

[54] **REINFORCING BAND STRIP**

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[51] Int. Cl. **B65d 25/00**, B65d 73/00

[58] Field of Search 40/11, 32; 206/45.14, 206/45.34-80 R; 24/3 A, 153 BP, 153 FB, 200; 248/74 B, 74 PB, DIG. 3

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Primary Examiner—William I. Price

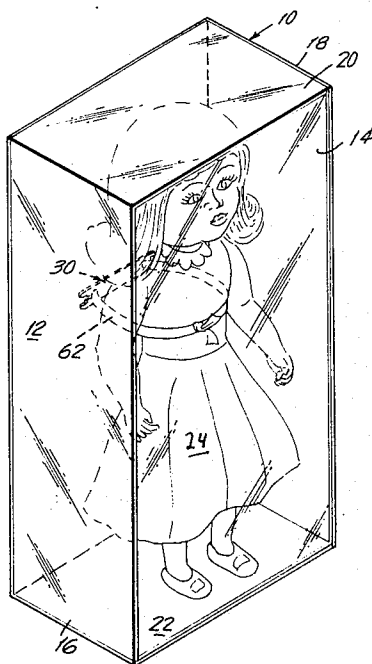
Assistant Examiner—Steven E. Lipman

[57]

ABSTRACT

An improved reinforcing band strip including opposed ends. A groove is located at each end and inwardly of each groove is an opening. In one embodiment a slot extends from the base of each groove to the adjacent opening. In a further embodiment a slot extends from the lengthwise edge of the reinforcing band strip to each opening. Still further, transversely disposed inwardly directed fingers can be provided at the end of each groove to prevent a tape passing therethrough from inadvertently slipping therefrom.

5 Claims, 9 Drawing Figures



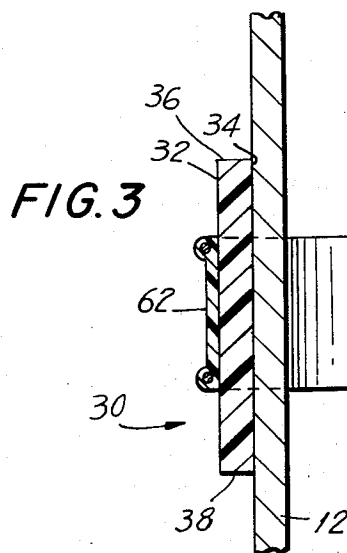
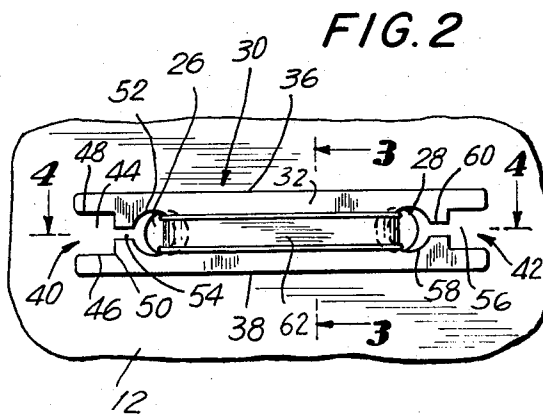
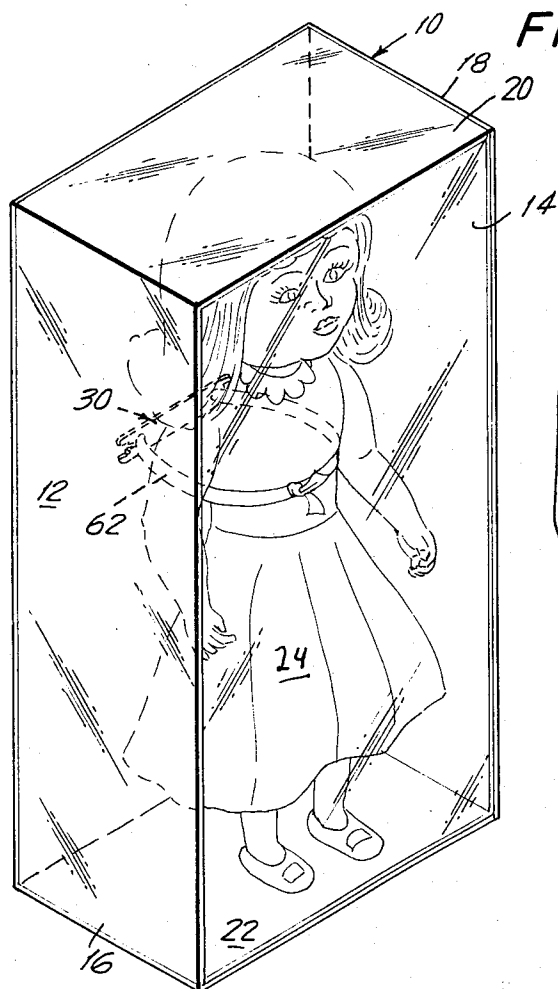


FIG. 4

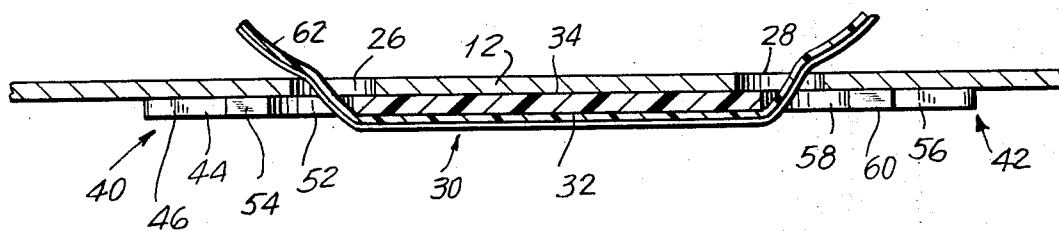


FIG. 5

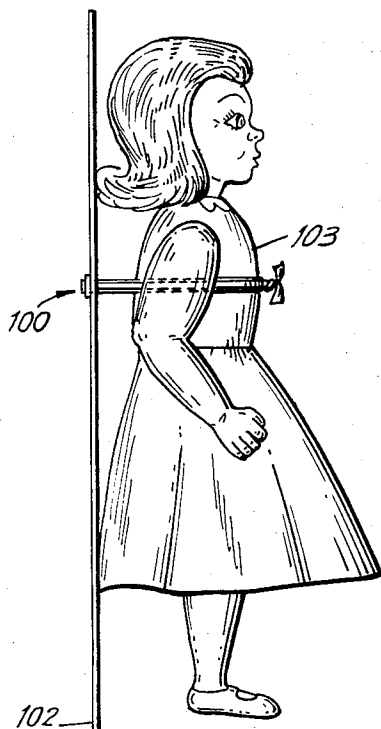


FIG. 6

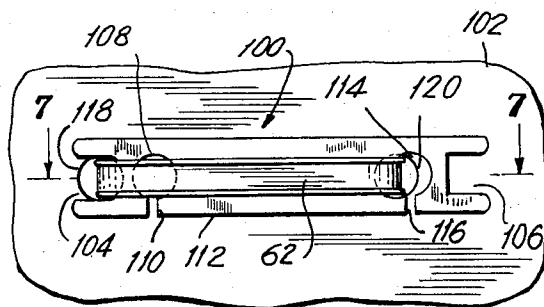


FIG. 7

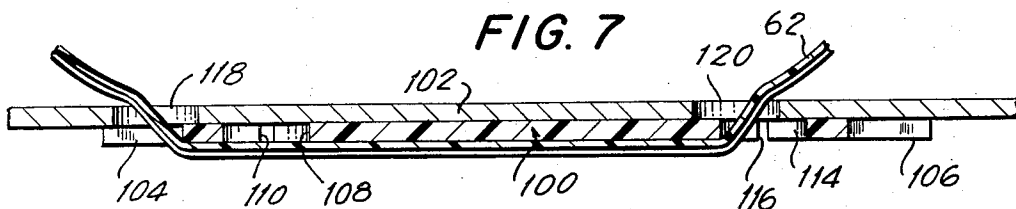


FIG. 8

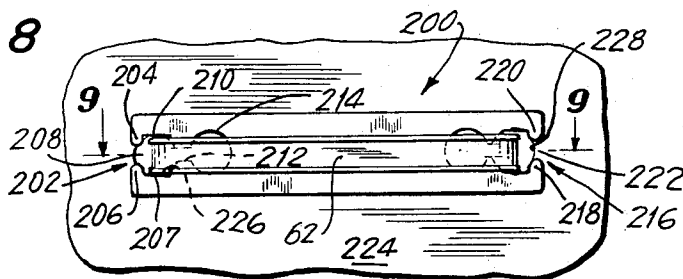
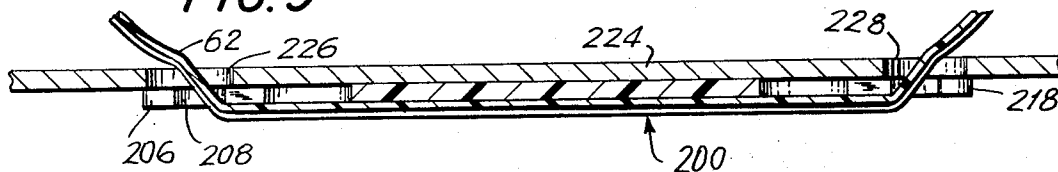


FIG. 9



REINFORCING BAND STRIP

BACKGROUND OF THE INVENTION

1. Field of the Invention

Reinforcing band strip for securing a doll in a doll display box or on a display card.

2. Description of the Prior Art

Dolls, and other similarly configured articles, are usually offered for sale in a doll display box having an open mouth covered by a transparent plastic sheet. In order to eliminate movement of the doll and hold it in an attractive stance, it has been the practice to punch two holes in the rear panel of the box and place the doll so that it lies between the two holes. As an example, a portion of the torso of the doll is placed between the two holes or a portion of the neck of the doll is placed therebetween. A tape is then threaded through the two holes and around the overlying portion of the doll and the ends of the tape are tied together.

Usually, the tape is not a conventional paper tape or cloth tape but is a plastic tape having one or more ductile wires embedded therein. An example of the type of tape that has been used is the tie wires which are currently used for closing the necks of plastic bags or for tying bundled items together. These tie wires are sometimes identified as "floral" ties or tapes. To "tie" together the ends of such wires the ends are twisted about each other.

An additional way that dolls are offered for sale is by having a doll mounted on a display card. Usually the card is made from a rigid material, e.g., paperboard, and it is necessary to secure the doll to the display card. In order to achieve this, the prior art taught punching two holes in the card and placing the doll so that it is positioned between the two holes in the manner described above, in connection with securing a doll in a doll box. A tape is then threaded through the holes, placed about a portion of the doll, and the ends of the tape tied to each other.

A disadvantage of securing dolls in display boxes and to display cards in the manner just described is that very frequently when the ends of the tape are secured to each other, as for example by twisting, the compression force exerted by the tape on the display box, or on the display card, causes bending and/or tearing which is, of course, undesirable.

Recognizing this problem, the prior art taught using a reinforcing band strip. A reinforcing band strip was simply an elongated strip of fiberboard having two openings adjacent each of its ends. In use, the tape was threaded through an opening at each end of the reinforcing band strip and through the holes in the display box (card) with the ends of the tape then being tied to each other about the doll located in the box or mounted on the card. The purpose of having two openings at each end of the reinforcing band strip was to enable a reinforcing band strip to accommodate various doll widths. As an example, if the tape were threaded through the outermost of each of the two openings the distance spanned was considerably more than the distance it would span when threaded through the innermost openings. A different span was obtained by threading the tape through the outer opening at one end and through the inner opening at the other end. By using these reinforcing band strips tearing and/or bending of the display box (card) was prevented since the

tape was placed against the band strip under compression rather than the segment of the display box (card) between the openings.

One of the disadvantages of using prior art reinforcing band strips as just described was that a significant amount of time was required to thread the tape through two openings of the reinforcing band strip which of necessity added to the cost of the doll. In items such as dolls, where competition is keen, even minor cost advantages can be significant.

SUMMARY OF THE INVENTION

1. Purposes of the Invention

It is an object of the present invention to provide improved means for securing a doll in a doll box or mounting the doll on a display card.

Still another object of the present invention is to provide improved means for securing a doll to a doll box or mounting the doll on a display card the structure of which is such that a minimum amount of time is required to utilize said means.

Other objects of the invention will be pointed out hereinafter.

2. Brief Description of the Invention

According to the present invention, the foregoing and other objects are achieved by using a reinforcing band strip which includes parallel opposed broad surfaces and two ends. The reinforcing band strip may be fabricated from plastic and can be injection molded so as to be economically made. Located at each end of the reinforcing band strip is a groove. Positioned inwardly and adjacent each groove is an opening. A narrow slot extends between each groove and its adjacent opening.

In using the reinforcing band strip it is not necessary to thread the tape through a groove at an end thereof when securing a doll, if a groove is to be employed, since the tape can be inserted therein by lateral movement thereof. Alternatively, if it is desired to use an opening adjacent one of the grooves the tape can be inserted by lateral movement thereof, edgewise, into the opening through the adjacent groove and slot. This eliminates the time-consuming and expensive threading operation which characterized prior art reinforcing band strips.

In a second embodiment of the present invention a groove is provided at each end of a reinforcing band strip. Adjacent and inwardly of each groove is an opening. In this embodiment of the present invention a slot is provided for each opening which slot extends from a longitudinal edge of the reinforcing band strip to the opening. When it is desired to have the tape pass through an opening the tape is moved laterally and passed edgewise through the slot into the opening.

A further embodiment of the invention is hereinafter described.

The invention accordingly consists in the features of construction, combination of elements, and arrangement of parts which will be exemplified in the reinforcing band strips hereinafter described and of which the scope of application will be indicated in the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings:

FIG. 1 is a perspective view illustrating how the first embodiment of the present invention is utilized to secure a doll in the interior of a doll box;

FIG. 2 is a fragmentary rear plan view of the doll box shown in FIG. 1;

FIG. 3 is an enlarged fragmentary sectional view taken substantially along the line 3—3 of FIG. 2;

FIG. 4 is an enlarged fragmentary view taken substantially along the line 4—4 of FIG. 2;

FIG. 5 is a side view illustrating how a second embodiment of the reinforcing band strip of the present invention is utilized to mount a doll on a display card;

FIG. 6 is a fragmentary rear plan view of the reinforcing band strip and display card shown in FIG. 5;

FIG. 7 is an enlarged fragmentary sectional view taken substantially along the line 7—7 of FIG. 6;

FIG. 8 is a fragmentary rear plan view of a portion of a display box on which a doll is mounted with the use of a reinforcing board strip embodying a form of the present invention; and

FIG. 9 is an enlarged fragmentary sectional view taken substantially along the line 9—9 of FIG. 8.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

In FIG. 1 of the drawings a conventional doll display box 10 is illustrated which includes a rear panel 12, a front panel 14, side panels 16 and 18 and top and bottom panels 20 and 22. The panels are made of paper-board. As is conventional, front panel 14 is made from a transparent material such as a transparent plastic sheet to enable the contents of the box to be readily viewed through the open mouth of the box and to provide an attractive display item. It is to be appreciated that while doll box 10 is shown as being rectangular in plan, this is for purposes of illustrating the present invention and doll boxes of other shapes could obviously be used. Located in doll box 12 is a doll 24 which includes a head, a neck that extends downwardly from said head and is connected to a torso, and legs and arms attached to said torso. As can be seen from FIG. 1, doll 24 substantially fills the interior of doll box 10 when placed therein although this is not critical.

Extending through rear panel 12 of doll box 10 are holes 26 and 28. The holes are spaced apart from each other by a distance slightly less than the width of the doll torso and are positioned approximately in registry with the waist of the doll when the same is placed in its desired position in box with the back of the doll in contact with panel 12. It should be noted that a line passing through holes 26 and 28 is parallel to top and bottom panels 20 and 22, respectively.

A first embodiment of the reinforcing band strip 30 of the present invention includes opposed broad surfaces 32 and 34 which are parallel and in registry with each other. Reinforcing band strip 30 is relatively thin and is made from a synthetic plastic and can be injection molded so that the production costs thereof are minimized. Strip 30 is semi-rigid, i.e., stiff enough not to flex appreciably when subjected to lengthwise compression of a few, e.g., 5, pounds.

Reinforcing band strip 30 includes parallel edges 36 and 38 which extend for the length of said reinforcing band strip. In addition, reinforcing band strip 30 includes opposed ends 40 and 42. Extending inwardly from end 40 is a groove 44 which includes sides 46 and

48 that are parallel to each other and in registry while being the same length. Groove sides 46 and 48 are parallel to reinforcing band strip edges 36 and 38. Groove side 48 is adjacent reinforcing band strip edge 36 and in a similar fashion groove side 46 is adjacent band strip edge 38. The distance between groove side 46 and reinforcing band strip edge 38 is equal to the distance between groove side 48 and reinforcing band strip edge 36. Spanning the innermost ends of groove sides 46 and 48 is a groove base 50 which is perpendicular to each of the groove sides and perpendicular to reinforcing band strip edges 36 and 38. Spaced inwardly from groove 44 is a circular opening 52, the diameter of which is equal to the perpendicular distance between groove sides 46 and 48. The center of opening 52 is spaced equally from band strip edges 36 and 38. A slot 54 extends from groove base 50 to opening 52 and is symmetrically positioned with respect to reinforcing band strip edges 36 and 38.

A second groove 56 extends inwardly from end 42 of reinforcing band strip 30 and is identical to groove 44 except that the opening of groove 56 faces in a direction opposite to that which groove 44 faces. Located adjacent and inwardly of groove 56 is a further circular opening 58 which is identical in size to opening 52 and in registry therewith. Opening 58 is spaced the same distance from groove 56 as is opening 52 spaced from groove 44. In addition, opening 58 is spaced equidistantly from edges 36 and 38. A slot 60, identical to slot 54, extends from the base of groove 56 to opening 58. It is noted that the distance from opening 58 to end 42 is equal to the distance between opening 52 and end 40.

A tape 62 is provided for securing doll 24 in the interior of doll box 10. Tape 62 is not a conventional paper tape or cloth tape but preferably is made from a soft synthetic plastic and includes two malleable wires embedded along the transverse opposed edges thereof. The purpose of the wires is to strengthen the tape. An example of this type of tape is the tie wires which are currently used for closing the necks of plastic bags or for tying items together. These tie wires are commonly known in the trade as "floral" ties. Preferably the width of the tape is slightly less than the width of the grooves.

Prior to using reinforcing band strip 30 of the present invention doll 24 is positioned so as to be upright in the interior of doll box 10 with the back of the doll resting against the inside surface of rear panel 12. The distance between holes 26 and 28 is slightly less than the distance between openings 52 and 58 so that the stress that will be applied when the tape is tensed will be placed on the strip rather than panel 12. Tape 62 is positioned with the center thereof lying adjacent the rear broad surface of reinforcing band strip 30. The portion of the tape adjacent groove 56 is turned 90° about the longitudinal axis of the tape and is inserted edgewise through groove 56 and slot 60 so that the tape is received in opening 58. The tape is then rotated so that the edges thereof contact opposed segments of opening 58 and a line passing through the portions of the tape edges contacting opening 58 is perpendicular to the band strip edges. In a similar fashion, a portion of tape 62 is inserted edgewise into opening 52. The two ends of the tape are then passed through holes 28 and 26 beneath the armpits of doll 24 and the free ends of the tape then are twisted about each other in front of the

doll's chest. Since the distance between holes 26 and 28 is less than the distance between openings 52 and 56, the openings will assume the compressive stress when reinforcing band strip 30 is pulled against the outside surface of panel 12 as the ends of tape 62 are twisted about each other (FIG. 2) and the tape tensioned so as to hold doll 24 tightly against the inside surface of rear panel 12.

If the distance between holes 26 and 28 is greater than the distance between openings 52 and 58 but less than the distance between groove 44 and opening 58, the tape can be passed through groove 44 and opening 58 and used as previously described. It should be noted that when groove 44 is used care must be taken to ensure that one of the opposed broad lengthwise faces of tape 62 abuts the groove base and bridges slot 54 so that the edge of the tape will enter said slot 54. The wires on the tape are on opposite sides of slot 54 so that as the tape is tightened the edges thereof are frictionally bound to the base of the groove at points spaced from the slot. Alternatively, if the distance between holes 26 and 28 is greater than the distance between groove 44 and opening 58 but less than the distance between grooves 44 and 56, then the tape can be passed through grooves 44 and 56 and used as previously described.

While reinforcing band strip 30 has been described for use with a display box it can be used with equal facility for mounting a doll on a display card.

In FIG. 5 a reinforcing band strip 100 according to the second embodiment of the present invention is shown for mounting a doll 103 to a display card 102. It is to be appreciated that while reinforcing band strip 100 has been described in conjunction with a display card, said reinforcing band strip 100 can be used in securing a doll in the interior of a doll display box. Reinforcing band strip 100 is identical to reinforcing band strip 30 except as hereinafter described. Reinforcing band strip 100 includes grooves 104 and 106 at the opposed ends thereof. Groove 104 is identical to groove 44 except that the base of groove 104 is continuous and not interrupted by the end of a slot as is the case with the base of groove 44. In a similar fashion, groove 106 is identical to groove 56 except that the base of groove 106 is continuous whereas the base of groove 56 has a gap therein. An opening 108 is positioned inwardly of and adjacent groove 104 and is identical to opening 52 in size. Opening 108 is positioned with respect to groove 104 in the same manner that opening 52 is positioned with respect to groove 44. On reinforcing band strip 100 there is no slot which extends between groove 104 and opening 108. A slot 110 extends perpendicularly inwardly from an edge 112 of reinforcing band strip 100 to opening 108.

An opening 114 is located inwardly of and adjacent groove 106 and is identical in size to opening 58. Opening 114 is positioned with respect to groove 106 in the same manner that opening 58 is positioned with respect to groove 56. It is noted that there is no slot which extends from the base of groove 106 to opening 114.

A slot 116 extends inwardly from edge 112 of reinforcing band strip 100 to opening 114. Slots 116 and 110 are identical to each other and each slot extends to the portion of its respective opening closest to edge 112.

Display card 102 includes holes 118 and 120 which are spaced apart from each other. The distance be-

tween said holes is slightly less than the width of the torso of doll 103 which is to be mounted thereon. For illustrative purposes, the distance between holes 118 and 120 is slightly less than the distance between groove 104 and opening 114 of reinforcing band strip 100 as can be seen in FIG. 6.

In use, the tape is inserted edgewise through slot 116 into opening 114 with care being taken to make sure that a line passing through the opposed portions of the tape abutting the opening is perpendicular to the edges of reinforcing band strip 100 after the tape is placed in opening 114. Tape 62 is then passed through groove 104 by positioning the tape outside the groove with the broad surface of the tape parallel to the groove base and moving the tape laterally inwardly until the tape abuts the groove base. Presumably the tape is not twisted here and a neat appearance already is maintained. The tape passing through groove 104 is then threaded through hole 118, and passed beneath one armpit of the doll closest thereto. The tape passing through opening 114 is passed through hole 120, beneath the remaining armpit of the doll and the free ends thereof are twisted together so that doll 103 is tightly held against display card 102. If the distance between holes 118 and 120 is greater than the distance between groove 104 and opening 114 but less than the distance between grooves 104 and 106, then grooves 104 and 106 are utilized in mounting doll 103 on display card 102.

In FIG. 8 a reinforcing band strip 200 according to a third embodiment of the present invention is shown which is identical to reinforcing band strip 30 except as hereinafter described. Located at end 202 of reinforcing band strip 200 are spaced apart retaining fingers 204 and 206 which leave a small gap at the outer edge of groove 208. Finger 206 extends from side 207 of groove 208 towards finger 204 and has a rounded free end. In a similar fashion, finger 204 extends from groove side 210 towards finger 206 and includes a rounded end. It is noted that the fingers are opposed to each other and in registry and the gap between said fingers is substantially wider than the width of slot 212 which extends from groove 208 to opening 214, the latter being identical to slot 54.

Located at end 216 of reinforcing band strip 200 are retaining fingers 218 and 220 which fingers are identical, respectively, to fingers 206 and 204. The purpose of the fingers is to prevent tape 62 from accidentally slipping out of either of grooves 208 or 222 before the ends of the tape are twisted together.

In utilizing the third embodiment of the present invention a rear panel 224 of a doll box is illustrated and includes spaced apart holes 226 and 228. For purposes of illustration, the distance between holes 226 and 228 is slightly less than the distance between grooves 208 and 222 and said grooves are utilized in securing a doll in the interior of the doll display box. Tape 62 is edgewise inserted through the gap between retaining fingers 218 and 220 to groove 222 and then rotated so that the tape broad surface contacts the groove base. The tape from groove 222 is threaded through hole 228 and passed beneath the right (looking from the rear) armpit of the doll. The tape in a similar fashion is passed through groove 208. The tape from groove 208 is threaded through hole 226 and beneath the remaining armpit of the doll with the free ends of the tape being twisted around each other about the doll's chest so as

to securely hold the doll in contact with the rear panel of the display doll box.

It is apparent that when using any of the reinforcing band strips of the present invention it is not necessary to thread an end of a tape through either the grooves or the openings, thus overcoming a significant drawback of prior reinforcing band strips.

All embodiments of the invention can be used with a display box or a display card as required and in each embodiment a groove and opening, two openings or two grooves can be used.

It thus will be seen that there are provided reinforcing band strips which achieve the various objects of the invention and which are well adapted to meet the conditions of practical use.

As various possible embodiments might be made of the above invention, and as various changes might be made in the embodiments above set forth, it is to be understood that all matter herein described or shown in the accompanying drawings is to be interpreted as illustrative and not in a limiting sense.

Having thus described the invention there is claimed as new and desired to be secured by Letters Patent:

1. An arrangement for securing a doll comprising a self-maintaining sheet of material having first and second opposed sides, a doll positioned adjacent a first of said sides with the back of said doll facing said first side, a first and second hole extending through said sheet of material, an elongated reinforcing band strip positioned adjacent the second side of said sheet of material and including a first and second end and opposed parallel registered broad surfaces, a first groove means located at said first end, a second groove means located at said second end, a first opening means located adjacent and spaced inwardly from said first groove means, a second opening means located adjacent and spaced inwardly from said second groove means, a tape extending through one of said means at said first end, through said first hole and about the doll and through one of said means of said second end, through said sec-

ond hole and about the doll with the ends of the tape about the doll secured to each other, first means extending from said first opening means and accessible from the periphery of the strip for enabling a tape to be displaced intermediate its length laterally into the first opening means, and second means extending from said second opening means and accessible to the periphery of the strip for enabling a tape to be displaced intermediate its length laterally into the second opening means.

2. An arrangement according to claim 1 wherein said first means includes a slot extending from said first groove means to said first opening means, and said second means includes a slot extending from said second groove means to said second opening means.

3. An arrangement according to claim 1 wherein said reinforcing band strip includes opposed elongated edges, said first means including a slot extending from one of said edges to said first opening means and said second means including a slot extending from one of said elongated edges to said second opening means.

4. An arrangement according to claim 1 wherein said first and second groove means each include a base, means for inhibiting a tape passed through the first groove means from slipping out of said first groove means and means for inhibiting a tape passed through said second groove means from slipping out of said second groove means, said first and second groove means each including opposed groove sides and an open end.

5. An arrangement according to claim 4 wherein said means for said first groove means includes two fingers with each finger extending from one side of said first groove means towards the other side and narrowing the first groove means open end, and said means for said second groove means including two fingers with each finger extending from one side of said second groove means towards the other side thereof and narrowing the second groove means open end.

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