May 14, 1929. M. A. OETTINGER 1,713,002

TENSION DEVICE FOR MUSICAL INSTRUMENTS

Filed Dec. 24, 1925

Fig. 1.

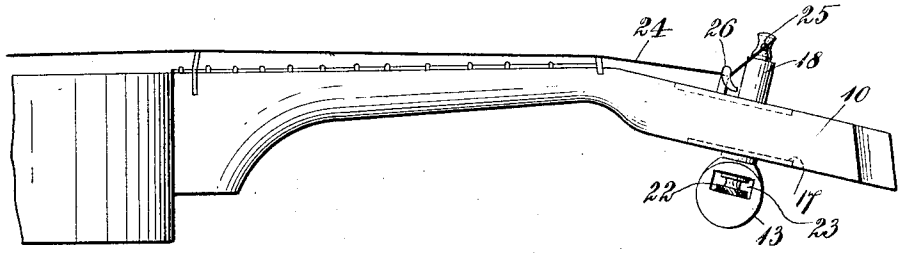


Fig. 2.

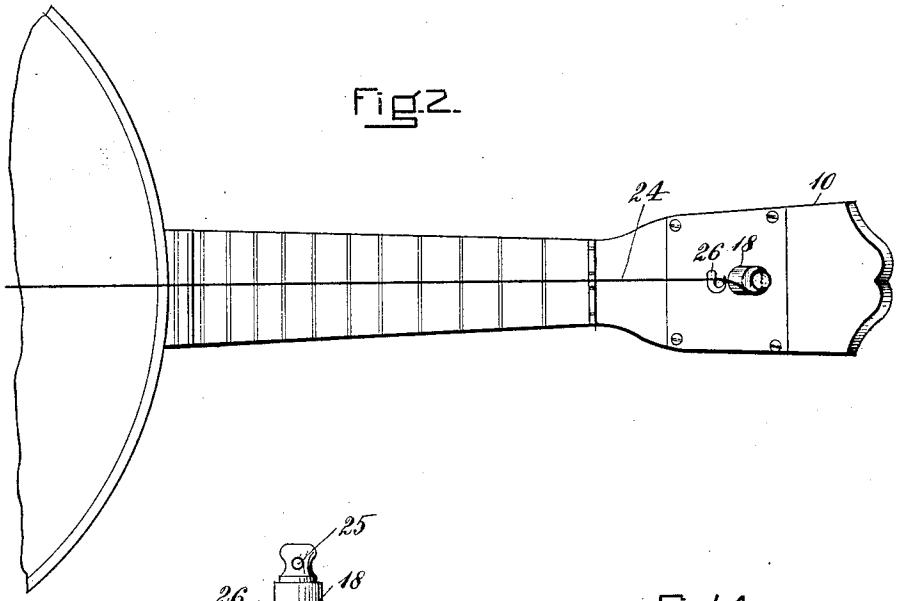


Fig. 3.

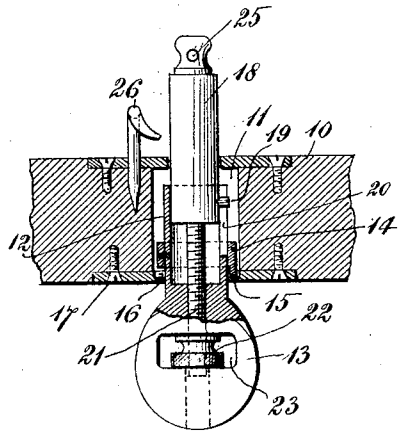
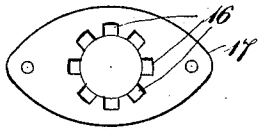


Fig. 4.



INVENTOR:
Mark A. Oettinger
BY Geo. K. Woodworth
ATTORNEY.

Patented May 14, 1929. 1,713,002

UNITED STATES PATENT OFFICE.

MARK A. OETTINGER, OF BROOKLINE, MASSACHUSETTS.

TENSION DEVICE FOR MUSICAL INSTRUMENTS.

Application filed December 24, 1925. Serial No. 77,497.

My invention relates to tension devices for musical instruments and its general object is to improve and simplify the construction of such devices in the manner hereinafter set forth.

One of the specific objects of my invention is to provide the tension key with means for locking the same in adjusted position.

Another specific object is to provide means movable in a direction substantially at right angles to the plane of the instrument head for exerting a direct pull on said string.

Other objects will hereinafter appear in the detailed description of my invention.

With the foregoing objects in view my invention comprises a key for effecting the rapid or coarse adjustment of the tension, and a peg movable longitudinally with respect to said key and connected for rotation therewith for effecting the fine adjustment of the tension.

My invention comprises also a key provided with means such as a lug and a plurality of slots for locking the key in adjusted position, said key being adapted for limited longitudinal movement so that said lug may be disengaged from one of said slots by the upward movement of the key.

An illustrative embodiment of my invention is shown in the drawings which accompany and form a part of this specification, but it will be understood that various modifications may be made in the apparatus therein illustrated without departing from my invention as defined by the appended claims.

In the drawings—

Figure 1 is a side elevation of a musical instrument tensioning device embodying my invention;

Fig. 2 is a plan view;

Fig. 3 is a transverse section on an enlarged scale;

Fig. 4 is a plan view of a detail of construction.

In the particular drawings selected for illustrating the principle of my invention and which are to be considered merely as illustrative and not as restrictive, 10 represents the head of a stringed instrument having a bore 11 substantially at right angles to the plane thereof which houses the hollow stud 12 of the key 13. Secured to said stud is a collar 14 provided with a lug 15 arranged to take into any one of the slots 16 of the lower plate 17. The lug 15 and its co-operating slot constitute a locking device whereby said key may be firmly held in adjusted position. The key has a limited longitudinal movement with respect to the instrument head which permits the disengagement of the lug 15 from one of the slots 16 by a slight upward movement of said key.

The lower portion of the peg 18 is enclosed within the hollow stud and is movable longitudinally therewith while the radially-projecting pin 19 which engages the longitudinal slot 20 in the wall of said hollow stud, connects said peg to the key 13 for rotational movement. The screw 21 passes through and has threaded engagement with the key and is provided with a knurled head 22 which projects through the opening 23 in the flat portion of the key.

To guide the string 24 to the hole 25 of the peg, any suitable device such as the hook 26 driven into the head immediately in front of the peg may be employed.

It will be understood by those skilled in the art that various means other than those herein specifically described may be employed for locking the key in adjusted position, and that various devices may be used to raise and lower the peg with respect to the instrument head in order to effect the fine adjustment by exerting a direct pull on the string in a direction substantially at right angles to the axis thereof.

The operation of my improved tension device is as follows:

The key is grasped by the operator and pushed upwardly to disengage the lug 15 from one of the slots 16, whereupon said key and its associated peg are turned in the usual way to tighten the string, and then the key is lowered until the lug falls into one of the slots and locks the same against retrograde movement. The thumb-piece or knurled head 22 is then rotated to push the peg outwardly for increasing tension or drawing it inwardly to reduce the tension until the string has been given the proper tune.

It will be noted that a number of turns of the thumb-piece are required to slightly alter the tension of the string so that the desired final adjustment may be accurately obtained without the slightest possibility of slipping after the string has been properly tuned.

Having thus described an illustrative embodiment of my invention without however limiting the same thereto, what I claim and desire to secure by Letters Patent is:—

1. A tension device for stringed musical

instruments comprising in combination a key, a peg connected to said key for rotational movement therewith and longitudinal movement with respect thereto, a string guide on the instrument head near the upper surface thereof and immediately in front of said peg, and means for imparting to said peg a longitudinal movement with respect to said key.

2. A tension device for stringed musical instruments comprising in combination, a rotatable key, means for locking said key against rotation, a peg rotatable with said key, a string guide on the instrument head near the upper surface thereof and immediately in front of said peg, and means for moving said peg longitudinally of said key.

3. A tension device for stringed musical instruments comprising in combination a key provided with a hollow stud having a longitudinal slot, a peg enclosed within said hollow stud, a pin projecting radially from said peg and taking into said slot, a screw threaded to said key and bearing against the lower end of said peg, and a head for turning said screw with respect to said key.

4. A tension device for stringed musical instruments comprising a key having limited longitudinal movement with respect to said instrument, a stationary member having a plurality of slots, a lug fixed to said key and arranged to take into any one of said slots, and a peg rotatable with said key, said lug being disengageable from said slot by upward longitudinal movement of said key.

In testimony whereof, I have hereunto subscribed my name this 7th day of December, 1926.

MARK A. OETTINGER.