

[54] **DEVICE FOR ALLEVIATING MUSCULAR DISCOMFORT**

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[52] U.S. Cl. **128/268; 128/253**

[51] Int. Cl. **A61f 7/02**

[58] Field of Search..... **128/268, 253, 1**

[56] **References Cited**

UNITED STATES PATENTS

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3,734,097	5/1973	Zaffaroni	128/268
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Primary Examiner—Aldrich F. Medbery

[57]

ABSTRACT

A process and device comprising the application of a plurality of separate pieces of adhesive base material, each having a medicated layer on its surface, and in which each piece contains a small rigid object affixed on top of the medicated layer, to areas of the body that are subject to muscular discomfort.

8 Claims, 3 Drawing Figures

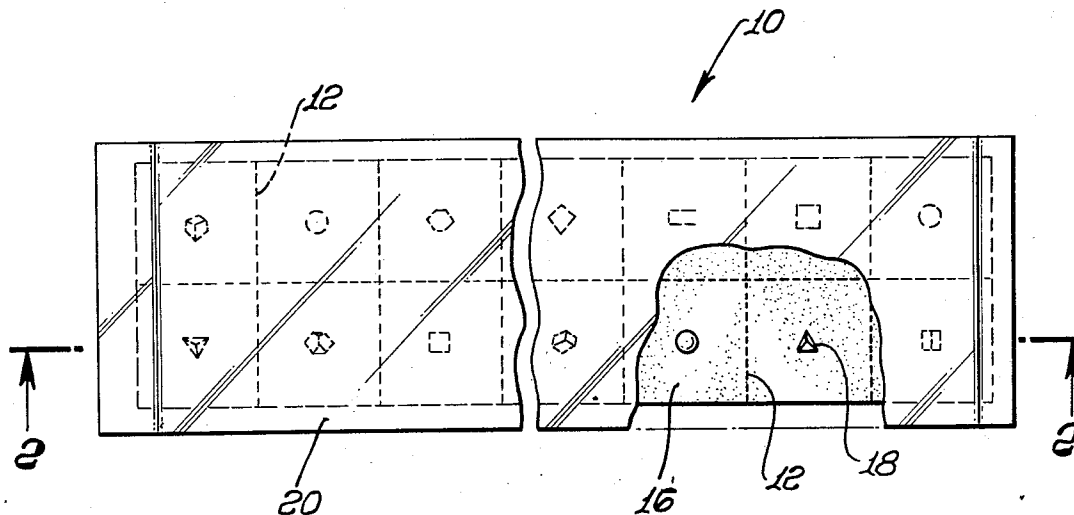


FIG. 1.

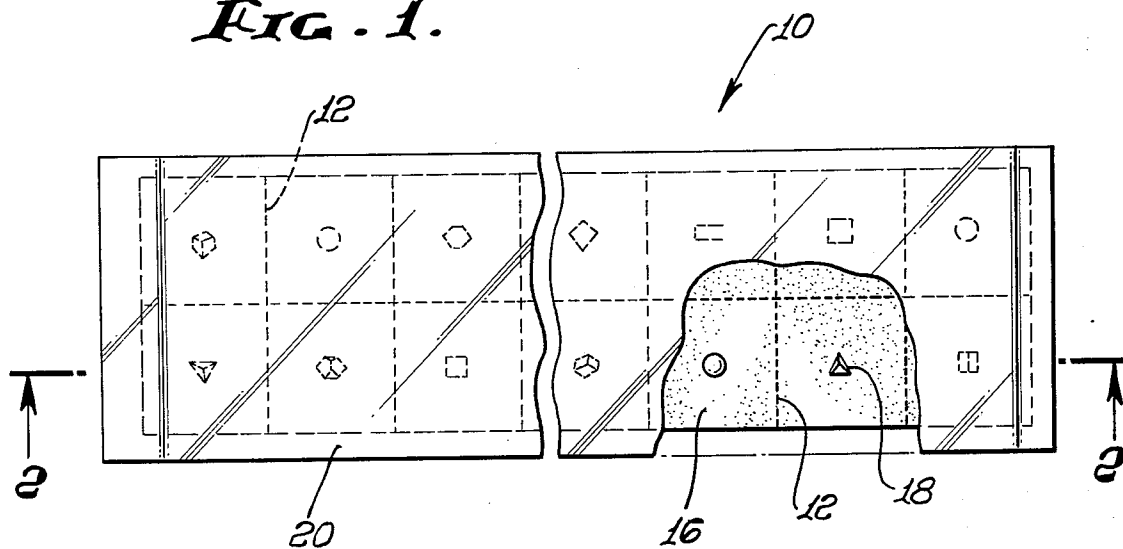


FIG. 2.

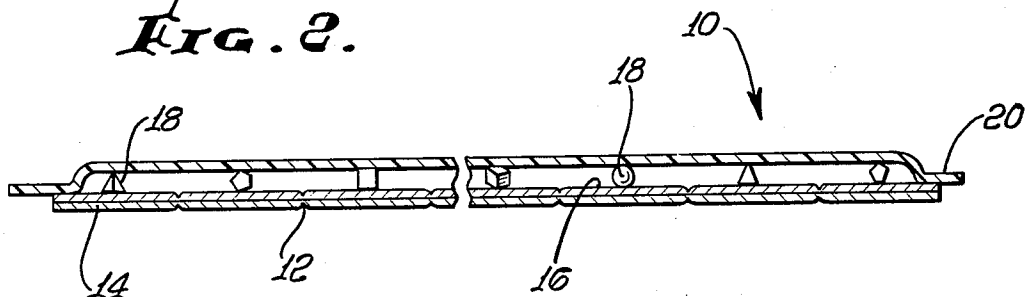
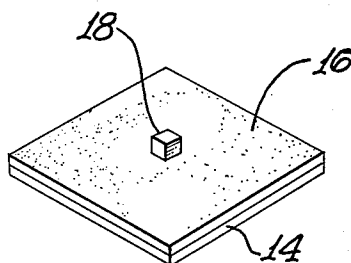


FIG. 3.



DEVICE FOR ALLEVIATING MUSCULAR DISCOMFORT

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to a new and improved process and device for alleviating muscular discomfort.

2. Prior Art

Applicant is unaware of any prior art disclosing a device of a combination of an individual small rigid object affixed to a medicated adhesive layer on the surface of a base material, and a process for alleviating muscular discomfort by applying a plurality of these devices to the area of muscular discomfort.

SUMMARY OF THE INVENTION

The device comprises a small piece of a base material having a medicated and adhesive layer to which a small rigid object is affixed. Such a layer 12 is shown in U.S. Pat. No. 3,734,097 of Zaffaroni. The medication preferably consists of an analgesic such as methyl salicylate and menthol, or either separately, or other similar medication. A cover layer may be placed over the object as desired.

The process consists of applying a plurality of the devices directly to and over the area of muscular discomfort separately, so that the objects produce pressure on the affected area for a period of time ranging from 4 to 24 hours or more.

The medicated layer has an analgesic effect on the muscular discomfort, while at the same time the pressure of the small objects facilitates blood circulation and alleviates muscular discomfort such as pain and stiffness.

It is, therefore, an object of this invention to provide a process and device for alleviating muscular discomfort such as pain and stiffness.

Another object of this invention is to provide a process and device for alleviating muscular discomfort which can be readily used by a person without special training.

A further object of this invention is to provide a process and device which is relatively inexpensive and easy to manufacture.

These and other objects will be more readily understood by reference to the accompanying drawing in which:

FIG. 1 is a plan view of a plurality of embodiments of the product of my invention.

FIG. 2 is a section taken along Lines 2—2 of FIG. 1.

FIG. 3 is an enlarged view of a single embodiment of the product of the invention.

The device 10 is preferably made in quantity by producing rectangular units by forming perforations 12 on a base material 14 such as surgical plaster or the like. An adhesive type medicated layer 16 of menthol or methyl salicylate, or both, or other analgesic, is added to the surface of the base material 14.

A single rigid object 18 is affixed within the boundaries of each set of perforations 12, preferably at the center. The objects 18 may be made of any rigid material that can withstand moderate pressure, such as various metals or plastics. A cover 20 is optionally placed over the individual devices 10, which cover 20 can be readily removed by peeling off as desired. The size of the rigid objects 18 may vary from 1 to 6 millimeters in thickness.

Various forms of objects 18 may be used. For example, the objects 18 may rectangular in form, such as a cube, or rhombic or circular in form. Or the objects 18 may be polygonal in form, such as pentagonal, hexagonal or octagonal, and the like.

The objects 18 may be solid or hollow, so long as they are sufficiently rigid to maintain their shape when applied to an area of muscular discomfort.

The form of the objects 18 may be mixed in the application of the devices 10 to the area of the muscular discomfort, in that one device 10 may have a cube form, whereas another device 10 applied may have a pentagonal or hexagonal form.

In use, any cover 20 is first removed from the devices 10. Then, a plurality of the devices 10 is individually affixed over the area of muscular discomfort so that the objects 18 produce pressure against the selected area. The devices 10 are maintained in position for a period of time ranging from four to twenty-four hours or more. The pressure of the objects 18 will improve blood circulation in the affected area, while the medicated layer 16 will have an analgesic effect, thereby alleviating muscular pain and stiffness in the affected area. At least three individual devices 10 are preferably used at a particular area of muscular discomfort, and should be separately affixed to the area of muscular discomfort.

Although I have described a preferred embodiment of my process and product, it is understood that changes may be made in each without departing from the spirit and scope of the invention as hereinafter claimed.

I claim:

1. A process for alleviating muscular discomfort by placing on the affected skin area a plurality of individual devices comprising a longitudinally flat base material having a medicated adhesive layer thereon throughout its length, each of said adhesive layers having at least one rigid object of a shape so as to not easily penetrate the skin affixed thereto, applying pressure to said device to seat said rigid objects and said layers firmly in contact with said skin area, and maintaining said pressure contact of said medicated layer and said objects to said affected area for a suitable length of time to provide alleviation of said muscular discomfort.

2. A process according to claim 1 in which the size of said objects varies from 1 to 6 millimeters.

3. A process according to claim 1 in which contact is maintained for a period of at least 4 hours.

4. A device for alleviating muscular discomfort areas comprising:

a means for applying pressure to the area of muscular discomfort including a base material;
a medicated pressure sensitive adhesive layer superimposed on said base material; and

a central portion of said layer so that when the device is pressed on the muscular discomfort area, the rigid object and the medication alleviate the muscular discomfort.

5. A device according to claim 4 in which said rigid object has a thickness from about 1 to about 6 millimeters.

6. A device according to claim 4 in which said medicated layer comprises menthol.

7. A device according to claim 4 in which said medicated layer comprises methyl salicylate.

8. A device according to claim 4 in which said medicated layer comprises an analgesic material.

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