

(No Model.)

A. G. TISDEL.
Telephone Transmitter.

No. 237,341.

Patented Feb. 1, 1881.

Fig: 1.

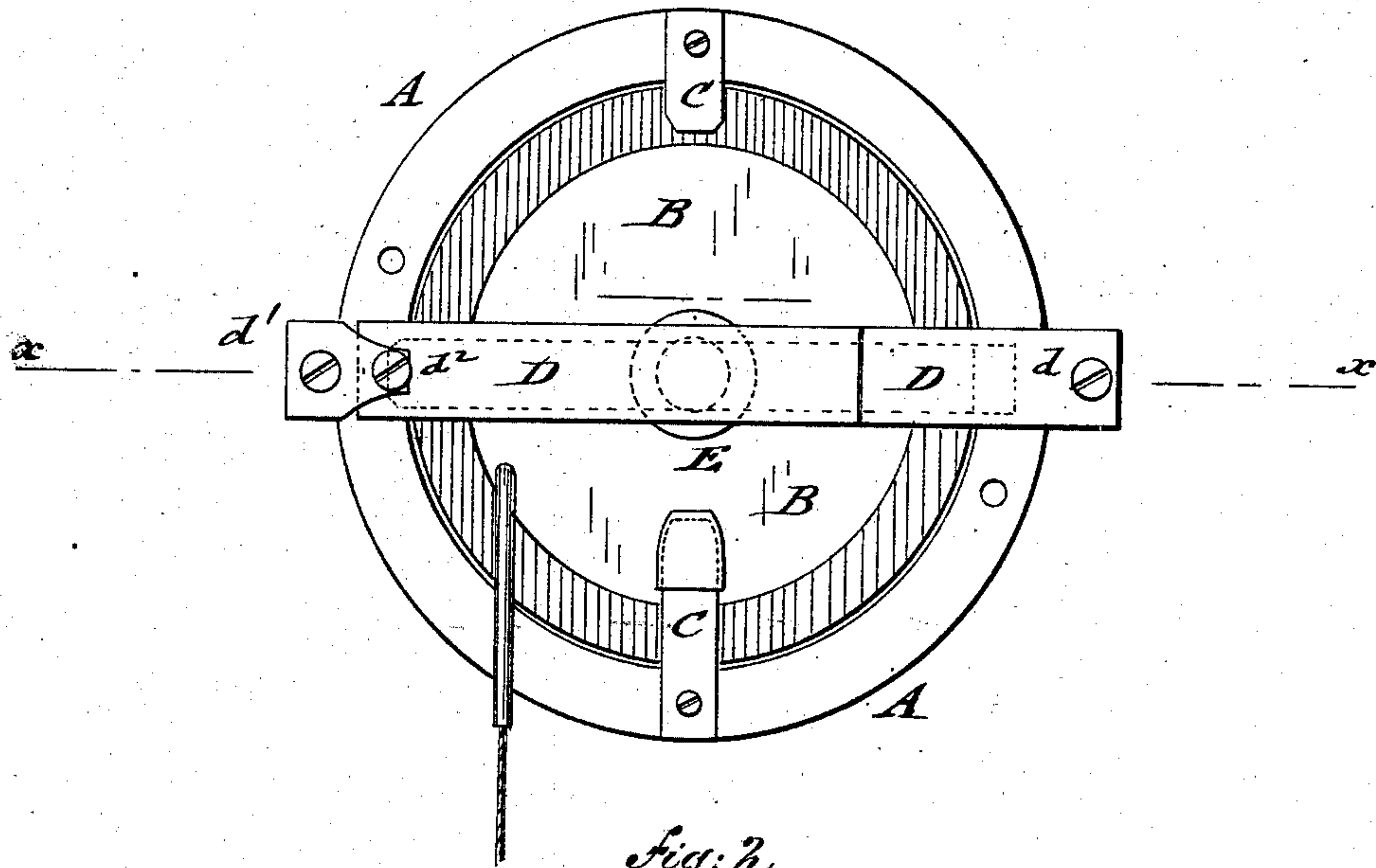


Fig: 2.

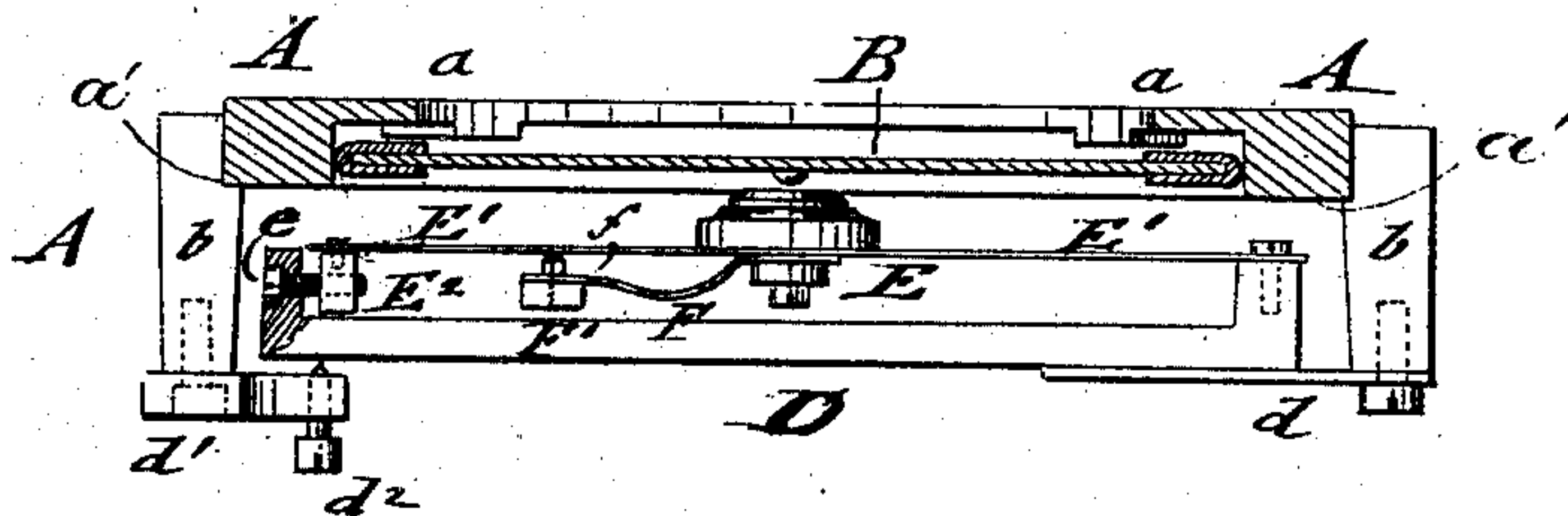
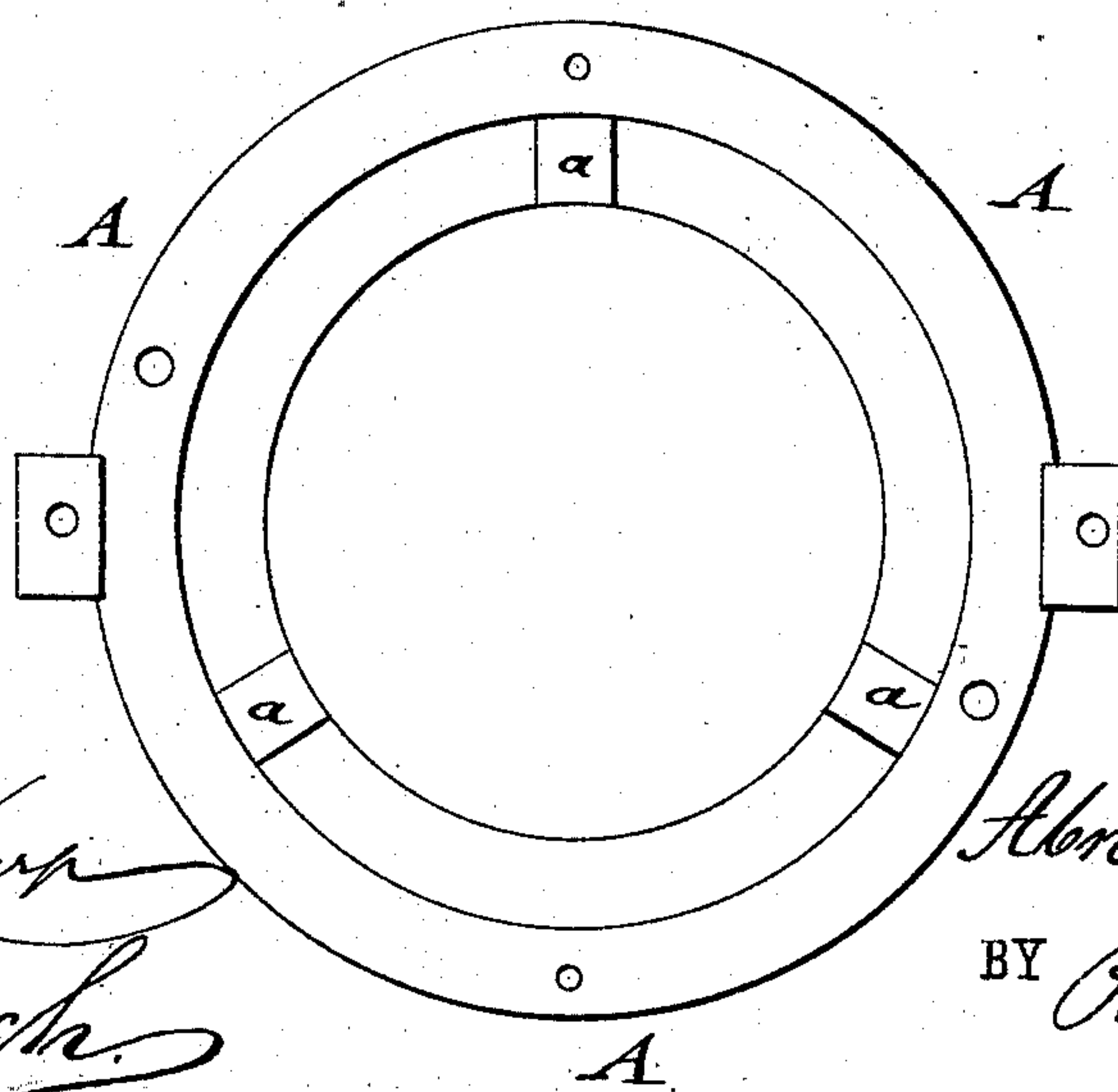


Fig: 3.



WITNESSES:

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TELEPHONE-TRANSMITTER.

SPECIFICATION forming part of Letters Patent No. 237,341, dated February 1, 1881.

Application filed September 24, 1880. (No model.)

To all whom it may concern :

Be it known that I, ABNER G. TISDEL, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Telephone-Transmitters, of which the following is a specification.

This invention has reference to improvements in transmitting-telephone instruments, by which the adjustment of the carbon button toward the vibrating diaphragm is made with greater facility and certainty, and by which, furthermore, the musical sound-vibrations that tend to obscure the transmission of articulated sounds are neutralized or done away with; and the invention consists of a transmitting-telephone, the carbon button of which is mounted upon a strained metallic ribbon or band, which is rigidly attached to one end of a solid bridge, while the opposite end is attached to an adjustable straining-block.

The invention consists, secondly, of a damper-block attached to the straining-ribbon by means of a spring-band; and, lastly, of supporting the diaphragm on raised rests of the main frame of the transmitter.

In the accompanying drawings, Figure 1 represents a rear elevation of my improved transmitting-telephone; Fig. 2, a vertical horizontal section of the same on line *x x*, Fig. 1; and Fig. 3 is a detail rear view of the annular main frame of the transmitter, showing the supporting-rests of the diaphragm.

Similar letters of reference indicate corresponding parts.

In the drawings, A represents the annular main frame of the transmitter, and B the vibrating diaphragm of the same, which is lined around its circumference with rubber, as usual in telephones. The diaphragm rests on three or more seats, *a*, at the inside of the frame A, by which the diaphragm is made more sensitive to the sound-vibrations, as the contact-surface with the rim of the frame A is made very small, instead of extending all around the entire circumference. The diaphragm is, furthermore, not liable to stick to the frame or be impeded by dust or otherwise. The diaphragm B and seats or rests *a* are encircled by a raised annular shoulder, *a'*, of greater height than the seats, which shoulder, like the seats,

is cast in one piece with frame A. The diaphragm is retained by means of spring-contacts C, as shown in Fig. 1. The annular main frame A is cast at diametrically-opposite points with supports *b*, to one of which is firmly attached, by a connecting spring-plate, *d*, a solid bridge-piece, D. To the opposite post, *b*, is applied a bracket-plate, *d'*, with set-screw *d''*, which set-screw bears upon the free end of the bridge-piece D, and serves to adjust the same nearer to or farther away from the vibrating diaphragm B.

The carbon button E is mounted centrally upon a metallic band or ribbon, E', which is rigidly secured at one end to the bridge-piece D, and at the opposite end to a straining-block, E², that is capable of lateral adjustment toward or away from the opposite end of the bridge-piece by a set-screw, *e*. This adjustable straining-block serves to impart a greater or less degree of tension to the metallic ribbon, so as to render it more or less sensitive to the vibrations of the diaphragm B. This forms an essential point of my construction, as thereby a firm and reliable support is imparted to the carbon button, and the same is thereby not liable to be thrown back too far from the platinum contact-point of the diaphragm by the vibrations of the same, but is kept permanently at a uniform distance therefrom.

To the carbon button E is attached a spring-band, F, intermediately between the strained metallic ribbon and the bridge, which spring-band carries at its outer end a weighted damper-block, F. A contact-pin, *f*, of the damper-block is faced with soft rubber, and forms contact with the ribbon E', it serving to neutralize any excess of vibrations of the same, and also the musical sounds, which, to a greater or less extent, tend to obscure the articulated sounds transmitted by the telephone. This damper-block forms an important auxiliary to the button-carrying ribbon, and renders the transmitting-telephone more reliable and effective in practical use.

Having thus described my invention, I claim as my invention and desire to secure by Letters Patent—

1. In a transmitting-telephone, the combi-

nation of the vibrating diaphragm B with a ring-shaped main frame, A, having raised seats *a* and a raised annular shoulder, *a'*, encircling the diaphragm B, substantially as set forth.

2. In a transmitting-telephone, the combination, with the adjustable bridge-piece D, of a metallic straining ribbon or band, E', carrying the carbon button, said ribbon being permanently attached at one end of the bridge, and at the other end to an adjustable straining-block, substantially as and for the purpose set forth.

3. In a transmitting-telephone, the combina-

tion, with a metallic straining ribbon or band, carrying the carbon button, of a damper-block attached to a spring-band and provided with a rubber-faced contact-pin, substantially as specified.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 16th day of September, 1880.

ABNER G. TISDEL.

Witnesses:

PAUL GOEPFEL,
CARL KARP.