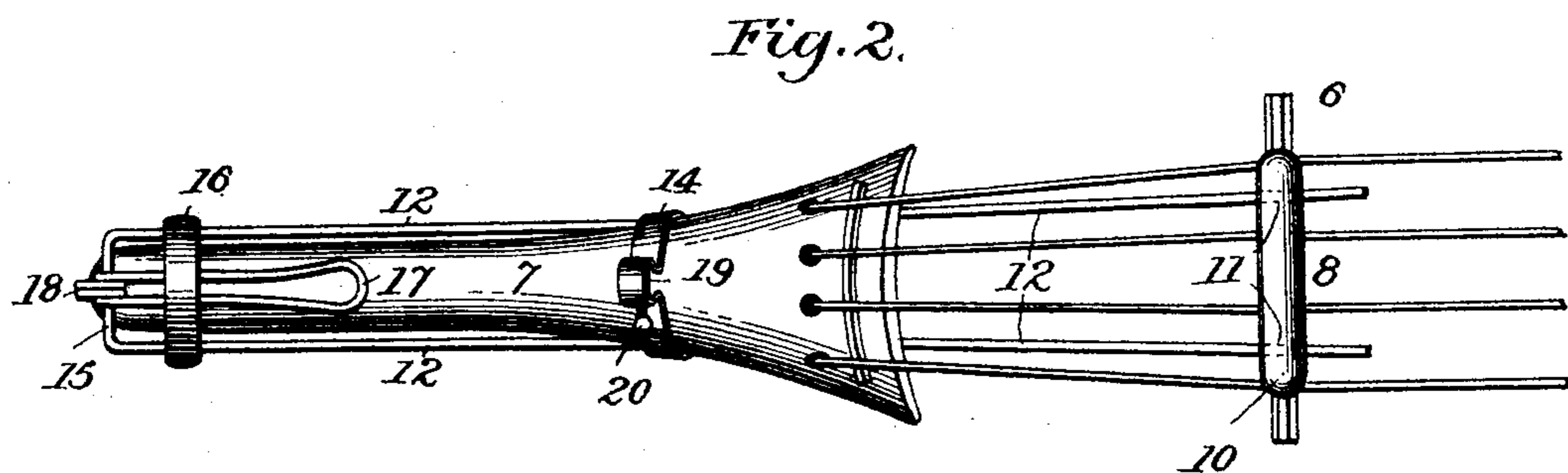
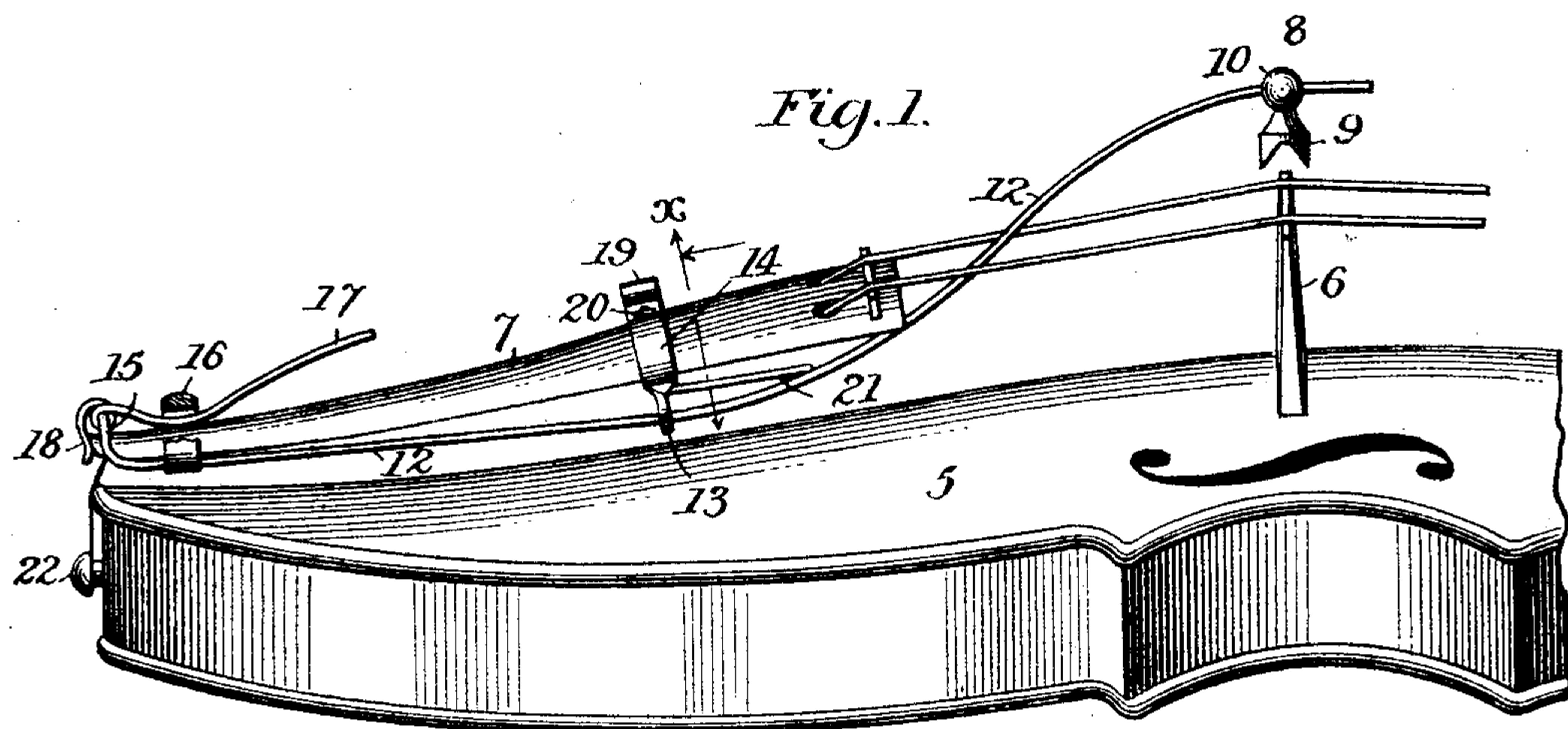


(No Model.)

W. BINGHAM.
VIOLIN MUTE.

No. 538,405

Patented Apr. 30, 1895.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM BINGHAM, OF ATLANTA, GEORGIA.

VIOLIN-MUTE.

SPECIFICATION forming part of Letters Patent No. 538,405, dated April 30, 1895.

Application filed February 21, 1895. Serial No. 539,244. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM BINGHAM, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented a new and useful Improvement in Violin-Mutes; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, in which—

Figure I is a side view of a portion of a violin, showing my mute in its raised or inactive position. Fig. II is a top view of a portion of a violin with my mute attached. Fig. III is a cross-section at the line *x* of Fig. I.

5 represents a portion of a violin, 6 the bridge and 7 the tail-piece. These may all be of any common or preferred form of construction, my object being to adapt a mute to be readily fitted to any violin so that it may be operated by the performer while playing on the instrument.

To this end my invention consists in a removable attachment to the tail-piece of the violin, adapted to be pressed upon the bridge to impede the vibration thereof, thus doing the service of a mute by lessening the sound of the instrument, and to have its pressure upon the bridge withdrawn to permit the full volume of sound of the violin, both the application and the withdrawal to be performed positively by the operator's chin, as herein-after more fully described and illustrated, reference being had to the accompanying drawings, in which—

8 represents the mute proper, comprising two feet 9, notched to engage the upper edge of the bridge, and connected by a cross bar 10 which is perforated at two points 11, to receive wire arms 12 on which the mute is mounted. These arms curve downward and pass beneath the tail-piece 7 through two arms 13, of a clip 14 which is made of elastic material adapted to be sprung upon the tail-piece and to clamp itself securely thereto, and the ears spring forward and back a little permitting the arms to move vertically at each side. Thence the arms 12 pass to the rear end of the tail-piece where they are bent up and across the line of the instrument to join together at the return bend 15, the two arms being made of a single wire throughout.

16 is an arch-shaped chin-piece secured to both arms and passing over the tail-piece 7.

17 is an operating lever made of wire coiled around the return bend 15 of the arms 12, bent downward to form a fulcrum bearing on the tail piece 7, beneath the chin-piece 16 and curved at the ends 18 to form cam-shaped bearings to engage the tail-piece when forced down past its end.

To place this device upon a violin, first draw the mute 8 off from the ends of the arms 12, then pass the arms along under the wide forward part of the tail-piece and up between the strings behind and above the bridge until the clip 14 is over the narrowest part of the tail-piece, down at the sides of which the ears 13 are to be pushed and then the device is to be again pressed forward until the cam 18 will engage the end of the tail-piece while the ears 13 spread apart to receive the wedging form of the forward part of the tail-piece to clamp securely thereon so as to hold the whole device in place. To give greater field of movement permitting the ears 13 to separate so as to engage tail pieces of different widths I may lengthen the clip into a loop 19 midway, and I may further provide a binding screw 20 to draw the ears firmly against the edges of the tail-piece and yet, in most cases the tail pieces are so near alike in form that the loop 19 and screw 20 may be dispensed with. Having secured the clip 14, place the mute 8 on the ends of the arms 12 and slide it on far enough to engage the bridge when pressed down. The arms will usually project about a quarter of an inch beyond the mute.

In service the lever 17 being pressed down by the operator's chin disengages the cam 18, raises the rear end of the arms 12 and presses their forward ends down with the mute upon the bridge, and a spring 21, secured to the ears 13, acts on the arms 12 to hold them down, whereby the tone of the violin is to a certain degree suppressed. To throw the mute out of service the operator presses his chin upon the arch 16 which reverses the action before described, raising the mute and leaving the violin free to sound its full tone. If it be desired to hold the mute raised the operator presses his chin firmly down upon the arch 16 and forces the cam 18 of lever 17 into

engagement with the tail piece whereby the device is held out of service. One foot located centrally instead of the two separated feet 9 might answer the purpose, or even more than two might be used without departing from the spirit of my invention. Instead of springing the clip 14 over the narrow portion of the tail piece I may unhitch the tail piece from the button 22 and insert it through the clip. To permit the lid of a box to close over the violin, remove the mute from the wires 12 and they may be sprung down without perceiving it. Different weights and forms of mutes for different effects may be fitted to the same arms.

Some of the advantages of this mute are the ease with which it may be fitted to any violin, its positive action at the will of the operator to throw it into and out of service, its automatic means for retaining the position given it, either out of or in service, and its lightness, simplicity and inexpensiveness.

Having thus fully described my invention, what I believe to be new, and desire to secure by Letters Patent, is the following:

1. The combination in a violin mute of a clip fitted to wedge upon the tail-piece forward of its narrowest portion and having elastic ears; a pair of arms having bearings in the said ears of the clip and joined at their rear ends in a return bend and bent upward at their forward ends; a mute fitted to slide closely upon the said arms and having one or more feet to engage the violin bridge, an arched chin-piece connecting the said arms near their rear end; a lever pivoted upon the return bend of the arms and having a down bend as a fulcrum to rest on the tail-piece and having cam-shaped terminations to engage the end of the tail-piece, substantially as described.

2. In violin mutes, a perforated mute proper having one or more feet to engage the edge of the bridge, and a pair of operating arms fitted to slide closely through the perforation in the mute whereby it may be adjusted or removed, substantially as described.

3. In a violin mute, a clip of elastic material having depending ears adapted to spring against the edges of the tail-piece and to vibrate a little forward and back, and mute supporting arms mounted in the said ears, substantially as described.

4. In a violin mute, a pair of mute-supporting arms pivotally hung midway and terminating rearward in a return bend; an arch-shaped chin piece connecting the said arms and an operating lever, substantially as described.

5. In a violin mute, a pair of mute supporting arms pivotally hung midway; a lever pivotally secured to their rear ends and bent downward as a fulcrum point to engage the tail-piece, and a spring engaging the arms to maintain the position given thereto by the said lever substantially as described.

6. In a violin mute, a pair of mute supporting arms pivotally hung midway and connected at their rear ends; an operating lever pivoted to the rear end of the arms and having a fulcrum bent to engage the tail piece and provided with a cam-shaped end to engage the tail piece substantially as described whereby the device is held idle, substantially as set forth.

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

WILLIAM BINGHAM.

Witnesses:

C. J. BLOODWORTH,
W. B. HARRISON.