

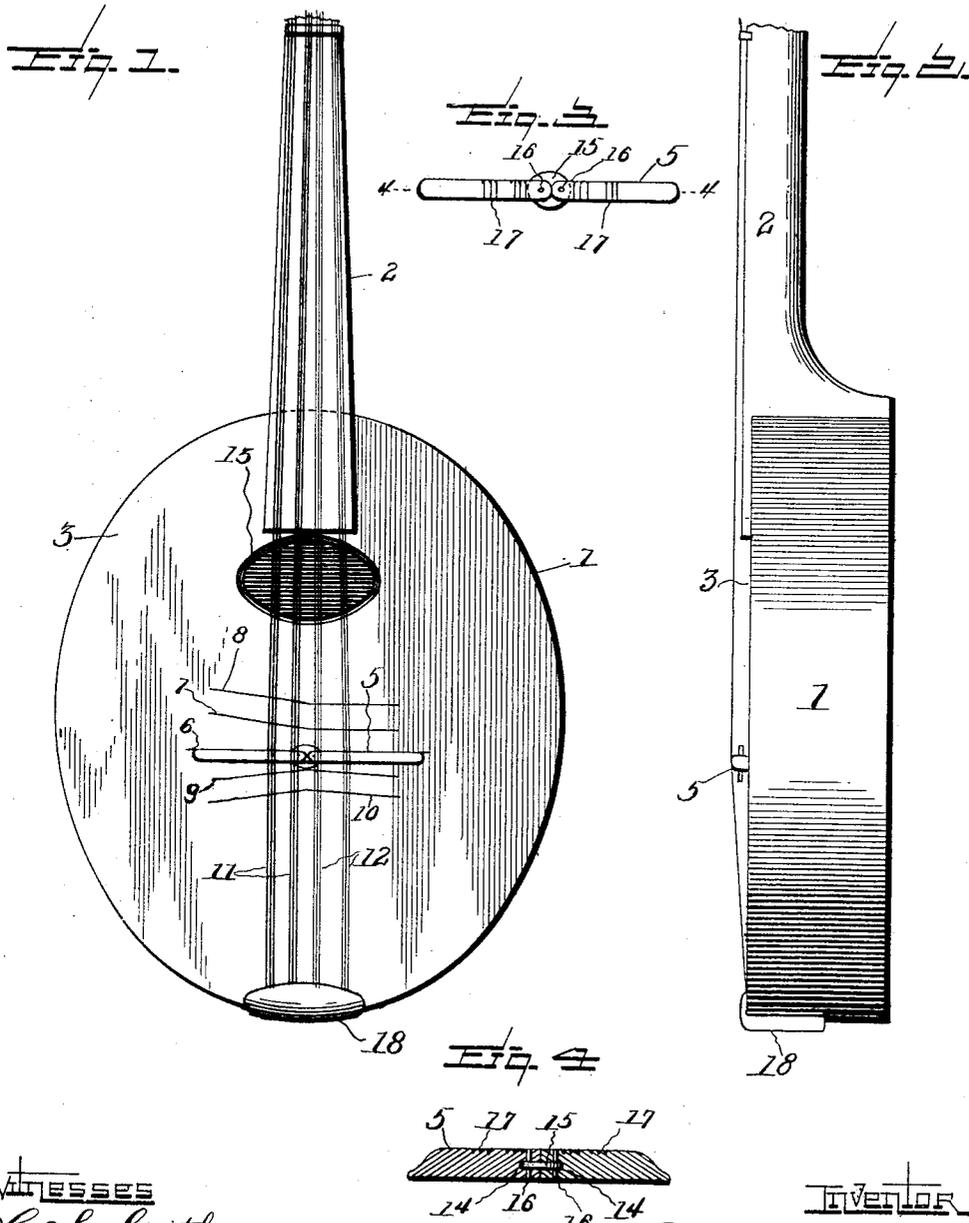
No. 659,330.

Patented Oct. 9, 1900.

E. A. TAPLEY.
MUSICAL INSTRUMENT.

(Application filed Nov. 27, 1899.)

(No Model.)



WITNESSES
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UNITED STATES PATENT OFFICE.

EMMITT A. TAPLEY, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO DANIEL W. SCOTT, OF SAME PLACE.

MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 659,330, dated October 9, 1900.

Application filed November 27, 1899. Serial No. 738,336. (No model.)

To all whom it may concern:

Be it known that I, EMMITT A. TAPLEY, a citizen of the United States of America, and a resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Musical Instruments, of which the following is a specification.

My invention relates particularly to a form of musical instrument in which the bridge is movable for changing the key or pitch of the strings.

The main object of my invention is to provide improved means for changing the pitch or key of the instrument by adjustment of the bridge instead of retuning the strings, as is usually done by means of the keys on the upper part of the neck.

I accomplish this object by the device shown in the accompanying drawings, in which—

Figure 1 is a front elevation of a musical instrument constructed according to my invention, having the upper part of the neck broken away. Fig. 2 is a side elevation of same. Fig. 3 is an enlarged top plan of the bridge, and Fig. 4 is a section of same on the line 4-4 of Fig. 3.

The body 1 is in the form of an ellipse, with its major axis in alinement with the neck 2. The front piece 3 of said body has its surface in a rectilinear plane, said body being of uniform depth throughout, as shown in Fig. 2.

The bridge 5 is shown in Fig. 1 in its normal position, resting upon the front piece 3 of said body. The body is marked with the line 6 to denote the normal position of the bridge. Lines 7, 8, 9, and 10 are also marked on the body for denoting other positions of the bridge in changing the pitch or key of the instrument. 11 represents the bass strings and 12 the treble strings. The front 3 of the body is provided with a sounding-hole 13 in the form of an ellipse centrally located in the upper half of said front and having its minor axis in alinement with the major axis of said body. The bridge 5 consists of two parts, which are each slotted at 14 to receive the plate or link 15, which is pivoted at 16 to said parts. Said parts are each provided with grooves 17 for receiving the strings. 18 rep-

resents the tailpiece. The strings are secured in the usual manner to the tailpiece and the keys, which are not shown.

The operation of my device is as follows: 55
The instrument will be tuned when the bridge is in its normal position on the line 6, as shown in Fig. 1. To raise the key or pitch of the instrument, the operator will move the bridge upwardly and adjust same to the line 60 7 or 8. The object of having the left part of the line 7 on a rising incline is to compensate for the difference in the tension of the strings 11. The tension of the bass strings is naturally less than that of the higher strings. I 65 have found, therefore, that when the bridge is moved upwardly in a line parallel to the line 6 the strings 11 will be tuned slightly too low. By raising the left end of the bridge slightly higher than the right end I find that 70 the comparative tension of the strings 11 and 12 can be equalized without retuning any of the strings by means of the keys.

To lower the pitch of the instrument without retuning by means of the keys, I move 75 the bridge down to the line 9 or 10, with its left end slightly lower than the right end.

It will be understood that the angle of said lines will be slightly different for different instruments, and the instrument will be marked 80 accordingly after adjusting the bridge for the different keys.

It is plain that the structure of the bridge, rendering same adjustable for regulating the 85 tension of the strings, may be varied without departing from the spirit of my invention. I therefore do not confine myself to the details of the structure shown, except as hereinafter limited in the claims.

What I claim as my invention, and desire 90 to secure by Letters Patent, is—

1. In a musical instrument, the combination of a body, a series of strings stretched thereon, a bridge bodily slidable between said strings and body and consisting of relatively- 95 movable parts, whereby the pitch of the strings can be correspondingly raised or lowered; said movable parts being connected together independently of the instrument-body and strings.

2. In a musical instrument, the combination of a body, a series of strings stretched 100

thereon, a bridge movable between said strings and body and consisting of two parts pivoted together and relatively movable, substantially as and for the purpose specified.

- 5 3. In a musical instrument, the combination of a body, a series of strings stretched thereon, a bridge movable between said strings and body and consisting of two parts independently pivoted to a connecting plate

or link, substantially as and for the purpose so specified.

Signed by me at Chicago this 25th day of November, 1899.

EMMITT A. TAPLEY.

Witnesses:

WM. R. RUMMLER,
D. W. SCOTT.