

(No Model.)

W. L. CANDEE.

MOUTH PIECE GUARD FOR PHONOGRAPHS OR TELEPHONES.

No. 401,732.

Patented Apr. 23, 1889.

Fig. 1.

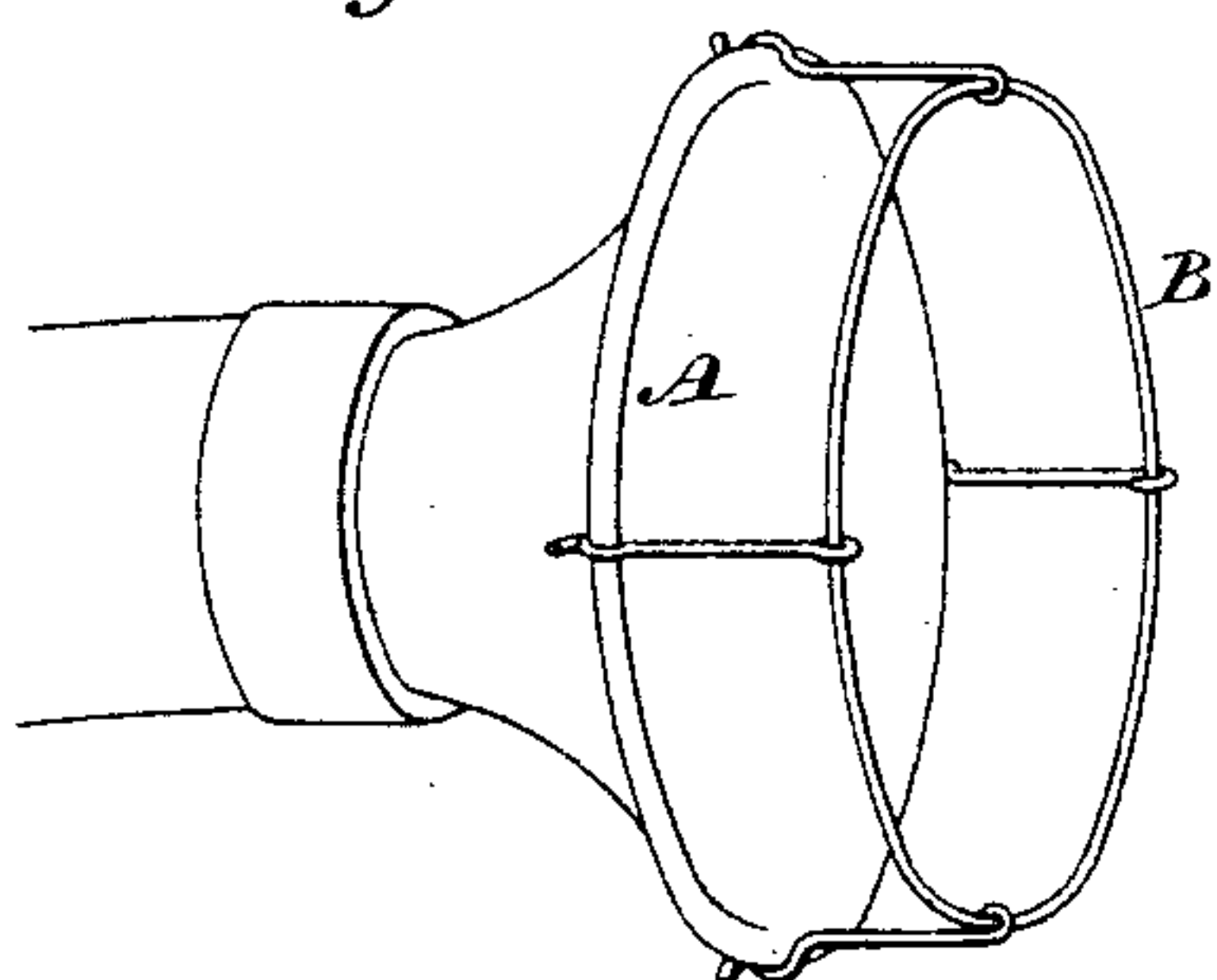


Fig. 2.

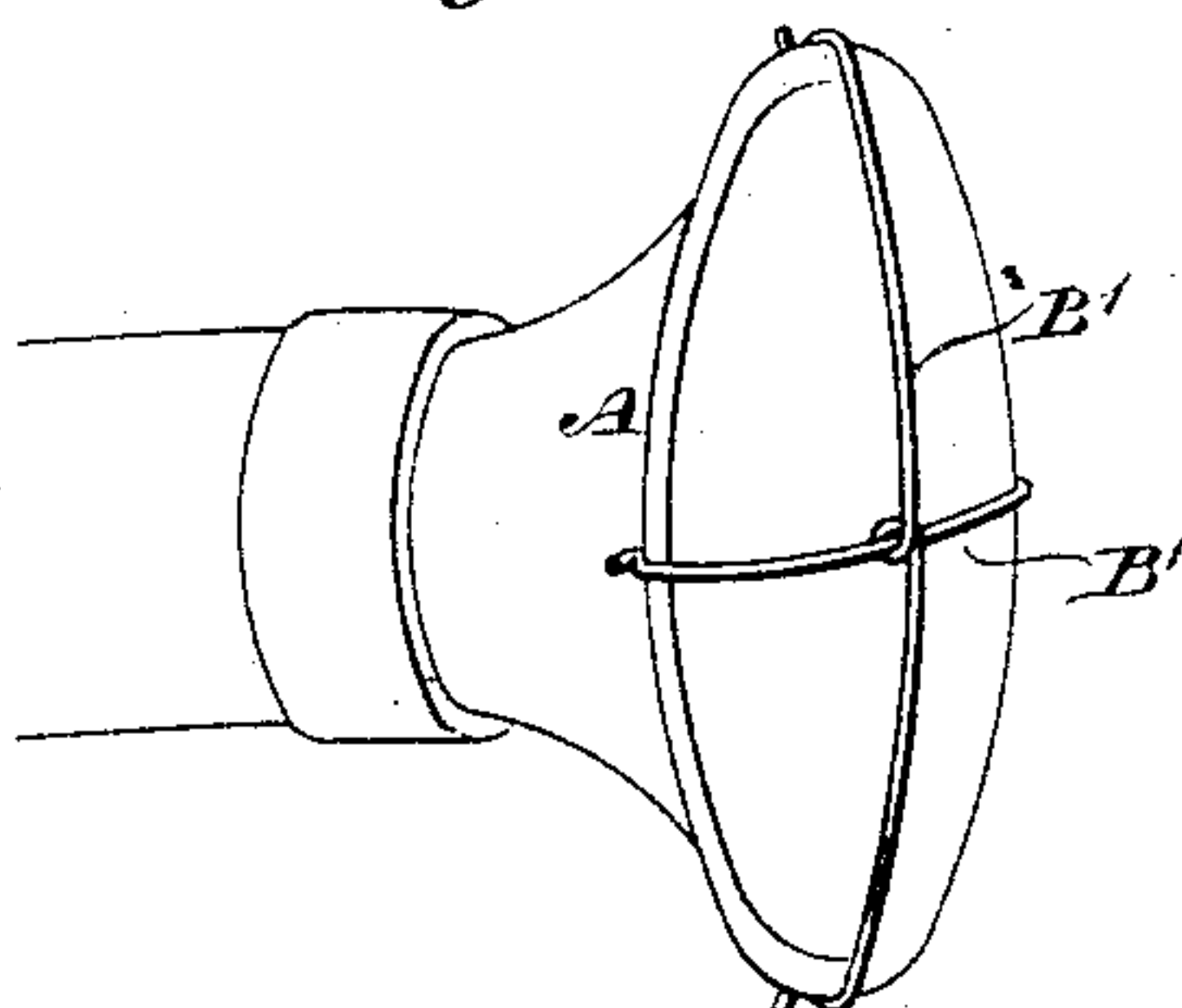


Fig. 3.

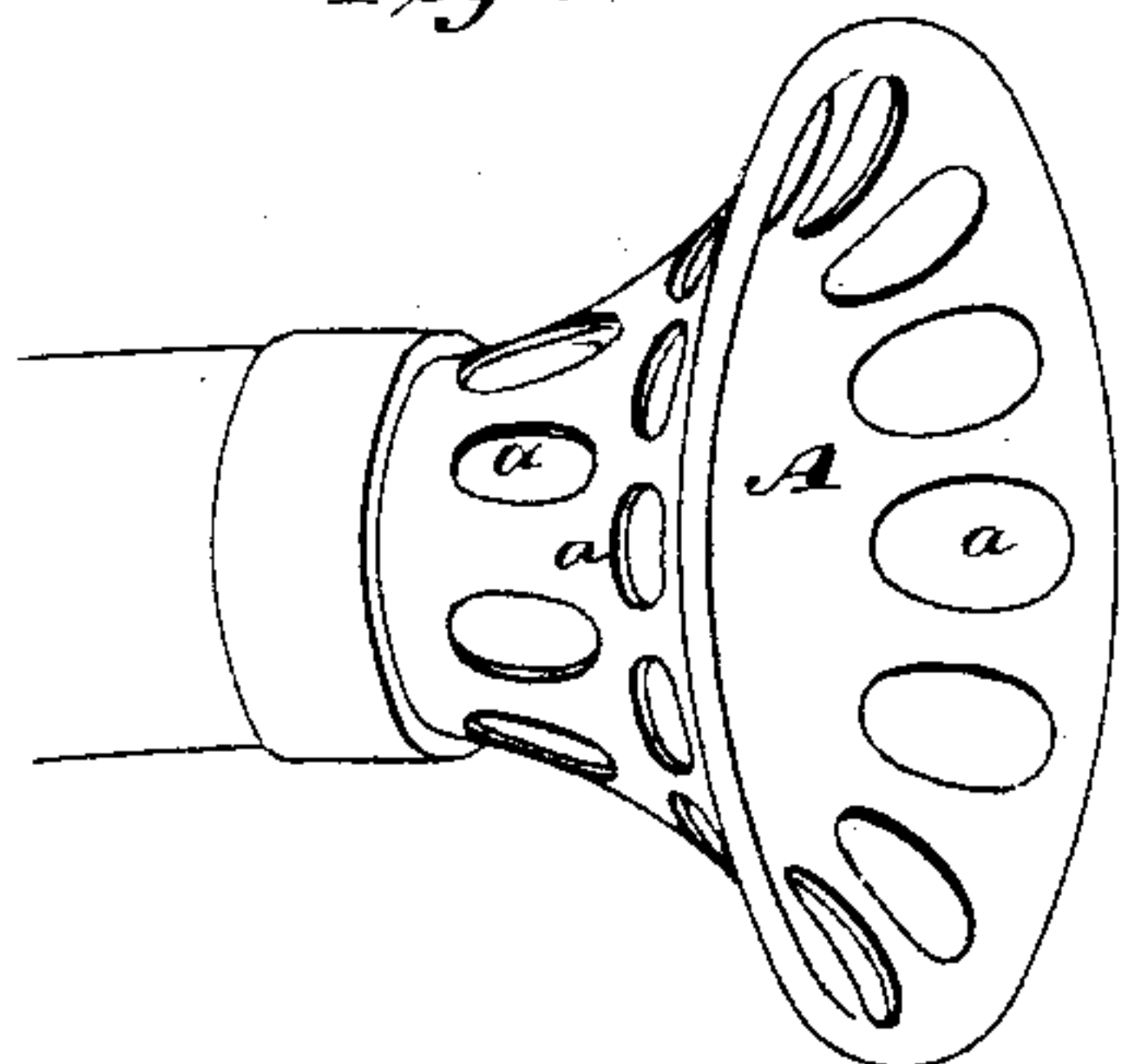


Fig. 4.

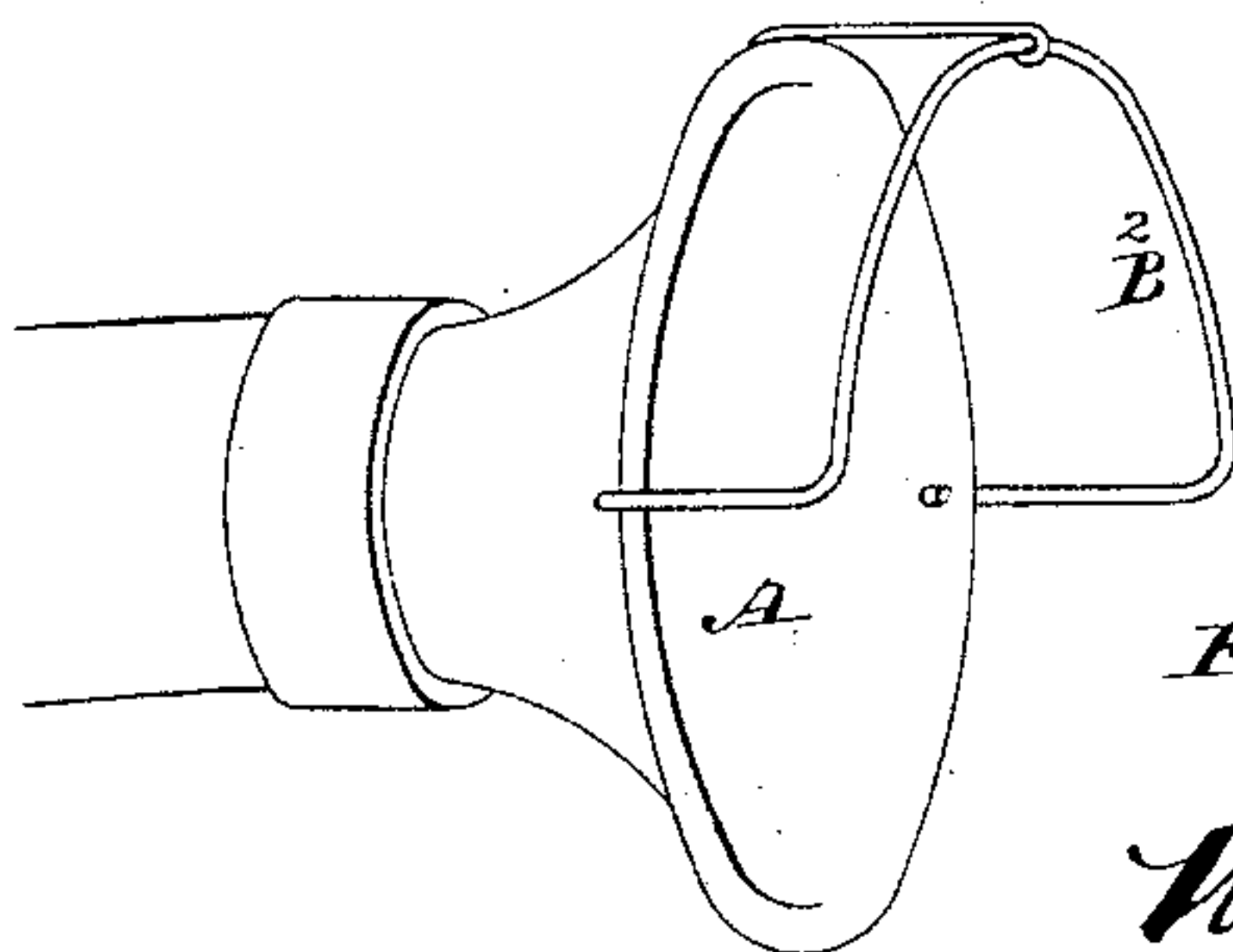
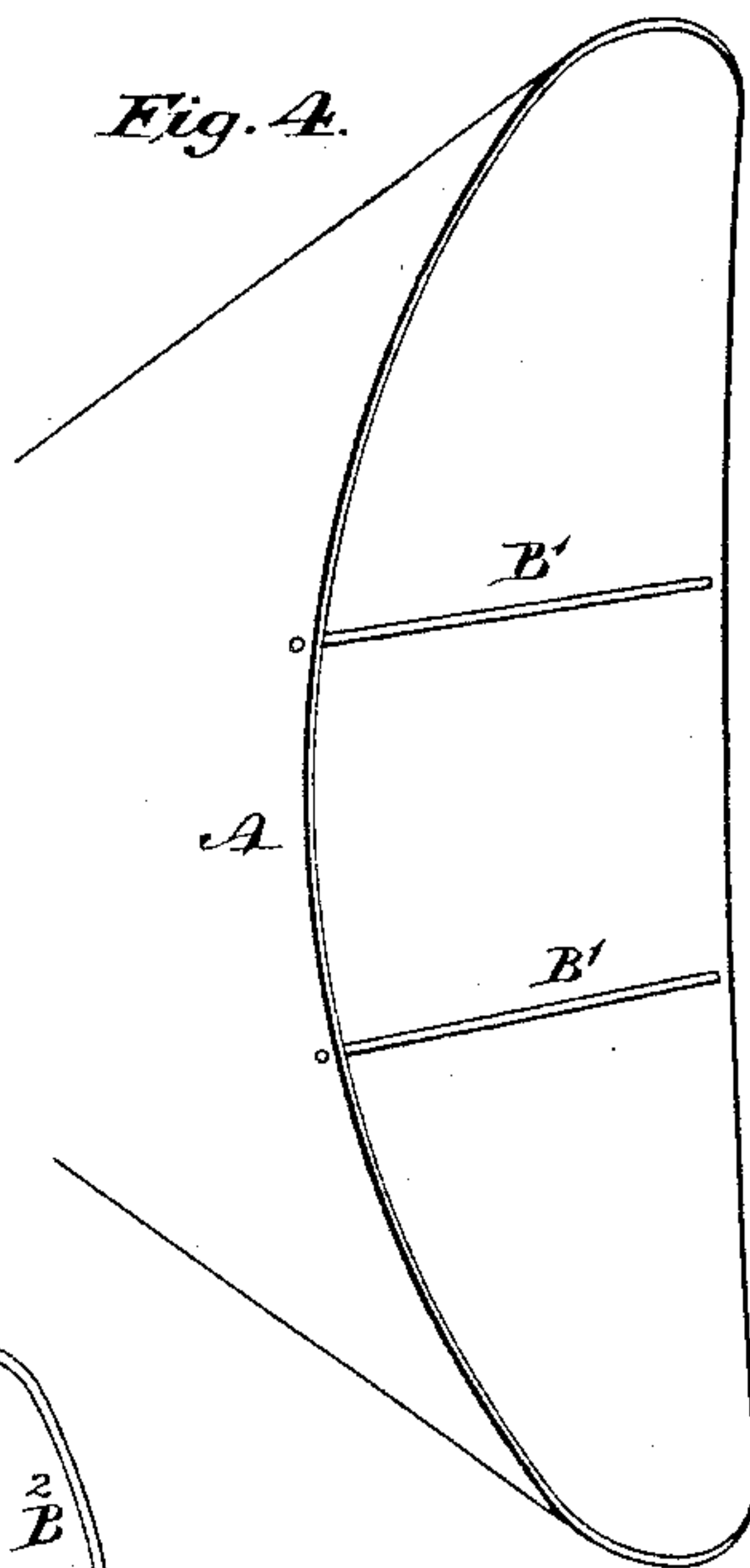


Fig. 5.

Witnesses
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UNITED STATES PATENT OFFICE.

WILLARD L. CANDEE, OF BROOKLYN, NEW YORK.

MOUTH-PIECE GUARD FOR PHONOGRAPHS OR TELEPHONES.

SPECIFICATION forming part of Letters Patent No. 401,732, dated April 23, 1889.

Application filed August 3, 1888. Serial No. 281,841. (No model.)

To all whom it may concern:

Be it known that I, WILLARD L. CANDEE, of Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Guards for Mouth-Pieces or Sound-Conveying Tubes or Chambers for Phonographs, &c., of which the following is a specification.

The object of my invention is to provide improved means for preventing the reverberatory or hollow muffled sound that occurs when words are uttered into a mouth-piece or sound-conveying tube or chamber which is in too close proximity to the mouth.

The invention consists in providing a skeleton mouth-piece or guard in which there is opportunity for escape or circulation of the air agitated by the voice to a sufficient extent to preserve the natural tones of the voice and prevent the objectionable quality of sound above mentioned, which in phonographic and telephonic apparatus materially interferes with their perfect working.

Several forms in which my invention may be embodied are shown in the accompanying drawings, in which—

Figures 1, 2, 3, 4, and 5 are respectively detail perspective views of mouth-pieces constructed in accordance with my invention.

In Fig. 1 an ordinary mouth-piece, A, which may also be considered as representing the ordinary sound-conveying tube or chamber of a phonograph or telephone, is provided with a circular wire guard, B, either permanently or detachably connected therewith. The guard prevents the too close approximation of the lips to the orifice and preserves the purity and distinctness of the words spoken. The same result may be accomplished by arranging wires B' at right angles across the ordinary mouth-piece, as in Fig. 2. The wires are preferably curved and their convex faces turned

outward; or, as shown in Fig. 3, the sides of the ordinary mouth-piece may be cut away, as illustrated at *a*.

Fig. 4 illustrates a form of mouth-piece used with the graphophone. It is relatively much larger than the other mouth-pieces illustrated, and may be conformed to my invention by placing wires B' across its opening, or an arrangement similar to that shown in Fig. 2 might be used.

In Fig. 5 I have shown a semicircular guard, B², applied to the mouth-piece in a manner similar to that shown in Fig. 1.

The different figures serve merely to illustrate some of the forms in which my invention may be embodied.

With such guards better records are made upon the tablets or cylinders of graphophones and phonographs than with ordinary mouth-pieces, and the natural tones of the voice may be reproduced therefrom with distinctness and without any diminution of the usual volume of sound.

I claim as my invention—

1. The combination of the mouth-piece or sound-conveying tube or chamber of a phonograph, telephone, or the like, and an open-work or skeleton guard arranged in front thereof, substantially as and for the purpose set forth.

2. The combination of the mouth-piece or sound-conveying tube or chamber of a telephone, phonograph, or the like, and a skeleton wire frame or guard arranged in front thereof, substantially as and for the purpose set forth.

In testimony whereof I have hereunto subscribed my name.

WILLARD L. CANDEE.

Witnesses:

GEO. T. MANSON,

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