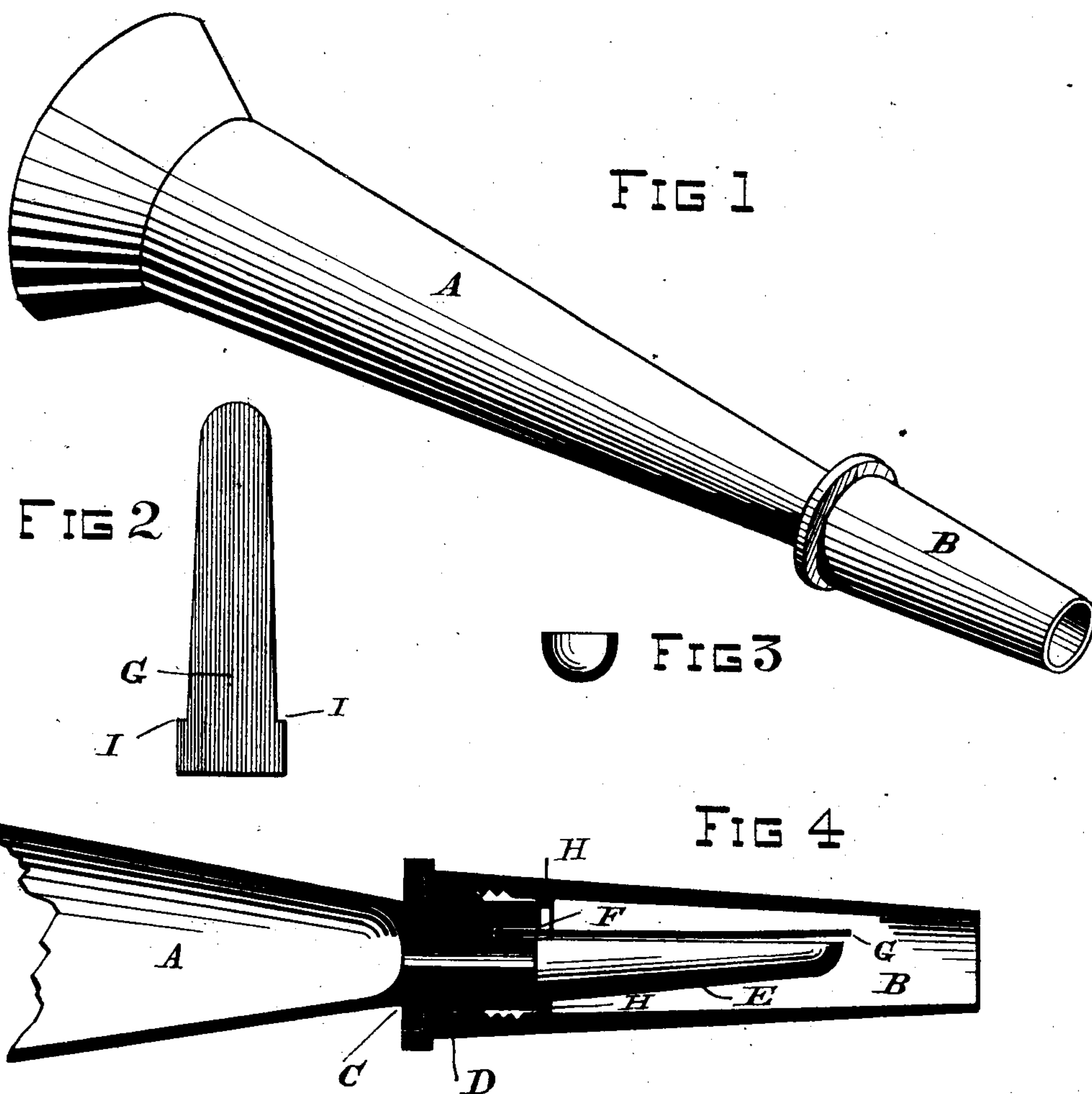


(No Model.)

H. C. LANGREHR.
Fog Horn.

No. 239,613.

Patented April 5, 1881.



WITNESSES

Wilmer Bradford
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UNITED STATES PATENT OFFICE.

HENRY C. LANGREHR, OF SAN FRANCISCO, CALIFORNIA.

FOG-HORN.

SPECIFICATION forming part of Letters Patent No. 239,613, dated April 5, 1881.

Application filed December 22, 1880. (No model.)

To all whom it may concern:

Be it known that I, HENRY C. LANGREHR, a citizen of the United States, and residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Fog-Horns; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the drawings which are hereunto annexed, and in which—

Figure 1 is a perspective view of my improved fog-horn. Fig. 2 is a plan view of the reed. Fig. 3 is a cross-section of the semi-cylindrical tube, looking toward the closed end. Fig. 4 is a longitudinal sectional view, a portion of the bell being shown as broken away.

Similar letters of reference are used to designate like parts throughout the several views.

My invention relates to an improved fog-horn of that class used as a danger-signal on sailing-vessels in foggy weather, and is intended as an improvement upon the device for which Letters Patent of the United States were granted to Ezra T. Bucknam and Henry C. Langrehr, numbered 215,433, and dated May 20, 1879.

My present invention consists of certain details of construction and operation which will hereinafter more fully appear.

In the drawings hereunto annexed, A represents the bell or tube of the fog-horn, and B the mouth-piece thereof. A flange or shoulder, C, is formed at the smaller end of this bell or tube. Forming part of this shoulder or flange and projecting above it is a male screw-thread, D, as shown. Projecting upward from this male screw-thread is a tapering semi-cylindrical tube, E, the upper end of which is closed in the manner shown.

At the base of the tube E, on the open side thereof, and in the thickness of metal composing the male screw-thread D, I form a slot, F, to receive the base or lower end of the reed G, the upper end of which projects slightly above the top of the tube E, so that the compressed air in the mouth-piece may the more readily move it.

The mouth-piece B is made cylindrical in cross-section and tapering, as shown, for convenience in use. This mouth-piece has threads

on its inner surface, so that the mouth-piece B may be screwed onto the screw-head D so as to inclose the semi-cylindrical tube and reed G. The lower end of the mouth-piece is flanged over to inclose the flange C upon the horn or bell A, forming an air-tight joint, so that the mouth-piece forms a chamber which incloses the tube E and reed G.

Upon the inner surface of the mouth-piece I form an annular flange, H, which binds upon the shoulders I I, formed near the base of the reed G, and holds it down to its proper position in the slot F, thus dispensing with screws, rivets, or other contrivances for holding the reed in place.

The reed G is constructed of sheet metal and of the form shown in Fig. 2, and is made flexible and so set as to leave a small space between it and the open side of the semi-cylindrical tube E.

The reed and tube combination, with flanges and screw-threads, are made of cast-brass or other metal, and are brazed to a horn of sheet-brass, tin, or copper.

The advantages claimed for this device are great simplicity of construction, thereby reducing the cost of manufacture to a minimum, and great increase of power, owing to the peculiar construction of the tube E.

I am aware that horns have been made heretofore with a removable mouth-piece surrounding the reed, and also that horns have heretofore been made with reeds removable from the tubes, and hence I do not claim these features broadly; but,

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

The removable mouth-piece B, provided with an annular flange, H, and semi-cylindrical tapering tube E, in combination with the reed G, having shoulders I I, all constructed and arranged to operate substantially as and for the purpose specified.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 10th day of December, 1880.

HENRY C. LANGREHR. [L. S.]

Witnesses:

C. W. M. SMITH,

WILLIAM HARNEY.