March 2, 1948. A. R. MARTY 2,436,969

NON-VIBRATORY MASSAGING DEVICE

Filed March 4, 1946

Fig. 1.

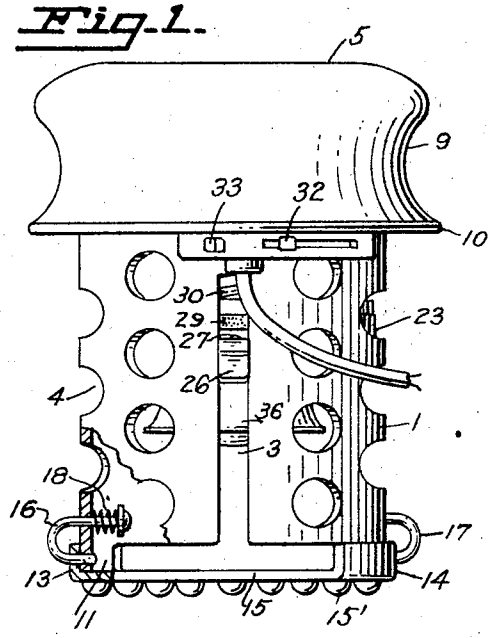


Fig. 3.

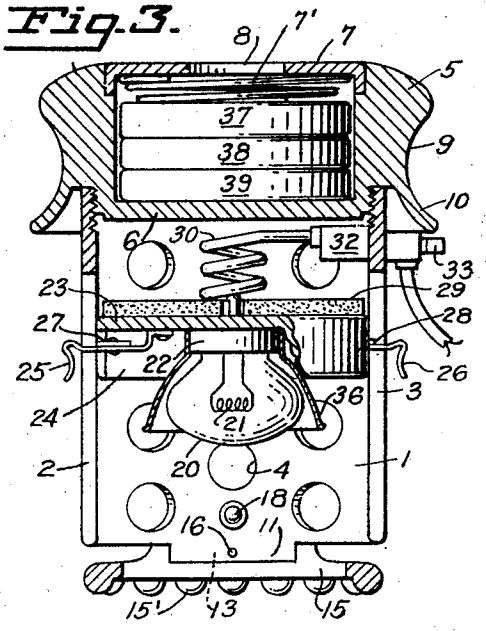


Fig. 2.

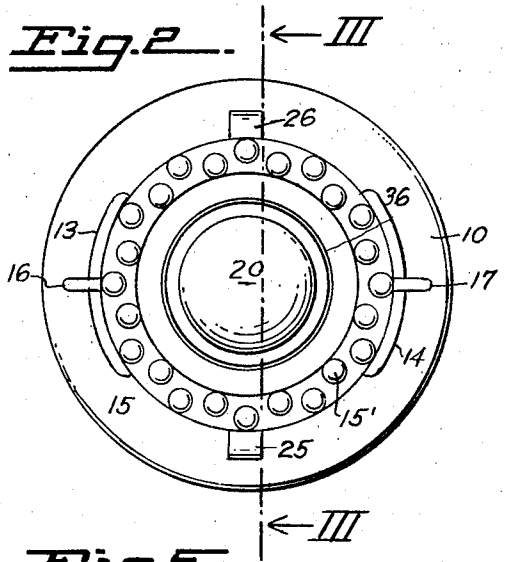


Fig. 4.

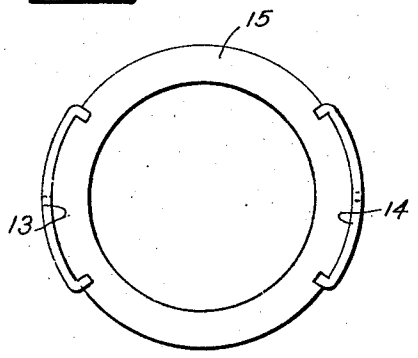


Fig. 5.

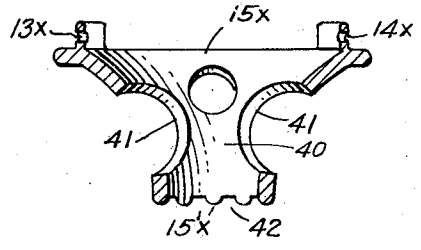
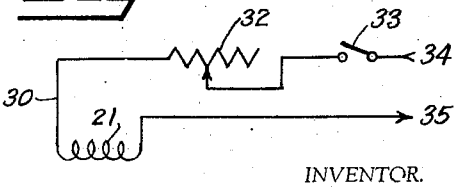


Fig. 6.



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Patented Mar. 2, 1948 2,436,969

UNITED STATES PATENT OFFICE

2,436,969

NONVIBRATORY MASSAGING DEVICE

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Application March 4, 1946, Serial No. 651,839

2 Claims. (Cl. 128—24.1)

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This invention relates to a non-vibratory massaging device.

Among the objects of the invention is the provision of means for applying manual massage to the human body, with or without light and/or thermo-therapy.

Another object is to accelerate the circulation of the blood, stimulate the muscular and vascular systems and build up the nerve force of the human body.

Another object is the provision of such a device within a low price range that is simple, compact, and convenient for travelers.

A further object is high efficiency, with a thermal element adjustable mechanically and electrically; and the elimination of the fire hazard in such an instrument.

Other objects and advantages will appear as the description progresses. In the specification and the accompanying drawings the invention is disclosed in its preferred form. But it is to be understood that it is not limited to this form, because it may be embodied in modifications within the spirit of the invention as defined in the claims following the description.

Reference is here made to my Patent Number 2,424,699 entitled, Manual massaging device, issued July 29, 1947.

In the one sheet of drawings:

Fig. 1 is a side elevation of a massaging device embodying this invention.

Fig. 2 is an end view from below of the same.

Fig. 3 is a vertical section of the same on the line III—III of Fig. 2.

Fig. 4 is a top view of the massaging ring.

Fig. 5 is a vertical section across the diameter of a modified form of massaging ring.

Fig. 6 is a wiring diagram of the electrical circuit.

In detail the structure illustrated in Fig. 3, comprises the cylindrical body 1, having the side slots 2, 3, and the various vent holes such as 4. The upper end of the body is internally threaded and has the hand grip 5 screwed therein. This handle has the open recess with the bottom 6 closing the top of the body 1. This recess is closed at the top by the flat cover 7, that is frictionally held in the top of the recess, and is provided with a center opening 8, for convenience in removing the cover. The periphery of the hand grip is fluted at 9 to provide better manual control and has the flared skirt 10 for protecting the finger ends of the user, from the radiated heat of the body 1.

The lower end of the body has the projecting

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lugs 11, 12, fitting snugly into the sockets 13, 14, provided in the upper periphery of the annular massaging ring 15. The massaging ring is attached to the body 1, by the looped pins 16, 17, having their ends passing through the lugs 11, 12, and the wall of the sockets 13, 14 respectively. The opposite ends of these pins pass through the body wall above the lugs and have washers riveted thereon with the springs such as 18, interposed therebetween and the adjacent inner wall of the body 1, respectively, to hold the body and massage ring normally locked together. The massage ring can be released for replacement, by pulling outward on the loops of the pins from without; or by reaching through the opening in the ring with the finger and pushing outward on the washers to compress the springs 18 and withdraw the lower ends of the pins 16, 17, from the walls of the sockets 13, 14.

The thermal element comprises the conventional infra-red filament or other source of heat and light such as the bulb 20 having the resistance filament 21 therein. The base of the bulb is held in the socket 22, forming part of the circular partition 23, having the depending flange 24, slidable freely within the body 1. This flange has gaps therein registering with the slots 2, 3, in the body, Fig. 3.

The resilient latches 25, 26 are fixed to the underside of the partition and extend through the slots 2, 3, respectively. The locking discs 27, 28 are respectively riveted to the latches and extend into and engage the inner edges of the slots 2, 3. The partition may be adjusted vertically by depressing the latches 25, 26 to disengage the discs 27, 28 from the body slots. When the latches are released the discs lock the partition in the adjusted position. The thermo-insulating pad 29 of fiber-glass or the like, is interposed on top of the partition to minimize the conduction of heat from the filament 21.

The insulated cord 30 that supplies electric current to the filament passes upwardly in a stretchable coil to the rheostat 32 mounted within the body 1, allowing for the vertical adjustment of the partition. The rheostat button at 32 and the control switch 33 are mounted on the outside of the body 1 in easy reach of the finger of the user, for controlling the current to the filament, and to open and close the circuit, respectively.

This electric circuit is shown in Fig. 6. The current from the source of supply, not shown, flows over the wire 34, through the switch 33, the rheostat 32, and the filament 21, then back to the source over the outlet wire 35. The parabolic

reflector 36 is attached to the socket 22, and directs the rays from the filament downwardly through the center opening in the massage ring. For infra-red rays it is desirable that the interior of the reflector be polished to better concentrate and direct the rays. When infra-red bulbs with silvered reflecting areas thereon are available, the reflector 36 may be omitted.

Various types of massaging rings are supplied as accessories for the massaging device. The type shown in Fig. 3, is suitable for firm muscular surfaces, while the modification shown in Fig. 5 is adapted to deeper depression into facial, neck, abdominal and soft fatty tissues, for dissipating excess fat by massage and heat therapy. For sensitive or bony structures the face of the ring may be smooth, without the knobby projections such as 15', where heat therapy without massage is indicated, and emollients are applied to the skin.

The degree of heat directed upon the skin surface by the element 21, concentrated and directed by the reflector 36, may be varied by thermostatic control at 32, and/or by adjustably varying the distance of the filament 21 from the massaging ring 15.

The several lead weights 37, 38, 39, may be used singly or collectively, in the upper recess in the hand grip 5, to cause a downward pressure on the massaging ring in addition to the manual pressure in applying massage. The weights may be omitted for facial and the more delicate forms of massage. These weights are held against displacement in use, by the spring 7' fixed to the inner side of the cover 7.

To reduce the fire hazard, and for general convenience it is preferable to mount the filament 21 within the hollow body 1. But the filament may be mounted externally of the body 1 in fixed or adjustable relation to the surface being massaged.

The invention operates substantially as follows: The hand grip 5, is firmly grasped in the hand and the massaging ring applied to the skin. The massaging motion may be forward and back, or in circles over the skin, or the hand grip may be twisted back and forth to apply torque to the skin.

The heat therapy is applied by closing the switch 33 and energizing the filament 21 to the desired extent by the rheostat 32. The up or down mechanical adjustment of the partition 23 increases or diminishes the intensity of the effect. This light and thermo-therapy may be used with or without the manual massage as described.

In treating localized pain or congestion, the device may be held against the skin in a stationary position with the filament elevated or at the distance from the skin indicated by diagnosis.

In addition to the many therapeutic advantages above recited the device is safe to handle, because it may be stood upright on the flat top cover 7. If carelessly laid down on its side, while the filament is functioning, the skirt 10 will act as a fulcrum causing the weighted hand grip to lift the open end of the massage ring above the surface upon which the device is resting, so that the emitted heat will not scorch the surface of a table, or ignite any adjacent combustibles.

The modified massage ring 15x, shown in Fig. 5, has the general characteristics of the ring 15, such as the top sockets 13x, 14x, and the knobby end 15'x, with the addition of the extension neck 40 having the openings 41 through which the thermorays from the filament may be projected, in addition to the open end at 42.

As shown the device is designed for production in suitable thermoresistant plastics, in contrasting colors.

Having fully described this invention and its mode of operation, what I claim and desire to secure by Letters Patent is:

1. A massaging device comprising a hollow body open at one end; a hand grip closing the other end of said body; a skirt on said hand grip extending beyond the diameter of said body; a massaging member having an unobstructed central opening therethrough; and a thermo-electric element within said body and located coaxially with the opening in said massaging member.

2. A massaging device comprising a hollow body open at one end; a weighted hand grip closing the other end of said body and having a skirt projecting beyond the diameter of said body; a massaging member having an unobstructed central opening therethrough; and a thermo-electric element within said body and located coaxially with the opening in said massaging member.

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