No. 849,924. PATENTED APR. 9, 1907.

W. G. SHELTON.

MASSAGE INSTRUMENT.

APPLICATION FILED NOV. 13, 1905.

2 SHEETS—SHEET 1.

Fig. 1.

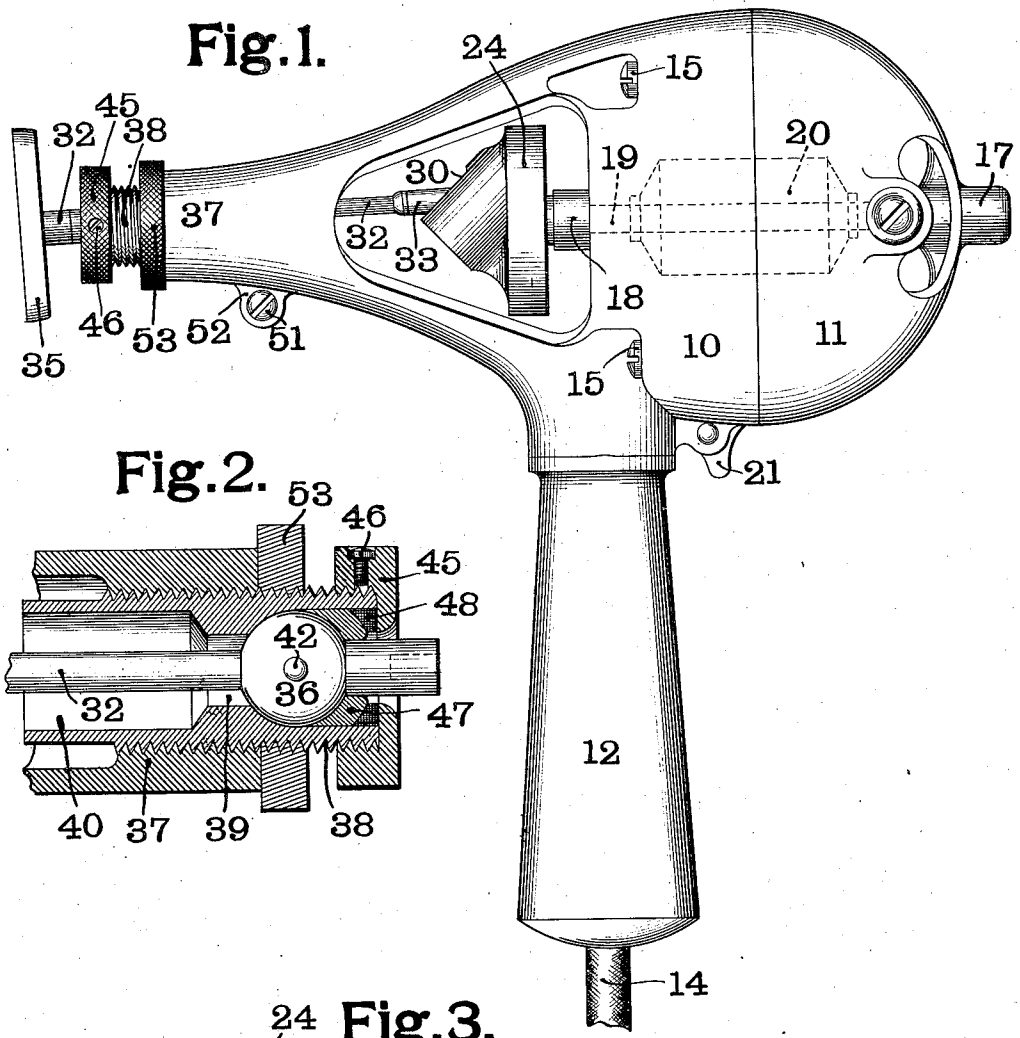
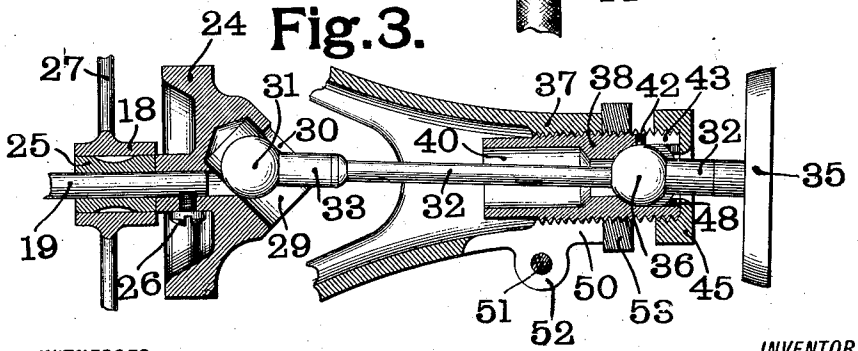


Fig. 2.

Fig. 3.



WITNESSES:

Fred Hauke.

W. A. Alexander

INVENTOR

William Gentry Shelton.

BY

Fowler & Bryson

ATTORNEYS.

No. 849,924. PATENTED APR. 9, 1907.

W. G. SHELTON.

MASSAGE INSTRUMENT.

APPLICATION FILED NOV. 13, 1905.

2 SHEETS—SHEET 2.

Fig.4.

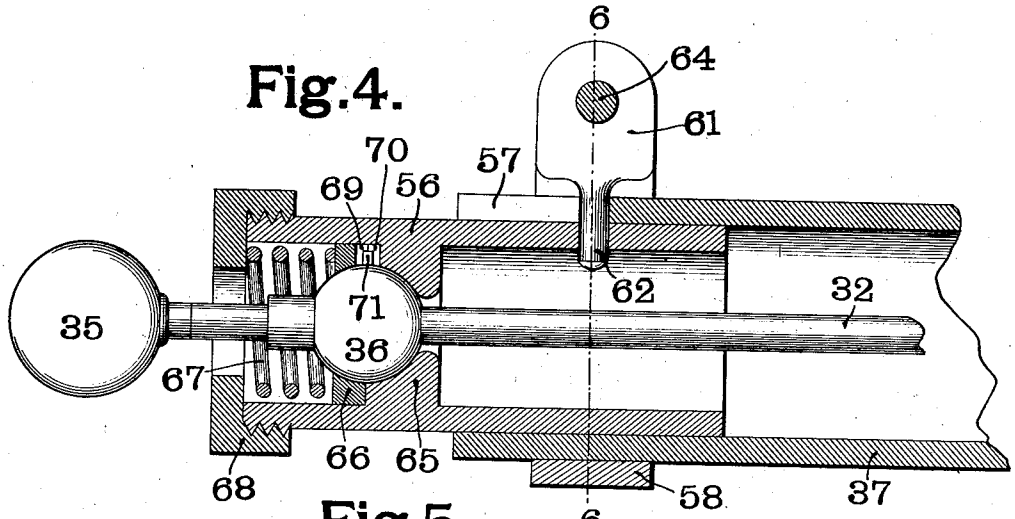


Fig.5.

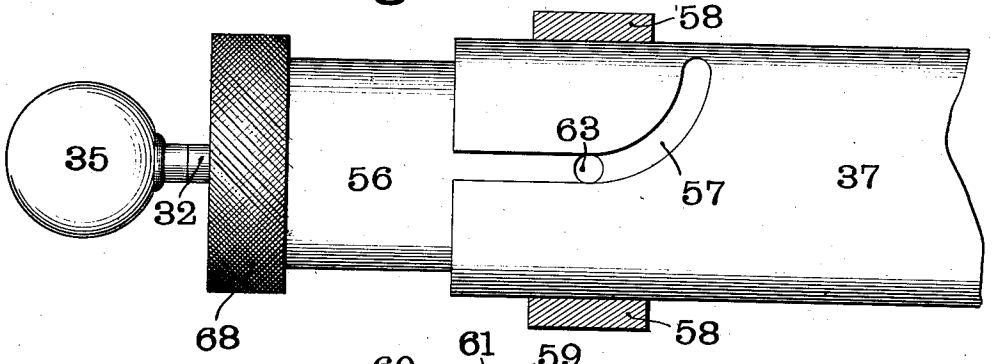


Fig.6.

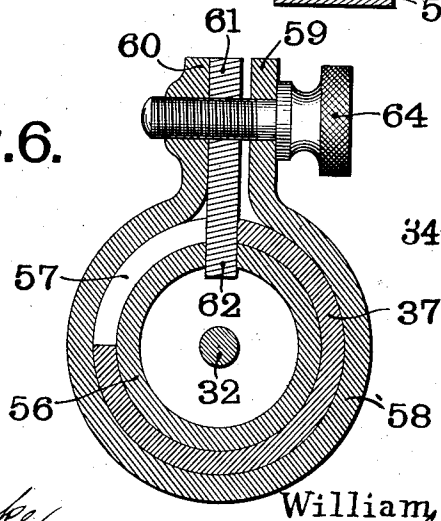
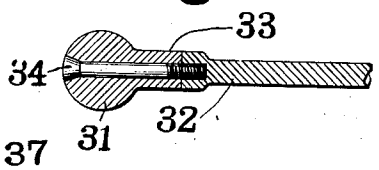


Fig.7.



WITNESSES:

Fred Hauke

W. A. Alexander

INVENTOR

William Gentry Shelton.

BY

Fowler & Bryson

ATTORNEYS.

UNITED STATES PATENT OFFICE.

WILLIAM GENTRY SHELTON, OF CHICAGO, ILLINOIS.

MASSAGE INSTRUMENT.

No. 849,924. Specification of Letters Patent. Patented April 9, 1907.

Application filed November 13, 1905. Serial No. 287,167.

To all whom it may concern:

Be it known that I, WILLIAM GENTRY SHELTON, a citizen of the United States, formerly residing at the city of St. Louis, in the State of Missouri, and now residing at the city of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Massage Instrument, of which the following is such a full, clear, and exact description as will enable any one skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

My invention relates more particularly to a massage-machine resembling that shown and described in Patents No. 816,506, granted to me March 27, 1906, and No. 829,742, granted to me August 28, 1906, and has for its object to provide improved means for adjusting the operating connections between the rotary member and vibrating contact device of such machines.

Referring to the drawings, in which like characters of reference indicate similar parts in the different views, Figure 1 is a side elevation of a machine embodying the preferred form of my invention. Fig. 2 is an enlarged vertical cross-section showing some of the parts in detail. Fig. 3 is a vertical cross-section through the operating mechanism. Figs. 4 and 5 are respectively a vertical cross-section and a side elevation of a slightly-modified form of my improvement, and Fig. 6 is a vertical cross-section on the line 6 6 of Fig. 4, and Fig. 7 is an enlarged detailed view of one of the parts.

The casing or frame of the machine is composed of two parts 10 and 11, to the former of which the handle 12 is attached. To the handle 12 leads the conductor 14, which conveys the current by which the device is driven. The parts 10 and 11 of the casing are held together by means of screws 15. In the part 11 is a journal-bearing 17 and in the part 10 a journal-bearing 18. In these bearings a shaft 19 is mounted and carries the armature 20 of the electric motor.

21 is a circuit-breaker controlling the current supplied to the motor.

24 is a fly-wheel fastened upon the shaft 19, which is journaled in the bushing 25 in the bearing 18 by means of a set-screw 26. The bearing 18 is suitably supported from the casing 11 by means of bars 27. The fly-wheel 24 is provided with an inclined radial slot 29, having an opening 30 at its side. In this slot 29 is pivotally and slidingly journaled a ball 31, rotatably mounted on the bar 32 by means of a sleeve 33, thus forming a pivotal connection between the bar 32 and fly-wheel 24. Through the sleeve 33 passes a screw-threaded pin 34, which enters the end of the bar 32 and forms a swiveled connection between the ball 31 and the bar 32. The opposite end of the bar 32 carries the contact-piece 35. It is also provided with a ball 36. The outer end 37 of the part 10 of the casing is screw-threaded and has screwed into it a screw-threaded member 38, as best shown in Figs. 2 and 3. This member 38 is provided with a contracted portion 39 and an enlarged portion 40. A second enlarged portion at the opposite side of the contracted portion 39 contains the ball 36, provided with a pin 42, which projects into a slot 43 in the outer end of the member 38. Upon the outer end of the member 38 is a milled nut 45, rigidly fastened thereon by means of a set-screw 46. This nut holds in place a rawhide bearing 47 for the ball 36, a brass washer 48 being interposed between the two parts. The opening in the outer end 37 of the casing is made adjustable by being provided with a slot 50, clamped with a set-screw 51 in lugs 52 at each side of the slot.

53 is a lock-nut threaded upon the outer end of the member 38 and adapted to abut against the shoulder formed by the end 37 of the casing.

Referring now to the modification shown in Figs. 4, 5, and 6, it will be seen that the bar 32 is also provided with a contact device 35 and a ball 36. In this case, however, the lower end 37 of the casing is sleeved about a cylindrical member or extension 56. In the outer end 37 of the casing is a slot 57, part of which is inclined, as best shown in Fig. 5. Passing around the end of the casing is a ring 58, provided with lugs 59 and 60. Between the lugs 59 and 60 is a member 61, carrying a pin 62, which passes through the slot 57 and into an opening 63 in the tube 56. The lugs 59 and 60 are provided with a thumb-screw 64. The member 56, which practically forms an extension of the lower end of the casing 37, is also provided with a bushing 65, which forms a part of the bearing for the ball 36. The other part of this bearing is formed by a washer 66, held in place by a coil-spring 67, which abuts against a head 68, screw-threaded upon the outer end of the part 56.

The washer 66 and the bushing 65 are provided with cut-away portions 69 and 70, which register with one another to form an opening into which the pin 71 on the ball 36 projects.

In the operation of my invention it is evident that the rotation of the motor-armature 20 will cause a vibratory movement of the contact device 35, and it is evident that by operating the devices above described to change the position of either of the members 38 or 56, which practically form extensions of the lower part of the casing 37 to move the contact device 35 toward and away from the fly-wheel 24, the amount of the vibration imparted to the contact device 35 may be varied as desired, this operation resulting in radially changing the position of the ball 31 in the slot 29. When the proper amount of vibration has been secured, the parts may be fastened firmly in position in the form shown in Figs. 1, 2, and 3 by means of a lock-nut 53 and in the form shown in Figs. 4, 5, and 6 by means of the thumb-screw 64. The operation of the device has been more fully described in my prior applications above set forth, and is therefore not more fully referred to here.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination with a frame, of a rotary member carried thereby, a contact member, adjustable operating connections between said members and pivotally connected to said rotary member, and a pivotal joint carried by said frame and adjustable relatively thereto to vary said operating connections and connected at a fixed point with said contact member.

2. The combination with a frame, of a rotary member carried thereby, a contact member, adjustable operating connections between said members, and a pivotal joint one part of which is resiliently mounted on said frame and adjustable relatively thereto to vary said operating connections and the other connected at a fixed point with said contact member.

3. The combination with a frame, of a rotary member carried thereby, a contact member, adjustable operating connections between said members and pivotally connected to said rotary member, and a universal joint carried by said frame and adjustable relatively thereto to vary said operating connections and connected at a fixed point with said contact member.

4. The combination with a frame, of a rotary member carried thereby, a contact member, adjustable operating connections between said members and pivotally connected to said rotary member, and a pivotal joint carried by said frame and adjustable relatively thereto to vary said operating connections and connected with said contact member at a point fixed relatively to said contact member, said contact member being movable toward and away from said rotary member to adjust said operating connections.

5. The combination with a frame, of a rotary member carried thereby, a contact member, adjustable operating connections between said members and pivotally connected with said rotary member, and a universal joint carried by said frame and adjustable relatively thereto to vary said operating connections and connected at a fixed point with said contact member, said contact member being movable toward and away from said rotary member to adjust said operating connections.

6. The combination with a frame, of a rotary member carried thereby, a contact member, a bar carrying said contact member and adjustably connected with said rotary member, and a universal joint carried by said frame and adjustable relatively thereto to vary said operating connections and connected to said bar at a point fixed relatively to said contact member.

7. The combination with a frame, of a rotary member carried thereby, a contact member, operating means connected with said contact member and making radial sliding connection with said rotary member, and a pivotal joint carried by said frame and adjustable relatively thereto to vary said operating connections and connected at a fixed point with said contact member.

8. The combination with a frame, of a rotary member carried thereby, a contact member, adjustable operating connections between said members and pivotally connected with said rotary member, a pivotal joint carried by said frame and connected with said contact member at a point fixed relatively to said contact member, and means for moving said contact member toward and away from said rotary member to adjust said operating connections.

9. The combination with a frame, of a rotary member carried thereby, a contact member, adjustable operating connections between said members and pivotally connected with said rotary member, a pivotal joint carried by said frame and adjustable relatively thereto to vary said operating connections and connected at a fixed point with said contact member, and means for locking said pivotal joint in position.

10. The combination with a frame, of a rotary member carried thereby, a contact member, adjustable operating connections between said members and pivotally connected with said rotary member, a pivotal joint carried by said frame and adjustable relatively thereto to adjust said operating connections and connected with said contact

device, said contact device being movable toward and away from said rotary member to adjust said operating connections, and means for locking said joint in position.

11. The combination with a frame, of a rotary member carried thereby, a contact member, a bar carrying said contact member and adjustably connected with said rotary member, a universal joint adjustably carried by said frame and connected with said bar at a fixed distance from said contact device, means for adjusting said universal joint toward and away from said rotary member to adjust said operating connections, and means for locking said joint in position.

12. The combination with a frame, of an adjustable extension carried thereby, a contact member, a bar carrying said contact member at one end and adjustably connected at its other end with said rotary member, a universal joint adjustable relatively to said frame to vary the connection between said bar and rotary member and connected to said bar at a fixed distance from said contact device and carried by said extension, and means for locking said extension in position.

13. The combination with a frame provided with a screw-threaded opening, of a screw-threaded extension in said opening, a rotary member carried by said frame, a contact device, a bar carrying said contact device at one end and adjustably connected at its other end to said rotary member, a universal joint adjustable relatively to said frame to vary the connection between said bar and rotary member and carried by said extension and connected to said bar at a point intermediate said contact device and rotary member and fixed relatively to said contact member, means for moving said extension toward and away from said rotary member, and means for locking said extension against movement.

14. An apparatus of the character described comprising a driven shaft, a frame wherein said shaft is journaled and provided with a collar, a sleeve provided with a spherical bearing and movably located in the collar, an applicator-shaft adapted to engage and carry an applicator and having a spherical enlargement engaged in the spherical bearing of the sleeve, means for moving the sleeve and thereby throwing the applicator-shaft in and out of alinement with the driven shaft, and a connection between the driven shaft and applicator-shaft for operating the latter.

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

WILLIAM GENTRY SHELTON. [L. S.]

Witnesses:

A. J. CROWLEY,

W. H. RONEY.