

(No Model.)

F. B. CONVERSE.
TUNING PEG RETAINER.

No. 366,461.

Patented July 12, 1887.

Fig. 1

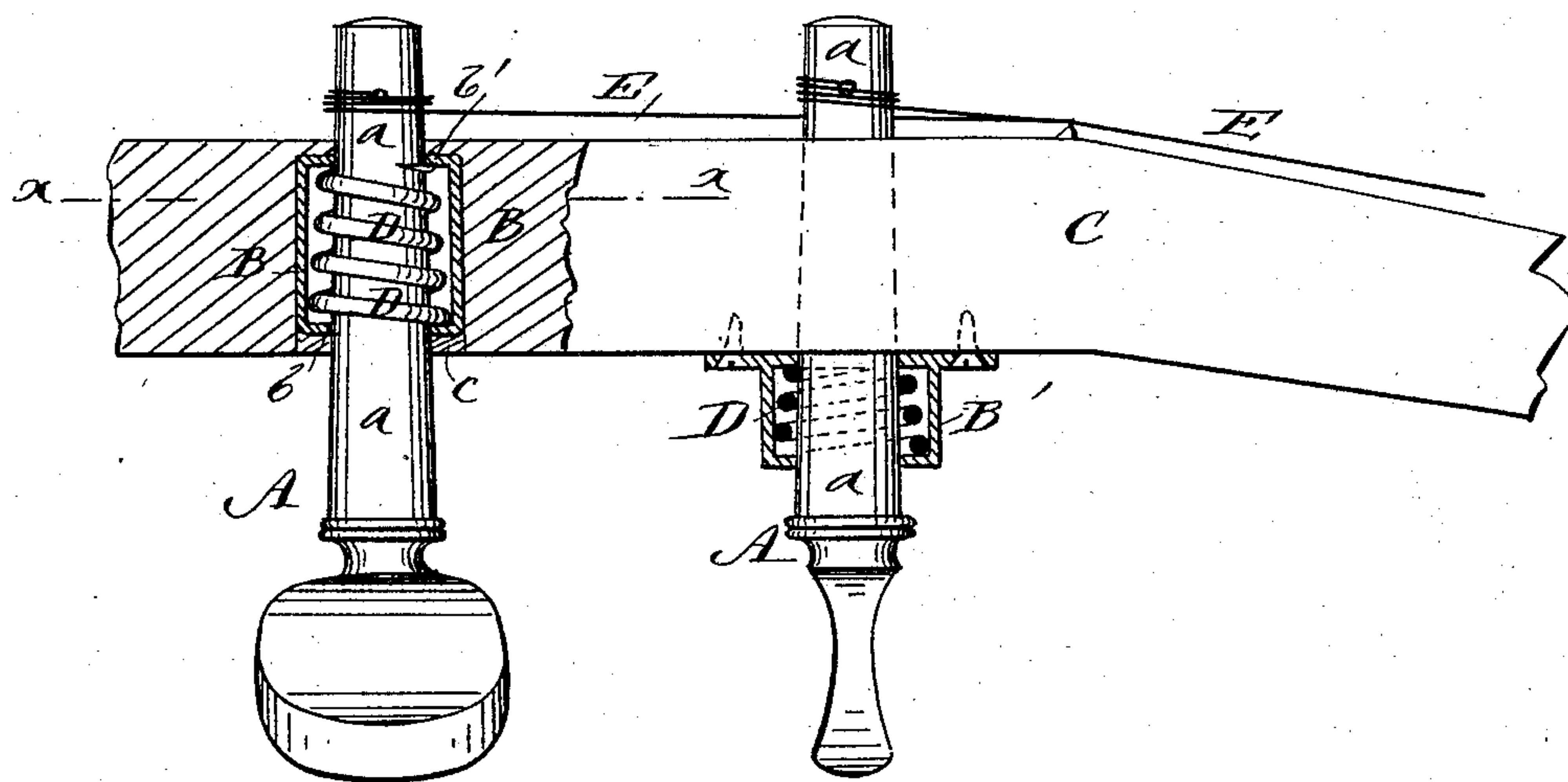


Fig. 2

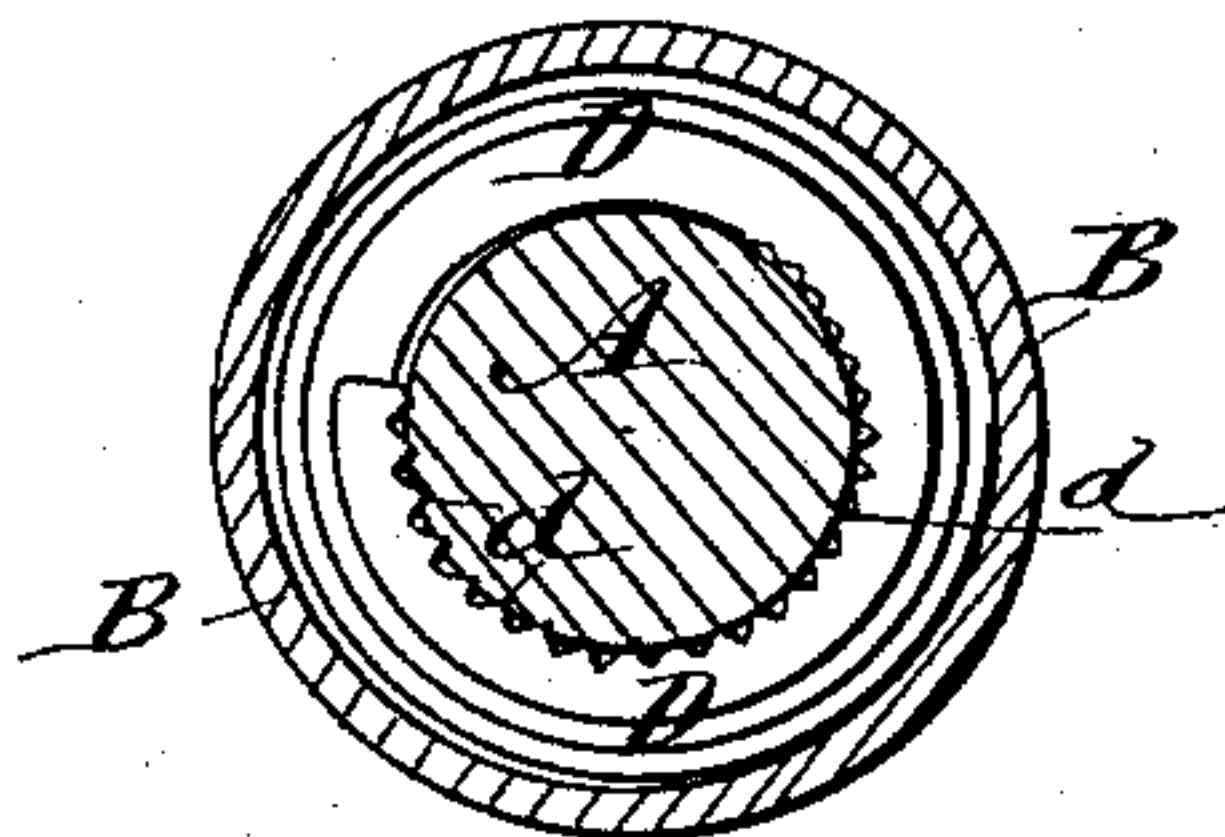
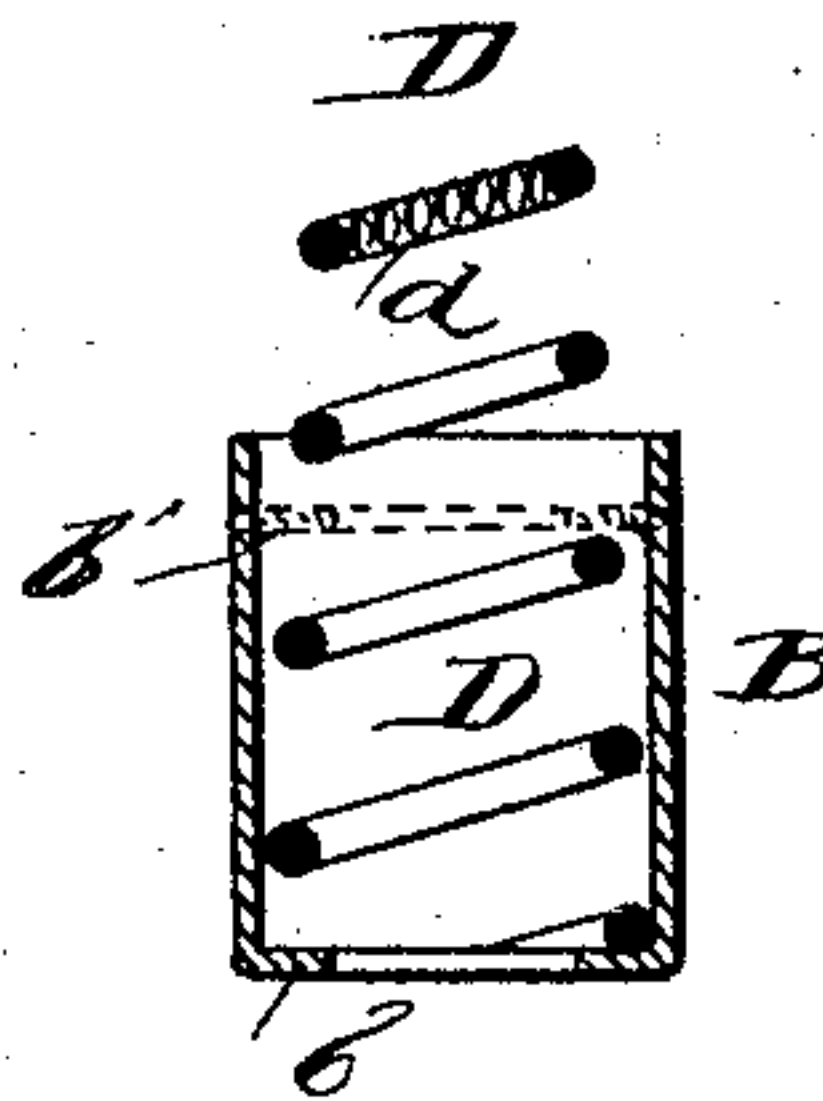


Fig. 3



WITNESSES:

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TUNING-PEG RETAINER.

SPECIFICATION forming part of Letters Patent No. 366,461, dated July 12, 1887.

Application filed May 4, 1887. Serial No. 237,075. (No model.)

To all whom it may concern:

Be it known that I, FRANK B. CONVERSE, of the city, county, and State of New York, have invented a new and Improved Tuning-Peg Retainer, of which the following is a full, clear, and exact description.

My invention relates to tuning-pegs of stringed musical instruments, such as banjos, violins, or guitars, and has for its object to provide a simple, inexpensive, and effective device for preventing accidental withdrawal of the peg and holding it in the position to which it may be turned, and thereby maintain proper pitch of tone of the instrument.

The invention consists in certain novel features of construction of the tuning-peg retainer and its combination with the instrument, as hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 is a sectional side view of a portion of a neck of a stringed musical instrument—a banjo or violin, for instance—with my improved tuning-peg retainers applied, and shows the preferred form of my improvement and a modified arrangement of it. Fig. 2 is an enlarged sectional view of the tuning-peg and its retainer, taken on the line *xx* in Fig. 1; and Fig. 3 is a detail sectional view illustrating the retainer in course of manufacture or assemblage of its parts.

The tuning-pegs *A* are of the ordinary form, this being an advantage in that my improvement may be applied easily and cheaply to either new or old instruments—such as banjos, violins, guitars, or any other instrument in which pegs are used to secure strings and bring them to proper pitch of tone.

In the preferred form of my improvement I use a cylindrical metal casing, *B*, which is fitted tightly into the neck *C* of the instrument, and is or may be held in place by a plug or cap, *c*, fitted in the bore of the neck into which the casing is passed, and whereby the casing is entirely concealed. Between interturned flanges *b b'* at opposite ends of the casing a spiral spring, *D*, is confined under compression—that is to say, the spring is made longer than the casing and is rested on the

flange *b*, first formed or spun up on the casing, and after the spring is compressed the other flange, *b'*, is turned or spun down over or upon the spring to hold it in the casing and under endwise tension, and, as will be understood by comparing Figs. 1 and 3 of the drawings, the latter figure indicating the lip *b'* as turned over, in dotted lines.

The openings in the casing—flanges *b b'*—about fit the tapering body portion *a* of the tuning-peg *A*, and the spring *D* is also preferably made tapering to fit very closely on the peg, and the larger coil of the spring is preferably made of proper size to fit quite snugly within the metal casing *B*, to have frictional contact with the side walls of the casing, while the opposite ends of the spring exert considerable pressure or frictional resistance on the opposite end flanges, *b b'*, of the casing.

One of the coils of the spring *D*, preferably its inner or smaller coil, is provided with a series of teeth or serrations, *d*, at its inner edge or face next the body *a* of the peg, and adapted to grip the peg, as shown clearly in Fig. 2 of the drawings. One tooth, *d*, on the spring may suffice, but the series of teeth shown are preferred in practice.

The operation of the peg-retainer is as follows: When the peg is passed into the casing *B* and within the spring *D*, the spring-teeth *d* will enter the body of the peg sufficiently to prevent withdrawal of the peg except by a pulling force, which would scarcely ever be accidentally applied to it in manipulating the peg for tuning the string *E*, connected to it, even by a most careless performer or student; hence when the peg is once pushed home to proper position in the neck of the instrument its hold therein against endwise displacement is very secure. When the peg is turned to pitch or tune the string, the spring *D* will be turned by the peg within the casing *B*, and the frictional resistance of the spring on the walls of the casing is ample to prevent turning of the peg when it is let go. In other words, the peg will stay where it is set whether it be turned forward or backward, and the string will remain in perfect pitch of tone, as I have fully demonstrated by practical tests.

It is obvious that should the material of the neck of the instrument be sufficiently hard,

the metal casing B may be dispensed with and the spring D may bear directly on the walls of a bore made in the neck to receive it and upon a plug or washer like the cap c, above described; but the use of the metal casing is preferred, as with it the entire device may be made and assembled ready to slip into a hole bored in the neck of the instrument, and the casing receives the wear due to the pressure or frictional contact of the peg-retaining spring.

It is not necessary that the peg-retainer be fitted within the neck of the instrument, as the spring D may be fitted into a casing, B', held by screws or otherwise to the outer face of the neck, as will be fully understood from the modified arrangement of the retainer shown at the right hand in Fig 1 of the drawings, the operation and effect of the device being the same as above described, and as will readily be understood.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A tuning-peg retainer for stringed musical instruments, consisting of a serrated or

toothed device held to the instrument and gripping the peg to prevent its withdrawal, substantially as described, for the purposes set forth.

2. A tuning-peg retainer for stringed musical instruments, consisting of a spring fitted to the peg and formed with teeth or serrations gripping the peg to prevent its withdrawal, and said spring also having frictional resistance against walls of a chamber through which the peg passes to hold the peg where it is set, substantially as described, for the purposes set forth.

3. The combination, with a stringed musical instrument, of a casing, B, fitted thereto, a spring, D, placed within the casing around the peg, and having teeth or serrations gripping the peg, substantially as described, for the purposes set forth.

FRANK B. CONVERSE.

Witnesses:

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C. SEDGWICK.