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TIE BAND, LABEL, AND SIMILAR ARTICLE
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3 Claims. (Cl. 34—67)

This invention relates to tie-bands, labels, wrappers and similar articles of flexible paper or other equivalent sheet material, and more especially to tie-bands, labels and the like of that class which is coated in part with an adhesive or cohesive element by means of which it is applied to another thing or object either by direct application of said coated portion to said other thing or object, or by application thereof to another part of the tie-band, label or the like itself.

Examples of articles of the class referred to are found in U. S. patent to Lane No. 2,000,763; in my co-pending application filed February 9, 1942, Serial No. 429,994, and in U. S. patent to Lane, No. 2,170,147 dated August 22, 1939.

Articles of the class referred to are commonly produced in the form of an elongate strip or band and one type is provided adjacent to one or each end thereof with a coating of permanently sticky or tacky adhesive gum solution of which there are several kinds well known in the art including glues of various kinds, resin derivatives and the like. An appropriate solution of the kind referred to is prepared by soaking fifteen pounds of glue in twenty pounds of water, sufficient heat being applied to form a solution. To this solution add ten pounds of yellow glycerine and thoroughly mix. This produces a permanently sticky adhesive which may have to be thinned by the addition of more water for application to certain types of paper or textile surfaces.

Articles of the kind referred to are dispensed by the manufacturer in packages wherein they are stacked in registering superposed relationship, and in order to prevent adherence between adjacent articles it has heretofore been proposed to provide the same with restricted areas coated with an adhesive-insulating material or composition registering with the adhesive coatings of the package as in the co-pending application and in the Lane Patent 2,170,147 referred to above.

It was also true of these articles as heretofore constructed that the end portions to which the permanently sticky adhesive was applied were sometimes warped or curled to an objectionable extent by the adhesive thus making it difficult for the user to handle or manipulate the article while applying it to another thing or object.

My invention has for its object to provide an improved article of the class described and in particular to dispense with the use of adhesive-insulating material and also obviate the objectionable warping or curling referred to above.

To these ends I have provided an improved article of the class described which, in its preferred form, may be constructed as set forth in the following description, the several novel features of the invention being separately pointed out and defined in the claims at the close of said description.

In the accompanying drawing:
Figure 1 is a plan view, partly broken away at its middle, of a tie-band constructed in accordance with this invention and having the opposite ends thereof provided with permanently sticky or tacky adhesive.
Figure 2 is an enlarged longitudinal section on line 2—2 of Fig. 1.
Figure 3 is an enlarged longitudinal sectional view of an end portion of a stack of tie-bands constructed as shown in Figs. 1 and 2.
Figure 4 is a section on line 4—4 of Fig. 3.
Figure 5 is a plan view, partly broken away, of a tie-band constructed in accordance with this invention and having one end portion thereof provided with permanently sticky or tacky adhesive.

Figure 6 illustrates an alternative construction.
Figure 7 is a plan view of an end portion of a tie-band embodying a fourth form of the invention.

Figure 8 is a section on line 10—10 of Fig. 7.
The exemplary forms of my invention shown in the drawing are tie-bands such as are used by laundries and wrapped around laundered shirts to hold the same in properly folded condition. It is to be noted, however, that the invention can also be embodied in a label, wrapper, envelope or other article of flexible sheet material intended for other uses.

The tie-band A shown in Fig. 1 has its opposite end portions embossed or molded so as to provide each end portion with a multiplicity of closely grouped pockets or recesses 10, the pockets or recesses at one end of the band being disposed upon one side or face of the latter and the pockets or recesses at the opposite end being disposed upon the opposite side or face as will be clear from Figs. 1 and 2.
Within each pocket or recess 10 the bottom wall thereof is provided with a coating 11 of a permanently sticky or tacky adhesive which may be applied during or after formation of the pocket.

Tie-bands of this kind are produced from a web of sheet material of indeterminate length, said web being passed through or into a machine...
by which it is embossed, coated and sheared transversely so as to deliver individual completed tie-bands.

The embossing or molding operation which forms the pockets or recesses 10 also produces longitudinal and transverse ribs or elevations 12 and 13, respectively, alternating with the pockets or recesses. These ribs serve the two-fold function of stiffening or reinforcing the embossed end portion of the band thereby avoiding or minimizing the objectionable warping or curling referred to above, and of shielding the permanently sticky adhesive coatings of the recesses or pockets against accidental contact with other objects. Thus when a multiplicity of bands are stacked one upon another as shown in Figs. 3 and 4, and wrapped or otherwise secured in that relationship to form a package, the ribs or elevations 12 and 13 of each band shield the adhesive 11 of the latter against contact with the adjacent band against which they rest.

When the band A of Fig. 1 is to be applied to a laundered and folded shirt the latter is placed in position upon the middle portion of the band and then the right hand end of the latter is folded inwardly into position on top of the shirt after which the left hand end is folded inwardly into position on top of the first infolded end portion. This brings the two coated end portions opposite each other so that by pressing or crushing the same together by finger pressure otherwise the opposite ends of the band are securely united by the adhesive.

Fig. 5 of the drawing shows a tie-band B having one end only provided with recesses or pockets 10, adhesive 11 within said recesses, and stiffening and shielding means 12 and 13. In this case the opposite ends of the band are overlapped and pressed together as before to join the same.

In Fig. 6 of the drawing one end portion only of the tie-band C is embossed or molded to provide longitudinal rows of recesses 16 with the recesses of adjacent rows staggered as shown to enhance the transverse stiffening and reinforcing effects of the adhesive-shielding elevations or ribs 12a and 13a.

In Figs. 7 and 8 I have illustrated a construction wherein the end portion of a paper tie-band E is provided with a multiplicity of pin punctures 16 each of which is surrounded by an outstanding tubular burr 17, all of said burrs being disposed upon one side of the band and surrounded by a coating 18 of a permanently sticky or tacky adhesive. As will be clear, the outstanding burrs 17 serve as means for normally shielding the adhesive coating against accidental contact with other objects. When the opposite ends of this tie band E are brought together, overlapped and pressed together with the coating 18 between them, the burrs or bosses 17 are collapsed and said ends are united by the adhesive.

What I claim is:

1. An article of the character described consisting of a band of flexible sheet material having a restricted end portion embossed to provide the same with outstanding integral uncoated shielding elevations projecting from one face of said end portion, and permanently sticky adhesive on said face and disposed between said elevations so that it is normally shielded by the latter against accidental contact with an opposing surface but without preventing contact of said adhesive with an adherence to said opposed surface when pressure is applied to the opposite face of said end portion to force said adhesive against said opposed surface.

2. An article of the character described comprising a band of flexible sheet material having a restricted end portion provided upon one face thereof with integral outstanding uncoated shielding and stiffening ribs, and permanently sticky adhesive on said face and exposed between said ribs so that it is normally shielded by the latter against accidental contact with an opposed surface but without preventing contact of said adhesive with and adherence to said opposed surface when pressure is applied to the opposite face of said end portion to force said adhesive against said opposed surface.

3. An article of the character described consisting of a band of flexible sheet material having a restricted end portion embossed to provide the same with a plurality of pockets upon one face thereof each of which is bordered by shielding and stiffening ribs, the bottom walls only of said pockets being coated with a permanently sticky adhesive and the tops of said ribs being uncoated and normally shielding said adhesive against accidental contact with an opposed surface but without preventing contact of said adhesive with and adherence to said opposed surface when pressure is applied to the opposite face of said end portion to force said adhesive against said opposed surface.

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