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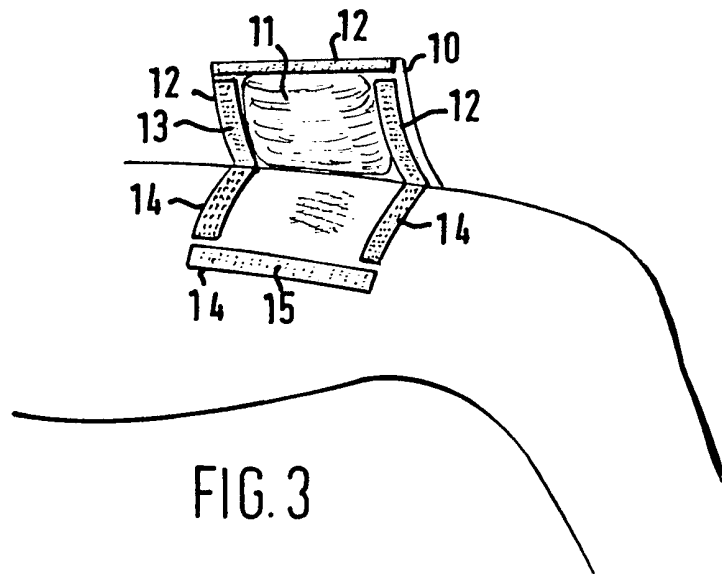
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(58) Field of search
A5R

(54) Wound dressings

(57) A wound dressing comprises a wound covering sheet 10 having a wound contacting pad 11 adhered to a face thereof. Attached to the marginal regions of the sheet 10 are four strips 12 and each being in the form of a two-part separable hook-and-loop fastener. Parts 14 of the fastener have a contact adhesive on the face opposed to that having the hooks or loops, and a strippable backing sheet 16 is pressed on the adhesive. When applied to a wound, the covering sheet 10 may be removed by separating the two-part fastener, leaving the parts 14 adhered to the skin, ready to receive a fresh covering sheet 10.



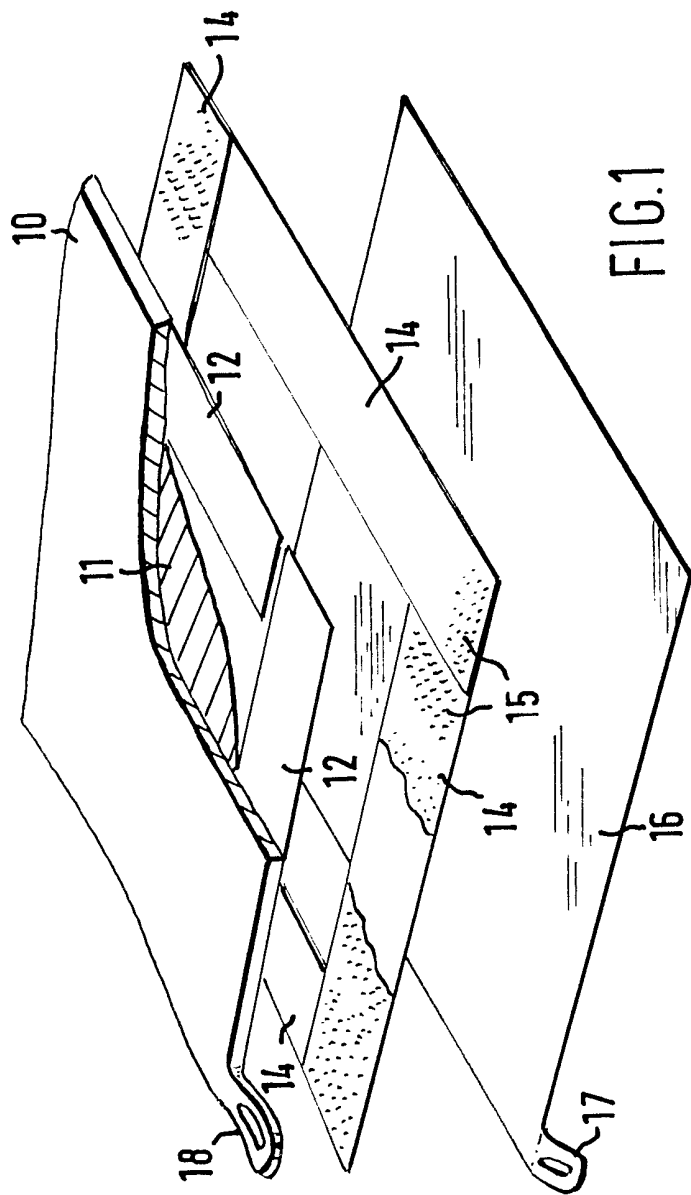


FIG.1

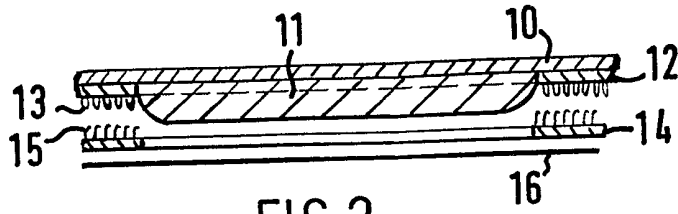


FIG. 2

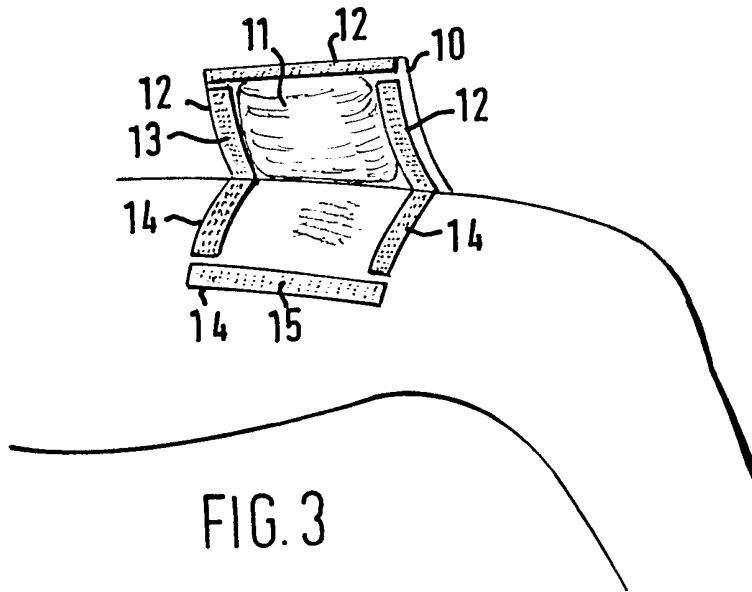


FIG. 3

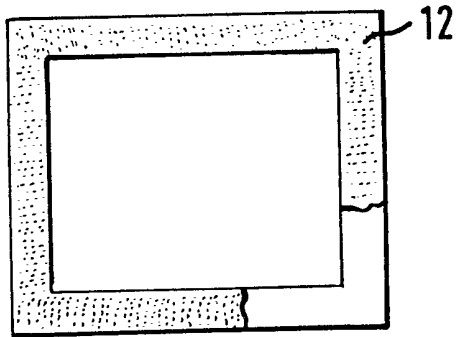


FIG. 4

SPECIFICATION

Wound dressings

5 This invention relates to wound dressings, and in particular to such dressings as are adapted to adhere to a patient's skin, around a wound.

10 Wound dressings generally fall into one of two categories: namely, self-adhesive dressings adapted directly to adhere to the skin of a patient around the wound region, and bandages adapted to be wound round a limb or other member containing the wound. Whilst both kinds of dressings have advantages and 15 disadvantages, for any particular case, it may in general be said that self-adhesive dressings are often less satisfactory from the patient's point of view, having regard to the discomfort experienced upon removal of the dressing.

20 This is especially so when a wound needs to be tended frequently and perhaps several times a day, for then the area around the wound may become very tender and sometimes inflamed, leading to plaster rash.

25 Should this occur, further use of self-adhesive dressing may become impractical, even though the wound itself would best be dressed in this way.

30 It is a principal object of the present invention to provide a wound dressing of the self-adhesive kind which dressing is adapted to give greater patient comfort, especially in such cases where the dressing frequently needs changing.

35 Accordingly, this invention provides a wound dressing comprising a wound covering sheet provided with means to attach the sheet to a patient's skin, which means comprises separable hook-and-loop fasteners (as defined 40 herein) with one element of the fastener being disposed around at least part of the periphery of the wound covering sheet and the other element of the fastener having a contact adhesive on the face thereof directed away from 45 the one element, and a strippable backing being provided over the contact adhesive.

50 The term "hook-and-loop fastener" as used herein refers to a fastener having two separable elements, one of which elements has a face provided with a plurality of upstanding closely-packed thread-like loops and the other of which elements has a face provided with a plurality of upstanding closely-packed resilient hooks: when said faces of the two elements 55 are pressed together, the hooks engage in the loops so holding the two elements of the fastener together. Separation of the two elements is performed by pulling the elements apart, the hooks then resiliently deforming to an extent sufficient to be released from the loops. Such hook and loop fasteners are known *per se* and as such form no part of this invention; the fasteners will not therefore be 60 described in greater detail here.

65 The wound dressing of this invention as

70 described above is used in the following manner. The wound dressing would be supplied with the two elements of the fastener pressed together and so inter-engaged, and with the strippable backing adhering to the contact adhesive on said other element of the fastener, the backing thus overlying the area of the wound covering sheet which is intended to be applied to the wound requiring dressing.

75 The backing is stripped from said other element of the fastener, so exposing the adhesive, whereafter the wound dressing is applied over the wound, in the manner of a conventional adhesive plaster. When however the 80 wound dressing is to be changed, the wound covering sheet is removed from the area of the wound, by separating the two elements of the fastener, so leaving said other element of the fastener still adhered to the patient's skin.

85 A fresh wound covering sheet having one element of a similar fastener disposed around at least part of its periphery may then be applied over the wound, such that said one fastener element joins to said other element of 90 the fastener still remaining on the patient's skin.

In a preferred form of wound dressing of this invention, the wound covering sheet has the fastener element carrying upstanding 95 loops attached around the periphery of the sheet, and the other element of the fastener—that is, the element provided with hooks—having the contact adhesive provided on the face thereof opposed to the hooks.

100 Though in the case of a rectangular or square wound dressing, each said element of the fastener could be formed as a four-sided frame, it is preferred for the fastener to be formed as four discreet linear sections or 105 strips, one provided along each edge of the wound covering sheet. Such an arrangement is relatively cheap to manufacture and requires no difficult cutting of the hook-and-loop fastener material. Moreover, such an arrangement is suitable for use in the manufacture of 110 wound dressings of various overall shapes, such as round or oval.

115 The wound covering sheet may be made from any of the usual materials normally employed for this purpose, in the case of conventional self-adhesive plasters. For example, the wound covering sheet may comprise a woven fabric, or a relatively heavy gauze material, or a plastics sheet material. Also, over that area 120 of the wound covering sheet which is intended to contact the wound itself, there may be provided a medicated or otherwise impregnated pad of an appropriate material, such as a relatively fine gauze. However, in the case 125 of the wound dressing of this invention, it may be advantageous to provide such a wound contacting pad with a greater thickness than is usually employed in the case of conventional self-adhesive wound dressings, 130 to allow for the extra thickness imparted to

the dressing of this invention, by virtue of the hook and loop fastener extending there-around.

In the foregoing, a construction has been described where said one element of the hook-and-loop fastener is separate from but attached to the marginal regions of the wound covering sheet. In an alternative construction of wound dressing of this invention, said one element of the hook-and-loop fastener provided around the periphery of the wound covering sheet may be formed integrally with that wound covering sheet. For example, the wound covering sheet may have a surface which at least in the marginal regions itself has a loop pile; this surface may then directly interengage with hooks upstanding from the other element of the hook-and-loop fastener.

The backing preferably is non-porous and conveniently is made of a plastics sheet. By providing a sufficiently large backing sheet, it may cover the entire wound-contacting surface of the wound covering sheet, so protecting that surface from contamination, prior to use of the dressing.

By way of example only, certain specific embodiments of this invention will now be described in detail, reference being made to the accompanying drawings, in which:—

Figure 1 is a cut-away and exploded view of a rectangular wound dressing of this invention;

Figure 2 is a cross-sectional view through the wound dressing of Fig. 1;

Figure 3 is a diagrammatic sketch showing the wound dressing of this invention in use; and

Figure 4 is a plan view on one possible form of hook-and-loop fastener element for use in a wound dressing of this invention.

Referring initially to Figs. 1 and 2, it can be seen that the embodiment of wound dressing according to this invention comprises a wound covering sheet 10 of generally rectangular shape and having a wound contact pad 11 adhered to the underface thereof. The wound contact pad 11 is shaped so as to upstand by a few millimetres from the underface of the wound covering sheet 10 and may be impregnated with an appropriate agent, as required, such as an antiseptic, or an anti-inflammatory agent. The pad 11 may be made for example from a relatively fine gauze, whereas the wound covering sheet 10 may be made from a woven—and so porous—fabric. Another possibility is for the wound covering sheet 10 to be made of a porous plastics material, if required. Thus, the wound covering sheet 10 and pad 11 may be similar to those encountered in the case of conventional self-adhesive dressings.

Attached to the marginal regions of the wound covering sheet 10 are four strips 12, each being in the form of the looped element of a hook-and-loop fastener (as defined herein)

and so having a plurality of loops 13 upstanding therefrom, away from the sheet 10. Each strip 12 conveniently is attached to the wound covering sheet 10 by means of an adhesive (but could otherwise be attached, for example by stitching) and is disposed such that an essentially continuous rectangular frame is formed by the four strips.

The other element of the hook-and-loop fastener, having upstanding hooks, also is in the form of four strips 14, arranged to have the same shape and configuration as the strips 12 attached to the wound covering sheet 10, the hooks 15 provided on the strips 14 normally being interengaged with the loops 13 provided on the strips 12—i.e. with the dressing "as supplied". The faces of the strips 14 opposed to the hook-carrying faces are provided with an adhesive of similar characteristics to those employed with conventional self-adhesive dressings (or plasters), and a strippable backing 16, of a non-porous plastics material, is adhered to those faces of the strips 14. The backing 16 is provided with a tab 17, to facilitate the stripping of the backing 16 from the assembled wound covering sheet 10 having strips 14 interengaged with the strips 12, by virtue of the hooks 14 and loops 15 formed thereon.

The above described dressing would be provided fully assembled as described, and sealed in a sterile envelope or packet.

Further "replacement" dressings may be provided, also sealed in sterile envelopes or packets, but each comprising solely the wound covering sheet 10, pad 11 and four looped strips 12. To use the dressing, the envelope is opened and the wound dressing removed therefrom, whereafter the backing 16 is removed from the strips 14, by being peeled away therefrom, using the tab 17 for this purpose and so exposing the adhesive on the strips 14. Then, the wound dressing is applied over the wound, the strips 14 being pressed firmly into engagement with a patient's skin, so as to adhere thereto. Thereafter, when it is desired to inspect the wound or to change the dressing, the wound covering sheet 10 is pulled away from the strips 14, separating the two elements of the fastener, the sheet 10 bringing with it the strips 12 attached thereto and also the wound contact pad 11. To assist such removal of the wound covering sheet 10, a tab 18 may be provided on the wound covering sheet 10, as shown in Fig. 1. Such a removal operation is illustrated in Fig. 3, showing the strips 14 remaining on the patient's skin, whilst the wound covering sheet 10 is removed therefrom.

If no further dressing is required on the wound, then the strips 14 may be removed from the patient's skin, in the same manner as is a conventional self-adhesive dressing removed, using an adhesive softening agent if

necessary. If however a further dressing is required, a "replacement" dressing (as referred to above) and having a wound covering sheet 10, a wound contact pad 11 and also strips 12 is simply pressed into engagement with the strips 14 remaining on the patient's skin.

As illustrated in Fig. 4, instead of providing four linear strips 12 and strips 14 in rectangular configurations, a single continuous strip defining a frame may instead be provided for each of the two fastener elements. This may specially be formed for the purpose, or may be cut from a large sheet of the appropriate material. Such a continuous strip allows the easy production of wound dressings of shapes other than simply rectangular or square—for example, circular or oval dressings may with ease be manufactured employing a continuous pair of hook-and-loop fastener strips of the appropriate shape. It will also be appreciated that wound dressings of this invention may be manufactured in a roll form, with the hook-and-loop fasteners disposed solely along the two long edges of the dressing. In much the same manner as is employed with rolls of adhesive plaster, an appropriate length of such a wound dressing may be cut off a roll, to facilitate the provision of a dressing of an appropriate size for a particular purpose.

CLAIMS

1. A wound dressing comprising a wound covering sheet provided with means to attach the sheet to a patient's skin, which means comprises separable hook-and-loop fasteners (as defined herein) with one element of the fastener being disposed around at least part of the periphery of the wound covering sheet and the other element of the fastener having a contact adhesive on the face thereof directed away from the one element, a strippable backing being provided over the contact adhesive.

2. A wound dressing according to claim 1, wherein the wound covering sheet has the fastener element carrying upstanding loops attached around the periphery of the sheet, and the other element of the fastener has the contact adhesive provided on the face thereof opposed to the hooks.

3. A wound dressing according to claim 1 or claim 2, wherein the sheet is substantially rectangular and the fastener is formed as four discreet linear sections or strips, one provided along each edge of the wound covering sheet.

4. A wound dressing according to claim 1 or claim 2, wherein the fastener is formed as a continuous frame, for attachment to the sheet.

5. A wound dressing according to any of the preceding claims, wherein the wound covering sheet comprises one of a woven fabric, a relatively heavy gauze material, or a plastics sheet material.

6. A wound dressing according to claim

5, wherein there is provided a medicated or otherwise impregnated pad of an appropriate material, such as a relatively fine gauze over the area of the sheet which is intended to contact the wound.

7. A wound dressing according to claim 6, wherein the wound contacting pad on the sheet is of a greater thickness than is employed in the case of a conventional self-adhesive wound dressing, to allow for the extra thickness imparted to the dressing of this invention, by virtue of the hook-and-loop fastener extending therearound.

8. A wound dressing according to claim 1, wherein said element of the hook-and-loop fastener provided around the periphery of the wound covering sheet is formed integrally with the wound covering sheet.

9. A wound dressing according to claim 8, wherein the wound covering sheet has a surface which at least in its marginal regions has a loop pile adapted for direct interengagement with hooks upstanding from the other element of the hook-and-loop fastener.

10. A wound dressing according to any of the preceding claims, wherein the backing is non-porous and is made of a plastics sheet.

11. A wound dressing according to claim 10, wherein the backing sheet is sufficiently large to cover the entire wound-contacting surface of the wound covering sheet.

12. A wound dressing substantially as hereinbefore described, with reference to and as illustrated in the accompanying drawings.