

(No Model.)

W. T. BLACK.
ACOUSTIC TELEPHONE.

No. 324,356.

Patented Aug. 18, 1885.

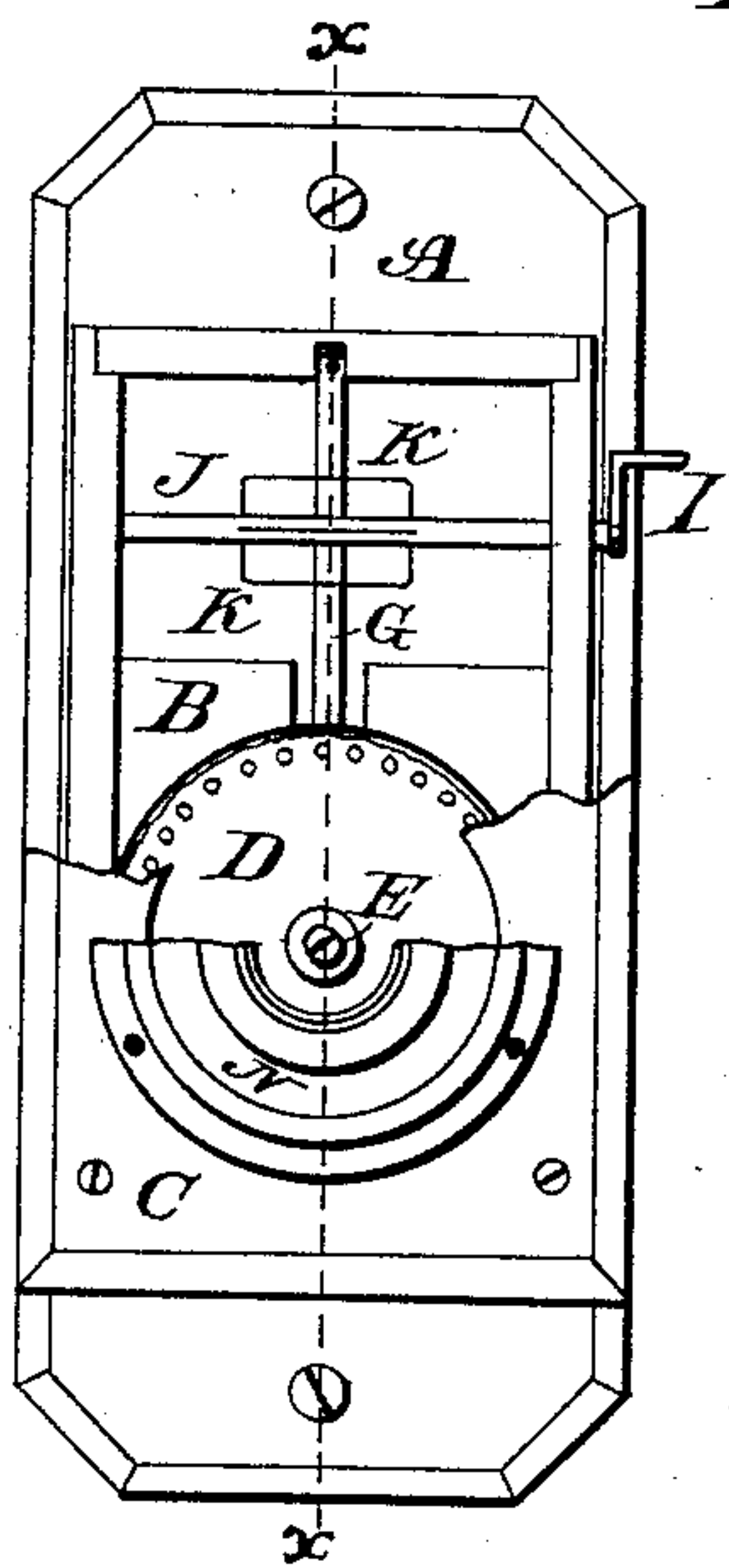
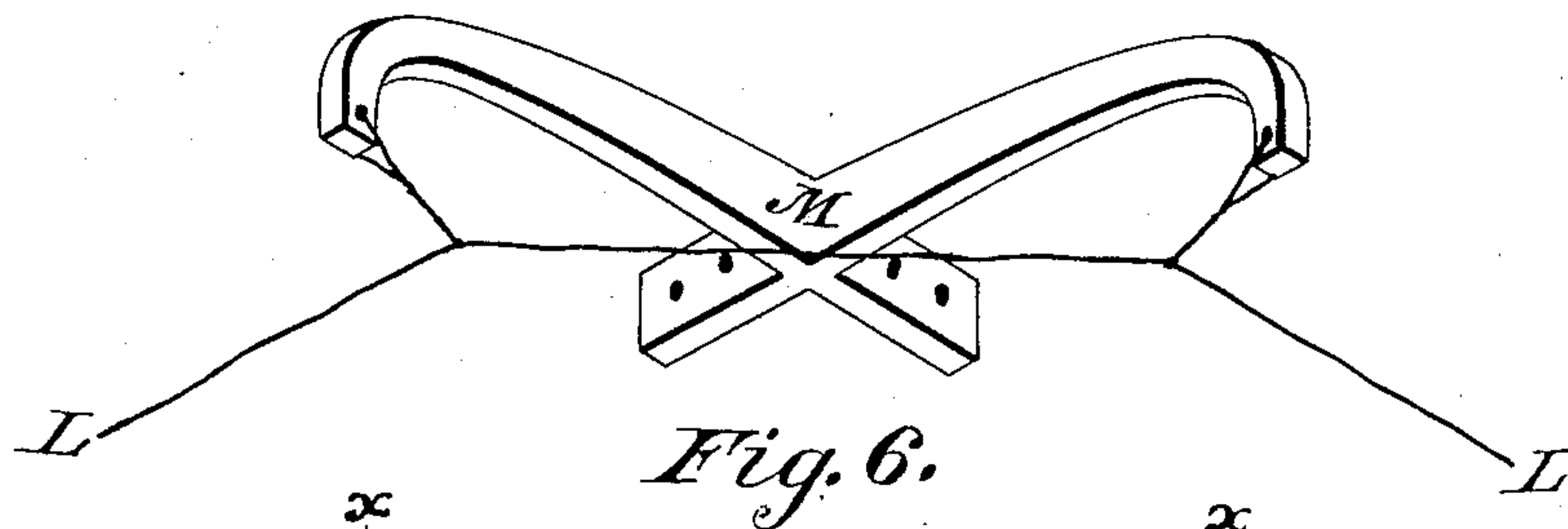


Fig. 1.

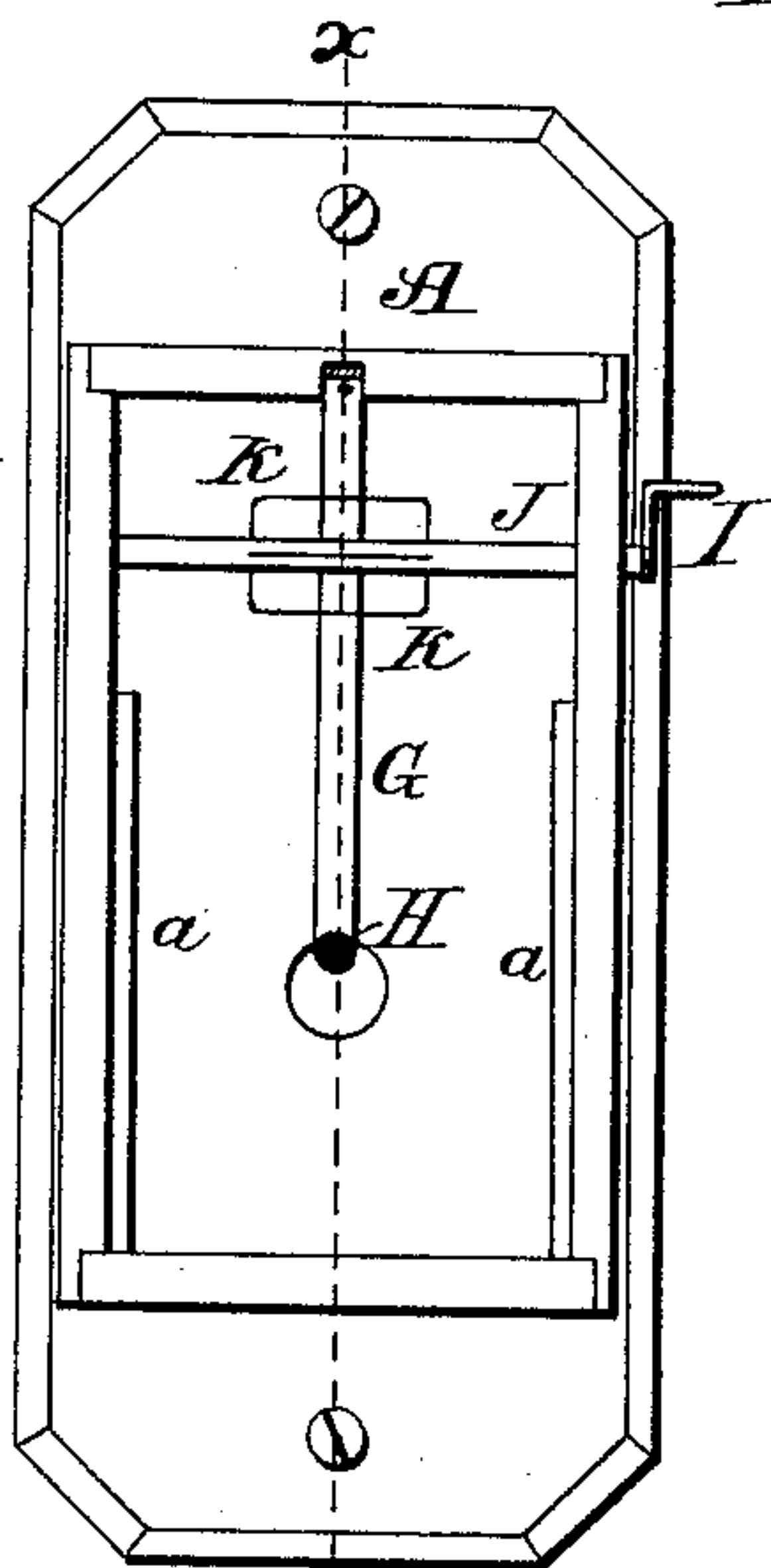


Fig. 2.

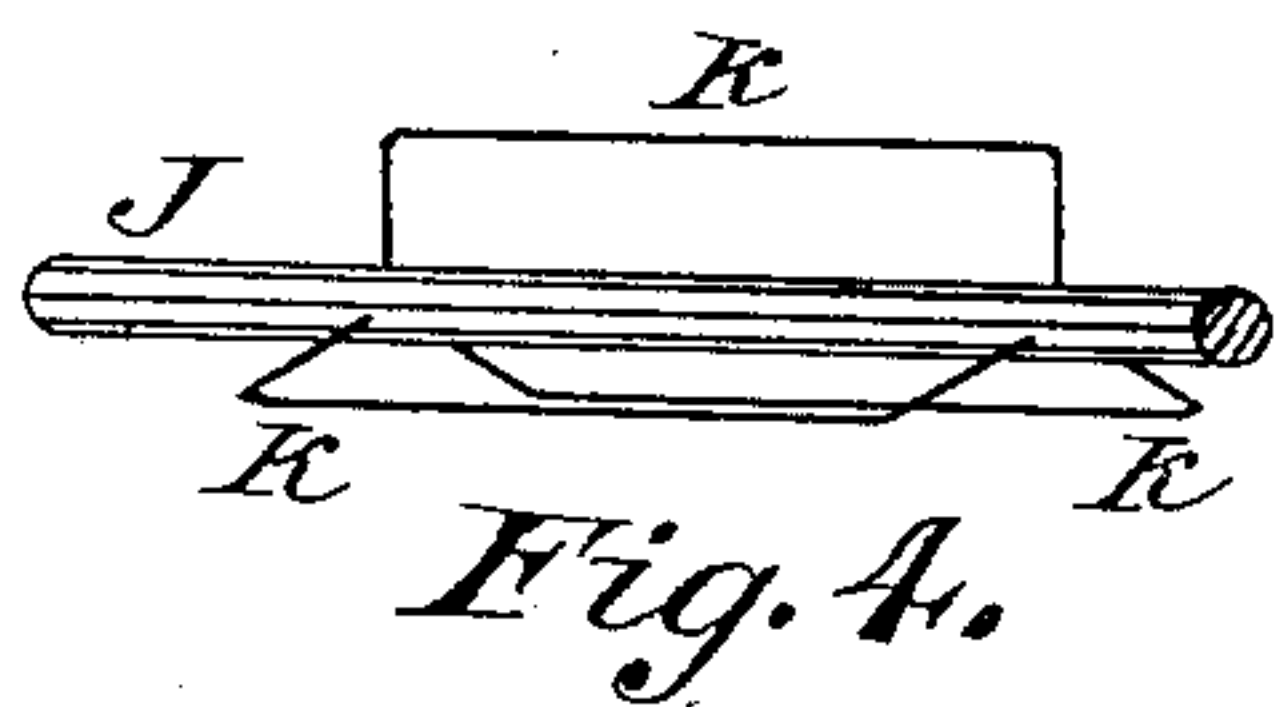


Fig. 4.

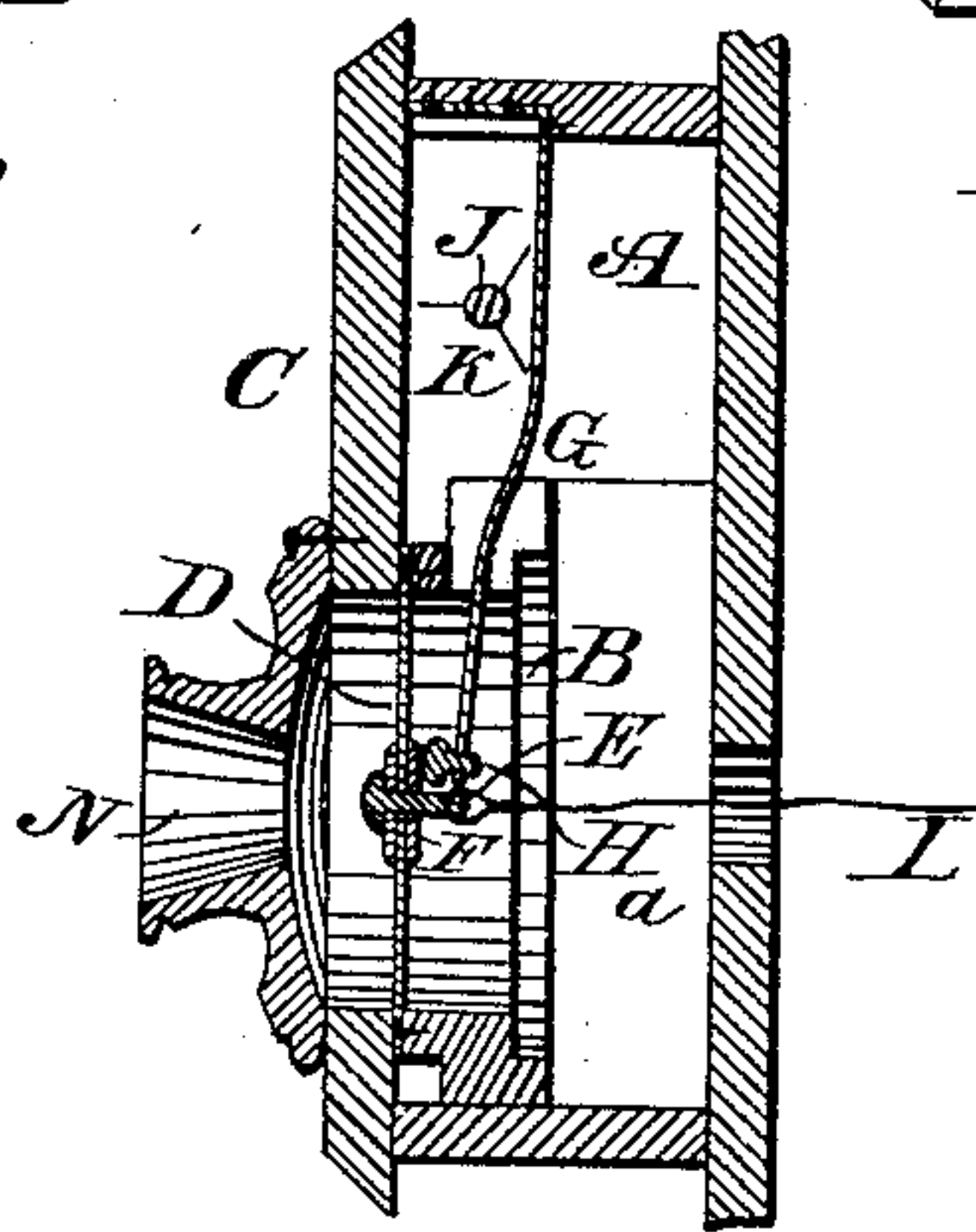


Fig. 3.

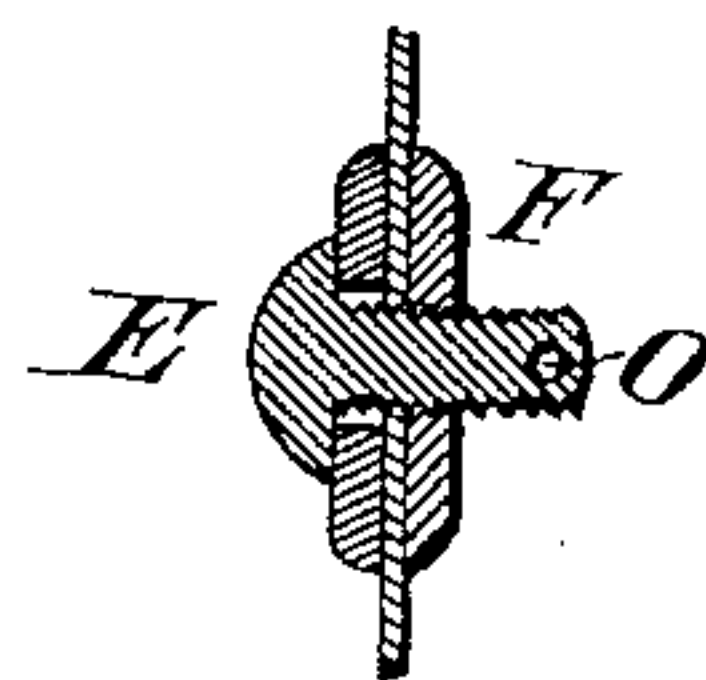


Fig. 5.

WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM T. BLACK, OF CANTON, OHIO.

ACOUSTIC TELEPHONE.

SPECIFICATION forming part of Letters Patent No. 324,356, dated August 18, 1885.

Application filed December 20, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. BLACK, a citizen of the United States, residing at Canton, in the county of Stark and State of Ohio, have invented certain new and useful Improvements in Acoustic Telephones; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon, in which—

Figure 1 is a front elevation showing part of the mouth-piece and cover broken away. Fig. 2 is a front elevation showing the mouth-piece, cover, and diaphragm removed. Fig. 3 is a longitudinal section on lines *x x*, Figs. 1 and 2. Fig. 4 is a detached view of call-shaft. Fig. 5 is a detached sectional view of wire-connection to diaphragm. Fig. 6 is an isometrical view of wire-connection for corners.

The present invention has relation to that class of telephones designed to be used without a battery; and its nature consists in the peculiar arrangement of the different parts and combination of parts hereinafter described, and particularly pointed out in the claim.

Similar letters indicate corresponding parts in all the figures of the drawings.

In the accompanying drawings, A represents the frame, which is substantially of the form shown in the drawings, and is held in proper position by suitable screws or other devices in the ordinary manner.

Within the frame A is located the diaphragm-frame B, as seen in Figs. 1 and 3, and is held in the desired position by means of the strips *a* and the cover C. To the frame B is attached the diaphragm D, as seen in Figs. 1 and 3. To the diaphragm are attached the wire-connecting bolt or screw E and the call button or plate F, as seen in Fig. 5, said call button or plate F being provided with a threaded opening, so that the bolt or screw E will firmly hold the call button or plate in proper position. A button or plate is placed on the opposite side of the diaphragm for the purpose of protecting said diaphragm.

To the top or upper part of the frame A is securely attached the spring G, which is substantially of the form shown in the drawings, the bottom or lower end of which is provided with a knob or mallet, H, said knob or mallet being so arranged that it will strike against the call button or plate F when the crank I is turned.

The shaft J is located in the top or upper part of the frame A, as seen in Figs. 1, 2, and 3, and is provided with the arms or spokes K, said arms or spokes being arranged substantially as seen in the drawings. The shaft J is placed over the spring G, so that as the arms or spokes K strike against the spring G said spring will be forced away from the call button or plate F, and as soon as the arms or spokes K are turned away from the spring it will fly toward the diaphragm and strike against the call button or plate, and thereby call at the other end of the line.

To prevent the sound from being shunted as the wire L passes around the corner of a building or other object, I provide the frame M, which is substantially of the form shown in Fig. 6.

The operation of my invention is as follows: When it is desired to call, the shaft J is turned, which causes the knob or mallet H to strike rapidly against the plate F and communicate the sound to the instrument at the opposite end of the wire, when communication is carried on through the mouth-piece N.

The wire L is attached to the bolt or screw E through the eye O, as seen in Fig. 3.

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

The bolt or screw E, provided with the call plate or button F and the eye O, in combination with the diaphragm D and the knob or mallet H, substantially as and for the purpose specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

WILLIAM T. BLACK.

Witnesses:

THEO. R. BALLARD,
FRED W. BOND.