Feb. 18, 1958 P. SCHLADERMUNDT ET AL 2,823,673

ADHESIVE BANDAGE

Original Filed Aug. 19, 1954

Fig. 1.

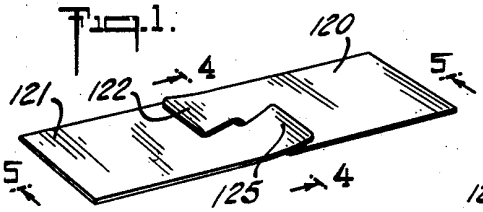


Fig. 2.

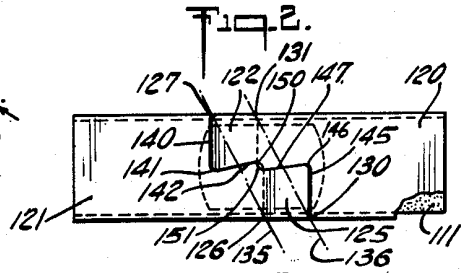


Fig. 4.

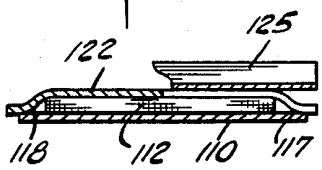


Fig. 3.

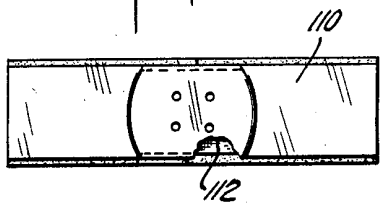


Fig. 5.

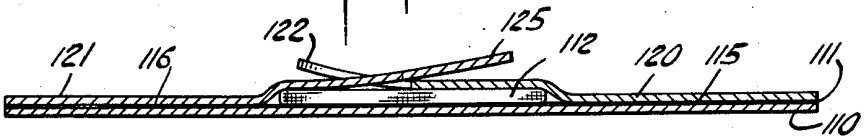


Fig. 6.

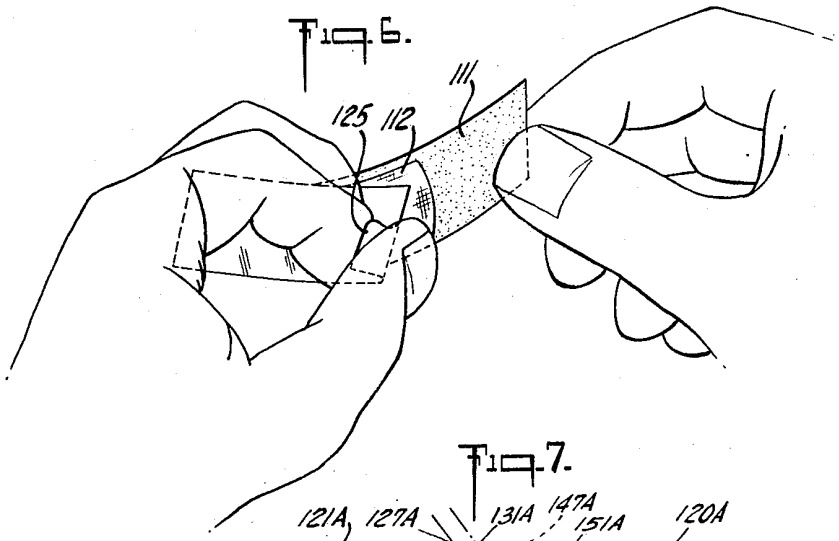


Fig. 7.

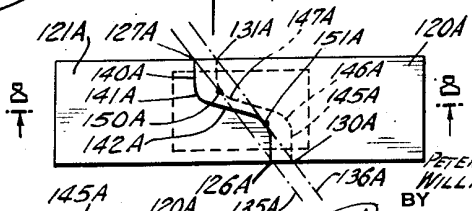
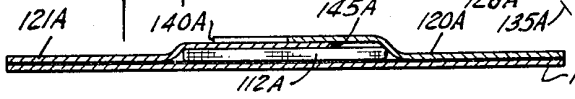


Fig. 8.



INVENTORS:
PETER SCHLADERMUNDT
WILLIAM H. DENNERLEIN
BY
Conrad S. Wolfolk
ATTORNEY

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ADHESIVE BANDAGE

Peter Schladermundt, Bronxville, and William H. Dennerlein, Bethpage, N. Y., assignors to Johnson & Johnson, a corporation of New Jersey

Original application August 19, 1954, Serial No. 450,972. Divided and this application September 7, 1956, Serial No. 608,466

7 Claims. (Cl. 128—156)

This invention relates to adhesive bandages, and especially to the facing sheet generally utilized to cover and protect the pad and exposed adhesive areas thereof.

This application is a division of application Serial No. 450,972, filed August 19, 1954, in the names of Peter Schladermundt and William H. Dennerlein.

Adhesive bandages, the term being used herein to designate not only the elongated strips, but also the round "spots" and the relatively square "patches," are formed of a backing sheet which may be cloth or plastic coated on one side with an adhesive and having a dressing pad secured to the adhesive, leaving exposed areas of adhesive on both ends of the dressing. The endwise adhesive tabs generally constitute the major area of exposed adhesive. However, even in the case of the elongated strips appreciable areas of exposed adhesive often appear at the sides of the dressing, although the latter are generally smaller, relatively speaking, than the areas of adhesive exposed at the ends of the dressing. The sidewise exposed adhesive areas are proportionately larger in the case of the round "spots" and the square "patch" dressing, in which case they are usually as large as the endwise adhesive areas. Accordingly, the present invention is directed to the "spot" and "patch" dressings as well as the elongated strip adhesive bandages.

The facing strips are commonly used to cover the adhesive and dressing, one strip being placed over each endwise adhesive area, and the two strips overlapping above the dressing. These facing strips have been cut square so that the inward end edge of each facing strip is perpendicular to the longitudinal dimension of the adhesive bandage and of the facing strip.

A difficulty has been encountered, however, in the structure just described, namely, the sidewise exposed adhesive areas tend to hold and retain the bottom underlying facing strip adjacent the dressing after removal of the overlying facing strip, thereby making removal of the bottom facing strip difficult without touching the pad. Since the finger will generally be non-sterile, a hazard is introduced into use of the ordinary adhesive bandage having square-cut facing strips.

An important object of the invention is to provide an adhesive bandage with facing strips which may be removed from the bandage with minimum danger of contaminating the dressing.

The manner in which the object and advantages of the invention are obtained may be understood from consideration of the drawings in connection with the following description.

Fig. 1 illustrates an isometric view of one embodiment of the invention.

Fig. 2 is a top view of the adhesive bandage shown in Fig. 1.

Fig. 3 is a bottom view of the adhesive bandage shown in Fig. 1.

Fig. 4 is a transverse sectional view taken along plane 4—4 of Fig. 1.

Fig. 5 is a longitudinal section taken along plane 5—5 of Fig. 1.

Fig. 6 illustrates the manner of removal of the facing from an adhesive bandage constructed according to the invention.

Fig. 7 illustrates an adhesive bandage constructed according to a modification of the invention.

Fig. 8 represents a sectional view taken on plane 8—8 of Fig. 7.

In the embodiment of the invention illustrated in Figs. 1 to 5, the adhesive bandage is seen to be composed of a backing strip **110** provided on its top surface with an adhesive mass **111**. A dressing pad **112** is disposed intermediate the ends of the backing strip **110** secured to adhesive **111**. Exposed portions of adhesive **115** and **116** appear on opposite endwise portions of the bandage.

Facing strips **120** and **121** may be the usual crinoline, but are preferably continuous sheets having one smooth surface disposed against the adhesive. Suitable continuous facing materials include known polymers or plastic sheets such as cellulose acetate, cellophane, vinyl resins, polyethylene and high melting point terephthalic acid-glycol polyesters, either unsupported or laminated to a supporting sheet such as paper. Facing strips **120** and **121** cover respective opposite adhesive areas **115** and **116**, the facing strips **120** and **121**, in the case where such strips present smooth surfaces, being pressed against adhesive areas **115** and **116** (with the smooth surface against the adhesive) and overlapping above dressing pad **112** in areas **122** and **125**.

Facing strip **120** has an inward corner **126** at one side of the bandage and an inward corner **127** on the opposite side of the bandage. Similarly, facing strip **121** has an inward corner **130** at one side of the bandage and an inward corner **131** on the opposite side of the bandage. Line **135** joins corners **126** and **127**, and line **136** joins corners **130** and **131**. Line **135** divides the inward edge **140** of facing strip **120** into a tab portion **141** and a recessed portion **142**. Similarly, line **136** divides the inward edge **145** of facing **121** into a tab portion **146** and a recessed portion **147**. The depth of recessed portions **142** and **147** defined by the distance between points **150** and **151** respectively (representing the points in the respective recessed portions which are farthest from lines **135** and **136**) and lines **135** and **136** are such that the facing strips **120** and **121** may be interlocked, as shown in Fig. 2, thereby leaving a portion **122** of facing strip **120** overlapping facing strip **121**, and a portion **125** of facing strip **121** overlapping facing strip **120**. According to the invention the interlocking feature is provided by so constructing and cutting the respective inward edges of the two facing strips that point **150** extends at least to the midpoint of facing strip **120** and recess **147**, the depth of which is defined by point **151**, extends at least to the midpoint of facing strip **121**. Considered more basically, the interlocking feature is seen to be provided in structures having the cumulative depth of the two recesses **142** and **147**, measured transversely to the bandage, substantially equal to or greater than the total width of facing **120** or **121**. Preferably the depth of each recess is such that points **150** and **151** lie appreciably beyond the midpoint of the respective facing strip thereby facilitating the interlocking structure of the facing, as shown in Figs. 1 and 2.

Facing strips **120** and **121** may suitably be cut or died out from a continuous strip of facing material, a single cut forming the respective inward edges **140** and **145** of the two overlapping portions of facing material. An S-curve cut, preferably an inclined S-curve cut as shown, is desirable. After cutting, provided that depressions **142** and **147** are formed as described above, the two seg-

ments may be moved inwardly in interlocking position as shown.

In removing the facing from the adhesive bandage of Fig. 2, tabs **140** and **145** may be grasped simultaneously and pulled or, alternatively, one of the tabs, for example tab **140**, may be removed first and thereafter the exposed part of the adhesive bandage grasped lightly as shown in Fig. 6 with one hand and tab **145** in the other hand, followed by pulling to remove facing **121**.

During manufacture of the adhesive bandage, particularly with plastic film backing, not only are the facing sheets **120** and **121** pressed down against exposed adhesive areas **115** and **116**, but the facing is also pressed against any edgewise or sidewise exposed areas of adhesive such as shown at **117** and **118** of Fig. 4. In the interlocking position, however, overlapping portion **122** of facing **120** is protected from sidewise exposed areas of adhesive by the underlying portion of facing **121**. Similarly, overlapping portion **125** of facing **121** is protected by the underlying portion of facing **120**.

The broad concept of the invention is illustrated in Figs. 7 and 8. The reference numbers for the Fig. 7 embodiment are identical for corresponding parts as compared with the Fig. 2 embodiment except that in the former the letter A follows the reference number, that is, facing sheets **120A** and **121A** are disposed on opposite sides of the bandage and overlap the pad near their inward edges **140A** and **145A**. Facing **121A** has inward corners **131A** and **130A** joined by straight line **136A**, and facing **120A** has inward corners **126A** and **127A** joined by straight line **135A**. Lines **135A** and **136A** define projections or tabs **141A** and **146A**, respectively, and recesses **142A** and **147A**, respectively. Points **150A** and **151A** are the deepest points of the respective depressions.

Bottom facing sheet **121A**, by reason of the mode of construction of the adhesive bandage and, in particular, the mode of securing the facing strips to the bandage, is secured to exposed sidewise adhesive areas **117** and **118** at its corners **130A** and **131A**. In use of the bandage, top facing sheet **120A** may be easily removed by pulling on tab **141A**. The bandage then may be bent back upon itself in the central portion similar to the manner illustrated in Fig. 6 which will cause tab **146A** to protrude from the bandage at an angle, presenting itself for finger-grasping. Facing **121A** thereby may be removed from the bandage without running the risk of contaminating pad **112A** by contact with the fingers.

The facing strips of the Fig. 7 embodiment also may be formed by cutting or dieing out a continuous sheet of facing material in the S-shaped configuration shown and then moving the severed portions together in overlapping relationship above the pad **112A**.

Many modifications and equivalents within the spirit and scope of the invention will now be apparent in the light of the foregoing specific description. Accordingly, it is intended to include such modifications and equivalents within the scope of protection sought, as defined by the appended claims.

The claims are:

1. In an adhesive bandage comprising a flexible adhesive-covered backing and a dressing secured thereto intermediate its ends leaving two exposed areas of adhesive at opposite endwise portions of said backing and exposed areas of adhesive at opposite sidewise portions of said backing, the improvement which comprises a protective facing strip covering each of said two endwise exposed areas, said strips overlapping above said dressing, each of said strips having an inward transverse edge terminating at opposite inward corners of said strips adjacent opposite sidewise exposed adhesive areas of said backing, lines joining said opposite corners of respective strips being substantially parallel, each of said inward edges having a protruding tab portion relative to a line joining said opposite corners.

2. In an adhesive bandage comprising a flexible adhesive-covered backing and an absorbent dressing pad secured thereto intermediate its ends leaving two exposed areas of adhesive at opposite endwise portions of said backing and exposed areas of adhesive at opposite sidewise portions of said backing, the improvement which comprises a protective facing strip having a smooth continuous surface covering each of said two endwise exposed areas, said strips overlapping above said dressing, each of said strips having an inward transverse edge terminating at opposite inward corners of said strips adjacent opposite sidewise exposed adhesive areas of said backing, each of said inward edges having a protruding tab portion relative to a line joining said opposite corners, both of said inward edges having been formed by a single cut of a longitudinal sheet of facing material followed by moving together of the segments so formed to said overlapping position.

3. In an adhesive bandage comprising an extensible plastic adhesive-covered backing and an absorbent dressing pad secured thereto intermediate its ends leaving two exposed areas of adhesive at opposite endwise portions of said backing, the improvement which comprises a protective facing strip having a continuous smooth surface covering and in contact with each of said two exposed areas, said strips overlapping above said dressing, said bottom strip having an inward transverse edge terminating at opposite inward corners of said strip adjacent opposite edges of said backing, said inward edge having an S-shaped configuration forming a protruding tab portion and a recess relative to a line joining said corners.

4. In an adhesive bandage comprising a flexible adhesive-covered backing and a dressing secured thereto intermediate its ends leaving two exposed areas of adhesive at opposite endwise portions of said backing, the improvement which comprises a protective facing strip covering each of said two exposed areas, each of said strips having an inward transverse edge terminating at opposite inward corners of said strips adjacent opposite edges of said backing, lines joining opposite inward corners of each strip being substantially parallel, each of said inward edges having a protruding tab portion and a recessed portion relative to the line joining the opposite inward corners of the strip presenting such edge, the remote point of each recessed portion extending at least to the midpoint of each facing strip whereby the two strips may be interlocked above the dressing.

5. In an adhesive bandage comprising a flexible adhesive-covered backing and a dressing secured thereto intermediate its ends leaving two exposed areas of adhesive at opposite endwise portions of said backing and exposed areas of adhesive at opposite sidewise portions of said backing, the improvement which comprises a protective facing strip covering each of said two exposed areas, each of said strips having an inward transverse edge terminating at opposite inward corners of said strips adjacent opposite edges of said backing, lines joining opposite inward corners of each strip being substantially parallel, each of said inward edges having a protruding tab portion and a recessed portion relative to the line joining the opposite inward corners of the strip presenting such edge, the cumulative depth of the two recessed portions, measured transversely to the bandage, being at least substantially equal to the total width of either facing strip, whereby the two strips may be interlocked above the dressing.

6. In an adhesive bandage comprising a flexible adhesive-covered backing and a dressing secured thereto intermediate its ends leaving two exposed areas of adhesive at opposite endwise portions of said backing and exposed areas of adhesive at opposite sidewise portions of said backing, the improvement which comprises a protective facing strip covering each of said two exposed areas, each of said strips having an inward transverse edge terminating at opposite inward corners of said strips ad-

jacent opposite edges of said backing, lines joining opposite inward corners of each strip being substantially parallel, and forming an acute angle with the longitudinal dimension of the bandage, each of said inward edges having an S-shaped configuration forming a protruding tab portion and a recessed portion relative to the line joining the opposite inward corners of the strip presenting such edge.

7. In an adhesive bandage comprising a flexible adhesive-covered backing and an absorbent dressing pad secured thereto intermediate its ends leaving two exposed areas of adhesive at opposite endwise portions of said backing and exposed areas of adhesive at opposite sidewise portions of said backing, the improvement which comprises a protective facing strip covering each of said two exposed areas, each of said strips having an inward

transverse edge terminating at opposite inward corners of said strips adjacent opposite sides of said backing, both of said inward edges being formed from a single cut of a strip of facing material, each edge having a longitudinal inward projection on opposite sides of said bandage, the projection of one strip overlapping the second strip on one side of the bandage above the dressing, and the projection of the other strip overlapping the first strip on the opposite side of the bandage above the dressing.

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