

(No Model.)

F. B. BREMERMAN.
NECK FOR MUSICAL INSTRUMENTS.

No. 600,507.

Patented Mar. 15, 1898.

Fig. 1.

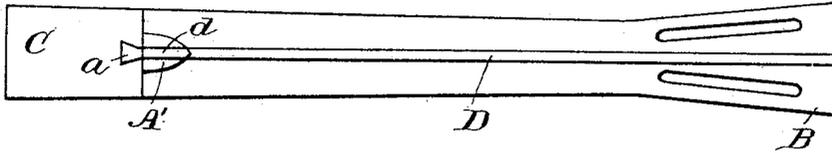


Fig. 2.

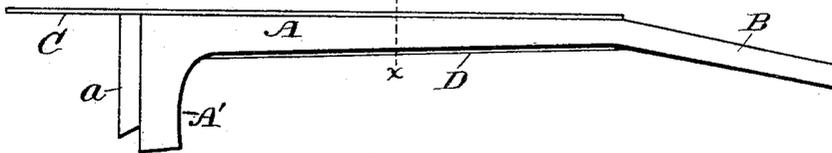


Fig. 3.

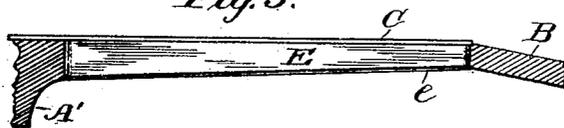


Fig. 4.

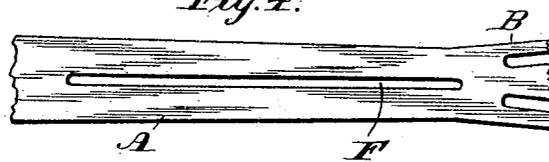


Fig. 5.

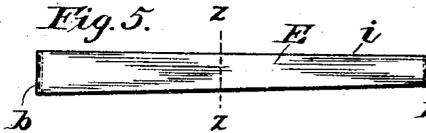


Fig. 10.



Fig. 6.

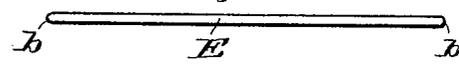


Fig. 7.

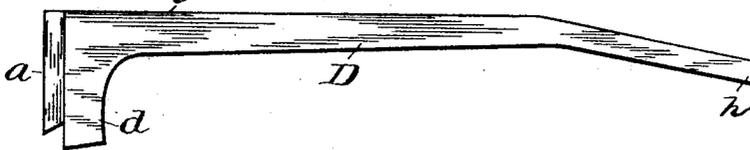


Fig. 8.



Witnesses:

Wm. H. Payne.
C. E. Doll.

Inventor:

F. B. Bremerman.

By C. F. Silvis
Attorney.

UNITED STATES PATENT OFFICE.

FRANK B. BREMERMAN, OF INDIANAPOLIS, INDIANA.

NECK FOR MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 600,507, dated March 15, 1898.

Application filed August 21, 1897. Serial No. 648,998. (No model.)

To all whom it may concern:

Be it known that I, FRANK B. BREMERMAN, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Necks for Musical Instruments; and I 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.

My invention relates to such stringed musical instruments as guitars, banjos, violins, mandolins, and the like; and it consists in a neck therefor peculiarly constructed in a novel manner whereby the maximum strength is obtained and in the parts and combination thereof embodied in the details of construction, as will be fully set forth hereinafter and claimed. In instruments of this class heretofore produced the neck is liable to bend and twist out of its proper shape and alinement when under the strain of the strings, and this is especially troublesome when the neck is made of soft wood, as is usual in their construction. My object is to eliminate this evil and provide a neck of such strength as will resist the greatest strain that may be put upon it in practical use, while at the same time adding to its attractiveness. I attain this in my invention, which is furthermore useful in preventing the indentations which mar the beauty of the under side, caused by clamping attachments thereto. My invention is cheaply constructed, of simple form, and is durable in use.

Referring to the drawings, Figure 1 represents a bottom plan view of a guitar neck and head embodying my improvements; Fig. 2, a side elevation; Fig. 3, a longitudinal central section of a portion of neck in which a side view is shown of my inserted strengthening-piece, being a modification of the device; Fig. 4, a top plan of a portion of neck; Fig. 5, an elevation, and Fig. 6 a top view of the strengthening-piece detached; Fig. 7, an elevation, and Fig. 8 a bottom plan of the strengthening-piece as I preferably construct it; Fig. 9, a transverse sectional view on the

line xx of Fig. 2, and Fig. 10 a transverse sectional view on the line zz of Fig. 5.

In the drawings, A designates the neck; A', the shoulder or "drop;" B, the head; C, the finger-board; D and E, the strengthening-piece, and a the dovetail.

In construction the neck is formed in the usual way of suitable material and adapted with the head to such instrument to which it is to be applied. It is then divided longitudinally by a cut made centrally and vertically to the plane of the top surface, so as to form two equal parts. If desired, the two parts may be formed separately to utilize smaller pieces or for arranging the grain of the wood to the best advantage, or a vertical slot or mortise F may be cut through the neck to make room for the strengthening-piece, leaving the ends integrally attached.

The strengthening or center piece D or E is formed of ivory, ebony, or other hard wood, or other suitable material, such as aluminium, of the same contour as the neck, having the end h conforming to the head and in some instruments being shorter than shown. The opposite end in some cases has a drop or shoulder d conforming to the side pieces, and at the back of that is preferably an integral dovetail a to engage the block usually secured within the body of the instrument. Between the head and shoulder the center piece is deeper than the side pieces extending below, as shown at e , Figs. 3 and 9, and this portion which protrudes is preferably semicircular in cross-section. The center piece is inserted between the two side pieces, so that the top edge i is flush with the top of the sides upon which the finger-board rests. The three parts are securely glued or cemented together, so as to form a compound neck. This provides greater strength at the dovetail than can be obtained when the dovetail is composed of the soft wood forming the body of the neck. The center piece may be of any suitable thickness measured transversely, being designed for vertical stiffness and to resist the tendency to twist under unequal strain of the thick and thin strings.

When desired I form the center piece of such length as to extend only from the back of the head through the neck to the front of the shoulder, in which case it is approximately

like that shown in Figs. 5, 6, and 10, having rounded ends *b b*, and it is inserted into a mortise *F*, cut through the neck. This is equally well adapted for the smaller instruments.

I am aware that it is old to form various articles of glued-up strips of wood, and I do not claim such construction broadly; but I am not aware that the particular form and construction shown herein has ever been used, and its utility is obvious.

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

1. A neck for musical stringed instruments consisting of two side pieces of wood and a central piece of harder material set and secured between and extending through the length of the neck and head and having a dovetail at the rear end of said central piece engaging a companion dovetail within the body of said instrument, said central piece being of greater depth than said side pieces and protruding below the same, substantially as shown and described.

2. In a musical stringed instrument, the combination of a built-up compound neck consisting of two side parts adapted to abut against the body of the instrument and provided with a head arranged to receive string-keys, and a center piece conforming in contour at top and bottom to said side parts but of greater depth vertically, protruding below throughout the length of the neck portion and provided at its rear end with a dovetail engaging a reinforcing-piece within the body of said instrument, said center piece being rigidly secured between said side parts, substantially as shown and described.

3. In a musical stringed instrument, the combination of the neck consisting of the side parts *A* having the drop *A'* and a suitable head, and the center piece *D* terminating at its rear end in the dovetail *a* and conforming to the contour of said side parts but of greater vertical depth and secured rigidly between said side parts to form a compound neck, substantially as shown and described.

4. In a neck for stringed musical instruments, the combination of the side parts *A* having a suitable head adapted to receive

tension-keys, and the center piece *D* composed of harder material and provided with the dovetail adapted to engage the body of an instrument, said side parts and said center piece being rigidly secured together and conforming in contour, substantially as shown and described.

5. In a musical instrument of the class described, the combination of the divided neck *A* comprising the body portion, the vertically-unyielding center piece *D* conforming thereto and inset and secured rigidly between the two divided parts of said body portion and provided with the integral dovetail at the rear end thereof, substantially as shown and described.

6. In a musical stringed instrument, a neck provided with a longitudinally and vertically extending plate or piece centrally secured therein to the portions of the neck at each side thereof and with its edge extending below the neck of the instrument to form a protecting-rib, substantially as shown and described.

7. In a musical stringed instrument, the combination of a built-up or compound neck consisting of two side parts adapted to abut against the body of the instrument and provided with a head arranged to receive string-keys, and a center piece conforming in contour at top and bottom to said side parts but of greater depth vertically protruding below the side parts to form a protecting-rib, said center piece being rigidly secured between said side parts to the adjoining sides thereof, substantially as shown and described.

8. In a musical stringed instrument of the class described, the combination with the neck, of the central piece composed of unyielding material extending longitudinally and vertically and secured therein to the portions of the neck at each side thereof and provided with the integral portion extending below the side portions to form a protecting-rib, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK B. BREMERMAN.

Witnesses:

E. T. SILVIUS,

J. WILL. CALLAHAN.