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SOUNDING BOARD FOR MUSIC HALLS.
(Application filed Mar. 22, 1899.)

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Fig. 1.

Fig. 2.

Fig. 3.

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SOUNDING-BOARD FOR MUSIC-HALLS.


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To all whom it may concern:

Be it known that I, OCTAVIE L. APHTHORP, a citizen of the United States, residing at Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in new and useful Sounding Boards for Music-Halls, of which the following is a specification, reference being had therein to the accompanying drawings.

Figure 1 is a view, looking toward the stage, of a music-hall stage provided with one form of my new sounding-board. Fig. 2 is a horizontal sectional view at line 2 of Fig. 1, looking downward. Fig. 3 is a vertical section on line 3 of Fig. 1.

The object of my invention is to construct music-halls or rooms, public or private, and especially public music-hall stages, with sounding-boards which comprise vibrant vertical portions and preferably, in addition thereto, vibrant forwardly-extending portions, as hereinafter explained.

In the drawings illustrating the principle of my invention, A represents the floor or stage, and A' a rear vertical wall, which is of masonry or other material and which represents the usual rear and side walls of a stage.

B is the vertical vibrant sounding-board, preferably of glass, mounted in suitable frames b, of lead. The sounding-board is mounted at a distance from wall A, so as to form the air-space between the structural wall A and the sounding-board B, thus allowing the vertical walls to become vibrant or sonorous. The braces B', used for supporting the sounding-board B, may be disposed at any suitable point and in any suitable manner. The forward extension B' forms a supplemental overhead sounding-board and is preferably used in connection with the vertical sounding-board, and when used is to be made continuous therewith in order that there may be no escape for the sound-waves at its lower edge. If the vertical board B were mounted directly upon the structural wall A', it would not be so efficient a sounding-board for the sound-waves striking against it, because it would be less vibrant than is the case when the board is backed up by an air-cushion. The frame which holds the planes or sections of glass in place should be made low and smooth on the outer or sound-receiving side. Any hard polished material may be substituted for the glass; but I prefer glass, not only because it affords a smooth and perfect surface for the reception of the sound-waves without any metallic sound—such as arises from brass or silver, for example—but also because I am thereby enabled to produce beautiful color effects by means of colored glass in the frame and lights behind or at the sounding-board.

I am the first, so far as I know, to construct a music-hall room with a hard polished vertical wall against which the sound-waves proceeding from the instruments may impinge, and such a sounding-board, even when mounted directly upon a structural wall, produces much better acoustic effects than where the sound-waves have been allowed, as hitherto, to strike upon the irregular, unpolished, and softer surfaces.

The use of glass in sounding-boards, as herein suggested, is deemed by me especially desirable because of its peculiar sonorous quality.

What I claim is—

The combination of a stage or other floor with a structural wall and a sounding-board of glass rising above the floor with a space between it and the structural wall.

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

OCTAVIE L. APHTHORP.

Witnesses:
EDWARD S. BEACH,
E. A. ALLEN.