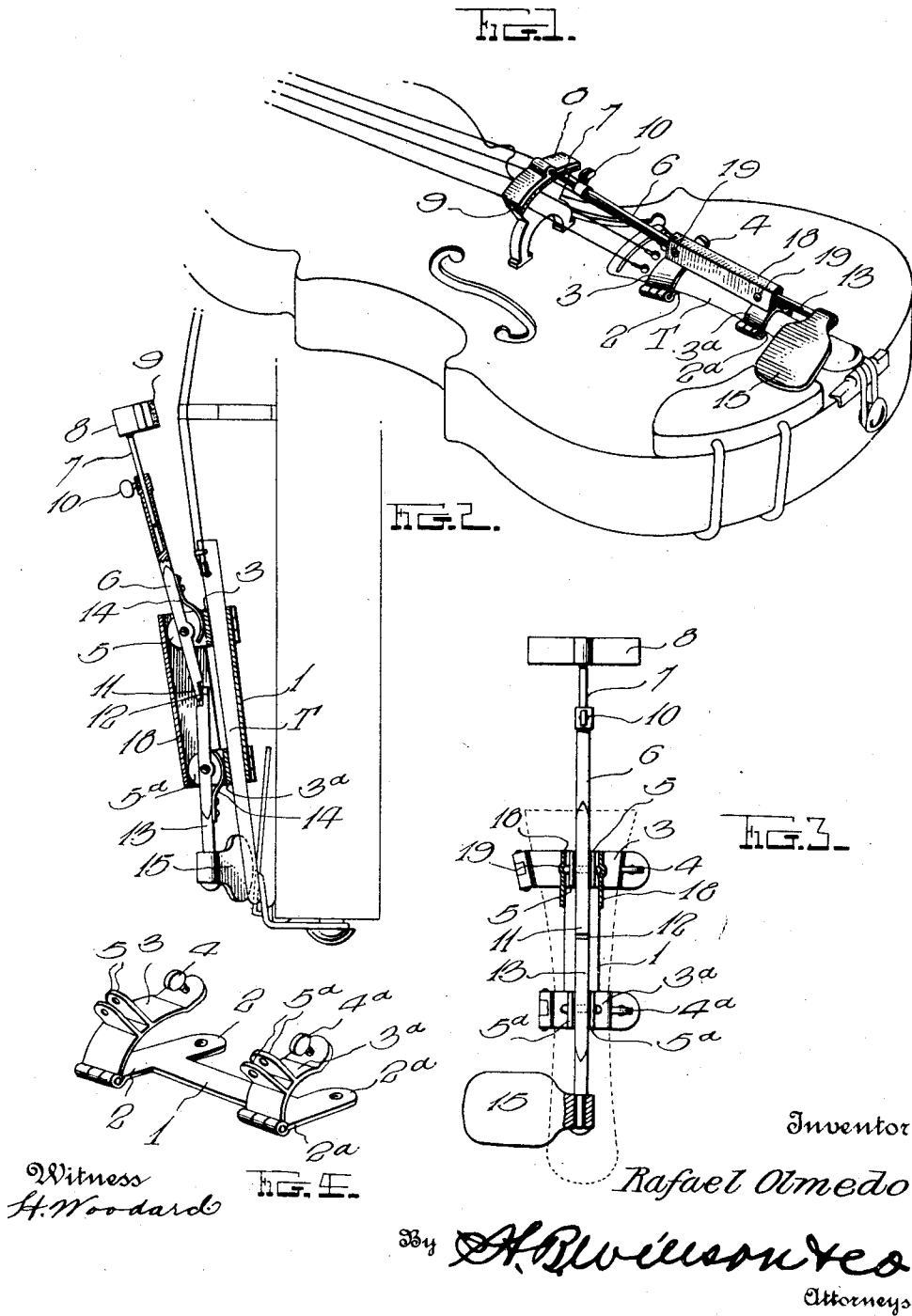


1,215,973.

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VIOLIN MUTE OPERATOR.
APPLICATION FILED JAN. 17, 1916.

Patented Feb. 13, 1917.
2 SHEETS—SHEET 1.

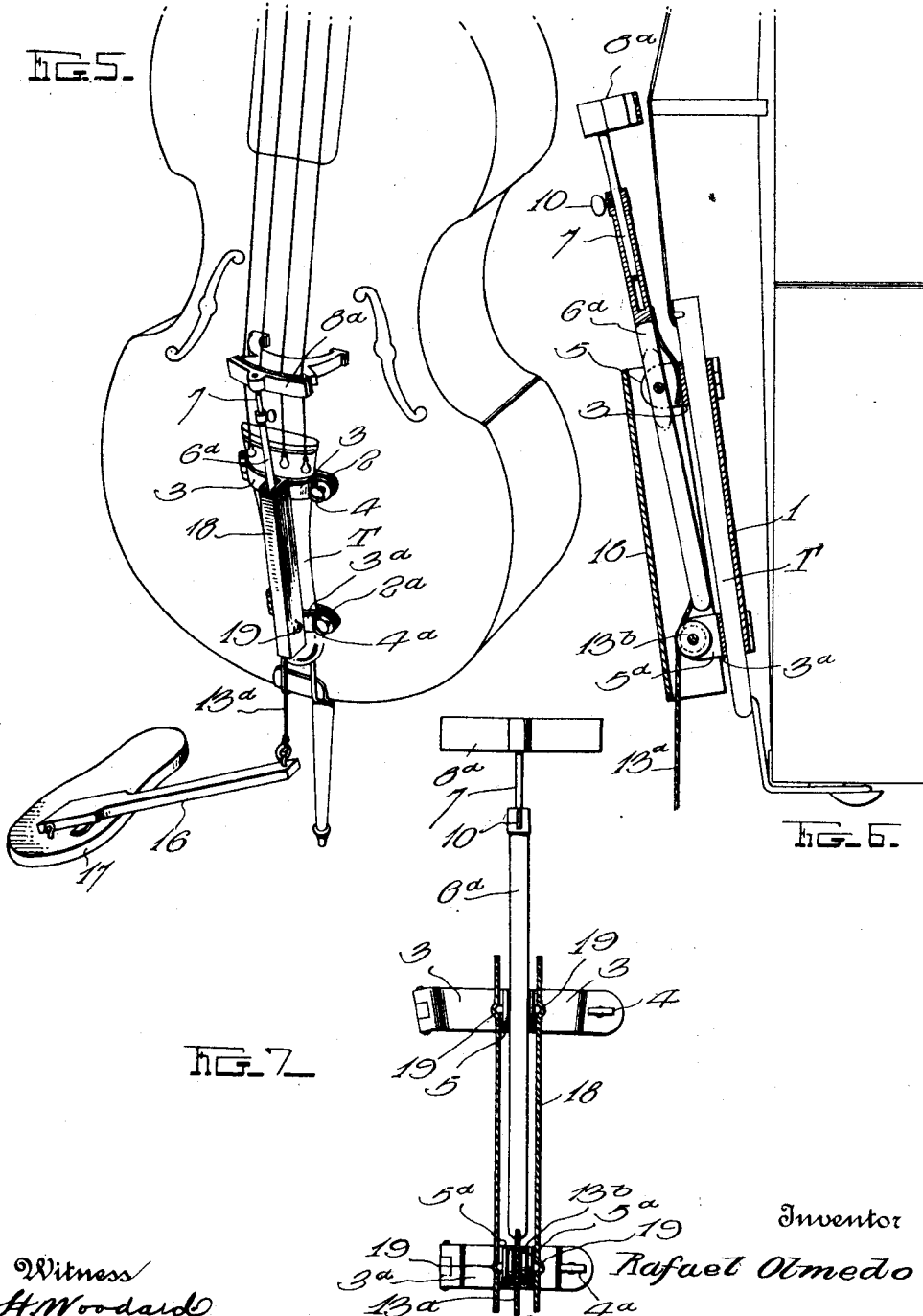


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UNITED STATES PATENT OFFICE.

RAFAEL OLMEDO, OF SAN FRANCISCO, CALIFORNIA.

VIOLIN-MUTE OPERATOR.

1,215,973.

Specification of Letters Patent.

Patented Feb. 13, 1917.

Application filed January 17, 1916. Serial No. 72,555.

To all whom it may concern:

Be it known that I, RAFAEL OLMEDO, a citizen of the Republic of Salvador, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Violin-Mute Operators; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates broadly to improvements in musical instruments and more particularly to a mechanically operated mute for attachment to the violin, violoncello, viol, and bass viol, the object of the invention being to provide an extremely simple and comparatively inexpensive device which may be easily attached and detached, yet one which, regardless of these characteristics, will be highly efficient and durable.

With this general object in view, the invention resides in certain novel features of construction and in unique combinations of parts to be hereinafter fully described and claimed, the descriptive matter being supplemented by the accompanying drawings which constitute a part of this application and in which:—

Figure 1 is a perspective view of the invention showing its application to a violin or viol;

Fig. 2 is a side elevation partly in section;

Fig. 3 is a top plan view with parts removed and in section;

Fig. 4 is a perspective view of the clamp used in attaching the device to the tail piece of the violin or viol;

Fig. 5 is a perspective view showing the application of the improved mute to a bass viol or violoncello;

Fig. 6 is a side elevation partly in section; and

Fig. 7 is a view similar to Fig. 6 but taken at right angles thereto.

In specifically describing the construction shown in the drawings above briefly described, similar reference characters will be placed on corresponding parts throughout the several views and reference will be herein made to the numerous elements by their respective characters. To this end, the numeral 1 indicates a flat metal bar adapted to underlie the tail piece T of any one of the instruments above named, the

length of said bar varying according to the size of the aforesaid tail piece. Formed integrally with one end of the bar 1 and projecting in opposite directions therefrom, is a pair of comparatively long ears 2, while likewise formed integrally with the opposite end of said bar and extending in opposite directions from the edges thereof, is a second pair of ears 2^a. Hinged to one of the ears 2 at one of its ends, is an arched clamping bar 3 whose opposite end carries a set screw or the like 4 to be threaded in an opening in the other ear 2, the bar 3 being adapted to overlie the wide end of the tail piece T. A similarly constructed arched bar 3^a is hinged at one end to one of the ears 2^a and may be secured in place by a thumb screw 4^a, said bar 3^a being adapted to be passed over the narrow end of the aforesaid tail piece. The centers of the arched bars 3 and 3^a are formed with pairs of parallel laterally extending ears 5 and 5^a secured thereto in any preferred manner but preferably formed integrally therewith.

The construction so far described will be used regardless of the style of instrument to which the invention is applied, but will necessarily vary slightly in size and shape. However, the remaining features of the attachment must vary considerably in order to adapt them for use upon horizontal instruments such as the violin or viol, and instruments used vertically such as the violoncello and bass viol.

When the invention is to be used on a violin or viol, a suitably constructed lever 6 is fulcrumed intermediate its ends between the ears 5, one end of said lever being tubular and receiving therein a stem 7 carrying a transverse head 8 having a pad 9 to engage the strings of the instrument at their points of contact with the bridge. The stem 7 is slidable in the tubular end of the lever 6 but is normally held against movement by a thumb screw or the like 10. Obviously, this arrangement of parts allows the attachment to be varied in length for use on instruments having different proportions.

The inner end of the lever 6 is provided with a longitudinally extending tongue 11 overlying a similar tongue 12 on an operating lever 13 which is fulcrumed intermediate its ends between the ears 5^a, both levers having springs 14 which serve to so rock

them as to retain the pad 9 out of contact with the strings of the instrument. However, the outer end of the lever 13 is provided with a chin plate 15 pivoted thereto
 5 to partially overlie and rest at its free end on the chin rest of the violin as clearly shown in Fig. 1. Thus, when this plate is depressed by the chin of the musician, the levers will be so actuated as to force the pad
 10 9 against the strings and bridge.

When the device is to be attached to a violoncello, or bass viol, a lever 6^a is mounted between the ears 5, said lever being of considerably greater length than the lever 6, although it is constructed in substantially the same manner and is equipped with a padded head 8^a on its outer end. The inner
 15 end of said lever, however, is attached to a cord or the like 13^a running over a pulley 13^b which is mounted between the ears 5^a. From this pulley, the cord depends and is connected by any preferred means with one end of an inclined spring raised foot lever 16 which is hinged at its lower end to a
 20 horizontal foot board 17 upon which the musician's foot is adapted to rest. Thus, by pushing downwardly on the lever 16, the lever 6^a will be rocked against the tension of a suitable spring to force its padded
 25 head 8^a against the strings and bridge of the instrument, thereby producing the results above described.

Employed in connection with both types of the invention above described, is a casing 18 formed of sheet metal and bent into
 35 inverted U-shape in cross section, the ends of said casing snugly engaging the outer sides of the ears 5 and 5^a and being secured in position by any preferred means. Preferably, however, the side flanges of said casing are struck outwardly at their opposite
 40 ends to form circular internal seats 19 receiving the heads of the pins which pass through the aforesaid ears.

From the foregoing description, taken in connection with the accompanying drawings, the construction, manner of operation and numerous advantages of my invention will be readily understood without requiring a more extended explanation. In con-
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clusion, however, I wish to state that although certain specific details of construction have been shown and described for the attainment of probably the best results, numerous changes may be made within the
 55 scope of the invention as claimed.

I claim:—

1. An attachment of the class described comprising a pair of spaced clamps to be secured on the tail piece of a stringed instrument, a rigid bar connecting said
 60 clamps, a pair of parallel ears extending in the same direction from each clamp, a lever fulcrumed between one pair of ears and carrying a head to engage the instrument
 65 strings and the bridge, a spring for holding the lever in a position to retain the head out of contact with said strings and bridge, and means for rocking said lever including an element mounted between the
 70 other pair of ears.

2. An attachment of the class described comprising an elongated flat bar adapted to underlie the tail piece of a stringed instrument, ears formed integrally with and extending
 75 laterally in opposite directions from the ends of said bar, a pair of flat arched clamping bars hinged at one end to the ears at one side of the aforesaid bar and adapted to overlie the aforesaid tail
 80 piece, means for securing the other end of the clamping bars to the remaining ears, a pair of parallel ears extending laterally in the same direction from the center of each clamping bar, a lever fulcrumed between
 85 one pair of said ears and carrying a head to engage the strings and bridge of the instrument, a spring for normally holding said lever in a position to retain the head out of contact with the strings, and means
 90 for rocking the lever including an element mounted between the other pair of ears.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

RAFAEL OLMEDO.

Witnesses:

S. DAWSON,
 JOSE A. LIEVANO.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."