

No. 849,844.

PATENTED APR. 9, 1907.

J. S. C. LAURENCE.
VIBRATOR.

APPLICATION FILED JAN. 5, 1907.

2 SHEETS—SHEET 1.

Fig. 1.

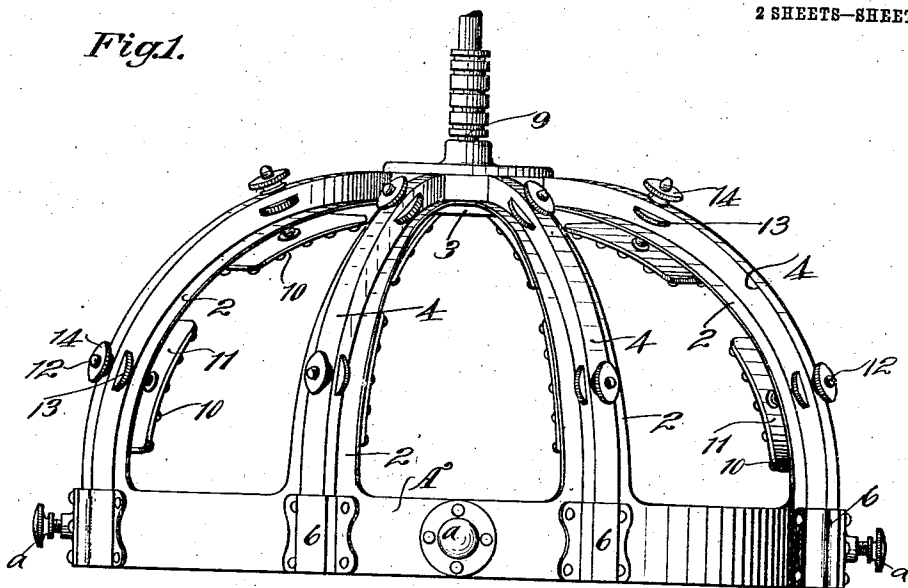
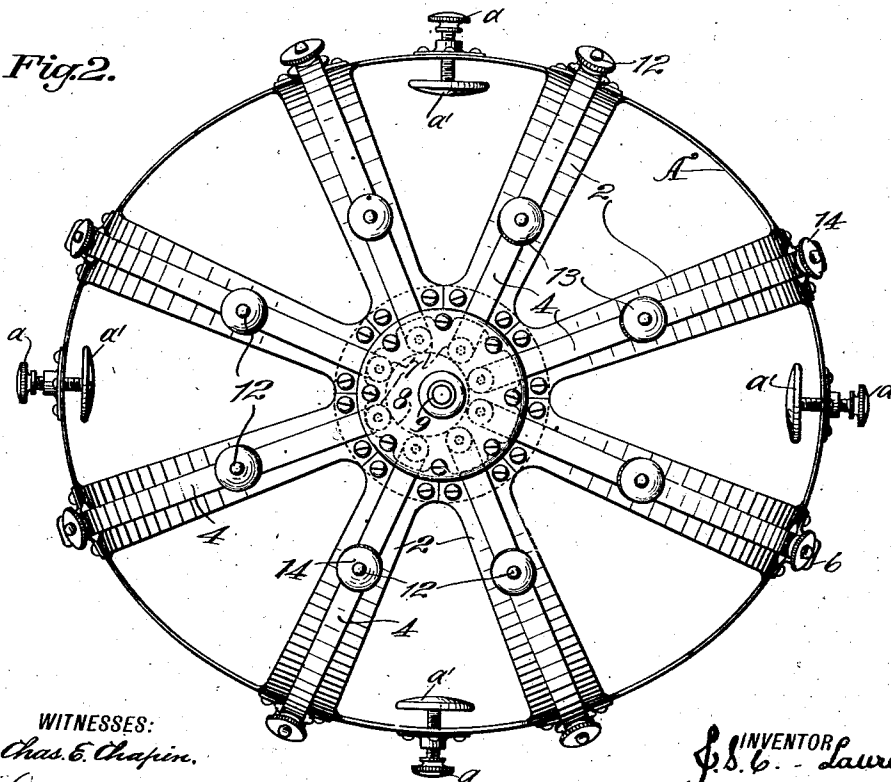


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 3.

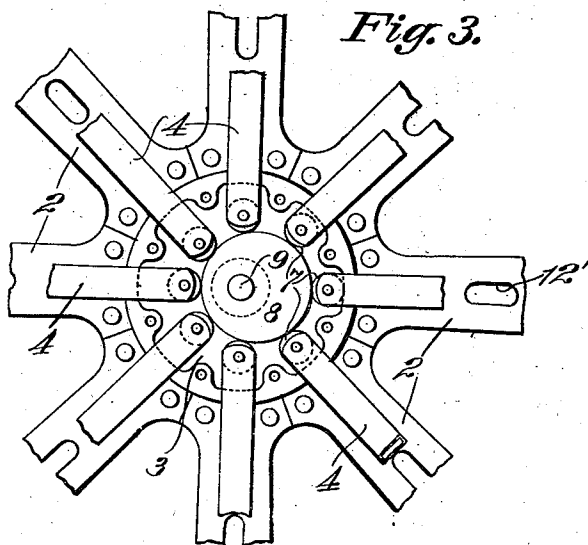


Fig. 5.

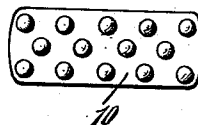


Fig. 6.

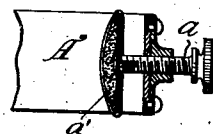
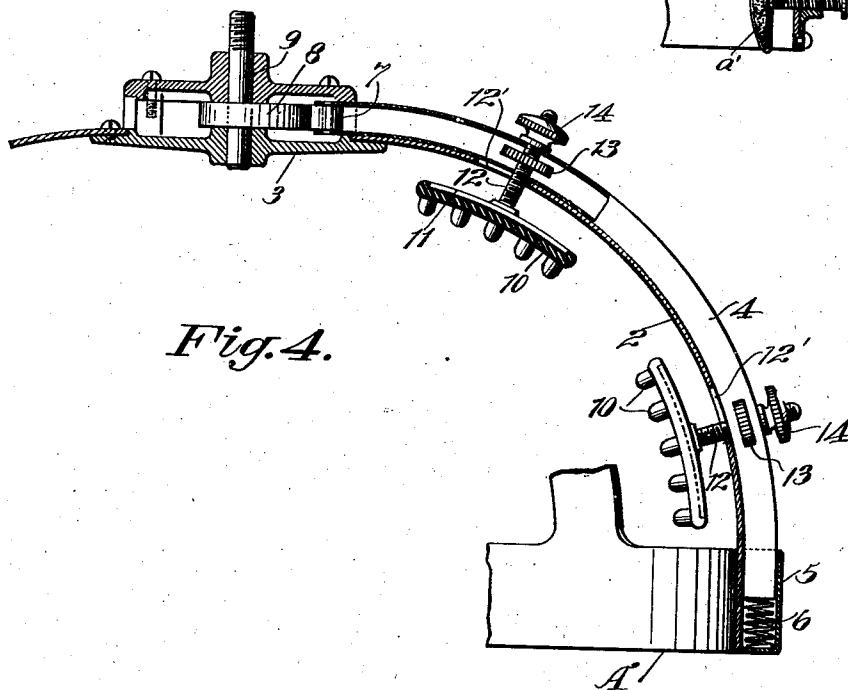


Fig. 4.



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UNITED STATES PATENT OFFICE.

JOSEPH S. C. LAURENCE, OF OAKLAND, CALIFORNIA.

VIBRATOR.

No. 849,844.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed January 5, 1907. Serial No. 351,032.

To all whom it may concern:

Be it known that I, JOSEPH S. C. LAURENCE, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented new and useful Improvements in Vibrators, of which the following is a specification.

My invention relates to a massaging instrument, and especially to a device for applying massage to the scalp for the purpose of stimulating circulation, preventing baldness, and generally benefiting the health. Its object is to provide a device for applying massage to the entire scalp simultaneously and to produce a massaging movement which will be as nearlike hand-massage as it is possible to get by mechanical means, which will be cheap, portable, light, and efficient which can be run from the ordinary electric-lighting circuit, and which will perform the massaging function in far less time than can be done by any present known means, mechanical or manual.

The invention consists of the parts and the construction and combination of parts, as hereinafter more fully described and claimed, having reference to the accompanying drawings, in which—

Figure 1 is a side elevation of the invention. Fig. 2 is a plan view of the same. Fig. 3 is an enlarged detail of the central support for the arches and slides with the top of the central support removed. Fig. 4 is a detail in partial section of a rib with a pair of applicators for showing the means for reciprocating the ribs. Fig. 5 is an underneath plan view of an applicator of preferred form. Fig. 6 is a detail in partial section of a clamping-screw for securing the device on the head of the wearer.

A represents a band to encircle the head, and 2 indicates a series of arches springing from this band and connected together to a suitable central support 3.

The band A, with its arched members 2 and connections 3, constitutes a crown-like structure adapted to fit over the head and form a support for the appliances by which the actual massaging is done. This crown may be of any suitable size or material. For the purpose of lightness, strength, and rigidity it is preferably made large enough to fit any size head, the device being adapted to the particular subject by means of the clamping devices a, as will be described later.

Parallel with each arch 2 and suitably

mounted thereon for reciprocation is a curved rib 4. These ribs are here shown as having their lower ends movably seated in sockets 5 on the band A, with the springs 6 acting on the ribs normally to press the latter upward. The upper end of each rib is movably housed in the central support 3 and carries a roller 7, engaging with the eccentric 8 on the drive-shaft 9. By giving a rotary motion to the shaft 9 it will be manifest that the eccentric 8 will impart a reciprocating motion successively to the several ribs, the springs 6 acting in opposition to the cam to press the ribs normally inward and upward.

The ribs 4 each carry one or more "applicators," so called. Each applicator comprises a rubber or like soft flexible pad 10, secured to the plate 11, which is carried by the screw 12, operating and guided in a slot 12' in the arch 2. The screw 12 engages a milled nut 13, which is mounted in a slot in a rib in such manner as to be easily engaged by the fingers so as to raise or lower the applicator.

By manipulating the nut 13 the applicator is made to bear on the scalp with just the right pressure. 14 is a lock-nut by which the screw 12 and applicator are prevented from turning after the proper adjustment has been effected by means of the nut 13. Motion may be imparted to the central shaft from any suitable source of power. There may be any number of radially-arranged reciprocating ribs, and each rib may be provided with any number of applicators, and these applicators may be of any suitable form of construction or material.

In operation the device is placed on the head, and the screws a, of which there are four or more, are suitably adjusted to clamp the device in position and prevent its movement during the massaging operation, each of the screws a being provided with padded buttons a' of suitable size and design, which bear against the head sufficiently to hold the device in position and without causing discomfort to the wearer. The several screws 12 of the applicator are then adjusted to impinge with just the right pressure on that portion of the scalp immediately beneath. In fact, one of the chief features of this machine is that it permits a nice adjustment of the several applicators, so as to accommodate the device to the inequalities of any head to which it is applied. Having effected the proper adjustment of the several applicators and lock them against turning on their

axes by means of the lock-nuts 14, power is applied to rotate the shaft 9. There is thus produced a rapid reciprocation of the several ribs and a corresponding movement of the scalp from the crown of the head downward in all directions, the motion of the several applicators being such that there is produced an effect closely akin to that produced by the best hand-massage and without any discomfort to the user of the device.

The invention may be quickly placed in position when properly adjusted and performs its work with great rapidity and uniformity.

Mechanical massaging of this character is preferable to hand-massage, because of its uniformity and because the massaging operation may be kept up indefinitely. By suitably manipulating the adjusting-nuts 13 the precise pressure desired can be had, the massaging made more or less vigorous, as circumstances or conditions require.

The device is adaptable to any size or shape of head. It is cheap, portable, light, and in actual practice has proven eminently practical and efficient.

In practice the shaft will be operated by power derived from some suitable source and transmitted in any well-known manner.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A vibrator comprising a crown-like structure to fit the head, a plurality of independently-adjustable massaging devices carried by said structure, and means to operate said devices to produce a massaging effect.

2. A vibrator comprising a crown-like structure to fit the head, a plurality of independently-movable massaging devices carried by said structure, means to operate said devices to produce a massaging effect, and means for adjusting said devices toward and from the scalp.

3. A vibrator comprising a suitable curved support fashioned to fit over the head, a reciprocating member on said support and conforming to the curvature thereof, an applicator carried by said member, and means for reciprocating said member.

4. A vibrator comprising a crown-like structure, radially-arranged reciprocating ribs mounted on said structure, applicators carried by said ribs, and means to reciprocate the ribs.

5. A vibrator comprising a crown-like structure, radially-arranged reciprocating ribs mounted on said structure, applicators carried by said ribs, means to reciprocate the ribs, and means to adjust the applicators toward and from the scalp.

6. A vibrator comprising a suitable support to encircle the head, a reciprocating member mounted on said support and substantially conforming to the curvature thereof, an applicator carried by said member, and means to reciprocate the latter.

7. A vibrator comprising a suitable support to encircle the head, a reciprocating member mounted on said support, an applicator carried by said member, means to reciprocate the latter, and means for adjusting the applicator toward and from the scalp.

8. A vibrator comprising a crown-like structure, a plurality of radially-arranged reciprocating members thereon, means for reciprocating said members, and massaging devices carried by said members.

9. A vibrator comprising a crown-like structure, a plurality of radially-arranged reciprocating members thereon, means for reciprocating said members, massaging devices carried by the members, and means for independently adjusting said several massaging devices toward and from the surface to be operated on.

10. A vibrator comprising a crown-like structure, radially-arranged ribs on said structure, said ribs spring-supported at one end, means acting on the opposite end of the ribs to impart a reciprocating motion thereto, and massaging devices carried by said ribs.

11. A vibrator comprising a crown-like structure, radially-arranged ribs on said structure, said ribs spring-supported at one end, means acting on the opposite end of the ribs to impart a reciprocating motion thereto, massaging devices carried by said ribs, means for clamping said structure to the part of the body to be operated on, and means for adjusting said massaging devices to accommodate them to the surface to be operated over.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

JOSEPH S. C. LAURENCE.

Witnesses:

S. H. NOURSE,

FREDERICK E. MAYNARD,