Sept. 23, 1969 AKIHIKO TERANISHI 3,468,304

ELECTRIC MASSAGER

Filed April 17, 1967

FIG. 3.

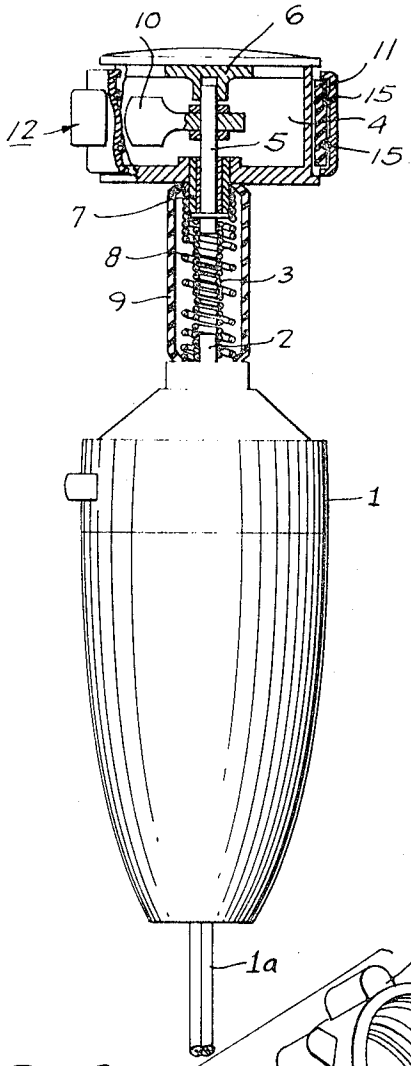


FIG. 1.

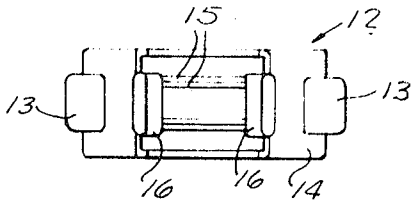


FIG. 2.

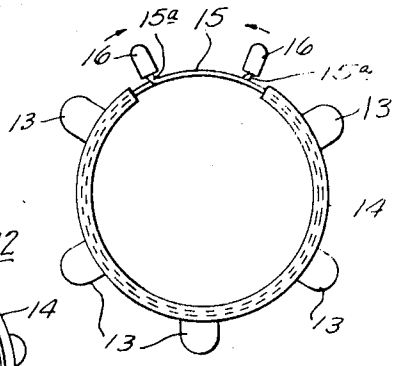
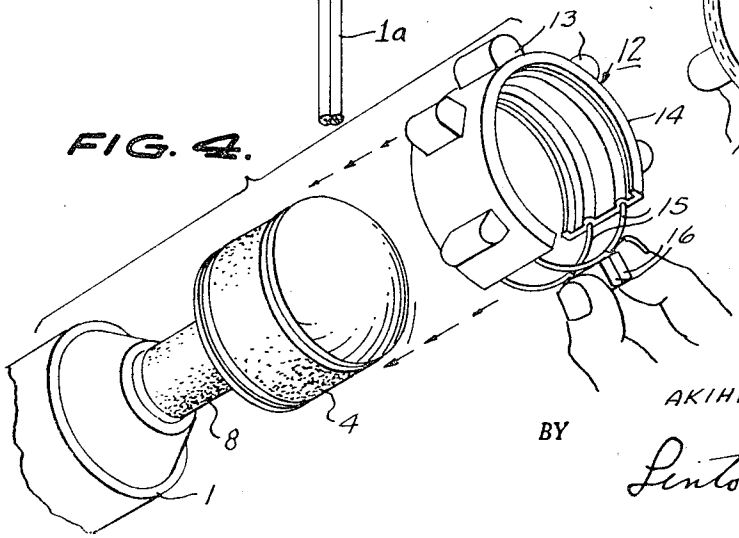


FIG. 4.



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ELECTRIC MASSAGER

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Int. Cl. A61h 23/00
U.S. Cl. 128—36 1 Claim

ABSTRACT OF THE DISCLOSURE

The present invention is concerned with an electrically driven massager having a hollow head in which rotates an eccentric weight for producing a vibration in said head and a resiliently and detachably mounted collar with knobs extending therefrom which may have various shapes and are for being pressed against the body or the like to be massaged.

Description

The present massager has an electric motor with driven shaft connected by a coil spring to a driven shaft rotatably mounted in a hollow head and which driven shaft carries an eccentrically positioned weight therewith for creating a vibratory motion to said head. A resilient ring surrounds said head and a detachable collar with lateral knobs is mounted on and around said ring.

The principal object of the present invention is to provide an electrically operated massager having knobs of different shapes dismountably carried by the massager and which knobs are resiliently mounted so that they can be used for massaging a body or the like but with the vibrations of the massager as transmitted to the body being softened.

With reference to the accompanying drawing,

FIG. 1 is a side elevation of the detachable collar forming part of the present invention.

FIG. 2 is a plan view of said collar.

FIG. 3 is a side elevation partly in cross-section showing the present massager.

And FIG. 4 is an exploded perspective view of the upper portion of the present massager.

Referring now more particularly to the accompanying drawing wherein like and corresponding parts are designated by similar reference characters numeral **1** refers to an electric motor to be connected by wires **1***a* to a source of electrical current and which motor has drive shaft **2** attached to one end of a spiral spring **3** which has its opposite ends also attached to shaft **5** rotatably mounted in the hollow housing **4**. Said housing has a bearing **6** in the top thereof and a bearing **7** integral with the bottom center portion of said housing and with shaft **5** rotatably mounted in said bearings and extending through bearing **7**. Coil spring **8** has one end mounted on the top of motor **1** concentric with spring **3**, its top end bearing against housing **4** with bearing **7** extending within said spring **8** and the medial coils of spring **8** being spaced apart. A tubular sheath **9** of a synthetic resin extends between motor **1** and housing **4** enclosing spring **8** therein.

Shaft **5** has a weight **10** fixedly connected thereto and extending eccentrically thereof whereby rotation of shaft **5** and weight **10** will cause housing **4** to vibrate.

Said housing **4** is substantially cylindrical and has a

buffer ring **11** of rubber, foamed rubber or the like encircling the side of said housing.

A collar **12** partially encircles said buffer ring **11** in that said collar is formed as a partial circle as best shown in FIG. 2 but with its ends spaced apart. Said collar is formed of an elastic material such as a synthetic resin or the like and has a series of spaced apart knobs **13** extending around the periphery of said collar. Said knobs **13** can be of a different configuration as desired.

A pair of resilient wires or bands **15** are embedded in the inner face of collar **12** and extend around said collar and are formed of a steel wire or band. The opposite ends of each of said bands **15** overlap and extend in opposite directions. The corresponding ends of both pair of bands are connected by one of the knobs **16**.

In the drawing the collar **12** is in the form of a band **14** which is slightly thicker than the bands **15** and has side flanges which encase the edges of the ring **11**. While collar **12**, ring **11** and the periphery of housing **4** are shown as being circular, it is to be appreciated that the shape thereof can be changed as desired.

In order to mount collar **12** on the massager knobs **16** are pressed towards one another as indicated by the arrows in FIG. 2. This pushes the ends of the bands **15** enlarging the circumference of said bands and collar **12** so the collar can then be slid over ring **11**. Upon releasing knobs **16**, the resilient bands **15** will return to their normal configuration drawing collar **12** against ring **11**. To dismount said collar the knobs are again pressed towards one another and the collar lifted from ring **11**.

In the use of the present massager with current being fed to motor **1**, knobs **13** are pressed against the body to be massaged and the type of knobs desired is obtained by mounting a collar **12** having the desired knobs thereon. Due to the resilient connection by spring **3**, the resilient mounting of housing **4** by spring **8** and the resilient ring **11** supporting collar **12** the vibratory motion of knobs **13** is softly transmitted to the body engaged thereby.

The present invention is capable of considerable modifications and such changes thereto as come within the scope of the appended claim is deemed to be a part thereof.

I claim:

1. An improvement in massagers comprising an electric motor having a drive shaft, a hollow housing, a spring connecting said shafts, a weight eccentrically attached to said driven shaft within said housing and a pressing member resiliently and detachably mounted around the outside of said housing and having a series of spaced apart projections positioned around the outside thereof, said pressing member being in the form of a partial circle with spaced apart ends and composed of a resilient material, a resilient band is mounted in the interior of said pressing member and has oppositely directed overlapping ends in the space between said pressing member spaced apart ends and knobs are carried by said resilient band ends for being pressed together at times for the mounting and dismounting of said resilient band and pressing member relative to said housing.

References Cited

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L. W. TRAPP, Primary Examiner