May 14, 1940. J. OSTER 2,200,635

VIBRATOR

Filed Aug. 14, 1939

Fig. 1.

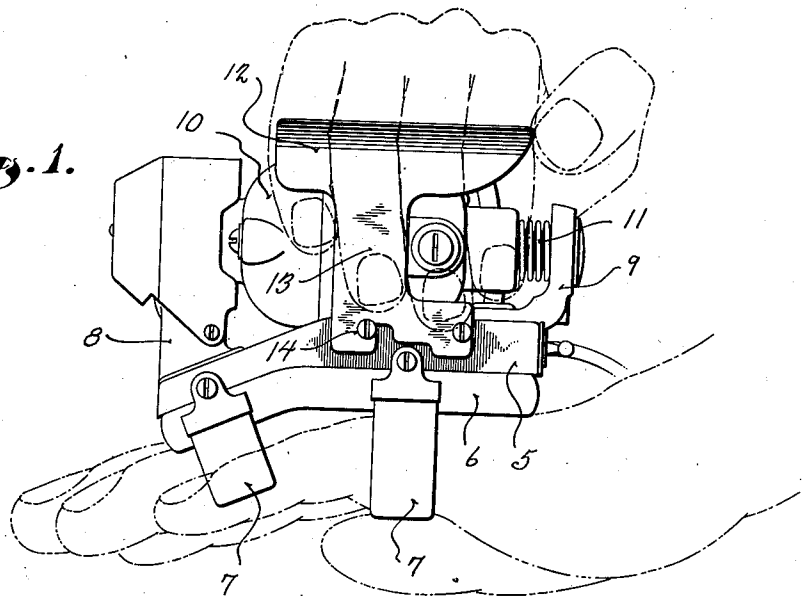


Fig. 2.

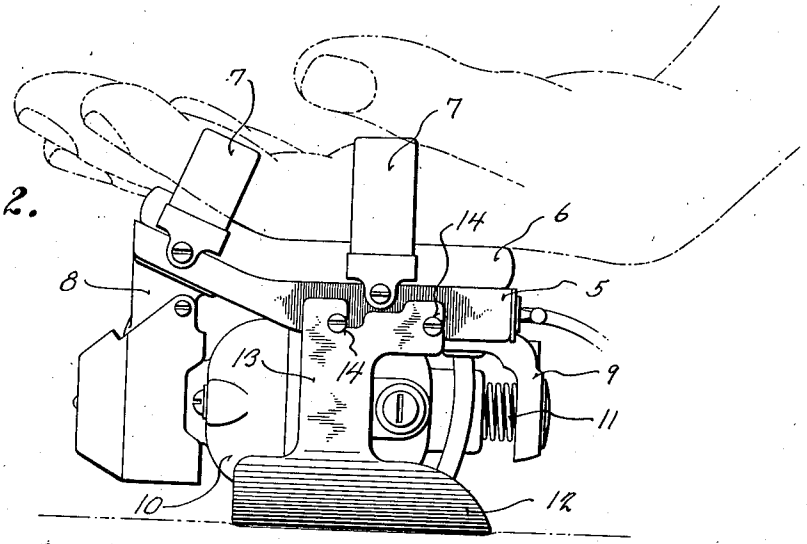
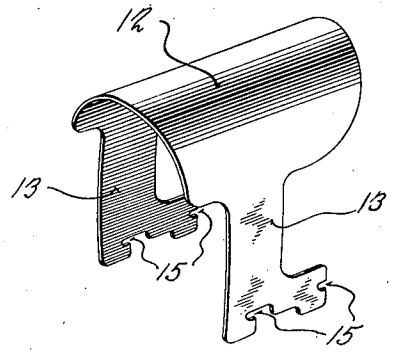


Fig. 3.



Inventor
John Oster
By Dodwell & Jones
Attorneys

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UNITED STATES PATENT OFFICE

2,200,635

VIBRATOR

John Oster, Racine, Wis., assignor to John Oster Manufacturing Company, Racine, Wis., a corporation of Wisconsin

Application August 14, 1939, Serial No. 290,111

2 Claims. (Cl. 128—36)

This invention relates to improvements in vibrators of the type shown in the copending application of John Oster, Serial No. 178,945, filed December 9, 1937.

Vibrators of this type are used by masseurs and barbers, and are worn on the back of the hand in a manner leaving the fingers free for massaging manipulation.

In some cases, it is desirable to apply pressure in excess of that possible by the hand having the vibrator attached thereto, but heretofore, no means was provided by which the operator could increase this pressure.

This invention therefore has as one of its objects to provide a vibrator so designed that the operator may use his free hand to apply additional pressure to the vibrator.

Another object of this invention is to provide means on the vibrator which serves as a hand rest to receive pressure applied by the free hand, and which when inverted provides a non-yielding applicator through which the vibrations may be applied directly to the body of the patient or recipient.

Another object of this invention is to provide a shield-like guard over the motor of the vibrator which serves to protect the vibrator parts as well as to provide means through which pressure may be applied in the manner aforesaid.

With the above and other objects in view which will appear as the description proceeds, this invention resides in the novel construction, combination and arrangement of parts substantially as hereinafter described, and more particularly defined by the appended claims, it being understood that such changes in the precise embodiment of the herein disclosed invention may be made as come within the scope of the claims.

The accompanying drawing illustrates one complete example of the physical embodiment of the invention constructed in accordance with the best mode so far devised for the practical application of the principles thereof, and in which:

Figure 1 is a view in side elevation of a vibrator constructed in accordance with this invention and illustrating the manner in which additional pressure may be applied;

Figure 2 is a side view of the vibrator inverted to illustrate the manner in which vibrations may be imparted directly to the body of the patient or recipient; and

Figure 3 is a perspective view of the shield or guard-like structure through which the objects of this invention are achieved.

Referring now particularly to the accompanying drawing in which like numerals indicate like parts, the numeral 5 designates the base of a hand vibrator, the undersurface of which has a pad 6 of sponge rubber or other yieldable material secured thereto. Elastic straps 7 having their ends connected to the base provide means by which the vibrator may be attached or strapped to the back of the hand, as illustrated.

At opposite ends of the base are bearings 8 and 9 which support an electric motor 10. The support at the bearing 8 incorporates an eccentric (not shown) connected with the shaft of the motor to cause the motor to vibrate when in operation. The support for the motor at the bearing 9 is through a spring 11 which accommodates the vibrating motion of the motor.

The exact construction of these details of the vibrator forms no part of this invention, and reference may be had to the aforesaid copending application therefor.

Inasmuch as the motor vibrates during operation, it would of course be impossible to grip its housing for the purpose of applying pressure to the vibrator. This invention thus provides a shield-like member 12 attached to the base 5 and straddling the motor housing. No part of this shield-like member contacts the motor and its upper surface is rounded and extends over substantially the entire length of the motor to provide a convenient hand grip through which pressure may be applied by the free hand, as illustrated in Figure 1.

The shield-like member 12 is substantially U-shaped in cross section, and the distance between its arms 13 is substantially equivalent to the width of the base 5 so that the extremities of the arms snugly engage the sides of the base where they are secured by screws 14. The screws 14 are threaded into the sides of the base and engage in notches 15 in the arms of the U-shaped member 12.

All of the notches 15 open in the same direction so that application and detachment of the member 12 is easily effected by merely loosening the screws and sliding the same longitudinally toward the front of the base.

In addition to providing a convenient hand grip through which pressure may be applied, the rounded outer surface of the member 12 serves, upon inversion of the vibrator, as an inflexible or rigid applicator, for transmitting the vibrations to the body of a patient or recipient. The vibrations when transmitted in this manner penetrate deeper and are thus more effective for certain types of muscle soreness.

Attention is directed to the fact that to use the vibrator in this manner, it is only necessary to invert the same, requiring no change in its position on the hand which carries it.

From the foregoing description taken in connection with the accompanying drawing, it will be readily apparent that this invention provides a substantial improvement in hand vibrators, and that its addition thereto in nowise complicates the same nor increases the cost thereof.

What I claim as my invention is:

1. In a vibrator adapted to be worn on one hand: a base; an electric motor; means for mounting the motor on the base including an eccentric connected between one end of the motor shaft and the base so that the motor moves bodily with respect to the base to produce vibration when the motor is in operation; a rigid applicator having supporting arms and a medial portion of substantial area; and means rigidly securing the arms to the base so that the applicator partakes of any vibration imparted to the base, said arms being long enough and spaced apart enough so that no portion of the applicator touches the motor, and said medial portion providing a hand rest upon which an operator may apply pressure with his free hand or through which vibrations may be directly transmitted to the body of a patient upon inversion of the vibrator.

2. In a vibrator of the type to be worn on one hand and having a base provided with means for attaching the same to one hand of an operator, an electric motor and means mounting the motor on the base including an eccentric connected with the motor shaft and the base so that the entire motor has bodily motion with respect to the base to produce the desired vibrations when the motor is in operation: a substantially U-shaped member embracing the motor; and means securing the arms of said member rigidly to the base, said member having its medial portion which overlies the motor shaped to provide a rest upon which the operator may press with his free hand and which provides a solid applicator for transmitting vibrations directly to the patient's body upon inversion of the vibrator.

JOHN OSTER.