

No. 819,498.

PATENTED MAY 1, 1906.

J. BARKER.
 MASSAGE IMPLEMENT.
 APPLICATION FILED SEPT. 30, 1904.

Fig. 1.

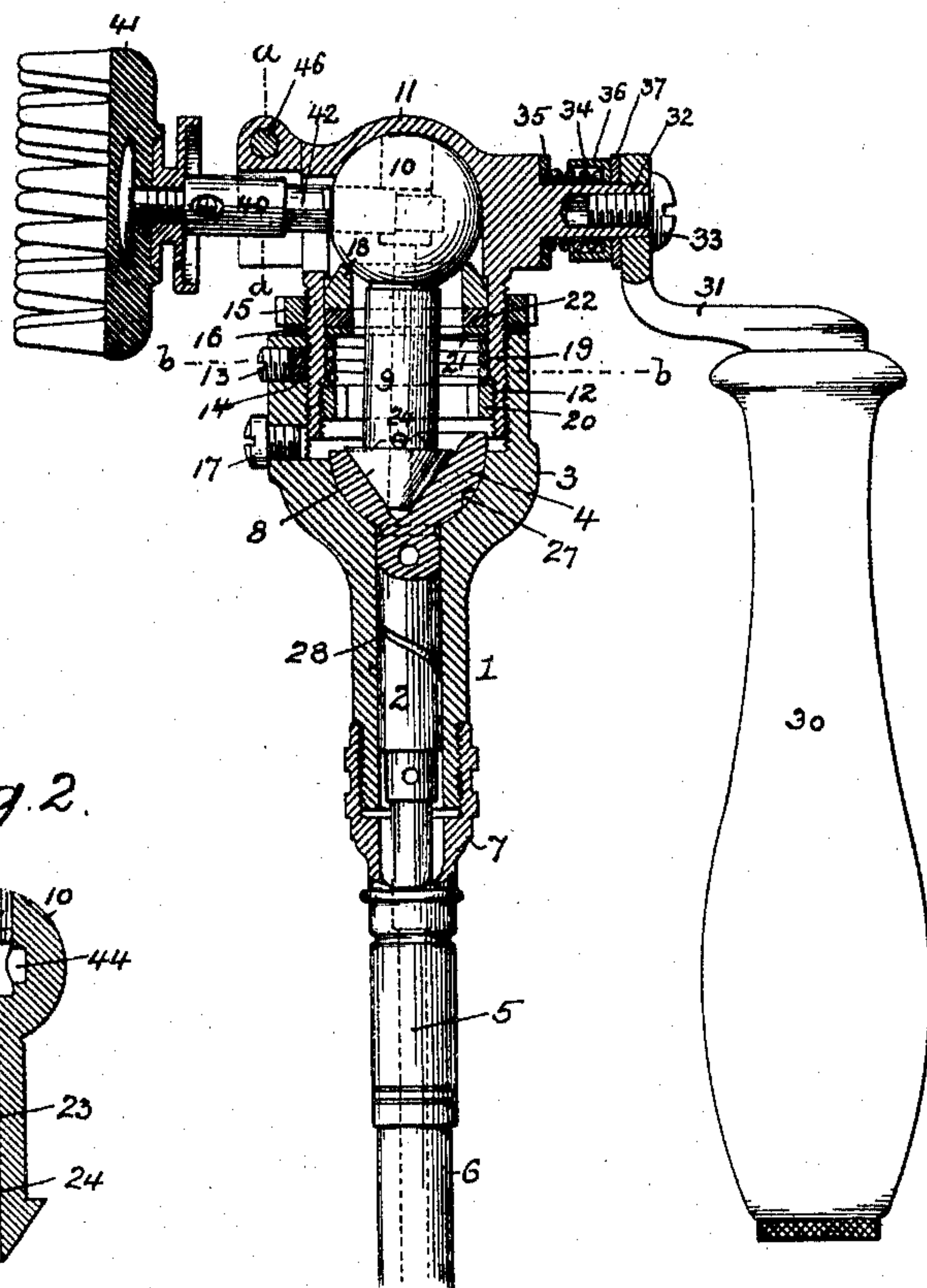


Fig. 2.

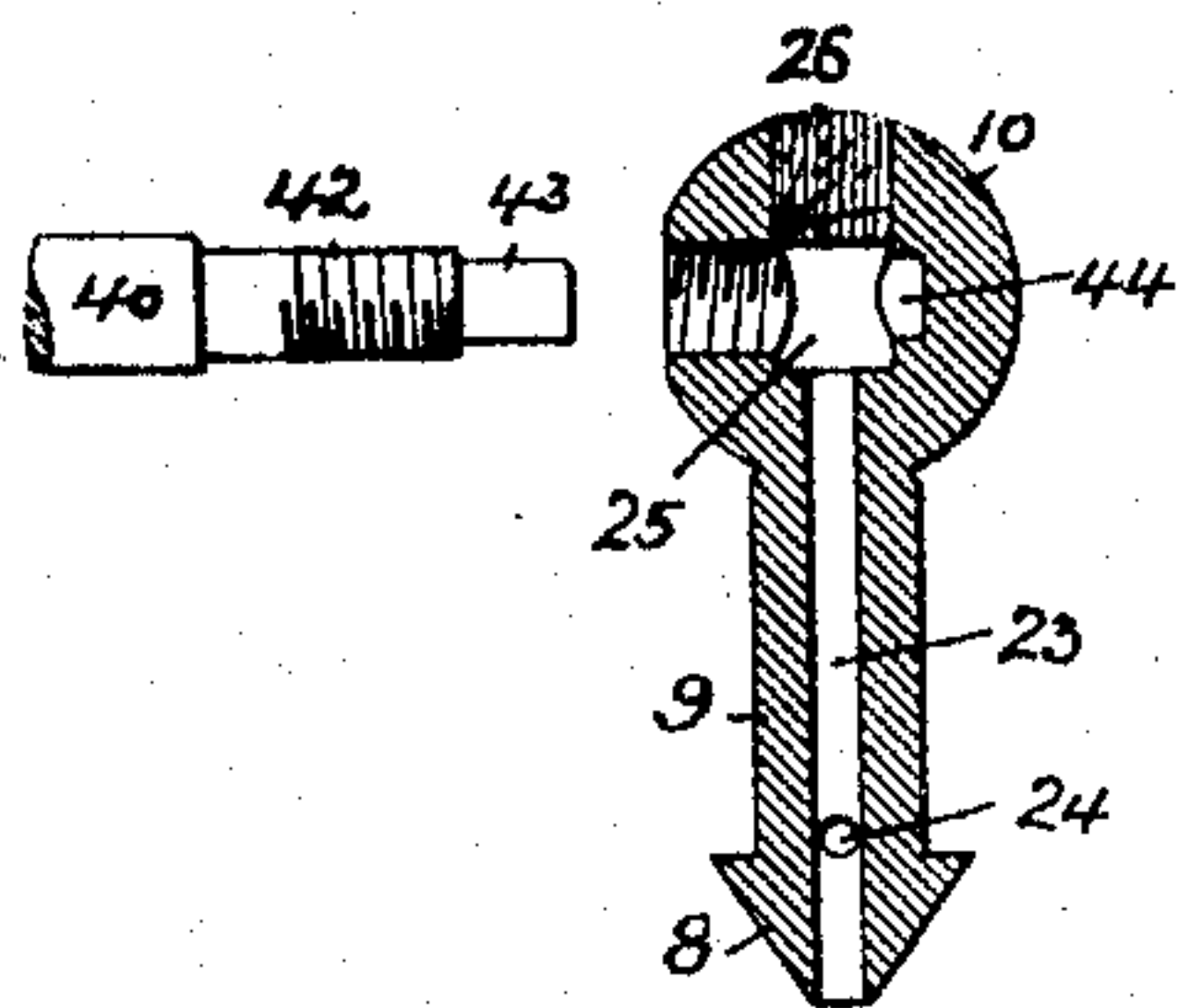


Fig. 4.

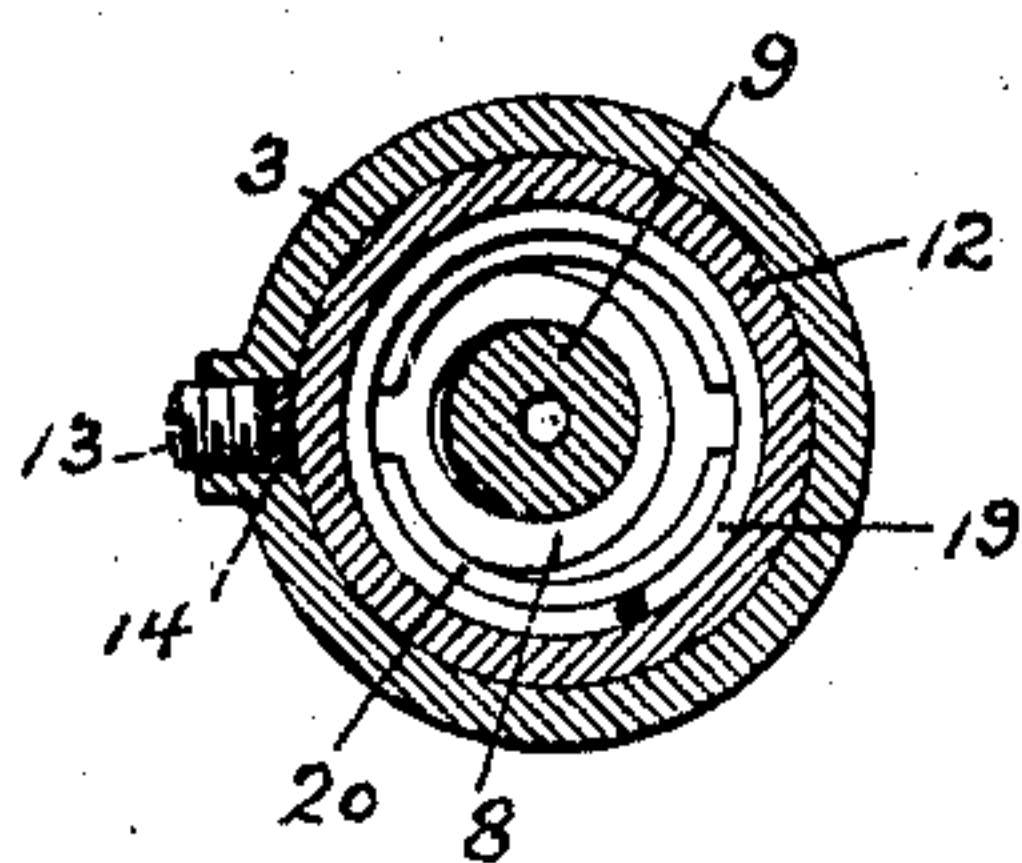


Fig. 3.

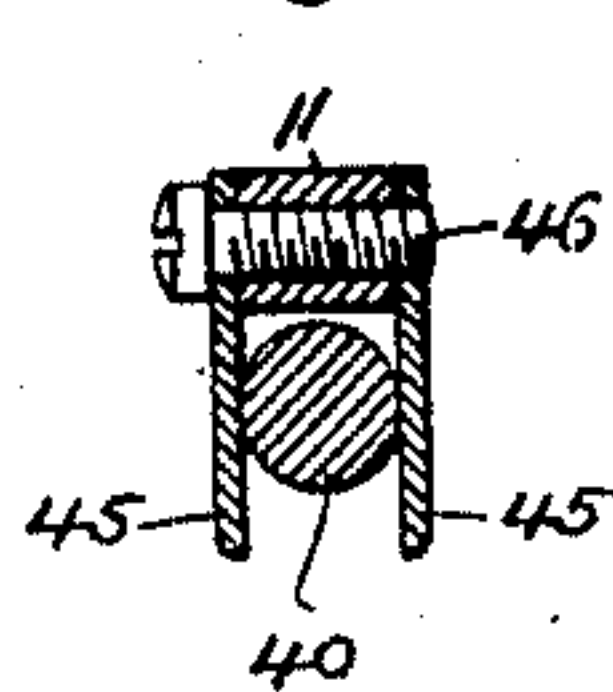
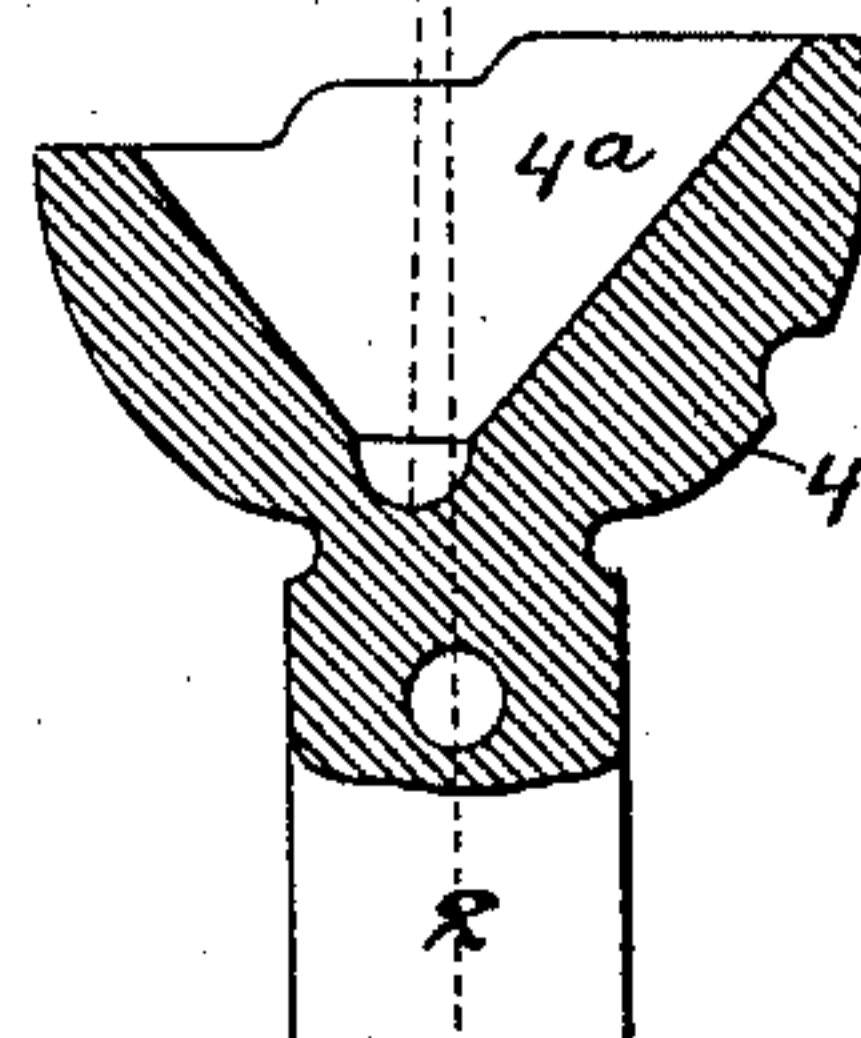


Fig. 5.



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MASSAGE IMPLEMENT.

No. 819,498.

Specification of Letters Patent.

Patented May 1, 1906.

Application filed September 30, 1904. Serial No. 226,687.

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
5 Improvements in Massage Implements, of which the following is a specification.

My invention consists of certain improvements in the massage implement for which I obtained Letters Patent of the United States,
10 No. 750,568, dated January 26, 1904, the purpose of my present improvements being to facilitate the handling of the implement, to improve the action of the same, and to provide for the effective lubrication of the work-
15 ing parts.

In the accompanying drawings, Figure 1 is a view, partly in elevation and partly in longitudinal section, of sufficient of a massage
20 implement to illustrate my present invention. Fig. 2 is a longitudinal section of part of the same, showing part of the stem of the massage member detached therefrom. Fig. 3 is a transverse section on the line *a a*, Fig. 1.
25 Fig. 4 is a sectional plan view on the line *b b*, Fig. 1; and Fig. 5 is an enlarged sectional view of part of the implement.

In Fig. 1 of the drawings, 1 represents a sleeve having a cylindrical bearing for a shaft 2, said sleeve being enlarged at the upper
30 end, so as to form a cup 3, the base of which has formed in it a semispherical recess for the reception of the semispherical head 4 at the upper end of the shaft 2. The said shaft 2 is connected to a flexible shaft 5, con-
35 tained within a sheath or casing 6, which has an end piece 7 secured to the lower end of the sleeve 1. The semispherical head 4 of the shaft 2 has in its upper face a conical recess 4^a, which is eccentric in respect to the
40 axis of said shaft 2, and this conical recess receives a conical head 8 at the lower end of a stem 9, whose upper end is provided with a spherical head 10, which is adapted to a semi-
45 spherical seat in a cap 11, the latter being provided with a tubular neck 12, which is threaded externally for adaptation to an internal thread in the enlarged or cupped portion 3 of the sleeve 1, so that by adjustment
50 of said threaded neck in respect to the sleeve the heads 8 and 10 of the shaft 9 may be caused to bear with any required degree of force against the head 4 of the shaft 2 and against the cap 11, all lost motion being thereby prevented or readily compensated
55 for when it occurs by reason of wear of any of these parts. Furthermore, the prepara-

tion of the head and recess is greatly facilitated and more economical to make than the spherical head and recess, and in addition thereto there are the further advantages
60 that the head can always be kept close-fitting by reason of the fact that the recess wears more evenly with the conical head than with the spherical head, and loose fit between the head and recess is therefore pre-
65 vented. Again, the conical recess provides a greater bulk of metal between the side wall thereof and the outer periphery of the semispherical head 4 of the stem or shaft 2 than can be provided in a construction using the
70 semispherical recess. The threaded neck 12 of the cap 11 can be locked in position after adjustment by means of a screw 13, adapted to a threaded opening in the side of the cup 3, this screw acting upon a plug 14, of leather,
75 wood, or other semi-elastic material, which is pressed against the threads of the neck 12 and serves to exert such friction thereupon as to prevent accidental movement of the neck in either direction. As a further means
80 of locking the cap 11 in position after adjustment the threaded neck 12 is provided with a lock-nut 15, which bears upon a washer 16, of leather or other semi-elastic material, the latter being seated upon the end of the cup 3
85 and serving to form a tight joint between the said cup and the threaded neck 12, so as to prevent leakage of oil between the two.

The axial line of the eccentric conical recess 4^a is oblique to the axis of the shaft 2 to
90 an extent determined by the extent of eccentricity of the recess, as shown in Fig. 5, in which the respective axes are indicated by dotted lines. By reason of this construction a snug fit of the head 8 in the recess 4^a is per-
95 mitted at all times, a full bearing is obtained, and all rattling due to loose fit is prevented.

The space within the cup 3 and the neck 12 of the cap 11 constitutes an oil-chamber, the
100 supply of oil being introduced into the same through a lateral opening which is normally closed by a screw-plug 17, as shown in Fig. 1, and this chamber is closed at the top by a follower 18, which fits snugly to the under
105 part of the spherical head 10, such contact being maintained by means of a coiled spring 19, which is contained within the neck 12 and is acted upon by a ring-nut 20, adapted to an internal thread in the lower portion of said
110 neck, the spring acting upon a washer 21, which bears upon a packing-ring 22, of leather or equivalent material, seated against the fol-

lower 18, this packing-ring serving to prevent escape of oil between the periphery of the follower and the inner wall of the neck 12. Oil is conveyed to a central opening 23 in the shaft 9 through a lateral opening 24, (shown in Fig. 1,) said central opening in the shaft 9 passing through the head 8 of the same, whereby oil can gain access to the conical faces of said head and of the eccentric recess in the head 4. The upper end of the central opening 23 communicates with a chamber 25, formed in the spherical head 11, the outer end of said chamber being closed by a plug 26, of wood or other porous material, which serves to convey oil to the semispherical bearing formed in the cap 11. Oil is conveyed to the external face of the head 4 and to its bearing in the cup 3 by means of an external groove 27 in said head, and a spiral groove 28 in the shaft 2 conveys the oil to the bearing for the latter formed in the sleeve 1.

In order to facilitate the manipulation of the implement, I provide the same with a pivoted handle instead of forming the handle directly upon the sleeve 1, as before, the pivotal axis of this handle being at a right angle to the axis of the shaft 2 and forming a substantial prolongation of the axis of the shaft which carries the massage member, thus, as shown in Fig. 1, the handle 30 has at the upper end a bent shank 31, which is pivotally mounted upon a stud 32, projecting from the back of the cap 11, a screw 33 being adapted to an internally-threaded opening in said stud and the head of the screw serving to prevent the removal of the handle-shank 31 from the stud, as shown in Fig. 1. Surrounding the stud 32 is a coiled spring 34, which bears at its inner end against a washer 35, the latter being seated against a shoulder on the cap 11. The outer end of the spring 34 bears against the inside of a cup 36, and between the latter and the handle-stem 31 is interposed a washer 37, so that said handle-stem is yieldingly retained between the said washer and the head of the screw 33. By this means the handle 30 can be swung in a complete circle around the stud 32, and hence can be caused to assume any desired angle in its plane of rotation in respect to the sleeve 1 and driving-shaft 2, thereby enabling the implement to be more conveniently manipulated than if the handle was rigidly attached to said sleeve and bore an unchanging relation to the driving-shaft.

The spindles 40, which carries the massage member 41, has a threaded portion 42, adapted to an internally-threaded transverse opening in the spherical head 10, and said spindle also has an unthreaded inner end 43, Fig. 2, which is adapted to a socket 44 in the head, the fitting of said inner end of the spindle in said socket insuring the proper centering of the spindle 40 in respect to the head and the firm retention of the spindle by the head.

Flanking the spindle 40 and bearing lightly against the opposite sides of the same are a pair of plates 45, which are secured to a projecting portion of the cap 11 by means of a transverse bolt 46, these depending plates having a certain degree of elasticity, so that they serve to prevent lateral movement of the spindle 40 without exerting undue friction upon the same.

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

1. The combination, in a massage implement, of a driving-shaft having a head with conical recess therein eccentric in respect to the axis of the shaft and having its axis oblique thereto, a vibrator shaft or spindle having a conical head adapted to the recess in the head of the driving-shaft, and means for maintaining said parts in operative relation, substantially as specified.

2. The combination, in a massage implement, of a shaft having a rounded head, a casing providing a bearing for said head, means for imparting gyrating movement to the shaft, and a spring-pressed follower bearing upon the head on the side opposite that which is adapted to the fixed bearing, substantially as specified.

3. The combination, in a massage implement, of a shaft having a rounded head, means for imparting gyrating movement to said shaft, a casing providing a bearing for said head and inclosing an oil-chamber, and an adjustable follower bearing upon the head and constituting one of the closures of said oil-chamber, substantially as specified.

4. The combination, in a massage implement, of a shaft having a rounded head, means for imparting gyrating movement to said shaft, a casing having a bearing for said rounded head, a follower contained within said casing and also bearing upon the head, a spring for maintaining said follower in contact with the head, and an adjusting-nut carried by the casing and acting upon said spring, substantially as specified.

5. The combination, in a massage implement, of a shaft having a rounded head thereon, means for imparting gyrating movement to said shaft, a casing having a cap with bearing for said head, a follower in said cap also bearing upon the head, packing-rings, one inside of the cap and the other outside of the same, and a lock-nut on the cap for imparting pressure to the outside packing-ring, substantially as specified.

6. The combination, in a massage implement, of a shaft having a rounded head thereon, means for imparting gyrating movement to said shaft, a casing having a cap with bearing for said head, a follower in said cap also bearing upon the head, packing-rings, one inside of the cap, and the other outside of the same, an adjustable spring for imparting pressure to the inside packing-ring, and a lock-

nut on the cap for imparting pressure to the outside packing-ring, substantially as specified.

7. The combination, in a massage implement, of a driving-shaft having at one end a head with eccentric recess therein, a second shaft having at one end a rounded head and at the other end a head adapted to said eccentric recess, and a casing having bearings for said parts, said casing containing a sealed oil-chamber which is in communication with said bearings, substantially as specified.

8. The combination, in a massage implement, of a driving-shaft having at one end a head with eccentric recess therein, a second shaft having at one end a rounded head and at the other end a head adapted to said eccentric recess, and a casing having bearings for said parts, said casing containing an inclosed oil-chamber which is in communication with said bearings through passages in the second shaft, substantially as specified.

9. The combination, in a massage implement, of a driving-shaft having at one end a head with eccentric recess therein, a second shaft having at one end a rounded head and at the other end a head adapted to the eccentric recess of the driving-shaft, a casing having a bearing for the head of the driving-shaft, a cap closing the end of said casing and having a bearing for the rounded head of the second shaft, a shaft projecting from said rounded head and carrying the massage member, and a handle pivotally mounted upon the cap which closes the end of the casing, said handle being free to turn around its axis, substantially as specified.

10. The combination, in a massage implement, of a shaft carrying a massage member, means for vibrating said shaft, a casing, and a handle pivotally mounted upon said casing, and adjustable to different angles in respect to the driving-shaft, substantially as specified.

11. The combination, in a massage implement, of a shaft carrying a massage member, means for vibrating said shaft, a casing, and a handle pivotally mounted upon said casing, the axis of said handle being at a right angle to the axis of the driving-shaft, and forming a substantial continuation of the axis of the

shaft which carries the massage member, substantially as specified.

12. The combination, in a massage implement, of a massage member, a shaft carrying the same, means for vibrating said shaft, a casing, a handle pivotally mounted thereupon, and means for imparting yielding pressure to the pivotal member of said handle, substantially as specified.

13. The combination, in a massage implement, of the massage member, a shaft carrying the same, means for vibrating said shaft, a casing having a projection thereon, a handle having a member pivotally mounted on said projection, a screw for confining said pivotal member of the handle longitudinally to said projection, and a spring-actuated washer bearing upon said pivotal member of the handle, substantially as specified.

14. The combination, in a massage implement, of the massage member, a shaft carrying the same, means for vibrating the shaft, and a casing having depending spring-plates secured thereto, one on each side of said shaft, said plates being in contact with the shaft, so as to prevent lateral movement thereof, substantially as specified.

15. The combination, in a massage implement, of the massage member, a spindle carrying the same and having a threaded portion and an unthreaded portion beyond the same, with an operating-shaft having a head with threaded opening for the reception of the threaded portion of the spindle and a socket for the reception of the unthreaded portion of the same, substantially as specified.

16. The combination, in a massage implement, of a shaft carrying a massage member, a driving-shaft, a casing, and a handle mounted upon said casing so as to be free to swing on an axis different from the axis of the driving-shaft and entirely independent of the same, substantially as specified.

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

JAMES BARKER.

Witnesses:

WALTER CHISM,
JOS. H. KLEIN.