(No Model.)

M. W. WHITE.

BRIDGE FOR STRINGED INSTRUMENTS.

No. 361,659. Patented Apr. 19, 1887.

Fig: 1.

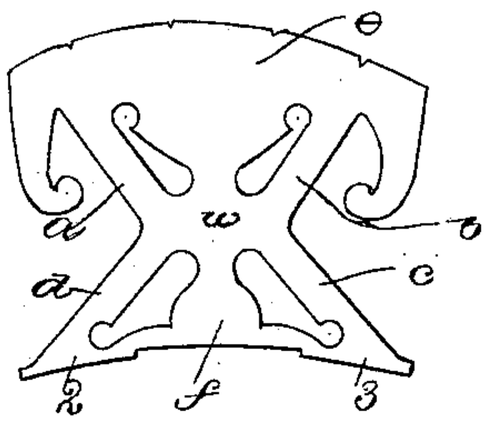
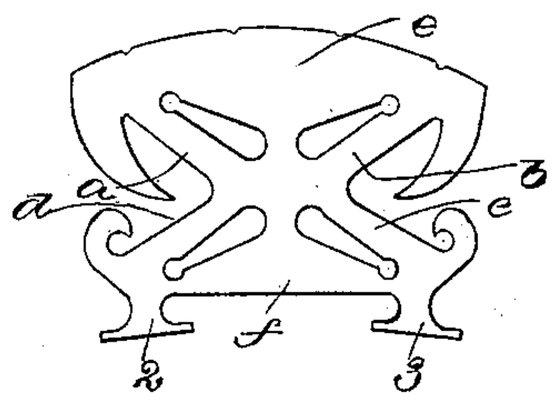


Fig: 2.



Witnesses
Fred L Emery.
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Inventor:
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UNITED STATES PATENT OFFICE.

MAURICE W. WHITE, OF SOMERVILLE, MASSACHUSETTS, ASSIGNOR OF ONE-HALF TO GEORGE W. ROSS, OF SAME PLACE.

BRIDGE FOR STRINGED INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 361,659, dated April 19, 1887.

Application filed June 22, 1886. Serial No. 205,890. (No model.)

To all whom it may concern:

Be it known that I, MAURICE W. WHITE, of Somerville, county of Middlesex, and State of Massachusetts, have invented an Improvement in Bridges for Stringed Instruments, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to construct a novel form of bridge for stringed instruments, whereby the vibrations of the strings may be conducted to the face of the instrument with the least obstruction, so that substantially the full effect of the vibrating string may be felt by the instrument, to thereby produce a very full, round, and clear tone.

In carrying out this invention I have so cut or shaped the bridge as to present four arms, radiating from each other somewhat like the letter **X**, the two uppermost arms being joined together at the top to form the crown of the bridge, and the lower ends of the two lowermost arms are provided with the usual feet, a brace being interposed between the lowermost arms, connecting either the lower arms or it may be the feet, to give suitable strength to the bridge to support the strain upon it. The bridge thus shaped presents a narrow waist at the point where the four arms cross or intersect, so that, besides vibrating backward and forward, the bridge is also permitted to vibrate or rock longitudinally, or to vibrate in substantially every direction, thus greatly increasing the efficiency of the bridge in conducting the vibrations of the strings to the instrument in order that the full effect of such vibrations may be felt by the said instrument.

Figure 1 shows in front elevation a bridge constructed in accordance with this invention, and Fig. 2 a modification to be referred to.

In constructing the bridge herein to be described, in order that the vibrations of the strings may have a speedy and unobstructed passage to the instrument, the same is so cut or shaped as to present or leave four arms, *a b c d*, somewhat resembling the letter **X**, the said arms intersecting or extending from a waist.

The upper ends of the uppermost arms, *a b*, are joined together by the crown *e*, over which the strings are stretched, the central portion of the said crown being connected with the waist *w*, from which the arms radiate. A brace, *f*, is interposed between the arms *c d*, connecting, as shown in Fig. 1, the feet 2 3 of the said arms, the brace *f* giving to the bridge sufficient strength to support the strain upon it, said brace being also connected to the waist *w* opposite the junction of the crown, with the waist to serve as a pivotal point upon which the two arms *a b* and connected crown may rock.

In Fig. 2 the brace *f* connects the lower ends of the arms *c d* just above the feet, which construction has been found to produce good results, although the form shown in Fig. 1 is preferable.

The bridge may be ornamented in various ways, according to fancy.

By shaping the bridge as above described a narrow waist, *w*, is presented, from which the arms radiate in such direction that the bridge may rock substantially in all directions under the vibration of the strings, thus enabling the instrument to feel the full effects of such vibrations, producing a very round, full, and clear tone.

In bridges as now commonly made each cross-bar seriously retards the vibration of the strings and diminishes their volume, whereas if the bridge has arms by which to support the crown in such manner as to enable the vibration of the strings to be transmitted to the instrument without obstruction the result is the production of tones of greater volume.

I claim—

1. A bridge for stringed instruments, comprising four arms radiating from a waist somewhat like the letter **X**, combined with a crown joining together the two uppermost arms, and the brace joining together the two lowermost arms, substantially as described.

2. As an improved article of manufacture, a bridge for stringed instruments, it being shaped to present four arms, somewhat like the letter **X**, radiating from a waist, the lower ends of the lowermost arms having feet which are joined together by a brace, while the uppermost arms are joined together by a crown, substantially as and for the purpose described.

3. As an improved article of manufacture,

a bridge for stringed instruments, it being shaped to present four arms, somewhat like the letter X, radiating from a waist, and a brace interposed between and joining the lowermost arms, the central part of said brace being connected with the waist, while the uppermost arms are joined together by a crown, substantially as and for the purpose described.

4. As an improved article of manufacture, a bridge for stringed instruments, it being shaped to present four arms, somewhat like the letter X, radiating from a waist, the two uppermost arms being joined together by a crown, the central portion of which is connected with the waist, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

MAURICE W. WHITE.

Witnesses:
BERNICE J. NOYES,
F. CUTTER.