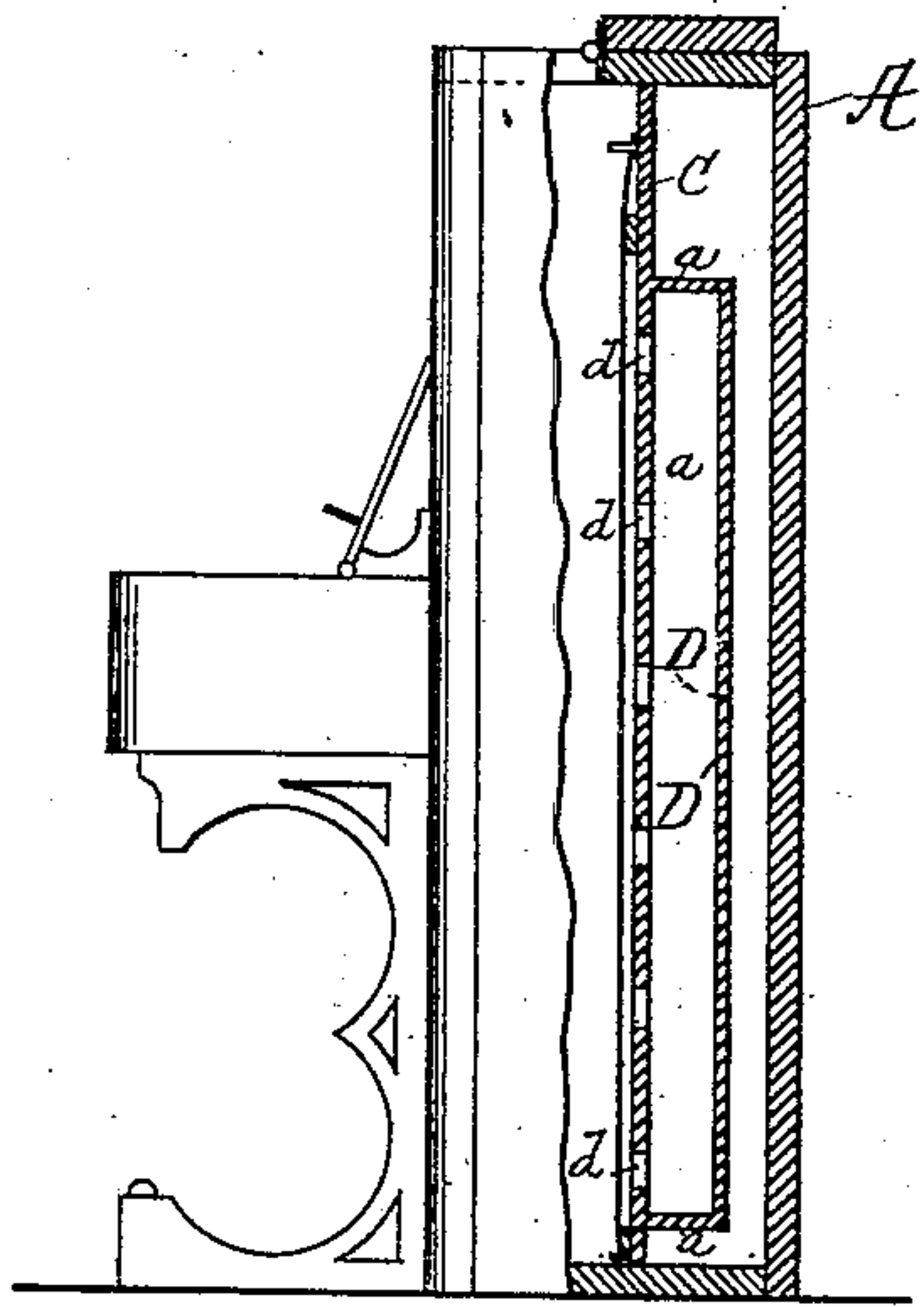


G. W. LYON.  
Piano-Forte Sound-Board.

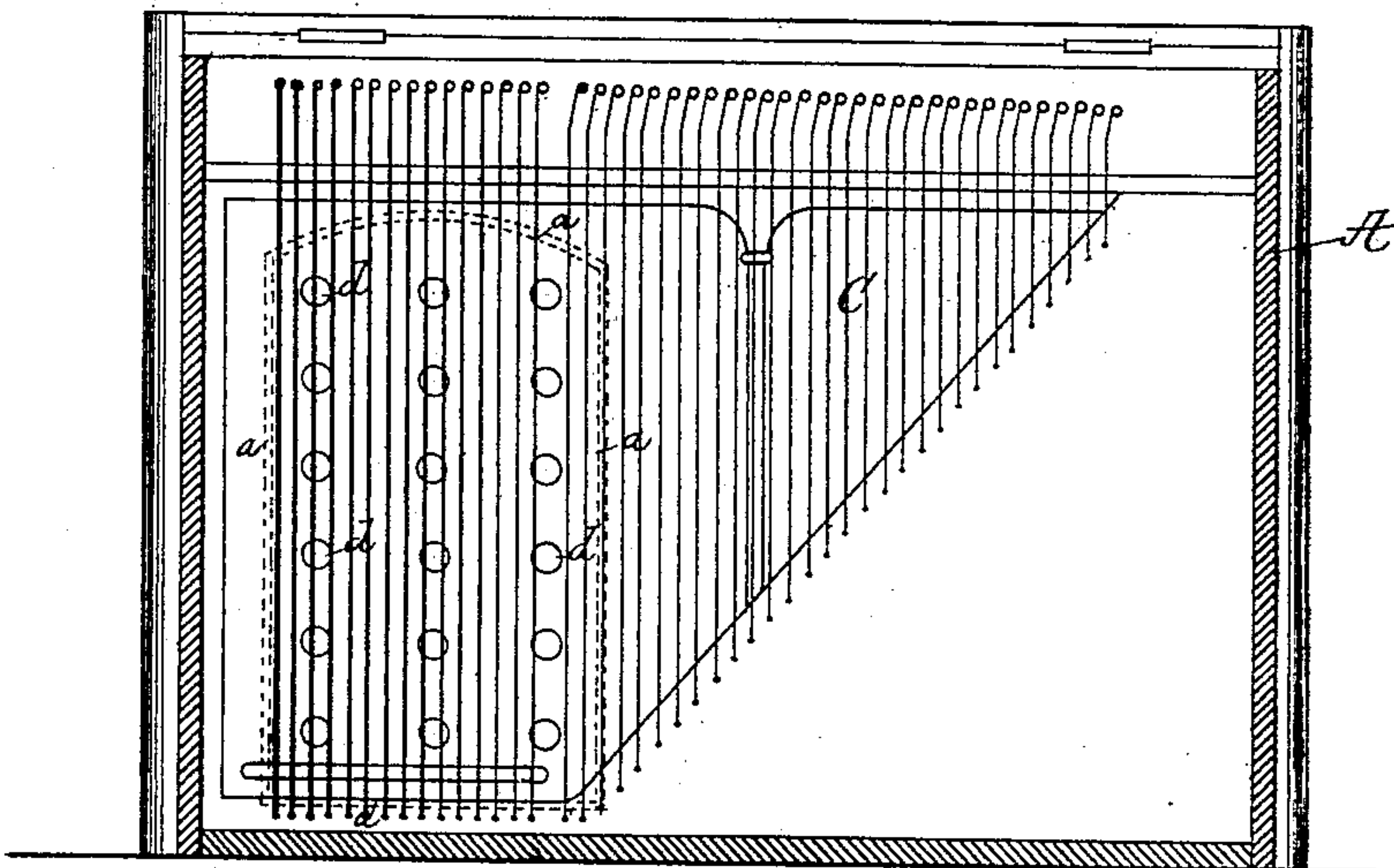
No. 200,741.

Patented Feb. 26, 1878.

*Fig. 1*



*Fig. 2*



Witnesses

E. H. Hoffman  
N. Jones.

Inventor

George W. Lyon  
By Girdley & Sherburne  
Attys

# UNITED STATES PATENT OFFICE.

GEORGE W. LYON, OF CHICAGO, ILLINOIS.

## IMPROVEMENT IN PIANO-FORTE SOUND-BOARDS.

Specification forming part of Letters Patent No. **200,741**, dated February 26, 1878; application filed January 8, 1878.

*To all whom it may concern:*

Be it known that I, GEORGE W. LYON, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements 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 others skilled in the art to which my invention appertains to make and use the same, reference being had to the accompanying drawing, forming part of this specification, in which—

Figure 1 represents a transverse sectional elevation of a piano-forte, showing a transverse section of the sounding-board embodying my invention, and Fig. 2 represents a longitudinal sectional elevation, showing a front elevation of a sounding-board.

Like letters of reference indicate like parts.

My invention relates to the sounding-boards of stringed instruments, and more especially to upright pianos; and the object of my invention is to increase the resonance of the wound strings, and thereby improve the quality of the tone of the instrument.

To that end my invention consists in providing the back of the sounding-board proper with an auxiliary sounding-board connected to the sounding-board proper by side walls, so arranged as to form a sounding-chamber, the area of which is equal to the area of the space occupied by the wound strings, and providing the sounding-board proper with a series of perforations, to admit of a free circulation of air and sound into and from said sounding-chamber.

In the drawing, A represents the framework of an upright piano of the ordinary construction. C represents the sounding-board proper, which is made of any suitable wood commonly used, and is attached to the framework of the instrument in the usual manner. D represents an auxiliary sounding-board, which is also made of any suitable wood com-

monly used, and is permanently secured to the back of the board C, with strips *a a* of wood interposed between it and the back of the said board, which strips extend across each end and along each side of the auxiliary board, so as to form a sounding-chamber, D', between the respective sounding-boards, as shown in Fig. 1. This chamber is nearly equal in length to the length of the space between the bridges, and is equal in width to the width of the space occupied by the wound strings of the instrument, and the strips *a a* or side walls of the chamber and the auxiliary board D are supported wholly from the board C, and so as to be entirely free from contact with the framework or other parts of the instrument, the object of which is to allow the auxiliary board to vibrate in unison with the board C, and thereby produce a resonance of sound from the wound strings. The board C is provided with a series of perforations, *d*, formed through the same, and so as to communicate with the sounding-chamber D', as shown in Fig. 1, the object of which is to allow a free circulation of air into the chamber and the free exit from the chamber of sound produced by the vibrations of the auxiliary board D.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The combination, with the sounding-board C, provided with the perforations *d*, of the auxiliary sounding-board D and strips *a a*, forming the sounding-chamber D', immediately back of or under the wound strings, and so that the walls of the chamber and auxiliary board will be supported wholly from the board C, and free from contact with the frame or other parts of the instrument, substantially as and for the purpose specified.

GEORGE W. LYON.

Witnesses:

N. C. GRIDLEY,  
G. R. HOFFMAN.