

C. BEECROFT.  
AMPLIFYING HORN.  
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915,013.

Patented Mar. 9, 1909.

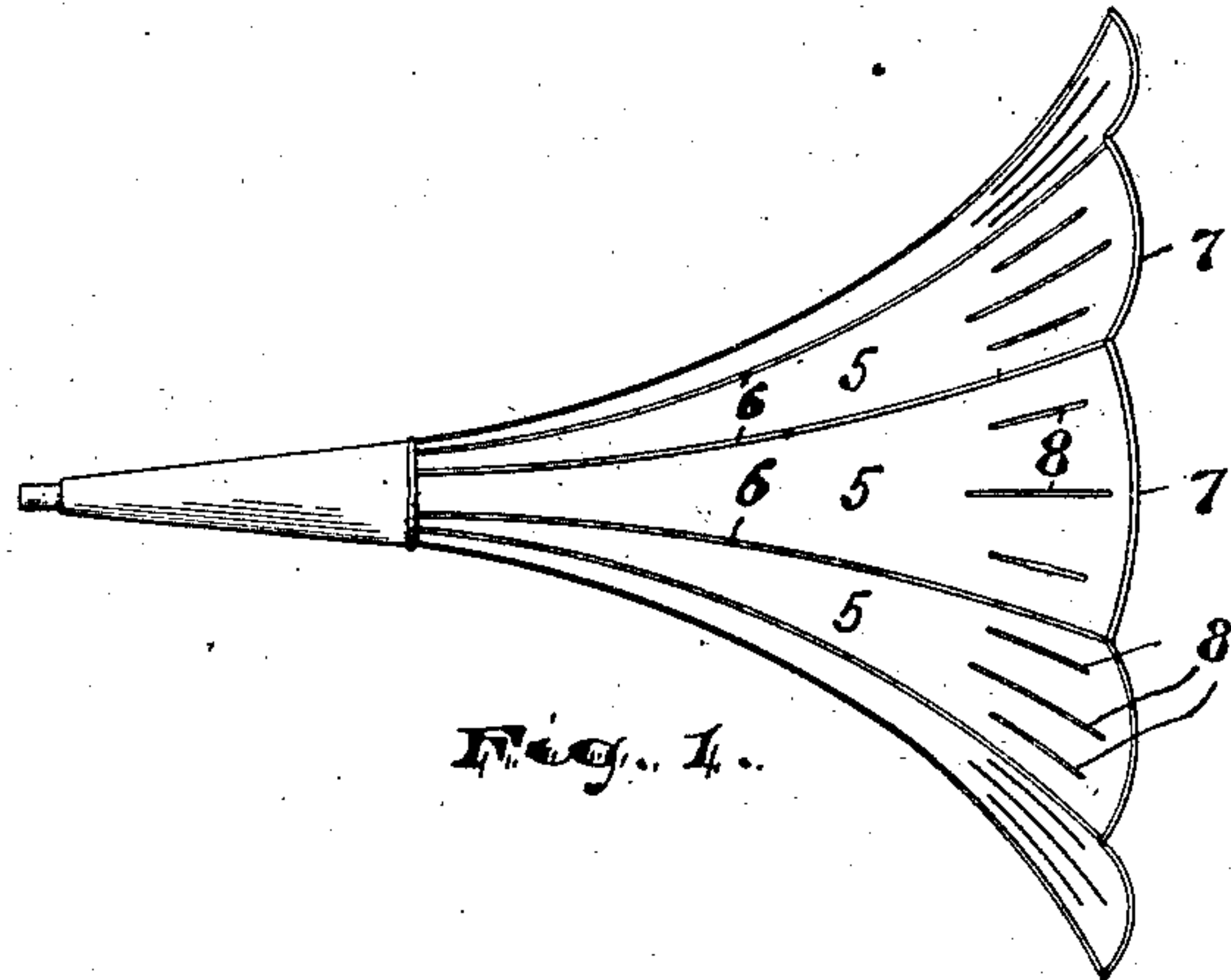


Fig. 1.

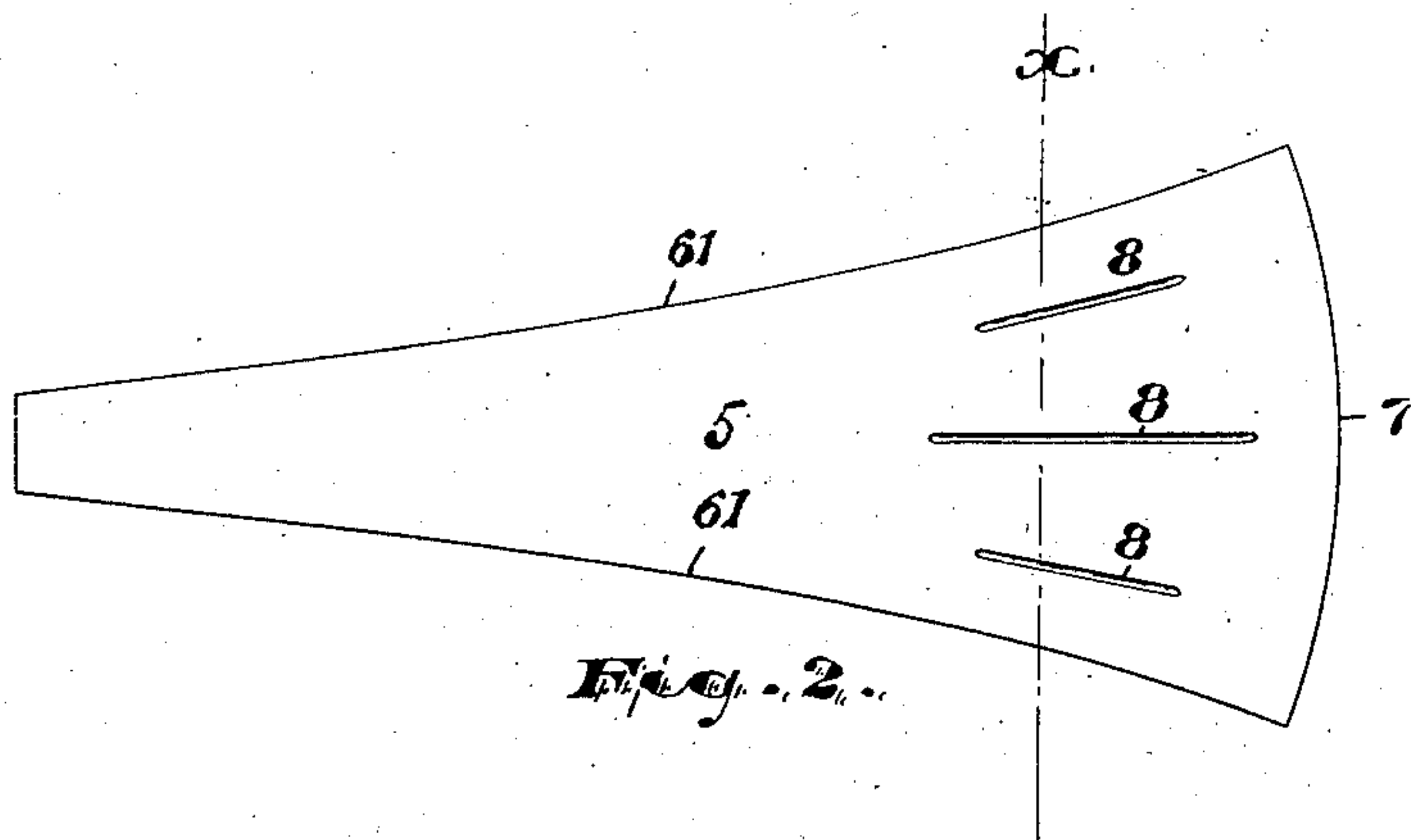


Fig. 2.



Fig. 3.

WITNESSES

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# UNITED STATES PATENT OFFICE.

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## AMPLIFYING-HORN.

No. 915,013.

Specification of Letters Patent.

Patented March 9, 1909.

Application filed May 29, 1905. Serial No. 262,714.

*To all whom it may concern:*

Be it known that I, CLEMENT BEECROFT, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Amplifying-Horns; and I do hereby 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, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

This invention relates to that class of amplifying horns for talking machines in which a series of sections of metal are united by suitable joints common in metal joining and given the form of a flower, more particularly the flower known as the "morning glory", the sides of the horn flaring outwardly toward its large end upon curved lines. These horns are, further, formed of a series of longitudinal strips, each of which has its opposite edges diverging upon curved lines, and is before assembling bent into a curved shape, such curvature increasing toward the wide end of the strip.

The objects of the invention are to cause the individual strips to properly retain their curvature as formed or stamped until they are finally joined together in the complete horn; to prevent their distortion before, or while being assembled; to thus facilitate the operation of assembling the strips into a complete form and save time and labor; to obtain a more finished product or perfect horn; to enable by these means, light thin sheet metal to be employed without in any way detracting from the appearance or utility of the horn; to lessen the cost of such amplifying horns, and to obtain other advantages and results as may be brought out in the following description.

The invention consists in the improved amplifying horn, and in the arrangements and combinations of parts of the same, all substantially as will be hereinafter set forth and finally embraced in the clauses of the claim.

Referring to the accompanying drawings, in which like characters of reference indicate corresponding parts in each of the several figures, Figure 1 is a side elevation of my improved horn, Fig. 2 is a plan of one of the sec-

tions thereof before insertion, and Fig. 3 is a transverse section of the same taken at line x.

It will be understood that in horns of the construction herein set forth the longitudinal strips are made of sheet metal as thin and light as possible, so that the horns will be neither heavy to handle, nor too expensive. Each of the strips 5, referring to the drawings, is first stamped out in a flat blank, and is then pressed or longitudinally bent into its curved form as shown, and the edges 6, formed preparatory to assembling the requisite number of strips into a complete horn. Heretofore it has been difficult in such manufacture to have the individual strips properly retain their curvature as so formed or pressed, until they were finally joined together in the complete horn; said strips, being light, narrow and flexible, were liable to become warped or distorted, so that the assembling of them into a horn involved more labor or the uniformity of the horn was impaired, and to overcome this difficulty is the chief purpose of my invention. To this end, in forming or pressing each strip 5, into its curved shape, ridges or ribs 8, are created therein, which are so located as to retain the light sheet metal in its curved form by reason of the increased stiffness thereby imparted. These ribs are placed where they are most needed, to wit, at or near the broad end 7, of the strip, where its increased curvature is located, as shown in the drawings. The ribs 8, may be of any configuration or dimensions desired, although one of the simplest and most efficacious forms is that shown in the drawing,—viz., three ribs disposed longitudinally of the strip or section and extending across the point of sharpest curvature of the strip. These ridges or ribs thus "set," as it were, the strip or section in its newly pressed form, and assist it in retaining the same until assembled. Moreover, the said ribs are in no way objectionable in the completed horn, since they not only give greater strength and rigidity to the broad ends of the longitudinal sections, which are more likely than any other part to become bent or bruised when the horn is set upon the floor, but furthermore the ribs are a considerable feature of ornamentation to the horn. Obviously, said ridges or ribs 8, may project on either side of the strips 5, as desired, but I prefer to force them outwardly with respect to the chamber of the horn, as I have shown in the drawings.



Preferably each and every one of the longitudinal strips in the horn is provided with ribs or ridges which I have described, so that they retain their proper curvature while being assembled. Obviously, however, if it should be desired for ornamentation or the like, some of the strips, as for instance the alternate ones, could be left plain, and those at the sides of the plain ones depended upon for bringing the plain strips to the proper curvature while forming a complete horn. I prefer, however, to form the ribs or ridges upon every individual strip of the horn, since this procures the best results.

Having thus described the invention, what I claim as new is:—

1. An amplifying horn having a body portion flaring on curved lines and composed of a series of longitudinal strips whose correspondingly curved edges are secured together, one of said strips having a narrow longitudinal portion of itself displaced outwardly from the body portion of the strip and forming on the outside of the horn an integral rib and on the inside a groove, said displaced longitudinal portion being located at a distance from the edges of the strip and terminating

at its ends at a distance from the ends of the strip.

2. An amplifying horn having a body portion flaring on curved lines which increase in curvature near the large end of said flaring body portion and being composed of longitudinal strips having outwardly diverging curved edges by which they are joined together, one of said strips having at its broad end a series of narrow longitudinal portions of itself displaced outwardly from the body portion of the strip and forming on the outside of the horn integral ribs and on the inside grooves, said series of displaced longitudinal portions being located at a distance from the edges of the strip and extending across the part of greatest curvature in the length of the strip terminating at their opposite ends short of the ends of the strip.

In testimony, that I claim the forgoing, I have hereunto set my hand this sixteenth day of May 1905.

CLEMENT BEECROFT.

Witnesses:

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RUSSELL M. EVERETT.