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PIANO BRIDGE

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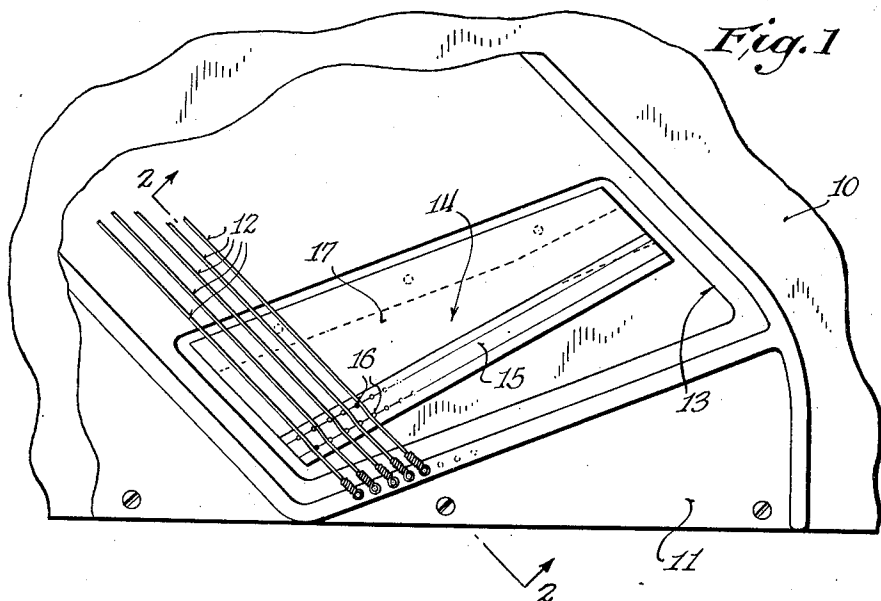


Fig. 2

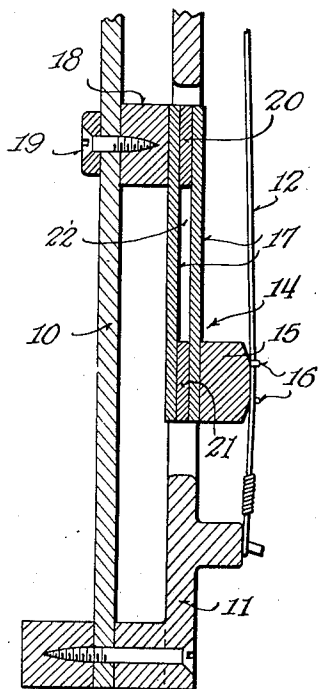
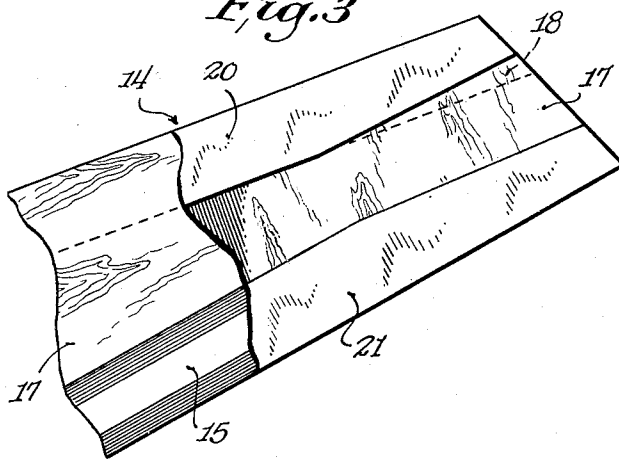


Fig. 3



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PIANO BRIDGE

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3 Claims. (Cl. 84-212)

This invention relates to bridges for pianos.

Piano bridges as heretofore used, whether of the straight or offset type, ordinarily comprise a rigid structure interposed between the strings and the sounding board, and because of their rigidity, such bridges tend to damp out vibrations in the sounding board and thus to seriously impair the tonal qualities of the instrument. This sound deadening effect of bridges, as heretofore designed, is particularly noticeable in small pianos whose sounding boards are necessarily of limited area, and is undoubtedly the primary cause of the acknowledged inability to develop a good full tone in a small piano.

One object of the present invention is to provide a resilient bridge which will not impair or materially restrict the tone developing vibrations in the sounding board.

Another object is to provide a bridge equipped with a resonance chamber for amplifying and improving the tonal qualities of the instrument.

Other more specific objects and advantages will appear, expressed or implied, from the following description of a piano bridge constructed in accordance with the present invention.

For purposes of illustration and explanation, the invention is herein shown and described as embodied in a base bridge, although it may be incorporated advantageously in bridges for other parts of the scale.

In the accompanying drawing:

Figure 1 is a plan view of a base bridge constructed in accordance with the present invention and shown applied to a conventional piano.

Fig. 2 is a sectional view, on a larger scale, taken along the line 2-2 of Fig. 1.

Fig. 3 is a fragmentary plan view of the bridge with parts broken away.

The bridge selected for illustration is shown in Figs. 1 and 2 applied to a piano having a conventional sounding board 10, arranged below a conventional pin plate 11 upon which the strings 12 are mounted in the usual manner. In this instance the plate 11 is provided with an opening 13 to accommodate the base bridge 14, disposed between the base strings 12 and the sounding board 10.

The bridge shown is of the offset type. It comprises a rail 15, preferably of wood, adapted to bear against the strings 12 and provided with the usual bridge pins 16. In this instance the rail 15 is floatably mounted upon a plurality of resilient leaves 17 carried by and projecting laterally from a supporting bar 18 integrally attached to the sounding board 10. The bar 18, preferably of wood, is preferably glued to the sounding board and additionally secured thereto by screws 19.

The leaves 17 preferably comprise relatively thin sheets of wood with the grain of one pref-

erably extending crosswise of the grain of the other, the leaves being spaced apart by narrow spacer strips 20 and 21 glued or otherwise fixed to and between opposite marginal portions of the leaves, so as to form a hollow resilient structure containing a resonance chamber 22 extending from end to end thereof. As indicated in the drawing, the bridge rail 15 is glued or otherwise fixed to one face of this hollow structure along one edge thereof, and the supporting bar 18 is similarly fixed to the opposite face along the opposite edge thereof, so that the structure forms a resilient cantilever support for the rail 15, by which the latter is floatingly urged against the strings and through which the string vibrations are transmitted to the sounding board 10, the resonance chamber 22 tending to amplify the sound resulting from the vibrations thus transmitted through its walls.

Various changes may be made in the embodiment of the invention hereinabove specifically described without departing from or sacrificing the advantages of the invention as defined in the appended claims.

I claim:

1. A piano bridge comprising a pair of superimposed leaves spaced apart to form a resonance chamber therebetween, means disposed substantially along one marginal portion of said superimposed leaves for mounting the latter upon a piano sounding board in spaced relation thereto, said leaves extending laterally from said mounting means, and means disposed substantially along and supported by the opposite marginal portion of said leaves for contact with the piano strings whereby sound vibrations from said strings are transmitted to said sounding board through opposite side walls of said chamber.

2. A piano bridge comprising a pair of superimposed wooden leaves, laterally offset spacer means disposed along and between opposite marginal portions of said leaves to separate the latter and thereby provide a chamber therebetween, means disposed below and along one of said spacer means for mounting said leaves upon a piano sounding board in spaced relation thereto, and means disposed above and along the other of said spacer means for contact with the piano strings, said string contact means being supported from said mounting means through said leaves.

3. A piano bridge comprising a mounting rail for attachment to a piano sounding board, a plurality of spaced substantially parallel resilient leaves fixed to and extending laterally from said rail, and a string contact rail resiliently supported by said leaves and offset laterally from said mounting rail whereby sound vibrations from said strings are transmitted through each of said leaves to said sounding board.

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