A. BRANDES.

SOUNDING BOARD FOR GRAND PIANOFORTES, PIANOFORTES, AND THE LIKE.

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1,364,541. Patented Jan. 4, 1921.

Fig. 1.

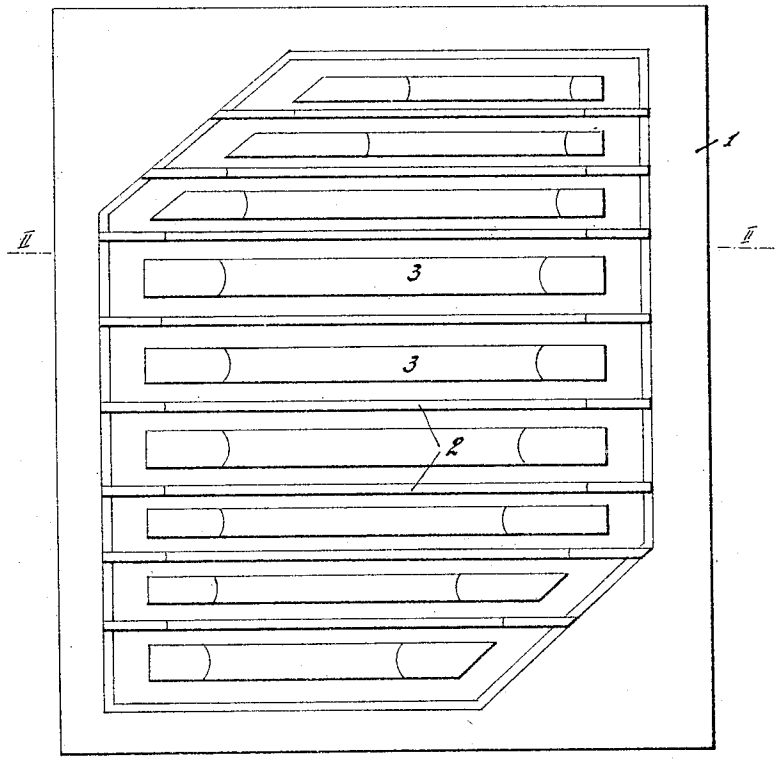


Fig. 2.



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UNITED STATES PATENT OFFICE.

ARTHUR BRANDES, OF BERNE, SWITZERLAND.

SOUNDING-BOARD FOR GRAND PIANOFORTES, PIANOFORTES, AND THE LIKE.

1,364,541. Specification of Letters Patent. Patented Jan. 4, 1921.

Application filed April 1, 1920. Serial No. 370,413.

To all whom it may concern:

Be it known that I, ARTHUR BRANDES, subject of German Republic, and residing at Berne, Switzerland, have invented certain new and useful Improvements in Sounding-Boards for Grand Pianofortes, Pianofortes, and the like, of which the following is a specification.

This invention relates to the sounding-boards of pianofortes, and the like.

It is well known that pianofortes frequently lose their original beautiful tone in a relatively short time. This change in the original tone takes place generally only very gradually, and its cause can lie principally only in a change in the sounding-board which, in turn, is due to local conditions depending on various causes, such as fluctuations of temperature, stresses set up in the sounding-board and the like.

This invention has for its main object to obviate this defect. To this end, the sounding-board is provided between the usual ribs with rib like reinforcements.

One embodiment of the invention is illustrated by way of example in the accompanying drawing, wherein:—

Figure 1 is an elevation of a sounding-board according to the invention removed from the instrument to which it belongs, and

Fig. 2 is a section taken on the line II—II in Fig. 1.

Referring to the drawing, 1 designates a sounding-board made as usual of thin wood, on the back of which known ribs 2 are provided running transversely of the lengthwise grain of the sounding board. Various builders of musical instruments place these ribs 2 at various distances apart in their instruments, and their ends are gradually slanted off.

According to this invention, rib like reinforcements 3 are provided between these ribs, which reinforcements occupy nearly the whole space both in length and breadth, between the ribs. They are somewhat shorter than the ribs 2 and like these are beveled or slanted off at their ends, so that they are higher at the middle, where the bridge is provided at the other side, than at their ends.

The vibration of the sounding-board when the strings are struck is not only in no way impaired by these reinforcements, but, on the contrary, is increased, which materially aids in increasing the sonorousness or fullness of tone of the instrument. The reinforcements increase the mass of the sounding-board without impairing its elasticity, and they increase the resistance of the board to stresses due to the strings and to other stresses that are set up in it.

The described sounding-board can of course be built into existing used instruments in order to permanently impart to them their original tone, or a still better one.

I claim:

1. In a musical instrument of the character described, a sounding-board provided with the usual ribs extending transversely of the lengthwise grain of the sounding-board, and provided further with rib-like reinforcements located between said ribs.

2. In a musical instrument of the character described, a sounding-board provided with the usual ribs extending transversely of the lengthwise grain of the sounding-board and provided further with rib-like reinforcements located in the space between said ribs and occupying nearly the entire length and width of said space.

3. In a musical instrument of the character described, a sounding-board provided with the usual ribs extending transversely of the lengthwise grain of the sounding-board, and provided further with rib-like reinforcements located in the space between said ribs and occupying nearly the entire length and width of said space and being gradually reduced in height toward their extremities.

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

ARTHUR BRANDES.

Witnesses:

J. ALLERSON,

JAS. PUTTING.