

W. R. MILLER.

Piano Sound Insulating Attachments.

No. 153,101.

Patented July 14, 1874.

Fig 1.

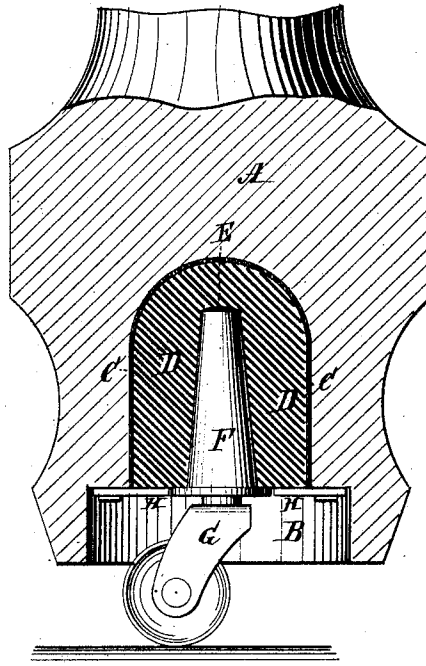
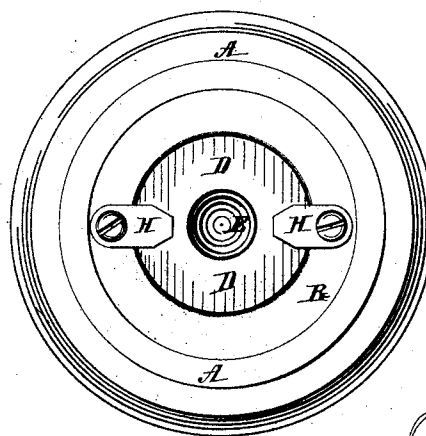


Fig 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

WILLIAM R. MILLER, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN PIANO SOUND-INSULATING ATTACHMENTS.

Specification forming part of Letters Patent No. **153,101**, dated July 14, 1874; application filed June 4, 1874.

To all whom it may concern:

Be it known that I, WILLIAM R. MILLER, of Baltimore city, in the State of Maryland, have invented a new and Improved Sound-Insulating Attachment for Pianos and like musical instruments; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification, in which—

Figure 1 is a vertical elevation of insulating attachment partly in section; Fig. 2, end view of piano-leg with insulating-core fastened in with buttons and caster removed.

The object of this invention is to render the tones of a piano or other musical instrument resting upon supports more clear, round, and full by interposing between the supports of the instrument and the supporting-surface a non-conductor of sound, which, by intercepting the vibrations, prevents them from being conducted away by the solid matter, thus compelling them to react upon the air and produce their most perfect tone. It consists of a core of glass or a similar substance for arresting sound vibrations, placed in a nicely-fitting cavity in the bottom of the piano-leg, fastened therein by buttons, and having in its center a socket to receive the revolving plate of a suitable caster.

In the drawing, A represents a piano-leg having its end undercut at B, and a cavity, C, turned in its center. D is a prolate spheroidal-shaped core, of glass or other suitable material, bisected transversely at one of its axes, and fitting nicely in the cavity C. Said core is covered with buckskin or other soft material to make it tight-fitting in the cavity, and has, in its bisected end, a socket, E, into which fits the revolving plate F of a caster, G, said plate F being cemented into the socket E, instead of being fastened by screws in the usual way. H H are buttons attached to the under side of the piano-leg for holding the core D in its place.

The operation of this insulator of sound vibrations, in connection with musical instruments, is as follows: When the notes of the

instrument are sounded a given number of vibrations are produced, which are communicated both to the air around and the solid part of the instrument, and if the legs of the instrument are in communication with the floor a portion of the vibrations will be transmitted to the same, deadened, and lost. The insulation, however, of the vibrations by means of this non-conducting core stops the conduction of the vibrations and their consequent loss to the ear, and, by causing them to react, produces a full, clear, and perfect tone.

I am aware of the fact that separate glass feet, in the shape of balls or plates, have been used for insulating piano-legs, but these render the piano stationary, and are liable to be broken. I therefore disclaim both of these, and confine myself to the use of a non-conducting core in a cavity in the bottom of the supports of the instrument, having a socket to receive the caster and buttons to hold it in. By means of this arrangement the legs of the instrument are brought near the floor, thus avoiding all unsightliness, the attachment rendered durable and not liable to get broken, the instrument made movable, and the insulation completely effected.

Having thus described my invention, what I claim as new is—

1. A core, of glass or other sound-insulating material, formed to fit a cavity in the support of a musical instrument, and having a socket to receive a caster, in combination with the supports of the instrument and the caster, for the purpose of insulating the vibrations and rendering the tones more clear, full, and round.

2. The combination of a core, of glass or other sound-insulating material, formed to fit the cavities in the supports of a musical instrument, and having a socket to receive a caster, with the buttons H H for holding the said core in said cavity.

The above specification of my invention signed by me this 3d day of June, 1874.

WILLIAM R. MILLER.

Witnesses:

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EDWD. W. BYRN.