

No. 875,790.

PATENTED JAN. 7, 1908.

G. W. DUNCAN.
GRAPHOPHONE HORN.
APPLICATION FILED FEB. 18, 1907.

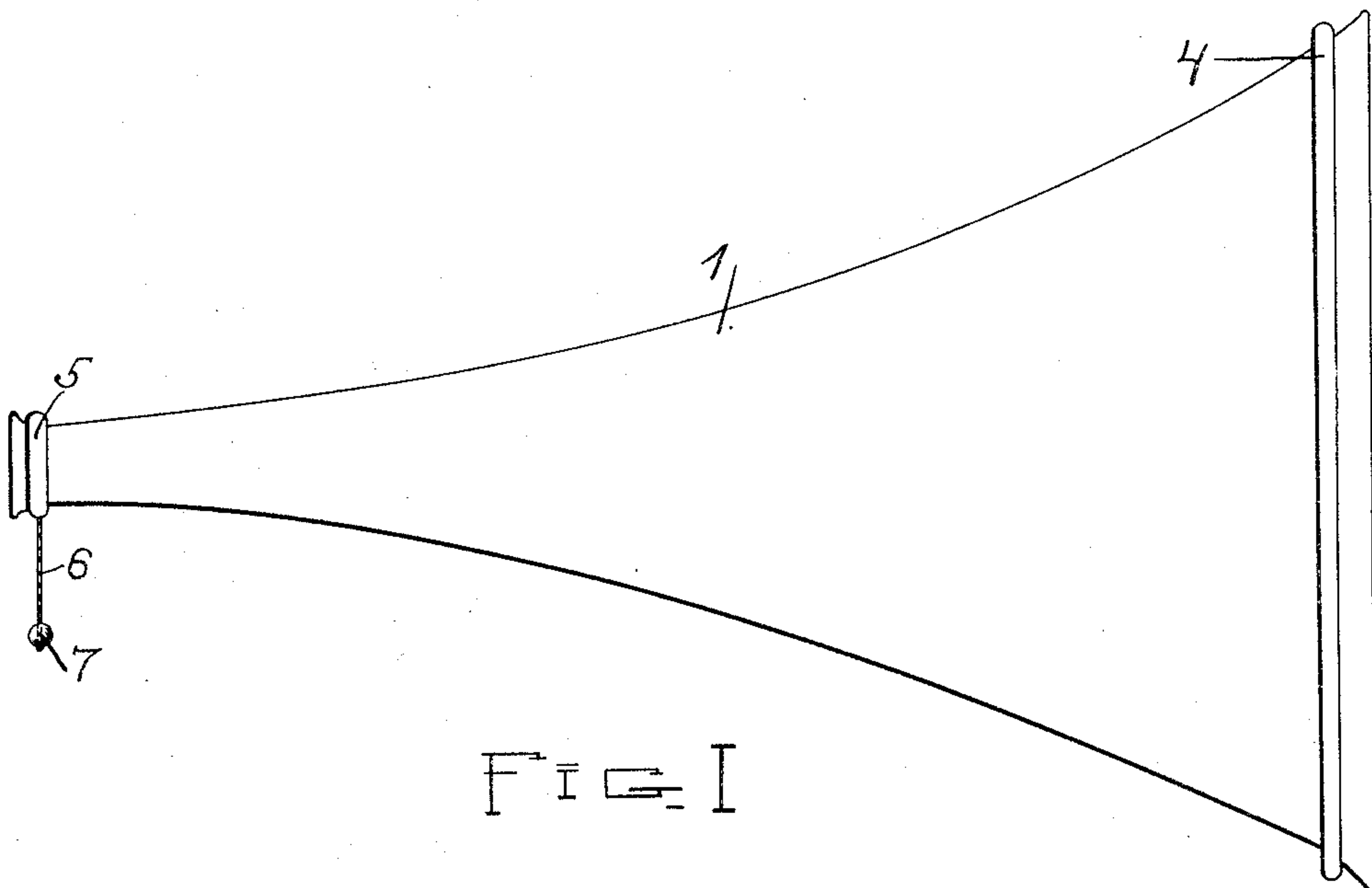


FIG 1

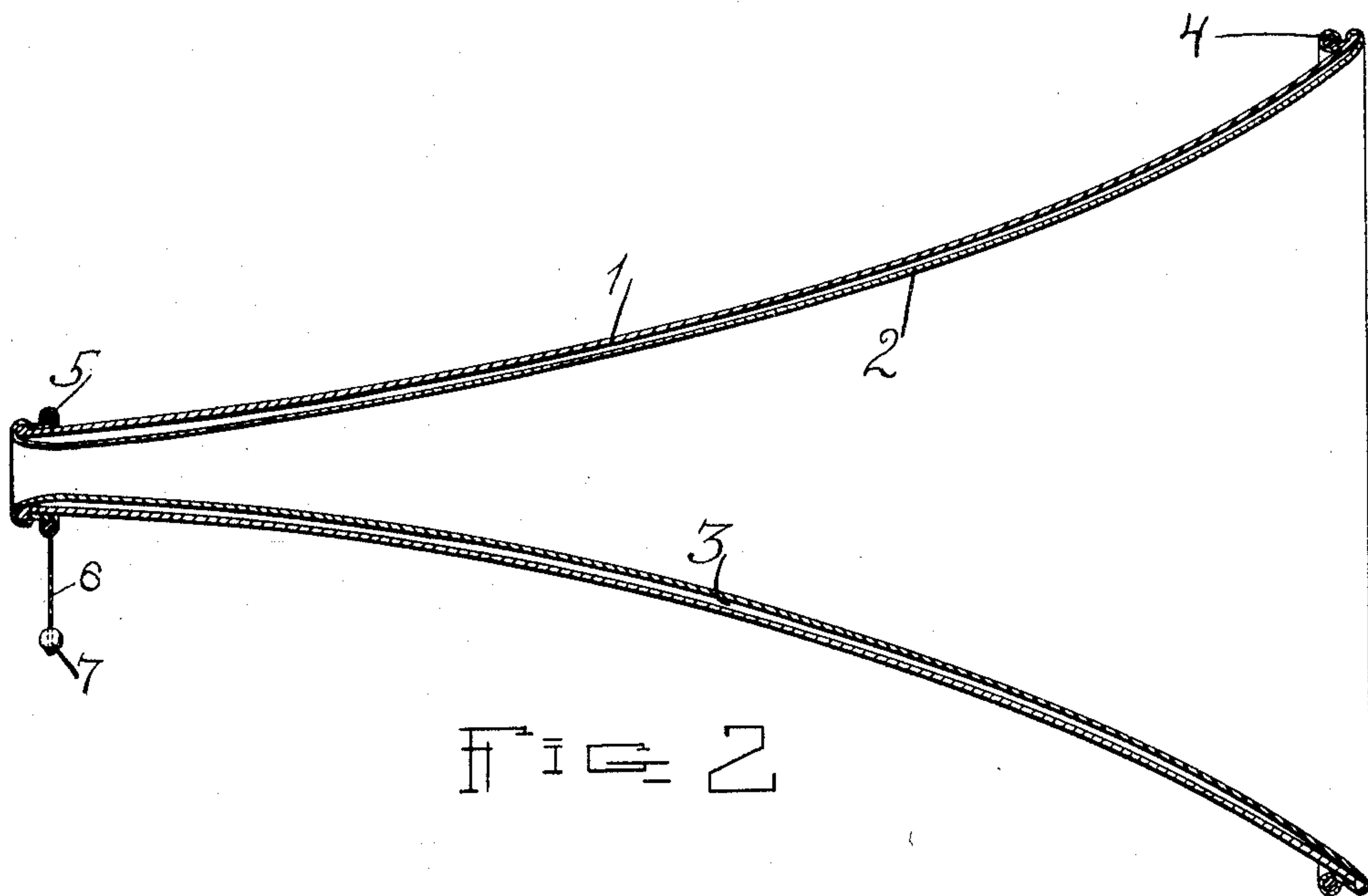


FIG 2

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Witnesses

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UNITED STATES PATENT OFFICE.

GEORGE W. DUNCAN, OF CHICAGO, ILLINOIS.

GRAPHOPHONE-HORN.

No. 875,790.

Specification of Letters Patent.

Patented Jan. 7, 1908.

Application filed February 18, 1907. Serial No. 358,077.

To all whom it may concern:

Be it known that I, GEORGE W. DUNCAN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Graphophone-Horns; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in graphophone horns.

The object of the invention is to provide a graphophone horn having means whereby all metallic or screeching sounds will be eliminated so that the sounds passing therefrom will have a clear natural tone.

With the foregoing and other objects in view, which will appear as the nature of the invention is better understood, the invention consists in certain novel features of construction, combination and arrangement of parts, as will be hereinafter fully described and claimed.

In the accompanying drawings, Figure 1 is a side view of a horn arranged in accordance with the invention; and Fig. 2 is a longitudinal sectional view of the same.

Referring more particularly to the drawings, 1 denotes a horn which may be constructed of any suitable material such as sheet metal, wood pulp or fiber, paper, board, or other composition. Adapted to be applied to the inner side of the horn is a flexible lining 2 which may be of any suitable construction, but which is preferably formed of cloth or other form of textile fabric. The flexible lining 2 may be applied and secured to the horn in any suitable manner, but is here shown and is preferably hung loosely within the horn and lies a suitable distance therefrom to form between the lining and inner wall of the horn an air space 3. The lining which as before stated is hung loosely in the horn is of somewhat smaller diameter than the latter and in its application to the horn is drawn sufficiently taut to cause it to stand away from the horn's inner surface, thus to preserve the air space 3 which is referred to and as will be readily understood.

The lining 2 is secured at the outer end of the horn preferably by means of an endless elastic cord or band 4 which is fastened to the end of the lining in any suitable manner, said end of the lining being turned over the

outer end of the horn so that the elastic cord or band will engage the outer side of the latter adjacent to the end. Secured to the inner end of the lining is an endless elastic cord or band 5 which when the inner end of the lining is drawn through the smaller end of the horn and turned back over said end will engage the outer side of the horn, as clearly shown in the drawings. The cords 4 and 5 when thus engaged with the horn will securely fasten the ends of the lining while the body portion thereof will stand away from and out of contact with the inner wall of the horn, thus providing for the air space 3, as hereinbefore described.

In order that the end of the lining may be readily drawn through the small end of the horn, I preferably attach a short cord 6 to the inner end of the lining and to the free end of the cord is attached a ball or button. When applying the lining, the inner end of the same is let down into the horn until the ball 7 and cord 6 appear through the smaller end of the horn. The ball is then grasped and the end of the lining readily drawn through the smaller end of the horn and secured, as hereinbefore described.

By providing a flexible lining and arranging the same as herein shown and described, the vibrations of the horn are reduced to such an extent that the metallic sound usually heard in connection with phonograph reproductions will be entirely eliminated.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention, as defined by the appended claims.

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

1. A phonograph horn having a flexible fabric lining arranged loosely therein to provide an air space between the lining and inner wall of the horn, and means for attaching the ends of the lining to the terminals of the horn.

2. A flexible fabric lining adapted to be applied loosely within a phonograph horn, a cord attached to the smaller or inner end of

said lining, a ball on the end of said cord whereby said lining may be readily drawn through the smaller end of the horn, and endless elastic fastening cords arranged in the
5 opposite ends of said lining to secure the same to the opposite ends of the horn, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

GEORGE W. DUNCAN.

Witnesses:

R. W. O'BRIAN,
D. I. WEISZ.