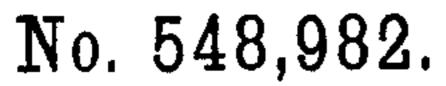
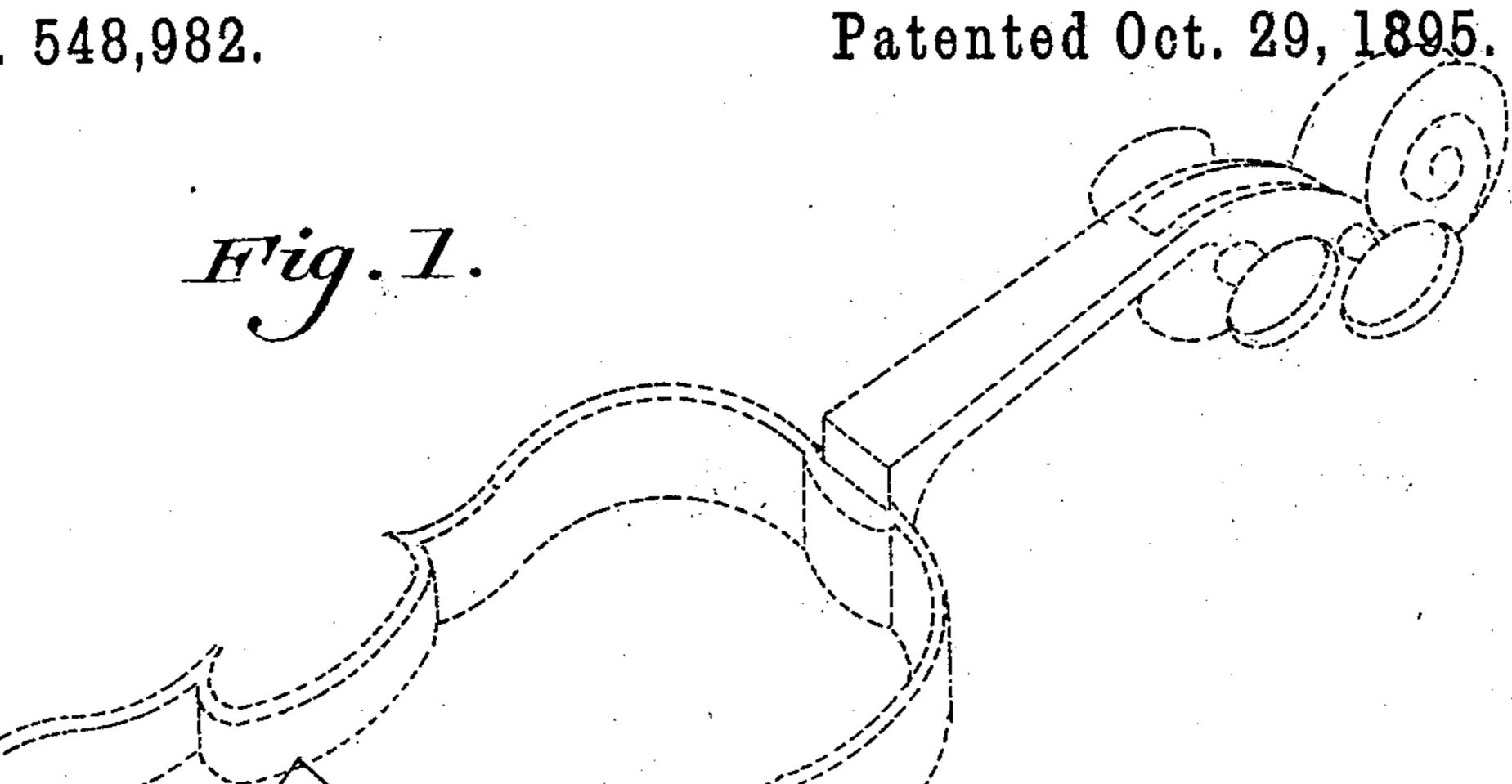
(No Model.)

M. VAN GELDER.

VIBRATOR, RESONATOR, AND TONE CARRYING ATTACHMENT FOR VIOLINS.





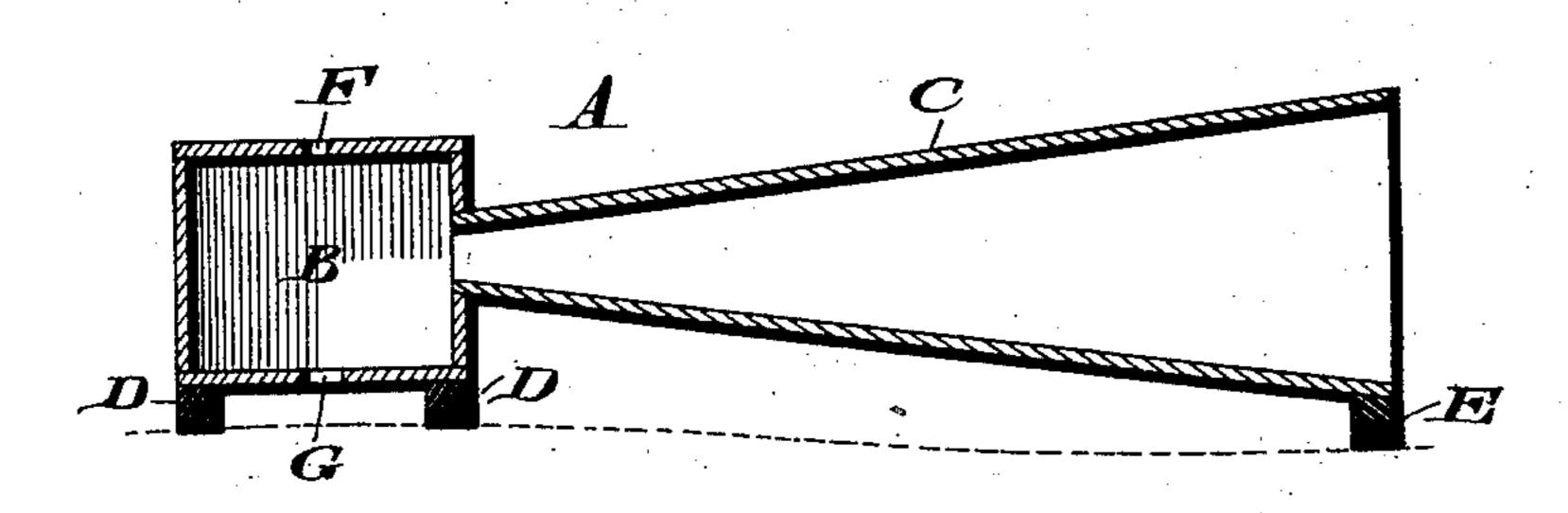
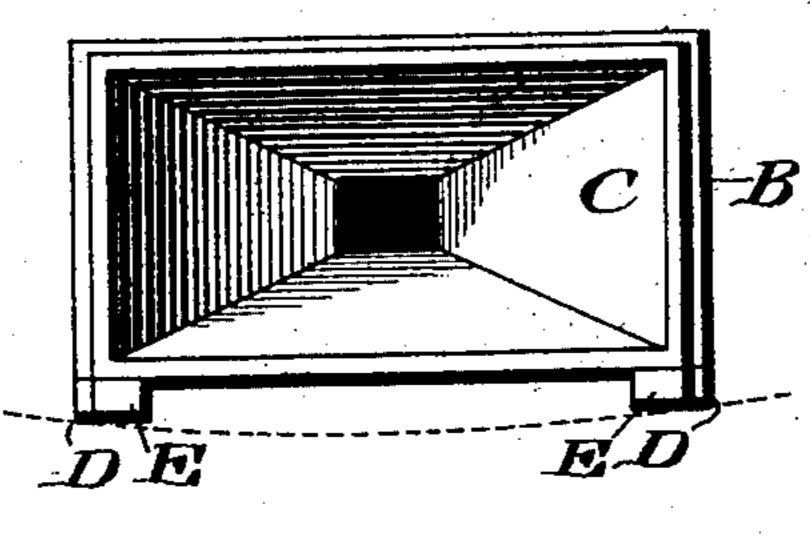


Fig.3.





United States Patent Office.

MARTINUS VAN GELDER, OF PHILADELPHIA, PENNSYLVANIA.

VIBRATOR, RESONATOR, AND TONE-CARRYING ATTACHMENT FOR VIOLINS.

SPECIFICATION forming part of Letters Patent No. 548,982, dated October 29, 1895.

Application filed July 10, 1895. Serial No. 555,458. (No model.)

To all whom it may concern:

Be it known that I, MARTINUS VAN GELDER, a citizen of the United States, residing in the city and county of Philadelphia, State of 5 Pennsylvania, have invented a new and useful Improvement in a Vibrator, Resonator, and Tone-Carrying Attachment for a Violin, which improvement is fully set forth in the following specification and accompanying to drawings.

My invention consists of a vibrator, resonator, and tone-carrying attachment for a violin whereby the tone of the instrument may be intensified, projected to a greater distance, 15 and strengthened and sweetened, all as will

be hereinafter set forth.

Figure 1 represents a perspective view of a vibrator, resonator, and tone-carrying attachment for a violin embodying my invention. 20 Fig. 2 represents a longitudinal section thereof on an enlarged scale. Fig. 3 represents a front view thereof.

Similar letters of reference indicate corre-

sponding parts in the several figures.

Referring to the drawings, A designates an attachment embodying my invention, the same consisting of a rectangular box or resonator B, having its several sides closed, a funnel C, of pyramidal or tapering form, and the 3c posts or feet D and E, the funnel projecting forwardly from the box and communicating with the same, the widest end of the funnel being in front and open, so as to be in communication with the interior of the body of 35 the violin.

The feet D depend from the box B, and the posts E depend from the funnel C, it being noticed that the attachment is supported by the feet on the bottom of the violin, to which 40 they are glued or otherwise firmly secured, and that the attachment is elevated above said bottom and located in front of the end

block of the instrument.

In the upper wall of the box are openings 45 F, and in the lower wall there is an opening G, whereby the box is in communication with

the interior of the body of the violin.

It will be seen that when the violin is played the vibrations of the same are communicated 50 to the box B, and the sound-waves also enter the box through the openings therein. There is thus an increase of vibrations and a concentration of sound-waves in said box. The increased volume of sound thus created with-

in the box partly escapes into the body of the 55 violin through the openings F and G and partly through the funnel C, the latter, owing to its shape, permitting the sound to expand and multiply and to be ejected therefrom into the body of the violin, from whence it escapes 60 through the "f" holes, it being noticed that the tone of the instrument is sweetened or beautified and likewise strengthened or intensified, so as to be projected to a greater distance than heretofore.

I am aware that a resonator as such is not new; but I am not aware that a funnel has ever before been connected with the same, as in my case. Hence I have made an improvement in the art, and therefore

I claim as new and my invention—

1. A vibrator or resonator attachment for a violin, for strengthening, sweetening and carrying the tone thereof, consisting of a closed box, a funnel communicating therewith, sup- 75 porting feet on said box and funnel, which feet are adapted to be secured to the bottom of the body of the violin, said funnel projecting laterally from said box, substantially as described.

2. An attachment for the purpose stated, consisting of a closed box, and a laterally projecting funnel communicating therewith, said funnel being of tapering form, and having its widest end in front, the walls of said box hav- 85 ing openings therein, substantially as described.

3. An attachment for the purpose stated, consisting of a closed box with the openings F and G in the walls thereof, the tapering fun- 90 nel C, connected with the side of said box and communicating with the interior thereof, and feet which connect the attachment with the bottom of the body of the violin and elevate the same therefrom, said funnel projecting 95 laterally from said box, substantially as described.

4. An attachment for the purpose stated having a box with openings therein, a funnel which projects laterally from said box and 100 communicates with the interior of the same, and means for supporting said box and funnel, said parts being combined substantially as described.

MARTINUS VAN GELDER.

Witnesses:

JOHN A. WIEDERSHEIM, A. P. JENNINGS.