

March 30, 1965

R. A. MAGARIO ETAL

3,175,231

SLEEPING BAGS

Filed Jan. 15, 1962

3 Sheets-Sheet 1

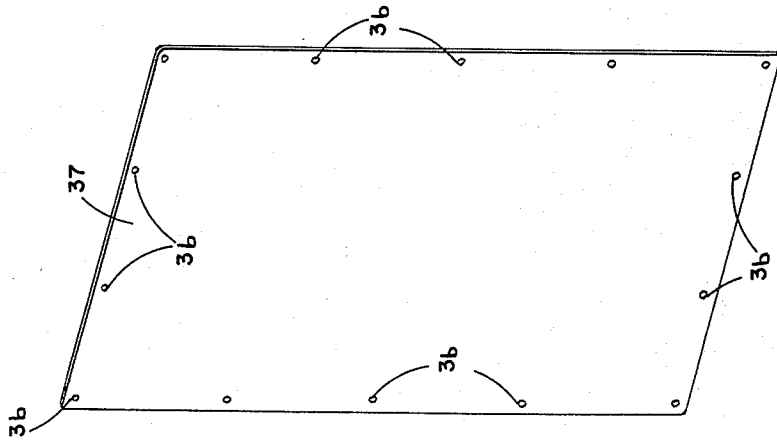


FIG. 3

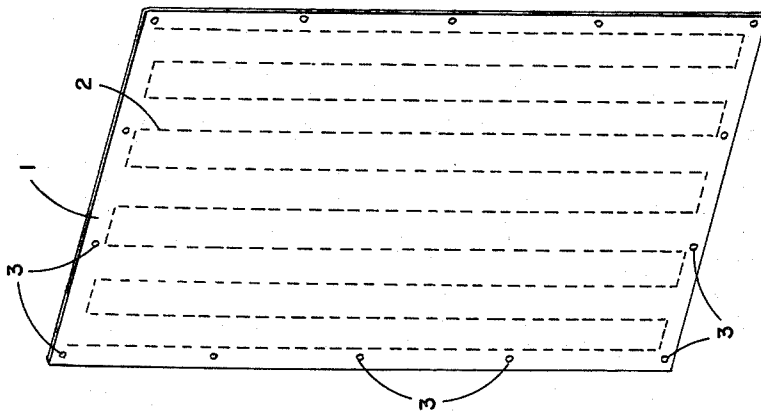


FIG. 2

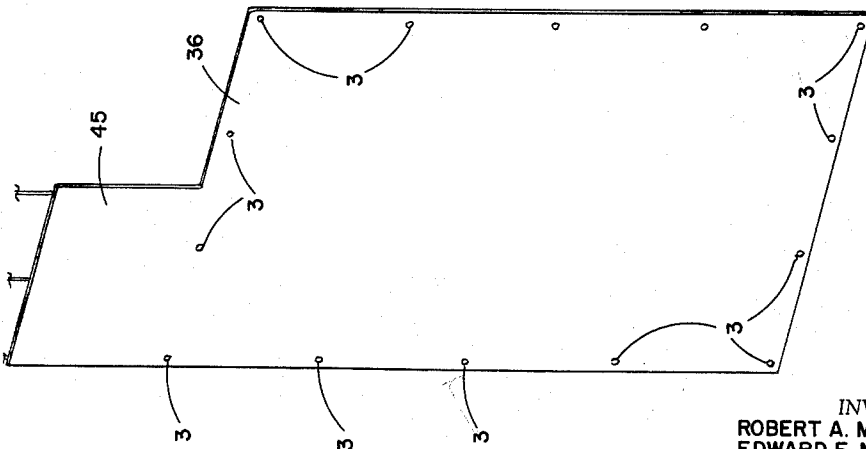


FIG. 1

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3 Sheets-Sheet 2

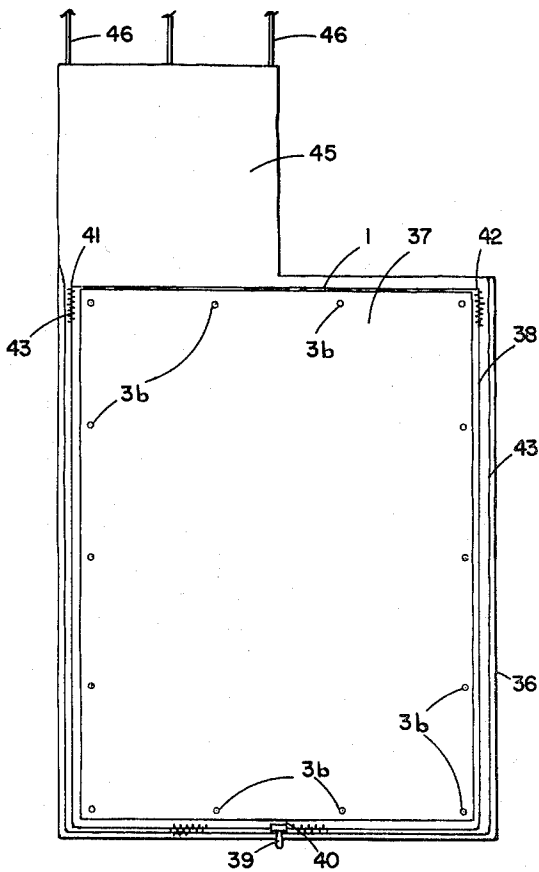


FIG. 4

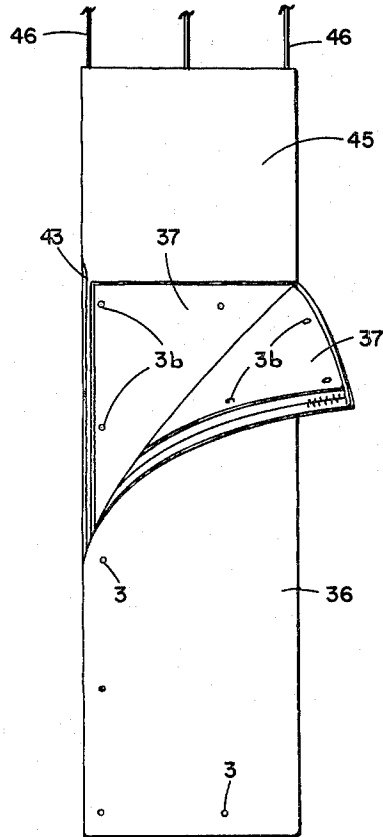


FIG. 5

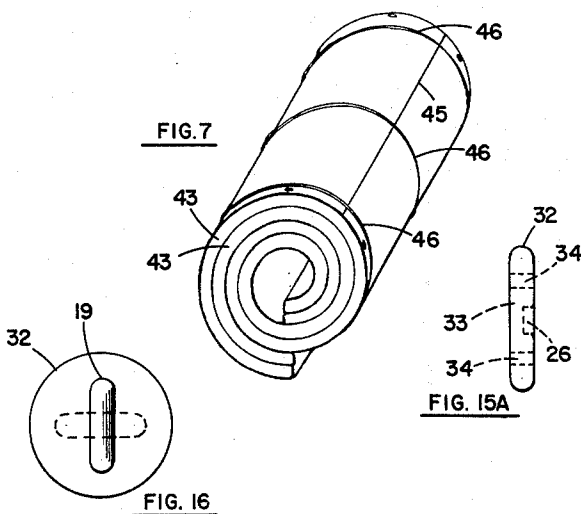


FIG. 7

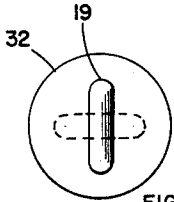


FIG. 16

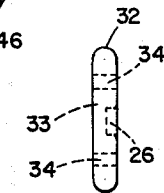


FIG. 15A

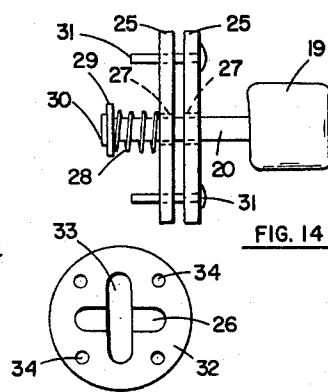


FIG. 15B

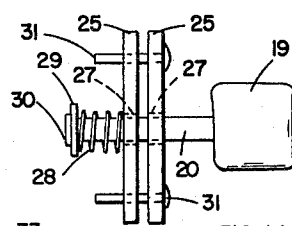


FIG. 14

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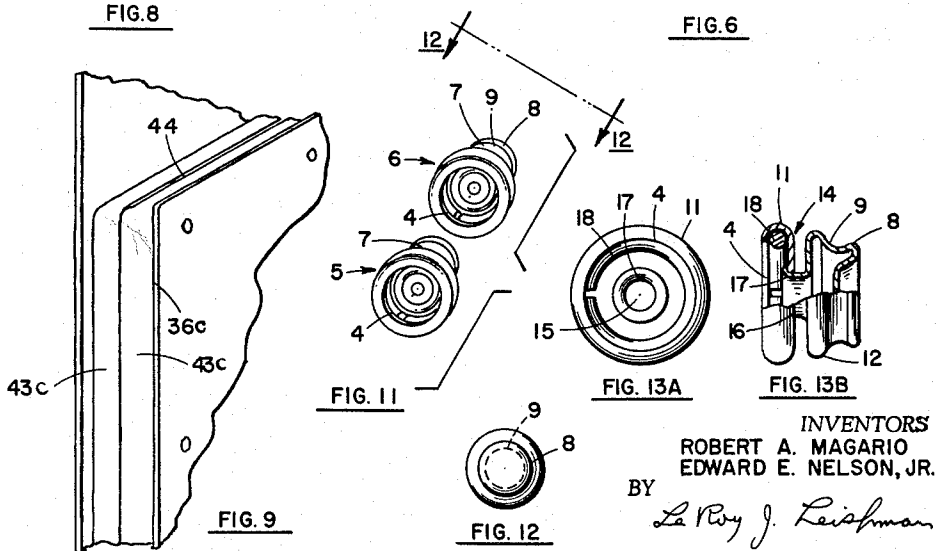
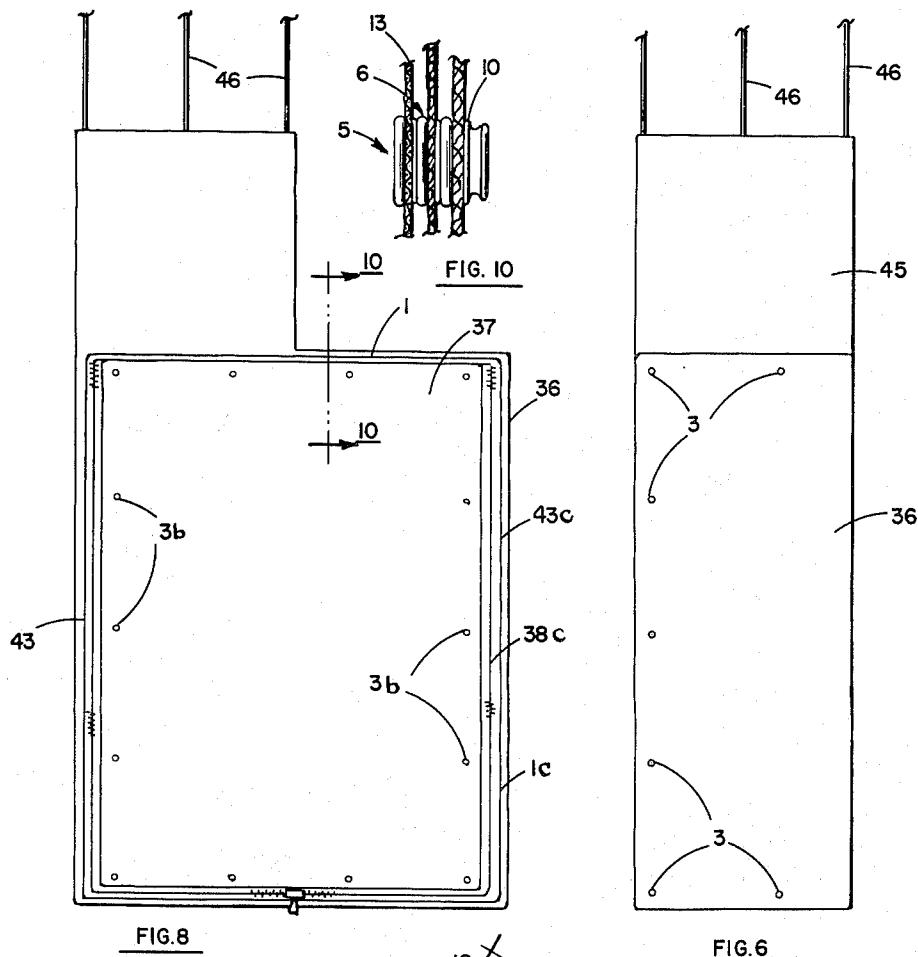
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3 Sheets-Sheet 3



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3,175,231

SLEEPING BAGS

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2 Claims. (Cl. 5—343)

The invention herein described pertains to sleeping bags, and more particularly to an improved type having provisions not only for washable sheets and/or blankets but also for washable covers.

Heretofore, most sleeping bags have not been provided with a washable cover nor has the portion that contacts the user been easily removable and washable. Furthermore, it has not been easy to add extra cushioning and insulating layers in order to provide additional warmth when desired.

One object of the present invention is to provide a construction that makes it possible readily to add additional cushioning and insulating units. Another object is to make it possible to attach or detach sheets or blankets with ease for washing and replacement.

A further object is to provide a construction that makes it possible easily to remove the outer cover not only for purposes of washing but for replacement should it become worn.

Still another object is to provide a construction that will permit the main unit of cushioning and insulating material to be folded and joined by a severable fastener in such a way that a weather-seal will be formed.

An additional object is to afford a construction that will make it possible to add additional units of cushioning and insulating material without interfering with the provisions for readily changing the sheet or blanket unit.

A further object is to provide a cover that may easily be attached to the cushioning and insulating unit without interfering with the severable fastening of such unit.

Another object is to provide at least two of the edges of the cushioning and insulating unit with a lip or bead that will close around the severable fastening means when the latter is closed.

Yet another object is to provide a construction that permits the zipper or severable fastener to be on the extreme edge of the warming unit with the encasing bead or lip so arranged and disposed on the outer cover that it will close around the fastening means on the warming unit.

Still other objects will appear as the specification proceeds.

In the drawings:

FIG. 1 is a view of the inside surface of the cover and conventional flap of the embodiment of my invention that I presently prefer.

FIG. 2 is a plan or open view of the cushioning and insulating unit, showing one location thereon for a severable fastening means.

FIG. 3 is a plan view of a sheet or blanket with fastening means thereon for attaching it to the cushioning and insulating unit.

FIG. 4 is a plan view showing the assembly of one embodiment of my invention with the cushioning unit superimposed over the cover and the sheet or blanket attached to the cushioning unit. In this embodiment the sealing bead or lip is on the cover.

FIG. 5 shows the three units folded over and partially closed for use.

FIG. 6 shows the entire bag with the cover completely folded over.

FIG. 7 shows the presently preferred embodiment of my invention rolled up and tied by means of the cords attached to the covering flap.

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FIG. 8 shows a modification in which the sealing bead or lip is attached to the cushioning and insulating unit at the extreme outer periphery beyond the severable fastener.

FIG. 9 is a cut-away view of one corner of an embodiment of the species of my invention shown in FIG. 8 with the entire unit folded back on itself, revealing the beading or lip on one side closed against the corresponding portion of the bead or lip on the opposite edge.

FIG. 10 illustrates in general one way in which a plurality of pieces of fabric may be severably fastened together by fasteners such as those illustrated in FIGS. 11, 12 and 13.

FIG. 11 is an isometric view of two of the fasteners shown in FIG. 10 arranged with their mating ends facing each other to show their manner of connection.

FIG. 12 is taken on line 12—12 of FIG. 11 to provide an end view of the closed portion of the fastener.

FIG. 13A is a view of the open end of the device of FIGS. 11 and 12.

FIG. 13B is a broken-away side elevation of the device of FIGS. 11, 12, and 13A.

FIG. 14 is a side elevation of one member of a pair of disconnectable fasteners of another type.

FIG. 15A is a side elevation of the member that cooperates with the member shown in FIG. 14 to form a mating pair.

FIG. 15B is a right side view of the part shown in FIG. 15A, and

FIG. 16 is a right side view of the parts shown in FIGS. 14, 15A and 15B joined together.

Still other objects will appear as the specification proceeds.

The cushioning and insulating unit 1 of my sleeping bag consists of a filling of Dacron, Celucloud, cotton, or wool or other soft material having heat insulating properties, preferably in sheets or layers to which the casing may be attached as by stitching 2. This basic cushioning and insulating unit is usually rectangular, and is provided on its upper and lower surfaces near the four edges with a series of fasteners 3. These fasteners may be of the general type shown in FIGS. 10, 11, 12 and 13. Such fasteners consist of two or more identical units 5 and 6, each having a recess 4 at one end and a projection 7 at the other. These circular projections have a slightly greater diameter at the outer end 8 than they do at the inner end or neck 9 which adjoins the main body of the unit. Resilient provisions are associated either with the recesses 4 or the projections 7 to permit them to be snapped together. One commercially available fastener that is suited to the present purpose is provided with an inwardly facing lip around the recess 4. Inside this recess, and confined therein by means of the lip, is a split ring 18 of resilient material. When two units of this type of fastener are snapped together, the flange-like portion 8 of the projection, which has an outer diameter slightly smaller than the inside diameter of the split ring 18, moves inside the ring and forces it open. The spring action of the ring then causes it to close around the neck 9 of the projection, thus holding the two units together. It will be understood that any number of these units may be snapped together for attaching a plurality of pieces of material.

Each of the units 5, 6 and 10, FIG. 10, consists of two parts 11 and 12, FIG. 13B, so shaped with respect to each other that a piece of fabric 13, FIG. 10, may be clamped between them in the position indicated by the arrow 14 in FIG. 13B. Part 11 is shaped to provide the aforementioned cavity or recess 4, and it has a central aperture 15, FIG. 13A, to receive the hollow stem 16 of part 12. This stem is inserted through a hole in the material to which it is to be attached, and the stem is

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then extended through the aperture 15 in member 11 and peened over as indicated at 17 in FIGS. 13A and 13B.

Another type of suitable fastener for our purpose is illustrated in FIGS. 14, 15 and 16. In this type of fastener, a substantially flat member 19 has a stem or shank 20 that extends through aperture 27 in a pair of relatively flat disc-like members 25 which clamp the fabric between them when pins 31 are inserted through the members and through the intervening fabric and then bent over. A compression spring 28 encircles the shank 20 on the side of the discs 25 opposite from the main body of member 19. A washer 29 is mounted near the outer end of shank 20 adjacent the spring and the shank is then peened over or spread as indicated at 30 in FIG. 14.

If a fastening device such as that embodying members 19 and 25 is attached to a piece of fabric, the piece that is to be fastened thereto is provided with a disc 32, FIGS. 14, 15 and 16, overlying an opening in the material registering with, and slightly larger than, the elongated opening 33. Such a disc may be attached to the fabric by any convenient means such as by sewing it on, utilizing holes 34, or by providing the disc with sharp lugs that may be pressed through the material and then turned over.

When the assembly consisting of parts 19 and 25 are attached to one piece of material and the disc 32 to another, the enlarged end of member 19 may be inserted through the material to which disc 32 is attached and extended through the aperture 33 in the disc. Member 19 may thereafter be rotated a quarter of a turn by means of the fingers to the angular position indicated in broken lines in FIG. 16, and when the fingers are removed the spring 28 will pull member 19 toward member 32, causing the shoulders of member 19 to nest in the depression 26 and be detented therein by the action of the spring.

Additional pieces of material may be attached to the one that bears fastener 19-25 if each additional piece is provided with a disc 32. When attaching these additional pieces, the large end of member 19 is of course passed through each of the additional discs. If member 19 is then rotated 90 degrees, this member will be detented against angular movement, with the result that the pieces of fabric thus joined together will remain fastened until member 19 is again turned so that it will slip through the slots 33.

If fasteners like those illustrated in FIGS. 10 to 13 are used for joining the three units of my sleeping bag together, the fasteners on the reverse side of the cushioned member 1 must of course be so oriented with respect to the correspondingly spaced fasteners 3 on the cover 36 that their mating ends will face each other. If the padded unit 1 is then so superimposed over the cover unit 36 that the fasteners will line up with each other, the mating fasteners may then be snapped together in order to attach unit 1 to the cover or base unit 36.

The sheet or blanket 37 acts as a top cover for the cushion or insulating member 1, and the top cover is attached to unit 1 by means of fasteners 3b, which are so spaced and positioned on the top cover that the socket ends of the fasteners thereon will snap over the protruding ends of the snap fasteners that are affixed to the cushioning and insulating unit.

It will be observed in FIG. 4 that the overall size of the top cover 37 is smaller than that of the zipper-bearing unit 1. This permits the sheet 37 to be entirely disposed within the confines of the severable fastener or zipper 38. The two halves of this zipper are joined together at position 39 where the operating member 40 initially straddles the interconnecting links. From the central juncture 39, the two halves of the severable fastener proceed in opposite directions and then extend upward along the outer edges of unit 37 to the opposite corners 41 and 42. The cover 37 may reach substantially to the upper edge of unit 1.

It is advisable that the severable fastener, which is

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usually made of metal, be covered or protected, and in the embodiment illustrated in FIG. 4, this is accomplished by means of an edging or lip 43 formed on, or attached to, the base cover unit. When the right half of the assembled sleeping bag, as viewed in FIG. 4, is folded over to accommodate the occupant and the severable fastener has been operated to join the opposite sides of the cushioned unit together, the flanges or lips then course face each other and meet as shown in FIG. 7, where the entire assembly is shown rolled up and tied for carrying.

FIG. 8 shows a modification in which the zipper on member 1 is interposed between the rows of spaced fasteners and the protective lip or beading 43c which in this case is formed on member 1 immediately adjacent the severable fastener 38c instead of on the outer edge as is the case in the previously described embodiment. The lips or bead 43c, formed on the edges of member 1, come together as shown in FIG. 9 to form a weather-seal. Inasmuch as the protective lip or bead and the severable fastener are omitted from the upper edge, the two slides of the sheet may readily be separated at 44, FIG. 9.

If the anticipated night temperature of the surrounding air is expected to be such that one insulating unit will not provide adequate warmth, it is of course possible to attach an additional insulating unit to the one already shown and described. It will be clear that the fastening devices 3, hereinbefore described, provide a means for the ready attachment of this additional covering.

The flap may be integral with, or attached to, the outer cover 36. It affords protection for the user's head and also serves as a wrapper for the entire sleeping bag when it is rolled up as shown in FIG. 7. In this figure, the cords are shown looped around the rolled bag and tied together to keep the bundle intact.

Various modifications may of course be made in the structures shown and described herein, and substitutions, additions and transpositions of various elements may of course be made without departing from the broad spirit of my invention as succinctly set forth in the appended claims.

We claim:

1. In a sleeping bag, a combination including: a first four-sided unit containing a filler with cushioning and heat insulating properties; a severable sliding fastener attached to three edges of said first unit and so arranged that the mating halves of the fastener are joined substantially at the center of the central side; a series of individual disconnectable connector components arranged and attached to said first unit adjacent said severable fastener but inside the area partially circumscribed thereby; a second four-sided unit overlaying said area; a second series of disconnectable connector components so constructed, disposed and attached to said second unit that they will register with, and connect to, the first-mentioned components; a third unit for covering the surface of said first unit that is opposite from the surface over which the second unit is superimposed, said third unit having a flange-like bead arranged around at least a portion of three sides thereof and so disposed thereon that it will lie outside the said severable fastener when the three units are superimposed; and a series of disconnectable connectors for attaching said first and third units.

2. In a sleeping bag, a combination including: a first four-sided unit containing a filler with cushioning and heat insulating properties; a severable sliding fastener attached to three edges of said first unit and so arranged that the mating halves of the fastener are joined substantially at the center of the central side; a second four-sided unit overlaying the area partially circumscribed by said severable fastener; a third unit for covering the surface of said first unit that is opposite from the surface over which the second unit is superimposed, said third unit having a flange-like bead arranged around at least a portion of three sides thereof and so disposed thereon that it will lie outside the said severable fas-

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tener when the three units are superimposed; and a group of disconnectable connectors each comprising (a) a first member attached to one of said units and having a portion projecting from a surface thereof and (b) additional members each attached to one of the other units and having an aperture therein for receiving and passing the projecting portion of said first member, the members that are attached to the unit bearing the severable fastener all being disposed adjacent said fastener and inside the area partially circumscribed thereby; and individual means associated with each of said first members for selectively preventing the withdrawal of the project-

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ing portion thereof from the apertures in said additional members.

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