

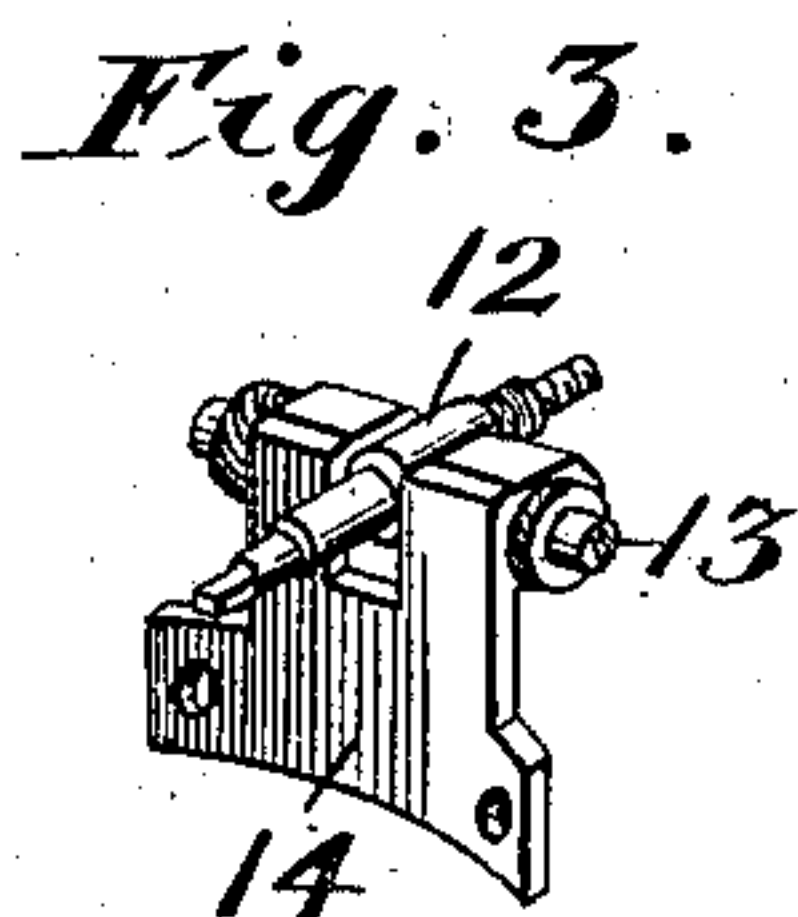
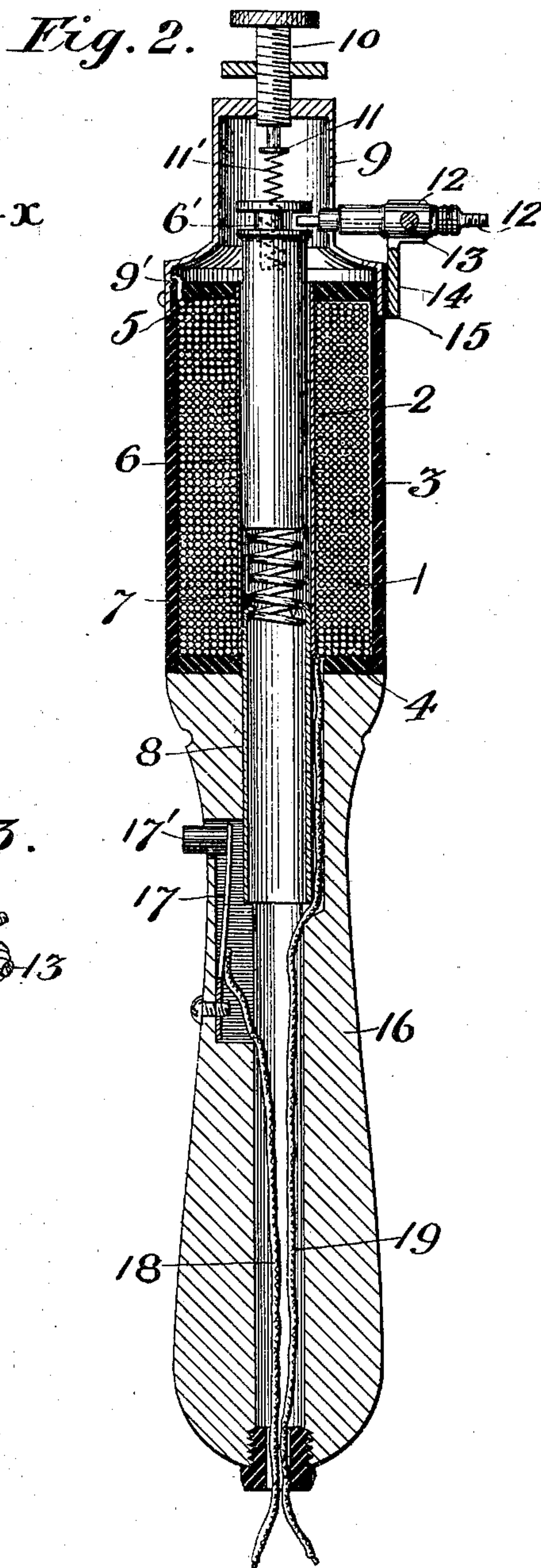
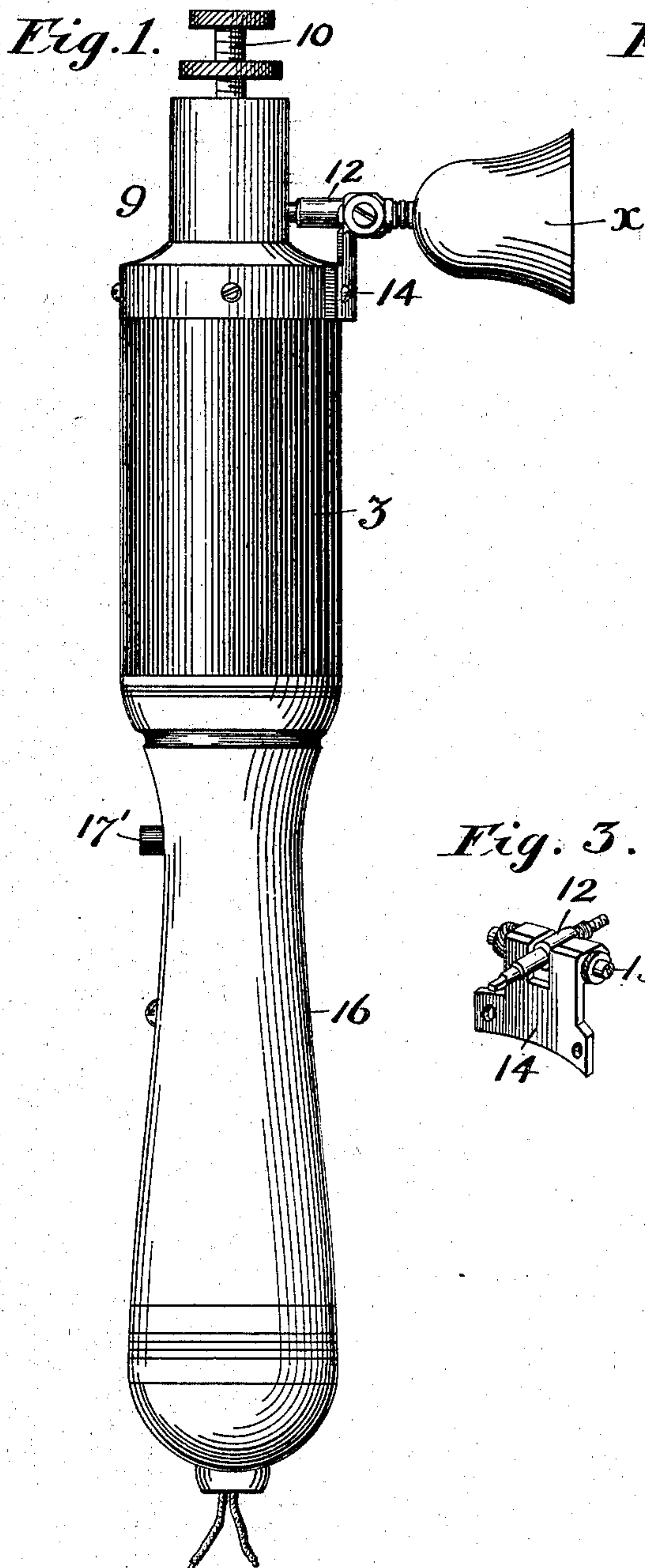
No. 733,049.

PATENTED JULY 7, 1903.

A. D. JONES.
MASSAGE MACHINE.

APPLICATION FILED JAN. 19, 1903.

NO MODEL.



Witnesses:
Chas. J. O'Neill
W. Beall Williams.

Inventor:
Alva D. Jones,
by *Clunie & Goldbrough*
Attys.

UNITED STATES PATENT OFFICE.

ALVA D. JONES, OF LOUISVILLE, KENTUCKY.

MASSAGE-MACHINE.

SPECIFICATION forming part of Letters Patent No. 733,049, dated July 7, 1903.

Application filed January 19, 1903. Serial No. 139,616. (No model.)

To all whom it may concern:

Be it known that I, ALVA D. JONES, a citizen of the United States, residing at Louisville, county of Jefferson, State of Kentucky, have
5 invented certain new and useful Improvements in Massage-Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which
10 it appertains to make and use the same.

My invention relates to massage-machines, and has for its object to provide a simple, neat, and efficient instrument, preferably in the form of a hand-tool, for imparting an oscillatory motion to a massage member as the
15 latter is applied to the part to be treated.

To this end my invention comprises a solenoid mounted upon a suitable handle and provided with a reciprocating core, an oscillating lever operated by said core, and a massage pad, cup, or equivalent member on said lever, whereby when the solenoid-circuit is completed by a circuit-closer in the handle the core is reciprocated in the solenoid and
20 the lever carrying the massage member is oscillated.

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

Figure 1 is an elevation of a preferred form
30 of the massage-machine. Fig. 2 is a sectional elevation thereof, and Fig. 3 is a detail illustrating the oscillating lever and the supporting-yoke.

In the drawings, 1 represents a solenoid, which in the present instance is represented as having a generally cylindrical form, but which may be of any particular shape which the rules of efficiency and good practice may indicate. Centrally disposed within the solenoid is a lining-sleeve 2, preferably of brass or equivalent metal, which constitutes a guide and wearing-surface for the cylindrical reciprocating core 6. Surrounding the casing is a sleeve 3, of vulcanite or similar insulating substance, which is closed at its ends by washers 4 and 5 of the same material, which
40 fit between the vulcanite sleeve 3 and the brass lining 2.

The core 6 is provided at its outer end with
50 a reduced neck 6', while the opposite end is engaged by a spiral spring 7, supported in a sleeve-piece 8, which spring normally tends

to eject the core from the solenoid. The said sleeve 8 likewise constitutes a connecting member or dowel between the solenoid 1 and
55 a handle 16, which latter is provided with a longitudinal bore, terminating in a socket at its upper end to receive said sleeve 8. The handle 16 is provided with a circuit-closer, which comprises a leaf-spring 17, mounted in
60 a recess in the side of the handle, which co-operates with the sleeve 8 to close a circuit from the leads 18 and 19, passing through the handle, when said spring 17 is forced into contact with the sleeve 8 by depressing the
65 button 17', projecting through the side of the handle.

To the outer end of the solenoid is secured a metal cap 9, preferably of brass, in the end of which is mounted an adjustable contact-screw 10, which forms one part of an automatic circuit-breaker or trembler device for making and breaking the circuit through the solenoid. The movable part of the trembler-break comprises a metal plate 11, preferably
75 of platinum or other highly-refractory metal, mounted upon the spiral spring 11', which is seated in a recess in the end of the core 6. Said spring 11' is sufficiently strong to maintain a firm contact between the plate 11 and
80 the end of the screw 10 when the solenoid is in its outward position, as indicated in Fig. 2; but when the core is drawn into the solenoid spring 11' will retract plate 11 and break the circuit through the solenoid.

Secured to the side of the solenoid-casing and preferably to the lower rim of the cap 9 is a bracket 14, which is insulated from said cap by a suitable non-conducting strip 15. Pivotaly mounted in said bracket 14 by
90 means of pins 13 is an oscillating lever 12, the inner end of which is reduced and engages the neck of the solenoid-core between the flanges thereof. The outer end of this oscillating lever is screw-threaded, as at 12',
95 and is adapted to receive the massage member, which may be in the form of a pad, cup, or other suitable massaging device *x*.

The apparatus as above described operates as follows: Leads 18 and 19 are connected
100 to a suitable source of electricity and the massage member applied to the portion of the body to be treated. The operator then depresses the button 17', thereby closing a cir-

cuit by way of lead 18, spring 17, sleeve 8, spring 7, solenoid-core 6, contact-spring 11' and plate 11, screw 10, cap 9, thence through the solenoid-circuit, which is connected to
 5 said cap at 9', through lead 19, back to the source. As the circuit thus closed traverses the solenoid the latter is energized and draws in the core 6 against the tension of spring 7, thereby rocking the lever 12 and breaking
 10 the circuit of the solenoid between the members 10 and 11 and deenergizing the solenoid. As soon as the solenoid is deenergized the spiral spring 7 immediately ejects the core 6 from the solenoid to the limit of its outward
 15 movement, thereby rocking the lever 12 in the other direction and reestablishing the circuit between contact-screw 10 and cooperating plate 11. This operation is rapidly intermittent and continues as long as the circuit is maintained closed at the switch 17. The rapid reciprocations of the solenoid-core
 20 cause the massage member α to impart a rubbing or kneading motion to the part to be treated.

25 Having thus described my invention, what I claim is—

1. A massage-machine, comprising a solenoid, a reciprocating core therefor, a pivoted rock-lever in operative relation to one end of
 30 the solenoid-core, a massage member on said lever, and means to energize and deenergize the solenoid-circuit, whereby the core is reciprocated and the massage member is oscillated.
2. A massage-machine, comprising a solenoid, a reciprocating core therefor, a handle upon which said solenoid is supported, a pivoted rock-lever in operative relation to one
 35 end of the solenoid-core, a massage member on said lever, a spring for ejecting said core, and a circuit-breaker, operated by the core, whereby the solenoid is alternately energized

and deenergized and the massage member is oscillated.

3. A massage-machine, comprising a solenoid, an insulating-casing surrounding the same, a handle secured to said casing, a circuit-closer for said solenoid in said handle, a reciprocating core in said solenoid, a spring for ejecting said core, an automatic circuit-
 50 breaker actuated by said core, a pivoted rock-lever operatively connected to one end of the core, and a massage member on said lever which is oscillated by the reciprocating core.

4. A massage-machine, comprising a solenoid, a reciprocating core therefor, provided with a reduced neck near the outer end thereof, a pivoted rock-lever having one end in operative engagement with the neck of said
 55 core, and a massage member on said rock-lever.

5. A massage-machine, comprising a solenoid, a handle, a dowel connecting the solenoid and handle, a reciprocating core in said solenoid, a spring interposed between the
 60 core and the dowel for ejecting the core, a pivoted rock-lever, operatively connected to one end of the core, and a massage member on said rock-lever.

6. A massage-machine, comprising a solenoid, a reciprocating core therefor, a handle secured to one end of said solenoid, a cap secured to the other end thereof, an adjustable contact-screw in said cap, a cooperating
 65 spring-supported contact-plate on said core, a pivoted rock-lever in operative relation to one end of the solenoid-core, and a massage member on said rock-lever.

In testimony whereof I affix my signature in presence of two witnesses.

ALVA D. JONES.

Witnesses:

WM. HOLBOURN,
 THOS. J. RYAN.