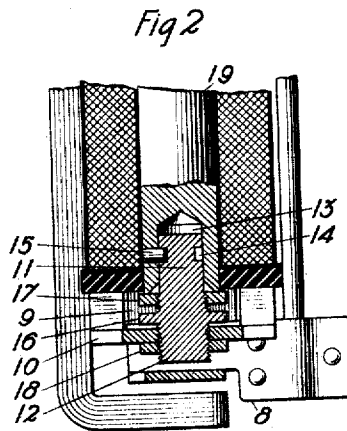
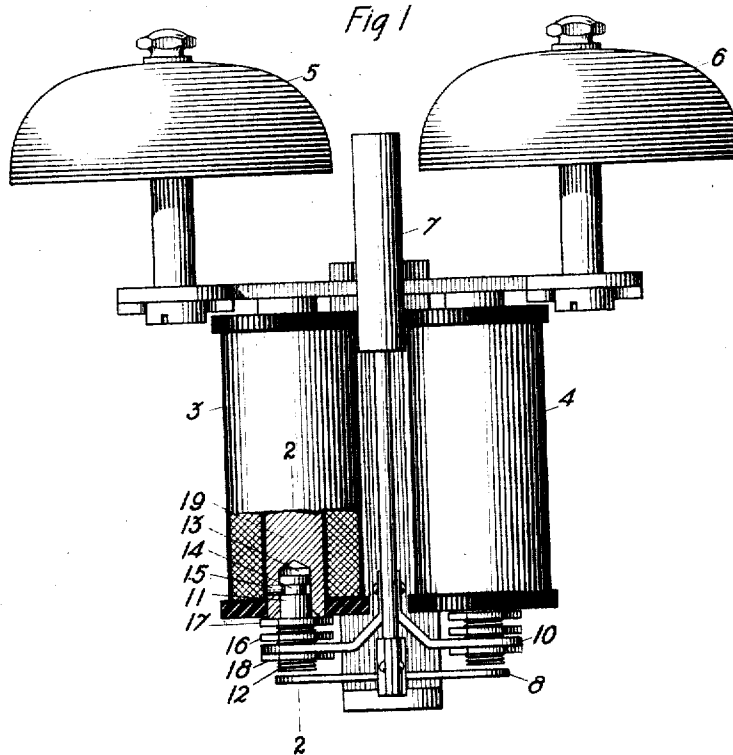


C. E. SCRIBNER.
ELECTROMAGNET.
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1,012,020.

Patented Dec. 19, 1911.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES E. SCRIBNER, OF JERICHO, VERMONT, ASSIGNOR TO WESTERN ELECTRIC COMPANY, OF NEW YORK, N. Y., A CORPORATION OF ILLINOIS.

ELECTROMAGNET.

1,012,020.

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To all whom it may concern:

Be it known that I, CHARLES E. SCRIBNER, a citizen of the United States, residing at Jericho, in the county of Chittenden and State of Vermont, have invented a certain new and useful Improvement in Electromagnets, of which the following is a full, clear, concise, and exact description.

My invention relates to electromagnets and its object is to provide improved means for adjustably supporting the armature of an electromagnet.

In the electromagnet of my invention the armature supporting member is in threaded engagement with a rotatable member associated with the core of the electromagnet whereby the supporting member, and the armature carried thereby, may be adjusted by turning the rotatable member. The rotatable member may be carried within the core of the electromagnet and preferably forms a part of the magnetic circuit.

My invention is particularly useful in its application to bells and is herein illustrated by its embodiment in a telephone bell of the general type known as "harmonic," wherein the armature is carried by a reed.

My invention will be more readily understood by reference to the accompanying drawing, in which—

Figure 1 is a side elevation, partly in section, of a telephone bell embodying my invention, and Fig. 2 is a fragmentary vertical sectional view on the line 2—2 of Fig. 1, said view being enlarged to bring out more clearly certain details of construction.

Referring to the drawing, 3 and 4 are the coils of the electromagnet, 5 and 6 are the gongs, 7 is the bell tapper arm, and 8 is the armature of a telephone bell of the general type already referred to. The armature 8 is carried by a reed 9, which reed is rigidly mounted on a support 10. The parts mentioned being well understood by those skilled in the art, are not herein described in detail.

Intermediate the support 10 and the electromagnet is a rotatable member 11, said member having a portion 12 adapted to make threaded engagement with the support 10. The member 11 may be carried by the fixed cores 19 of the electromagnet, preferably within said cores, or within hollow extensions 13 thereof as shown in the drawing. In the drawing the member 11, which

preferably is of magnetic material and constitutes a part of the magnetic circuit, is shown as provided with an annular groove 14, a projection 15 being provided within the extension 13, said projection being adapted to enter the groove 14, whereby said member 11 may be rotated without longitudinal movement. The member 11 is provided with a portion 16 of hexagonal or other suitable form, whereby it may be readily turned by means of a wrench or otherwise.

17 is a nut for locking the member 11 in any desired position with respect to the part on which it is rotatably carried, and 18 is a nut for locking said member in rigid connection with the support 10.

In the foregoing the details of construction have been described in connection with one extremity of the armature support 10. It will be readily understood that while one end of the support might be fixedly mounted and the other end adjustably carried, both ends are preferably adjustably associated with the electromagnet as shown in the drawings and in accordance with the foregoing description.

With the construction described, it will be understood that the rotation of the member 11 moves the corresponding end of the support 10 and with it the corresponding end of the armature 8, toward or from the electromagnet according to the direction in which said member is turned. It is obvious that by loosening the nuts 17 and 18 and turning either or both of the members 11, the armature may be moved bodily toward the electromagnet, or may be tilted, or may be made to undergo a combination of such movements as desired. Nuts 17 and 18 would, of course, be tightened upon securing the desired relation between the armature and the poles of the electromagnet, thereby bringing the parts into rigid connection.

Having described my invention, I claim:—

1. The combination with an electromagnet, of a rotatable member associated with the core of said electromagnet and fixed against longitudinal movement, an armature, and a support for said armature in threaded engagement with said rotatable member.

2. The combination with an electromag-

net having a core comprising a fixed member and a rotatable longitudinally fixed member, of an armature, and a support for said armature in threaded engagement with said rotatable member.

3. The combination with an electromagnet having a core comprising a fixed member and a rotatable longitudinally fixed member carried one within the other, of an armature, and a support for said armature in threaded engagement with said rotatable member.

4. The combination with an electromagnet having a core comprising a fixed member and a rotatable longitudinally fixed member carried within said fixed member, of an armature, and a support for said armature in threaded engagement with said rotatable member.

5. The combination with an electromagnet, of core members comprising fixed members and rotatably movable but longitudinally fixed members, an armature, and a support for said armature in threaded engagement with said rotatable members.

6. The combination with an electromagnet having hollow core extensions, of an

armature, a support for said armature, members rotatably carried within said core extensions and fixed against longitudinal movement, said members being in threaded engagement with said support, whereby said support may be adjusted with respect to said electromagnet, and locking devices for holding said support and said members in their adjusted positions.

7. The combination with an electromagnet having hollow core extensions, of an armature, a support for said armature, members in threaded engagement with said support, said members each having an annular groove, projections carried by said core extensions, said projections engaging with the grooved portions of said members, and locking devices for holding said members and support in their adjusted positions.

In witness whereof, I hereunto subscribe my name this 11th day of March A. D., 1910.

CHARLES E. SCRIBNER.

Witnesses:

IRVING MACDONALD,

MORGAN WASHBURN, Jr.