W. N. MOTTER.

MASSAGE VIBRATOR.

APPLICATION FILED JULY 5, 1906.

1,091,585. Patented Mar. 31, 1914.

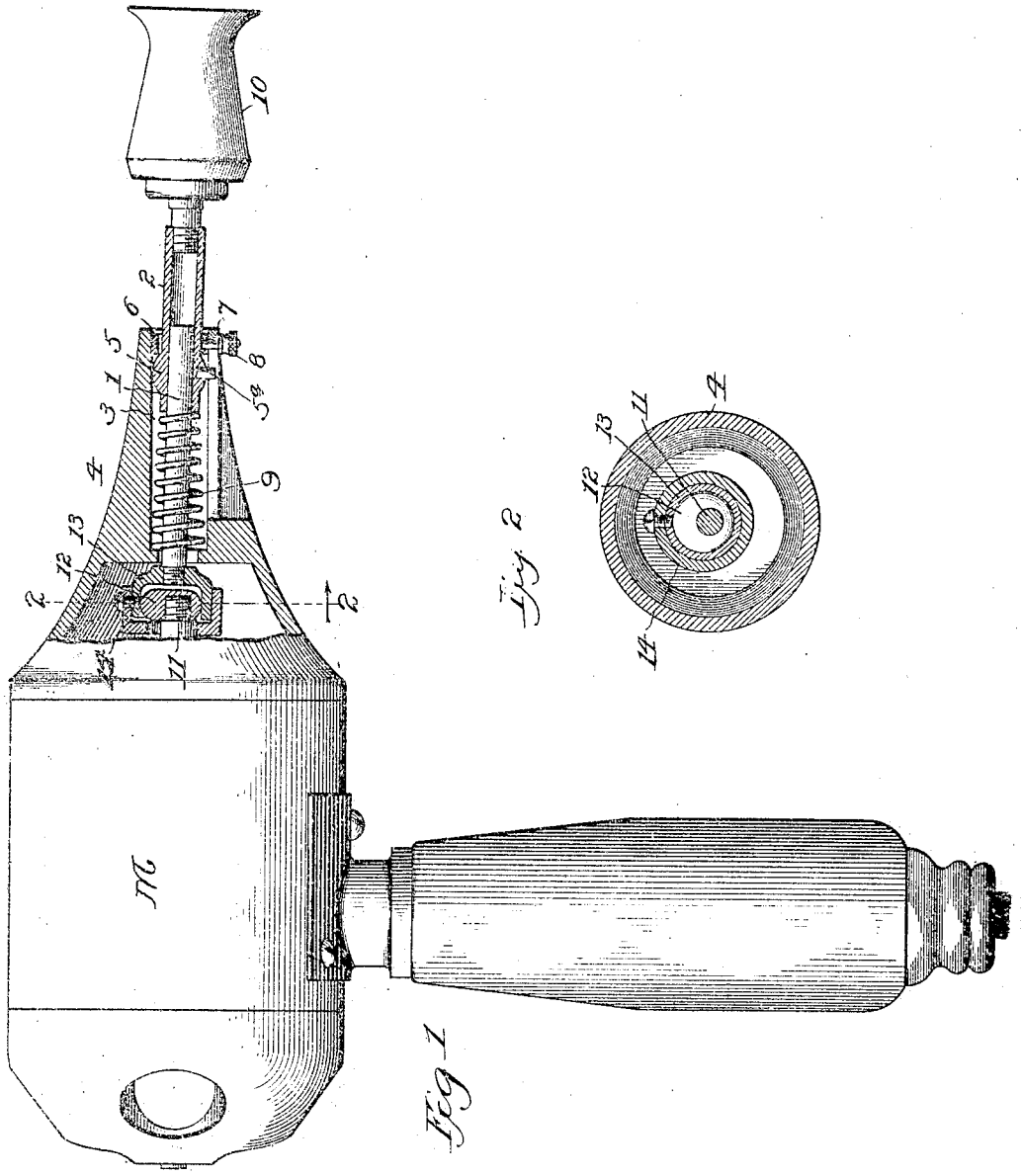


Fig 1

Fig 2

Witnesses:
Geo. E. Darnow
Irving Mac Donald.

Inventor:
William N. Motter,
By Burton & Tanner,
Attys.

UNITED STATES PATENT OFFICE.

WILLIAM NELSON MOTTER, OF RIVERSIDE, ILLINOIS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO GENERAL ELECTRIC COMPANY, A CORPORATION OF NEW YORK.

MASSAGE-VIBRATOR.

1,091,585. Specification of Letters Patent. Patented Mar. 31, 1914.

Application filed July 5, 1906. Serial No. 324,720.

To all whom it may concern:

Be it known that I, WILLIAM NELSON MOTTER, citizen of the United States, residing at Riverside, in the county of Cook and State of Illinois, post-office address No. 99 Thirty-second street, Milwaukee, Wisconsin, have invented a certain new and useful Improvement in Massage-Vibrators, of which the following is a full, clear, concise, and exact description.

My invention relates to a machine for producing vibratory motion, and its object is to provide a device of simple construction which can be quickly and easily adjusted to produce the required degree of vibratory motion.

My invention is thus particularly adapted for use as a massaging instrument. In instruments of this character it is customary to convert the rotary motion of a shaft into a vibratory motion of a lever by securing one end of said lever eccentrically upon the shaft. It is also customary to vary the degree of vibration of the free end of the lever by adjusting the fulcrum of the lever.

In my invention means are provided whereby the degree of vibration may be automatically controlled by pressure exerted upon the end of the vibrating member.

My invention further comprises means by which the length of the vibrating member can itself be adjusted.

These and other details of my invention may be more readily understood by reference to the accompanying drawings, in which,

Figure 1 is a longitudinal section of an instrument embodying my invention, with parts in elevation; Fig. 2 is a cross-section on line 2—2 of Fig. 1.

The vibratory lever comprises a rod 1 and a sleeve 2 slidably adjustable thereon. Said lever is mounted in a socket 3 in the frame 4, which frame may form a continuation of the frame of the motor M. The sleeve 2 has an enlargement or hub 5 fitting in the socket 3 said hub forming a fulcrum for the vibrating lever. A pin 5^a projects from said hub into a slot in the wall of the socket, thus preventing the rotation of the sleeve. A collar 6 within said socket loosely surrounds the sleeve. A pin 7 projects from said collar through the slot in the frame 4, and a nut 8 threaded on the end of said pin serves to clamp the collar in any desired position within the socket 3. The collar 6 engages the hub 5 and thus limits the outward movement of the sleeve.

A coil spring 9 surrounds the rod 1 between the end of the sleeve 2 and the bottom of the socket 3. Said spring tends to hold the sleeve in its extended position, but upon inward pressure being exerted upon the massage implement 10, carried upon the outer end of the sleeve, the spring readily yields. The adjustment of the length of the vibratory lever and the position of the fulcrum 5 in the socket 3 is thus readily secured by slight pressure of the massage implement against the body of the subject being treated.

A rotating shaft 11 carries a disk or ball 12 upon its end, said disk and shaft being eccentric with reference to each other. The ball 12 fits in a socket in the cup-shaped member 13 carried upon the end of the rod 1, said ball being held therein by a cover 14. The shaft 11 is shown in the drawings as the armature shaft of the motor M. As is apparent, a rotary motion of the shaft 11 imparts a vibratory motion to the rod 1 and sleeve 2, and hence to the implement 10. The degree or amplitude of vibration of the massage implement 10 will depend upon the position at which the fulcrum 5 is adjusted upon the rod 1.

In using the implement it is frequently desirable to rapidly change the degree of its vibratory motion. For example, in massaging the face only a slight vibratory movement is required for the eye or other delicate portions as compared with that desirable for the forehead or other less delicate portions. These different degrees of vibratory motion can be readily obtained by mere difference in pressure of the implement against the parts being massaged. The fulcrum 5 may also be adjusted to produce the desired vibratory movement by means of the collar 6, which can be secured at different positions in the socket 3 by the clamping nut 8, as previously described. My invention thus provides for a fixed adjustment by means of the collar 6, or a movable adjustment through pressure exerted upon the implement 10.

Having described my invention, I claim:

1. In a massage vibrator, the combination with a lever, of an adjustable fulcrum therefor, means for vibrating said lever about

said fulcrum, and an implement carried by said lever and vibrating therewith, said fulcrum being adjustable by pressure exerted upon said implement.

2. A lever comprising two sections one of which is longitudinally adjustable to the other, a fulcrum carried by said adjustable section, an implement carried upon the free end of said adjustable section, the adjustment of said adjustable section upon said other section being regulated by pressure exerted upon said implement, and means for vibrating said lever about said fulcrum.

3. The combination with a rod, of a sleeve slidably adjustable on said rod, a fulcrum carried by said sleeve and adjusted by the sliding of said sleeve on said rod, means for producing a vibratory motion of said rod and sleeve about said fulcrum, and an implement carried upon the end of said sleeve and adapted to receive motion therefrom.

4. The combination with a frame provided with a socket, of a lever supported in said socket, said lever comprising a rod and a sleeve adjustable on the rod to vary the length of the lever, a fulcrum carried by said sleeve, a spring tending to hold said sleeve in its extended position, means for adjusting said sleeve on the rod, an implement carried on the end of said sleeve, and means for vibrating said lever about said fulcrum.

5. The combination with a frame provided with a socket, of a lever supported in said socket, said lever comprising a rod and a sleeve adjustable on the rod to vary the length of the lever, a hub on said sleeve within said socket constituting a fulcrum for said lever, a spring tending to hold said sleeve in extended position on said rod, an adjustable collar for limiting the outward movement of said sleeve, an implement carried on the end of said sleeve, and means connected with the end of the rod for imparting a vibratory motion to said lever.

In witness whereof, I hereunto subscribe my name this 30th day of June, A. D. 1906.

WILLIAM NELSON MOTTER.

Witnesses:

ROY. T. ALLOWAY,

C. A. COGGIN.