strip having cut-outs formed upon opposite edges thereof adjacent its ends, slits formed in the body end portions and extended at an angle to the strip edges from the respective cut-outs toward the edges respectively opposite to those in which the cut-outs are formed, and other slits communicating respectively with the aforementioned slits and extended toward the respective strip ends substantially parallel to the strip edges.

3. A shirt band comprised of a cardboard body strip having cut-outs formed upon opposite edges thereof adjacent its ends, slits formed in the body end portions and extended from the inner or base sides of the respective cut-outs at an angle to the axis of the strip, and other slits communicating respectively with the aforementioned slits and extended toward the respective strip ends substantially parallel to the axis of the strip.

4. A shirt band comprised of a cardboard body strip having cut-outs formed upon opposite edges thereof adjacent its ends, slits formed in the body end portions and extended at an angle to the strip edges from the inner or base sides of the respective cut-outs toward the edges respectively opposite to those in which the cut-outs are formed, and other slits communicating respectively with the aforementioned slits and extended toward the respective strip ends substantially parallel to the strip edges.

5. A shirt band comprised of a cardboard body strip having cut-outs formed upon opposite edges thereof adjacent its ends, slits formed in the body end portions and extended at substantially a 45° angle to the strip edges from the respective cut-outs toward the edges respectively opposite to those in which the cut-outs are formed, and other slits communicating respectively with the aforementioned slits and extended toward the respective strip ends substantially parallel to the strip edges.

6. A shirt band comprised of a cardboard body strip having cut-outs formed upon opposite edges thereof adjacent its ends, slits formed in the body end portions and extended at an angle to the strip edges from the respective cut-outs toward the edges respectively opposite to those in which the cut-outs are formed, said slits terminating substantially midway between the strip edges, and other slits communicating respectively with the aforementioned slits and extended toward the respective strip ends substantially parallel to the strip edges.

7. A shirt band comprised of a cardboard body strip having cut-outs formed upon opposite edges thereof adjacent its ends, the inner walls of the respective cut-outs being of circular formation, slits formed in the body end portions and extended from the respective cut-outs at an angle to the axis of the strip, and other slits communicating respectively with the aforementioned slits and extended toward the respective strip ends substantially parallel to the axis of the strip.

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