United States Patent [19]

Hensel et al.

[11] **3,901,229**

[45] **Aug. 26, 1975**

[54] **RESTRAINING GARMENTS**

[76] Inventors: **James E. Hensel; Elizabeth H. Hensel,** both of 12 Woodland Ave., Brookhaven, N.Y. 11719

[22] Filed: **Feb. 7, 1974**

[21] Appl. No.: **440,422**

[52] **U.S. Cl.** **128/134;** 2/319

[51] **Int. Cl.** **A61f 13/00**

[58] **Field of Search** ..... 128/134, 133, 132 R; 2/319, 69.5; 297/389, 384

[56] **References Cited**

UNITED STATES PATENTS

1,923,001	8/1933	Haga	128/134
2,215,951	9/1940	Astrove	128/134
3,137,294	6/1964	Robertson	128/134
3,276,430	10/1966	Murcott	128/134
3,276,432	10/1966	Murcott	128/134
3,566,864	3/1971	Garrow	128/134
3,641,997	2/1972	Posey	128/134
3,742,945	7/1973	Reinhardt	128/134
3,788,309	1/1974	Zeilman	128/134

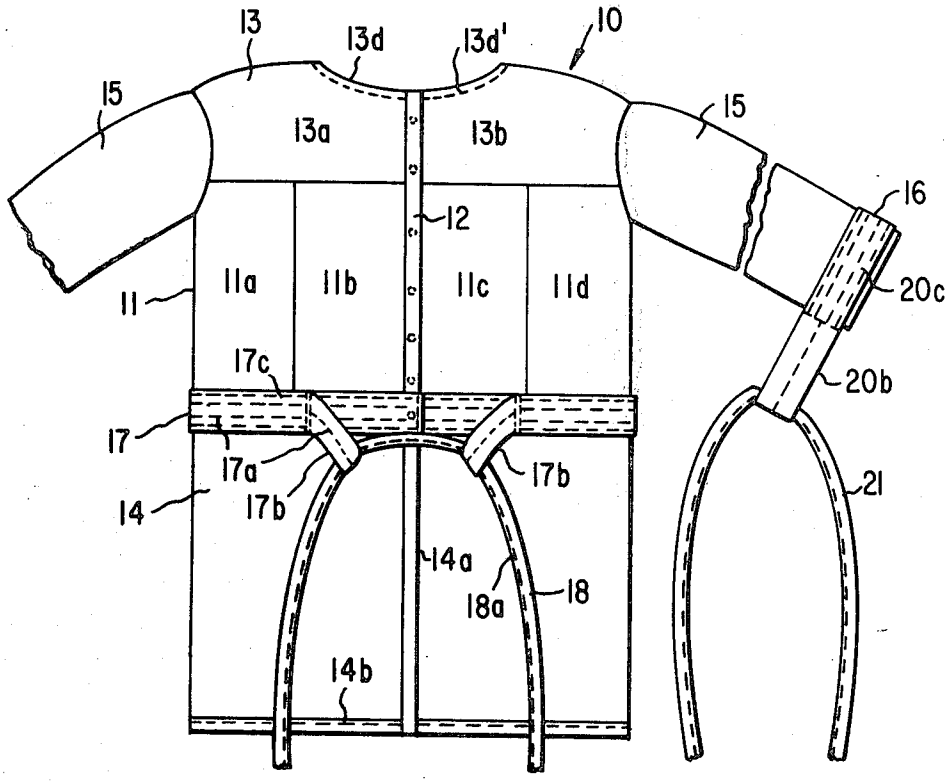
Primary Examiner—Richard A. Gaudet
Assistant Examiner—Lee S. Cohen
Attorney, Agent, or Firm—Jones, Tullar & Cooper

[57] **ABSTRACT**

A restraining jacket having long sleeves and opening at the back has a belt portion extending around the jacket at the waist area. This belt is integrally attached to the jacket, has two spaced apart loops at the rear portion and projecting to the rear and towards each other that are formed up as loops from a part of the belt. These loops receive an elongated tie or cord member slidably therethrough that may be attached at each end to a bed portion or a portion of a chair at each side or it may be passed underneath the bed or to the rear of a chair back and there the ends are tied together.

A modified form of restraining garment takes the form of a diaper-like member having an intermediate portion received between the legs of the wearer and a rear panel and a front panel integral with the ends of the intermediate panel. The front panel has secured along its top edge loops formed at each end that extend to the rear of the wearer. At each top edge of the rear panel there is attached a loop member. The rearwardly extending loops are received through each of the loops at the top edges of the rear panel and passed slidably through each protruding loop is a tie member that is attached in a manner similar to the tie member of the jacket.

13 Claims, 8 Drawing Figures



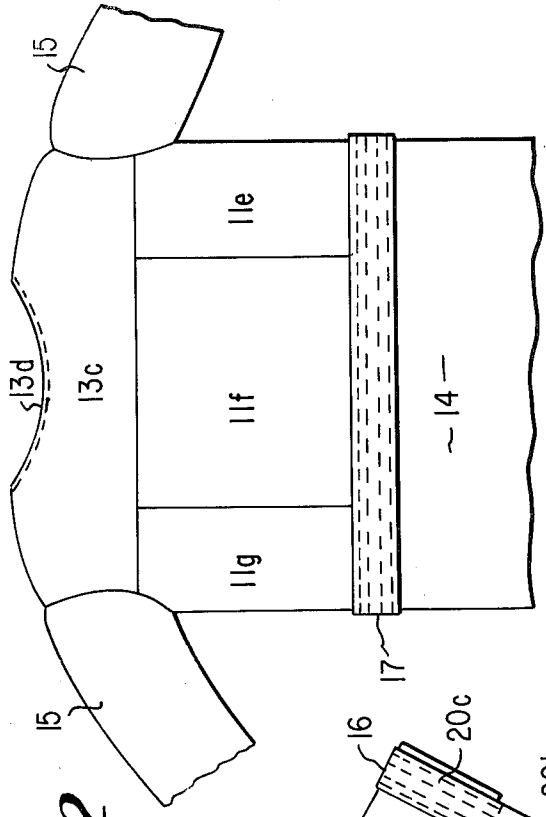


FIG. 2

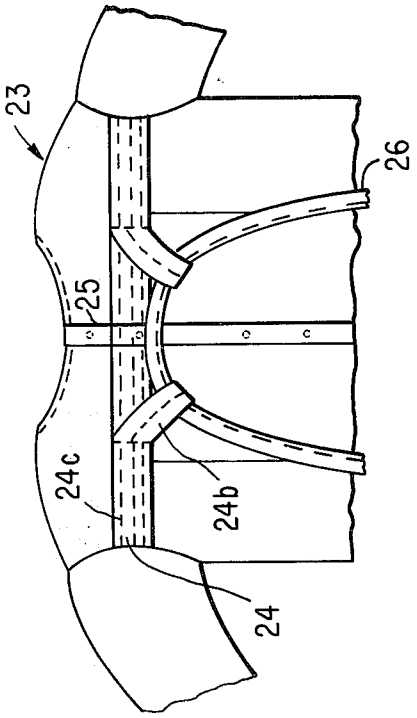


FIG. 3

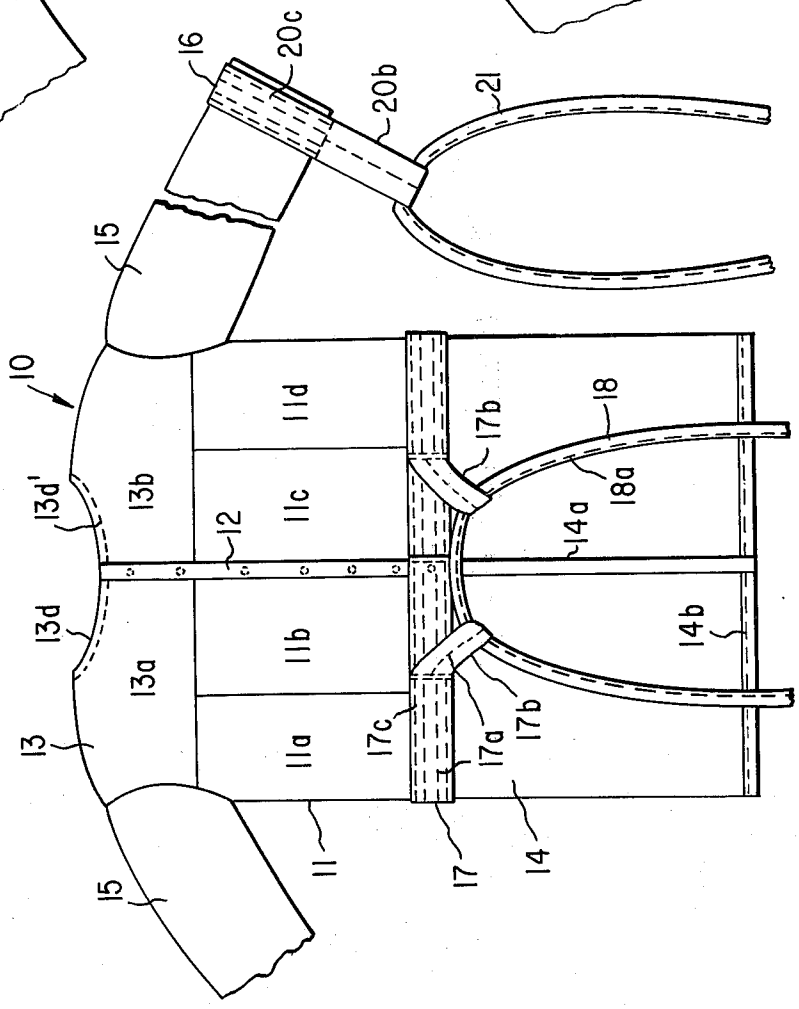


FIG. 1

FIG. 4

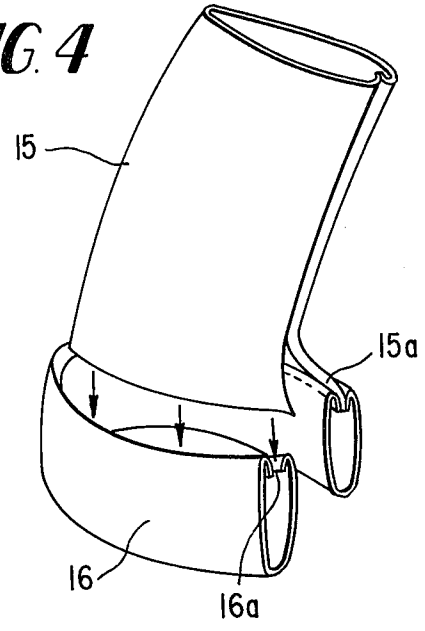


FIG. 5

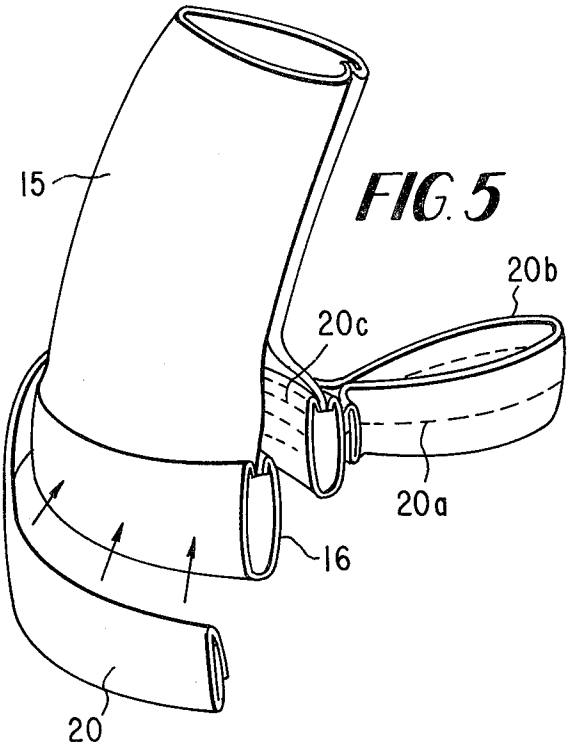


FIG. 6

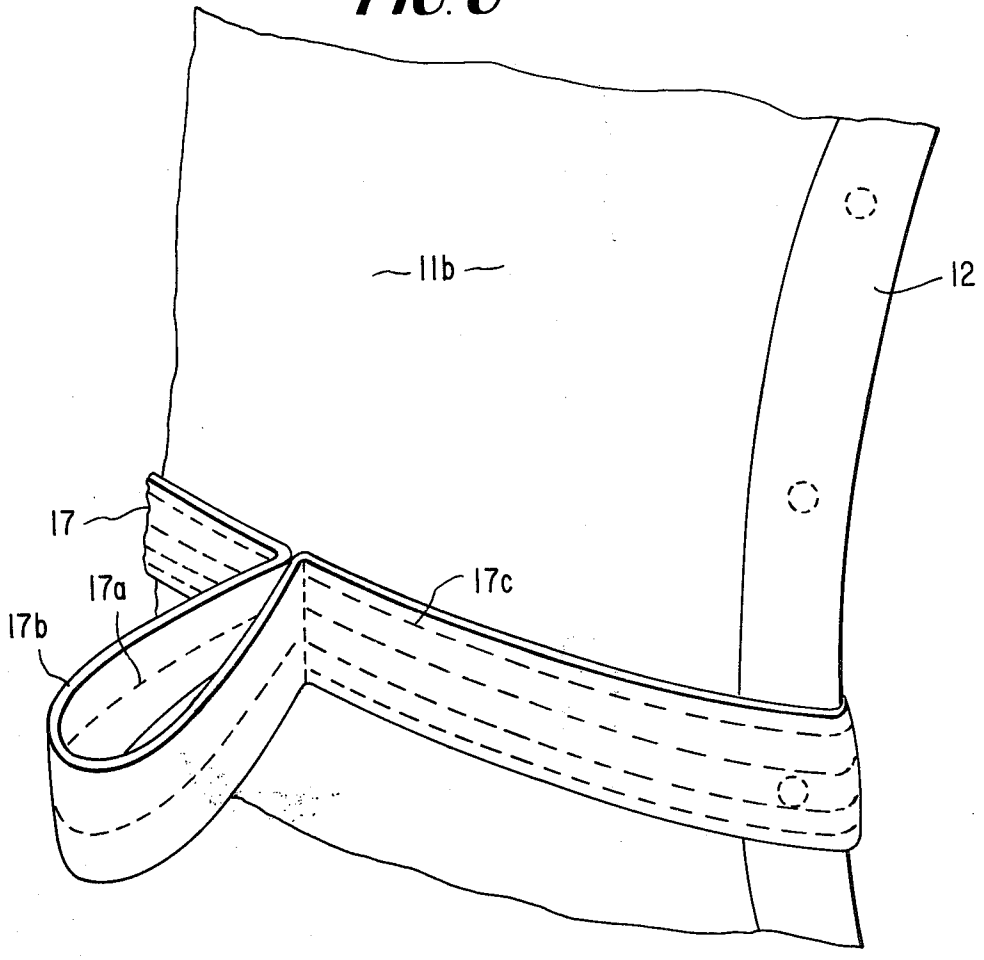


FIG. 7

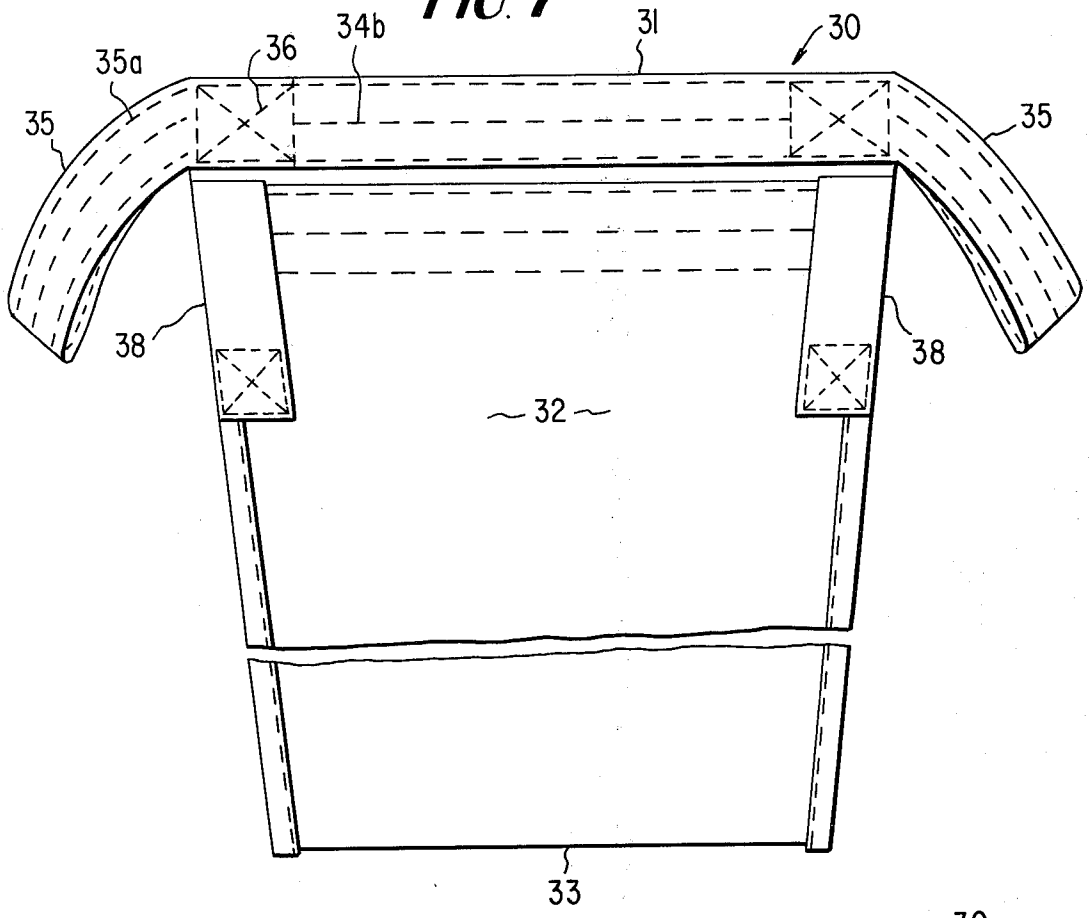
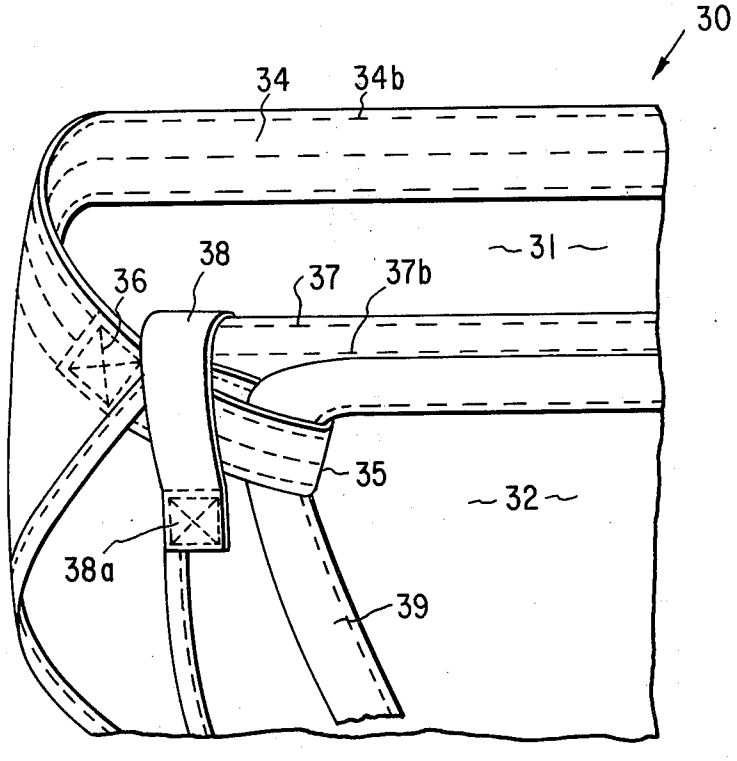

34b
31
30
36
35a
35
35
38
38
32
33

FIG. 8


30
34
34b
31
38
36
37
37b
35
32
38a
39

RESTRAINING GARMENTS

BACKGROUND OF THE INVENTION

In hospitals, nursing homes and the like some patients and occupants have a need to be restrained when in bed and when setting in a chair or in a wheel chair. Various types of vests, jackets, harness and belts have been devised and used.

It is an object of this invention to provide in restraining garments a means for flexibility of reasonable movement for the wearer yet a high degree of restraint from falling out of a bed or chair where the person may be restrained or protected from falling.

Another object of the invention is to provide a restraining jacket that is inviting to wear in that projecting spaced apart elongated loops are provided at the rear of the body area that are an integral part of a belt-like member made as a portion of the garment and a separate detachable elongated tie member is slidably received through the loops.

A further object of the invention is to provide at the cuff end of sleeves of a restraining garment an extending elongated loop that slidably receives an elongated tie member so that the arm may be restrained yet a resonable limited movement is permitted.

Yet another object of the invention is to provide a restraining garment that may be worn without the appearance of a restraining garment by having a belt portion of the same material as the garment integrally attached and with protruding loops formed up as a portion of the belt that extend to the rear of the garment and are adapted to slidably receive therethrough a separate tie member.

Another object of the invention is to provide in a garment such as a jump suits, coveralls, pajamas and diaper-like members a belt portion attached about a leg, sleeve, waist or shoulder portion that provides a firm attachment for a protruding elongated loop member either a loop formed up from the belt portion or separately attached that may have passed therethrough an elongated tie member for restraining a person when wearing such garments while in a bed or chair.

Other objects and advantages of the invention will become apparent upon reading the attached detailed description, and upon reference to the drawings, in which:

DESCRIPTION

FIG. 1 is a rear view of a jacket according to the invention having a belt portion at the waist with protruding elongated loops receiving a separate tie member and a reinforcing cuff member at the wrist end of the sleeves having a protruding elongated loop member receiving a tie member;

FIG. 2 is a front view of the jacket in FIG. 1 with the bottom and sleeves broken away;

FIG. 3 is a rear view of a jacket similar to FIG. 1 with a reinforcing shoulder strap integrally secured to the back of the jacket at the shoulder portion and having formed in the strap spaced apart protruding loops;

FIG. 4 is a perspective view of a broken away end of a sleeve of a restraining garment showing in an exploded manner the attachment of a cuff-like member at the end of the sleeve;

FIG. 5 is a perspective view of the sleeve portion of FIG. 4 showing in an exploded manner the attachment of a reinforcing band or strap about the cuff and having

formed in the band or strap an elongated protruding loop;

FIG. 6 is a perspective partial view on an enlarged scale of the back of the garment in FIG. 1 showing the formation of the protruding loop in the belt or band portion integrally attached to the jacket;

FIG. 7 is a modified form of restraining garment wherein a rear view is shown of a diaper-like garment having the upper end portion of a front panel shown extending above a rear panel with a belt or band attached to the top edge of each and protruding loop members formed up in the ends of the band on the front panel and loop members attached to the top sides of the rear panel; and

FIG. 8 shows in perspective a rear view of the top portions of the two panels in FIG. 7 illustrating one of the loops protruding rearwardly from the band or belt on the front panel and extending through the corresponding loop on the rear panel and having a tie member threaded through the projecting end of the protruding loop.

Throughout the description that follows like reference numbers refer to similar parts.

A restraining garment according to the invention is generally indicated in FIG. 1 in the form of a jacket **10** made up of suitable strong cloth material. It has a body portion **11** formed of sewen together rear panels **11***a*, 11*b*, 11*c* and **11***d* and front panels **11***e*, 11*f* and **11***g*. The jacket fastens in the back as indicated by the reinforced edging strips **12** having snap fastners. Zipper strips could be used. A shoulder portion **13** has two rear panels **13***a* and **13***b* joined by the fastener strips **12** and a front panel **13***c*. The shoulder portion is formed leaving an opening **13***d* for the head and neck and it has a hemmed edge at **13***d'*. Below the body portion **11** there is a relatively short in length bottom **14** that comes together in the back where it has hemmed edges **14***a* in line with the reinforcing fastening strips **12** thereabove. At its bottom **14***b*, its edge is turned up and hemmed.

Two sleeves **15** extend to the wrist where there is a cuff **16** attached. The cuff **16**, see FIG. **4**, is formed of an elongated piece of fabric that is folded together lengthwise, and has the lengthwise upper edges **16**a turned over and stitched to the outer end **15**a of the sleeve **15.**

The restraining features for the jacket **10** is at the waist portion of the body **11** of the jacket and at the wrist portion of the sleeves. A belt, strap or strip generally indicated at **17** is made up preferably of the same fabric material as the rest of the jacket so as to blend in therewith and not give the impression of a restraining member.

The belt **17**, see FIG. **1** is formed from an elongated strip of the same material as the rest of the garment so as to blend in therewith. The elongated strip is folded over and overlapped at the rear and stitched by a holding stitching **17***a*, see FIG. **6.** Loops **17***b* are formed from the strip and the strip is then attached to the waist area of the body portion **11** as by stitching **17***c*. The ends of the belt **17** are turned over and back of the adjacent edges at the back of the jacket before stitching to the jacket. This renders the belt or strap **17** as an integral portion of the jacket and it reinforces the body portion of the jacket at the waist area. These rearwardly protruding loops **17***b* slidably receive therethrough an elongated tie member **18.** This tie member

18 is of strong material folded over to make two thicknesses and then the edges are turned in and stitched at 18a.

Reference to FIGS. 4 and 5 show a cuff 16 attachment to the end of the sleeve 15. A strip or strap generally indicated at 20 is formed in the same manner as the belt 17 and a center holding stitching 20a is made. This strip 20 has an elongated loop 20*b* formed in one end and then the rest is attached to the end of the sleeve 15 about the cuff 16 as by stitching 20*c*. These elongated loops 20*b* at each end of the sleeves likewise slidably receive an elongated tie member 21 similar the tie member 18.

Reference to FIG. 3 shows the back of a jacket generally indicated at 23 like the jacket 15. This jacket 23 has a reinforcing strip 24 attached at the rear of the shoulder area and made like the belt 17 in FIGS. 1 and 2. The strip 24 is in two parts. It has elongated protruding loops 24*b* formed in each part like the loops 17*b* in FIG. 1 and the strip parts are attached by spaced apart stitching 24*c* with the ends turned under along the edges of the back portion of the jacket. Fastener strips 25 like the strips 12 on the jacket in FIG. 1 are attached at the rear edges of the jacket. A tie member 26 like the tie members 18 and 21 is received through the rearwardly protruding loops 24*b*.

MODIFIED RESTRAINING GARMENT

A restraining jacket can either be the restrainer at the waist or at the shoulder or both on the same jacket.

in FIGS. 7 and 8 a restraining garment is shown incorporating elongated rearwardly protruding loops and a tie member threaded therethrough in the manner as for the restraining jacket.

The modified restraining garment is generally indicated at 30. It is formed somewhat in the shape of a diaper and has a front panel 31, a rear panel 32 and an intermediate portion 33 integrally joining the two panels. Each panel tapers inwardly from top to the intermediate narrower portion and its edges are hemmed. The front panel 31 as best depicted in FIG. 8 has a reinforcing strip portion generally indicated at 34 formed by folding over the upper edge of the panel to make three thicknesses and then stitched by spaced apart stitching at 34*b*. Before stitching at 34*b*, independent elongated loop members 35 are formed of the fabric material by folding over an elongated edge and making another fold and then stitching as at 35*a*. The two ends of each loop 35 are fitted into the turned over top edge of front panel 31 when the strip portion 34 is formed and then the stitching 34*b* takes place along with the cross stitching indicated at 36. There could be provided a formed strip that is turned over lengthwise at its ends to form the loops and then attached to a turned over upper edge of the front panel.

The rear panel 32 of the modified garment 30 has its top edge turned over and stitched as indicated at 37. Before completing the stitching, two vertically extending side loops 38 of folded up material are formed and one end is folded over the top edge of the strip portion 37 on the top edge of the rear panel and under the folded portion 37. The stitching indicated at 37*b* is then carried out. The other end of each loop 38 is turned under and is secured by stitching 38*a* to the adjacent upper side edge of the rear panel 32.

In use the front panel fits up against the front body portion of the wearer and the intermediate narrower portion 33 extends rearwardly between the legs with the rear panel 32 extending upwardly to the waist area at the rear of the wearer. The elongated protruding loops 35 as shown in FIG. 8 extend rearwardly at the sides at the waist area of the wearer and through the vertically extending side loops 38 at each upper side edge of the rear panel 32. The projecting ends of the loops 35 slidably receive therethrough an elongated tie member 39 that is made like the tie members 18, 21 and 26.

In use the jacket is easily put on the wearer either by the wearer or an attendant and then fastened together at the rear by the fastener strips 12. The ends of the tie member 18 at the waist area may be passed underneath a bed or behind a chair and there tied together. Also each end of a tie 18 may be attached to a side member of a bed or a side member of a chair. The sleeve ties 21 can likewise be secured to a side member of a bed or a chair in which the wearer may be positioned. The jacket has the appearance of an ordinary jacket and does not give the appearance of a restraining garment.

In both the jacket form of restraining garment and the modified form of restraining garment of FIGS. 7 and 8 there is the common feature of rearwardly protruding loops that receive in the same manner a tie member.

The elongated loops in the garments permit movement of the wearer depending on the tightness of the tie members both at the waist and at the wrist areas of the wearer.

Similar attached straps or reinforcing strips with loops can be used with legs of pajama-like garments for restraining the legs of the wearer. Instead of a jacket the belt or strap as attached at the waist of a jacket can be attached to the body portion of a coverall or jumpsuit type of garment.

What is claimed is:

1. A restraining garment useable to restrain a person in a bed or chair, said garment having interconnected front and back portions which contact respective front and back portions of the body of a person wearing said garment, said garment having integral reinforcing strip portions including plural spaced loop means, said plural loop means adapted to extend from the garment at the back of the wearer and toward each other when said garment is on wearer; and an independent tie member passing through and being freely slidable through said loop means, and adapted to pass underneath a bed or around a chair, the ends of said tie member being tied together or to a part of the bed or chair to secure said garment to said bed or chair to restrain movement of a person wearing said garment.

2. A restraining garment according to claim 1 wherein said garment is adapted to fit over an upper portion of the body and has a head opening and full sleeves, the wrist end of each said sleeve having an integral extending loop member and an independent tie member passing through and being freely slidable through each sleeve loop and adapted to be tied to a portion of the bed or chair.

3. A restraining garment according to claim 2 including additional plural spaced loop means integral with the back portion of the garment at the shoulder area and extending from the garment toward each other, and a second independent tie member passing through and being freely slidable through said additional plural spaced loops and adapted to pass underneath a bed or

around a chair, the ends of said second tie member being tied together or to a part of the bed or chair.

4. A restraining garment according to claim 2 wherein said loop means are integral parts of a belt member, said belt being made of the same material as the garment and sewn with reinforcing stitching about the garment at its waist area.

5. A restraining garment according to claim 2 wherein said loop member at each sleeve is an integral part of a band member made of the same material as the garment and sewn with reinforcing stitching about the wrist end of the sleeve.

6. A restraining garment according to claim 5 wherein said garment is a jacket type closed at the front and joining at the back and said back portion is made of two portions having fastening means for detachably joining said two portions together.

7. A restraining garment according to claim 2 wherein said garment is a jacket type closed at the front and having a generally vertical opening in the back, said back portion having fastening means for closing said vertical opening to facilitate placing said garment on a person.

8. A restraining garment according to claim 1 wherein said loop means are a pair of loops integral with the back portion of the garment at its waist area.

9. A restraining garment according to claim 1 wherein said loop means are a pair of loops integral with the back portion of the garment at its shoulder area.

10. A restraining garment according to claim 1 wherein said garment is of a diaper type in which said front portion is interconnected with said back portion by an intermediate portion adapted to extend between the legs of a person, said back portion of said garment having side loops attached at each upper corner thereof, each of said plural spaced loop means being attached to said front portion of said garment at an upper corner thereof and each said loop means being received through and protruding beyond one of said respective side loops on said back portion said garment is on the wearer, said tie member passing through and being freely slidable through said portions of said loop means protruding beyond said side loops at the back of the wearer.

11. A restraining garment useable to restrain a person in a bed or chair, said garment being a jacket type of garment having rear portions including fastening means for fastening together said rear portions at about the vertical center of its rear whereby the garment may be put on easily on a person in bed or in a chair, said garment having an integral belt member made of the same material as the jacket to blend in therewith, said belt member having a pair of loops formed therein, said loops being at the rear of the jacket and spaced to each side of vertical edges on said rear portions, said belt being sewn with reinforcing stitching about the garment at its waist area, and an independent tie member passing through and being freely slidable through said loops, and adapted to pass underneath a bed or around a chair the ends of said tie member being tied together or to a part of the bed or chair to secure said garment to said bed or chair to restrain movement of a person wearing said garment.

12. A restraining garment according to claim 11 having full sleeves, the wrist end of each said sleeve having an integral extending loop of the same material as the garment to blend in therewith, and an independent wrist tie member passing through and being freely slidable through each said sleeve loop and adapted to be tied to a portion of a bed or chair.

13. A restraining garment useable to restrain a person in a bed or chair, said garment being a type of diaper having a front portion interconnected with a back portion by an intermediate portion adapted to extend between the legs of a person, said back portion having side loops attached at each upper corner thereof and extending along the adjacent side edge of the back portion, loop members attached at each upper corner of the front portion and each having a free end adapted to extend to the rear at each side of the person, each said free end being received through said respective side loop on the back portion and having a protruding portion, and an independent tie member passing through and being freely slidably received through said protruding portions of the loop member at the back of the person and adapted to pass underneath a bed or around a chair, the ends of said tie member being tied together or to a part of the bed or chair.

* * * * *

UNITED STATES PATENT AND TRADEMARK OFFICE

CERTIFICATE OF CORRECTION

PATENT NO. : 3,901,229

DATED : August 26, 1975

INVENTOR(S) : James E. Hensel; Elizabeth H. Hensel

It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

IN THE CLAIMS

Claim 1, line 9 (Col. 4, line 46) change "on wearer" to --on the wearer--.

Claim 10, line 11 (Col. 5, line 41) after the word "portion" insert --when--.

Claim 13, line 15 (Col. 6, line 41) change "member" to --members--.

Signed and Sealed this

twenty-eight Day of *October 1975*

[SEAL]

Attest:

RUTH C. MASON
Attesting Officer

C. MARSHALL DANN
Commissioner of Patents and Trademarks