

(No Model.)

G. HEREDIA.

DEVICE FOR TIGHTENING THE STRINGS OF MUSICAL INSTRUMENTS.

No. 521,286.

Patented June 12, 1894.

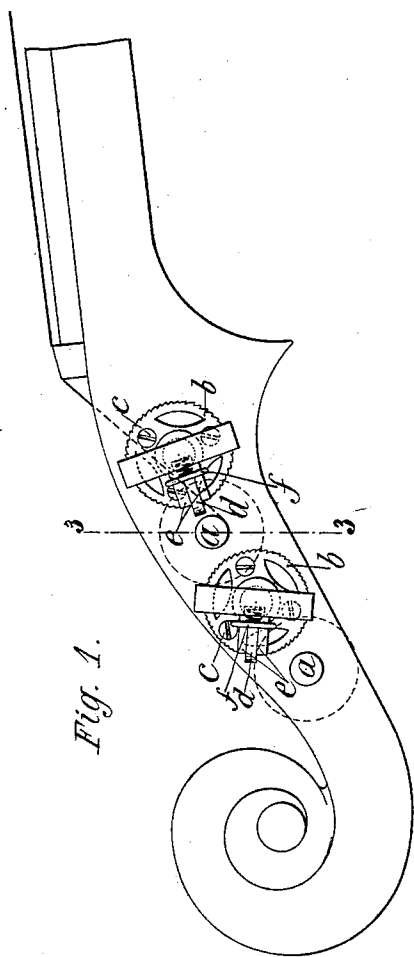
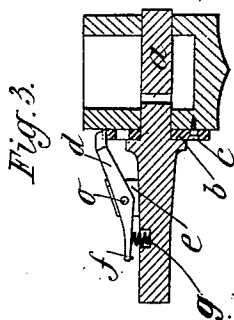
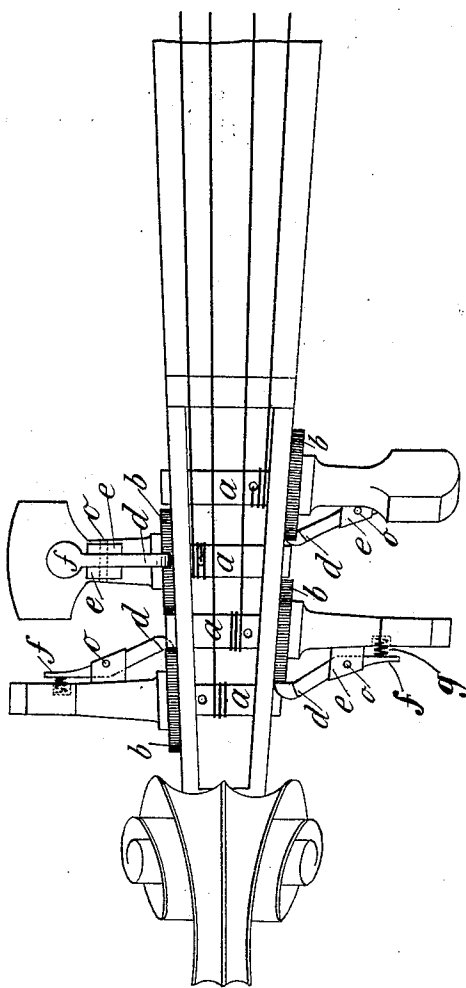


Fig. 2.



Witnesses:
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UNITED STATES PATENT OFFICE.

GUILLERMO HEREDIA, OF MEXICO, MEXICO.

DEVICE FOR TIGHTENING STRINGS OF MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 521,286, dated June 12, 1894.

Application filed March 1, 1894. Serial No. 501,903. (No model.) Patented in France March 1, 1892, No. 219,791.

To all whom it may concern:

Be it known that I, GUILLERMO HEREDIA, a citizen of the Republic of Mexico, residing in the city of Mexico, Mexico, have invented certain Improvements in Devices for Tightening the Strings of Musical Instruments, (for which a patent has been granted to me in France bearing No. 219,791, dated March 1, 1892,) of which the following is a specification.

My invention relates to the class of devices for tightening or straining the strings of musical instruments such as violins, violoncellos, guitars, and the like wherein a ratchet is employed at the tuning peg or key to prevent the slipping of the key and consequent slackening of the string, and the object is to so place the thumb-piece of the pawl that the latter may be conveniently manipulated with the key or peg.

The invention is illustrated in the accompanying drawings, wherein—

Figure 1 is a side elevation of the neck of a violin provided with my improvement. Fig. 2 is a plan of the same. Fig. 3 is a transverse section in the plane indicated by the line 3, 3, in Fig. 1.

In carrying out my invention I provide a key *a*, having a barrel or peg of cylindrical form, rotatively mounted in the usual way in the neck of the instrument. On the side of the neck, concentric with the key-barrel is fixed, by screws *c*, or other means, a ratchet disk *b*, the teeth of the ratchet being quite fine or small. On the portion of the key *a* which projects from the side of the neck is mounted a lever pawl *d*, said pawl being pivoted at *o*, in lugs *e*, on the key. The nose of the pawl engages the ratchet, and at its other end, back of the fulcrum pin *o*, the pawl has a thumb-piece *f*, under which is arranged a spring *g*, which serves to keep the nose of the pawl in engagement with the teeth of the ratchet.

When the key is turned to strain the string of the instrument the nose of the pawl rides over the ratchet teeth and the latter prevents any slackening of the string by back rotation

of the key. If the string is to be slackened or relaxed, the player raises the pawl while grasping the key with his thumb and finger. He may also raise the pawl when he is straining the string.

It will be seen that by mounting the pawl *d* on the key with its thumb-piece *f* adjacent at all times to that end of the key which is grasped in tuning, the two—that is, the key and pawl—may be manipulated conveniently with one hand. Indeed, the thumb-piece *f* and the flattened head of the key may be, and preferably will be, included within the grasp of the thumb and finger in tuning, so that the pawl will be out of engagement with the ratchet while the key is being manipulated and will be put into engagement only when the grip on the key is released.

Having thus described my invention, I claim—

1. The combination with a stringed musical instrument, and a winding key or peg for the string thereof, of a disk ratchet *b*, secured to the instrument adjacent to the key, and a spring lever-pawl *d*, fulcrumed on the key and extending lengthwise of the same, the nose of the pawl being adapted to engage the ratchet, substantially as set forth.

2. The combination with a stringed musical instrument and a winding key or peg for the string mounted rotatively in the instrument, of a disk ratchet *b*, secured to the instrument concentric with the barrel of the key, a spring lever-pawl *d*, to engage the ratchet, fulcrumed on the key and extending lengthwise thereof, the thumb-piece of said pawl being arranged adjacent to the thumb-piece of the key whereby both may be grasped at the same time in tuning, substantially as set forth.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

GUILLERMO HEREDIA.

Witnesses:

MARIANO PORDO,
MARIANO LARIDO.