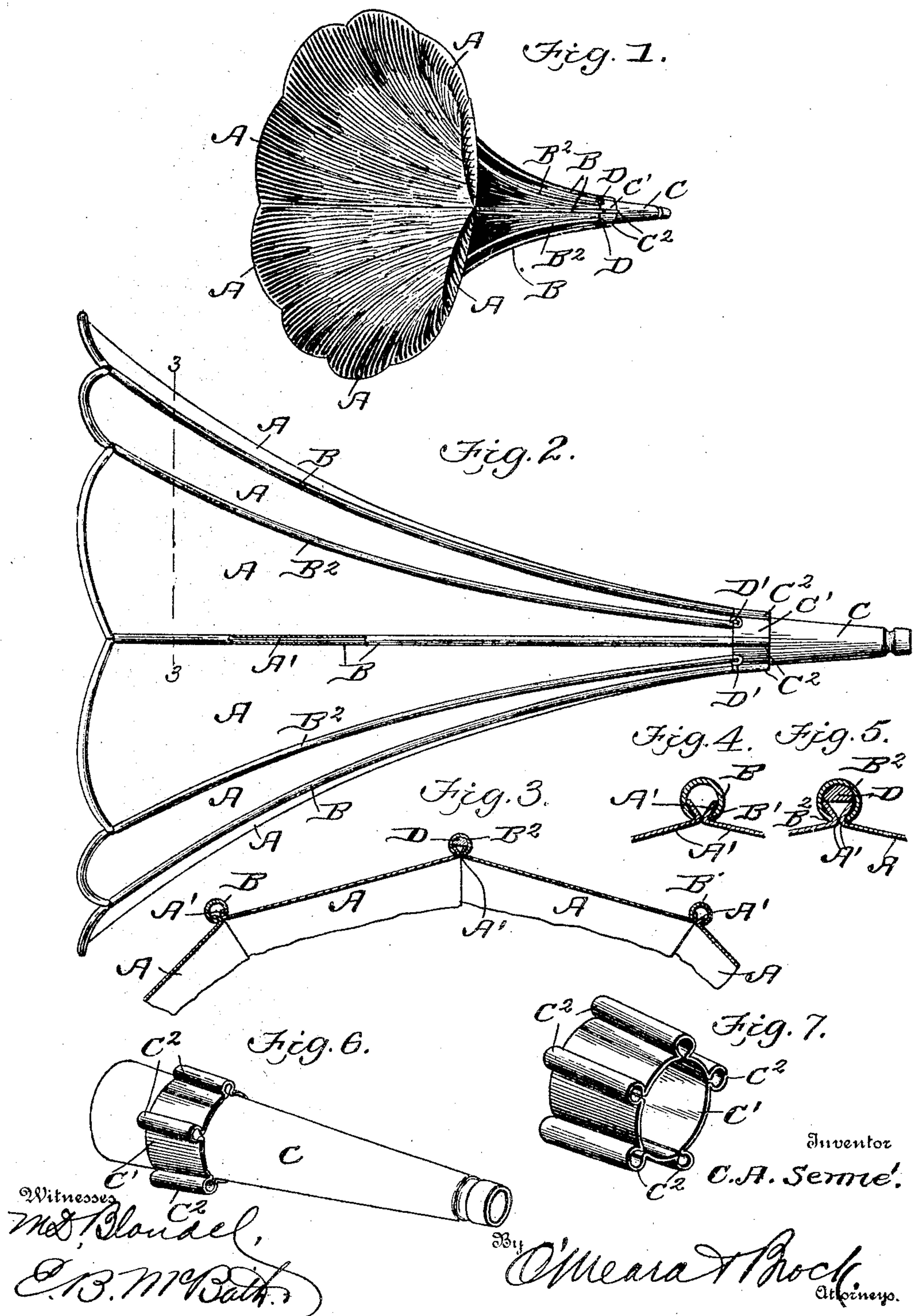


No. 811,877.

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APPLICATION FILED NOV. 1, 1904.

2 SHEETS—SHEET 1.

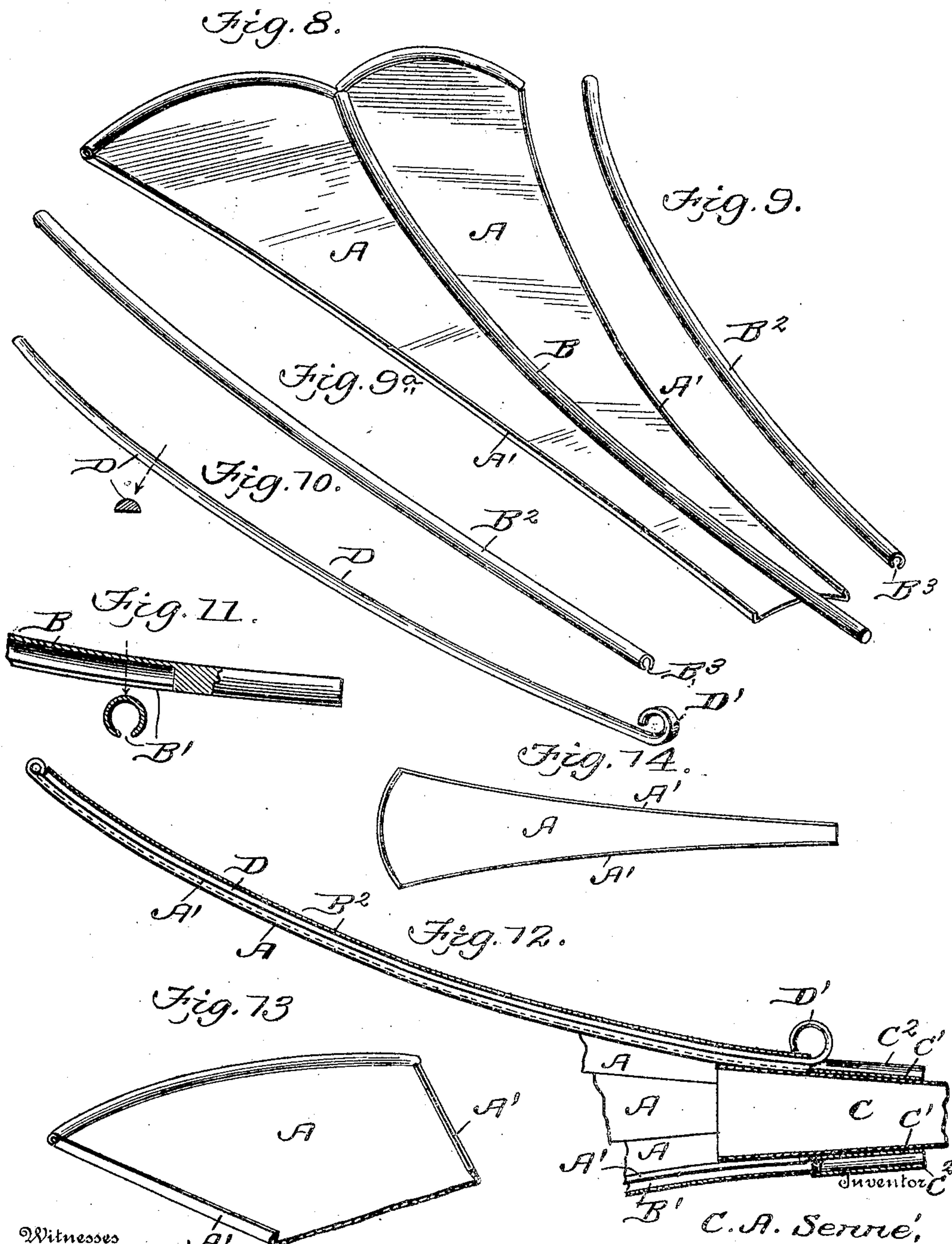


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2 SHEETS—SHEET 2.



Witnesses  
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Inventor  
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# UNITED STATES PATENT OFFICE.

CAMILLUS ANTONETTE SENNÉ, OF NEW YORK, N. Y.

## PHONOGRAPH-HORN.

No. 811,877.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed November 1, 1904. Serial No. 231,003.

*To all whom it may concern:*

Be it known that I, CAMILLUS ANTONETTE SENNÉ, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented a new and useful Improved Phonograph-Horn, of which the following is a specification.

This invention relates to an improved collapsible horn especially designed for use in connection with phonographs and the like, the object being to provide a horn that may be "knocked down," so that it may be readily packed in a small space and also that its transportation may be facilitated.

With these briefly-stated objects in view, the invention consists in providing a series of blades or sections, each having their edges formed with flanges over which is secured a locking-rib, by which the sections are securely held together, and sleeves having tubular portions engaging alternate ribs, the device as a whole being in the shape of a horn.

The invention also comprises means for holding the horn to the tube-nozzle, which is also employed for locking the sections and holding the horn in a perfectly secure condition.

The invention further consists in certain details of construction and novelties and combinations of parts as will be fully described in the following specification and pointed out in the claims, reference being had to the drawings, in which—

Figure 1 is a perspective view of a horn constructed in accordance with my invention. Fig. 2 is a plan view of the same. Fig. 3 is a detail section on the line 3 3 of Fig. 2. Figs. 4 and 5 are enlarged detail sections drawn through the uniting-ribs and flanges. Fig. 6 is a detail perspective view of the tube-nozzle, showing my improvement arranged therein. Fig. 7 is a detail perspective view of my improved sleeve that fits upon the tube-nozzle. Fig. 8 is a detail perspective view of one of the sections of the horn. Figs. 9 and 9<sup>a</sup> are detail views of the hollow uniting-ribs. Fig. 10 is a detail view of one of the strips which are arranged in the ribs. Fig. 11 is a detail section of the inner end of one form of uniting-rib. Fig. 12 is a longitudinal section drawn through one of the uniting-ribs and the tube-nozzle. Fig. 13 is a detail perspective view of the outer end of one of the blades, and Fig. 14 is a detail plan view of a complete blade.

In constructing a horn in accordance with

my invention, I employ a series of blades or strips A, which may be of any suitable material, each being wider at its outer end and tapering upon a curved line to its inner end, so that when all of the blades are assembled they will produce a horn having a flaring mouth, or, in other words, bell-shaped; but this special design is not essential, as the tapering blades may be perfectly straight upon their longitudinal edges, in which case a horn shaped like a truncated cone will be produced. The longitudinal edges of each blade are bent outwardly and inwardly to provide a flange A', over which is placed a tubular rib B, having slots B' arranged upon their lower longitudinal surface through which the flanges project, and by bending the flanges, as described, when the ribs are arranged thereon the sections will be firmly and securely locked together. In practice I propose to arrange these blades in pairs or sections, as shown in Fig. 8 of the drawings, and to permanently retain the ribs B thereon and to provide the ribs of a greater length than the blades, so that their inner ends will project slightly beyond the inner ends of the sections, the projected ends being made solid to add strength to the ribs. In order to hold these sections in position, I provide a tube-nozzle C with a sleeve or band C', which is made of a single length of material and bent at regular intervals to provide a series of tubular sections or barrels C<sup>2</sup>, and in these barrels the projecting ends of the ribs B are held when the horn is complete. As the blades are arranged in sections, as before described, and the ribs B employed for holding the sections together the opposite flanged edges of each section will be free, and to unite them I employ tubular ribs B<sup>2</sup>, slotted throughout their entire length, as shown at B<sup>3</sup>, and in practice the ribs B<sup>2</sup> are slipped over the flanges from their inner ends and pushed thereon until the entire surface of the flanges is covered. Of course it will be understood that these ribs B<sup>2</sup> are of a length to equal that of the longitudinal edges of the blades A, and in order to securely hold them in position and to securely lock them in position I employ strips D, semicircular in cross-section, which are inserted in the ribs so that their flat surface will engage the edges of the flanges, and their circular edges will engage the inner surface of the ribs and in order to facilitate the withdrawal of the strips D and also their insertion into the ribs I propose to



bend their inner ends back upon themselves, as shown at D'.

In setting up a horn constructed like my invention I first place the sleeve C' upon the  
5 hose-nozzle and then take the sections formed by the blades A and insert the projecting ends of the ribs into each of the tubular sections or barrels C<sup>2</sup>. The ribs B<sup>2</sup> are then pushed over the flanges of the abutting blades, the strips  
10 D inserted into the ribs B<sup>2</sup>, and the complete horn is then produced. It will be readily seen that this operation is exceedingly simple, and it is only necessary to withdraw the  
15 ribs and strips from the sections and each section disconnected from the nozzle-tube and the sections may be readily packed into a very small space.

In practice I prefer to bend the free ends of the blades at their outer ends back upon the  
20 body of the blade in a circular form and to insert a wire therein, which adds to the artistic effect of the device, besides strengthening the outer ends of the blades as well as avoiding sharp surfaces.

From the foregoing it will also be seen that  
25 I provide a collapsible horn so constructed that will take up very little space when in a knocked-down form.

I have found from actual experience that  
30 when the horn is set up the vibrations caused by the sound are not impaired and a perfectly clear tone is produced.

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

1. A horn comprising a series of blades, each having flanges upon their longitudinal edges, ribs engaging said flanges, and a sleeve having tubular portions in which the alter-  
40 nate ribs are held.

2. A horn comprising a series of blades, each having flanges upon their longitudinal edges, ribs engaging said flanges, a sleeve having tubular portions in which the alter-  
45 nate ribs are held, and a tube-nozzle for supporting the said sleeve.

3. A horn comprising a series of blades, each having flanges upon their longitudinal edges, ribs engaging the flanges, the alternate  
50 ribs projecting beyond the inner ends of the blades, a sleeve having tubular sections in which the projecting ends of the ribs are held, a tube-nozzle for supporting the sleeve and strips engaging the remaining alternate ribs.

4. A horn comprising a series of flanged  
55 blades arranged in pairs, the blades of each pair being united by means of ribs which extend beyond the inner ends of the blades, tubular ribs for uniting the abutting edges of  
60 each pair, and means for engaging the projecting ends of the first-named ribs.

5. A horn comprising a series of blades arranged in pairs each pair having a rib projecting therefrom, a sleeve having tubular  
65 portions in which the projected ends of the

ribs are held, tubular ribs for uniting the edges of each pair of blades, strips arranged within the said tubular ribs, and a tube-nozzle for supporting the sleeve.

6. A horn comprising a series of tapering  
70 blades, each being flanged upon their longitudinal edges, tubular ribs engaging the abutting flanges of each blade for locking the said blades together, the alternate ribs projecting beyond the inner ends of blades, a sleeve hav-  
75 ing tubular sections in which the projected ends of the ribs are held, and a tube-nozzle for supporting the sleeve.

7. A horn comprising a series of blades, each being tapered from its outer to its inner  
80 end, and flanged along the said tapering edges, tubular ribs engaging the flanges for uniting the blades, the alternate ribs projecting beyond the blades and made solid, strips arranged within the opposite alternate ribs,  
85 and a sleeve connected to the projected ends of the ribs.

8. A horn of the kind described, comprising a series of tapering blades arranged in  
90 pairs, each blade being flanged upon its longitudinal tapering edges, said blades being arranged in pairs, ribs engaging the flanges to unite the blades to form the pairs, said ribs projecting beyond the inner ends of each  
95 pair, a sleeve having tubular portions in which the projected ends of the ribs are held, tubular ribs engaging the abutting flanges of each pair, and strips arranged within the last-named ribs.

9. A horn of the kind described, comprising  
100 a series of tapering blades, each having a flange upon its longitudinal edges, said blades being arranged in pairs, and held together by tubular ribs, the ends of which project beyond the inner ends of the blades, a sleeve having  
105 tubular portions in which the projected ends of the ribs are held, tubular ribs engaging the abutting flanges of each pair of blades, semi-cylindrical strips arranged within the last-mentioned ribs and engaging the flanges of  
110 the blades for the purpose specified.

10. A horn comprising a series of longitu-  
115 dinal tapering blades, each having its longitudinal edges bent outwardly and inwardly to form flanges which diverge when the abutting edges of the flanges are placed together, tubular ribs fitting over the flanges, the alter-  
120 nate ribs projecting beyond the inner ends of the blades, a sleeve having tubular sections in which the said projecting ends of the ribs are held, the remaining alternate ribs being of the same length as the blades, and strips arranged within the last-mentioned ribs, said  
125 strips having one end bent to provide a ring all substantially as and for the purpose specified.

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Witnesses:

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