

[54] **SKIN PATCH TEST DEVICE WITH
PEELABLE LABEL**

[76] Inventor: **Milton A. Saunders, Jr.**, 287
Pembroke Office Rd., Virginia
Beach, Va. 23455

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[58] Field of Search **128/2 W, 2 R, 2 F, DIG. 24,
128/214 D, 260; 40/2 R, 125 A**

[56] **References Cited**

UNITED STATES PATENTS

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3,703,890	11/1972	Saunders, Jr.	128/2 W
3,820,261	6/1974	Beall, Jr.	40/2 R

Primary Examiner—Kyle L. Howell

Attorney, Agent, or Firm—Robert G. McMorro

[57] **ABSTRACT**

An inner strip of sheet material having an adhesive side for attachment to the subject's skin is apertured at spaced locations to hold individual pads of gauze carrying contactant preparation, and outer strip of sheet material carries raised blisters corresponding in size, location and configuration to the apertures of the inner strip of sheet material with the blisters embossed with a code letter indicia identifying the contactant preparation stored within a particular aperture. A peelable label forms a backing strip and removably covers the adhesive side of the inner strip of sheet material with the label carrying at locations corresponding to the blisters, code letter indicia in identical fashion to the blisters and word description indicia of the contactant preparations permitting subsequent to peeling off of the label strip of sheet material, adhesive attachment of the label onto the subject's card.

6 Claims, 4 Drawing Figures

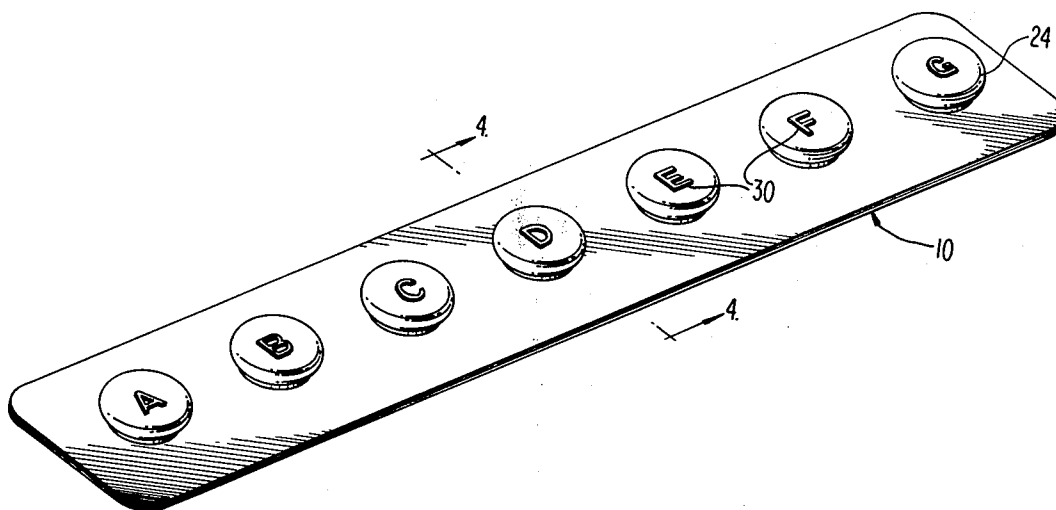


FIG. 3

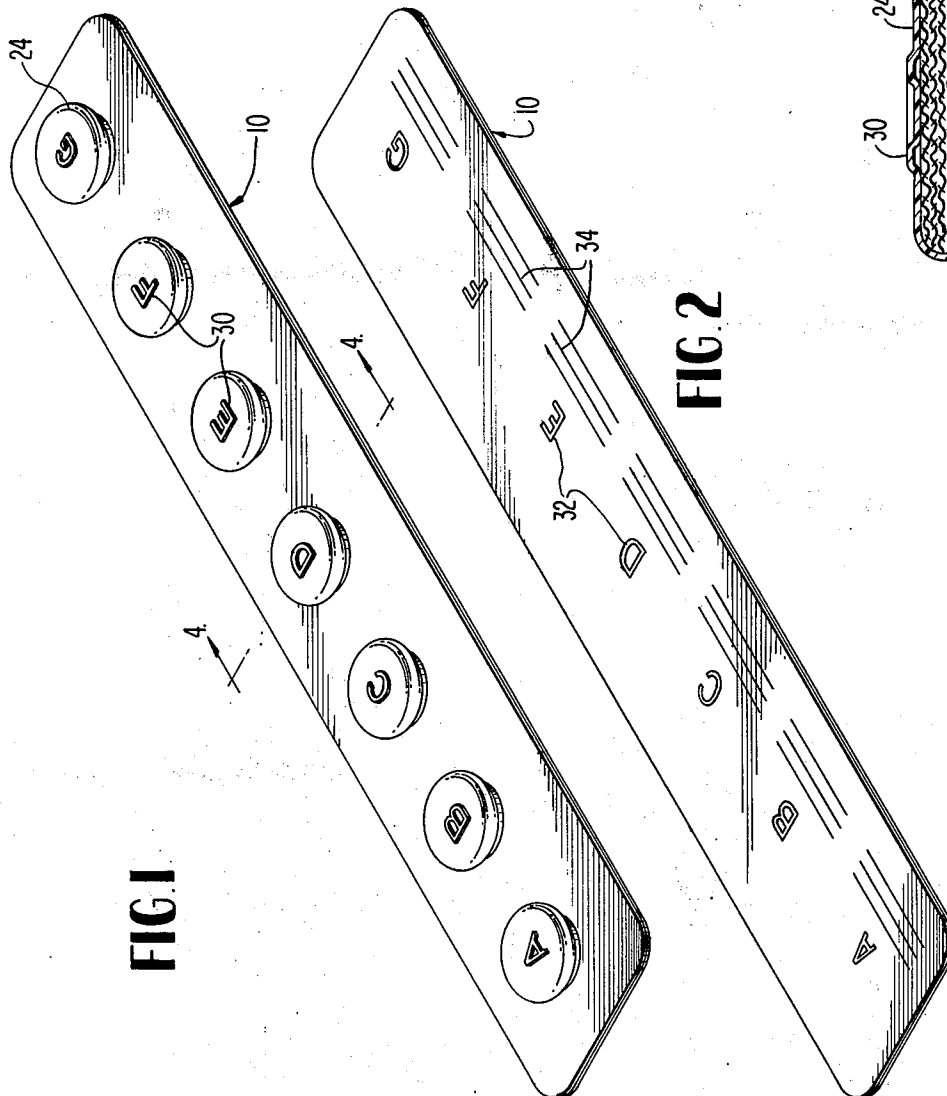
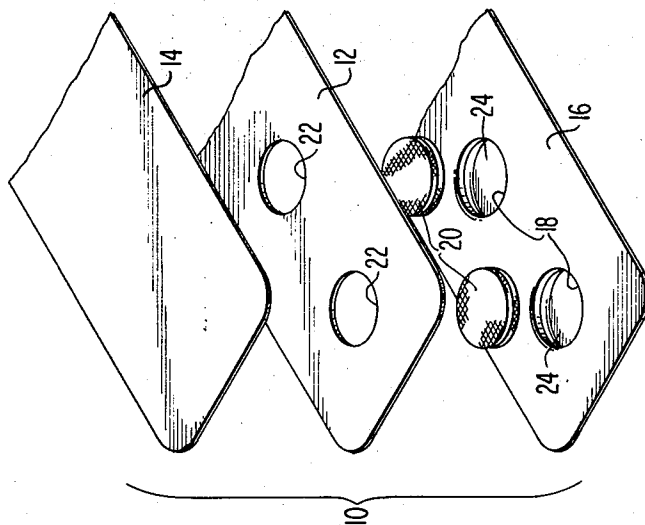
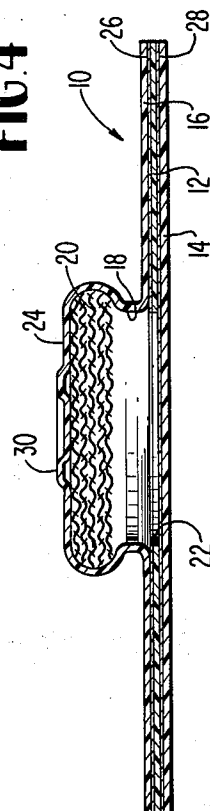


FIG. 4



SKIN PATCH TEST DEVICE WITH PEELABLE LABEL

BACKGROUND OF THE INVENTION

1. Field of the Invention

The present invention relates to a skin patch device, wherein the skin of the subject is subjected to a plurality of skin patch sensitivity tests of various substances and at spaced locations on the skin of the subject, and more particularly, to correlated identification indicia for the test device portion applied to the skin of the subject, and corresponding indicia on a portion removable from the test device and transferrable to the subject's record card.

2. Description of the Prior Art

Test devices have been provided for performing simultaneously a plurality of skin patch tests to determine the sensitivity of a subject to substances with which the skin may be sensitive, which devices form the subject matter of my prior U.S. Pat. No. 3,703,890 issued Nov. 28, 1972, and entitled "Skin Patch Test Device."

The skin patch device of that patent comprises a structure having an exposed adhesive surface for attachment to the skin and having formed therein a plurality of reservoir means at spaced locations containing a different one of the substances to be tested, in which the reservoir means comprises an outer dome-shaped member, a rupturable capsule disposed within the dome-shaped member with the capsule containing the test substances. The patent is particularly directed to the means for restraining or preventing contamination of one substance with another by restricting the possibility of flow of the substances between the reservoirs. In a simple form, a test device of this type may comprise: an inner or first strip of sheet material having an adhesive face for attachment to the subject's skin and being apertured at spaced longitudinal locations. An outer, imperforate second strip of sheet material overlies the first strip and is sealed thereto at least in the area surrounding the apertures to form with the inner strip contactant preparation storage areas. Within respective apertures, individual pads of gauze carrying the contactant preparation such as by having the pads impregnated with the contactant, are positioned. A third, backing strip of sheet material is removably attached to the inner sheet by means of the adhesive to seal off the contactant carrying gauze pad prior to use. In use, the backing strip is removed, the inner strip has its adhesive face pressed against the skin of the subject and pressure is applied to the individual gauze pads to forcibly press the contactant against the skin to effect testing of the various, different substances at respective pad locations.

While this has permitted the performing of multiple skin sensitivity patch tests in a single operation, there is some difficulty in properly identifying the individual contactant preparations at each test location and recording of that information on the subject patient's records.

SUMMARY OF THE INVENTION

The present invention is directed to the improvement within a multiple skin patch test device which resides in providing contactant preparation identification indicia on said outer strip of sheet material at positions corresponding to the apertures of the first sheet, whereby,

the contactant preparation at each test location on the test device carried by the subject may be immediately ascertained, while the same information may be transferred to the patient's records by the use of the backing strip as a contactant preparation identification list after peeling of the same from the test device.

Preferably, the identification indicia carried by both strips of sheet material comprises identical code letters. The letters within at least one of said strips of sheet material may be embossed. Preferably, where the second strip of sheet material comprises raised blisters corresponding in size, location and configuration to increase the size of the contactant carrying pad stored, the blister carries the indicia in code letters as embossments. Preferably, the backing strip of sheet material includes in addition to the code letter, printed word description indicia of the contactant preparation.

The contactant identification means carried by said backing strip of sheet material preferably lies on the face of the same remote from perforated inner strip of sheet material and the opposite face of the peelable strip, which contacts the perforated inner strip of sheet material, is coated with a pressure sensitive adhesive, whereby, removal of the backing strip from said test device permits said backing strip to be adhesively pressed to the subject's record card to readily display the contactant preparation identification indicia of the skin patch test device applied to the subject.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 comprises a top perspective view of the improved skin patch test device of the present invention, in a preferred form.

FIG. 2 comprises a bottom perspective view of the test device of FIG. 1 illustrating the code letter and word information indicia of the strip forming a peelable label.

FIG. 3 comprises an exploded perspective view of the test device of FIGS. 1 and 2.

FIG. 4 comprises a sectional, elevational view of the test device of FIG. 1 taken about line 4—4.

DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring to the drawings, the skin sensitivity patch test device indicated generally at 10 comprises in one form, a laminate structure consisting of an inner or first strip of sheet material 12 which may be formed of a plastic such as low density polyethylene film, as may outer strips 14 and 16; the strips 12, 14 and 16 being of a corresponding length. Strip 16 is provided with integral blisters 24 defining circular recesses 18 which correspond in size, dimension and longitudinal spacing to apertures 22 within the inner strip 12. Both strips 14 and 16 are imperforate. Within the recesses 18 and the corresponding apertures 22, there are positioned circular, die-cut, gauze pads 20, the pads 20 being impregnated with proper solutions to be tested, constituting contactant preparations for contacting the skin of the subject patient to which the tests are to be made.

The abutting faces of strips 12, 14 and 16 are sealed to each other, strips 12 and 16 being adhesively sealed to each other by way of adhesive layer 26, FIG. 4, which may be thermosetting, or alternatively, sheets 12, 16, may be thermobonded to each other in sealed fashion in the area surrounding recesses 18 and apertures 22 to form sealed, pad-receiving reservoirs for the

contactant preparations. Preferably, strip 14 which constitutes a peelable backing strip for the skin patch test device 10, has applied to its inner surface, a pressure sensitive adhesive 28, as is also applied to facing surface of the inner strip 12. When the backing strip 14 is pressed against the sheet 12 and when strip 16 is adhesively secured to the opposite face of the strip 12, the contactant preparation impregnated pads 20 are sealed within the reservoirs defined by aligned apertures 22 and recesses 24. In a preferred form, therefore, when the backing strip 14 is peeled from the test device, some of the adhesive 28 adheres to the surface of the backing strip 14 and permits the backing strip to be adhesively applied elsewhere for reasons given hereafter, while adhesive 28 which remains on the exposed surface of strip 12 by the removal of strip 14, permits the test device to be pressed onto the surface of the skin of the subject. Thereafter, pressure applied by way of the blisters 24 permits the contactant preparation to be pressed against the skin to effect the desired sensitivity tests, in like manner to that of U.S. Pat. No. 3,703,890.

The present invention is directed to the arrangement for providing indicia to two separable portions of the skin patch test device corresponding to respective contactant preparations within storage reservoirs, which permits during use of the test device, the ready appraisal by the doctor or other interested party, of which specific contactant preparations are being applied to the skin for multiple sensitivity testing, from the test device or from other indicia which may be readily transferred to the subject's medical record card. In this respect, preferably, the blisters 24 are provided with embossed indicia as at 30 in the form of letters such as A, B, C, D, E, F and G at the six contactant preparation storage areas, while similar indicia in the form of letters 32 appear in printed form (or are embossed) on the backing strip 14. Preferably, printed word identification indicia as at 30 may be provided adjacent thereto providing a word description of the particular contactant preparation being applied at that contact point.

Strip 14 therefore acts as a pressure sensitive tape label in that upon its peeling back and release by means of the pressure sensitive adhesive 28 from the device 10, the information printed on the bottom side thereof, may be fixed to the subject's medical record card by merely pressing the adhesive surface covered face thereof onto the face of the subject's medical record card (now shown). Thus, strip 14 constitutes a label of all necessary information to the doctor and provides a code letter as at 32 corresponding to the code letter 30 on the subject related to the substance being tested and a word description as at 34. Further, certain of the lines at the word identification indicia area 34 may be left blank to permit the doctor to write in additional comments with respect thereto, if desired.

While the description of the present invention and the illustrated embodiment describe a three strip assembly, that is, strips 12, 14, and 16, strip 12 in fact may be eliminated in the most simplified form, pressure sensitive adhesive may be applied directly to the face of strip 16, and strip 14 may be pressed thereagainst with sheets 14 and 16 carrying the correlated indicia as at 30, 32 and 34 respectively. While the strips 12, 14 and 16 have been described as being formed of low density polyethylene film, they may be formed of other material suitable for use in such a skin patch test device

without departing from the spirit and scope of the invention. Further, while contactant preparations have been described as a solution impregnating the gauze pads 20, capsules of such preparations in solution form or otherwise may be substituted therefor. The present invention is directed to the employment of indicia at corresponding locations both in code form and word form relating to the preparations being tested and usable when the backing strip 14 is peeled from the skin patch test device at the time of application for transferring such information readily to the patient or subject's medical record card.

While the invention has been particularly shown and described with reference to a preferred embodiment thereof, it will be understood by those skilled in the art that various changes in form and details may be made therein without departing from the spirit and scope of the invention.

What is claimed is:

1. In a skin patch test device for simultaneously applying to a subject a plurality of skin patch sensitivity tests to various substances, including at least a first strip of sheet material having a pressure sensitive adhesive layer on one face for attachment to the subject's skin and carrying at spaced locations contactant preparations for contact with the skin of the subject, and a removable imperforate backing strip formed of sheet material overlying said first strip and removably sealed thereto by said pressure sensitive adhesive, whereby removal of the backing strip permits said skin patch test device to be adhesively pressed against the skin of the subject, the improvement comprising:

a second pressure sensitive adhesive layer on said backing strip on the surface thereof facing said adhesive layer on said first strip and being removably sealed thereto, and

contactant preparation identification indicia carried by both strips at positions corresponding to the contactant preparations,

whereby, removal of the backing strip from the contactant preparation carrying strip permits the backing strip to be employed as an adhesively fixable record of test application remote from the subject, while reference to the device on the subject's skin readily identifies the same contactant preparation at each specific location along the first strip.

2. The skin patch test device as claimed in claim 1, wherein said indicia comprises identical code letters carried by respective strips at said contactant preparation locations.

3. The skin patch test device as claimed in claim 1, wherein said indicia is embossed within at least one of said strips.

4. The skin patch test device as claimed in claim 2, wherein said indicia is embossed within at least one of said strips.

5. The skin patch test device as claimed in claim 1, wherein said indicia carried by said backing strip comprises both a code letter corresponding to said contactant preparation at each substance location and a word description adjacent thereto.

6. The skin patch test device as claimed in claim 5, wherein said strip carrying said contactant preparation comprises a plastic film having blisters at said locations to increase the contactant preparation reservoir area and said indicia comprises embossments within said blisters.

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