(No Model.)

A. H. LOEBS.

TONE MODULATOR FOR MUSICAL INSTRUMENTS.

No. 444,448. Patented Jan. 13, 1891.

Fig 1.

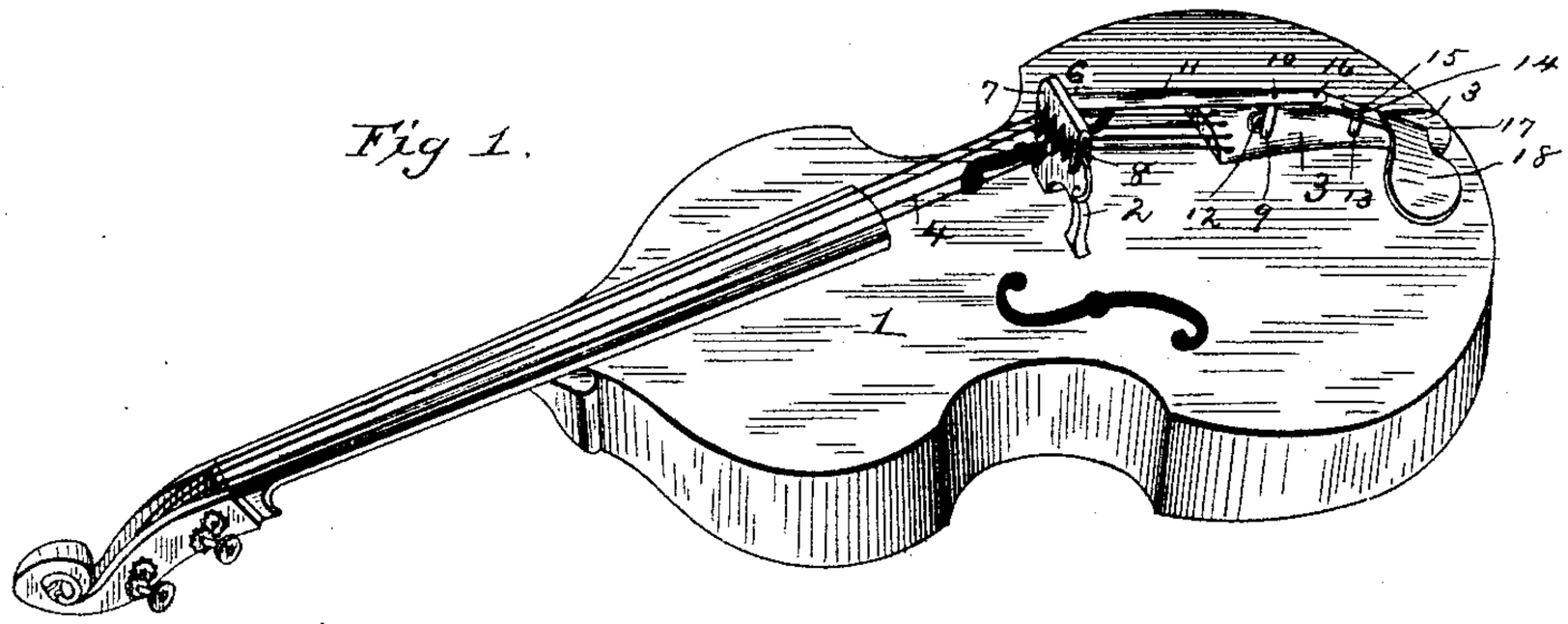


Fig. 2.

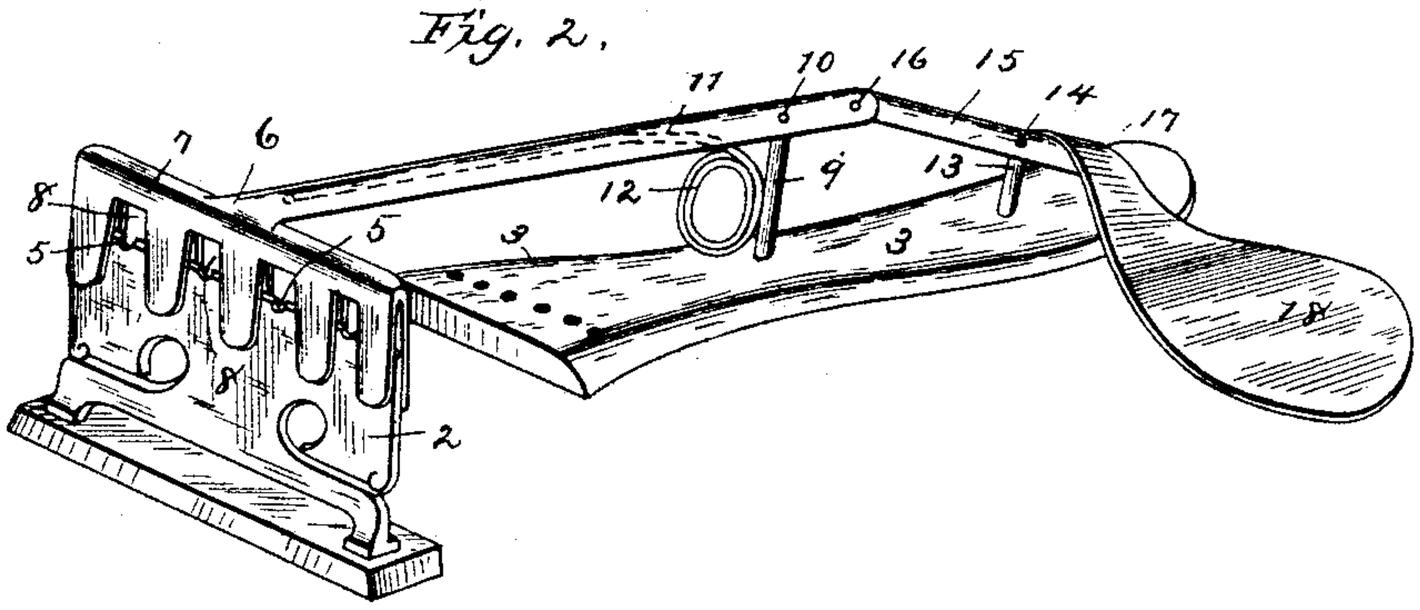
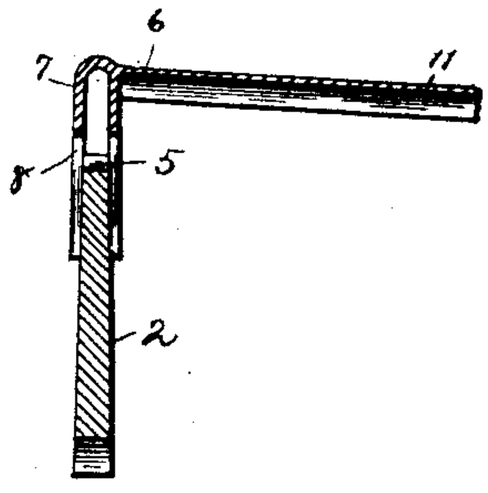


Fig. 3



Witnesses:

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TONE-MODULATOR FOR MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 444,448, dated January 13, 1891.

Application filed April 12, 1890. Serial No. 347,717. (No model.)

To all whom it may concern:

Be it known that I, ALBERT H. LOEBS, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented a new and useful Tone-Modulator for Stringed Instruments, of which the following is a specification.

This invention has relation to modulators or "mute" attachments for stringed instruments, and more especially for violins, the object being to provide an attachment for a violin or other stringed instrument designed to embrace or straddle the bridge, whereby the sound is deadened or mellowed so as to modulate and soften the tone in a similar manner, as does the treble pedal of a piano.

A further object of the invention is to provide means for operating such an attachment, whereby the same may be mechanically operated so as to be thrown into and out of operative position upon the bridge.

Other objects and advantages of the invention will hereinafter appear, and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of an attachment constructed in accordance with my invention, the same being applied to a violin. Fig. 2 is a detail in enlarged perspective of the mute attachment or modulator. Fig. 3 is a transverse section of the bridge, the modulator mounted thereon and embracing the bridge.

Like numerals of reference indicate like parts in all the figures of the drawings.

I have herein illustrated my invention as applied to a violin, and have shown means whereby the same may be operated by the chin of the performer; but it will be apparent to those skilled in this class of invention that the invention may be applied to any stringed instrument employing a bridge, and that the mechanism, if employed for operating the same, may be changed so as to be operated by an unemployed hand, arm, foot, or other portion of the body.

1 represents a violin provided with the usual bridge 2, tail-piece or apron 3, and the series of strings 4, connected at their rear ends to the tail-piece or apron passed over the bridge, and seated in notches or kerfs 5 therein, and connected to the usual pegs.

The modulator or mute attachment is preferably formed of light sheet metal, and is U-shaped in cross-section and of a width to loosely embrace the bridge.

6 represents the modulator, which, as shown, is longitudinally folded to form opposite bifurcations or embracing portions 7, one of which depends at each side of the bridge. Each of the embracing portions is provided with recesses 8 to a number corresponding with the strings, and so located as to embrace the same, the upper edges of the recesses resting lightly upon the bridge. This completes the attachment itself, and, if desired, the same may be used singly or without any further mechanism. For the purpose, however, of more conveniently operating the attachment, having the same always handy, and operating the device without the temporary removal of the hand from the instrument, I provide a mechanism hereinafter specified.

Upon the tail-piece or apron there is mounted a post 9, to the upper end of which there is pivoted, as at 10, a horizontal lever 11, the front end of which is made rigid with the attachment, and is normally elevated by means of a coiled spring 12 inserted in front of the post and between the under surface of the lever and the apron, so that the mute attachment or modulator is normally held at a point above the bridge, or so that the same is out of contact with and therefore does not affect the sound of the violin or instrument. Upon the rear end of the tail-piece or apron there is mounted a second post 13, to the upper end of which there is pivoted at its center, as at 14, a lever 15, the inner end of which is pivoted to the horizontal lever, as at 16. The rear end of the lever 15 is provided with a laterally-projecting arm 17, which terminates near the outer edge of the violin in a chin-plate 18.

From the above construction it will be apparent that by pressing the chin upon the chin-plate the lever will be so operated as to depress the forward end of the horizontal lever and the modulator into contact with the bridge. Such contact, as before stated, interferes with the sound of violin, and acts to modulate and soften the tone resulting therefrom, in the same manner as does the treble pedal of a piano-action. It is apparent that

the pressure may be regulated by the force with which the chin-plate is depressed, so that more or less modulation or softening of the tone will be accomplished. Furthermore, that by simply removing the chin from the chin-plate, the coiled spring will serve to return the parts to their normal position.

Having thus described our invention, what I claim is—

1. The combination, with a stringed instrument, of a plate transversely bent into U form and adapted to embrace the bridge thereof and having recesses corresponding in number and location with the strings of the instrument, a series of levers mounted upon the instrument and connected with the attachment, a spring for raising that lever connected to the attachment, and an operating-arm connected with the levers for lowering the attachment against the tendency of the spring, substantially as specified.

2. The combination, with a violin, its bridge, and apron, of a pair of posts mounted upon the apron, a horizontal lever pivoted to the forward posts and extending at each side of the same, a coiled spring for raising the forward end of the lever, a U-shaped plate secured to said forward end adapted to embrace the bridge and having recesses agreeing in number and location with the strings, and a shorter lever pivoted at its center to the rear post and at its inner end to the rear end of the horizontal lever, said shorter lever being provided at its rear end with a laterally-projecting arm terminating in a chin-plate, substantially as specified.

3. The combination, with a stringed instrument, of a plate transversely bent into U form and adapted to embrace the bridge thereof and having its opposite terminals substantially parallel and provided with recesses corresponding in number and location with the strings of the instrument, and a series of levers mounted upon the instrument and connected with the attachment, a spring for raising that lever connected to the attachment, and an operating-arm connected with the levers for lowering the attachment against the tendency of the spring, said arm projecting laterally and terminating in a chin-plate, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

ALBERT H. LOEBS.

Witnesses:

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