

(No Model.)

R. DODSWORTH & J. W. HOLDSWORTH.
Mouth Piece for Speaking Tubes and Telephones.
No. 239,740.

Patented April 5, 1881.

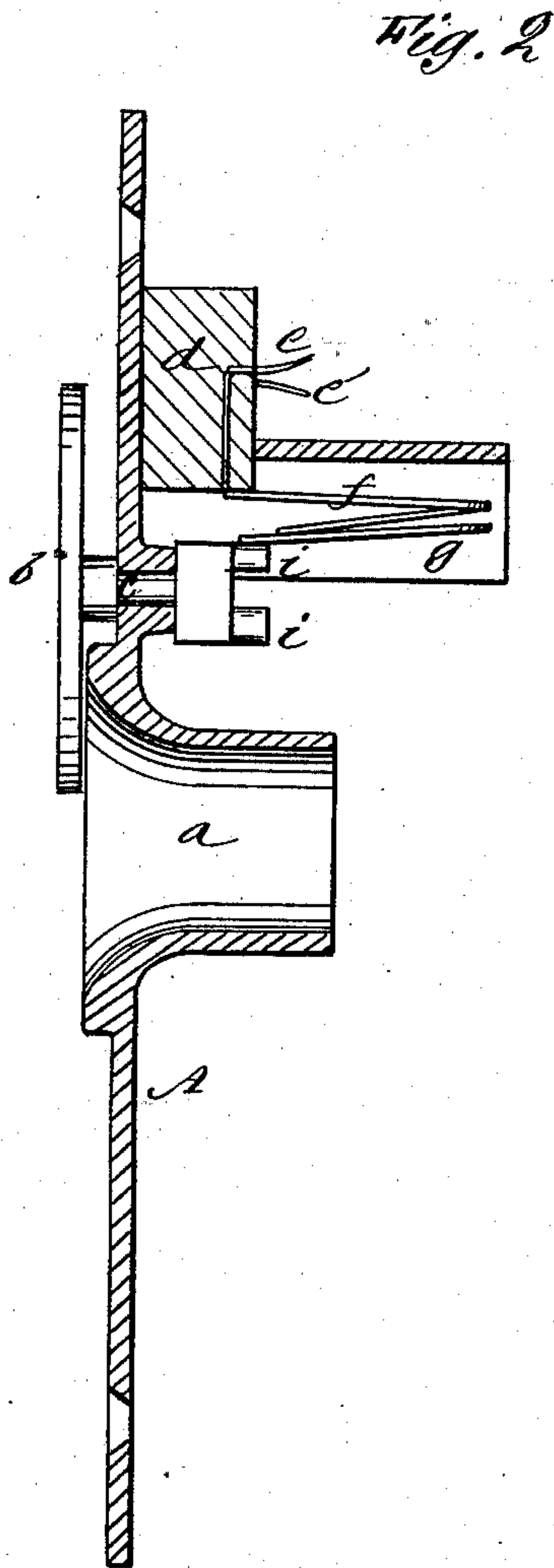
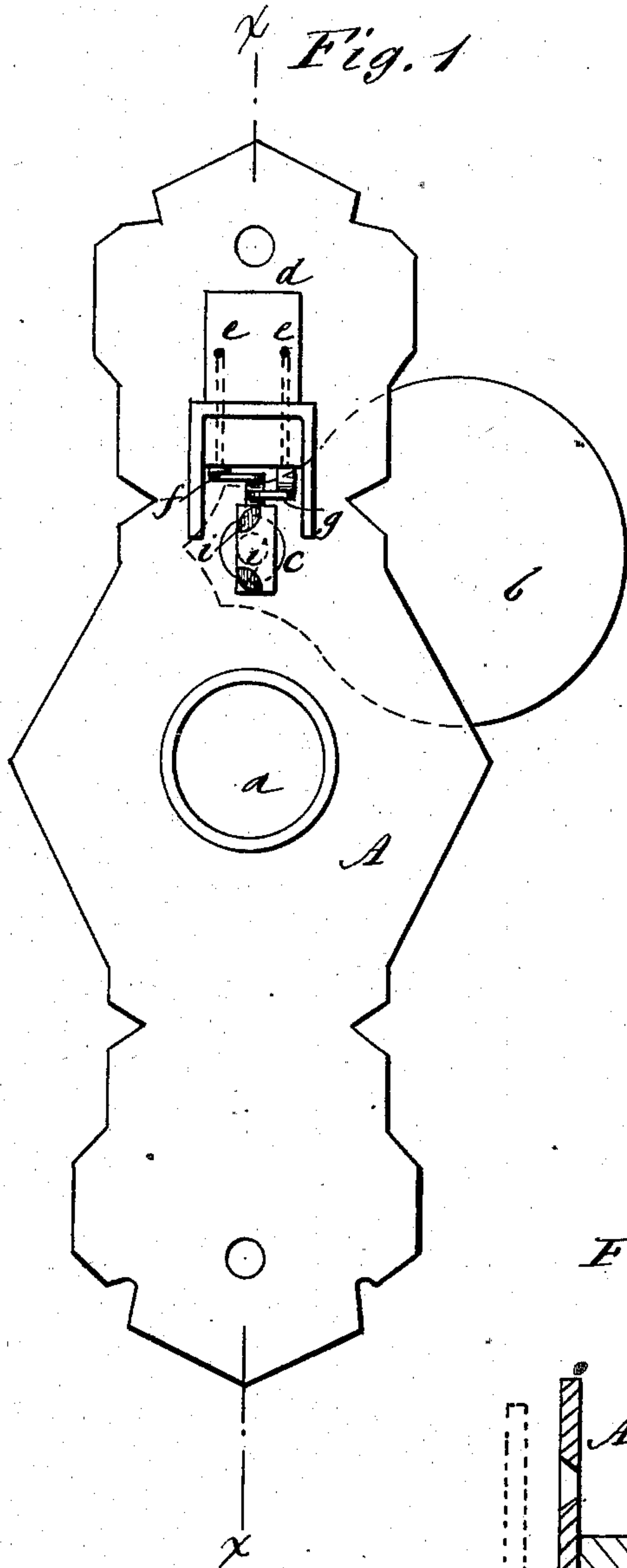
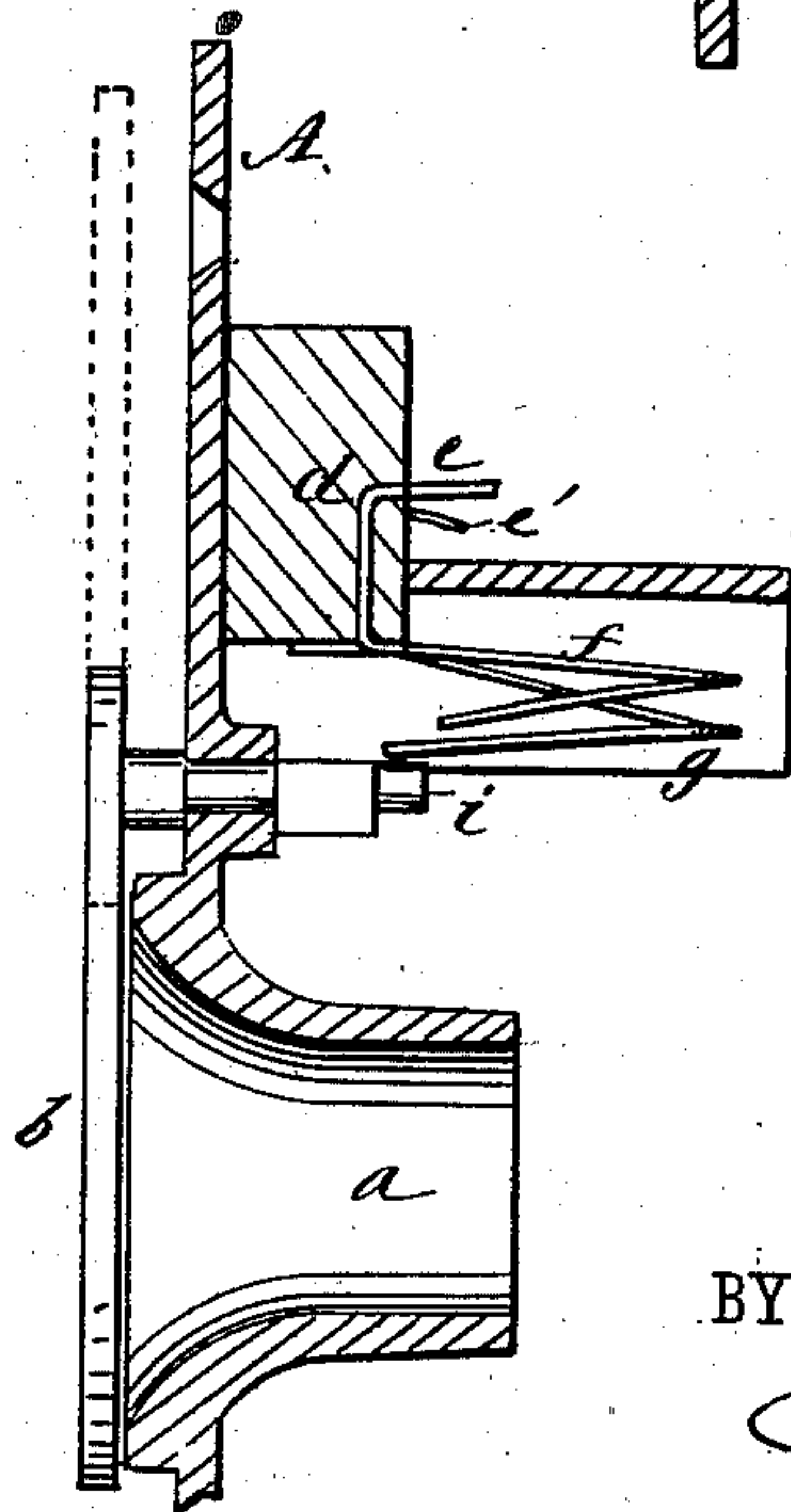


Fig. 3



WITNESSES:

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UNITED STATES PATENT OFFICE.

ROBERT DODSWORTH AND JOHN W. HOLDSWORTH, OF ST. LOUIS, MISSOURI.

MOUTH-PIECE FOR SPEAKING-TUBES AND TELEPHONES.

SPECIFICATION forming part of Letters Patent No. 239,740, dated April 5, 1881.

Application filed September 17, 1880. (No model.)

To all whom it may concern:

Be it known that we, ROBERT DODSWORTH and JOHN WILLIAM HOLDSWORTH, of St. Louis, in the county of St. Louis and State of Missouri, have invented a new and Improved Mouth-Piece for Speaking-Tubes and Telephones, of which the following is a specification.

The object of our invention is to dispense with the press-buttons and other separate devices employed in connection with speaking-tubes and telephone-lines, for ringing an electric bell or giving a signal otherwise by electricity.

Our invention consists in combining the circuit-closing devices with the cover of the mouth-piece of the tube or telephone in such a manner that when the cover is opened the circuit shall be momentarily closed to give the signal.

In the accompanying drawings, forming part of this specification, Figure 1 is a rear elevation of a mouth-piece and plate embodying our invention. Fig. 2 is a vertical section of the same on line *xx* of Fig. 1, with the cover open. Fig. 3 is a similar view with the cover closed.

Similar letters of reference indicate corresponding parts.

A is a plate formed with mouth-piece *a*, as usual, for use in connection with speaking-tubes or telephone-instruments.

b is the cover of the mouth-piece, consisting of a plate hung on a stud or pivot, *c*, that has a bearing in plate A, above the mouth-piece, so that the cover shall fall, by gravity, to close the opening.

At the back of plate A, above pivot *c*, is fixed a block, *d*, preferably of non-conducting material, through which block the ends of the circuit-wires *e e'* pass to the under side, and connect, respectively, to the spring-arms *f g*, that are attached to block *d*, and extend back in a horizontal direction. The end of one arm, *f* or *g*, is extended beneath the end of the other, so that the two ends are contiguous but not in contact.

The inner end of the stud or pivot *c* is formed with an enlargement having two cam-projections, *i*, each of which is shaped to pass beneath and raise the lower spring-arm into contact with the other when the cover *b* is first moved, and release the arm when the cover is fully raised, and also to pass between the two arms when the cover returns to place. The object of having two projections is to obtain the same result whether the cover is turned to the right or left.

The wires *e e'* of the circuit being connected with the electric bell at the distant point, it will be seen that when the cover of the mouth-piece is opened the circuit will be momentarily closed, and the signal given, and the circuit will remain broken until the cover is closed and again opened. The movement of the cover is thus utilized to give a call or signal, which heretofore has been given by press-buttons or similar devices.

It is evident the mechanism may be differently arranged for closing the circuit by movement of the cover, and the invention may be applied in connection with a cover opening outward.

We do not limit ourselves in these details.

Having thus described our invention, we claim as new and desire to secure by Letters Patent—

1. In telephones, the combination, with the mouth-piece *a*, of a mouth-cover, *b*, connected with the circuit-closing devices and swinging laterally to close the circuit, whereby the side movement of the cover at one end sounds the alarm at the other, as described.

2. The swinging cover *b*, having its pivot provided with cam-projection *i*, and the spring-arms *f g*, connected with the wires of an electric circuit, combined with the mouth-piece of a speaking-tube or telephone, substantially as and for the purposes set forth.

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Witnesses:

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