

(No Model.)

C. E. MENDENHALL & F. E. PUGH.

BRIDGE FOR GUITARS, &c.

No. 462,869.

Patented Nov. 10, 1891.

Fig. 1.

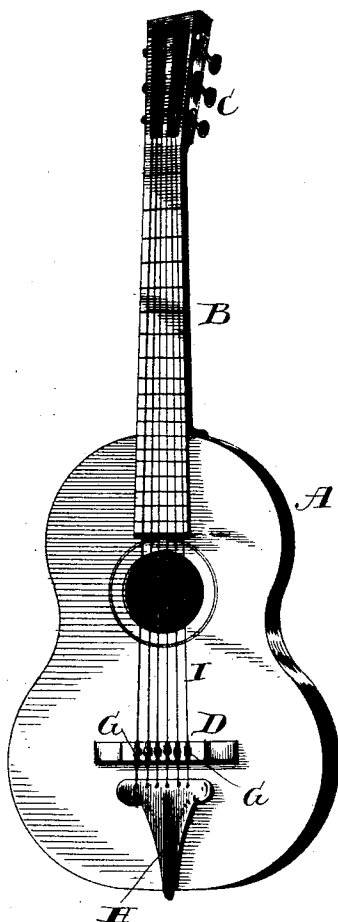


Fig. 2.

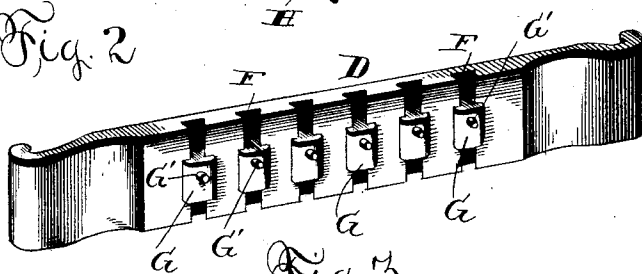
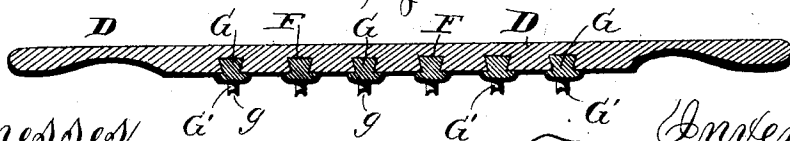


Fig. 3.



Witnesses  
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# UNITED STATES PATENT OFFICE.

CHARLES E. MENDENHALL AND FRANK ELLIS PUGH, OF VERMONT, ILLINOIS.

## BRIDGE FOR GUITARS, &c.

SPECIFICATION forming part of Letters Patent No. 462,869, dated November 10, 1891.

Application filed August 24, 1891. Serial No. 403,610. (No model.)

*To all whom it may concern:*

Be it known that we, CHARLES E. MENDENHALL and FRANK ELLIS PUGH, citizens of the United States, residing at Vermont, in the county of Fulton and State of Illinois, have invented certain new and useful Improvements in Bridges for Guitars and other Instruments; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to certain new and useful improvements in attachments for musical instruments, and it relates more particularly to guitars and other stringed instruments; and it has for its object to provide a simple and inexpensive bridge provided with a series of rests for the strings of the instrument, the number of rests depending upon the number of strings upon the instrument.

As the device is particularly adapted for use upon guitars, we have, in the accompanying drawings, shown the same in connection with a guitar and as provided with six string-rests, corresponding with the number of strings upon the instrument.

The invention has for a further and more immediate object the providing of means whereby each of the said string-rests may be quickly and easily adjusted by the player, so as to change the tone of the string passing over the rest manipulated.

To these ends and to such others as the invention may pertain the same consists in the peculiar construction and in the novel arrangement and adaptation of parts, all as hereinafter described, shown in the accompanying drawings, and then specifically defined in the appended claim.

The invention is clearly illustrated in the accompanying drawings, which, with the letters of reference marked thereon, form a part of this specification, like letters of reference indicating like parts throughout the several views, and in which drawings—

Figure 1 is a perspective view of a guitar provided with our attachment. Fig. 2 is a like view, upon an enlarged scale, of the attach-

ment removed from the instrument. Fig. 3 is a central vertical longitudinal section of Fig. 2.

Reference now being had to the details of the drawings by letter, A designates the body of the guitar, B the neck, and C C the tuning-keys, all of ordinary and well-known construction.

D represents our attachment, which consists, simply, of a flat strip of either wood or metal, which is provided at intervals within its upper face with recesses F F, which run transversely across the strip C. These recesses F are dovetailed in cross-section, as shown in Fig. 3 of the drawings, and within these dovetailed recesses are fitted the blocks G, the base portions of which are fashioned to adapt them to be fitted within said recesses and to be readily moved therein in the direction of the length of the recess. Each of the blocks G is provided with a projection or post G', which extends for a short distance above the upper face of the block, and at its upper end said post is provided with a notch or recess g.

The strip C is attached to the upper face of the guitar, as shown in Fig. 1 of the drawings, said point of attachment being adjacent to the tail-piece H, to which the lower ends of the strings I are secured. The strings are placed within the notches at the upper ends of the posts G'. By this arrangement it will be readily seen that when for any reason any one of the strings of the instrument should lose its proper tone that the length of the string may be at once adjusted by a simple movement of the adjustable block over which the said string is passed without the necessity of stopping to adjust the string by means of the regular tuning-key or screw.

It will be readily seen that by the use of a bridge such as we have described upon stringed instruments having frets, and especially upon the guitar, the difference between the elasticity of the several strings may be readily adjusted.

Theoretically the twelfth fret upon a guitar should be just one-half way between the nut at the end of the neck over which the strings pass and the elevation upon the bridge upon which they rest, in order to make the twelfth fret exactly one octave higher than the open string; but, practically, the bridge has to be a

little farther from the twelfth fret than the  
nut at the head of the instrument, and thus a  
slight distance varies with the different  
strings and also with the same string at dif-  
5 ferent times. For instance, a gut string  
placed upon a guitar with a common bridge  
will at times run sharp at the twelfth fret  
(and consequently at the other frets also)  
when the string is new, and the same string,  
10 when it has become softened with use, will  
run flat upon the same guitar. By varying  
the length of the string by our improved slides  
the strings may be all caused to run perfect,  
thus making the guitar a perfect instrument.  
15 Having thus described our invention, what  
we claim to be new, and desire to secure by  
Letters Patent, is—

The combination, with the instrument, its  
strings, tuning screws or keys, and tail-piece,  
of the strip D, attached to the upper face of 20  
the instrument beneath the strings and adja-  
cent to the tail-piece, said strip having trans-  
verse grooves, as described, of the movable  
string-rests seated within said grooves and  
forming rests for the strings, substantially as 25  
and for the purpose described.

In testimony whereof we affix our signatures  
in presence of two witnesses.

CHARLES E. MENDENHALL.  
FRANK ELLIS PUGH.

Witnesses:

ALEX. SEXTON,  
BUN WITCHELL.