

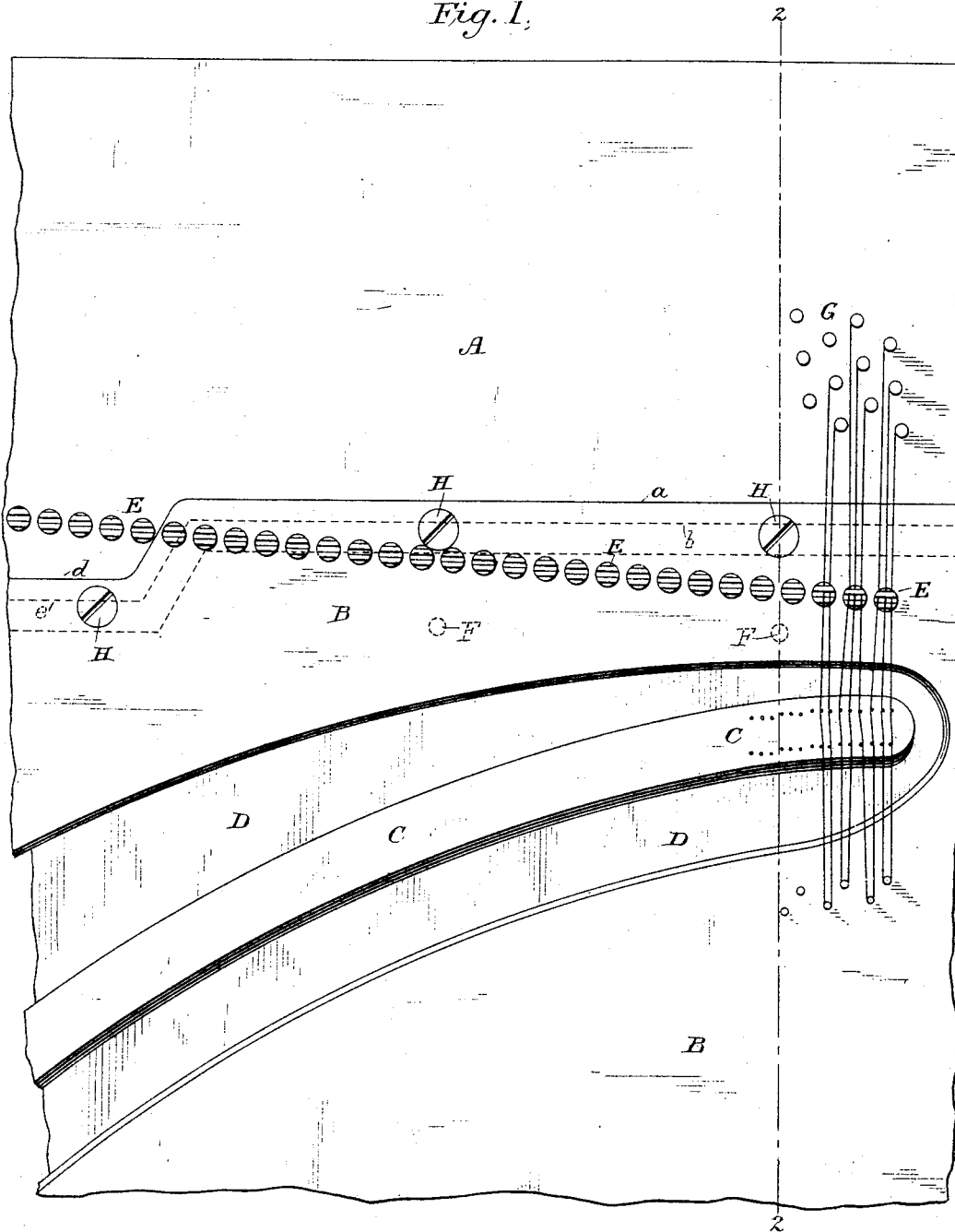
H. BEHNING.

SOUNDING BOARD FOR UPRIGHT PIANOS.

No. 261,523.

Patented July 25, 1882.

Fig. 1.



WITNESSES

Wm A. Shunkle  
Geo W Breck

By his Attorney

William H Kenyon

INVENTOR

Henry Behning,

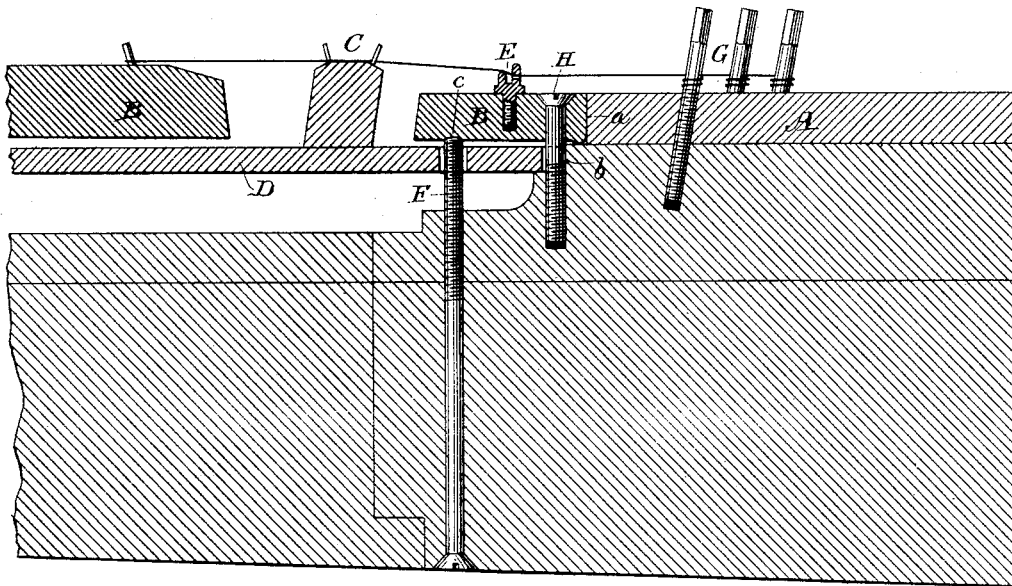
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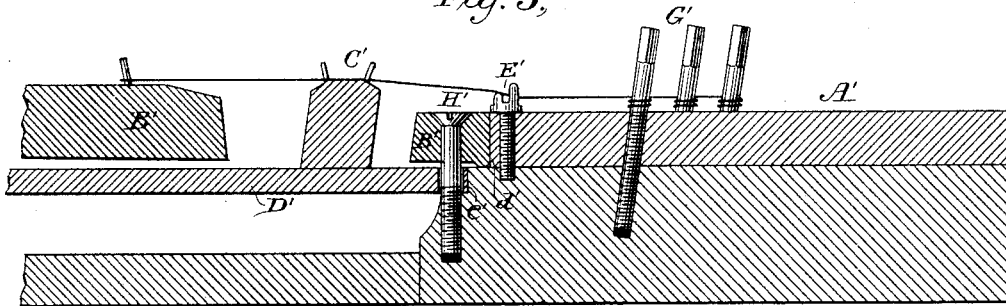
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*Fig. 2,*



*Fig. 3,*



WITNESSES

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# UNITED STATES PATENT OFFICE.

HENRY BEHNING, OF NEW YORK, N. Y.

## SOUNDING-BOARD FOR UPRIGHT PIANOS.

SPECIFICATION forming part of Letters Patent No. 261,523, dated July 25, 1882.

Application filed April 14, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY BEHNING, of New York, in the county and State of New York, have invented a new and useful Improvement in Sounding-Boards for Upright Piano-Fortes; 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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of my invention is to increase the quantity and enrich the quality, more especially of the upper tones, in upright piano-fortes; and to that end my invention consists in such an extension of the efficient portions of the sounding-board, especially in the upper scores, and such adaptation of surrounding parts, as are hereinafter described and claimed.

Referring to the accompanying drawings. Figure 1 is a front or plan view of a portion of an instrument to which my invention has been applied in its upper scores. Fig. 2 is a section on the line 2 2, and Fig. 3 a partial section of an instrument without my invention.

Similar letters of reference indicate like parts in Figs. 1 and 2, and the same letters primed indicate in Fig. 3 the corresponding parts.

In Figs. 1 and 2, A is the wrest-block or tuning-block, carrying the tuning-pins G. E are the agraffes. B is the metal plate, abutting against the wrest-block along the line *a d*, and in the usual manner firmly seated on a shoulder of the wrest-block, and secured thereby by screws H. B is further preferably supported, near its edge, in those portions of the instrument to which my invention is applied by screws F in the wrest-block, which, passing freely through holes in the sounding-board, rest in depressions or seats *c* on the lower or inner side of the plate B. D is the sounding-board. It abuts against the wrest-block along the line *b e*, which line, in the portion of the instrument to which my invention is applied—to wit, the line *b*—is at a substantially equal or greater distance from the bridge

C than are the agraffes E, and which line is preferably as far from the bridge C as possible, and as near to the line *a* in Fig. 1 as is compatible with the firm seating of the plate B upon the wrest-block. The sounding-board D rests, in the usual manner, upon a shoulder of the wrest-block.

To clearly distinguish what is new, I have introduced Fig. 3, which shows the present arrangement of sounding-board, plate, wrest-block, and agraffes, while Fig. 2, in corresponding section, shows my improvement in the same. The efficient portion of the sounding-board in any instrument is the portion on the side of the bridge C toward the agraffes, the extent of sounding-board on that side of the bridge affecting the richness and quality of the tone.

My improvement consists in substituting for the sounding-board D' of Fig. 3, which terminates at *e'*, the sounding-board D of Figs. 1 and 2, which extends to *b*, thereby securing in the upper scores nearly double the extent of efficient sounding-board available at present. This requires that the metal plate B', terminating at *d'*, be enlarged into the plate B, terminating at *a*, which line *a* is at any desired position between the line of agraffes E and the line of tuning-pins G. The agraffe E', secured in the wrest-block A', becomes the agraffe E, secured in the plate B. The line *b* is preferably as far as possible from the bridge C, and is limited in that direction only by the distance *b a*, required as a seat for the plate B. The wrest-block is cut out to conform with my new sounding-board and plate. A screw, F, is preferably introduced to strengthen the plate B and prevent unpleasant vibrations. My improvement, while not of so much importance where the distance C E is great, becomes of the first importance where that distance is small, as in the sections shown in Figs. 2 and 3, and is therefore peculiarly applicable to the upper octaves of upright piano-fortes.

I do not claim the inventions patented to Wm. Bourne, February 17, 1863, No. 37,717, and to Frederick Pitt, May 30, 1882, No. 258,670.

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

1. In upright piano-fortes, a wrest-block adapted to carry the tuning-pins, a plate adapted to carry the agraffes, and a sounding-board extended beyond the line of agraffes in the plate, in the manner described, all combined substantially as and for the purposes specified.
2. In upright piano-fortes, a wrest-block adapted to carry the tuning-pins, a plate adapted to carry the agraffes and supported near its free edge, as shown, and a sounding board extended beyond the line of agraffes in the plate, in the manner described, all combined substantially as and for the purposes specified.

HENRY BEHNING.

Witnesses:

LOUIS H. NAUMANN,  
MILLER C. EARL.