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VIBRATOR AND MASSAGER FOR USE OVER SPINE

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Fig. 1

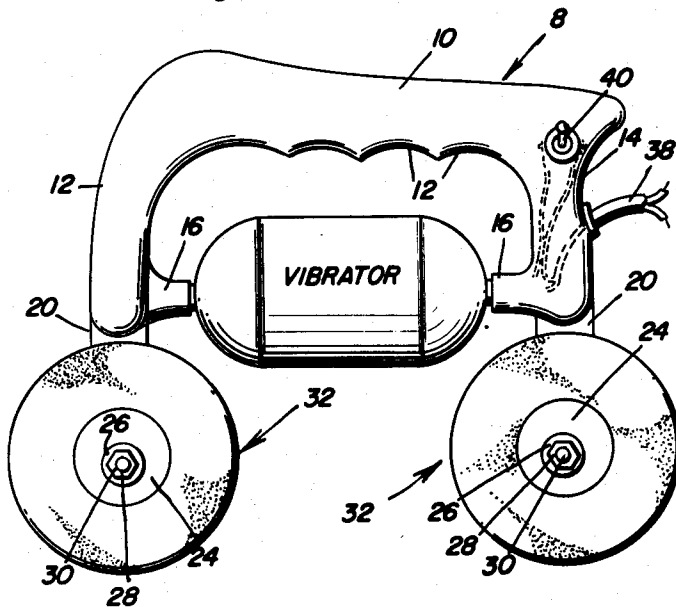


Fig. 2

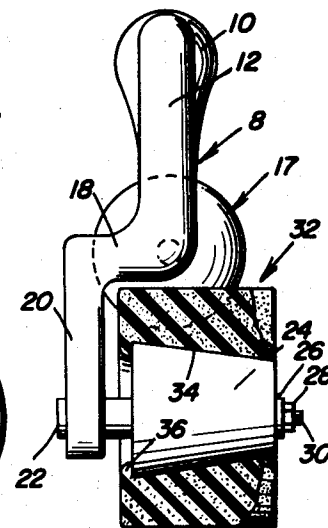


Fig. 3

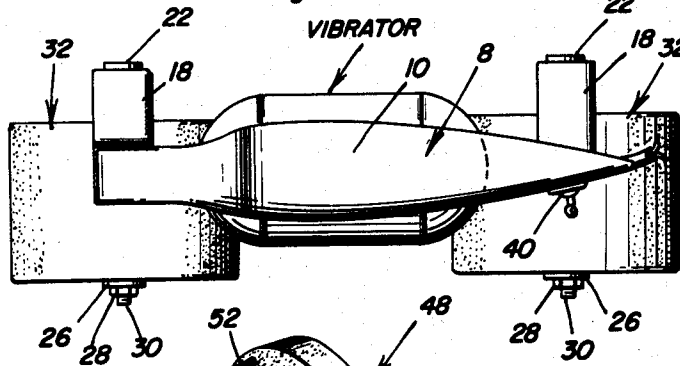


Fig. 4

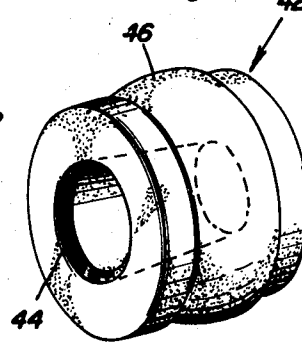
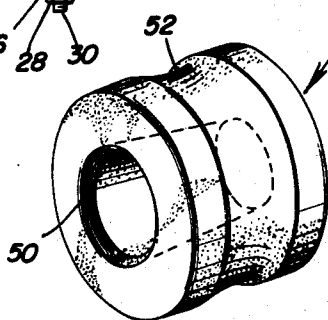


Fig. 5



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VIBRATOR AND MASSAGER FOR USE OVER SPINE

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5 Claims. (Cl. 128—32)

This invention relates to a novel and improved vibrator-massager and more particularly to the special purposes for which it may be so effectually used. Primarily it is used for massaging one's muscles and nerves on each side of and directly over the spine, during which the blood supply sources are simultaneously stimulated. As is well known vibrators of many kinds have been perfected and offered for many purposes, but none have been appropriately devised for the specific purpose of stimulating the muscles, blood supply and nerves of the spine or vertebrae. Massaging this part of the body has usually been accomplished with the use of the hands, and in some instances, with a vibrator attached.

The salient purpose of the instant vibrator massager is to massage the desired areas aided by the use of two soft pliable tires or treads which are attached to wheels which are preferably conical and which rotate by friction as the appliance is manually pushed back and forth with, of course, the tires in contact with the skin directly over the spine.

In carrying out the preferred embodiment of the invention the wheels are mounted off-center causing them to track along and automatically raise and lower at the same time. When the wheels are at low points, a half turn of the wheels raises to the desired high axes level. The weight of the over-all appliance plus regulative pressure of the hand, whether it be light or heavy, results in a massaging effect to the muscles, blood vessels and nerves contacted. The massaging can be done with requisite nicety (light pressure or heavy) starting at the base or lowest extremity of the spine and directed and maneuvered up to the uppermost region of the neck following, of course, the spine as a guide at all times.

Then, too, and in addition to the massaging effect a built-in vibrator causes the whole appliance or device to vibrate, giving added stimulation to the muscles, blood supply and nerves in the areas acted on. The advantageous results are obvious. Tired, languid and tense muscles are benefited by the use of this appliance, assisting the circulatory system in this area by rhythmically controlled action. The vibrating source should be slow enough to cause a soothing effect rather than a vigorous one. Where predetermined vibration rates are needed, this result can be accomplished by utilizing a speed changing rheostat in the motorized vibrator.

No claim is of course being made that this massager-vibrator will "cure" physical ailments, but that its proper use will aptly and satisfactorily stimulate the area covered. Since all nerves are attached to the spinal cord orifices in the vertebrae, practical usage may and should prove beneficial to other parts of the body whether functional organs or extremities.

In addition, the tire-covered wheels are made expressly and sized to straddle the bony prominences of the vertebrae. This structural feature functions to stimulate both the muscles and nerves on both sides of the vertebrae at the same time. Since muscular stimulation is beneficial

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on all parts of the body, the appliance will serve the purposes for which it is intended.

Furthermore, the fact that the wheels are mounted off-center causes the wheels to rotate with the intended or desired irregularity. This wheel-action results in giving added stimulation to the pressure of the operator's hand as it is being raised and lowered a fraction of an inch at each revolution of the wheels. Consequently this action sends a new flow of blood into the desired areas and eases tense, tired muscles as well as those muscles that are frequently relaxed and flabby because they are so seldom used.

It is another object of the invention to provide a simple, practical and an efficient structural appliance which is thought to be an improvement on analogous prior art adaptations and which will meet with manufacturing requirements and economies of manufacture and will serve the needs of users and patients alike.

To be sure it is common practice in hospitals to rely on nurses employing alcohol as a rubbing agent to soothe the skin of a feverish patient who has been confined to a bed for a long period of time. It is also true that the described hand technique has a cooling effect which is comforting but, manifestly, vibration and massaging with the instrumentality herein revealed greatly assists the circulatory system by reliable rhythmic control and this too is comforting as well as beneficial in stimulating the back muscles in the area of the spine.

It is also a matter of common knowledge that masseurs in hotels and health clinics and the like rely on hand technique or massaging needs. Obviously, they spend a lot of time in doing what this simple and useful appliance can accomplish in a matter of minutes. The effect of the mechanical stimulator herein revealed is much superior because it is directed only to the area so vital to the whole body. As a matter of fact and with exception of the cranial nerves, all others are attached to the spinal cord and enter into the body through orifices in each vertebra. Hence the appropriate need for an invention such as that herein disclosed.

Other objects, features and advantages will become more readily apparent from the following description and the accompanying drawing.

In the drawing wherein like numerals are employed to designate like parts throughout the views:

Fig. 1 is a side elevation of a manually usable vibrator and massager for spinal use constructed in accordance with the invention.

Fig. 2 is an end view of the same observing it in the direction from left to right in Fig. 1 and showing the tire or tread partly broken away to expose the conical roller.

Fig. 3 is a top plan view.

Figs. 4 and 5 are perspective views of the readily applicable and removable wheel treads or tires.

By way of introduction to the description of the details it is to be pointed out that while the expression "wheel" is used and "tire" also employed it is obvious that these components may be construed as rollers, or rollers with cushioned treads with the treads, of course, readily applicable and removable.

In carrying out a preferred embodiment of the invention a frame of suitable size, weight and material is employed and this is denoted as a unit by the numeral 8. It is a unitary part and the major part as seen in Fig. 1 is generally U-shaped. The median or bight portion 10 is suitably shaped and notched as at 12 to provide a handle or hand-grip. The depending portions or legs are denoted at 12 and 14 and as seen in Fig. 1 they have extensions formed with sockets as at 16 to support a suitably constructed electric motorized vibrator (not detailed). As seen in Fig. 2 the median portions of the

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legs are offset laterally at right angles as denoted at 18. The lower end portions are vertical as at 20 and the lower portions thereof are provided with suitable bearings for the axles 22. As the drawing shows there are two wheels or rollers and each is of the same construction. In some instances, the rollers may be cylindrical in cross section but they are preferably tapered and each roller is shown as of tapered or conical form in Fig. 2 and is denoted at 24. The roller is held in place by a washer 26 and nut 28 mounted on the threaded end or shank 30 of the wheel axles. The wheel is eccentric to the axis of the axle as perhaps best shown in Fig. 1. The rubber tires or treads are denoted at 32 and they have their interior portions shaped at 34 to conform with the surface of the rollers or wheels. There is a retaining lip 36 on the inner periphery which assists in holding the tire in place and facilitating its application and removal.

As is seen in Fig. 1 the current conductor is denoted at 38 and the switch at 40.

The tires as seen in Figs. 1 to 3 inclusive are of the same cross-section or surface contour while the modifications in Figs. 4 and 5 are slightly different. The modification seen in Fig. 4 is denoted by the numeral 42 and the retaining lip at 44. This particular tire has an endless convex grip 46 around the central portion. The modification 48 in Fig. 5 has a retaining lip 50 and there is endless channel or groove 52 around the median peripheral portion. Thus there is a tire for bony spine prominences, one for flat backs, and one with the ridge or rib 46 for backs with a lengthwise groove, as it were.

It will be evident that the invention is characterized by a massager for the particular purpose of massaging the muscles, blood vessels and nerves directly over and on each side of the spine or back bone. The rollers or wheels may be either conical or cylindrical and they are obviously preferably off-center. The soft resilient tires are cone-shaped and lipped on the inside edge of assist in retaining them in place and also for easy removal. The special shaped peripheral surfaces of the tires conform with different spinal prominences. An electric rheostat (not shown) may be incorporated in the motor to regulate the speed desired.

The invention has so many diversified uses that it is sufficient to say merely that it is applicable for use in hospitals, convalescent homes, health clinics, for use in connection with helping and aiding persons engaged in athletics, sports and special services such as police, firemen and many others including dancers and wherever the practice of massaging has heretofore prevailed.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention

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to the exact construction and operation shown and described, and accordingly all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

5 What is claimed as new is as follows:

1. A massager for the particular purpose of massaging the muscles, blood supply and nerves directly over and on each side of the spine comprising a frame, wheels supported for free traveling rotation on portions of said frame, said wheels being in longitudinal alignment and having compressibly resilient tires on their surfaces adapted to reside in rolling contact with the body areas along the spine, said frame having a laterally offset handle positioned above the median peripheral portions of said tires, said wheels and their attending tires being adapted to transversely span the spine and being of a length to act upon the areas to the left and right of the spine, and a vibrator mounted for operation on said frame and normally above and between the respective wheels.

20 2. The structure defined in claim 1 and wherein the body contacting surface portions of the tires are contoured for different spinal prominences, such as a bony spine prominence, for flat backs, or for backs having depressed grooves.

25 3. A massager and vibrator comprising a generally U-shaped frame having a bight portion which is fashioned to provide a handle and having depending leg portions, the upper parts of the leg portions being coplanar with the bight portion, the median portion being laterally offset and the lower end portions depending vertically and being in a plane common with each other to in this manner offset the handle, the lower portions of said legs having bearings, longitudinally aligned wheels having axles mounted for rotation in their respective bearings, each wheel having a removable compressibly resilient tire on its peripheral surface, and a vibrator supported from the median portions of said legs.

4. The structure defined in claim 3, said wheels being conical and said tires being shaped to conform with the wheel surfaces, said wheels being mounted eccentrically and being offset and the peripheral surfaces of the tires being contoured to meet the varying spine massaging needs and requirements.

5. A manually usable massaging appliance comprising 45 a generally U-shaped frame the bight portion of which is fashioned to provide a hand-grip, a pair of eccentrically mounted freely rotating wheels carried by lower portions of said frame, said handle being centered over the peripheral portions of said wheels, and a vibrator mounted on 50 said frame above the peripheral surfaces of the wheels.

References Cited in the file of this patent

UNITED STATES PATENTS

2,624,335 Miller Jan. 6, 1953