(No Model.)

F. A. CROSS.

STRINGED MUSICAL INSTRUMENT.

No. 475,541. Patented May 24, 1892.

Fig. 1.

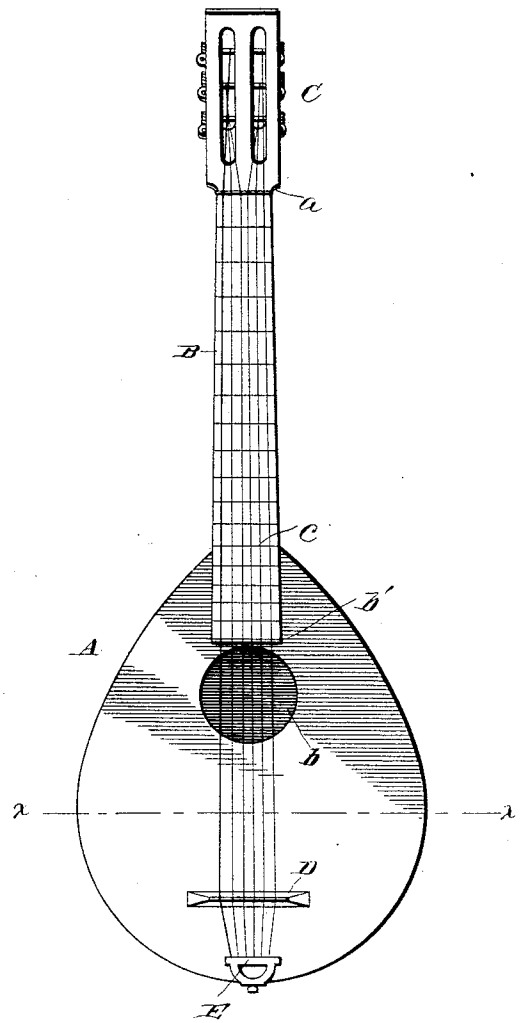
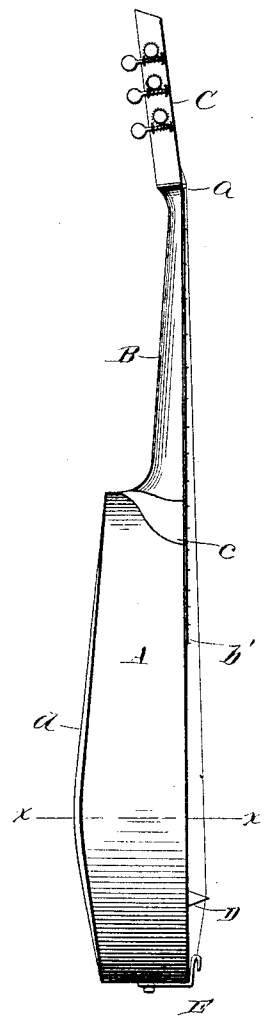


Fig. 2.



Witnesses:
C. B. Donaldson.
J. C. Robinson Jr.

Inventor:
Fredrick A. Cross,
by John E. Jones,
Attorney.

UNITED STATES PATENT OFFICE.

FREDRICK A. CROSS, OF CINCINNATI, OHIO.

STRINGED MUSICAL INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 475,541, dated May 24, 1892.

Application filed January 23, 1892. Serial No. 419,009. (No model.)

To all whom it may concern:

Be it known that I, FREDRICK A. CROSS, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented a certain new and useful Improvement in Stringed Musical Instruments, of which the following is a specification.

My invention relates to that class of stringed instruments known as "guitars," "mandolins," and the like, in which the strings are "picked" by the performer and a hollow body with a sound-board is used; and it consists in certain details of construction, which will be fully hereinafter described, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of my invention in its preferred form and about one-fourth the actual size, and Fig. 2 a longitudinal side elevation thereof.

A represents the body; B, the neck; C, the wrest-bar or head supplied with the usual keys or pegs; *a*, the customary transverse bar or nut at the upper end of the neck, where the latter joins the head; D, the bridge, and E the tail-piece secured to the rear end of the body. Six strings are used, the same as in the guitar, and are each attached at one end to the tail-piece E and at the other end to the respective keys in the head C, by which they are tightened and tuned to the proper pitch, as usual. I prefer to make the body pear shape in plan, the face or sounding-board being flat and provided with the usual sound-opening *b* near its fore end and adjacent the inner end of the finger-board *b'*, which latter projects beyond the neck downward on the sound-board up to a line with the fret *c*, this fret being the twelfth one of the usual series from the top or upper end of the finger-board. The distance between the said twelfth fret *c*, which lies at a point on a line with the junction of the neck and body, and the nut *a* corresponds with that between said fret and the bridge, and this proportion or relation is maintained in all sizes of my instruments. The back or bottom of the body has a slight downward or outward curve or bow, as shown at *d*, to give it a graceful appearance, and also the desired strength and stiffness. I swell the body and give it the greatest depth and width at a point (indicated by dotted lines *x x*, Figs. 1 and 2) which is two-thirds the distance rearwardly between its fore and rear ends, or, more strictly speaking, between said twelfth fret *c* at its fore end and its extreme rear end, thereby enabling the instrument to send forth or emit a more resonant sound than possible heretofore in guitars or other similar instruments.

It will be seen that the neck of the instrument is made similar to that of the ordinary guitar, but much shorter, and the body similar to that of the mandolin, except in depth and general shape below the sound-board, the sound-boards in both my instrument and the mandolin being similar in plan or outline. Thus the shortened guitar-neck with my body having its peculiar swell at *x x* enables the use of such length of strings which are shorter than in the guitar, so that the instrument may be readily tuned to F for concert use, while guitars, banjos, and other similar instruments are peculiarly adapted to C only, on account of the length of their strings. An instrument at once separate and distinct is thus produced which in concert plays or intervenes between the guitar and mandolin, on account of its soft and especially rich and melodious tone, which is much softer and sweeter than that of the guitar and said other similar instruments.

The swell on line *x x* is produced by constructing the body with its sides and back retreating from said point or line upwardly, both forwardly and rearwardly, and is one of the important features of my invention, especially its said position, for the reason that the vibrations of sound caused by the picking of the strings are condensed at that point and properly carried to the sound-opening and emitted with great resonance therefrom.

The shortening of the neck and the peculiar shallow pear-shape body, together with the proportions and relations of parts, as herein shown and described, are very important features, that enable the instrument to be made to suit the user, whether man, woman, or child, and the bridge for the strings is made adjustable back and forth on the sound-board to change the pitch, as desired.

It is obvious that it is not essential or imperative to use six strings, as shown in Fig. 1, as the number may vary either greater or less, as the demands may require.

I claim—

1. In a stringed musical instrument, a shallow body pear-shaped in plan and having a swell therein and its greatest depth and width two-thirds the distance between its fore and rear ends, and a shortened neck whose junction with said body is at a point in line with the twelfth fret from the nut or head, the distance between said twelfth fret and nut corresponding with that between said fret and the bridge, whereby a compact and convenient instrument of great resonance and sweetness is produced, substantially as herein set forth.

2. In a stringed musical instrument, a shallow body A, pear-shaped in plan and having a swell therein and its greatest depth and width at a point *x x*, which is two-thirds the distance rearwardly between its fore and rear ends, substantially as herein set forth.

In testimony of which invention I have hereunto set my hand.

FREDRICK A. CROSS.

Witnesses:
JOHN E. JONES,
B. F. HARPER.