

C. F. T. STEINWAY.
Piano Sounding-Boards.

No. 135,857.

Patented Feb. 11, 1873.

Fig. 1.

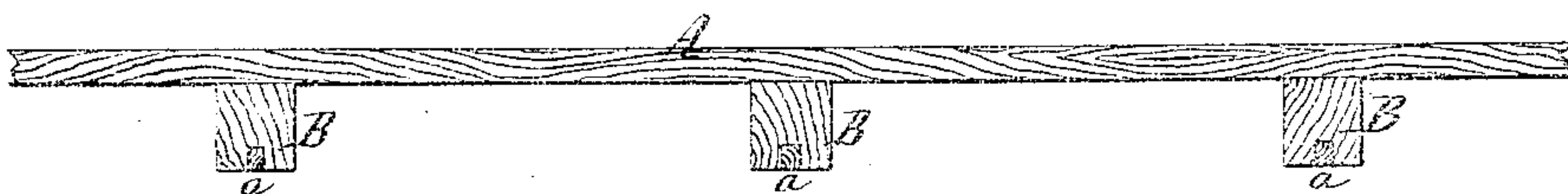
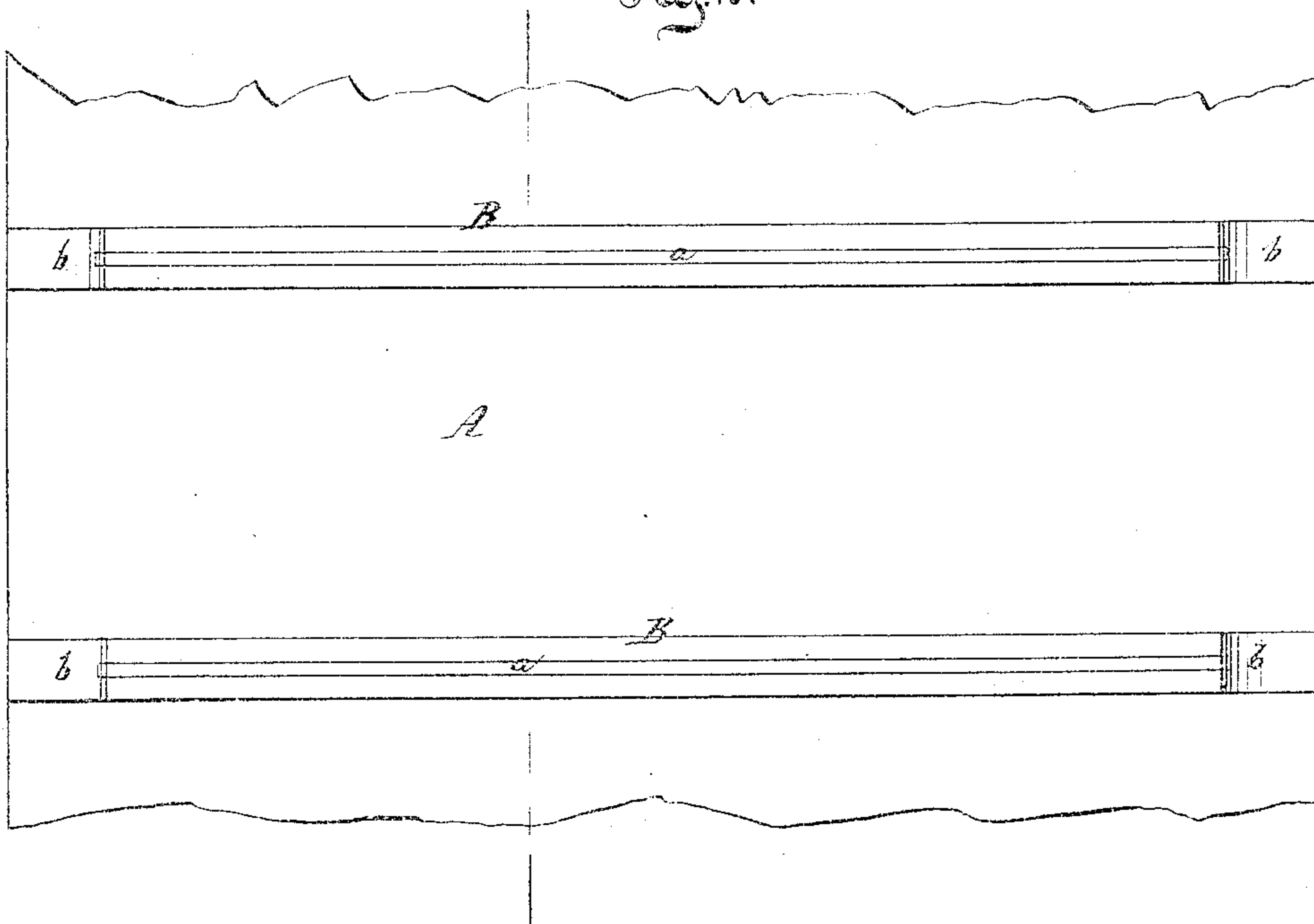


Fig. 2.



Witnesses.
Ernst Bilhuber.
Chas. Wahlers.

Inventor.
C. F. T. Steinway
By
Van Santvoord & Harp
Attorneys

UNITED STATES PATENT OFFICE.

CHRISTIAN F. T. STEINWAY, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF,
WILLIAM STEINWAY, AND ALBERT STEINWAY.

IMPROVEMENT IN PIANO SOUNDING-BOARDS.

Specification forming part of Letters Patent No. 135,857, dated February 11, 1873.

To all whom it may concern:

Be it known that I, CHRISTIAN FRIEDRICH THEODOR STEINWAY, of the city, county, and State of New York, have invented a new and useful Improvement in Sounding-Boards for Piano-Fortes; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a longitudinal vertical section of my invention. Fig. 2 is an inverted plan of the same.

Similar letters indicate corresponding parts.

This invention consists in the arrangement of one or more strips of hard wood in the body of the soft-wood bars or ribs of the sounding-board of a piano-forte in such a manner that the sounding-board is prevented from settling down, and the tone of the piano-forte constructed with this improved sounding-board is not liable to break or to change its character under the most powerful touch.

In the drawing, the letter A designates the sounding-board of a piano-forte, which is strengthened by ribs or bars B secured to its under surface. These ribs cross the fibers of the sounding-board, and they are invariably sawed from boards or planks of spruce or pine wood, so that their fibers do not usually extend from end to end in unbroken lines. A sounding-board constructed with the ordinary ribs is liable to settle down under the weight and tension of the strings, and the tone of a piano-forte provided with such a sounding-board is liable to break down or to change its character under the touch of a powerful player.

These disadvantages I have successfully overcome by inserting into each of the ribs B

one or more strips, *a*, of hard wood, said ribs being provided with grooves for the reception of the hard-wood strips. These grooves extend throughout the entire length of the ribs, and they terminate at the usual chamfers *b* at the ends of said ribs. The strips of hard wood are so cut that their fibers extend from end to end in unbroken lines, and by combining them with the ribs B the sounding-board is enabled to withstand effectually the pressure of the strings, its vibrating power is increased, it is prevented from settling down, it diffuses and transmits the vibrations to all parts of the sounding-board, and the tone of a piano-forte constructed with my improved sounding-board will not break or change its character under the most powerful touch.

Hard wood, when glued into a groove in the soft-wood rib of a sounding-board, contracts a little more or less than the soft wood, since when it is moistened by the glue it expands, and as it dries it contracts; and by this contraction the sounding-board is slightly bent upward, so that it is capable to resist the tension and weight of the strings.

I am aware that the bars of sounding-boards of pianos have been strengthened by inserting a strip of iron within a groove or kerf; such is not claimed, as it is not my invention; but

What I claim as new, and desire to secure by Letters Patent, is—

The employment of one or more strips of hard wood inserted into the ribs B of the sounding-board of a piano-forte, substantially in the manner and for the purpose herein shown and described.

C. F. TH. STEINWAY.

Witnesses:

THO. STEVENSON,
F. W. HARE.