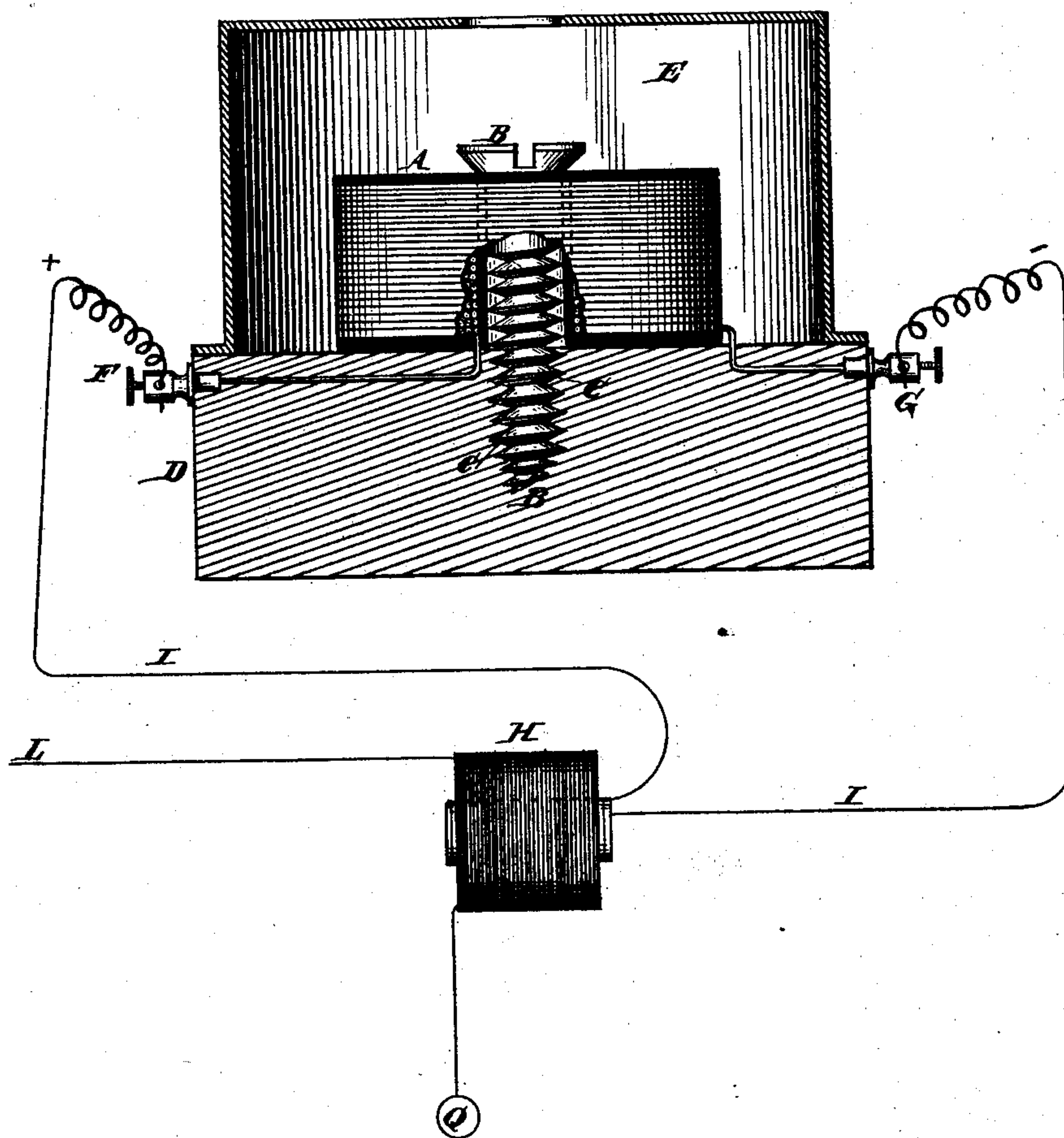


(No Model.)

J. M. STEARNS, Jr.
TELEPHONIC RECEIVER.

No. 248,117.

Patented Oct. 11, 1881



Attests

L. J. Matoré

Inventor

J. Milton Stearns Jr

By his atty.

[Signature]

UNITED STATES PATENT OFFICE.

J. MILTON STEARNS, JR., OF BROOKLYN, NEW YORK.

TELEPHONIC RECEIVER.

SPECIFICATION forming part of Letters Patent No. 248,117, dated October 11, 1881.

Application filed June 6, 1881. (No model.)

To all whom it may concern:

Be it known that I, J. MILTON STEARNS, Jr., of the city of Brooklyn, in the county of Kings and State of New York, have invented
5 an Improvement in Telephonic Receivers, of which the following is a specification.

My invention relates to an improvement upon what is known as the "Reiss" receiving-telephone; and it consists in forming the core
10 with wedge-shaped grooves or threads, either spirally, like a screw, or in rings; further, in securing said core into a block of wood or other material and arranging the coil about it; further, in covering said core and coil with a
15 sounding-box; and, finally, arranging said receiver in connection with an induction-coil, all of which is fully set forth in the following specification, and shown in the accompanying drawing, which forms part thereof.

20 The object of this invention is the construction of a simple, cheap, and durable commercial telephonic receiver.

The drawing represents my improved telephone (part in section) as arranged with the
25 induction-coil and line.

In the drawing, A is the receiver-coil, and is arranged about the core B of soft iron, and by which it may be secured to the block of wood D. This core, as shown, is simply a large
30 wood-screw, the screw-threads of which form the wedge-shaped grooves or spirals C. One terminal of the coil A is connected with the binding-post F and the other with the binding-post G, which posts are in circuit by wire
35 I with the terminals of the primary or coarse-wire coil of the induction-coil H, and the secondary coil of fine wire is in connection with the ground Q and line L. The wedge-shaped threads react upon each other upon the pas-
40 sage of an electric current through the coil A,

and the sound emitted by the lengthening and shortening of the core is greatly increased, and is made distinctly audible by means of the sounding-box E, arranged over the instrument.

I do not limit myself to the shape of the spirals or grooves; but in practice I prefer sharp,
45 deep threads, and tolerably near to each other.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—
50

1. A core of a telephone-receiver magnet provided with threads cut thereon and arranged circumferentially or spirally about said core, in combination with a helix and its bobbin, the outer edge of the thread being only in contact
55 with the bobbin of said helix, substantially as and for the purpose specified.

2. A telephone-receiver consisting of the core B, provided with threads C, block D, coil A, arranged about said core and clamped by
60 it firmly to the block D, and sounding-box E without a diaphragm, as and for the purpose specified.

3. A telephone-receiver consisting of the core B, provided with threads C cut thereon, coil A, arranged about said core and clamped rigidly to the block D, and sounding-box E without a diaphragm, in combination with circuit
65 I, in connection with the primary wire of the induction-coil H, the fine wire or secondary
70 coil of same being in circuit with the line and ground, substantially as and for the purpose specified.

In testimony of which invention I hereunto set my hand.

J. MILTON STEARNS, JR.

Witnesses:

JOHN M. STEARNS,
GEO. W. GREEN.