

No. 759,879.

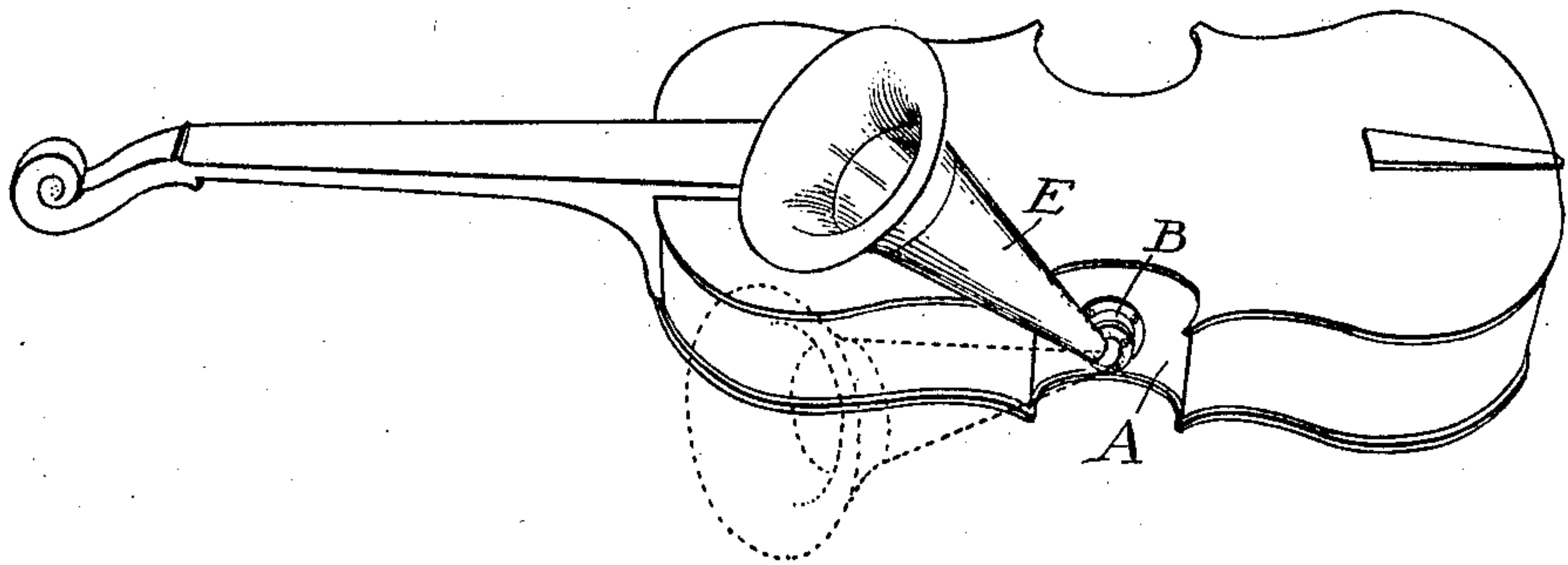
PATENTED MAY 17, 1904.

S. E. GRISWOLD.  
ATTACHMENT FOR VIOLINS.

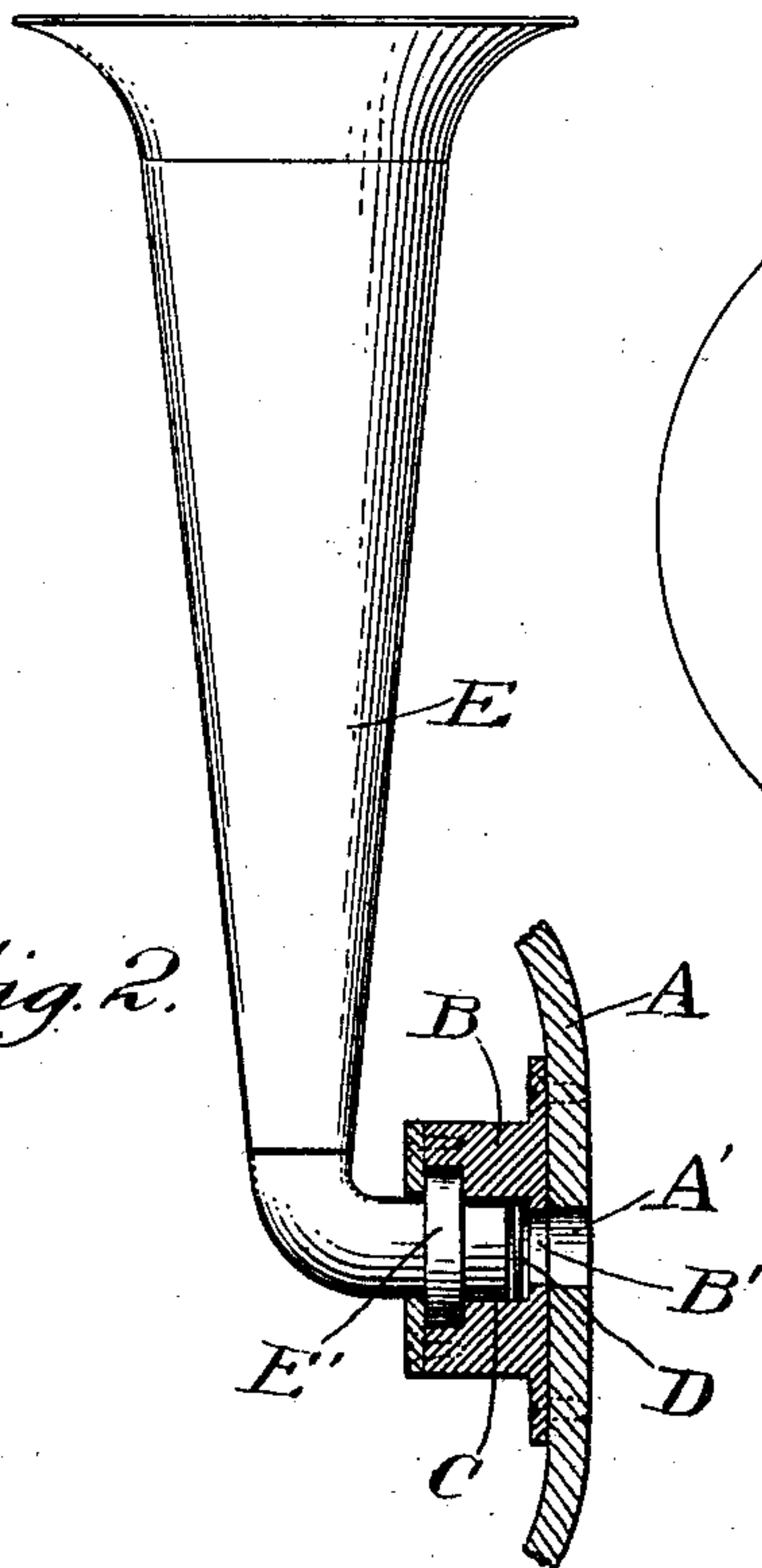
APPLICATION FILED AUG. 4, 1903.

NO MODEL.

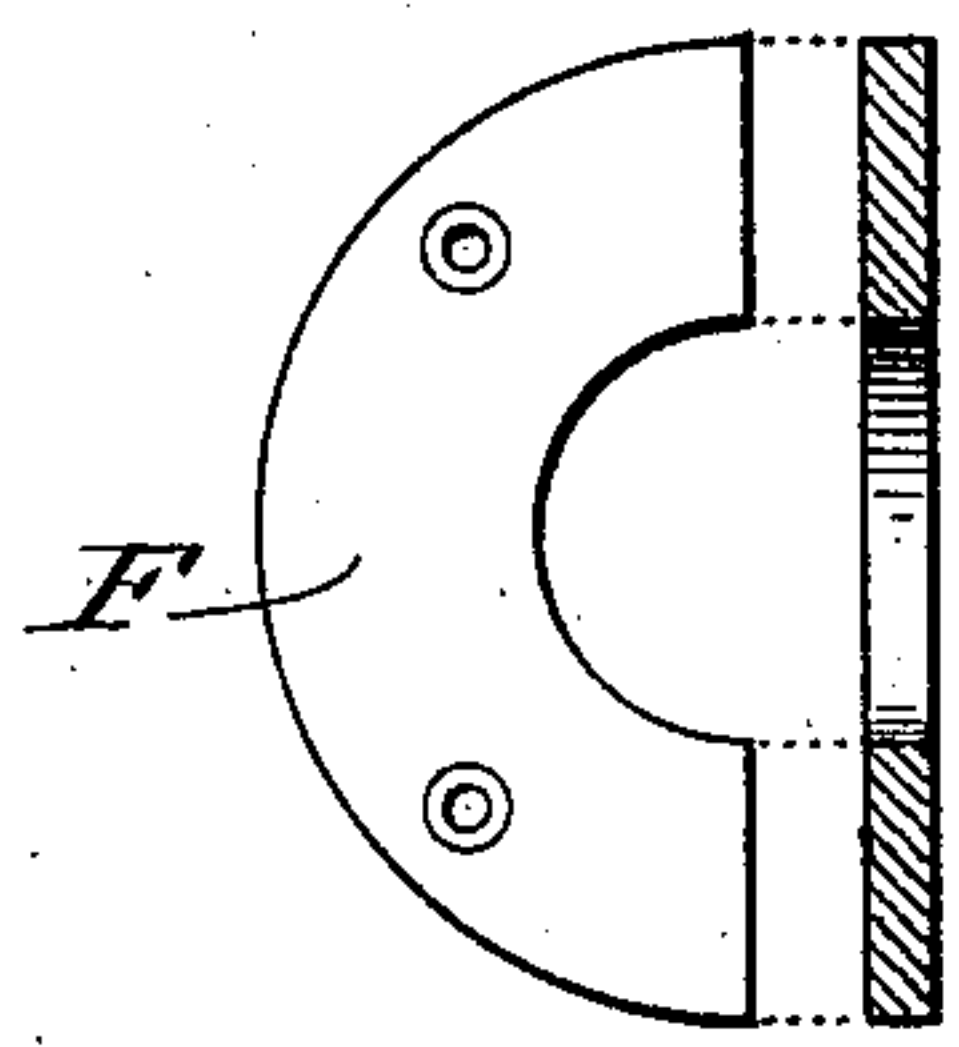
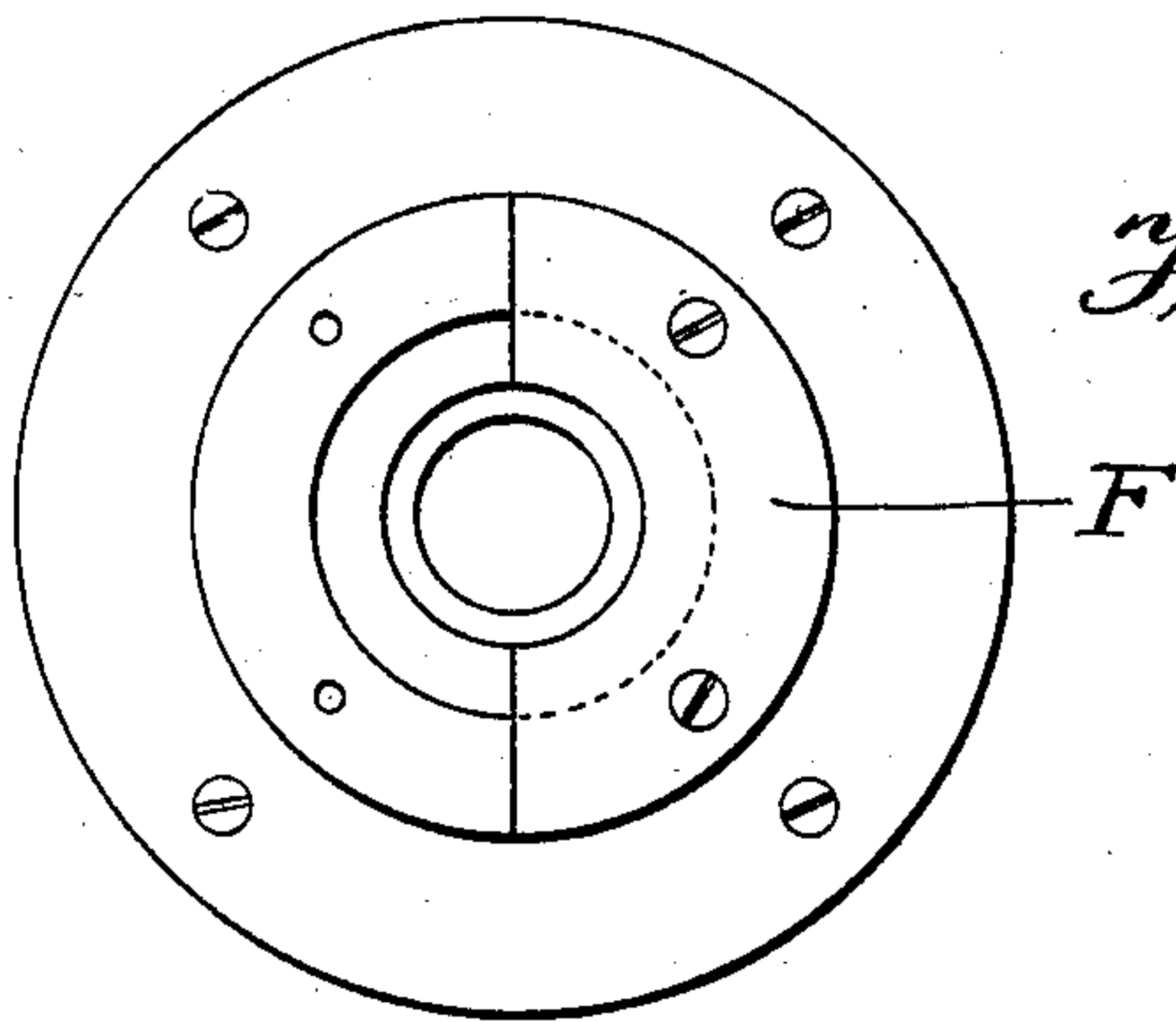
*Fig. 1.*



*Fig. 2.*

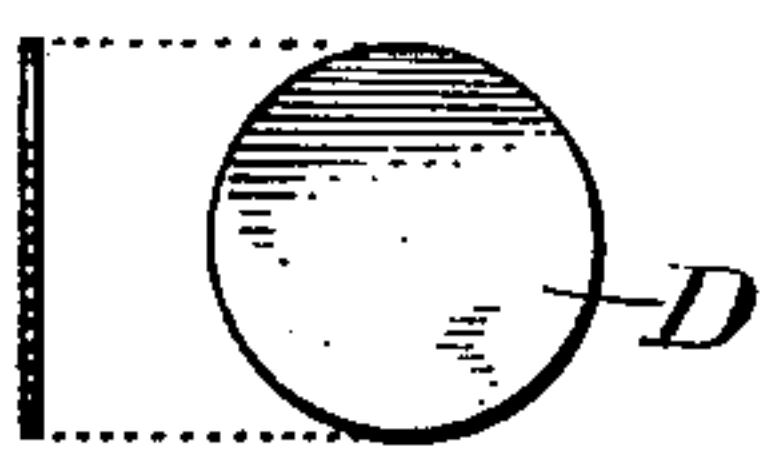


*Fig. 3.*



*Fig. 4.*

*Fig. 5.*



Witnesses:  
*H. B. Hallack*  
*L. H. Morrison*

Inventor.  
*Stella E. Griswold.*  
By *W. T. Johnson* Atty.

# UNITED STATES PATENT OFFICE.

STELLA E. GRISWOLD, OF PHILADELPHIA, PENNSYLVANIA.

## ATTACHMENT FOR VIOLINS.

SPECIFICATION forming part of Letters Patent No. 759,879, dated May 17, 1904.

Application filed August 4, 1903. Serial No. 168,185. (No model.)

*To all whom it may concern:*

Be it known that I, STELLA E. GRISWOLD, a citizen of the United States, residing at Philadelphia, county of Philadelphia, and State of Pennsylvania, have invented a certain new and useful Improvement in Attachments for Violins, of which the following is a specification.

My invention relates to a new and useful improvement in attachment for violins, and has for its object to attach a horn to the body of the violin, the small end of the horn coming in contact with an aluminium diaphragm for intensifying and distributing the sound-waves in the body or box of the violin when the bow is drawn across the strings, the horn being so connected to the body that the same may be rotated, so as to throw the sound in any direction.

With these ends in view this invention consists in the details of construction and combination of elements hereinafter set forth and then specifically designated by the claims.

In order that those skilled in the art to which this invention appertains may understand how to make and use the same, the construction and operation will now be described in detail, referring to the accompanying drawings, forming a part of this specification, in which—

Figure 1 is a perspective view of a violin with my improvement applied thereto; Fig. 2, a section through the horn connection, the horn being shown in elevation; Fig. 3, a face view of the horn connection, one-half of the divided collar being removed; Fig. 4, a face view and section of half of the divided collar; Fig. 5, a face view and edge view of the diaphragm.

A represents the body or box of the violin, an opening A' being formed through the side thereof.

B is a circular block secured to the side of the violin, this block having a central opening B', adapted to register with the opening A' through the violin. This block is bored out larger than the opening B', as represented at C, and thus a shoulder is formed against which is adapted to rest a diaphragm, preferably of aluminium, as represented at D.

E is the horn, the smaller end of which is provided with an annular flange E', and the

block B is counterbored at its outer end a sufficient depth to receive the flange E', so that said flange will be flush with the outer surface of the block B.

F is a divided collar which is secured to the block B outside of the flange E'. This collar F contacts the flange E' with sufficient friction to hold the horn in any position placed; but at the same time the flange E' is loose enough to allow for the horn being turned to different positions. It will thus be seen that by means of the horn the sound-waves are intensified and distributed from the body of the box of the violin. When the bow is drawn across the strings, the diaphragm sets in motion the air contained in said horn, and thus produces the intensified sound-waves, and as the horn is revoluble the sound may be thrown in any direction.

Of course I do not wish to be limited to the exact construction here shown, as slight modifications could be made without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new and useful is—

1. In combination with a string musical instrument, the body of which is provided with an opening through its side, a horn secured to the body of the instrument, the smaller end of which registers with the opening through the body, and a diaphragm interposed between the smaller end of the horn and the body of the instrument, as and for the purpose specified.

2. In combination with a string musical instrument, the horn adapted to be revolved, the body of the instrument being provided with an opening, a diaphragm interposed between the smaller end of the horn and said opening, as and for the purpose specified.

3. In combination with a string musical instrument, a horn, a block secured to the body of the instrument, said block provided with an opening formed therethrough, the body of the instrument provided with an opening registering with the opening in the block, the smaller end of the horn fitting into the block and adapted to revolve therein, a diaphragm arranged at the smaller end of the horn, an annular flange provided upon the smaller end



of the horn, a counterbore in the outer end  
of the block in which the flange fits, a divided  
collar surrounding the smaller end of the horn  
outside of the flange, said halves of the col-  
5 lar secured to the block, as and for the pur-  
pose specified.

In testimony whereof I have hereunto af-

fixed my signature in the presence of two sub-  
scribing witnesses.

STELLA E. GRISWOLD.

Witnesses:

FRANCIS B. SKINNER,  
EMIL H. BERGER.