

F. W. GOTTERKE.
 TUNING PIN LOCK FOR PIANOS.
 APPLICATION FILED MAY 17, 1910.

982,425.

Patented Jan. 24, 1911.

Fig. 1.

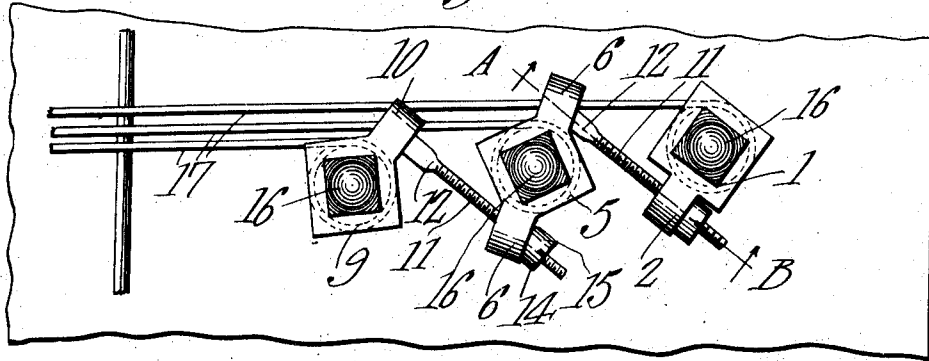


Fig. 6.

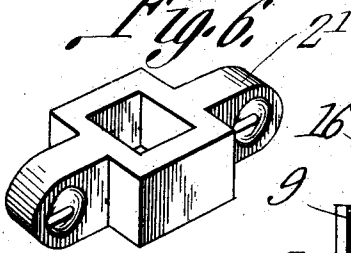


Fig. 2.

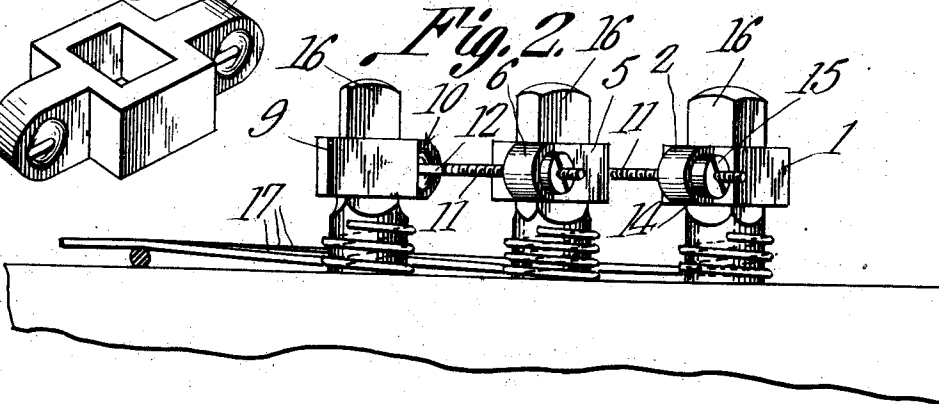


Fig. 3.

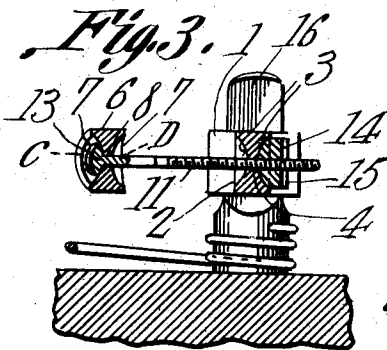


Fig. 4.

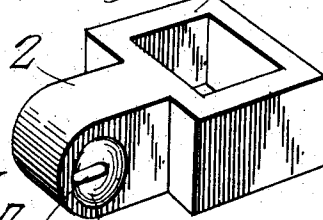
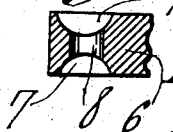


Fig. 5.



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UNITED STATES PATENT OFFICE.

FREDRICK W. GOTTERKE, OF MERCED, CALIFORNIA.

TUNING-PIN LOCK FOR PIANOS.

982,425.

Specification of Letters Patent. Patented Jan. 24, 1911.

Application filed May 17, 1910. Serial No. 561,827.

To all whom it may concern:

Be it known that I, FREDRICK W. GOTTERKE, a citizen of the United States, residing at Merced, in the county of Merced and State of California, have invented a new and useful Tuning-Pin Lock for Pianos, of which the following is a specification.

This invention relates to locks for use in connection with the tuning pins of pianos or similar stringed musical instruments.

One of the objects of the invention is to provide a lock which is simple in construction and which, when properly adjusted, positively holds the tuning pins against rotating in the direction of the tension of the strings and, consequently prevents the strings from becoming slack and thus getting out of tune.

Another object is to provide novel means for connecting the various elements of the lock, irrespective of the angular positions of tuning pins relative to each other.

Another object is to provide a pin lock which can be readily applied and manipulated, and which is compact in construction.

With these and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a plan view of the lock in position upon the pins. Fig. 2 is a side elevation thereof. Fig. 3 is a section on line A—B Fig. 1. Fig. 4 is a perspective view of one of the collars of the lock. Fig. 5 is a section through the ear of one of the collars, said section being taken on the line C—D Fig. 3. Fig. 6 is a perspective view of another form of collar.

Referring to the figures by characters of reference 1 designates an angular collar having an ear 2 extending from the center of one side thereof. Concavities 3 are formed in opposite faces of the ear and communicate through a slot 4. Another form of lock member is adapted to be used in connection with the collar 1 and consists of an angular collar 5 having oppositely extending ears 6 projecting from opposed corners of the collar. Each of these ears is also formed with opposed concavities 7 connected by a slot 8. A third member of the lock may consist of an angular collar 9 having a single ear 10 extending from one corner thereof. This

ear is also provided with concavities and a slot similar to those formed within the ears 2 and 6. Another form of collar is shown in Fig. 6 and is similar to collar 1 with the exception that it has two oppositely extending ears 2'.

The tie devices used in connection with the locking members each consists of a threaded bolt 11 having a flattened end portion 12 provided with a head 13, said flattened portion being so proportioned as to fit within any one of the slots 4 and 8 so as to hold the bolts against rotation but, at the same time, permit it to swing relative to the ear in which it is mounted. The head 13 has convex faces adapted to fit snugly within any one of the concavities so as to present a smooth bearing to the wall of the concavity, irrespective of the position of the bolt relative to the ear in which it is mounted. The threaded portion of each bolt is adapted to project through the slot in the ear of an adjoining lock member and this bolt may be engaged by a nut 14 having a rounded end adapted to be seated snugly within any one of the concavities. The said nut may be formed with a kerf 15 whereby it may be readily rotated by means of a forked screw driver or other suitable tool.

In using the device which has been described the tuning pins 16 are rotated in the usual manner until the strings 17 are properly tensioned. The collars 1, 5 and 9 are then placed upon the pins 16 in such positions as to bring their ears 2, 6 and 10 as nearly as possible into parallel relation. The bolts 11 are then inserted into the ears, as shown, and the flattened portions 12 thereof will prevent said bolts from rotating. By then tightening the nuts upon the bolts the locking members can be securely held relative to each other and will positively hold the pins against independent rotation.

Various changes can of course be made in the construction and arrangement of the parts without departing from the spirit or sacrificing any of the advantages of the invention as defined in the appended claims.

What is claimed is:—

1. A tuning pin lock including separate pin-engaging members, an ear extending in one direction from one member, an ear extending in another direction from the other member, a connecting device extending between the two members and detachably engaging and adapted to rock within said ears

said device having a head for bearing on one of the ears, and a nut engaging said device and the other engaged ear.

2. A tuning pin lock including pin engaging members, a projecting portion upon each member, said portions having apertures, a connecting device extending between the members and detachably mounted within said projecting portions and adapted to swing therein, said device having a head for bearing on one of the projecting portions, an

adjusting device engaging the connecting device and bearing against the other one of the engaged projecting portions.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

FREDRICK W. GOTTERKE.

Witnesses:

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CYRUS W. CROOK.