

No. 627,186.

Patented June 20, 1899.

H. HAGBERG.
VIOLIN.

(Application filed Feb. 8, 1898.)

(No Model.)

Fig. 1.

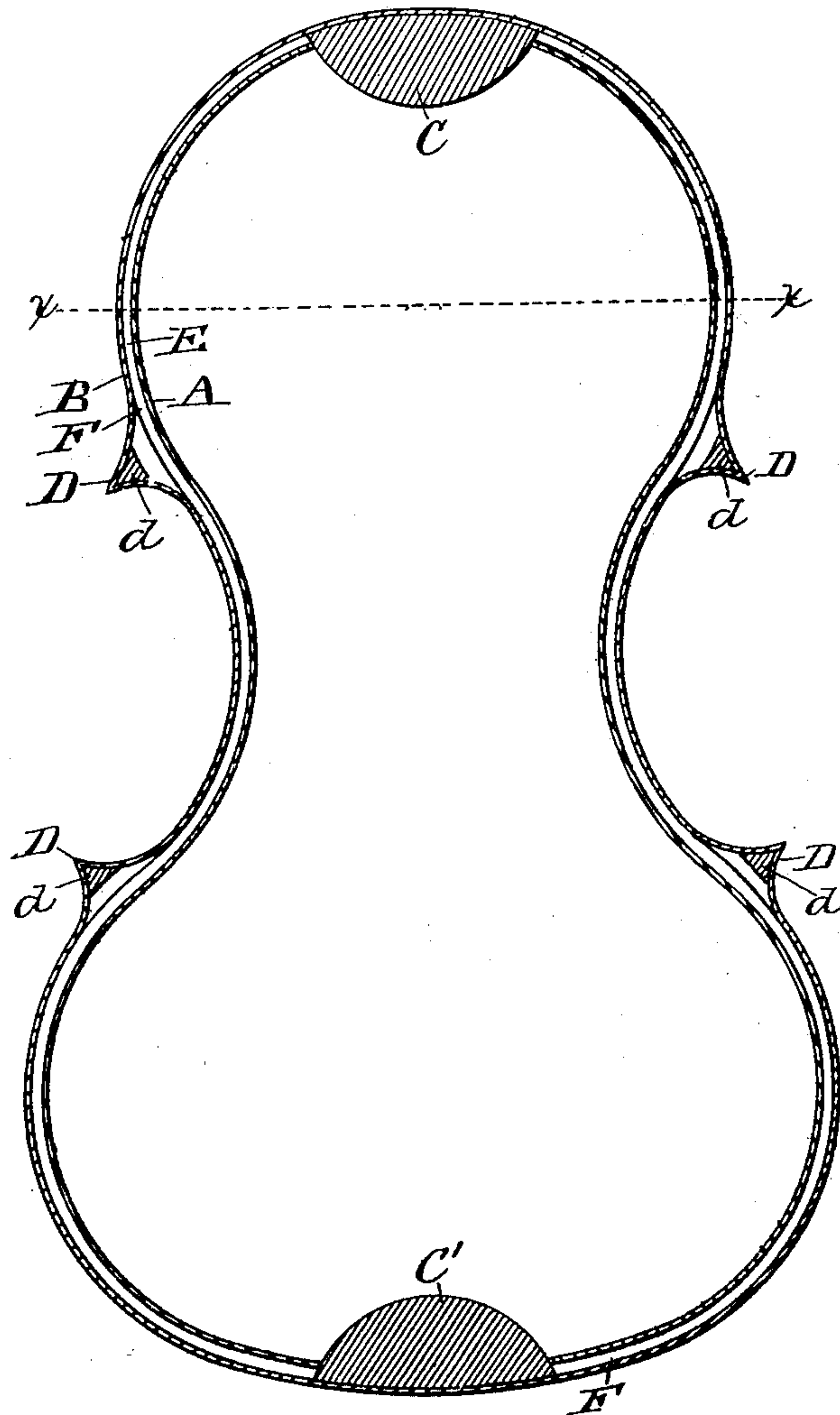
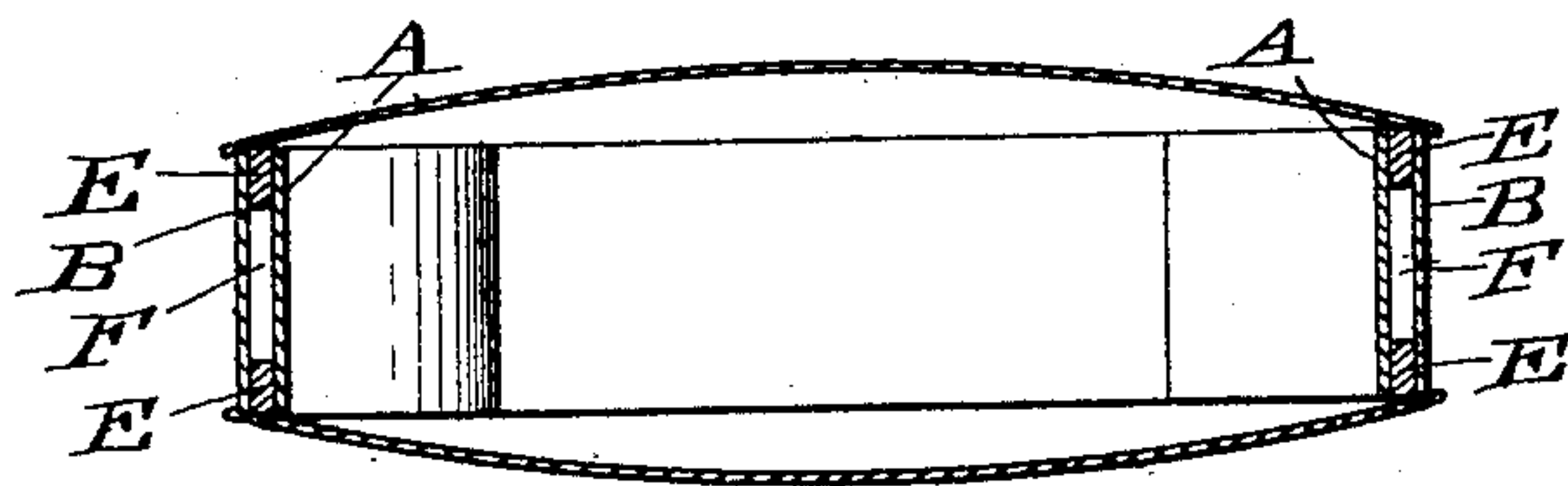


Fig. 2.



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VOLIN.

SPECIFICATION forming part of Letters Patent No. 627,186, dated June 20, 1899.

Application filed February 8, 1898. Serial No. 669,570. (No model.)

To all whom it may concern:

Be it known that I, HERMAN HAGBERG, a subject of the King of Sweden and Norway, (but having declared my intention to become a citizen of the United States,) residing at Brainerd, in the county of Crow Wing and State of Minnesota, have invented certain new and useful Improvements in Violins and other Stringed Instruments, of which the following is a specification.

My invention relates to improvements in the structure of orchestral instruments of the violin kind wherein the vibration is caused by means of the bow, which vibration of the strings placed in contact with the sounding-board is reinforced by the air held in the body of the instrument; and my invention has for one of its objects to remove from the body of the instrument any obstacles to the free and regular vibration of the sounding-board.

Another object of my invention is to give greater strength and sonorousness to the instrument, united with greater equality and uniformity of the purity of tone.

Another object of my invention is to give a new instrument the tone and effect which a hundred years' use is now required to produce, thus adding greatly to its value.

These objects I accomplish in the manner and by the means hereinafter fully described in detail, and particularly pointed out in the claims, reference being had to the accompanying drawings, in which the reference-letters indicate like parts in both figures.

Figure 1 is a central longitudinal section of my invention. Fig. 2 is a cross-section on line *xx* of Fig. 1.

My invention consists in extending the lining A of the sides B of the violin from the upper bracket-brace C, to which the neck of the instrument is attached in the usual way, to the lower bracket-brace C' on each side of the violin, crossing the open mouths of the four bows D on the sides of the violin at the waist on the line of the curve from the point where said lining A leaves the side B of the violin on one side of said mouth of said bow D to where said lining A again meets and follows the curves of the side B of the violin. At the top and bottom, between said lining A and said sides B of the violin, narrow

strips E, one-quarter inch thick, are inserted, to which strips E both said lining A and said sides B are securely glued. Air-spaces F, one-quarter inch wide and nearly equal in height to the sides B of the violin, are formed all along the sides B of the violin except at the bows D, which are entirely open. When the top and bottom of the violin are put on, they rest on the lining A, sides B, and strips E and close the open bows D both top and bottom. This construction so strengthens the sides B that wood thinner, and therefore more responsive to vibrations, may be used for the sides B and lining A and the corner-blocks *d*, upper bracket-brace C, and lower bracket-brace C' may be smaller and take up less room.

The operation of my invention is as follows: The greater regularity in form of the interior of the body of the violin causes more regularity and uniformity in its tone and the greater resilience of the sides B, reinforced by the air-cushion there, gives greater strength and sonorousness to the sound, and both combined tend to prolong the oscillations of the air in the body of the instrument, the sounding-board, and the strings, thus increasing the harmonics.

My invention can be applied either to old or new instruments.

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

1. In a violin-body, a lining around the inside of said violin approximately parallel to the rim and a short distance from said rim, said lining extending from the top to the bottom of said violin and across the corner-bows, not into them, substantially as shown and described.

2. In a violin-body, strips placed between the lining and sides of such body at the top and bottom, said lining extending across the mouths of the corner-bows, not into them, substantially as shown and described.

In testimony whereof I hereto affix my signature in the presence of two witnesses.

HERMAN HAGBERG.

Witnesses:

F. E. TIFFANY,
R. PARKER.