

(No Model.)

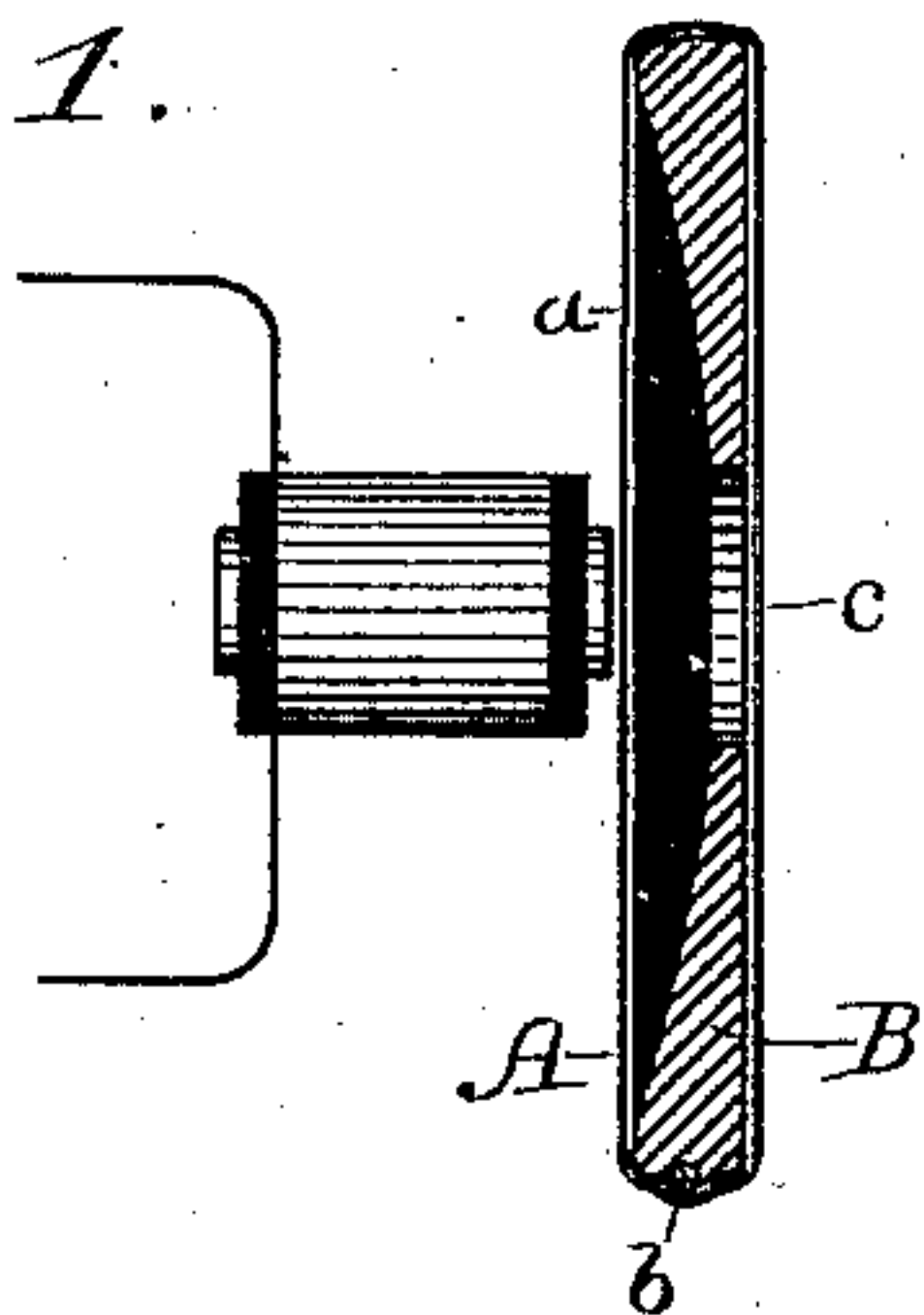
W. C. TURNBULL.

TELEPHONE.

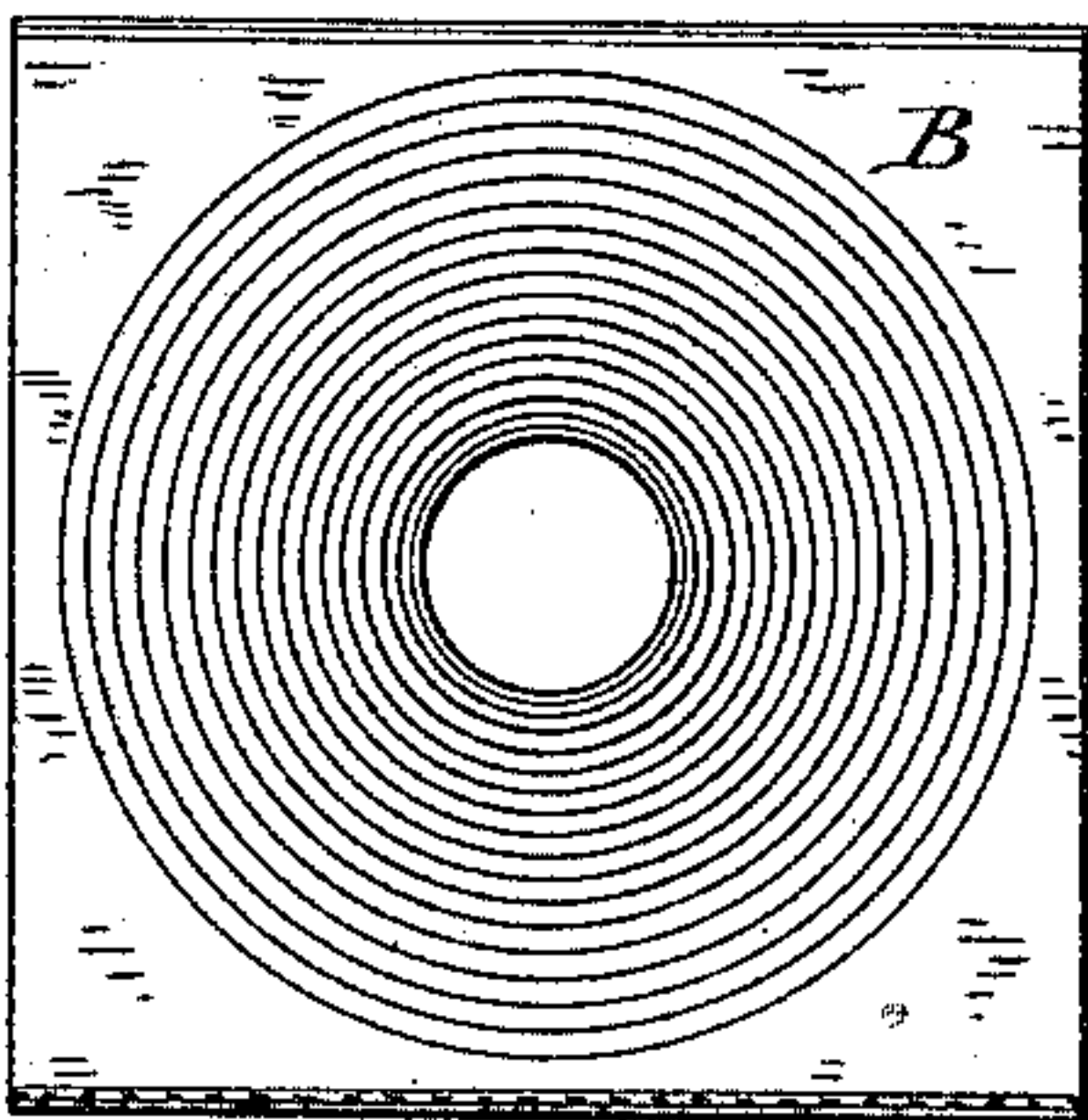
No. 344,067.

Patented June 22, 1886.

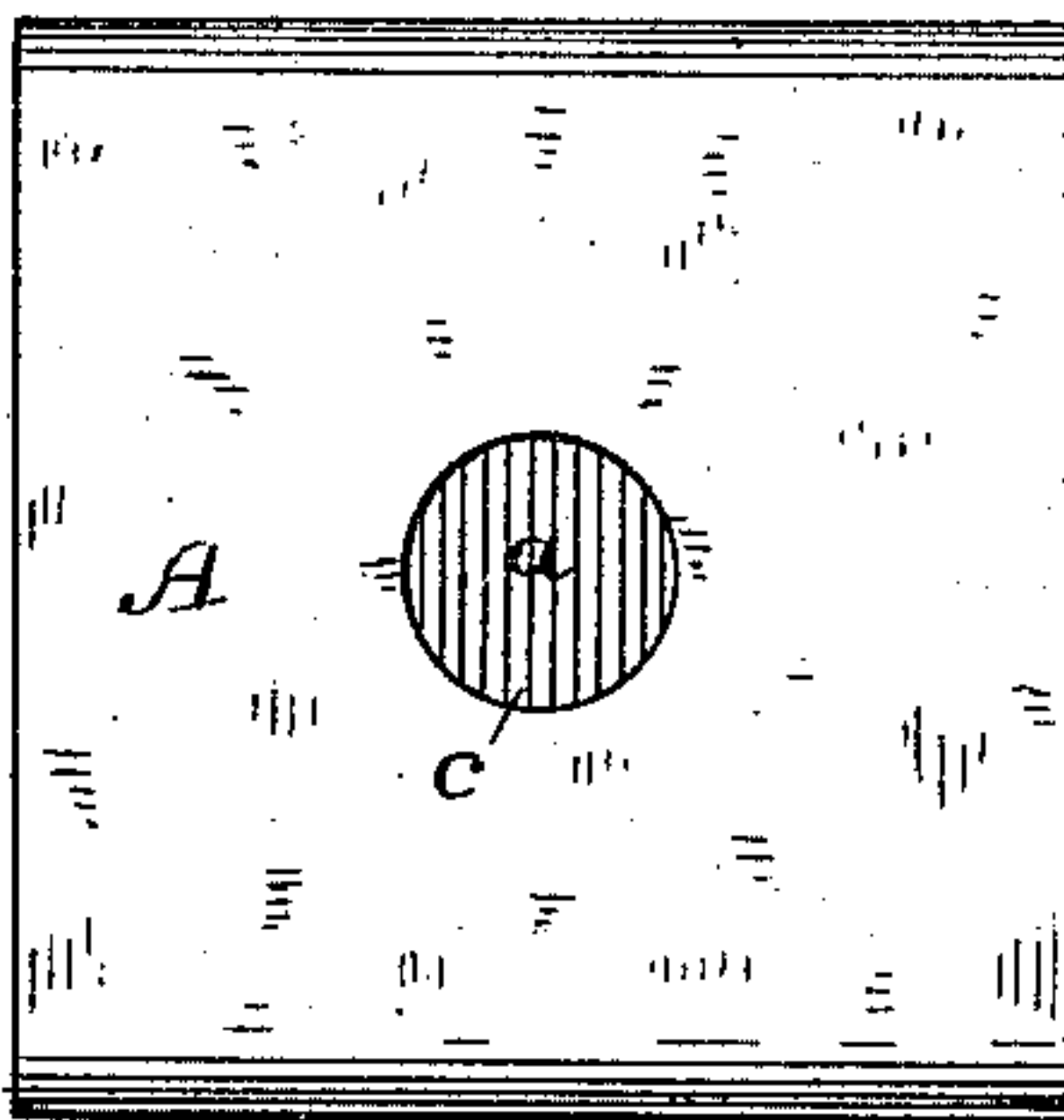
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



WITNESSES

*Ed. A. Newman.*  
*Al. C. Newman.*

INVENTOR

*William C. Turnbull,*  
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*Palmer, Hopkins & Poynter*

# UNITED STATES PATENT OFFICE.

WILLIAM C. TURNBULL, OF BALTIMORE, MARYLAND.

## TELEPHONE.

SPECIFICATION forming part of Letters Patent No. 344,067, dated June 22, 1886.

Application filed April 16, 1886. Serial No. 199,133. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM C. TURNBULL, of Baltimore, Maryland, have invented certain new and useful Improvements in Speaking-  
5 Telephones, of which the following is a specification.

The primary object of my invention is to construct a receiving-telephone for use in connection with a variable-contact transmitter,  
10 although the instrument may also be constructed for use as a magneto transmitter or receiver.

The peculiarities of structure will appear from the following specific description.

In the accompanying drawings, Figure 1 is  
15 a view in central section; Fig. 2, a view of the support with the flat tube removed, and Fig. 3 a front view showing the support with the flat tube in place.

In an application for Letters Patent filed by  
20 me February 23, 1886, No. 192,916, I have shown a vibrating plate held at two edges only and maintained under tension. In my present invention I prefer to make use of a strained plate similarly supported.

25 A represents a flattened tube of soft iron or other inductive material, which is mounted upon a suitable support, B, and is strained or held under tension thereon, preferably by means of a pin, *b*, which is driven between the  
30 edge of the support B and one side of the flat tube. The support B upon one side is turned out or cut away, so as to form a resonating-chamber between it and the plate *a*, or, in other words, one of the sides of the strained  
35 flat tube. The support B is formed with a central aperture at the center, and this resonating-chamber and the opposite side of the

flat tube is formed with a corresponding circular opening, *c*. The magnet and its coil are arranged in suitable juxtaposition to the plate  
40 *a*, while the aperture *c* will of course in practice be arranged in proper relation to a suitable ear or mouth piece. With an instrument thus constructed I obtain a clear, distinct articulation and good volume.

Of course, the structure may be used in a  
45 magneto-instrument or in an ordinary variable-resistance receiver.

I am aware of the construction shown in the patent of Eichmeyer, No. 210,929, and I do  
50 not, therefore, claim such organization.

I claim as my invention—

1. The combination of the strained vibrating rectangular metallic plate *a*, supported at  
55 two opposite edges in straight parallel lines and free to vibrate between said supports, the electro-magnet, the resonating chamber, and an aperture leading from the resonating-chamber and located centrally with reference to the  
60 chamber and vibrating plate.

2. The combination of the magnet, the flat tube having one side formed with an aperture,  
and the support B, having a corresponding aperture.

3. The combination, in a speaking-tele-  
65 phone, of the flat tube, the support B, and the straining or tension pin.

In testimony whereof I have hereunto subscribed my name.

WILLIAM C. TURNBULL.

Witnesses:

E. C. DAVIDSON,  
LLOYD B. WIGHT.