

(Model.)

S. H. BARTLETT & H. E. WAITE.

TELEPHONE RECEIVER.

No. 287,896.

Patented Nov. 6, 1883.

Fig. 1

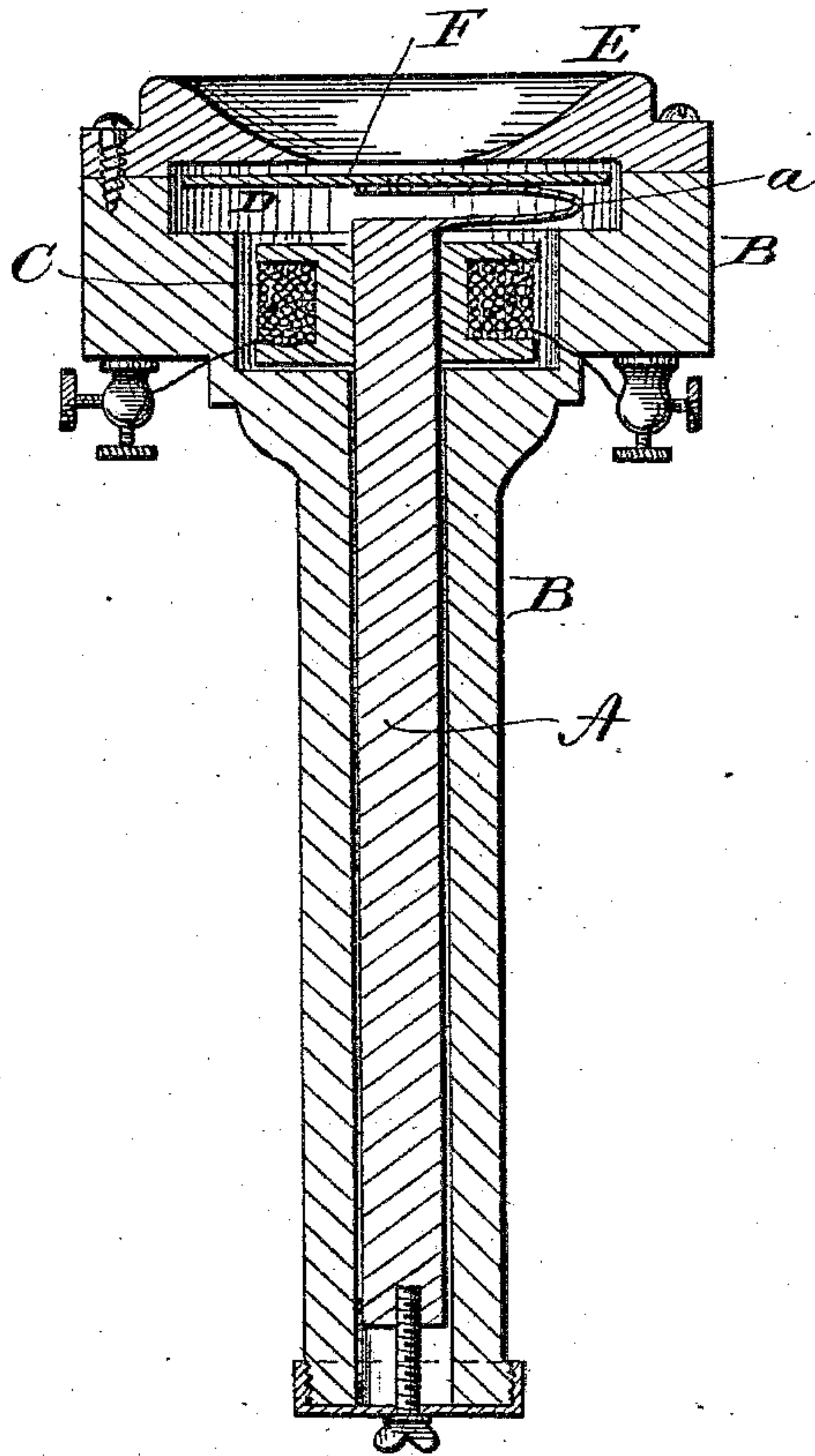
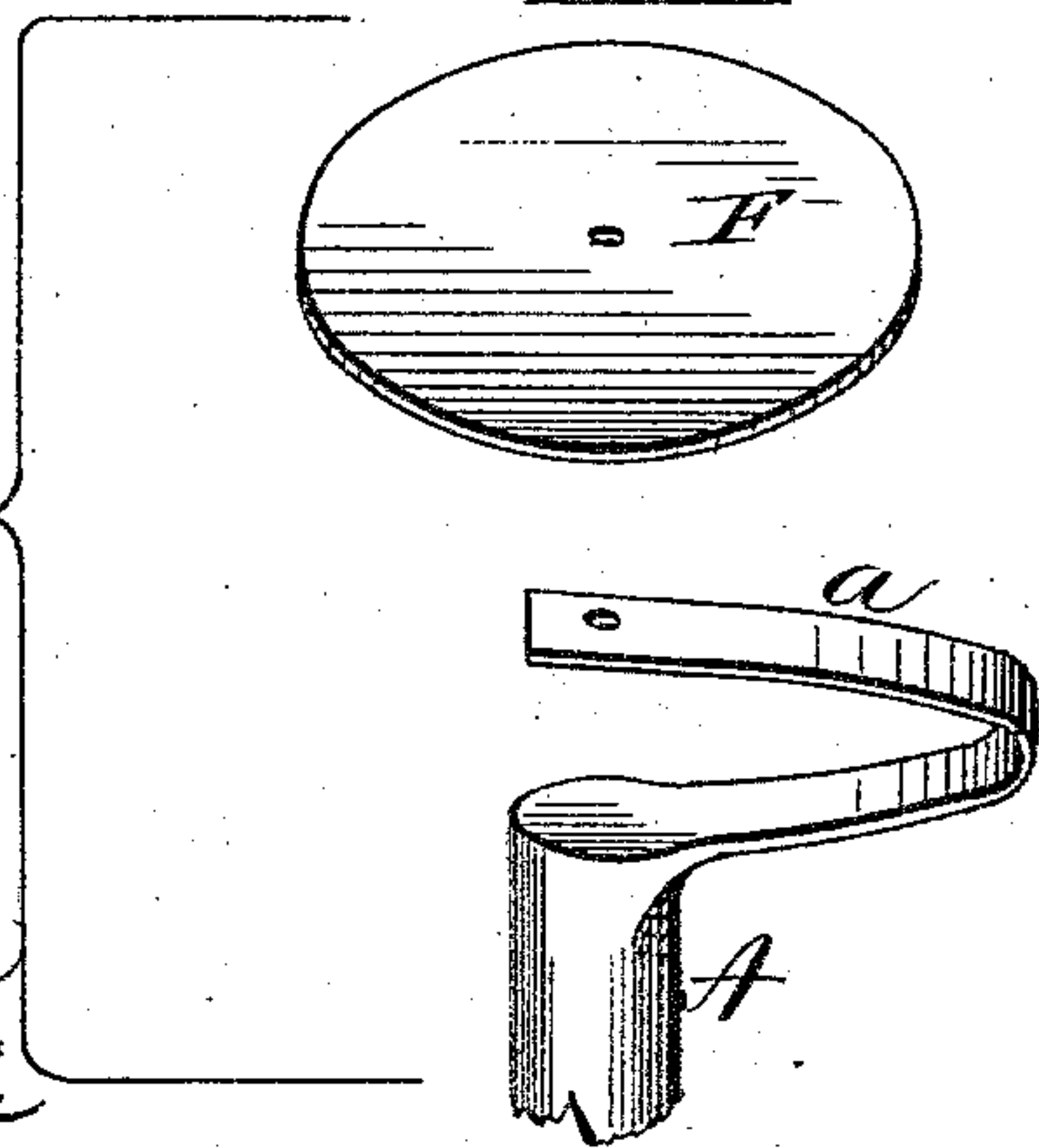


Fig. 2



WITNESSES
Frank L. Curand
R. M. Smith

INVENTORS.
Saml. H. Bartlett
Henry E. Waite
by *W. H. Smith*
Attorney

UNITED STATES PATENT OFFICE.

SAMUEL H. BARTLETT AND HENRY E. WAITE, OF NEW YORK, N. Y., AS-
SIGNORS TO THE MOLECULAR TELEPHONE COMPANY, OF SAME PLACE.

TELEPHONE-RECEIVER.

SPECIFICATION forming part of Letters Patent No. 287,896, dated November 6, 1883.

Application filed July 24, 1882. (Model.)

To all whom it may concern:

Be it known that we, SAMUEL H. BART-
LETT and HENRY E. WAITE, both of New
York, county of New York, and State of New
York, have invented new and useful Improve-
ments in Receivers for Telephones, of which
the following is a full, clear, and exact descrip-
tion, reference being had to the accompanying
drawings, making part of this specification.

Our invention relates to a novel manner of
combining the disk of a telephone-receiver
with the magnet, whereby it is allowed to vi-
brate bodily in responding to the disturbances
or variations in degree of polarity, or to molec-
ular elongations of the magnet, by being cen-
trally secured to a spring-arm and left unbound
and unsupported at its edges or periphery, as
hereinafter explained.

Figure 1 represents a longitudinal section
through our improved receiver, and Fig. 2 a
perspective view of the diaphragm and re-
curved spring-arm.

In the accompanying drawings, A repre-
sents the magnet of the receiver; B, the cy-
lindrical handle inclosing said magnet; B', the
enlarged chambered head thereof surround-
ing the coil C, and to the open end of which
head the ear-piece E is secured, said parts
being of any usual or preferred form or con-
struction. The end of the magnet A adjacent
to the ear-piece is shown provided with a re-
curved spring-arm, *a*, similar to that de-
scribed in Letters Patent granted to Lock-
wood and Bartlett, June 15, 1880, No. 228,825,
said arm forming a reduced extension of the
pole of the magnet with which it is connected,
its extreme end overhanging the end of the
body of the magnet, and being brought into
near proximity to, but arranged out of actual
contact with, said end, as shown. To the end
of this arm *a* is secured a disk, F, which may
be of any suitable material, either magnetic
or non-magnetic, as preferred. The spring
has its unsupported end attached to the disk,
centrally of the latter, by a rivet, screw, or
other suitable fastening. The disk is made of
a diameter slightly less than the diameter of
the chamber D in the head of the receiver-
handle, and, being supported by the spring

only, is free to vibrate bodily, piston-like, in
said chamber, influenced by the variations of
the degree of polarity in the magnet and the
retracting power of its supporting-spring,
and, where the spring is attached to and forms
an extension of the pole of the magnet, as de-
scribed and shown, by the molecular changes
or elongations of said magnet, produced by
variations in degree of polarity therein.

By the construction described it will be seen
that the disk of the receiver is left unsup-
ported at its edges or periphery, and is upheld
only by the spring attached to it centrally,
and that, as the unsupported end of the spring
to which it is attached is vibrated, the disk
moves back and forth bodily in the chamber
D with the vibrating end of said spring.
Parts of the receiver and its connections not
described may be made in any usual manner.

Having now described our invention, we
claim as new—

1. In a telephone-receiver, the combination
of a magnet, a disk having a central support
only, and the spring-armature forming a
yielding support for said disk and permit-
ting its movement bodily, substantially as de-
scribed.

2. The combination, in a receiver, of a mag-
net, a chambered handle or head therefor, and
a disk arranged within a chamber in said head,
and supported therein upon a spring-exten-
sion of the magnet, substantially as described,
whereby it is adapted to move bodily in said
chamber.

3. The combination of the magnet A, the
coil C, the chambered handle surrounding said
magnet and coil, the disk F, moving bodily in
a chamber in said handle, and the supporting-
spring upholding said disk and forming the
armature to the magnet, substantially as de-
scribed.

In testimony whereof we have hereunto set
our hands this 18th day of July, A. D. 1882.

SAMUEL H. BARTLETT.
HENRY E. WAITE.

Witnesses:

THS. W. HARTFIELD,
C. H. HANKINSON.