(No Model.)

M. W. WHITE.

BRIDGE FOR BOW INSTRUMENTS.

No. 594,129. Patented Nov. 23, 1897.

FIG. 1.

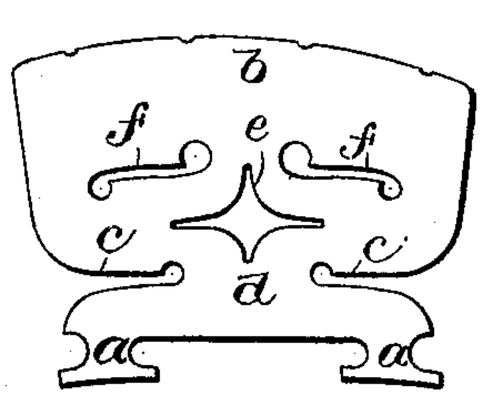
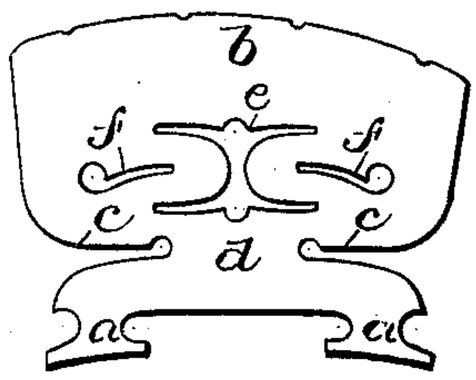


FIG. 2.



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UNITED STATES PATENT OFFICE.

MAURICE W. WHITE, OF SOMERVILLE, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO FREDERICK A. SUCK, OF BOSTON, MASSACHUSETTS.

BRIDGE FOR BOW INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 594,129, dated November 23, 1897.

Application filed December 7, 1896. Serial No. 614,815. (No model.)

To all whom it may concern:

Be it known that I, MAURICE W. WHITE, of Somerville, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Bridges for Bow Instruments, of which the following is a specification.

This invention relates to bridges employed to support the strings over the resonant portion of the body of a bow instrument, such as a violin or a violoncello; and it has for its object to provide a bridge which shall be resilient along a line extending vertically from each string to the body of the instrument, so that each string shall have a resilient support, the resilience being such as to impart a desirable quality to the tone of the string.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a side view of a violin-bridge embodying my invention. Fig. 2 represents a similar view showing a modification.

The same letters of reference indicate the same parts in both figures.

My improved bridge, which is or may be of the usual or any suitable general form and has a base *a a*, adapted to bear upon the resonant body of the instrument, and a top *b*, which is notched or otherwise adapted to support and prevent lateral displacement of the strings, is provided with two recesses *c c*, extending inwardly in opposite directions from its ends between the base and top, the inner ends of said recesses being separated by a contracted portion or waist *d*, thus dividing the bridge into a lower portion or base and an upper portion or crown. Above the waist *d* and extending across the median line of the bridge is a central orifice *e*, the sides of which are preferably curved, as shown, giving the orifice *e* comparatively deep reëntrant angles, with curved faces between said angles. Above the recesses *c* and at opposite sides of the median line of the bridge are two elongated side orifices *f f*, which are approximately horizontal and are preferably enlarged at their end portions, said orifices *f* being in this case shown as slightly curved, while their enlargements are arranged to give in connection with the longitudinal curvature a slightly ogee form to the orifices. It will be seen that the central orifice *e* and side orifices *f f* are so arranged relatively to each other and to the recesses *c c* that the portions of the bridge between the said recesses and the side orifices *f f* form resilient arms connecting the waist *d* with the top *b*, these arms being adapted to furnish a resilient support along a vertical line drawn from either string to the body of the instrument. I have found that a bridge of this construction gives a quality of tone which is superior to anything that I have ever heard produced by the use of bridges of ordinary construction or of any bridges that I have heretofore known.

In Fig. 2 I show a modification in which the central orifice *e* is extended above the side orifices *f f*, and laterally extended at its upper end to form outwardly-curved continuations of the resilient arms above described. This construction modifies the tone to some extent, and is desirable in producing certain effects.

In both forms illustrated side portions of the central orifice *e* extend under the orifices *f*, and thereby form the resilient arms above mentioned, each of said arms consisting of two meeting portions oppositely and slightly inclined from the horizontal, the lower ends of the two arms meeting at the waist *d*.

I claim—

A bridge for bow instruments, having the contracted portion or waist *d* dividing the bridge into a base portion and a crown portion, the central orifice *e*, and the side orifices *f* in said crown, portions of the said central orifice extending under the side orifices and thereby forming between them horizontal resilient arms connecting the top or string-supporting portion of the crown with the waist, and imparting resilience to the central portion of said crown.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 4th day of December, A. D. 1896.

MAURICE W. WHITE.

Witnesses:
C. F. BROWN,
A. D. HARRISON.