

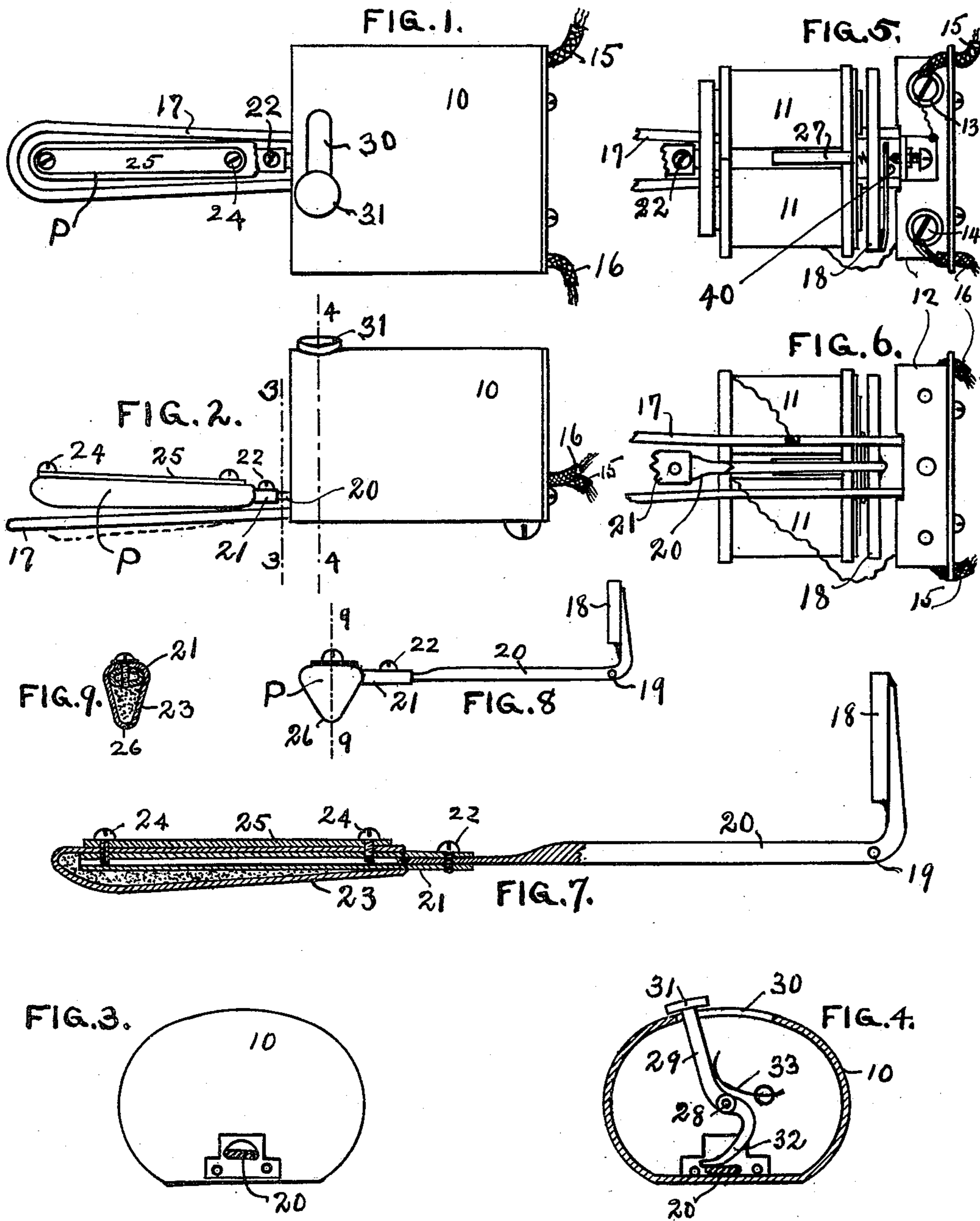
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Patented Oct. 16, 1900.

B. F. HUTCHES, JR.  
MASSAGE APPARATUS.

(Application filed Nov. 7, 1898.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

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## MASSAGE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 659,674, dated October 16, 1900.

Application filed November 7, 1898. Serial No. 695,675. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN F. HUTCHES, Jr., a citizen of the United States of America, and a resident of Chicago, county of Cook, State of Illinois, have invented certain new and useful Improvements in Massage Instruments, of which the following is a specification.

My invention relates to electrically-operated massage instruments adapted to be held or grasped in the hand and moved over the parts of the face or body requiring massage treatment. The said instrument is provided with electrical devices which when connected to a source of electricity deliver a series of rapid blows, the force of which depends upon the size of the instrument and the strength of the electric current.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a plan. Fig. 2 is a side elevation. Fig. 3 is a section on line 3 3 of Fig. 2. Fig. 4 is a section on line 4 4 of Fig. 2. Fig. 5 is a plan of the operating devices with the inclosing case removed. Fig. 6 is a view of the same from below. Fig. 7 is an enlarged detail showing the construction of the operating lever or paddle. Fig. 8 is a modified form of paddle, and Fig. 9 is a section on line 9 9 of Fig. 8.

In the said drawings, 10 is an inclosing case, within which is secured a pair of magnets 11 of the ordinary bell-ringing type. Secured to these magnets in any suitable manner is an insulating-block 12, on which are the binding-posts 13 and 14. From the posts 13 and 14 the wires 15 and 16 run to any source of electricity, preferably a dry battery. Secured to the block 12 or to the magnets 11, or to both, is a U-shaped guard 17, which lies parallel with the bottom of the case 10 and extends out through the front of said case, as is shown in Figs. 1 and 2. Secured to the armature 18 and pivoted at 19 to the guard 17 is a lever 20, which lies between the two arms of the said guard and parallel therewith. The front end of the lever 20 is flattened at about the point where it passes through the front of the case 10. A piece of flattened tubing 21 fits over the flattened end of the lever 20 and is secured thereto by the

screw 22. Wrapped around the tubing 21, which is in reality a removable extension to the armature-lever 20, is a piece of chamois-skin or other suitable covering 23. The covering 23 is secured to the tubing 21 by means of the screws 24 and the plate 25. This covered extension to the lever 20 I call, for convenience' sake, the "paddle," and will designate it as a whole by the letter P. As thus constructed the paddle P may be of any desired form and may be easily removed by loosening the screw 22. In Figs. 2 and 7 a plain and comparatively-flat paddle is shown, while in Figs. 8 and 9 is shown a paddle with a special pointed tip 26, adapted to act upon surfaces that cannot be satisfactorily reached by a flat paddle.

Between the magnets 11 is a small case 27, which contains a spring for retracting the armature 18 from the magnets 11, which action raises the paddle P into the position shown in Fig. 2. When a current of electricity is sent through the magnets 11, the armature 18 is attracted, which throws the paddle P into the position shown in dotted lines in Fig. 2. The attraction of the armature 18 breaks the circuit through the magnets 11 and permits the paddle P to again rise. The manner in which this operation is performed is the same as that of the ordinary bell-ringing device and does not need detailed description. Pivoted at 28 on the front head of the case 10 is a lever 29, that extends upward through a slot 30 in said case and terminates in a button 31. The lower end of the lever 29 is curved, as shown at 32, which curved part extends over the lever 20 and serves to either stop the vibration of said lever or limit the length of its stroke. A spring 33 holds the lever 29 normally with the curved part 32 over the lever 20, which keeps the said lever 20 at its lowest position. When the lever 20 is at its lowest position, the circuit through the magnets 11 is broken at the point 40. Consequently the lever 29 serves as a switch normally open by the action of spring 33. When the instrument is held in the hand in the manner in which it is to be used, the button 31 is in the most convenient place to be reached by the thumb. Consequently the operator can easily move the lever 29, so as to permit the lever

20 to rise and complete the circuit through the magnets 11. When the lever 29 is pushed over to the extreme limit against the spring 33, the lever 20 makes its longest stroke, and consequently the paddle P delivers the hardest blow. It will also be evident that by pushing the button 31 (meaning lever 29 with its curved part 32) less than the extreme distance the lever 20 will make less than its longest stroke and the paddle P will deliver a lighter blow. It will therefore be evident that the button 31 serves both as a switch and a means for regulating the force of the massage treatment. The guard 17 is preferably made of wire and is located just above the lowest position of the paddle P.

In using the instrument the guard 17 is placed in contact with and moved over the surface to be treated, and the paddle P strikes its blows between the arms of said guard.

What I claim is—

1. In a massage instrument, a lever, electrical devices for giving said lever rapid vibrations, a removable paddle attached to said lever, a guard through which said paddle operates, a case for inclosing said electrical devices, a second lever pivoted to said case and adapted to come into contact with the first-mentioned lever, and means whereby said second lever may be operated so as to control the vibrations of the first-mentioned lever.

2. In a massage instrument, a paddle and a guard therefor, electrical devices and connections for operating said paddle, a normally-open switch for said devices, a casing inclosing the electrical devices and their connections, a button located on the outside of said case and connected to said switch, and means whereby the movement of said button will serve to close said switch and also to regulate the movement of said paddle.

3. In a massage device a magnet adapted to give rapid vibrations to the armature thereof, a paddle secured to and vibrating with said armature, and a guard surrounding said paddle and serving as a guide for the proper placing of said paddle when making such vibrations.

4. In a massage device a magnet adapted to give rapid vibrations to the armature thereof, a paddle secured to and vibrating with said armature, means for limiting the length of the vibrations in one direction, and a guard located adjacent to said paddle and slightly

above the limit of its vibrations in the opposite direction.

5. In a massage device a paddle, a magnet for moving it in one direction and a spring for moving it in the opposite direction, and an adjustable device adapted to vary the length of the paddle movement in one direction only.

6. In a massage device a paddle, a magnet and a spring for moving it alternately in opposite directions, and a lever adapted to be moved over said paddle so as to limit the length of movement in one direction while leaving it constant in the opposite direction.

7. In a massage device a paddle, a magnet and a spring for moving it alternately in opposite directions, a guard located near the extreme of movement in one direction and serving as a guide for locating blows caused by such movement, and a pivoted lever adapted to be moved over said paddle so as to limit the length of its movement in the opposite direction.

8. In a massage device, the combination with a lever and means for giving it rapid vibrations, of a U-shaped guard or loop, surrounding said paddle, substantially as described.

9. In a massage device, a paddle, a motor for moving said paddle in one direction and a spring for retracting it, a guard through which said paddle vibrates, and an adjustable stopping device for limiting the paddle movement in one direction.

10. In a massage device, a paddle and a motor for driving it, a guard for locating the position of blows delivered by said paddle, and an adjustable stopping device for limiting the paddle movement in one direction.

11. In a massage device, a paddle, a motor for moving said paddle in one direction and a spring for retracting it, a guard secured to said motor and serving as a means for locating blows delivered by said paddle, an adjustable stopping device for limiting the paddle movement in one direction, and a casing inclosing said motor and provided with an aperture through which said paddle projects.

Signed by me at Chicago, Illinois, this 5th day of November, 1898.

BENJAMIN F. HUTCHES, JR.

Witnesses:

G. A. HENRY,

H. A. REDFIELD.