(No Model.)

C. MARX.

DOUBLE SOUNDING BOARD FOR PIANOS.

No. 343,644. Patented June 15, 1886.

Fig. 1.

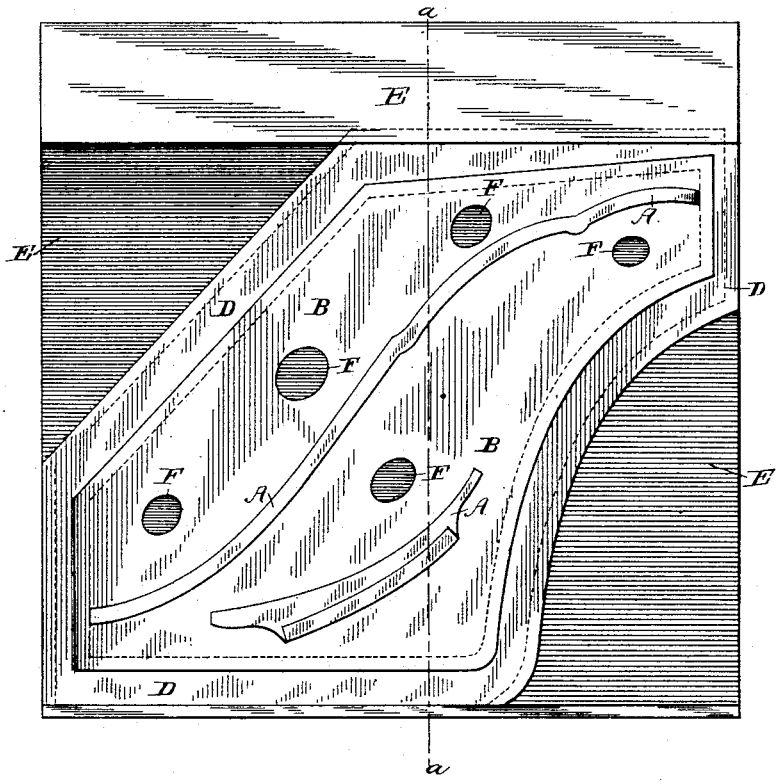
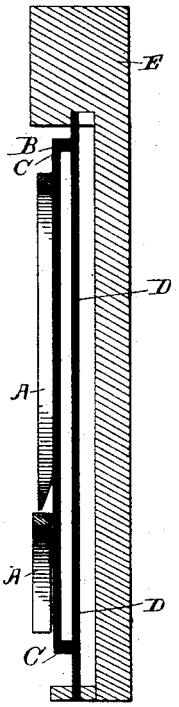


Fig. 2.



WITNESSES

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CARL MARX, OF DRESDEN, SAXONY, GERMANY.

DOUBLE SOUNDING-BOARD FOR PIANOS.

SPECIFICATION forming part of Letters Patent No. 343,644, dated June 15, 1886.

Application filed February 19, 1884. Serial No. 121,352. (No model.) Patented in Germany September 9, 1883, No. 26,728, and in England January 25, 1884, No. 2,111.

To all whom it may concern:

Be it known that I, CARL MARX, of the city of Dresden, in the Kingdom of Saxony, and German Empire, have invented certain new and useful Improvements in Double Sounding-Boards for Piano-Fortes and other Similar Instruments, (for which patents were granted to me in Germany, under No. 26,728, dated September 9, 1883, and in England, under No. 2,111, dated January 25, 1884,) of which the following is a specification.

My invention relates to improvements in double sounding or sound boards for pianos and other similar instruments, the object of which is to produce a more powerful continuous or prolonged tone.

I am aware that sounding-bodies or sounding-boards, consisting of a hollow receptacle or shell in a curvilinear shape, formed by placing several veneers of wood one above the other, have been patented to Robert Wolf, of London, by the British Patent No. 6,780, A. D. 1835; but the construction and application of this system proved to be very impractical, in consequence of the numerous defects in the same, and for this reason never came into general use. It is also known to me that K. G. Zierold, of Leipsic, has patented in Germany, under No. 20,642, A. D. 1882, the application of the two boards placed above each other to form a double sounding-box. Zierold reduces the distance between his two boards, so as to have the greatest space between the same to the left of the center of the boards, or almost entirely on the bass side of the instrument, so that if his system were employed for the cross string instruments the bass and tenor notes would be so loud in proportion to the treble that a very bad effect would be produced; and even if this instrument is strung on the straight-wire system a similar result must be produced, and for this reason the system has never come into practical application. Zierold further attaches his sounding box to the lower surface of the main sound-board and applies his bridges, as usual, to the main sound-board, which is not only undurable, but so totally impractical that his system has never been employed to any extent.

My invention is calculated to overcome the manifold difficulties heretofore experienced with the above-named sound-boards, and in order to attain my object I employ double sound or sounding boards, which are connected to or with each other in such manner that the smaller sound-board, to which the bridges are applied, is carried by the lower or main sound-board.

Figure 1 is an elevation of the double sound-board and the frame of the piano; Fig. 2, a section on the line *a a a* in Fig. 1.

B is the smaller sound or sounding board, to which the bridges A are fixed, and which said sound-board B is connected to the lower larger sound-board, D, by means of the strips, ledges, or rods of woods C, which said strips, ledges, or rods C are well glued to the upper sound-board, B, around or in immediate proximity to the edges of the same, and also to the lower or larger sound-board, D, which said lower or larger sound-board, D, is firmly connected to the case or frame E of the instrument.

F F are the openings in the sound-board.

In consequence of the upper smaller sound-board, B, being smaller than the lower or larger sound-board, D, so that a space or part of the surface of the latter remains uncovered by the said upper sound-board, B, the lower sound-board, D, participates in or is subjected to the same vibrations as the upper sound-board, B, so that a fuller tone, which continues much longer than can possibly be attained with ordinary sound-boards, is achieved, whereby the tone emitted is agreeable to the ear, even when the player causes the hammer to strike with full force.

Having now described my said invention, what I claim, and desire to secure by Letters Patent, is—

In pianos and other similar musical instruments, a double sound or sounding board consisting of two parallel sound-boards, B and D, the lesser sound-board B being superposed on the under board, D, and having the bridges on which rest the strings, substantially as and for the purpose described.

CARL MARX.

Witnesses:
OTTO WOLFF,
C. R. SCHMIDT.