Nov. 20, 1951 L. CHENAVA 2,575,795

SUPPORT FOR HORN MUTES

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Fig. 1

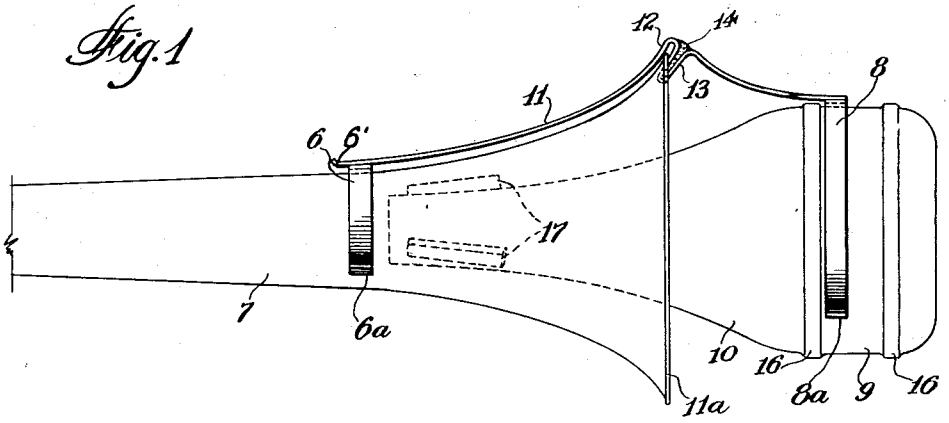


Fig. 2

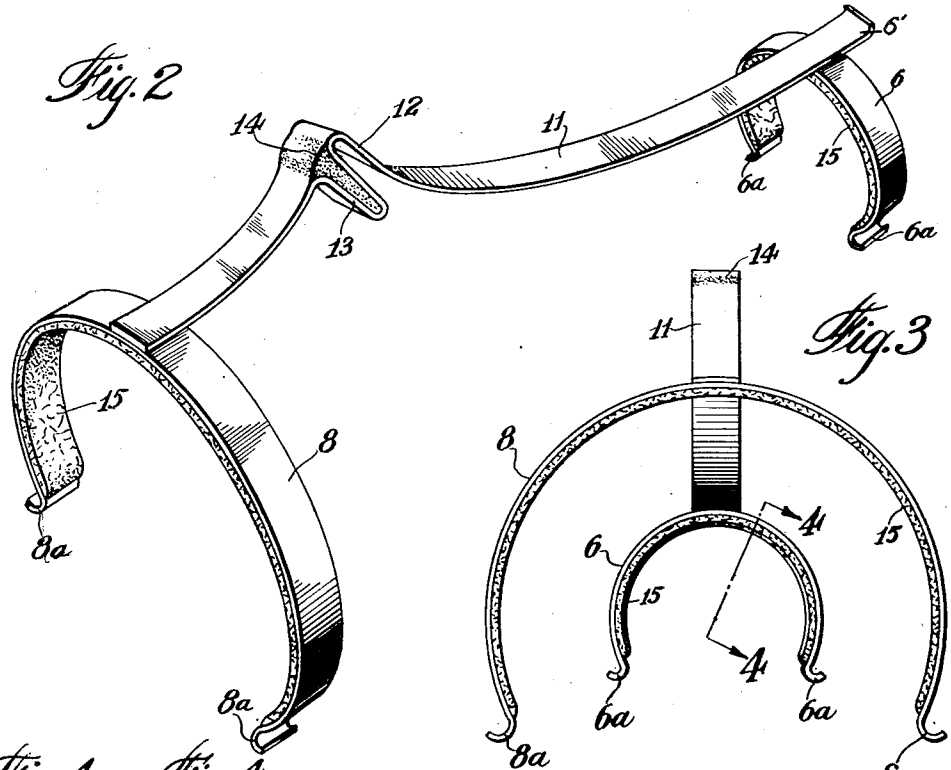


Fig. 3

Fig. 4

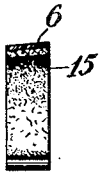


Fig. 4a

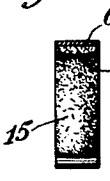
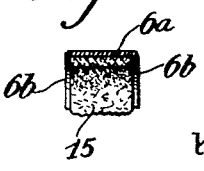


Fig. 5



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SUPPORT FOR HORN MUTES

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5 Claims. (Cl. 84—400)

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This invention relates to the provision of an accessory device for supporting a mute of the kind commonly used by musicians in modifying the tone of wind instruments such as the "brasses" and it is particularly concerned with a support for the type of mute generally employed in trumpets, trombones or the like. An instrument of this kind has a flared end customarily referred to as "the bell" into which the mute is inserted, the practice being to provide the inner end of the mute with a series of spaced pad-like members or feet which are adapted to frictionally engage the inner wall of the bell and hold the mute in a fixed relation to the wall so as to provide an annular passage around the mute. Obviously the arrangement is such as to impose an equally fixed degree of modification of the tone effected by the mute because the manner in which the mute is held in the bell permits no adjustment thereof. However, there are times when the musician wishes to alter the degree of control imposed by the mute and in order to accomplish this he will sometimes attempt to hold the mute in his hand farther out in the bell. This, of course, necessitates operating the valves of the instrument with the other hand alone—a practice which is not conducive to good playing because the whole procedure can be accomplished neither accurately nor comfortably. The hand which holds the mute cannot maintain the same steadily in a chosen position nor can the other hand manipulate the valves with the facility needed for expert playing of the instrument.

With the foregoing comments in mind, the objects of my invention will be better understood and appreciated and the principal object is to provide a holder or supporting device for the mute which will maintain the same in any chosen position without the necessity of using the hand.

Another object is to provide a mute support which may be affixed to the instrument and left in place regardless of whether or not the mute may be in use. At the same time the support is constructed so as to be readily removable if desired.

Still another object of the invention is to provide a support for a mute by means of which it may be adjusted as to position within the bell in accordance with the demands of the music to be played or the interpretative desires of the musician.

An additional object is to provide a support for a mute which will in no way mar or injure the instrument on which it is used nor impair the quality of its tone.

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Another object is to provide a support which will readily accept mutes of somewhat varying diameter while still maintaining the substantially concentric relationship of the mute in the bell which is so essential for the production of purity and constancy of tone.

Finally, the invention contemplates the provision of a support for a mute which is light in weight, simple in construction and yet sufficiently rugged to hold the mute in a rigid position of adjustment.

How the foregoing objects together with such other objects as may appear hereinafter or are incident to my invention are attained is illustrated in preferred form in the accompanying drawing wherein

Figure 1 is a side elevation of the bell of a horn (in this case a trumpet) with my novel mute holder applied thereto and with a mute in position in the bell;

Figure 2 is a perspective view of the mute holder;

Figure 3 is an end view of the holder looking toward the same through the mute-holding yoke or clip as will further appear;

Figure 4 is a section on the line 4—4 of Figure 3;

Figure 4*a* is a section similar to that of Figure 4 but showing a slightly modified form of construction; and

Figure 5 is a partial section similar to Figures 4 and 4*a* but illustrating still another modification in the construction.

By referring to the drawing it will be seen that my mute holder or supporting device includes a yoke-shaped spring clip 6 adapted to embrace the bell 7 of the horn. It also includes a similar though somewhat larger yoke-shaped spring clip 8 adapted to embrace the outer enlarged end 9 of a mute 10. Connecting the two yokes or spring clips is an elongated member 11 preferably formed from some spring strip material so as to yield slightly in use in order that it may accommodate itself to somewhat varying bell shapes.

Between the clips or yokes 6 and 8 the support 11 is bent backward and forward upon itself to provide a pair of oppositely opening yokes 12 and 13. The yoke 12 is of a size and is angularly disposed so as to fit over and closely embrace the rim 11*a* of the bell as shown in Figure 1. The other yoke 13 is infilled with a suitable metal 14 such as solder primarily for the purpose of creating greater resilience at this point in the supporting member 11 while leaving the two ends of

the member free to flex slightly as may be required in use.

The interior surfaces of the yokes or spring clips 6 and 8 are preferably lined with cork 15 or other suitable material by means of which to avoid marring or scratching the surfaces which they embrace. The spring strip 11 is welded or otherwise secured to the metal of the clips preferably at the high or mid point of each of the clips 6 and 8. This is shown to best advantage in Figure 2. The lower ends of the spring clips 6 and 8 are curved outwardly as at 6*a* and 8*a* in order to provide for ready insertion of the members which they embrace without marring the surfaces thereof, and the connecting member 11 is extended slightly beyond the clip 6 to provide the upturned projection 6' by means of which the device can be easily and quickly removed from the bell of the horn without having to remove the mute itself if the operator so desires.

In order that the width of the spring clip 6 may follow the contour of the bell 7 as closely as possible, I prefer to place it at a slight angle as shown in the section of Figure 4. This however, may involve somewhat of a problem in fabrication which can be avoided by employing the arrangement shown in Figure 4*a* where the cork lining 15*a* is shown as presenting a slightly curved surface toward the interior where it rests upon the bell.

In Figure 5 the clip 6*a* is shown as having flanged sides 6*b* for the purpose of more firmly securing the cork lining.

In use the device is mounted upon the bell 7 of the horn by springing open the clip 6 to an extent sufficient to pass the diameter of the bell whereupon the tension in the metal of the clip will cause the same to firmly grasp the surface of the horn. At the same time the yoke 12 is fitted over the rim 11*a*. The device is now firmly mounted upon the horn yet readily removable therefrom and also slightly adjustable therealong, the yoke 12 being made of sufficient depth in order to permit some movement of the clip 6 longitudinally of the bell 7.

The clip 8 is concentric with the clip 6 and is placed over the portion 9 of the mute in the manner in which the clip 6 was fitted over the horn, namely, by springing open the clip 8 until it can pass the mute.

The mute is of the type which has a pair of spaced rings or ridges 16 on the enlarged portion 9 and it will be obvious that the mute can be moved backwardly and forwardly in the clip 8 at least to the extent permitted by these ridges 16. This permits adjustment of the mute with relation to the bell. The inner end of the mute is provided with the customary spaced pads or feet 17 so that it can be used in the regular way if so desired.

From the foregoing description the manner of using my device will be perfectly obvious although it might be pointed out that adjustment of the position of the mute in the bell can be effected either by moving the clip 6 inwardly or outwardly or by moving the mute itself inwardly

or outwardly in the clip 8 or by a combination of both expedients. This will provide greater or less modification of the tone in accordance with the desires of the musician. Furthermore, the whole device is so constructed and arranged as to maintain the mute in substantially concentric relation with the bell 7 so as not to distort the sound as it issues from the horn. It will also be seen that mutes of slightly different size can be accommodated by my improved supporting device.

The device is simple and strong and can be manufactured at a very reasonable cost. It will hold the mute quite rigid in any chosen position of adjustment and will in no way mar or impair the tone of the instrument on which it is used—or at least to such a slight extent as to be undetectable by the ear.

I claim:

1. A device for supporting a mute in the bell of a horn comprising a yoke adapted to embrace the bell, a yoke adapted to embrace and hold the mute, and an elongated member connecting said yokes, said member being provided with a supporting yoke adapted to embrace the rim of the bell which latter yoke is adjustable on the rim in a direction generally transverse of the axis of the bell upon longitudinal movement of the bell yoke.

2. A device according to claim 1 where the elongated connecting member is a spring strip which is bent to provide the rim yoke.

3. A device according to claim 1 where the bell yoke and the mute yoke are held on the connecting member in substantially concentric relationship.

4. A device for supporting a mute in the bell of a horn comprising a spring clip for embracing the bell, a spring clip for embracing and holding the mute, and a spring strip connecting said clips, said strip being provided with a supporting yoke adapted to embrace the rim of the bell which yoke is adjustable on the rim in a direction generally transverse of the axis of the bell upon longitudinal movement of the bell yoke.

5. A device for supporting a mute in the bell of a horn comprising a spring clip for embracing the bell, a spring clip for embracing and holding the mute, and a spring strip connecting said clips, said strip, between said clips, being bent to provide a pair of oppositely opening yokes one of which is infilled to increase rigidity at the point and the other of which is adapted to embrace the rim of the bell.

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