

No. 655,622.

Patented Aug. 7, 1900.

L. H. HALL.
VIOLIN.

(Application filed Aug. 30, 1899.)

(No Model.)

Fig. 1.

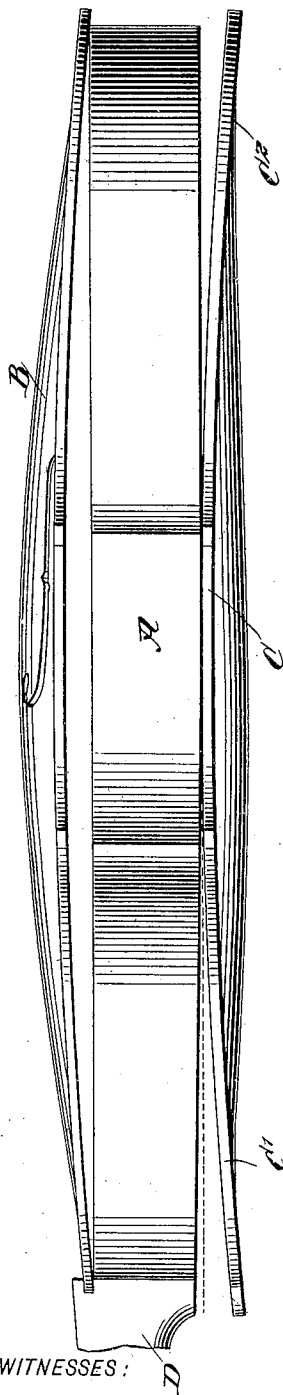


Fig. 2.

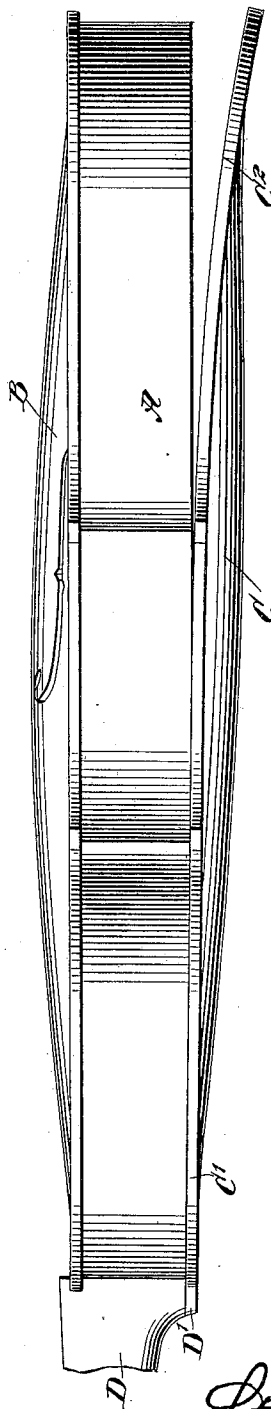


Fig. 4.

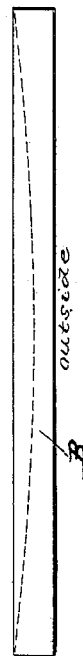
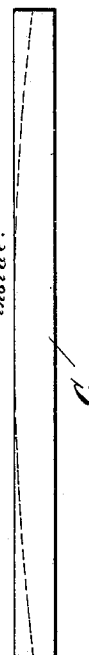


Fig. 3.



WITNESSES:

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LOUIS HASTINGS HALL, OF HARTFORD, CONNECTICUT.

VIOLIN.

SPECIFICATION forming part of Letters Patent No. 655,622, dated August 7, 1900.

Application filed August 30, 1899. Serial No. 728,984. (No model.)

To all whom it may concern:

Be it known that I, LOUIS HASTINGS HALL, of Hartford, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Violins and Similar Stringed Instruments, of which the following is a full, clear, and exact description.

My invention relates to musical instruments which comprise a hollow resonator or sounding body and strings extending exteriorly thereof, and particularly to instruments of the violin and guitar class.

The object of my invention is to provide a construction by which the tone of the instrument will be considerably improved, securing by my construction practically the same effects that are valued in instruments made by the old masters. To this end I construct the body of the instrument in the particular manner hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a side elevation of a violin-body constructed according to my invention with the bottom as it appears before being secured to the ribs. Fig. 2 is a similar view showing one-half of the bottom fastened to the ribs; and Figs. 3 and 4 are diagrammatic details of the bottom and top, respectively.

In carrying out my invention the ribs A and neck D are constructed in the usual manner. The top B and the bottom C, instead of having their edges in a plane surface to correspond with the arrangement of the edges of the ribs in a plane, are curved as shown for the bottom in Figs. 1 and 2, so that they will touch the edges of the ribs at certain points only and will stand away from said edges in their main portions. In the ordinary construction of violins and the like the edges of the ribs and of the top and bottom are all in one plane and therefore fit closely together. In my invention, as shown, the edges of the bottom are convex longitudinally on that side which is toward the ribs A, and the edges of the top are concaved longitudinally on the corresponding side. It follows from this construction that in order to fit the cover B and the bottom C

upon the ribs A it is necessary to press the said top or cover and the bottom forcibly into engagement with the ribs against the tension or elasticity of the material of which said cover and bottom are made. This material may be deal or maple, as usual, or any other suitable material may be employed.

I find it preferable to first secure one end of the cover and bottom to the ribs, as by gluing, preferably the end C'—that is, the end which is toward the neck D. This is shown in Fig. 2. When the connection of this end has become firm—that is, after the drying of the glue—the other end C² is forced down into contact with the ribs A and glued thereto. During the process of gluing the ribs A may be secured to a flat board or to a suitable holder or mold, so as to preserve their proper shape. Also clamps may be employed to hold the pressed-down portions of the cover or bottom in position until the glue has dried sufficiently to effect a firm connection. It is also advisable to coat the f or sound holes of the top B with size, so as to prevent the top from cracking at that point when the cover is bent into engagement with the ribs.

Figs. 3 and 4 show in dotted lines the original outline of the bottom C and top B before they are bent, and the full lines of said figures show the plane surface obtained after the bending.

The tension under which the top B and the bottom C are put, as described, will sometimes throw the neck D out of its proper line, so that said neck will extend slightly downward. This is remedied by cutting away a portion of the neck and the bottom at the point indicated by the letter D'. It will be observed that the top and bottom differ from those of the usual instruments of a similar class by being under such a tension that some portions have a tendency to spring away from the ribs. This tension is beneficial in several respects. First, it improves the sound or tone of the instrument considerably; second, it opposes the pressure produced by the bridge and strings, and therefore it strengthens the body of the instrument, and, third, it enables me to vary the quality of the tone by simply giving more or less curve to the top and bottom.

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

1. A stringed musical instrument, the body
5 of which consists of a rim or ribs, and a top
and a bottom secured thereto, the edge por-
tions of the top and bottom, at certain points,
being under a strain and tending to separate
from the ribs, the tension varying lengthwise
10 of the body.
2. A top or bottom for a stringed musical
instrument, the said top or bottom having its
margin in a surface convexed toward the body
of the instrument.
- 15 3. A stringed musical instrument, the body

of which consists of a rim or ribs, and a top
and bottom secured thereto, the edge portion
of the top of which tends to separate from the
ribs and is under a maximum strain at mid-
way of its length and under a gradually-de- 20
creasing strain at the end portions, while the
edge portion of the bottom also tends to sepa-
rate from the ribs, but has its maximum of
strain at the ends, the strain decreasing from
the ends inward.

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Witnesses:

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