

(No Model.)

D. FITLER.
TUNING KEY.

No. 554,254.

Patented Feb. 11, 1896.

FIG. 1.

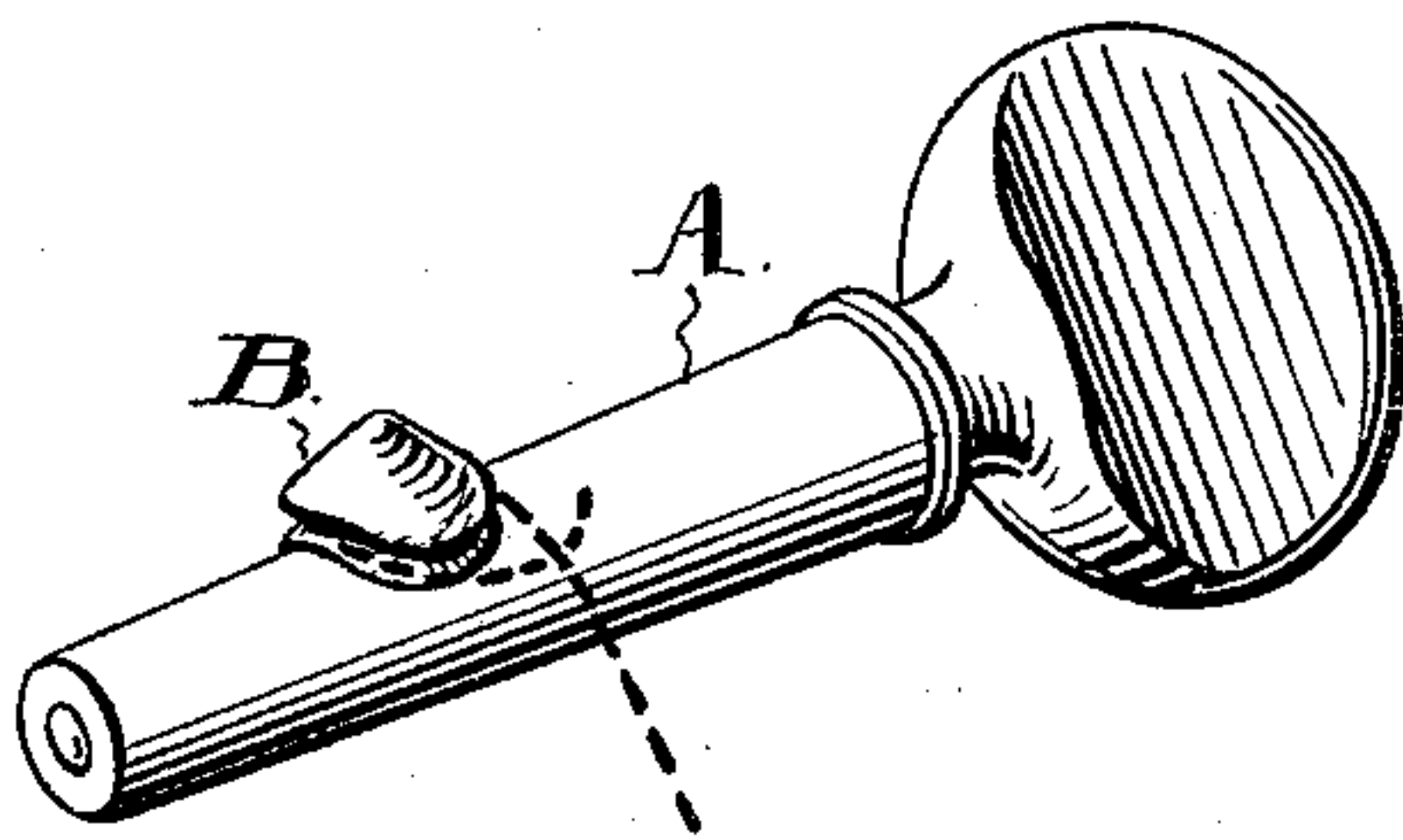


FIG. 4.



FIG. 2.

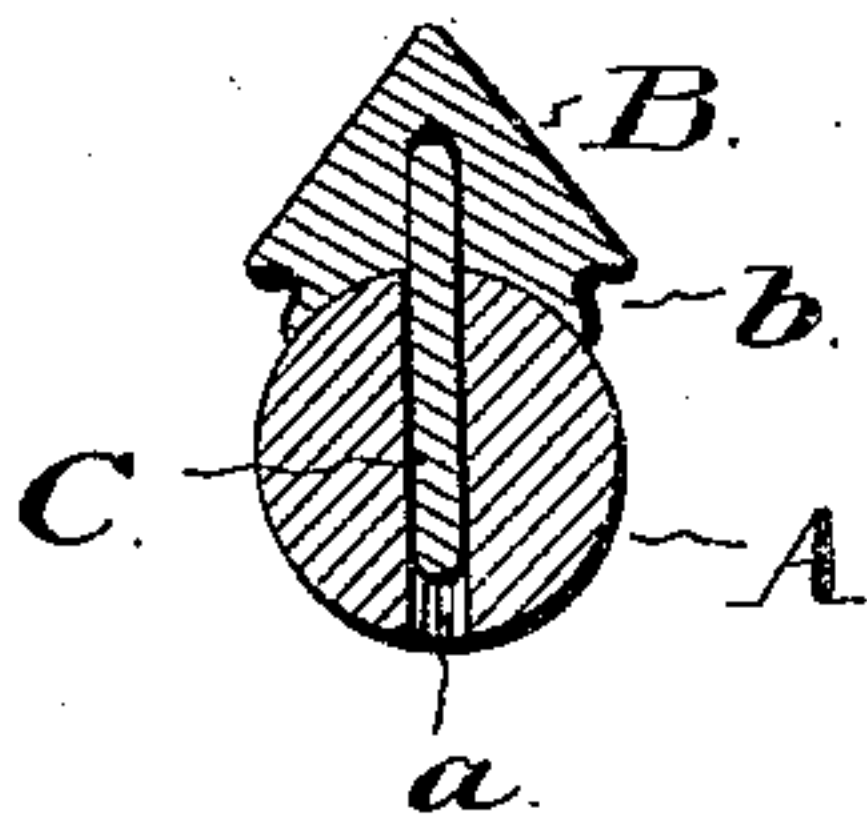
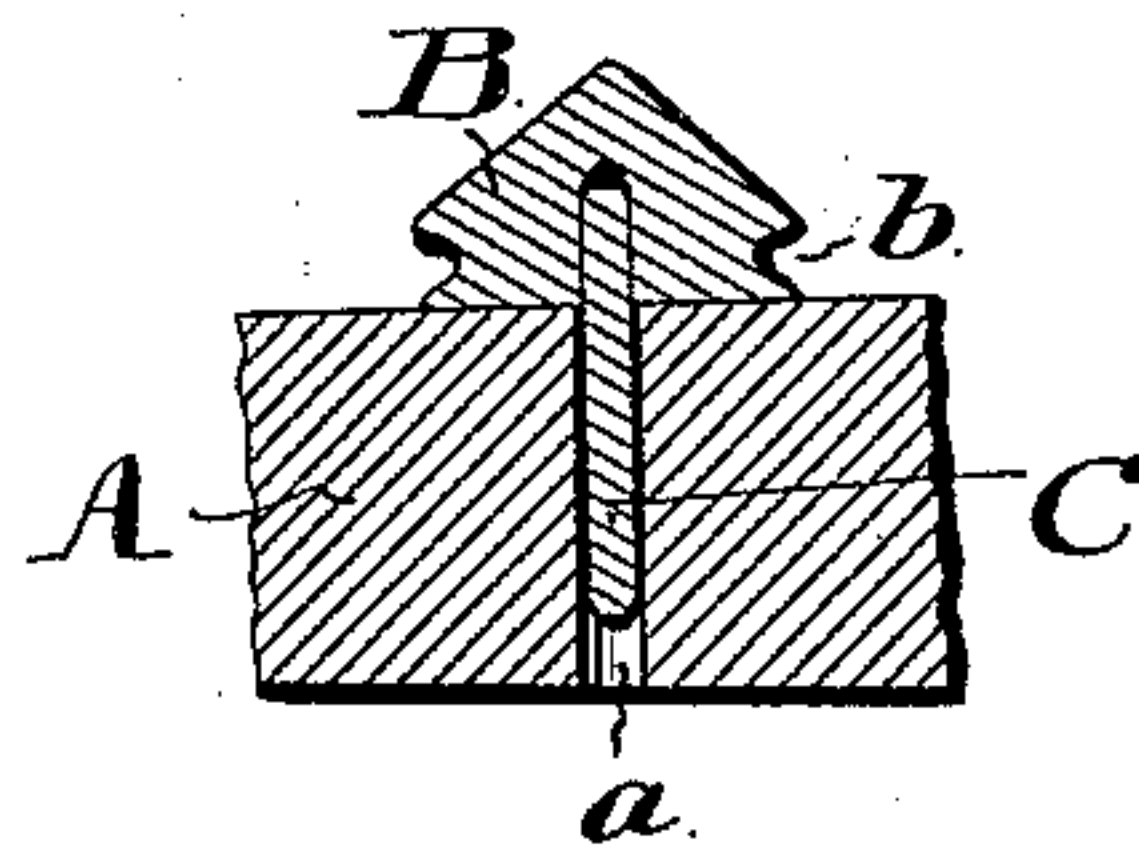


FIG. 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

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TUNING-KEY.

SPECIFICATION forming part of Letters Patent No. 554,254, dated February 11, 1896.

Application filed July 12, 1895. Serial No. 555,760. (No model.)

To all whom it may concern:

Be it known that I, DANIEL FITLER, a citizen of the United States, residing in the city and county of Philadelphia, in the State of Pennsylvania, have invented certain new and useful Improvements in Tuning-Keys, of which the following is a specification.

My invention relates to the keys mounted free for rotation in the heads of violins and kindred stringed instruments, upon which the strings are wound or wrapped, and by the rotation of which the strings may be adjusted to any desired tension.

Keys of the character most commonly in use are provided with transversely-extending holes or apertures through their bodies, and in the application of a string its advance end is threaded through a hole to effect what may be termed an "initial" attachment, and the key is thereupon rotated to bring said string to the desired tension. In this arrangement, however, apart from the difficulty of threading the string through the opening, the drawing of the string taut upon or across the sharp edge formed by the substance of the key at the mouth of the string-hole tends to bruise or cut it and thereby shorten its life.

It is the object of my invention to provide keys for stringed instruments with simple, inexpensive, and readily-applied devices by which the strings may be readily attached and which will not be open to the objection mentioned.

In the accompanying drawings I show and herein I describe a good form of a convenient embodiment of my invention, the particular subject-matter claimed as novel being herein-after definitely specified.

In the drawings, Figure 1 is a view in perspective of a violin-key shown as provided with one of my improved string-keepers. Figs. 2 and 3 are respectively a transverse section and a partial longitudinal central section of the key and keeper shown in Fig. 1. Fig. 4 is a view in top plan of my improved keeper.

Similar letters of reference indicate corresponding parts.

Generally stated my invention comprehends the provision, in connection with a violin-key of ordinary construction, and provided with the usual string-aperture, of a

keeper of novel construction adapted to receive or be engaged by a loop of the string, and arranged to utilize said string-opening to detachably support itself in position upon the key.

In the drawings, A is a violin-key of ordinary construction and provided with the usual transverse string opening or aperture *a*.

B is my improved keeper, the same consisting of a shank-provided head, the circumference of which is in plan conveniently approximately the same as the transverse circumference of the key, the upper portion of which is conical, being formed with a uniform taper from its edge to its central apex, the under face of which is segmental and is of a radius corresponding to that of the body of the key, and the edge portion of which embodies a circumscribing string-receiving groove *b*.

My improved keeper is provided with a foot or shank C, conveniently of metal, which in the application of the keeper to the key is entered in the ordinary string-aperture *a* and forced downward therein until the segmental under face of the head seats itself snugly against the surface of the key.

In the application of the string to a key provided with my improved keeper, said string is first bent around and in the groove of said keeper in the manner shown in dotted lines in Fig. 1 to give the key an initial hold upon it, and the key is thereupon rotated to coil the string upon its body in the usual manner. In said rotation of the key coils or bights of the string will, if they happen to be laid upon the top of the keeper B, be, by reason of the conical shape of the top of said keeper, shed or deflected down the inclined side of the keeper and upon the body of the key.

As will be understood, my improved keepers, one of which is to be applied to each key, may be applied to the ordinary keys of violins already in use without requiring substitution of new keys.

My improved keepers are to be made, as to their heads, sufficiently shallow to prevent them from coming in contact in the rotation of the key with the body of the instrument, and they are, of course, when the key is to be withdrawn from the violin to be first withdrawn from the key.

Having thus described my invention, I claim—

1. As an article of manufacture, a string-keeper for the key of a violin or similar instrument, the same consisting of a head, having a segmental under face, an edge groove, and a top adapted to shed string laid upon it, and provided with a shank projecting from said segmental face and adapted to be entered in the string-hole of a key, substantially as set forth.

2. As an article of manufacture, a string-keeper for a violin-key, the same consisting of a head, having a segmental under face, a conical top, and a circumscribing groove, and equipped with a shank adapted to be entered

in the string-hole of a key, substantially as set forth.

3. A violin-key embodying an aperture, and provided with a keeper consisting of a head provided with a shank entered in said aperture, said head having a segmental under face corresponding in radius with the key against which said face rests, an inclined top, and an edge groove, substantially as set forth.

In testimony that I claim the foregoing as my invention I have hereunto signed my name this 27th day of June, A. D. 1895.

DANIEL FITLER.

In presence of—

F. NORMAN DIXON,
THOS. K. LANCASTER.