July 30, 1929. W. E. ROSE 1,722,680

MUTING DEVICE FOR VIOLINS AND THE LIKE

Filed Nov. 12, 1924

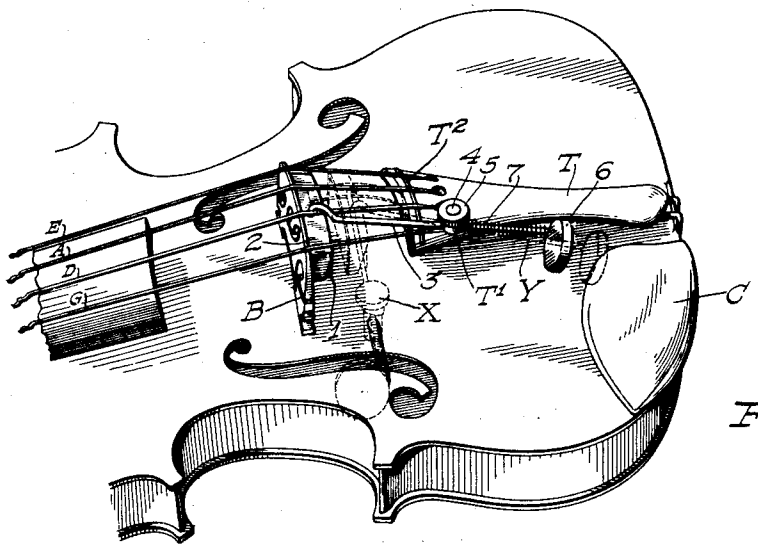


FIG. 1.

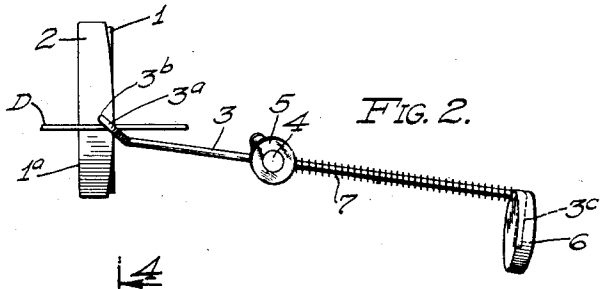


FIG. 2.

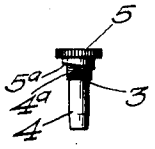


FIG. 5.

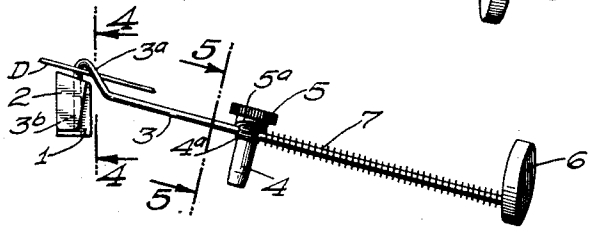


FIG. 3.

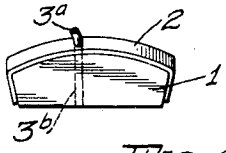


FIG. 4.

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UNITED STATES PATENT OFFICE.

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MUTING DEVICE FOR VIOLINS AND THE LIKE.

Application filed November 12, 1924. Serial No. 749,412.

My invention relates to a muting device for violins and similar musical instruments, and the objects of my invention are: First, to provide a muting device of this class which may be readily attached to a violin, viola, cello, and like, without changing the construction of any part of the instrument, and which may also be readily detached therefrom when desired; second, to provide a muting device of this class which may be so adjusted as to give a partial or full mute to the sounds of the instrument, as desired; third, to provide a muting device of this class which, when used in connection with a violin or other similar instrument, may be engaged and operated by the chin of the player holding the instrument for muting the sounds thereof while playing the same, without interfering with the playing; fourth, to provide a device of this class which is automatically shifted out of the way when not secured in a muting position and which may be easily and quickly secured in a non-muting position; fifth, to provide a device of this class which will in no way interfere with the proper functioning of the instrument or affect the tones or sounds in any way when in a non-muting position; sixth, to provide an efficient and novel lock means in connection with a device of this class for securing the mute member in a partial or full muting or in a non-muting position; seventh, to provide as a whole a novelly constructed, arranged and supported muting device for musical instruments, and eighth, to provide a device of this class which is very simple and economical of construction, durable, easy to install, adjust and operate, a device of this class which will not rattle when mounted on the instrument, and one which will not readily deteriorate or get out of order.

With these and other objects in view, as will appear hereinafter, my invention consists of certain novel features of construction, combination and arrangement of parts and portions, as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawings and to the characters of reference thereon, which form a part of this application, in which:

Figure 1 is a fragmentary perspective view of the body of a violin, showing my muting device supported on the tailpiece thereof, and showing by dotted lines the backwardly shifted, nonmuting position thereof and also, by other dotted lines, the position of the device when removing the same from the instrument; Fig. 2 is an enlarged top or plan view of my muting device as viewed when looking at the front or top side of the violin; Fig. 3 is a side elevational view thereof; Fig. 4 is a sectional view thereof, taken through 4—4 of Fig. 3, showing the construction of the mute member and its support, and Fig. 5 is another sectional view thereof, taken through 5—5 of Fig. 3, showing the guide and supporting post.

Like characters of reference refer to similar parts and portions throughout the several views of the drawings.

The mute member 1, mute member support 2, mute member supporting and guide rod 3, guide post 4, lock nut 5, chin-piece 6, and the spring 7, constitute the principal parts and portions of my muting device for musical instruments in one form of construction.

In the construction of my device, as illustrated in the drawings, the mute member 1 is preferably made of yieldable rubber or other similar material, and is adapted, when shifted forwardly, to engage at its front side 1^a the bridge B of the violin. This mute member 1, when made of rubber or the like, is supported in a substantially U-shaped support or ferrule 2 between the bridge B and the enlarged end of the tailpiece T and underneath the strings of the violin.

The mute supporting and guide rod 3 is provided at its forward end with an upwardly and laterally offset and angularly extending portion 3^a, at the end of which is provided a downwardly extending shank 3^b which extends through the connecting portion of the U-shaped support 2 and into the rubber mute member 1, as shown by dotted lines in Figs. 3 and 4. This mute member and its support 2 are frictionally secured to the shank portion 3^b of the member 3, so that the same may be easily adjusted thereon vertically and angularly to suit different violins or similar instruments. The mute member is supported by the shank portion 3^b of the member 3 between the A and D strings, the loop formed by the angularly offset portion 3^a extending over and resting on the D

string and the straight portion of the rod 3 extending toward the fixed end of the G string in the tailpiece T.

This rod 3 is reciprocally mounted intermediate its ends near the upper end of the guide post 4, which is loosely and revolubly mounted at its lower end in the conventional round hole T^1 of the tailpiece T through which the one end of the G string is inserted for securing the same in the slot communicating therewith. The upper end of the guide post 4 is externally threaded, as indicated by 4^a, and is provided at its upper end with a lock nut 5 adapted to be turned in either direction by the fingers of the player. This nut 5 is provided at its lower end or under side with an inclined face or double cam portion 5^a which is adapted, when the nut is rotated in either direction, to engage and tighten the rod 3 in the post 4.

It will be here noted that the nut 5 cannot be removed when once assembled without distorting other portions of the device and is screwed on the end of the guide post 4 before the rod 3 is inserted through the hole therein. It will be also noted that the hole in the guide post 4, through which the rod 3 extends, is slightly larger than the diameter of the rod 3, so that when the nut 5 is turned clockwise, the forward end thereof, supporting the mute member, is raised in engagement with the strings and in engagement with the bridge B, and when turned in a counter-clockwise direction, the mute member 1 is permitted to drop slightly, disengaging its support 2 from the strings and only slightly engaging the bridge B or positioning the same in such a close position relatively thereto to produce only partially muted sounds.

It will be further noted that the rod 3 bears against the transversely extending curved ridge T^2 near the normally forward end of the tailpiece T, which ridge serves as a pivot about which the rod is tilted when adjusting the nut 5.

The end of the rod 3 opposite the mute member 1 is bent laterally, as indicated by 3^c in Fig. 2. On this bent portion 3^c is frictionally secured a yieldable rubber or other disc 6, which serves as a chin-piece adapted to be engaged by the chin of the player for shifting the mute member 1 toward the bridge B. On the rod 3, intermediate the guide post 4 and the chin-piece 6, is positioned a compression spring 7 for automatically shifting the mute member 1 backwardly when not in use and when not secured by the lock nut 5.

In order to remove the muting device from the instrument, the lock nut 5 is disengaged from the rod 3 and positioned neutrally; the guide post 4 is then lifted out of the hole T^1 and shifted clockwise until the mute member 1 assumes a position in alinement with the strings of the instrument, as shown by the dotted line position X in Fig. 1. The mute member is then removed from the instrument between the A and D strings.

It will be seen from the above that when playing a piece of music on the instrument which requires only a few, or many scattered muted tones or sounds to produce effectiveness or contrast, the muting device is operated by the chin of the player, which normally rests on the chin-piece C of the violin. When desiring to produce temporarily continued full muted sounds, the device is shifted forwardly in engagement with the bridge and the lock nut 5 screwed clockwise; and when desiring to produce continued partially muted tones or sounds, the device is shifted forwardly in engagement with the bridge and the nut 5 turned counter-clockwise. When desiring to lock the device in a non-muting position, as shown by the dotted line position indicated by Y in Fig. 1, the lock nut is turned clockwise, which raises the muting end of the device and locks the same against the strings so that the same will not rattle.

It is obvious from this construction, as illustrated in the drawings and disclosed in the foregoing specification, that there is provided a muting device for musical instruments, as aimed at and set forth in the objects of the invention, and though I have shown and described a particular construction, combination and arrangement of parts and portions, I do not wish to be limited to this particular construction, combination and arrangement, but desire to include in the scope of my invention the construction, combination and arrangement substantially as set forth in the appended claims.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent is:

1. In a device of the class described, the combination with a musical string instrument in the semblance of a violin, of a guide post loosely and revolubly mounted in one only of the holes at the enlarged end of the tailpiece of the instrument, a rod reciprocally mounted on said guide post, a mute member supported by said rod and adapted to be shifted thereby, and a lock means on said guide post for locking said mute member in a muting position.

2. In a device of the class described, the combination with a stringed musical instrument, of a mute member supporting means mounted on said instrument, a mute member shiftably supported thereby, a chin-piece connected therewith and adapted to be engaged and shifted by the chin of the player for shifting said mute member, and a lock means in connection with said first mentioned means for locking said mute member in a muting position relative to said instrument.

3. In a muting device for musical string instruments, a shiftable mute-member support-

ing rod having a substantially looped end portion straddling and adapted to be partly supported by one of the strings of said insruments, and a mute member supported at said end of said rod.

4. In a muting device for musical string instruments, a shiftable mute member supporting rod supporting means formed near its one end a mute member supported at said end of said rod, said supporting means adapted to rest on and to be guided by one of the strings of said instrument.

5. In a device of the class described, the combination with a musical string instrument in the semblance of a violin, of a guide post loosely mounted in a hole at the enlarged end of the tailpiece of said instrument, a rod reciprocally mounted intermediate its ends on said guide post and provided at its one end with a loop portion extending over one of the strings of the instrument, and a mute member secured to the end of said rod provided with said loop portion between the bridge and the tailpiece of said instrument.

6. In a device of the class described, the combination with a musical string instrument in the semblance of a violin, of a guide post loosely mounted in one of the string-securing holes at the enlarged end of the tailpiece of said instrument, a rod reciprocally mounted intermediate its ends on said guide post and provided at its one end with a loop portion extending over one of the strings of the instrument, a mute member adjustably secured to the end of said rod provided with said loop portion between the bridge and the tailpiece of said instrument and underneath the strings thereof, and a lock nut screwably mounted at the upper end of said guide post and provided with cam portions in engageable relationship with said rod for locking said mute member in partial and full mute positions contiguous to said bridge.

7. In a device of the class described, the combination with a musical string instrument in the semblance of a violin, of a guide post loosely mounted in one of the string-securing holes at the enlarged end of the tailpiece of said instrument, a rod reciprocally mounted intermediate its ends on said guide post and provided at its one end with a loop portion extending over one of the strings of the instrument, a mute member adjustably secured to the end of said rod provided with said loop portion between the bridge and the tailpiece of said instrument and underneath the strings thereof, a chin-piece secured to said rod at its end opposite said mute member, and a spring means in connection with said guide post and said rod for automatically shifting said mute member to a non-muting position.

8. In a device of the class described, the combination with a musical string instrument in the semblance of a violin, of a guide post loosely mounted at the enlarged end of the tailpiece of said instrument, a rod reciprocally mounted intermediate its ends on said guide post and provided at its one end with a loop portion extending over one of the strings of the instrument and guided thereby, said rod being pivoted between said guide post and said loop portion on the conventional upwardly and transversely extending curved ridge at the upper side of the normally forward enlarged end of the tailpiece of said instrument, and a mute member secured to the end of said rod provided with said loop portion between the bridge and the tailpiece of said instrument.

9. In a device of the class described, the combination with a musical string instrument in the semblance of a violin, of a guide post loosely mounted at the enlarged end of the tailpiece of said instrument, a rod reciprocally mounted intermediate its ends on said guide post and provided at its one end with a loop portion extending over one of the strings of the instrument and guided thereby, said rod being pivoted between said guide post and said loop portion on the conventional upwardly and transversely extending curved ridge at the upper side of the normally forward enlarged end of the tailpiece of said instrument, a mute member secured to the end of said rod provided with said loop portion between the bridge and the tailpiece of said instrument, and a lock nut screwably mounted at the upper end of said guide post and provided with cam portions adapted to variously engage said rod for locking said mute member in partial and full mute positions contiguous to said bridge.

10. In a device of the class described, the combination with a musical string instrument in the semblance of a violin, of a guide post loosely mounted at the enlarged end of the tailpiece of said instrument, a rod reciprocally mounted intermediate its ends on said guide post and provided at its one end with a loop portion extending over one of the strings of the instrument and guided thereby, said rod being pivoted between said guide post and said loop portion on the conventional upwardly and transversely extending curved ridge at the upper side of the normally forward enlarged end of the tail piece of said instrument, a mute member secured to the end of said rod provided with said loop portion between the bridge and the tailpiece of said instrument, a chin-piece secured to said rod at its end opposite said mute member, and a spring means in connection with said guide post and said rod for automatically shifting said mute member to a non-muting position.

11. In a device of the class described, the combination with a stringed musical instrument, of a guide post supported thereon, a rod reciprocally and slidably mounted on said guide post, a mute member supported at

the one end of said rod and adapted to be shifted thereby, a rod shifting member connected with said rod at the end opposite said mute member adapted to be engaged by a body member of the player, a spring means in connection with said rod for shifting said mute member to a non-muting position, and a lock means in connection with said guide post adapted to be shifted in opposite directions for locking said mute member in various muting positions.

12. In a muting device, the combination with a musical string instrument, of a mute member supporting rod shiftably mounted on said musical string instrument and extending towards the bridge thereof, and a mute member pivotally and adjustably supported at the one end of said rod on an axis substantially perpendicular to the longitudinal axis of the strings of the instrument and adapted to adjust itself to flatly engage one side of said bridge when said rod is shifted towards the latter.

13. In a muting device for a musical instrument, a guide and supporting member revolubly supported on said instrument, a rod longitudinally shiftably mounted on said guide and supporting member, and a mute member supported at the one end of said rod.

14. In a muting device for musical string instruments in the semblance of a violin, a mute member shiftably positioned underneath the strings of the instrument between the string supporting bridge and the tailpiece thereof, said mute member being convex at its upper side to conform with the general cross-sectional contour of the strings of the instrument for simultaneously engaging all of said strings at their under sides, contiguous to said bridge for muting the sounds thereof.

In testimony whereof, I have hereunto set my hand at San Diego, California, this 5th day of November, 1924.

WILLIAM E. ROSE.