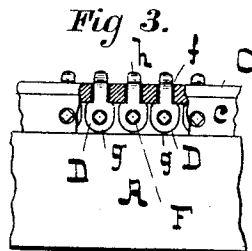
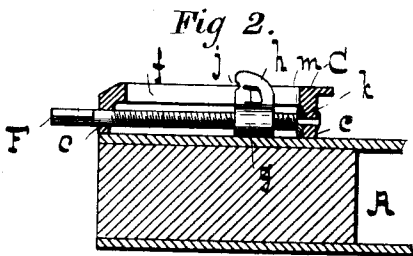
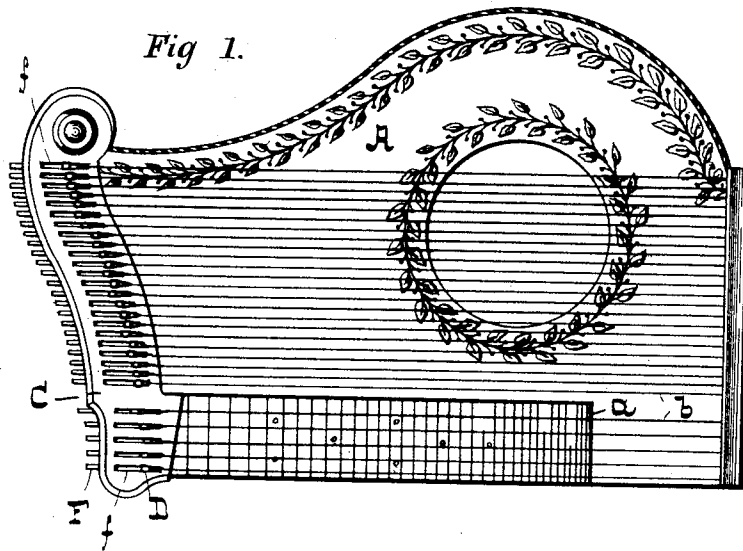


(No Model.)

W. A. TUEBNÉE.  
STRINGED MUSICAL INSTRUMENT.

No. 459,603.

Patented Sept. 15, 1891.



- WITNESSES -

*Don't Fisher*  
*Geo. E. Taylor*

- INVENTOR -

*William A. Tuebnée,*  
*by W. H. J. Howard, atty.*

# UNITED STATES PATENT OFFICE.

WILLIAM A. TUEBNÉE, OF BALTIMORE, MARYLAND.

## STRINGED MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 459,603, dated September 15, 1891.

Application filed March 7, 1891. Serial No. 384,149. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM A. TUEBNÉE, of Baltimore, Maryland, have invented certain Improvements in Stringed Musical Instruments, of which the following is a specification.

This invention relates to improved means for tightening and holding at any required tension the strings of musical instruments, as will hereinafter fully appear.

In the description of the said invention which follows reference is made to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a top view of a zither to which the present invention is applied, and Figs. 2 and 3 are details of the invention on an enlarged scale.

Referring to the said drawings, A represents the zither, and *a* the fret-board thereof.

The strings, which are denoted by *b*, are fastened at the lower end of the instrument in the usual manner.

C is a flanged plate attached in any suitable manner to the upper end or head of the zither. This plate is placed so that the edge of the flanges, which are denoted by *c*, bear on the upper board or face of the instrument, as shown particularly in Fig. 2, which is an enlarged section of the upper end of the said instrument. The plate C has slots *f* therein, one for each string, and they extend lengthwise of the instrument, as shown in Fig. 1. In each slot is placed a head D, consisting of a threaded nut *g*, having a shank *h*, which fits neatly in the slot and is notched, as shown at *j*, for the reception of the string, which is looped. (See Fig. 1.) Each head D has a threaded stem F, which passes through the outer flange of the plate C and enters the inner one.

The inner end of the stem is reduced in diameter, so as to form a shoulder *k*, and riveted over to prevent its withdrawal. A washer *m* is interposed between the shoulder and the flange to increase the wearing-surfaces. The outer end of the stem is made square, so that a key (not shown) may be applied thereto to turn it and thereby draw the string in tuning. The object of the flanges *c* of the plate C is to provide a space under the plate for the heads D, and also to furnish a support for the stems, as will be readily understood.

While I have shown and described the invention as applied to a zither, it is evident that it is equally applicable to other stringed musical instruments.

I claim as my invention—

1. As an improvement in musical instruments, a slotted plate, in combination with heads to which the wires or strings of the instrument are attached, and threaded stems which pass through the said heads and which, when turned, move the said heads longitudinally of the said slots, substantially as specified.

2. In a stringed musical instrument, the combination of a slotted plate which is applied to the upper surface of the said instrument, heads adapted to receive the strings, which are interiorly threaded and fitted to be moved longitudinally of the said slots, and threaded stems which have no endwise movement, but merely a rotary one, whereby the said heads are altered in position within the said slots, substantially as and for the purpose specified.

WILLIAM A. TUEBNÉE.

Witnesses:

WM. S. HOWARD,

DANL. FISHER.