(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number: **0 296 128**
A2

(12) # EUROPEAN PATENT APPLICATION

(21) Application number: **88830256.9**

(51) Int. Cl.[4]: **A 61 H 7/00**

(22) Date of filing: **10.06.88**

(30) Priority: **12.06.87 IT 4006887**

(43) Date of publication of application:
21.12.88 Bulletin 88/51

(84) Designated Contracting States: **AT CH DE FR LI**

(71) Applicant: **Bettuzzi, Giovanni**
Via Trieste, 62
I-43100 Parma (IT)

(72) Inventor: **Bettuzzi, Giovanni**
Via Trieste, 62
I-43100 Parma (IT)

(74) Representative: **Lanzoni, Luciano**
c/o BUGNION S.p.A. Viale Trento Trieste, 25
I-41100 Modena (IT)

(54) **A body massager.**

(57) The body massager disclosed consists substantially in a frame (1) supporting a massage brush (19) that is set in rotation about a horizontal axis. The actual brush (19) can be fashioned from different materials and embodied in a variety of shapes, according to the type of massaging action required.

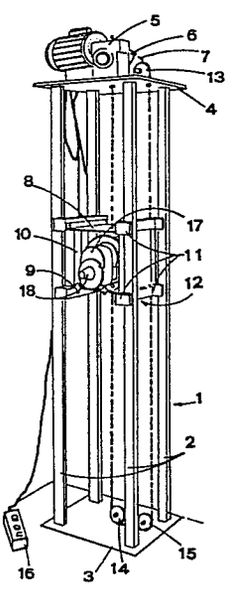

fig.1

EP 0 296 128 A2

Description

The invention relates to a body massager.

It is the common practice currently to reactivate the circulation of the blood and stimulate muscular activity either massaging the affected parts of the body by hand, or using vibrating massagers of the type, for example, comprising a flexible strap that is passed around the part of the body to be treated and vibrated continuously.

Other types of massager consist in hand-held grips incorporating a vibrator which is offered to the area requiring massage.

Whether for reactivating circulation or stimulating muscular activity, the type of massage capable of bringing most benefit is that effected manually by a professional masseur or masseuse. Clearly, this type of treatment is costly, and involves a considerable waste of valuable time, especially in hospitals. The object of the present invention is to provide a beneficial massage, comparable to the professional treatment given by hand, which involves less waste of time by virtue of the singularly advantageous fact that it can be effected by the recipient.

The stated object is realized with a body massager according to the invention, which is characterized in that it comprises a frame affording tracks for a sliding carriage to which means are mounted that serve to rotate a massage brush, and provided with means for traversing the carriage along the tracks into the required position.

A further feature of the invention is that the means serving to rotate the massage brush and the means for traversing the brush carriage along the tracks are both of variable speed type.

The invention will now be described in detail, by way of example, with the aid of the accompanying drawings, in which:

fig 1 is a perspective of the massager, viewed in its entirety from the front, in which the massage brush is omitted better to reveal other parts;

fig 2 shows the detail of a massage brush, viewed in action on the body of the recipient;

figs 3 and 4 illustrate respective front and side elevations of a first possible embodiment of the massage brush;

figs 5 and 6 illustrate respective front and side elevations of a second possible embodiment of the massage brush;

figs 7 and 8 illustrate respective front and side elevations of a third possible embodiment of the massage brush;

fig 9 illustrates a massaging attachment providing a possible alternative to the brush type embodiment.

With reference to fig 1 of the drawings, 1 denotes a frame, in its entirety, which is a substantially vertical structure comprising four uprights 2 that rest on a base 3 and support a platform 4 uppermost; 5 denotes a first variable speed drive unit mounted to the platform, the output shaft of which carries a keyed sprocket 6 around which a chain 7 is looped, with its one end made fast to a top plate 8, and its remaining end to a bottom plate 9.

The top and bottom plates 8 and 9 are interconnected by cross members 10 and mounted to blocks 11 of non friction material, such as teflon, which envelop the uprights; the resultant assembly thus constitutes a carriage denoted 12 in its entirety, able to slide on the uprights 2 which, accordingly, perform the function of vertical tracks.

To produce sliding movement of the carriage 12 along the vertical tracks, the chain 7 is passed over a further sprocket 13, then routed down to the base 3, looped around two return sprockets 14 and 15, and finally made fast to the bottom plate 9. The two return sprockets will be separated by a conventional chain tensioner, which is obscured from view by one of the uprights 2. The variable speed drive unit, the chain, and the sprockets, thus constitute means operated from a push-button control 16 by which the carriage is traversed along the vertical tracks. 17 denotes a second variable speed drive unit which is mounted to the carriage, and can be operated from the same push-button control 16. The output shaft 18 of this second drive unit 17 carries a massage brush denoted 19 (fig 2), mounted either fast or loose in such a way that an individual 20 can place a given part of his/her body in direct contact with the rotating surface, pressing against it to a greater or lesser degree in such a way as to regulate the force of the massaging action. In the case of the embodiment illustrated in fig 2, the brush is keyed fast to the shaft of the drive unit 17.

The massage brush can be embodied in a variety of shapes according to preference, and to the type of massaging action required. The embodiment of fig 2 consists essentially in a set of bristles fashioned either in a plastic material such as polyester or polyethylene, or from natural substances such as horsehair, hemp or broomcorn. This design of brush is capable of enveloping the body, and therefore suitable for any physical stature.

Figs 3 and 4 illustrate the embodiment of a brush consisting in strips of flexible material, of given rigidity, which produce a moderate-to-hard type of action, whereas figs 5 and 6 illustrate a brush consisting substantially in a plurality of rubber teeth, again of given rigidity, designed to produce a hard action. In the latter instance, it will be preferable to mount the brush loose to the relative drive unit 17, and generate the action by operating the first drive unit 5 such that the entire carriage is reciprocated vertically, and the brush operates by rolling freely over the body of the individual.

In short, the entire brush is raised and lowered in alternation, rolling against the part of the body offered to it.

Figs 7 and 8 illustrate a special embodiment of the massage brush, appearing as a set of flexible laths with brush-like parts 21 fitted to their ends, which has been found to be advantageous for massaging the calf and thigh muscles.

Fig 9 illustrates a massaging attachment consisting in a sponge or foam rubber element of substantially elliptical shape.

The advantages afforded by the massager disclosed will be evident from the foregoing description. The action exerted by the brush on the skin is gentle, and successfully envelops all parts of the body, even those parts with pronounced rounded contours. By pressing more or less firmly against the brush, the individual is able to select a harder or gentler massaging action.

Use of the massager involves no risk, as all parts brought into contact with the body are electrically insulated.

The speed of rotation of the brush can be varied, as also can that of its ascent and descent along the tracks, to the end of producing different types of massaging action which closely simulate the effects of manipulation by an expert masseur.

The frame illustrated stands upright, with vertical tracks, but might equally well be horizontally disposed; also, the drive means by which the massage attachment is set in rotation might be mounted in a fixed position.

Claims

1) A body massager, characterized in that it comprises means (17) for rotating a massaging attachment (19) designed to exert a selectively pulsating pressure on the human body.

2) A body massager, characterized in that it comprises:
-a frame (1) affording tracks (2) for a sliding carriage (12) to which means (17) are mounted that serve to rotate a massaging attachment or massage brush (19);
-means (5, 7, 6) for traversing the carriage (12) along the tracks (2) into the required position.

3) A massager as in claim 1, wherein the massage brush or massaging attachment (19) is set in rotation by means comprising a variable speed drive unit (17) connected up to a push-button control (16) that can be operated by the recipient of the massage.

4) A massager as in claim 1, wherein the massage brush is mounted to the carriage (12), and the carriage traversed along the tracks by means comprising a variable speed drive unit (5) from which movement is transmitted by way of a chain (7) and a plurality of sprockets (13, 14, 15).

5) A massager as in claim 1, wherein the frame (1) is of substantially upright embodiment, and the tracks (2) along which the carriage (12) is traversed are vertically disposed.

6) A massager as in claim 1, wherein the speed of the means by which the massaging attachment is set in rotation can be varied to the end of adjusting the frequency of the selected pulsating pressure.

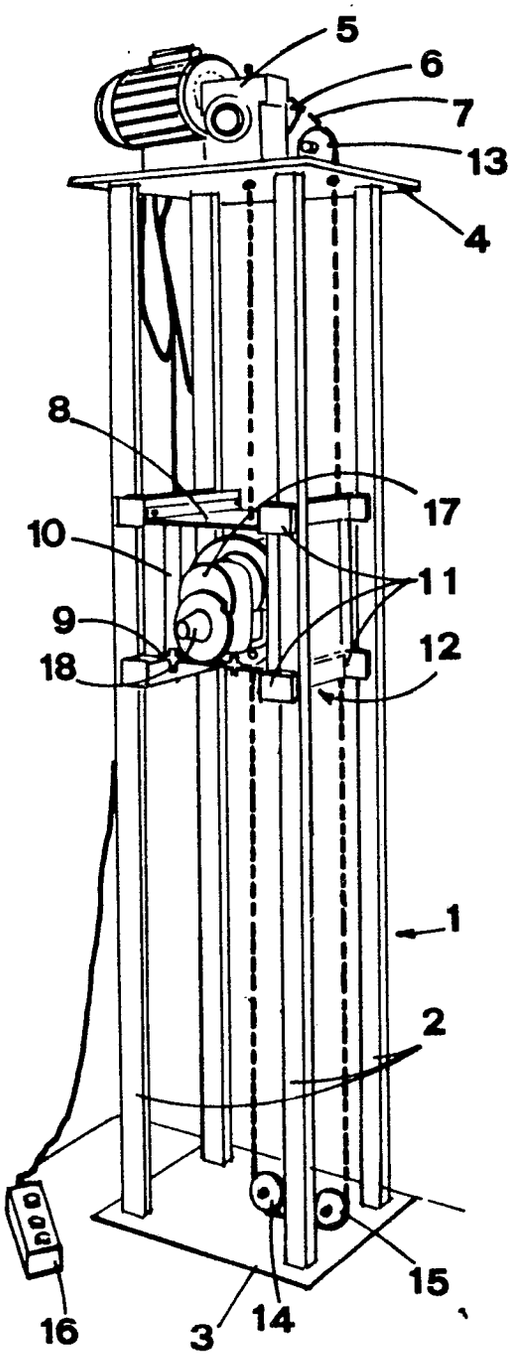

fig. 1

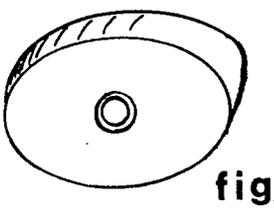

fig.9

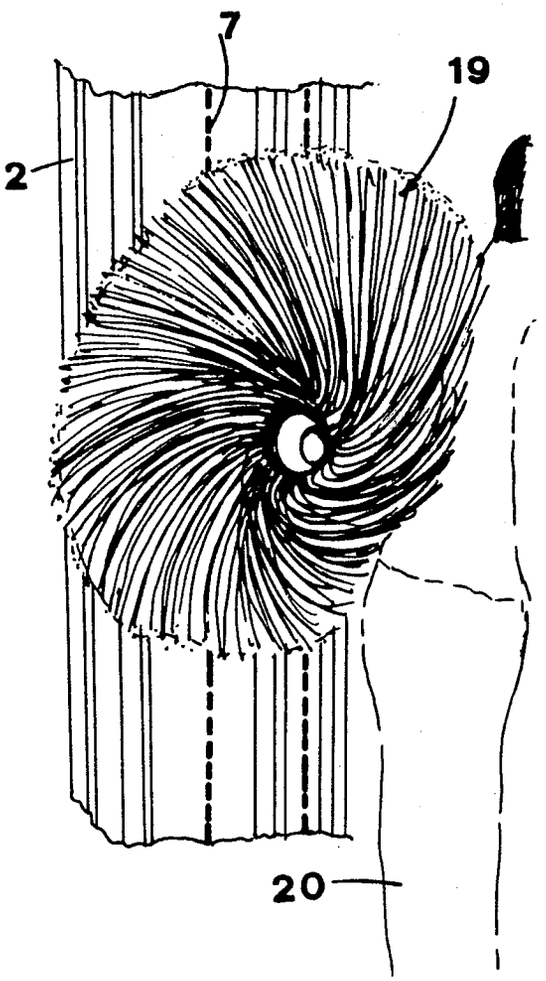

FIG. 2

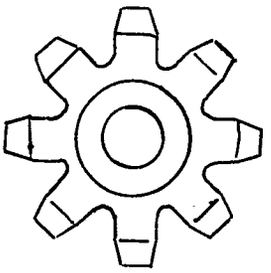

FIG.5

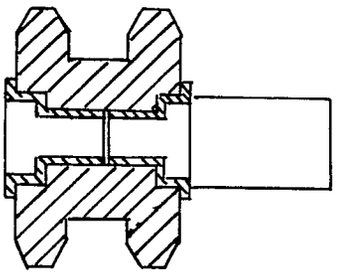

FIG.6

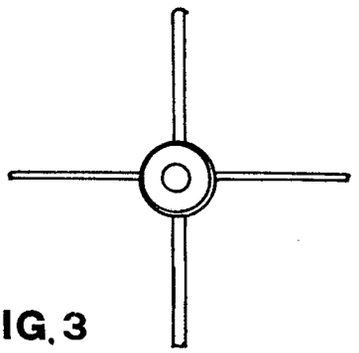

FIG.3

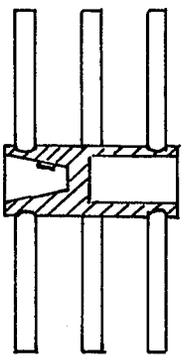

FIG.4

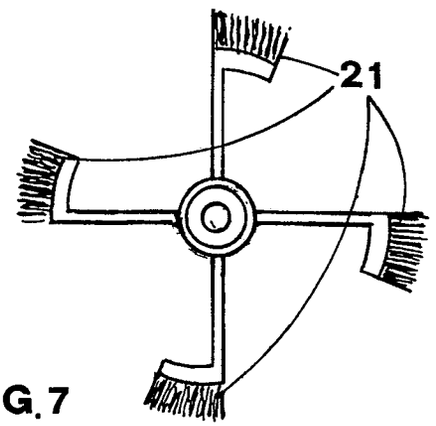

FIG.7

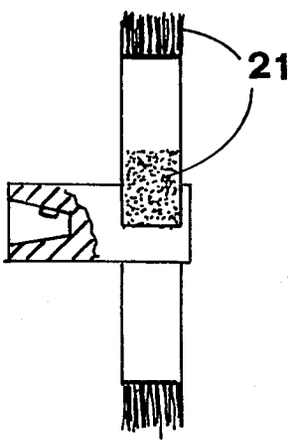

FIG.8