

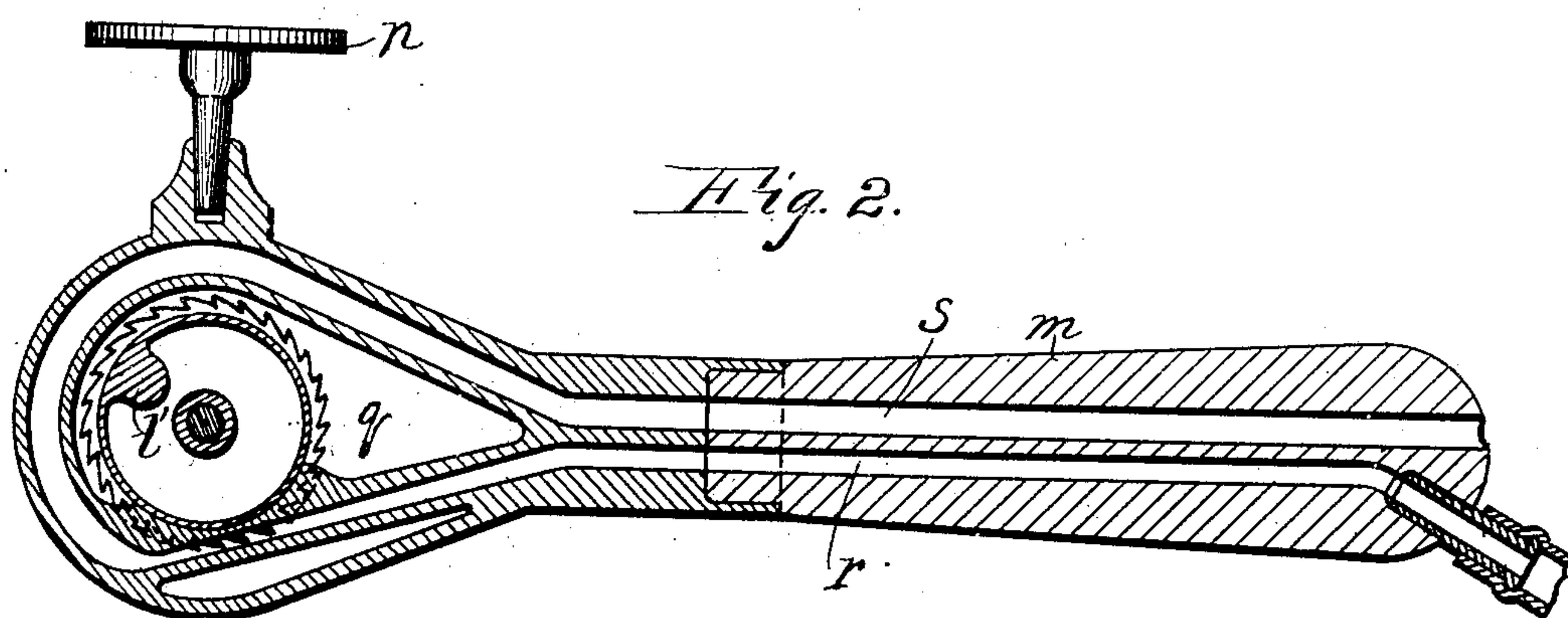
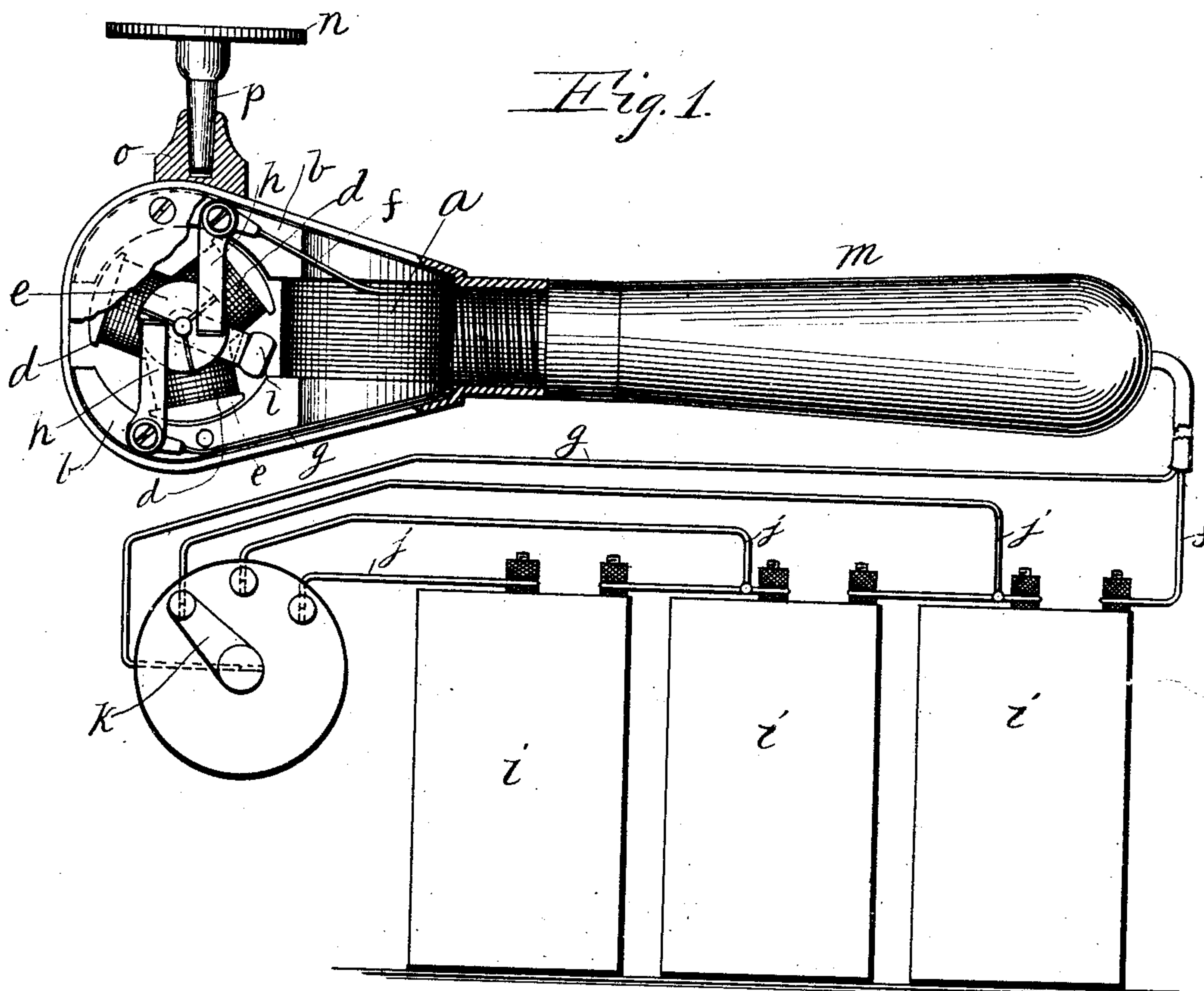
No. 816,365.

PATENTED MAR. 27, 1906.

W. OLSON.

VIBRATOR FOR MASSAGE TREATMENT.

APPLICATION FILED OCT. 6, 1904. RENEWED JUNE 19, 1905.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

WILLIAM OLSON, OF MOUNT VERNON, NEW YORK.

## VIBRATOR FOR MASSAGE TREATMENT.

No. 816,365.

Specification of Letters Patent.

Patented March 27, 1906.

Application filed October 6, 1904. Renewed June 19, 1905. Serial No. 266,045.

*To all whom it may concern:*

Be it known that I, WILLIAM OLSON, a citizen of the United States, residing at Mount Vernon, in the county of Westchester and State of New York, have invented an Improvement in Vibrators for Massage Treatment, of which the following is a specification.

My invention relates to vibrators for massage treatment, and comprises a small, simple, and cheap high-speed unbalanced rotary electric, pneumatic, or other motor, preferably provided with a bearing-piece for application to the part to be treated and mounted on a suitable handle for manipulating it, and means are also provided for connecting the motor with a source of motive power—as an electric battery, compressed-air reservoir, or the like—in a way to permit the instrument to be moved about for convenience in making the application to different localities of the body of the patient.

In the drawings, Figure 1 is a plan view of my improved vibrator constructed as an unbalanced electric motor, with a part of the inclosing case removed and with the battery in side elevation and also a diagram of the wire system. Fig. 2 is a longitudinal section showing the employment of an unbalanced compressed-air motor for producing the vibrations.

In the electric apparatus, *a* represents an electromagnet, of which *b b* represent the pole-pieces, *d* an armature, *e* a commutator, *f* and *g* the exterior conducting-wires, *h* the brushes, *i* the battery-cells, *j* the switch-wires, and *k* a switch for cutting in or out one or more cells of the battery according as moderate or high speed is required.

To one side of the armature *e* an unbalancing-weight *l* is radially applied to impart quick lateral vibrations to the case, whereby a palpitating action may be brought to bear against the parts to be treated when the instrument is pressed sidewise against said parts, and the said instrument is preferably provided with a handle *m* for convenience in such application, the wires *f g* running through said handle. The handle facilitates the vibrations as compared with the action of the motor proper when grasped in the hand without a handle, as will be readily understood; but the instrument may be so used if desired.

To one side of the motor-case and at right angles to the line of the handle, or approxi-

mately so, a radially-projecting hammer-piece is applied in the form of a disk *n* or other shape, as may be preferred as appropriate to the subject under treatment, for impact on the aforesaid parts.

To facilitate interchange of hammer-pieces of different forms and shapes, the application to the instrument is to be made in any desired attachable way—as, for instance, by a projecting boss *o* applied to the side of the case and having a tapered socket that is radial to the armature with a correspondingly-tapered stud *p* of the hammer-piece fitting the socket with a slight friction for temporarily retaining it.

In Fig. 2 I represent a modification in which a bucket-wheel *q* is substituted for the motor-armature, said wheel having practically the same radially-placed unbalancing-weight *l'* with inlet-passage *r* and exhaust-passage *s* through the handle for operating the said wheel by compressed air or other vapor or fluid to be supplied from any suitable source through a flexible pipe or other connection.

It will be seen that light and handy, as well as very efficient vibrating instruments of this character, may be supplied very cheaply. It will also be seen that with the motor pivoted in opposite sides of the case with the hammer-piece rigidly attached to the case in the plane of rotation and the handle attached to the case approximately at right angles to the hammer-piece, a simpler and less expensive and a more convenient machine for manipulating is provided.

I do not herein limit myself to the particular form or shape of the handle or hammer-pieces or to the precise relation of the hammer-piece in use to the handle or to the prime mover or to passing the means for supplying power through the handle, as these may be varied without departing from the spirit of my invention.

I claim as my invention—

1. A vibrator for massage treatment, comprising a handle and case connected together and a hammer-piece fixed to the case exteriorly thereof, a prime mover within said case and a rotary unbalanced member actuated thereby in the plane of the hammer-piece for effecting the vibration.

2. An unbalanced rotary motor, an inclosing case having the motor pivoted in opposite sides respectively, a hammer-piece attached to the inclosing case, a handle at-



tached to the case approximately at right angles to the hammer-piece and means for supplying power to the motor.

3. A vibrator for massage treatment consisting of a rotary unbalanced electromagnetic armature, fixed pole-pieces, an inclosing case for said armature and pole-pieces having said armature pivoted in opposite sides respectively, a hammer-piece fixedly attached to the exterior of the case, a handle attached to the case approximately at right angles to the axial line of the motor and hammer-piece, and circuit-wires to the motor-terminals.

4. An unbalanced rotary motor, an inclosing case having the motor pivoted in opposite sides respectively, a hammer-piece attached to the inclosing case in the plane of rotation of the motor, a handle attached to the case approximately at right angles to the

hammer-piece and means for supplying power to the motor through the handle.

5. A vibrator for massage treatment, consisting of a rotary unbalanced electromagnetic armature, fixed pole-pieces, an inclosing case for said armature and pole-pieces having said armature pivoted in opposite sides respectively, a hammer-piece fixedly attached to the exterior of the case in the plane of the rotation of the armature, a handle attached to the case approximately at right angles to the axial line of the motor and hammer-piece, and circuit-wires arranged lengthwise through the handle.

Signed at New York this 25th day of September, 1904.

WILLIAM OLSON.

Witnesses:

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C. SEDGWICK.