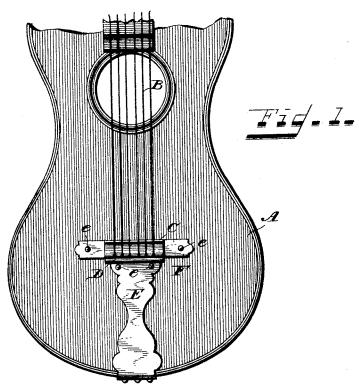
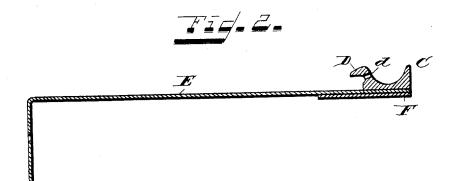
(No Model.)

## C. F. GEIGER. GUITAR.

No. 454,905.

Patented June 30, 1891.





J. Thomson Cross

Enventor. Charles Heiger & Frank O. Loveland his Attorney.

## UNITED STATES PATENT OFFICE.

CHARLES F. GEIGER, OF CINCINNATI, OHIO, ASSIGNOR TO THE JOHN CHURCH COMPANY, OF SAME PLACE.

## GUITAR.

SPECIFICATION forming part of Letters Patent No. 454,905, dated June 30, 1891.

Application filed February 9, 1891. Serial No. 380,831. (No model.)

To all whom it may concern:

Be it known that I, CHARLES F. GEIGER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented a new and useful Improvement in Guitars, of which the following

is a specification.

When the strings of a guitar are attached directly to the bridge-piece on the sounding10 board, there is a tendency to lift the piece from its seat or to warp the sounding-board when the strings are made taut. This is especially true when steel strings are used, as the strain of metal strings is much greater than that of gut strings. It is therefore desirable to have the strain of taut strings on some other part of the instrument than the middle of the sounding-board, and a better tone is produced when the strings are at20 tached to the bridge-piece near the bridge.

By employing my invention all of the advantages derived from attaching the strings near the bridge and relieving the bridge-piece from the strain of taut strings by removing 25 it to the sides of the guitar are obtained.

My invention consists in a combined bridge and tail-piece for guitars and other instruments, hereinafter described and claimed.

Referring to the drawings, Figure 1 is a top 30 view of a portion of a guitar provided with my improved bridge and tail-piece. Fig. 2 is a longitudinal section of the bridge and tail-piece.

A is a sounding-board of a guitar; B B, the strings; C, a bridge, preferably of metal, having a lip D, provided with eyelets dd, in which one end of the strings is fastened by knots or otherwise. The lip is curved over to conceal the knots from view, as shown in Fig. 2. I prefer to make this lip and bridge in one

solid piece.

E is a tail-piece of any desired pattern rigidly secured to the bridge and extending in the opposite direction from the strings 45 and taking over the end of the sounding-board. The strain of the strings, although attached immediately behind the bridge, is from the end of the guitar, and therefore does not tend to lift the bridge from its seat or 50 warp the sounding-board.

F is a metal plate rigidly secured to the bridge, and by means of which the bridge is attached to the sounding-board by screws ee taking through it into the sounding-board. A block or stay may be placed under the sound- 55 ing-board to receive these screws when a very thin board is used. This plate, being underneath one end of the tail-piece, raises the tailpiece out of contact with the sounding-board and permits a full, clear, and pure tone of 6c the instrument without rattling. I prefer to make the bridge, tail-piece, and plate in separate pieces and rigidly secure them together by soldering or riveting afterward, and any two or all of them may be made in one 65 piece, if desired. In attaching the tail-piece and bridge to a guitar the bridge is placed in its proper position on the sounding-board and the tail-piece then bent over the end of the sounding-board. Thus it is evident that any 70 tail-piece may be readily adjusted to any guitar.

I claim-

1. The combination, in a guitar, of a sounding-board, strings, a lip for fastening one end 75 of the strings, a bridge, and a tail-piece rigidly secured thereto and taking over the end of the sounding-board, substantially as and for the purpose specified.

2. The combination, in a guitar, of a sound- 80 ing-board, strings, a bridge provided with a lip adapted to secure one end of the strings, a bridge, a tail-piece secured thereto and taking over the end of the sounding-board, and a plate, substantially as and for the purpose 85

specified

3. The combination, in a guitar, of a sounding-board A, strings B, a bridge C, having a curved lip D, provided with eyelets d d, a tail-piece E, rigidly attached to said bridge 90 and taking over the end of the sounding-board, and a plate F between said tail-piece and the sounding-board, substantially as and for the purpose described.

CHAS. F. GEIGER.

Witnesses:
Louis Cook,
Geo. B. Jennings.