

G. WOODS.
Sounding-Board Bridge for Musical Instruments.
No. 138,725. Patented May 6, 1873.

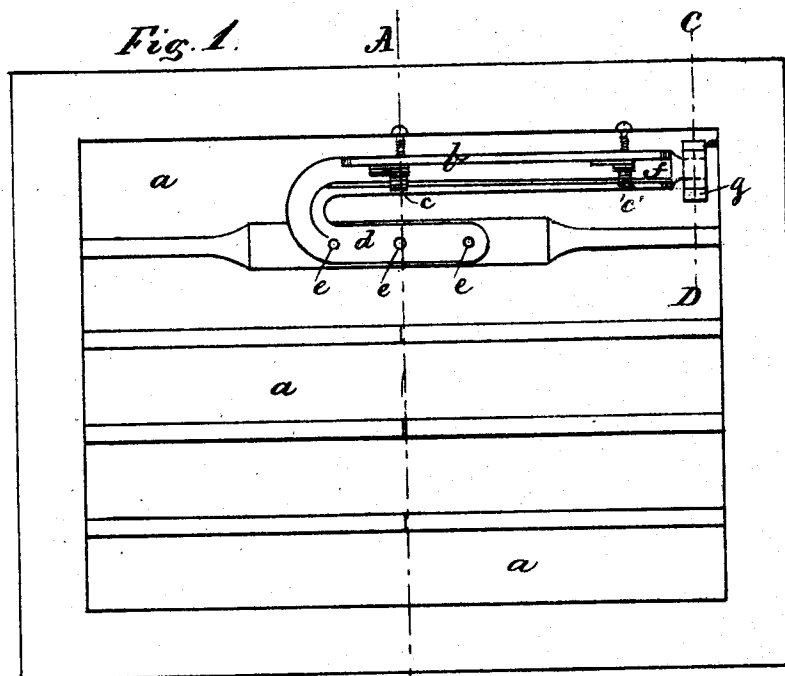


Fig. 2.

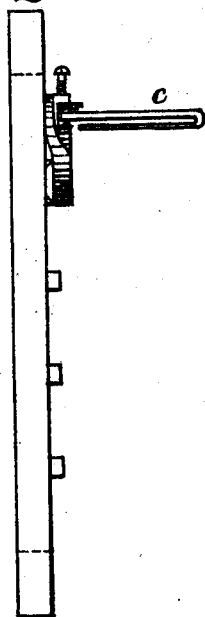


Fig. 3.

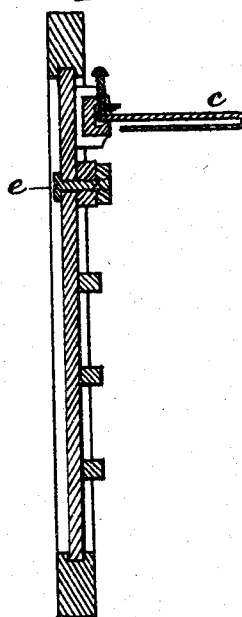
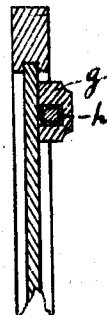


Fig. 4.



Witnesses.

John R. Heard
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Inventor:

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By Alan Andrieu's atty.

UNITED STATES PATENT OFFICE.

GEORGE WOODS, OF CAMBRIDGEPORT, MASSACHUSETTS.

IMPROVEMENT IN SOUNDING-BOARD BRIDGES FOR MUSICAL INSTRUMENTS.

Specification forming part of Letters Patent No. **138,725**, dated May 6, 1873; application filed March 27, 1873.

To all whom it may concern:

Be it known that I, GEORGE WOODS, of Cambridgeport, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Musical Instruments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawing which forms part of this specification.

My invention relates to improvements on the patent granted to me January 14, 1873; and consists in an improved mode of attaching the metal bridge containing the sounding-hooks to the sounding-board of musical instruments, in such a manner that the said metal bridge is only attached to the sounding-board by one of its ends and allowed to swing or vibrate freely at its extreme outer end, for the purpose of producing a more soft, durable, and agreeable sound than could be obtained when the said metal bridge was firmly attached for its entire length to the sounding-board.

On the drawing, Figure 1 represents a front view of my invention. Fig. 2 represents an end view, seen from the left of Fig. 1. Fig. 3 represents a cross-section over the line A B on Fig. 1; and Fig. 4 represents a cross-section over the line C D, also shown on Fig. 1.

Similar letters refer to similar parts wherever they occur on the different parts of the drawing.

a is the sounding-board of a musical instrument, and *b* is the metal bridge, to which the sounding-hooks *c c'* are attached, as shown. The metal bridge *b* is curved downward at the left end, as shown in Fig. 1 at *d*, where it is attached to the sounding-board *a* by means of the screws *e e e*, or their equivalents. The extreme right end *f* of the bridge *b* is however allowed to vibrate freely, and the bridge is not attached to the sounding-board at any other place except at *d*, as shown. I place the low-toned sounding-hooks *c* nearest to the

end *d*, where the bridge is secured, and I place the high-toned hooks nearest to the extreme end *f*, where the greatest vibration takes place. By so doing I find that I am able to obtain softer and more durable tones, and more perfect and even scale of notes than if I attached the bridge all over firmly to the sounding-board. But as musical instruments have to be transported often from one place to another, I attach a guide, *g*, to the sounding-board *a*, as shown in Figs. 1 and 4. The said guide *g* is provided with a perforation lined with India rubber or other elastic material *h*, that is slipped over the extreme end *f* of the metal bridge *b*. This guide *g* is not intended to secure the end *f* of the metal bridge to the sounding-board *a*, but simply for the purpose of preventing the bridge from too much vibration in case the instrument is rudely shaken during transportation or otherwise. The elastic lining *h* allows the metal bridge to vibrate sufficiently without giving it entire freedom to oscillate during transportation.

Formerly I had the metal bridge firmly secured to the sounding-board for its entire length; but as I found that it was very difficult if not impossible to obtain soft and even tones in this manner, I abandoned such an arrangement and allowed the metal bridge to vibrate at the end where the highest notes are obtained, as herein fully shown and described.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent, and claim—

A metal bridge for musical instruments, attached by one end only to the sounding-board, or its equivalent, and allowed to vibrate freely at its other end, for the purpose and in the manner herein shown and described.

In testimony that I claim the foregoing I have hereunto set my hand this 22d day of March, 1873.

GEORGE WOODS.

Witnesses:

ALBAN ANDRÉN,
JOHN R. HEARD.