

[72] Inventors **John D. Fuller;**  
**Decla M. Fuller, Santa Cruz, Calif.**  
 [21] Appl. No. **763,082**  
 [22] Filed **Sept. 27, 1968**  
 [45] Patented **Jan. 19, 1971**  
 [73] Assignee **The Scholl Mfg. Co., Inc.**  
**Chicago, Ill.**  
**a corporation of New York**

[56] **References Cited**

**UNITED STATES PATENTS**

2,797,686	7/1957	Crawford .....	128/166.5
3,063,448	11/1962	Scholl.....	128/153
3,185,394	5/1965	Farrell.....	128/171
3,268,912	8/1966	Whelan .....	128/166

*Primary Examiner*—Adele M. Eager  
*Attorney*—Hill, Sherman, Meroni, Gross & Simpson

[54] **CUSHIONING AND PROTECTIVE SURGICAL BANDAGE**  
 12 Claims, 11 Drawing Figs.

[52] U.S. Cl. .... 128/171,  
 128/157  
 [51] Int. Cl. .... A61f 13/00  
 [50] Field of Search ..... 128/171,  
 155, 156, 157, 132, 159—166

**ABSTRACT:** A cushioning and protective surgical bandage for disposition adjacent a dressing and capable of maintaining specific dressing fixation over a decubitus ulcer, pressure ulcer, bedsore, and other afflictions suffered by a bedridden patient, although other uses will be apparent to one skilled in the art.

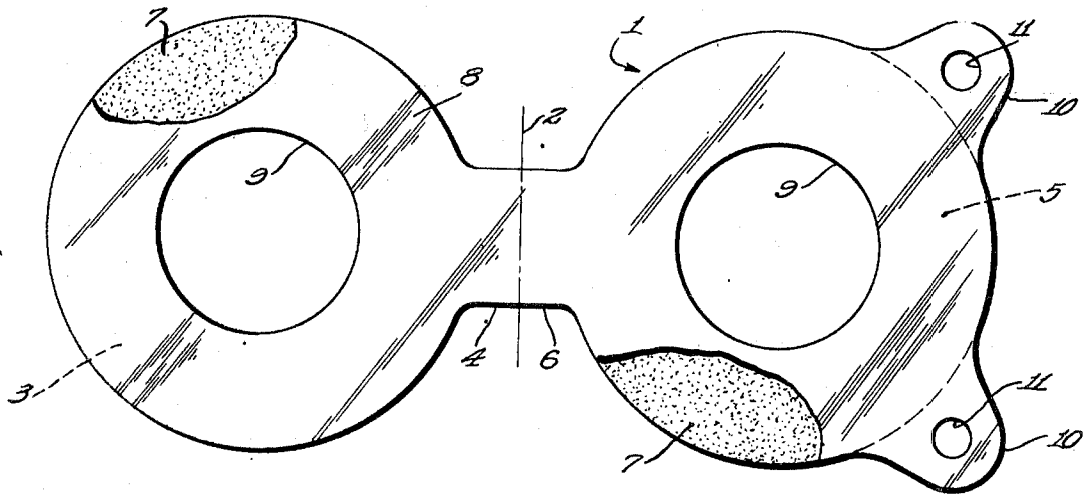


Fig. 1

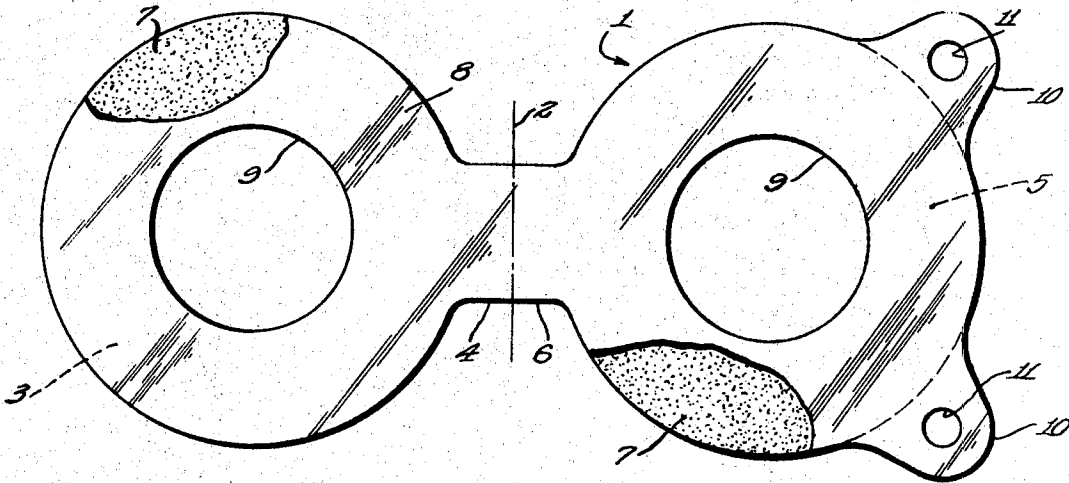


Fig. 2

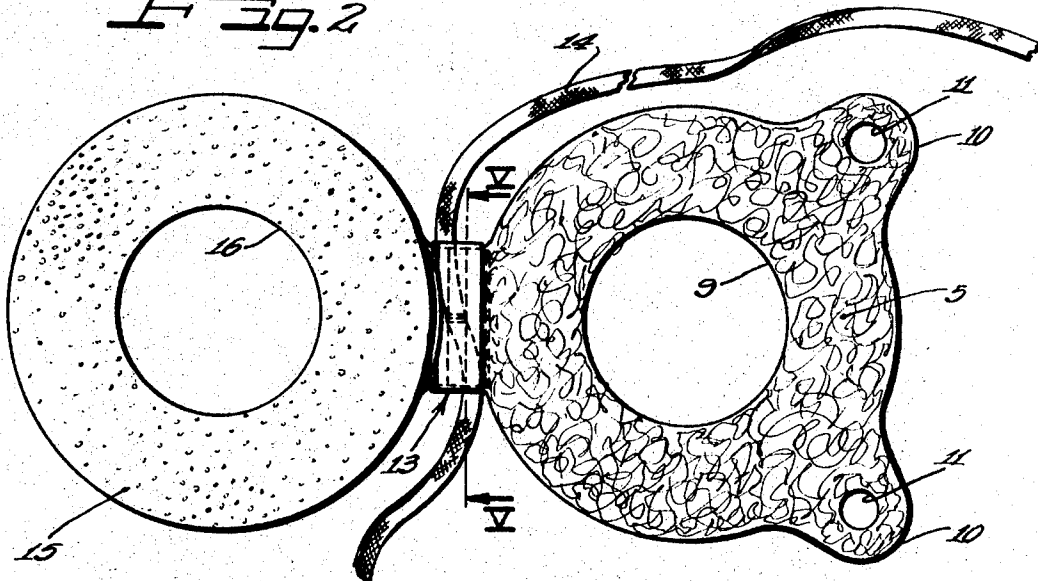


Fig. 3

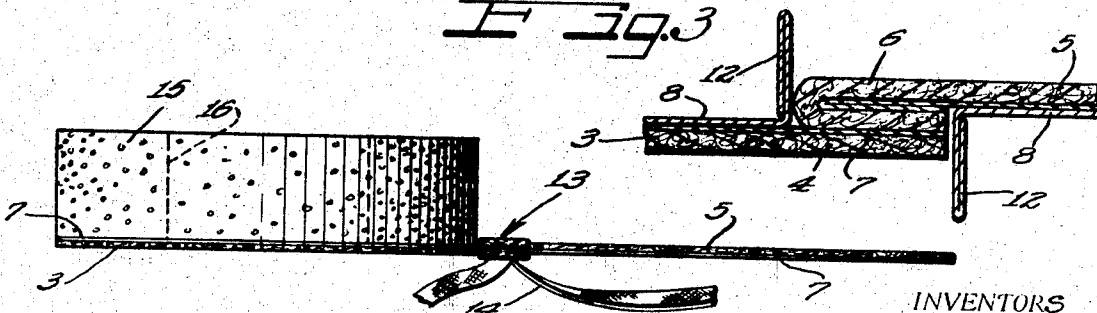


Fig. 4

INVENTORS  
John D. Fuller  
Debra M. Fuller  
BY *Hill, Sherman, Morris, Paul & Simpson* ATTORNEYS

Fig. 5

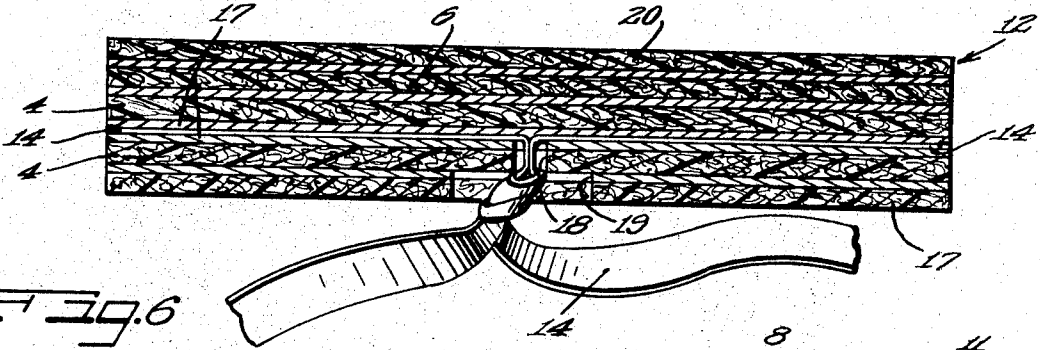


Fig. 6

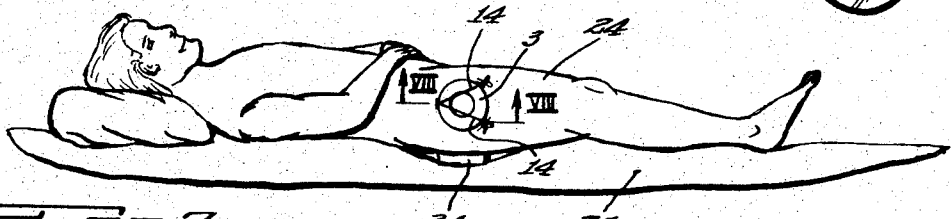
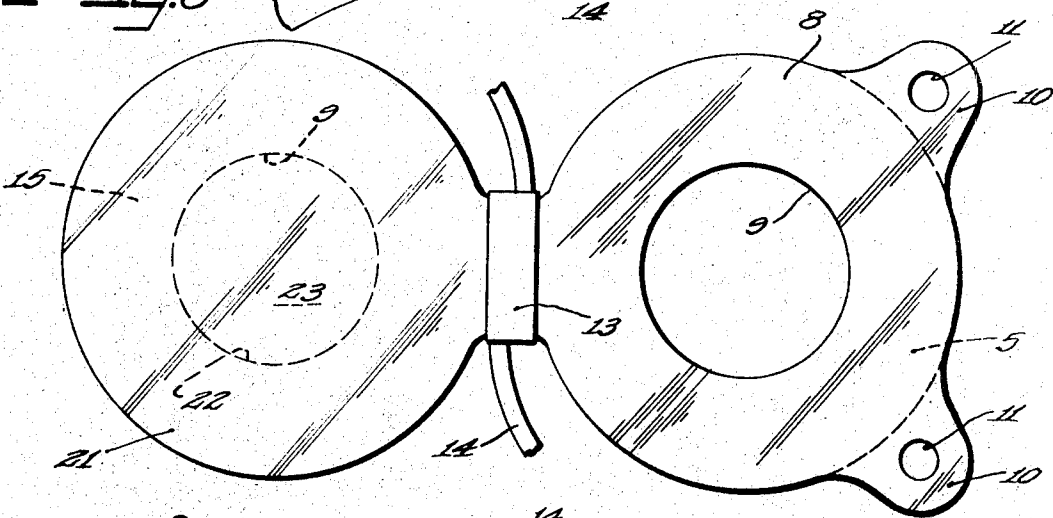
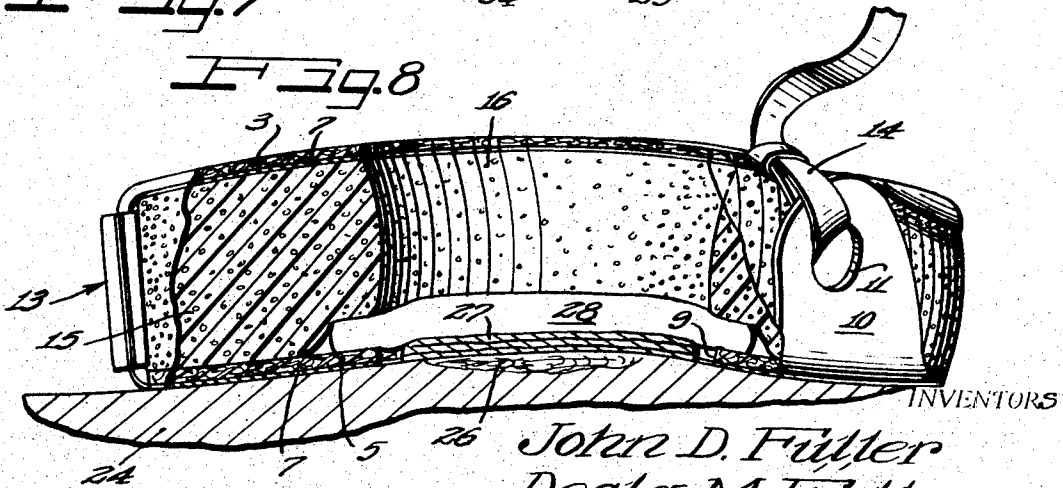


Fig. 7

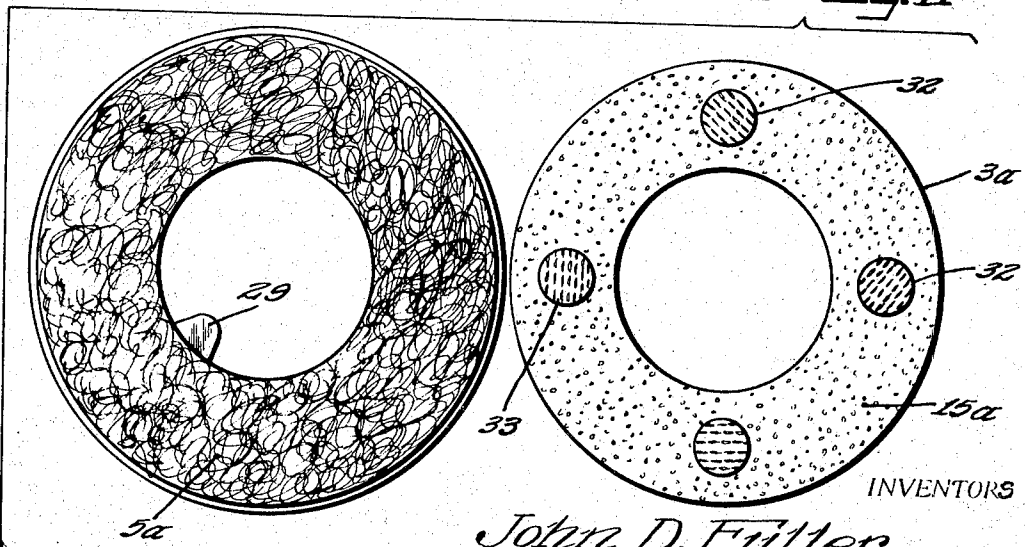
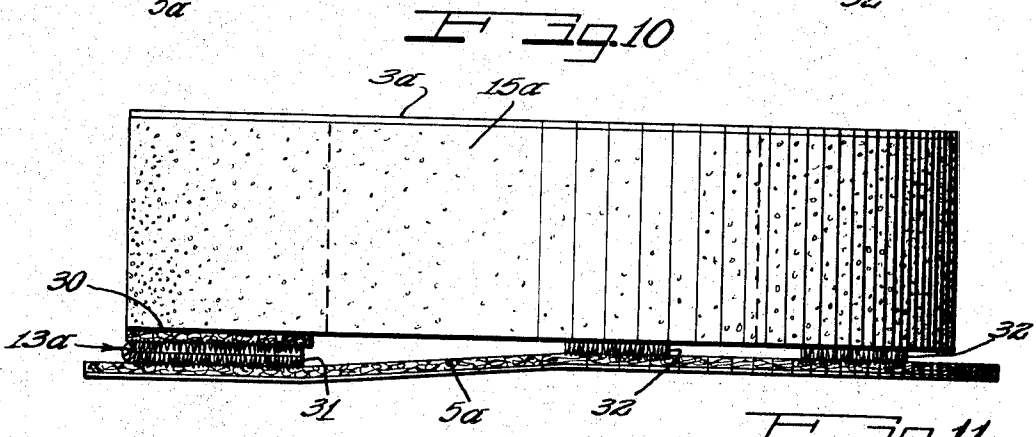
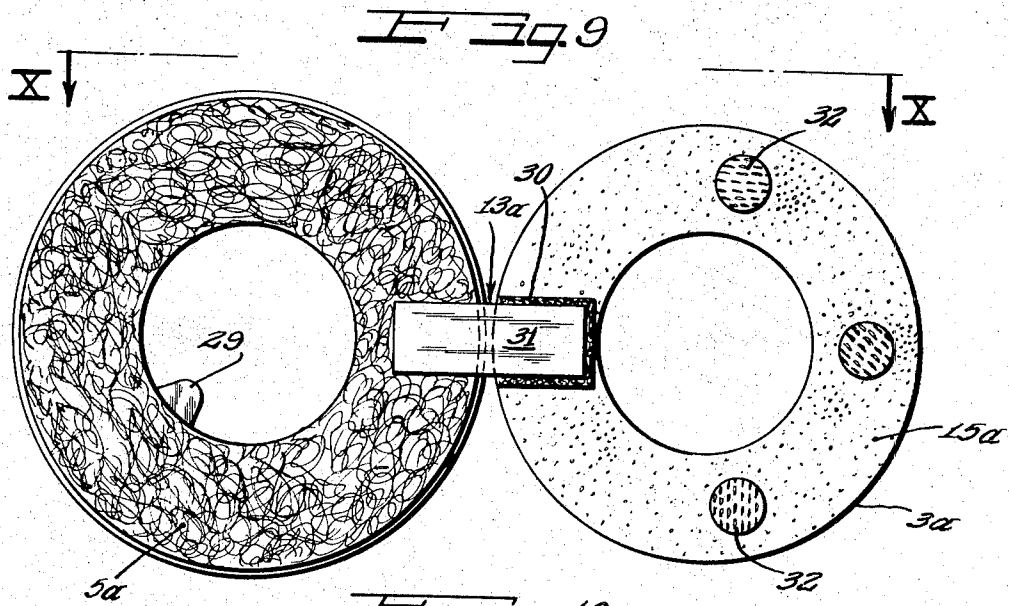
Fig. 8



INVENTORS

John D. Fütter  
Debra M. Fütter

BY *Hill, Sherman, Morris, Gosh...* ATTORNEYS



INVENTORS

John D. Fuller  
Debra M. Fuller

BY *Hill Sherman Means Chaffin* ATTORNEYS

## CUSHIONING AND PROTECTIVE SURGICAL BANDAGE

## SUMMARY OF THE INVENTION

Heretofore, extreme difficulty has been experienced in endeavoring to maintain fixation of a dressing over a decubitus ulcer, pressure ulcer, bedsore, and similar afflictions, especially in the case of a bedridden patient. Usually such an affliction was covered with a dressing consisting of material such as gauze or the equivalent, treated with salve or other medication when indicated, and over which was disposed a standard gauze sponge. Usually the composite dressing was held in position upon the body of a patient by means of adhesive tape or in an equivalent manner. Such applied dressing was responsive to friction and pressure, and frequently became maladjusted, partially or fully removed from the affliction, thus exposing the naked affliction to continued friction and pressure due to the movement of the patient, so that it was necessary to replace the dressing at too frequent intervals. Because of failure to maintain dressing fixation, the healing of the affliction was objectionally prolonged, often for several months.

The instant invention affectively overcomes such previously existent problems in the provision of a bandage for disposition over a dressing covering an exposed body affliction in such a manner as to maintain proper fixation of the dressing over a considerable period of time, yet permitting examination of the dressing and its condition of application whenever desired. A feature of this invention, therefore, is the provision of a composition bandage having a part firmly attachable to the body of a patient and a relatively thick cushioning part to overlie a dressing on an affliction and eliminate friction and pressure from the dressing, the overlying cushion part being separable at will from the portion affixed to the body of the patient to permit minute examination of the dressing at any time desired. It has been found that the bandage of this invention has the advantages of adding to the patient's comfort, effectively maintaining fixation of a dressing over a decubitus ulcer or similar affliction, relieving both the dressing and the affliction from pressure and friction, materially lessening the number of dressing changes required heretofore, and greatly reducing the time necessary to acquire proper healing of the affliction.

## BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a plan view of a blank which may be easily cut from stock material as an initial step in the forming of a bandage embodying principles of this invention;

FIG. 2 is a plan view of a finished bandage including the blank of FIG. 1;

FIG. 3 is an enlarged fragmentary vertical sectional view illustration how portions of the blank of FIG. 1 may be joined after separation and the adhesive surfaces protected;

FIG. 4 is a fragmentary side elevational view of the bandage of FIG. 2;

FIG. 5 is a greatly enlarged fragmentary vertical sectional view taken substantially as indicated by the line V-V of FIG. 2 looking in the direction of the arrows;

FIG. 6 is a plan view of a bandage similar to that of FIG. 2 but illustrating a slight modification in structure;

FIG. 7 is a diagrammatic view illustrating a bandage embodying principles of this invention as applied to the body of a patient;

FIG. 8 is a greatly enlarged vertical sectional view taken substantially as indicated by the staggered section line VIII-VIII of FIG. 7;

FIG. 9 is a plan view of a bandage embodying principles of this invention but embodying a somewhat different form of structure;

FIG. 10 is a side elevational view of the structure of FIG. 9, taken substantially as indicated by the line X-X of FIG. 9, showing the bandage in operative position; and

FIG. 11 is a plan view of a bandage embodying principles of this invention but showing a still different form of construction.

## DETAILED DESCRIPTION

The instant invention may be manufactured in various sizes to meet various conditions. While several embodiments of the invention are herein illustrated and described, it will be noted that the advantages resulting from the use of the invention are substantially the same in all instances, and a certain embodiment of the invention may be preferred depending upon the condition of the patient, the size of the affliction, etc., all embodiments functioning in substantially the same way when applied to the body of the patient.

That embodiment of the instant invention seen in FIGS. 1-5 inclusive, might better be described for purposes of clarity by way of one method of making the same. A generally dumb-bell-shaped blank, generally indicated by numeral 1, may be severed from a composite stock sheet. This blank is then severed along the line 2 seen in FIG. 1 to provide two initially separate body parts, namely, a body part 3, which may be generally circular as shown, having a neck 4 projecting from one part thereof, and a body part 5 of similar shape having a neck 6 projecting toward the neck 4 of the other body part. After severance along the line 2, one of the body parts is inverted relatively to the other.

Each body part comprises a fabric having a relatively thick nap or pile thereon which is soft and cushioning, such for example as moleskin. One surface of the fabric is provided with a nonirritating pressure sensitive adhesive spread or coating 7 which may be covered by a release member or temporary cover 8 being of release material or having a release coating thereon which is removed and discarded when the adhesive surface is put to use. Each body part is also provided with a central aperture 9 of a size to receive the particular affliction on the body of the patient. The only difference between the two body parts 3 and 5 resides in the fact that the body part 5 is provided with a pair of spaced projecting tabs 10-10 each of which is provided with an aperture 11 therethrough, the part 3 not having any such tabs. After the respective body parts have been inverted, the neck portions may be overlapped in any suitable manner, the neck portion 6 of the body part 5 overlapping a part of the neck portion 4 of body part 3 engaged with the adhesive surface 7 on the body part 3. The temporary protective cover 8 may be rolled back into a fold 12 projecting outwardly from each neck portion so as to provide a tab which may be grasped and the protective coating removed easily from the respective body part when the adhesive surface is to be put to use.

The neck portions of the respective body parts are engaged by way of their adhesive surfaces and form a part of a flexible hinge connection between the respective neck portions, generally indicated by numeral 13. This hinge 13 is so constructed that it will hold effectively the central portion of a tie member 14 which may satisfactorily be in the form of a ribbon and which is utilized to engage in the apertures 11 of the tabs 10-10 while passing over the body part 3 with the respective body parts in superposed position. On the adhesive surface 7 of the body part 3 a relatively thick cushion 15 is secured, this cushion preferably being a chemical foam having intercommunicating cells such as a polyvinyl chloride, polyurethane, or equivalent foam. This cushion has a central aperture 16 therein which is in alignment with the aperture 9 in the body part 3.

One form of flexible hinge 13 is illustrated in FIG. 5. In this example, the hinge comprises a lower strip of adhesive tape which may be of the same material as the body parts 3 and 5, and which is of the full width of the hinge. A reverse bend is made in the neck 4 of the body part 3 to provide confronting adhesive surfaces 7 between which are the ends of the tie member 14 so that the tie member is locked firmly in position. This reverse fold extends only approximately half the width of the hinge, the lower course of it is notched as at 18 to permit the tie member 14 to extend therethrough, similarly located notch 19 being provided in the lower layer 17 of adhesive

tape. The undercourse of the reverse fold is secured to the adhesive surface of the tape 17. The neck 6 of the body part 5 extends over the upper course of the reverse fold and is adhesively locked thereto, and a covering layer 20 of adhesive tape of equal width as the lower layer 17 is disposed over the top of the joined neck portions.

The embodiment of FIG. 6 embodies the same structure as above described in connection with the first embodiment, with a single exception that a smooth cover 21 is disposed over the body part 3, which cover is provided with a perforated or scored tear line 22 by which a central knockout portion 23 may be removed to define an aperture in the cover in alignment with the aperture 9 in the body part 3. This arrangement is utilized in case it is desired to have a cover over the affliction and dressing thereon and the knock out disc is provided for removal in the event it is desired to make a close inspection of the dressing without pivoting the body part 3 and cushion 15 away from the body part 5 for that purpose.

In FIGS. 7 and 8 we have shown the bandage in use on the body 24 of a patient lying on a bed diagrammatically indicated at 25. The patient has an affliction 26, in the nature of a decubitus ulcer, over which is disposed a dressing part 27, and the aperture 9 in the body part 5 of the bandage preferably surrounds the dressing part 27. After the dressing part 27 has been applied over the affliction, the body part 5 is firmly secured in position upon the patient's body by means of the adhesive surface 7 thereon. Then the remainder of the dressing, namely a gauze sponge or the like 28 is disposed over the dressing part 27 and this sponge is of a size to overlie the marginal portion of the body part 5 around the aperture 9 therein. Then the body part 3 carrying the cushion 15, by means of the hinge 13 is disposed over the body part 5 with cushioning means 15 resting upon the bounding marginal portion of the dressing sponge 28, as seen in FIG. 8. The respective end portions of the tie member 14 are then engaged one each through an aperture 11 in a tab 10 and ties to firmly secure the body part 3 and cushion 15 in position and retain the same in position, these end portions of the tie member 14 crossing over the top of the body part 3 as seen in FIG. 7. As indicated by the dotted lines in FIGS. 1 and 6, and as seen in FIG. 8 the underface of the tabs 10-10 are devoid of adhesive so that they will not adhere to the night clothes of a patient or the bedding.

With the bandage so attached to the body of a user and secured in position over the dressing covering the patient's affliction, it will be noted that the affliction is positively cushioned from pressure and not subjected to any friction from bedding or night clothes. The dressing is securely maintained in position by virtue of the fact it is clearly prevented from the adverse affects of friction or pressure. This fixation of the dressing may be maintained for a considerable length of time, and it is a simple expedient to untie the member 14, pivot the body part 3 and cushion 15 from over the body part 5 and an examination of the dressing may readily be made, and if it appears the dressing may remain on the affliction for a longer time the parts may be returned to the position seen in FIG. 8 to further maintain fixation of the dressing. Inspection is therefore easy at any and all times and the need to change dressings is reduced to a minimum.

In the embodiment of FIGS. 9 and 10, circular body parts 3a and 5a are provided which are of the same construction as previously described with the exception that the neck portions 4 and 6 and the tabs 10-10 have been eliminated. The body part 5a has been provided with an inwardly extending tab 29 for easy removal of the protective covering over the adhesive surface thereon.

In this arrangement, a hinge generally indicated by numeral 13a is provided by way of adhesive attachment of a piece of fabric 30 of the same character as the material used for the body parts 5a and 3a on the exposed surface of the cushion 15a. A strip 31 of nylon tape fastener is disposed in engagement with the nap of the piece 30 and the nap of the body part 5a to joint the two body parts in the form of a hinge. Fasteners

of this type are sold on the open market under the registered trademark "Velcro," and the fastener has a series of relatively stiff cut loops extending from the backing which loops engage with a naped fabric upon a slight pressure contact therewith, and are held rather firmly but may be easily separated from the fabric by a tearing motion. In order to secure the bandage parts 3a and 5a in superposed position, a plurality of patches 32 of nylon fastener are adhesively secured to the exposed face of the cushion 15a, and when the parts are superposed as seen in FIG. 10, these patches engage the napping of the body part 5a to hold the device assembled and in operative position.

The modification of the instant invention seen in FIG. 11 is similar to that of FIGS. 9 and 10, with the exception that no hinge connecting the two body parts 3a and 5a is utilized. In lieu of a hinge one or more extra patches of nylon fastener as indicated at 33 may be adhesively applied to the exposed face of the cushion member 15a. In this instance the body part 3a is totally separable from the body part 5a and when it is desired to put the device to use, the body part 5a is disposed adjacent the affliction on the body of a user, underlying a portion of the dressing on the affliction, and the body portion 3a placed thereupon and anchored thereto by slight pressure so that the fastening patches on the cushion 15a effectively engage in the napping of the body part 5a to hold the parts together.

Both the embodiments of FIGS. 9 and 10 and that of FIG. 11 are easy to manipulate for inspection or replacement of a dressing and both maintain the dressing in proper fixation and cushion both the patient and the dressing from the adverse effects of friction and pressure, as above explained in connection with the first embodiment of the invention.

In some instances the patient may have one or more decubitus ulcers or similar afflictions, and in that event it is easy to utilize one or more of the bandages of the instant invention at the same time. In FIG. 7 we have illustrated the use of an extra bandage 34 underneath the patient's hip, in addition to the bandage above described and applied to the side of the patient.

It should also be noted that the instant invention is so economical as to structure, manufacture, and use that the entire bandage may be discarded and disposed of after usage on a single patient, regardless of the shortness of time in which it may have been used. Thus, while the bandage may be initially sterilized, subsequent sterilization for use on different patients is entirely eliminated, thus saving hospital labor and equipment to a very material extent.

It will be understood that modifications and variations may be effected without departing from the spirit and scope of the novel concepts of the present invention.

We claim:

1. A bandage to protect a decubitus ulcer and similar affliction and maintain fixation of a dressing thereon comprising: a first relatively thin body part; a pressure sensitive adhesive spread on the underface of said body part for application to the body of a patient adjacent a dressing; a second body part; and a thick cushion carried by said second body part for disposition on said first body part in alignment therewith, and means for removably holding said cushion on said first body part.
2. The bandage of claim 1, wherein said cushion overlies a portion of the dressing.
3. The bandage of claim 2, wherein said first body part underlies said portion of the dressing.
4. The bandage of claim 1, wherein each said body part and said cushion has an opening therein to receive the affliction and most of the dressing thereon.
5. The bandage of claim 1, including a hinge connecting said body parts.
6. The bandage of claim 1, wherein said body parts are not connected but may be completely separated when desired.
7. The bandage of claim 5, including a neck portion projecting from each said body part, and adhesive means connecting said neck portions to form said hinge.

5

6

8. The bandage of claim 7, including spaced tabs projecting from said first body part on the side opposite said neck portion, said tabs each having an aperture therein and being devoid of adhesive, and said holding means comprising a tie member held in said hinge and having free end portions to overlie said second body part and engage said tabs to maintain said body parts and cushion assembled.

9. The bandage of claim 1, wherein said body parts and said cushion are generally circular and each has a central aperture therein.

10. The bandage of claim 5, wherein said first body part is a napped fabric and said hinge comprises: a napped fabric piece

secured to the exposed face of said cushion, and a nylon fastener overlying and engaged with the napped fabric of said first body part and said fabric piece.

11. The bandage of claim 1, wherein said first body part is a napped fabric and including: a plurality of spaced patches of nylon fastener secured to the exposed face of said cushion for engagement with the napped fabric of said first body part when said cushion is superposed on said first body part.

12. The bandage of claim 4, including: a cover over the unattached face of said cushion, and a knockout disc defined in said cover over the opening therein.

15

20

25

30

35

40

45

50

55

60

65

70

75