H. HAUBNER.

TUNING PEG FOR STRINGED INSTRUMENTS.

APPLICATION FILED JULY 25, 1907.

918,543.

Patented Apr. 20, 1909.

Fig. 1

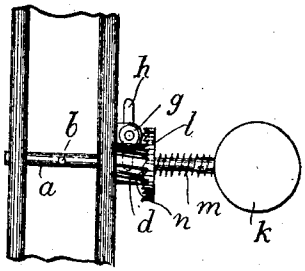


Fig. 2

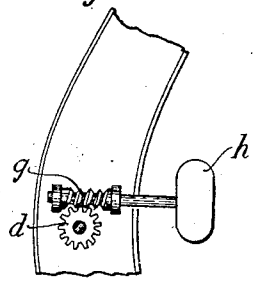


Fig. 3

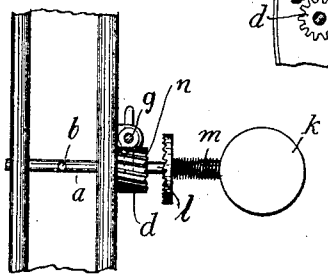


Fig. 4

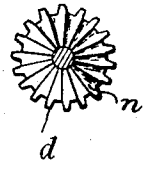
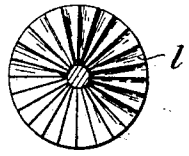


Fig. 5



Witnesses:-
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TUNING-PEG FOR STRINGED INSTRUMENTS.

No. 918,543. Specification of Letters Patent. Patented April 20, 1909.

Application filed July 25, 1907. Serial No. 385,563.

To all whom it may concern:

Be it known that I, HANS HAUBNER, a subject of the Emperor of Austria-Hungary, residing at Marienbad, Bohemia, Austria-Hungary, have invented certain new and useful Improvements in Tuning-Pegs for Stringed Instruments; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to tuning pegs for stringed instruments in which the peg is connected through a ratchet with a worm-gear the peg being operated direct by a tuning-key to approximately adjust the string which is finally brought to the correct pitch by turning the worm of the worm gear. In known tuning devices of this kind the ratchet is arranged in the hub of the worm-wheel which is made hollow. This arrangement causes a weakening of the parts which are put under strain when the string is tensioned so that these parts are very liable to break. Moreover the ratchet is controlled by a device that is carried through the peg, is inconvenient to operate and, when turned, is liable to damage the locking-parts.

One example of the invention is illustrated in the accompanying drawing in which—

Figure 1 is a side elevation of the tuning device. Fig. 2 an end elevation of the worm-wheel gear. Fig. 3 shows the engagement of the locking wheel on the peg with the worm wheel. Figs. 4 and 5 are plans of the worm wheel and of the locking wheel.

The peg *a* has a boring *b* for receiving the string in the usual manner and is seated in the neck of the instrument and passes through the center of the worm-wheel *d* which is loose on peg *a*. The worm-wheel *d* is operated by a worm *g*, which is rotated by hand through the medium of a flat head *h*. On the peg *a*, on the outside of the worm-wheel, a toothed sliding collar *l* is arranged to slide along the peg. The neck of the peg is provided with a finger piece or knob *k* which enables the peg to be turned by hand. On the neck of the peg a spring *m* is coiled, by means of which the toothed collar *l* is held in engagement with teeth *n* arranged on the worm-wheel *d*.

When the final tuning is effected the worm *g* is rotated by means of the head *h*, whereby the worm-wheel *d* is operated. As the wheel *d* is coupled with the peg *a* through the collar *l*, the peg *a* is also rotated, so that the string is wound on the peg and thereby put under tension. In the preliminary tensioning of the string the peg *a* is rotated directly by means of the handle *k*, the teeth on the collar *l* sliding over the teeth *n* of the worm-wheel *d*, without actuating the wheel. A slackening of the string can be effected by turning the peg backward by means of the handle *k*, the collar *l* being put out of engagement by sliding it along the peg against the spring *m*. The peg *a* can then turn freely so that it is easy to remove a broken string.

What I claim and desire to secure by Letters Patent is:—

In a tuning-device for stringed instruments the combination of a handle or tuning-key, a peg adapted to be rotated by means of the handle or tuning key, with a worm-wheel through the hub of which the peg is passed, a worm that acts in combination with the worm-wheel, a clutch collar, arranged to slide freely along the peg on the outside of the worm wheel and to lock the worm wheel to the peg, a set of ratchet teeth on the worm wheel and a spring adapted to hold the clutch collar in engagement with the teeth on the worm wheel.

In testimony whereof I have affixed my signature, in presence of two witnesses.

HANS HAUBNER.

Witnesses:
JOSEF CARL KREINHÖFER,
FISCHBOCH WILHELM.