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MASSAGE IMPLEMENT.

APPLICATION FILED AUG. 26, 1903. NO MODEL. Fig.2: Fig.1. Fig.3.

United States Patent Office.

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SPECIFICATION forming part of Letters Patent No. 750,568, dated January 26, 1904.

Application filed August 26, 1903. Serial No. 170,843. (No model.)

To all whom it may concern:

Be it known that I, James Barker, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Massage Implements, of which the

following is a specification.

One object of my invention is to so construct a massage implement as to impart a twisting movement to the massage cup or pad, as well as a gyrating, oscillating, or vibrating movement, a further object being to simplify the construction and improve the operation of the instrument by reducing the number of parts to a minimum, dispensing with pivot-pins or joints likely to become loose, and providing for a rapid and noiseless movement of the parts.

In the accompanying drawings, Figure 1 is a view, partly in section and partly in elevation, of the handpiece of a massage implement constructed in accordance with my invention. Fig. 2 is a perspective view showing the various elements of the device detached from each other, and Fig. 3 is a diagram illustrating one of the features of the invention.

In the drawings, 1 represents a handle whereby the instrument is manipulated, this handle having a central opening for the reception of a sleeve 2, which is enlarged in diameter at the forward end, as shown at 3, this en-30 larged portion being connected to the sleeve 2 by a conical neck 4, seated in a socket in the forward end of the handle, the sleeve being rigidly confined to the handle longitudinally by means of a nut 5, adapted to the threaded 35 inner end of the sleeve and bearing upon the inner end of the handle, as shown in Fig. 1. Within the conical neck 4 of the sleeve is mounted the conical head 6 of a spindle 7, the latter being connected to a flexible shaft 8 or 40 other available driving device extending through the sleeve 2 and intended to be connected to a motor of any appropriate character whereby it may be rapidly rotated. The outer end of the enlarged portion 3 of the 45 sleeve receives a plug 9, in which is a concave socket for receiving the semispherical head 10 of a stud 11, whose opposite end has a like semispherical but smaller head 12, which is adapted to a concave cup 13, formed in the 50 outer face of the conical head 6 of the spindle 7

and disposed eccentrically in respect to the axis of rotation of said spindle, whereby when the spindle is rotated rocking movement in all directions will be imparted to the head 10 of the stud after the manner of a ball rocking in a 55 socket. The plug 9 can be adjusted longitudinally in the expanded portion 3 of the sleeve 2, so as to maintain a proper snug fit of the semispherical heads 10 and 12 in their respective bearings in the plug and spindle-head, the 60 expanded portion 3 of the sleeve being split, as shown at 14 in Fig. 2, and provided with lugs 15 for the reception of a clamp-screw 16, whereby the sleeve can be clamped upon the plug 9, so as to retain the latter in any posi- 65 tion of longitudinal adjustment therein.

Passing transversely through the head 10 is a bar 17, which also passes through slots 18 in the sleeve 3 and through like slots 19 in the plug 9, the outer ends of this bar carry- 70 ing massage implements of any desired character. Thus, as shown in the drawings, one end of the bar carries a flaring cup 20 with serrated edge, while the other end of the bar is provided with a convex pad 21. The longi- 75 tudinal axis of the bar 17 passes through the point which constitutes the center for the rocking movement of the head 10, as shown in Fig. 3. Hence as said head rocks it will have the effect of imparting a partial turning 80 movement to the bar 17 and to the massage implements carried thereby. Hence the acting faces of said implements will have a twisting movement around the axis of the bar in addition to their vibrating movement. This 85 will be understood on reference to the diagram Fig. 3, in which the dotted lines a arepresent the diametrical line of the bar 17 when the stud 11 occupies a position midway between its right and left swings, as indicated 90 by the dotted lines a' a', the dotted lines b band cc representing the diametrical line of the bar 17 when the stud 11 is at the extremes of its right and left swings, as indicated by the dotted lines b' b' and c' c'. This twisting 95 movement of the massage cup, pad, or other implement materially increases the effectiveness of the same as compared with an implement which has only a reciprocating, vibrating, or oscillating movement.

Extending from the head 10 in line with the stud 11 is a stud 22, which carries a third implement, that shown in the drawings being a cup 23 with plain edge, which cup has a 5 gyrating movement. Hence three different effects can be obtained by the use of the three implements, change being effected instantly and without the necessity of stopping the machine.

If the plug 9 is turned by means of a rim 24, formed thereon for the purpose, each projecting portion of the bar 17 can be confined between one edge of the slot 19 in the plug and the opposite edge of the slot 18 in 15 the sleeve 3 when such confinement is desired.

The stem 22 is preferably threaded for adaptation to an internally-threaded opening in the head 10, so that it serves the additional 20 purpose of a set-screw for confining the bar 17 to said head 10.

As compared with other implements of the class to which my invention relates I have attained simplicity of construction, reduction 25 in the number of parts to a minimum, and the provision of bearings which can be readily lubricated and maintained in proper contact with the working parts. Hence I am enabled to run the implement at high speed and with 30 complete absence of noise or vibration due to loose fit of any of the parts.

In some of the claims I have termed the stud 11, with its opposite rounded heads 10 and 12, a "vibrator;" but some of the features of my 35 invention may be embodied in implements in which the means for imparting movement to the massage cups or pads differ from the specific device thus shown and described. Hence those of my claims in which the form of vi-40 brator is not thus specifically set forth are not to be construed as limited in this respect.

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

1. The combination in a massage imple-45 ment, of the massage member, a bar carrying the same, and means for imparting to said bar to-and-fro movements of partial rotation around the longitudinal axis of the bar, substantially as specified.

2. The combination in a massage implement, of the massage member, a bar carrying the same, and means for imparting to said bar to-and-fro movements of partial rotation around the longitudinal axis of the bar, and 55 other movement in addition to said movement of partial axial rotation, substantially as specified.

3. The combination in a massage implement, of a massage member, a bar carrying 60 the same, and means for imparting to said bar to-and-fro movement of partial rotation around the longitudinal axis of the bar, and also vibratory movement in addition to said movement of partial rotation around its axis, 65 substantially as specified.

4. The combination, in a massage implement, of a bar having a massage member at each end, and means for imparting movement to said bar so as to simultaneously operate both of said massage members, substantially 70 as specified.

5. The combination, in a massage implement, of a universally rocking head, a bearing therefor, and arms projecting in different directions from said rocking head and each car- 75 rying a massage member, substantially as specified.

6. The combination, in a massage implement, of a mechanically-actuated carrier having three arms projecting therefrom in differ- 80 ent directions, and a massage member carried by each of said arms, substantially as specified.

7. The combination, in a massage implement, of a stud having a rounded head-block, a concave bearing therefor, means for rocking 85 the block in its bearing, and a bar projecting from said block at an angle in respect to the stud, said bar carrying a massage member at its outer end, substantially as specified.

8. The combination, in a massage imple- 90 ment, of a stud having a rounded head-block, a concave bearing therefor, means for rocking the block in its bearing, and a bar passing through the block and having at each end a massage member, substantially as specified.

9. The combination, in a massage implement, of a stud having a rounded head-block, a concave bearing therefor, means for rocking the block in its bearing, a bar passing through said block and having at each end a massage 100 member, and a stem adapted to a threaded opening in the block and serving as a retainer for said transverse bar, said stem also carrying a massage member, substantially as specified.

10. The combination, in a massage implement, of a vibrator consisting of a stud having rounded heads at its opposite ends, a concave bearing for the outer head, a shaft having an eccentrically-disposed cup for receiving the 110 inner head, and a massage member carried by a bar projecting from said vibrator, at an angle to the stud, substantially as specified.

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11. The combination, in a massage implement, of a vibrator consisting of a stud having 115 rounded heads at its opposite ends, a casing having at one end a rounded bearing for the outer head, a shaft having a head also adapted to a bearing on the casing and having an eccentrically-disposed cup for receiving the in- 120 ner head, and a massage member carried by a bar projecting from said vibrator, substantially as specified.

12. The combination, in a massage implement, of a vibrator consisting of a stud having 125 a rounded head at each end, a casing having an adjustable block with concave bearing for the outer head, a shaft having a bearing in the casing and provided with an eccentrically-disposed cup into which the inner head 130 of the stud is pressed by contact of the concave bearing with the outer head, and a massage member carried by a bar projecting from said vibrator, substantially as specified.

13. The combination, in a massage implement, of a vibrator consisting of a stud having at each end a rounded head, a split casing, a plug adapted thereto and having a concave bearing for the head at the outer end of the vibrator, means for contracting the split casing upon the plug, a shaft having a bearing in the casing and an eccentrically-disposed cup receiving the rounded head at the inner end of the vibrator, and a massage member carried by a bar projecting from said vibrator, substantially as specified.

14. The combination, in a massage implement, of a handpiece having a sleeve secured thereto and enlarged in diameter at one end, a vibrator consisting of a stud having a rounded head at each end, an adjustable plug with rounded bearing for the outer head, a shaft having an enlarged head seated upon that portion of the sleeve which connects the enlarged and contracted portions of the same, said head having an eccentrically-disposed cup for receiving the inner head of the vibrator, and a massage member carried by a bar projecting from said vibrator, substantially as specified.

15. The combination, in a massage implement, of a handpiece having a sleeve secured thereto, said sleeve having an enlarged outer

portion connected to the smaller portion by means of a conical neck, a vibrator consisting of a stud having a rounded head at each end, 35 an adjustable plug adapted to the enlarged portion of the sleeve and having a rounded bearing for receiving the outer head of the vibrator, a shaft having a head seated upon said conical neck of the sleeve and provided 40 with an eccentrically-disposed cup which receives the inner head of the vibrator, and a massage member carried by a bar projecting from said vibrator, substantially as specified.

16. The combination, in a massage imple- 45 ment, of a casing having a slot therein, a vibrator consisting of a stud having a rounded head at each end, a plug adjustable in the casing and having a concave bearing for the outer head, said plug also having a slot parallel 50 with that in the casing, a shaft adapted to a bearing in the casing and having an eccentrically-disposed cup for receiving the inner head of the vibrator, and a massage member carried by a bar projecting from said vibrator through 55 the slots in the sleeve and plug, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JAMES BARKER.

Witnesses:

F. E. BECHTOLD, Jos. H. KLEIN.