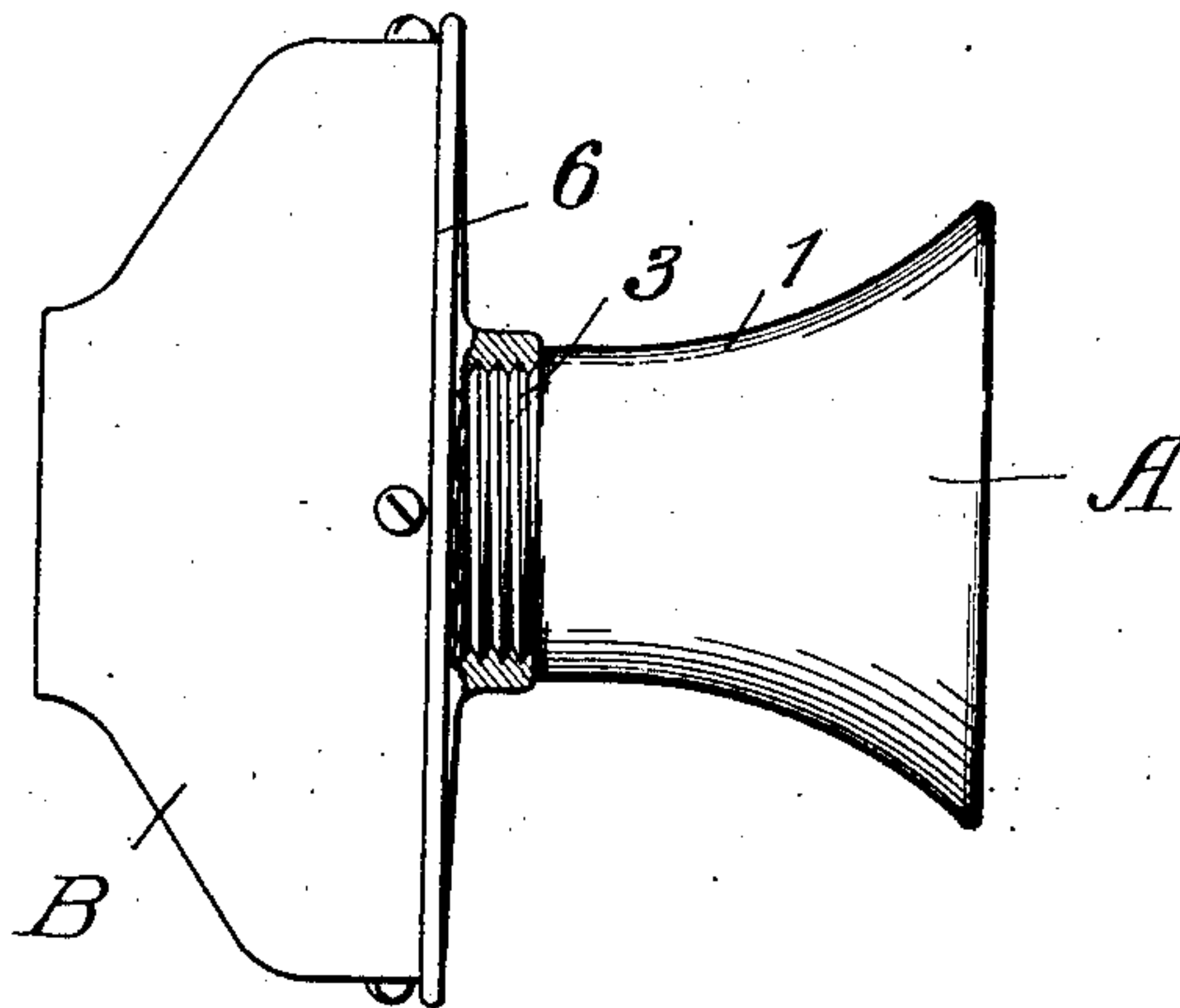


W. W. DEAN.  
TRANSMITTER MOUTHPIECE.  
APPLICATION FILED OCT. 8, 1908.

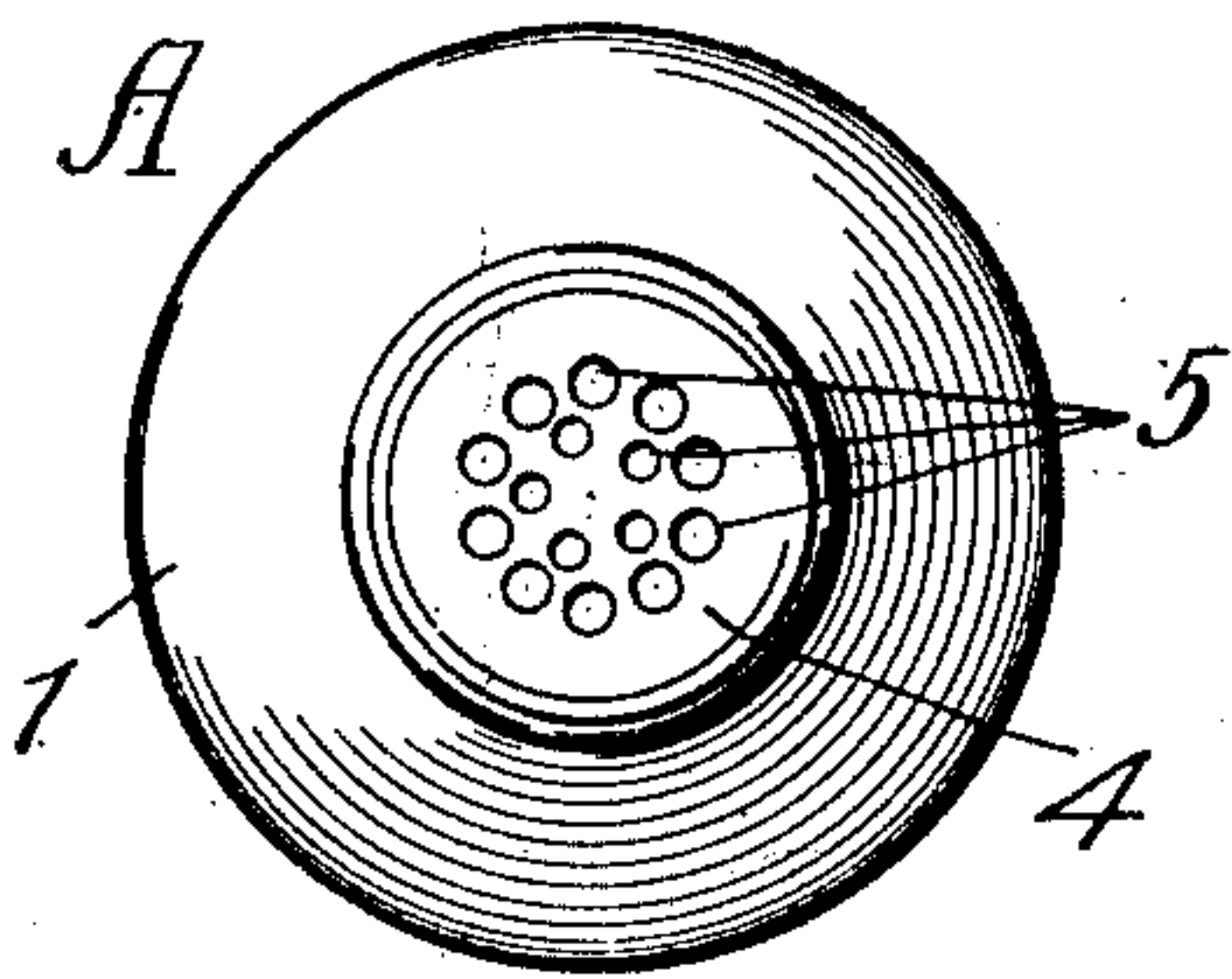
927,643.

Patented July 13, 1909.

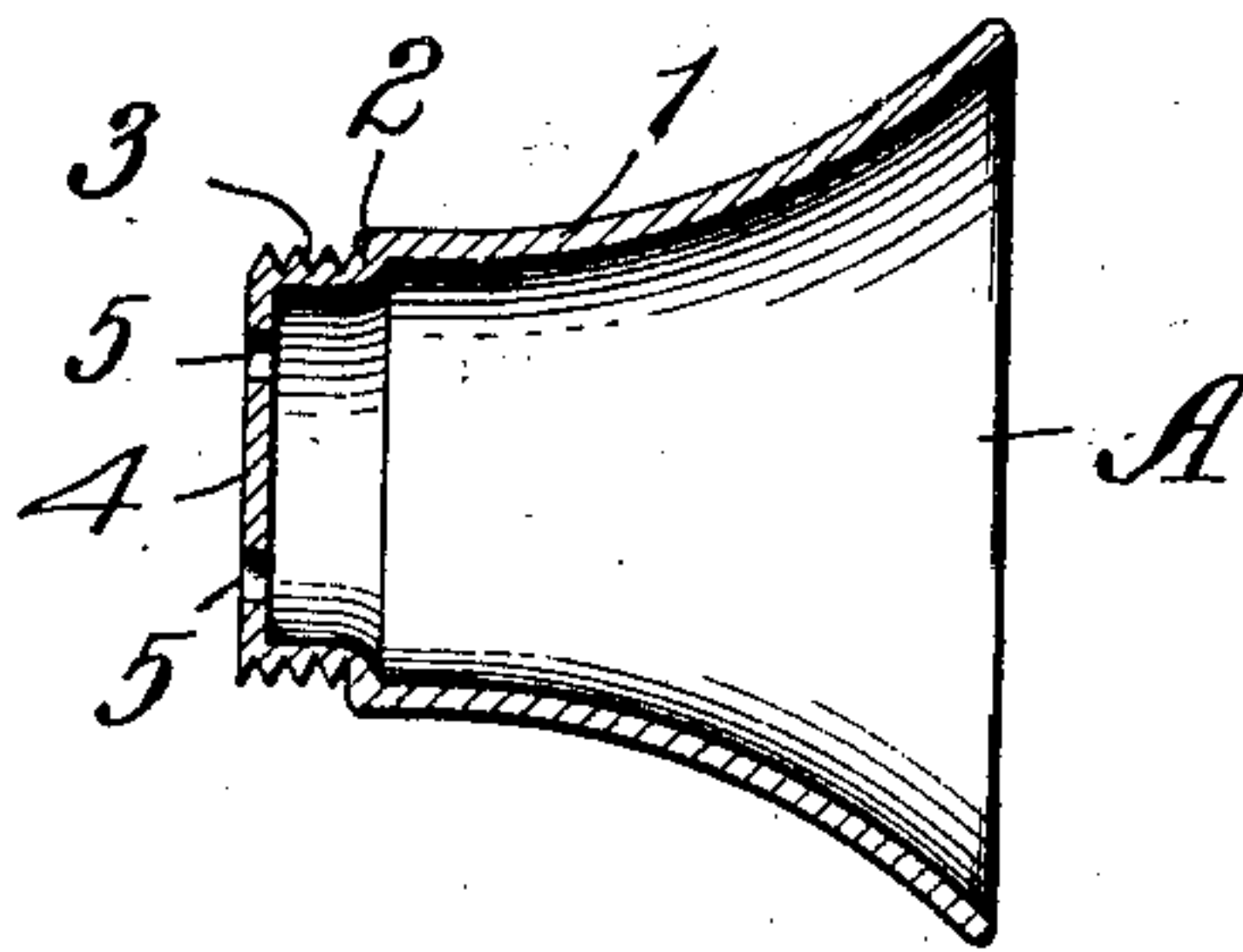
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses:  
Leonard W. Noander.  
George C. Higham.

By.

Inventor  
William W. Dean.  
*Brown & William*  
Attorneys

# UNITED STATES PATENT OFFICE.

WILLIAM W. DEAN, OF ELYRIA, OHIO, ASSIGNOR TO THE DEAN ELECTRIC COMPANY, OF ELYRIA, OHIO, A CORPORATION OF OHIO.

## TRANSMITTER-MOUTHPIECE.

No. 927,643.

Specification of Letters Patent.

Patented July 13, 1909.

Application filed October 8, 1908. Serial No. 456,759.

*To all whom it may concern:*

Be it known that I, WILLIAM W. DEAN, a citizen of the United States, residing at Elyria, in the county of Lorain and State of Ohio, have invented a certain new and useful Improvement in Transmitter-Mouthpieces, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawings, forming a part of this specification.

In the past mouthpieces for telephone transmitters have commonly been made of insulating material of one form or another, and since they have generally been constructed of non-metallic material there has been a large amount of difficulty attending their use as a result of breakage. Furthermore, mouthpieces of this class are comparatively expensive and it is an object of this invention to eliminate these difficulties by the construction of a metallic mouthpiece adapted to be formed from sheet metal by means of dies. In connection with forming my improved mouthpiece of sheet metal several important advantages result which will be explained below.

The several drawings illustrating my invention are as follows:

Figure 1 is a side view of my improved mouthpiece in position in a transmitter casing. Fig. 2 is a rear end view of the mouthpiece; and Fig. 3 is a longitudinal sectional view taken through the center of the mouthpiece.

Similar reference characters refer to similar parts throughout the several views.

The transmitter mouthpiece A, as shown in Fig. 1, consists of a bell-shaped body portion 1 so formed that its smaller end is of somewhat less diameter than the portion of the body of the mouthpiece adjacent thereto, these two portions being separated by a shoulder 2. The smaller end portion has threads 3 formed on its outer surface. The end of this smaller portion is closed by an integral wall 4, in which perforations 5 are made. The threaded portion 3 is adapted to engage and cooperate with an internally threaded flange formed on the front plate 6 of the transmitter casing B. The shoulder 2 is adapted to bear against the outer end of the flange formed on the front plate 6. In constructing my mouthpiece a circular blank of sheet metal is first punched out and this

is then drawn into the shape shown in the drawings by means of suitable forming dies. After having been thus formed the outer edge of the bell-shaped portion is rounded to remove the sharp edges and the threads 3 are formed on the smaller end. The perforations 5 are formed in the end wall of the mouthpiece after it has been formed, and these perforations may be made either by punching or drilling as desired. The mouthpiece is then coated with a protecting enamel, as japan, which serves to protect it from corrosion by the moisture in the atmosphere or by moisture precipitated from the breath of the user, and in this connection it is to be noted that it is very advantageous to have the wall 4 at the extreme end of the mouthpiece in order that all of the moisture thus precipitated may drain from the mouthpiece and that none of it may collect and do damage back of the perforated wall within the transmitter casing. In transmitter mouthpieces as heretofore constructed a perforated wall has generally been used, located a short distance from the smaller end of the mouthpiece, thus leaving a section of the mouthpiece within the perforated wall that it is impossible to clean and which readily collects moisture and foreign particles that may be in the atmosphere.

It is to be noted that by constructing telephone transmitter mouthpieces as described above, comparatively thin material may be used, while heretofore in order to get requisite strength it has been necessary to make these mouthpieces relatively thick, the result being that they presented a clumsy and inartistic appearance. Furthermore, in many cases the surface of the material used could not be polished so as to preclude the possibility of foreign matter lodging upon such surface and being retained thereby unless considerable effort were expended to clean the same. In my mouthpiece the enamel coating covering the metal furnishes an ideally clean surface readily permitting the removal of any dust, dirt or foreign matter that may accumulate thereon.

While any sheet metal adapted to be worked by forming dies may be used in forming these mouthpieces, I have found that sheet steel answers the purpose admirably, since it is both inexpensive and strong. Furthermore, the enamel coating com-



pletely protects the steel so that it is not corroded or attacked by moisture or fumes that may be in the atmosphere.

5 While I have shown my invention in the particular form disclosed, I do not, however, limit myself to this exact conformation, but desire to claim any equivalent form that may be deemed desirable by those skilled in the art.

10 What I claim is:

15 A telephone transmitter mouthpiece consisting in a bell-shaped body portion stamped and formed from sheet steel, the smaller end of the body portion having a formed shoulder whereby the smaller end is of smaller diameter than the part of the mouthpiece ad-

jacent thereto, screw threads formed on the outer surface of such portion of smaller diameter, an integral wall formed across the outer end of such threaded portion, perfora- 20 tions in such end wall, and an enamel covering on the mouthpiece and through such perforations to prevent corrosion from moisture in the atmosphere or from the use of the mouthpiece. 25

In witness whereof, I hereunto subscribe my name this 5th day of October A. D. 1908.

WILLIAM W. DEAN.

Witnesses:

A. D. T. LIBBY,  
N. B. MANSON.