June 10, 1941. R. J. MAIER 2,244,790

ADJUSTABLE SUPPORT

Filed Aug. 22, 1939

Fig. 1.

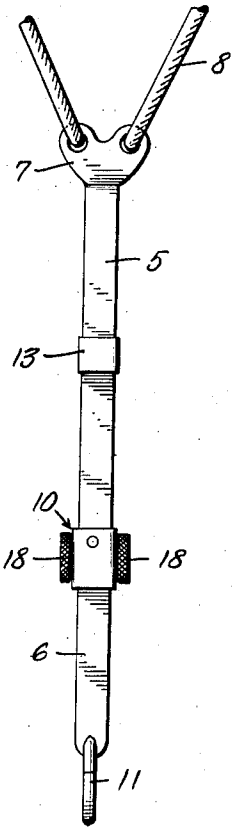


Fig. 2.

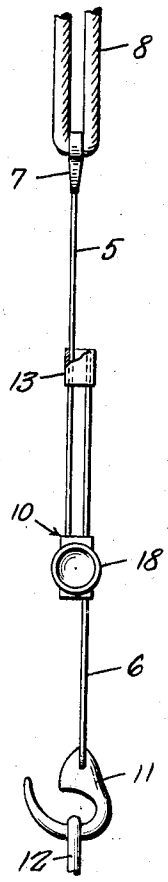


Fig. 3.

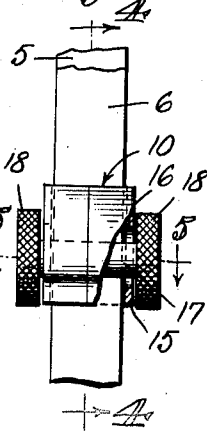


Fig. 4.

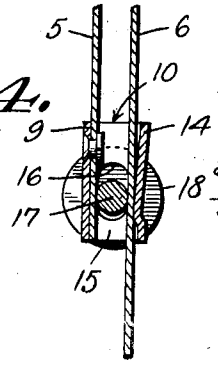
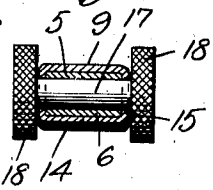


Fig. 5.



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ADJUSTABLE SUPPORT

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Application August 22, 1939, Serial No. 291,422

1 Claim. (Cl. 287—58)

My invention relates to adjustable means for supporting objects, for instance musical instruments and the like, in desired positions.

In the playing of certain musical instruments, for instance saxophones, it is essential that the instrument be supported other than by the hands of the player and to this end various means have been provided, for instance neck straps, cords and the like, which are ordinarily equipped with buckles and other attachments for adjusting the length of the supporting means. However, attachments of this character require considerable time and effort in making the necessary adjustments.

It, therefore, is one of the principal objects of my invention to provide an attachment or means which may be easily and quickly adjusted during the playing of an instrument and which is so constructed and arranged as to reliably maintain the adjusted position of the instrument with respect to the player.

Another object of my invention is to provide an attachment or device of the above described character which is simple in construction, durable in use, efficient in operation and economical in manufacture.

An important object of my invention is to provide a device of the above described character so constructed and arranged whereby the same may be attached to an ordinary type of neck cord or band without modifying the latter.

A further object of my invention is to provide a device of the above described character so constructed and arranged whereby the same may be easily operated with the use of one hand.

A special object of my invention is to provide a device of the above described character equipped with a clutch mechanism for maintaining the device in an adjusted position and which is easily and quickly operable to effect further adjustment of the device without detaching the same from the instrument and during the playing of the latter.

A still further object of my invention is to provide a novel form of clutch mechanism which is simple in construction, durable in use, positive in operation and economical in manufacture.

Other objects and advantages will be apparent from the following description, appended claim and annexed drawing.

Referring to the drawing wherein like reference characters designate like parts throughout the several views:

Figure 1 is a front elevation of my invention.

Figure 2 is a side elevation thereof.

Figure 3 is a detail rear elevation of the clutch mechanism, partly in section.

Figure 4 is a detail sectional view taken on the line 4—4 of Figure 3.

Figure 5 is a detail transverse sectional view taken on the line 5—5 of Figure 3.

In practicing my invention, as illustrated in the drawing, I provide a pair of upper and lower bars or arms 5 and 6 respectively, the upper end of the bar 5 is provided with a head 7 formed with apertures through which extends a neck cord 8 for encircling the neck of the player. The lower end of the bar 5 is disposed within and connected to the front wall 9 of a clutch housing 10. The lower end of the bar 6 is provided with a hook 11 for engagement through the ring 12 of a musical instrument (not shown) whereby the latter is supported in a desired position with respect to the player. The upper end of the bar 6 is disposed within and connected to the rear wall of a casing 13, the latter slidably receiving therethrough the bar 5 as clearly illustrated in the drawing.

The clutch housing 10 is provided with a rear wall 14 and said bar 6 is movable through the housing 10 between the front and rear walls 9 and 14 as hereinafter set forth. The rear wall 14 is disposed in an angular related plane relative to the wall 9 whereby said walls 9 and 14 are arranged in antiparallel relation. The housing 10 is provided with a pair of spaced side walls 15 connecting the walls 9 and 14 together in spaced relation and said walls 15 are each provided with an elongated slot 16 in which is slidably mounted a roller or clutch element 17, the latter adapted for engagement with the front face of the lower bar or member 6.

As clearly illustrated in Figure 4 of the drawing, the angularity of the wall 14 with respect to the wall 9 serves to dispose the lower end section of the wall 14 in closer proximity to the wall 9 than the upper end section thereof and consequently when the roller 17 is disposed towards the upper end of the slot 16, a greater spacing is had between the periphery of the roller and the inner face of the wall 14 and consequently when the roller 17 is disposed towards the lower end of the slot 16, the periphery of the roller is disposed in closer proximity to the inner face of the wall 14. The bar or member 6 is disposed between the roller 17 and the wall 14 and the roller 17 is of a sufficient diameter to effect clamping of the bar 6 against the wall 14 when said roller 17 is disposed towards the lower end of the roller 17. Obviously, upward movement of the bar 6

with respect to the housing 10 tends to displace the roller 17 towards the upper end of the slot 16 and permit free upward movement of the bar 6. However, operation of the bar 6 in the opposite direction with respect to the housing 10 functions to urge the roller 17 in a like direction and thereby effecting a clamping of the bar between said roller and the wall 17 adjacent the lower end of the slot 16.

From the foregoing it will be apparent that the bar 6 may be easily operated upwardly with respect to the bar 5 and movement in the opposite direction effects clamping of the bar 6 within the housing 10 through the action of the clutch element 17.

To permit lowering of the bar 6 with respect to the bar 5 the roller 17 is provided with end sections extending an appreciable distance beyond the side walls 15 of the housing and on which are fixed knurled disks 18 constituting finger-pieces whereby the roller 17 may be manually rotated and/or slidably moved towards the upper end of the slot 16 to effect unlocking or disengagement of the roller 17 with the bar 6 and when thus operated the bar 6 may be lowered with respect to the bar 5.

From the foregoing it will be apparent that I have provided a simple and efficient device for adjusting a musical instrument or the like with respect to the player and which lends itself to a quick and easy operation. It is to be noted that the bars are connected together for relative endwise movement and that the clutch, carried by one of the bars, normally engages the other bar for maintaining the bars against relative movement in a direction away from each other and that the clutch automatically operates to permit movement of the bars in the opposite direction and is also manually operable to permit movement of the bars in the first mentioned direction. It is also to be noted that my novel form of clutch mechanism, as disclosed in the drawing, is capable of the same operation should the same be disposed in up-side-down condition with the upper and lower bars 5 and 6 constituting the lower and upper bars respectively.

It is obvious that the invention is not confined to the herein described use therefor as it may be utilized for any purpose to which it is adaptable. It is therefore to be understood that the invention is not limited to the specific construction as illustrated and described, as the same is only illustrative of the principles of operation, which are capable of extended application in advance forms, and that the invention comprehends all construction within the scope of the appended claim.

What I claim is:

A device of the character described, comprising a pair of bars connected together for relative endwise movement, a housing fixed to one end of one bar and having a pair of oppositely disposed elongated slots, a roller pivotally and slidably mounted in said slot, one wall of said housing extending at an angle in respect to the slots, a guide carried by the upper end of the other bar and surrounding the first mentioned bar and passing through the housing between the angular wall and the roller, supporting means carried by the lower end of the bar, and knurled discs carried by each end of the roller on the outside of the housing.

ROY J. MAIER.