

(No Model.)

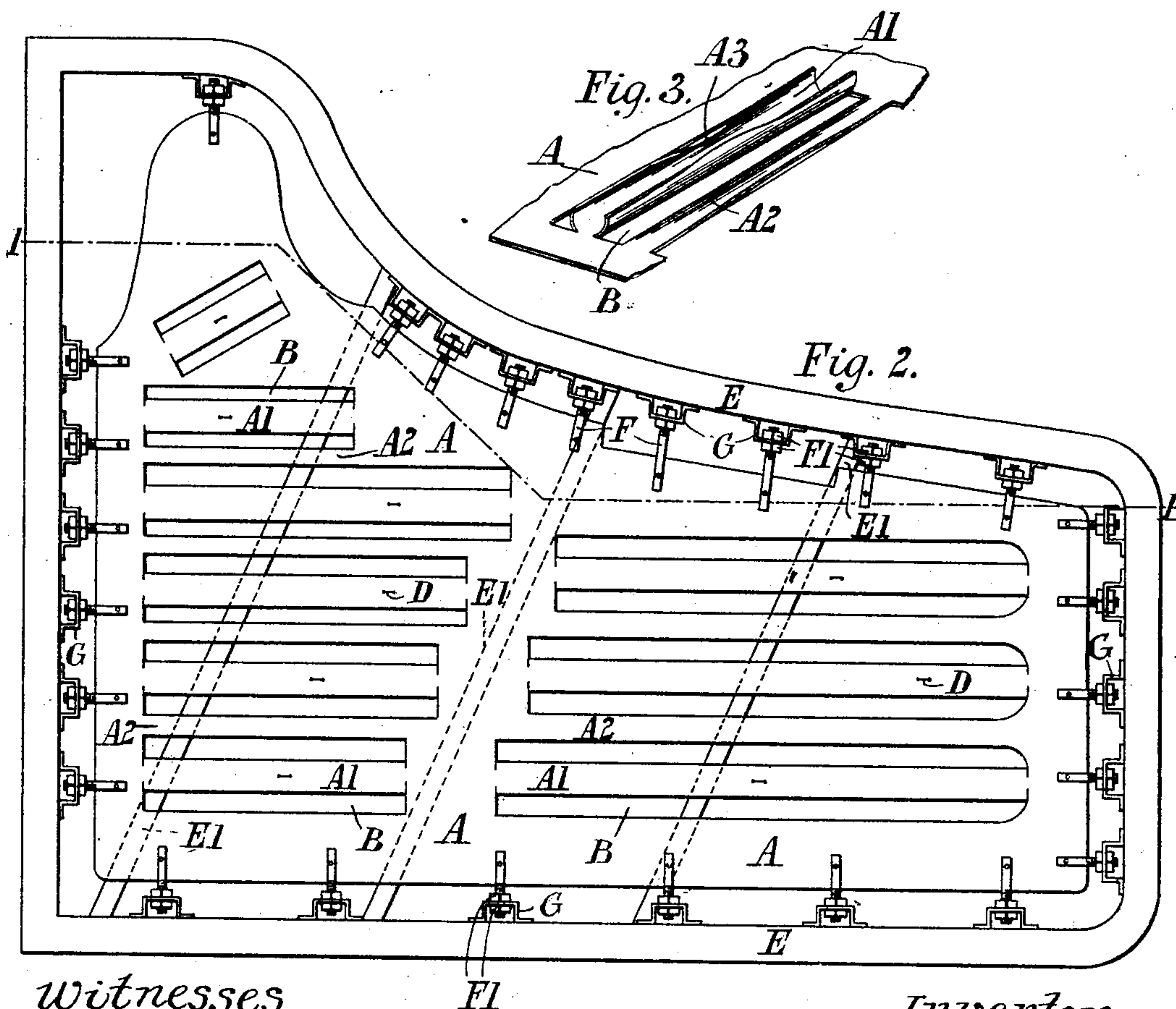
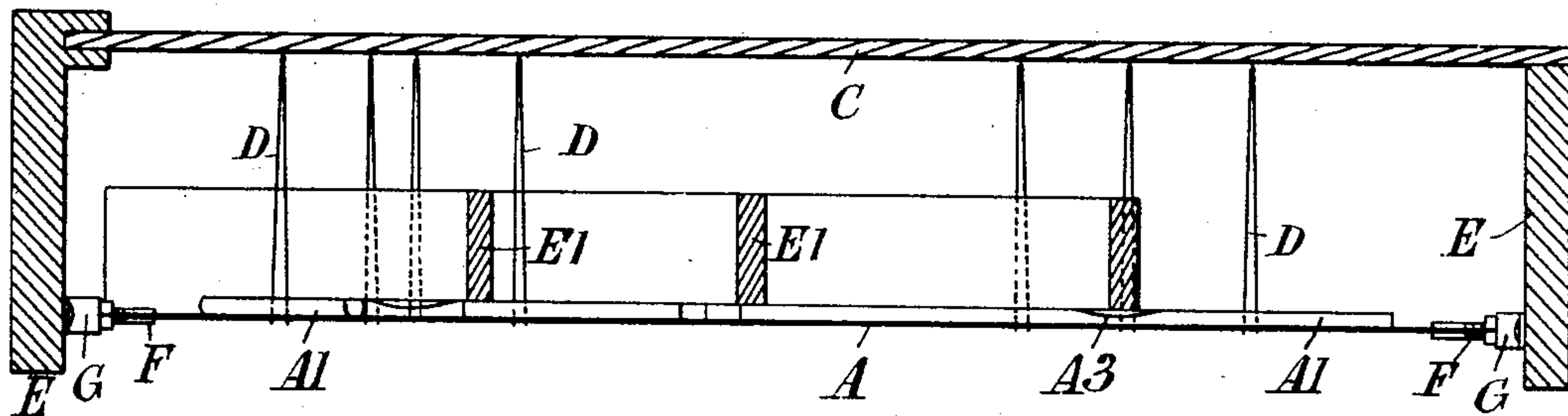
D. MAYER.

RESONATOR FOR STRINGED MUSICAL INSTRUMENTS.

No. 561,903.

Patented June 9, 1896.

Fig. 1.



Witnesses  
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# UNITED STATES PATENT OFFICE.

DANIEL MAYER, OF LONDON, ENGLAND.

## RESONATOR FOR STRINGED MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 561,903, dated June 9, 1896.

Application filed January 10, 1896. Serial No. 574,988. (No model.)

*To all whom it may concern:*

Be it known that I, DANIEL MAYER, a subject of the Queen of England, residing at London, England, have invented certain new and useful Improvements in or Relating to Resonators for Stringed Musical Instruments, Particularly Pianofortes, of which the following is a specification.

This invention relates to improvements upon resonators for stringed instruments, particularly pianofortes, of the nature described in the Letters Patent of Great Britain dated October 30, 1894, No. 20,764; but I do not herein claim anything shown or described in said Letters Patent.

The invention will be best understood by reference to the accompanying drawings, in which, as an example, I have shown it as applied to a horizontal or grand pianoforte.

In the drawings, Figure 1 is a vertical section on line 1 1 of Fig. 2. Fig. 2 is a view of the under side of as much of a grand pianoforte as is necessary to illustrate the application of my invention thereto, and Fig. 3 is a perspective view of a portion of the resonator.

Like letters indicate like parts throughout the drawings.

The resonator, as shown in the drawings, usually consists of a metal plate A, in which may be openings B, and the intervening portions A' A<sup>2</sup> of the plate may be turned up or dished in any desired manner, an arrangement by which I obtain excellent results being to provide alternately broad and narrow metallic strips A' A<sup>2</sup>, respectively, hollowed or dished, so that the narrow strips provide, as it were, shallow channels, while the wider ones form deeper channels or, if desired, more or less perfect tubes, according as the edges more or less closely approach. However, the narrow and wide strips need not necessarily be arranged alternately and may vary in length and width and amount of curve according to the shape or requirements of the sound-board to which they are applied. They are suitable to either upright or grand pianofortes.

The strips or tubes A' A<sup>2</sup> are preferably connected to the sound-board C by strings or

equivalent D, as described in the previously-mentioned application, or not, as desired, the whole plate being connected to the pianoforte-frame E preferably by adjustable devices—such as the bolts F, secured to the plate A, the yokes G, secured to the frame E, and the nuts F', screwed on the bolts F at both sides of the yoke G. Other means may, however, be provided for enabling the tension of the plate A to be adjusted.

The strings D may be connected to any part of the resonator, though preferably they are connected to the strips A' A<sup>2</sup>.

Where the strips A' or A<sup>2</sup> pass close beneath or adjacent to the frame-trusses E', they may be bent or doubled over, as at A<sup>3</sup>, Fig. 3, closer than they are at other parts, so as to prevent their coming into contact with these trusses, though if desired to dispense with this special provision the plate may be secured at a distance away from the trusses sufficient to prevent said contact.

The strings or equivalent D, as described in the before-mentioned application, may be provided with right and left handed screwed nuts or other devices to enable their effective length to be adjusted.

I wish it to be understood that I do not in this specification claim anything claimed in the specification of the before-mentioned application.

I claim—

1. In a musical instrument the combination with the sound-board of a resonator strings extending between and connecting the sound-board and resonator and dished or turned-up strips alternating with openings in the resonator.

2. In a resonator of perforated plate for a musical instrument dished or turned-up strips alternating with the perforations.

In witness whereof I have hereto set my hand in the presence of the two subscribing witnesses.

DANIEL MAYER.

Witnesses:

CHAS. ROCHE,

HARRY PETER VENN.