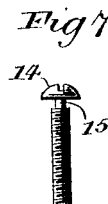
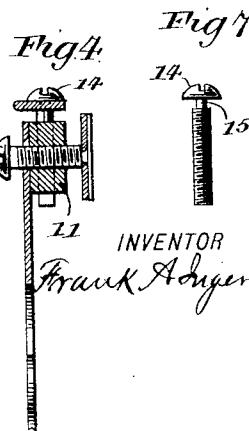
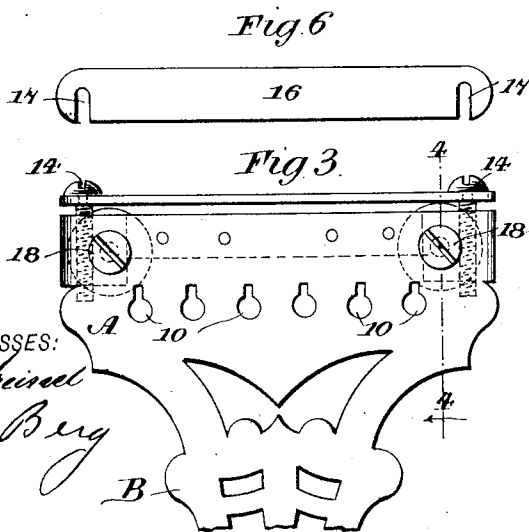
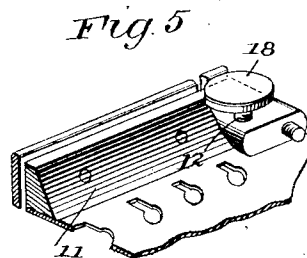
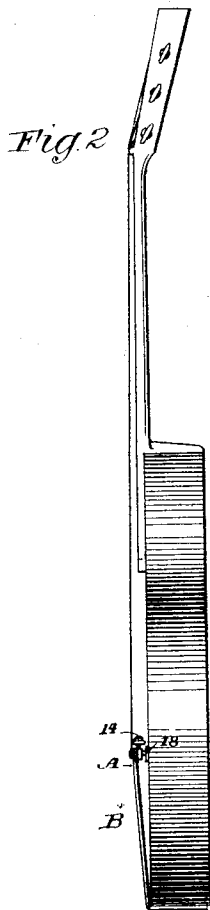
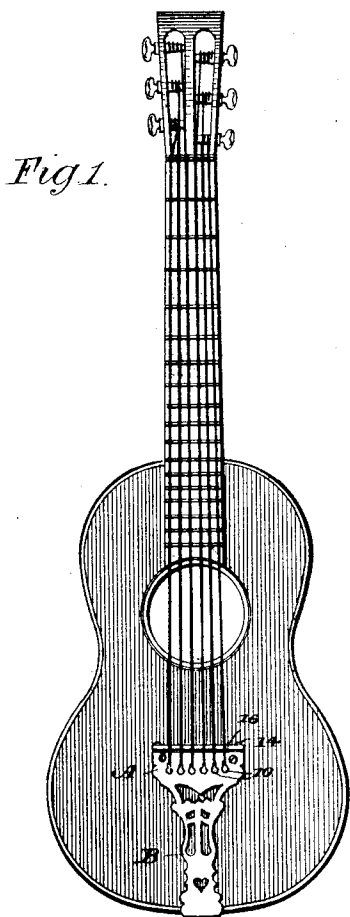


(No Model.)

F. A. INGERSOLL.
ADJUSTABLE TAIL PIECE FOR GUITARS.

No. 500,581.

Patented July 4, 1893.



WITNESSES:
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FRANK A. INGERSOLL, OF NEW YORK, N. Y.

ADJUSTABLE TAIL-PIECE FOR GUITARS.

SPECIFICATION forming part of Letters Patent No. 500,581, dated July 4, 1893.

Application filed December 28, 1892. Serial No. 456,581. (No model.)

To all whom it may concern:

Be it known that I, FRANK A. INGERSOLL, of New York city, in the county and State of New York, have invented a new and Improved
5 Adjustable Tail-Piece for Guitars and other Stringed Musical Instruments, of which the following is a full, clear, and exact description.

It is well known that in the ordinary construction of guitars especial means are provided to strengthen the frame of the instrument in order to prevent the bridge from being detached or becoming loosened by the tension exerted by the strings and thereby defacing the instrument and interfering with
15 its tone. It also frequently occurs that the bridge is placed too high or too low to suit the performer, and to remedy this difficulty a bridge of proper height must be substituted, thereby causing expense and trouble. It is
20 also well known that in manufacturing such instruments as guitars very few are made exactly of the same length and special measurements must be taken in each case to secure accuracy.

25 The object of the present invention is to provide a tail piece capable of being securely attached to such instruments as guitars, said tail piece being provided with a bridge bar laterally adjustable thereon; and it is a further
30 object of the invention to construct a tail piece in such manner that it, together with the bridge bar, may be vertically adjusted. By this means when a tail piece has been placed upon the instrument the bridge
35 bar may be adjusted to or from the neck until it has been properly placed, or placed to suit a performer; and furthermore, the tail piece may be elevated so that the strings will be carried more or less closely to the frets.

40 The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth and pointed out in the claims.

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

Figure 1 is a plan view of a guitar having
50 the tail piece applied thereto. Fig. 2 is a side elevation of the guitar, the tail piece showing

in section. Fig. 3 is an enlarged plan view of the body section of the tail-piece. Fig. 4 is a section taken vertically through the tail piece, practically on the line 4-4 of Fig. 3. 55 Fig. 5 is a bottom plan view of a portion of the body of the tail piece; and Fig. 6 is a side elevation of the adjusting screw employed to support the bridge bar.

The tail piece may be said to consist of a 60 body section A and a shank B. The tail piece may be constructed of any suitable or approved material, for example, metal, hard rubber, bone or ivory, and the body section is preferably made of much greater width than 65 the shank section, and both sections may be ornamented as fancy may dictate. The tail piece is attached to the instrument ordinarily through the medium of its shank, and usually the lower end of the shank is bent in such 70 manner that when the major portion is over the top of the guitar the bent section will be in engagement with the bottom side thereof, as shown in Fig. 2, to which part the shank may be attached by screws or equivalent fas- 75 tening devices.

The body portion of the tail piece is provided with a series of transversely arranged apertures 10, adapted to receive the knotted ends of the strings of the instrument; and the 80 forward or inner edge of the body is preferably reinforced upon its under side by the addition of a transverse rib 11, as shown in Fig. 5; or the material from which the tail piece is made may be thickened at that point; but 85 preferably the forward or inner edge of the tail piece is made straight.

The tail piece may be adjusted vertically, that is, to or from the top face of the instrument; and the adjustment is preferably accomplished through the medium of two adjusting screws 12, and these adjusting screws are passed downward through the forward side surfaces of the tail piece, which portions are ordinarily thickened, as shown in Fig. 5, 95 and upon the lower ends of these adjusting screws disks 13, are swiveled, the disks being covered with a soft material so as not to mar the instrument.

In addition to the vertical adjusting screws 100 13 two horizontal adjusting screws 14, are employed, and these adjusting screws are passed

through threaded apertures produced longitudinally in the front or inner face of the tail piece at or near the ends thereof. The horizontal adjusting screws 14, are of peculiar construction, as shown in Fig. 6, in which it will be observed that the screws are reduced in diameter immediately back of their heads, the reduced portion, which is designated as 15, being unthreaded. These horizontal adjusting screws are adapted to carry and support a bridge bar 16, and this bridge bar is located in front of the inner edge of the tail piece. The bridge bar is constructed ordinarily as shown in Fig. 6, in which it will be observed that in the under face, near each end of the bar a transverse slot or recess 17, is made; and when the bar is placed in position upon the tail piece the reduced portions 15 of the horizontal adjusting screws 14, enter the recesses 17 of the bar. Thus it will be observed that the bar may be adjusted to or from the neck, as may be desired, by simply manipulating the screws 14.

It will be understood that the upper edge of the bridge bar is to extend a proper distance above the upper edge of the tail piece; and it will be further observed that in addition to the adjustment of the bridge bar, the tail piece itself, by manipulating the vertical adjusting screws 12, may be raised or lowered any desired distance from the upper face of the instrument, and thus bring the strings near to or carry them as far as desired from the frets.

A tail piece, such as has been above described, is capable of being very economically constructed and is also capable of ready and convenient attachment to any guitar or like stringed instrument; furthermore, the tail piece may be made so ornamental as to add to the beauty of the instrument, and when used it will enable the operator in a few moments to place the bridge in whatever position he may desire; and likewise, as has heretofore been stated the elevation or depression of the strings may be quickly and satisfactorily accomplished; furthermore, after the tail piece has been placed in position, neither the tail piece nor the bridge can be moved or in any

manner misplaced by the action of the strings, no matter under what tension the latter may be.

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

1. A tail piece for stringed musical instruments provided with a laterally adjustable bridge bar constituting a portion of the tail piece, and vertically adjusting devices, whereby the tail piece may be raised or lowered, as and for the purpose specified.

2. The combination, with the tail piece for stringed musical instruments, of a bridge bar, an adjusting mechanism connecting the bridge bar with the tail piece, and adjusting devices carried by the tail piece, whereby the latter may be vertically adjusted, as and for the purpose set forth.

3. The combination, with a tail piece for stringed musical instruments, and adjusting screws located in the inner edge of the said tail piece near its ends, the said adjusting screws being provided with a reduced unthreaded section at the rear of their heads, of a bridge bar slotted to receive the reduced portions of the screws, as and for the purpose set forth.

4. The combination, with a tail piece for stringed musical instruments, of adjusting screws located in the forward face thereof near its ends, of a bridge bar supported and carried by the said horizontal adjusting screws and vertical adjusting screws located in the body section, the lower ends of the adjusting screws having buttons swiveled thereon, as and for the purpose specified.

5. In a stringed musical instrument, the combination, with a tail piece, of adjusting screws located near the forward or inner edge thereof, and disks or buttons swiveled upon the lower ends of said screws, whereby the tail piece may be raised or lowered by the manipulation of the said screws, as and for the purpose specified.

FRANK A. INGERSOLL.

Witnesses:

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