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RIBBON

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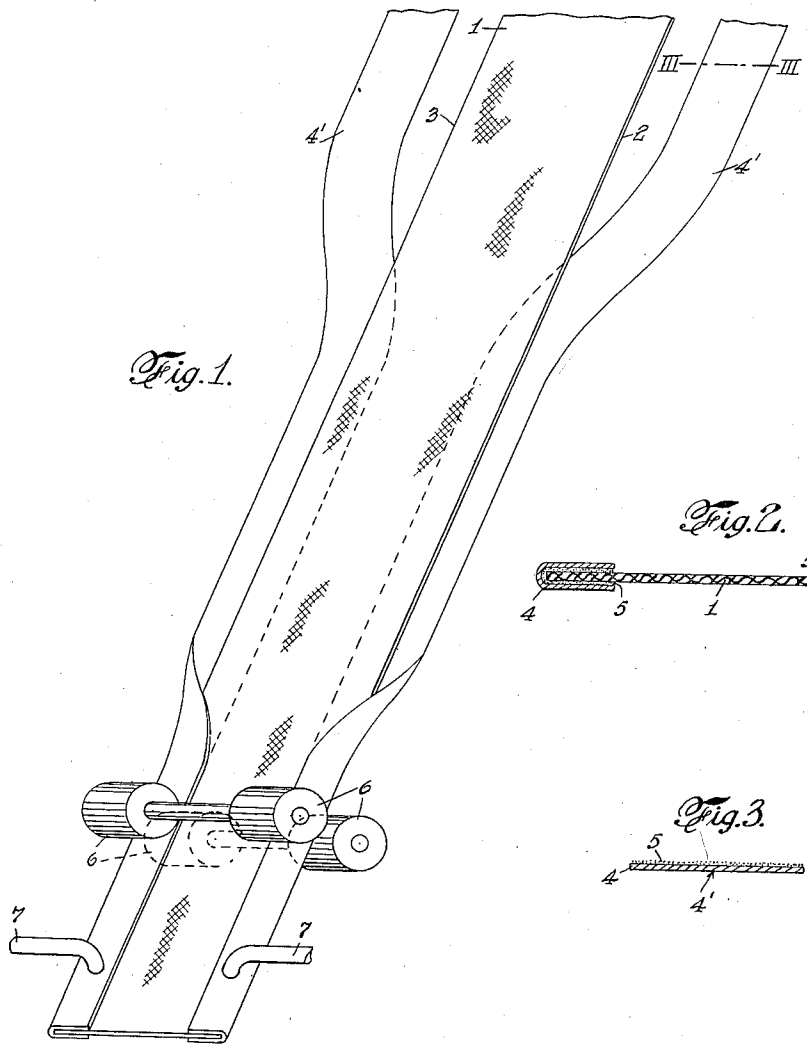


Fig. 1.

Fig. 2.

Fig. 3.

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RIBBON

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3 Claims. (Cl. 154—52)

This invention relates to a ribbon and more particularly to an attractive and ornamental binding tape for tying packages or bundles, whereby the appearance of the package or bundle is materially enhanced.

The nature and objects of the instant invention will become apparent from the following description, appended claims and accompanying drawing forming a part of this specification and wherein:

Figure 1 is a perspective view diagrammatically showing an illustrative method for preparing the ribbon or tape constituting one phase of the present invention.

Figure 2 is an exaggerated cross-sectional view of the ribbon or tape of the instant invention.

Figure 3 is a cross-section taken on line III—III of Figure 1.

Referring now to the drawing wherein like reference numerals designate like parts, the reference numeral 1 designates the body or center portion of the ribbon or tape which, in accordance with the principles of this invention, is formed of a woven or knitted fabric such as, for example, silk, cloth, etc. Due to the fact that the body or center portion 1 is of relatively narrow width, i. e. from approximately ¼ inch to 2 inches, it is obtained by cutting, preferably longitudinally, a web of the desired fabric. As a consequence, at least the edges 2 and 3 thereof are cut edges. In order to prevent the unraveling of the cut center portion 1 at its edges and also in order to produce a highly artistic and ornamental product, there is applied to each of the edges 2 and 3, in the manner hereinafter more fully explained, a strip of material 4 longitudinally folded over on to the center portion 1 and secured and bonded thereto to produce the ribbon or tape constituting one phase of the invention.

The edge strips 4 are of appropriate widths relative to the center portion 1 and, in the preferred embodiment of this invention, are formed of regenerated cellulose, the latter being of any appropriate color and transparent or opaque. The regenerated cellulose strips may also be of the coated variety, i. e. lacquered, varnished, moistureproofed, etc. They may also be of the metalized variety. Still further, they may be decorated, as by having appropriate designs and indicia printed thereon or otherwise applied thereto. It is to be understood that, though in the preferred embodiment of the invention, the edge strips 4 are made of regenerated cellulose of the types aforementioned, the invention is not restricted thereto. Any strip formed of non-fibrous material and colored, coated and/or decorated as previously described may be used.

The bonding of the strips 4 to the center or body portion 1 at the edges 2 and 3 of the latter is an important feature of this invention. Due to the fact that the center or body portion 1 is of a fibrous nature, liquid adhesives cannot successfully be utilized in bonding the edge strips to the body portion to produce satisfactory ribbons. When a liquid adhesive is employed, it is absorbed by the fibers of the center portion and, due to the capillary attraction thereof, the adhesive will spread irregularly throughout. As a consequence, the center portion will be irregularly marked adjacent the application of the adhesive with the result that the product will have an unsightly appearance.

I have found that the serious defects and the undesirable consequences obtained when a liquid adhesive is employed can be overcome if the edge strips 4 are bonded to the center portion 1 through the medium of a thermoplastic adhesive. Thus, in accordance with the principles of this invention, the edge strips 4 are secured to the edges 2 and 3 of the center portion 1 through the medium of a thermoplastic adhesive 5. Any adhesive which becomes energized upon the application of heat and which sets, with or without chemical change, upon cooling can be utilized in this invention. Thermoplastic cement No. 4620, made and sold by E. I. du Pont de Nemours & Company, is an illustrative thermoplastic adhesive which has given satisfactory results.

Referring now to Figure 1, wherein there is shown an illustrative process for making the ribbon or tape constituting one phase of the invention, strips 4', after having a coating of the thermoplastic adhesive 5 applied on one side thereof, are fed adjacent the respective edges 2 and 3 of the center portion and longitudinally folded in any suitable and convenient manner into a U-shape with the respective edge of the center portion embraced between the legs of the U, as illustrated. The adhesive 5 is then energized by heat as, for example, by passing the material between heated rolls 6 which serve to activate and energize the thermoplastic adhesive and bring it into intimate contact with the center portion. The rolls 6 may extend over the entire width of the ribbon or only over the edge portions, as illustrated. The adhesive is then set, as by permitting it to cool. If desired, during cooling of the adhesive the material may be kept under sufficient pressure to effect the

bonding. Also, if desired, the setting of the adhesive may be accelerated by positively cooling the same, as by blowing air, preferably chilled, thereon through nozzles 7, or the like.

In place of the heated rolls for activating the thermoplastic adhesive, any other means may be used to accomplish this result. Thus, the adhesive may be energized and activated by electrical heating elements, heating chambers, etc. In each of these procedures, after the activation of the adhesive, the material is brought into intimate contact by any convenient means such as presser rolls.

As an alternative procedure for making the ribbon or tape, each strip 4', which is to constitute an edge strip 4, may be longitudinally folded over on itself and the respective longitudinal edge of the center portion 1 positioned into and between the layers of the fold. Thereafter, the adhesive may be energized and set as previously described.

Still another alternative procedure contemplates applying the thermoplastic adhesive to both sides of the center portion 1 adjacent the longitudinal edges only to which the edge strips are to be bonded. Thereafter, the edge strips may be positioned in any of the ways previously described, after which the bonding may be effected in the manner also previously described.

The ribbon or binding tape constituting the present invention is highly ornamental and artistic. It is not marred in any way by the adhesive. By appropriate selection of different colors and decorations of both the center portion and the edge strips the product's beauty and appearance may be materially enhanced.

Though the preferred use of the ribbon is as a binding tape, it is to be understood that it can be successfully used for other purposes. For example, the ribbon can be used wherever decorative ribbons are desirable as for hat-banding, millinery trimming, shoe bows, dress trimming, neckwear and ruchings, etc.

Since it is obvious that various changes and modifications may be made in the above description without departing from the nature or spirit thereof, this invention is not restricted thereto except as set forth in the appended claims.

I claim:

1. A decorative ribbon comprising a strip of woven or knitted material and a strip of non-fibrous material longitudinally folded over and bonded to each longitudinal edge of said woven or knitted material through the medium of a thermoplastic adhesive.

2. A decorative ribbon comprising a strip of cut fabric having a strip of regenerated cellulose longitudinally folded over and bonded to each longitudinal edge of said fabric by a thermoplastic adhesive.

3. A decorative ribbon comprising a strip of cut silk fabric having a strip of regenerated cellulose longitudinally folded over and bonded to each longitudinal edge of the said silk fabric by a thermoplastic adhesive.

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