May 8, 1928.

1,668,832

J. C. SWANSON

VIOLIN

Filed Nov. 25, 1921

2 Sheets-Sheet 1

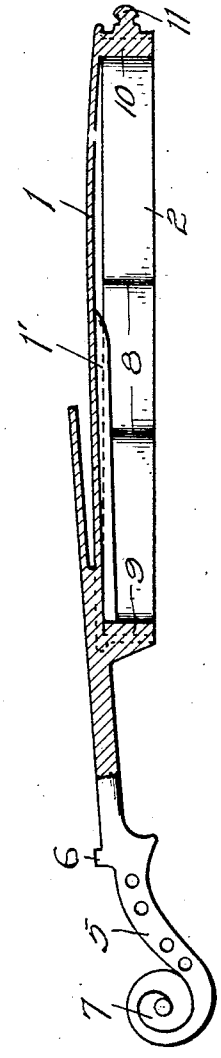


Fig. 1.

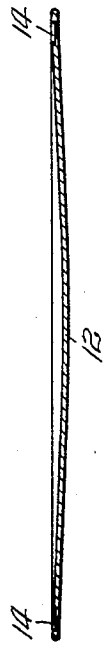


Fig. 2.

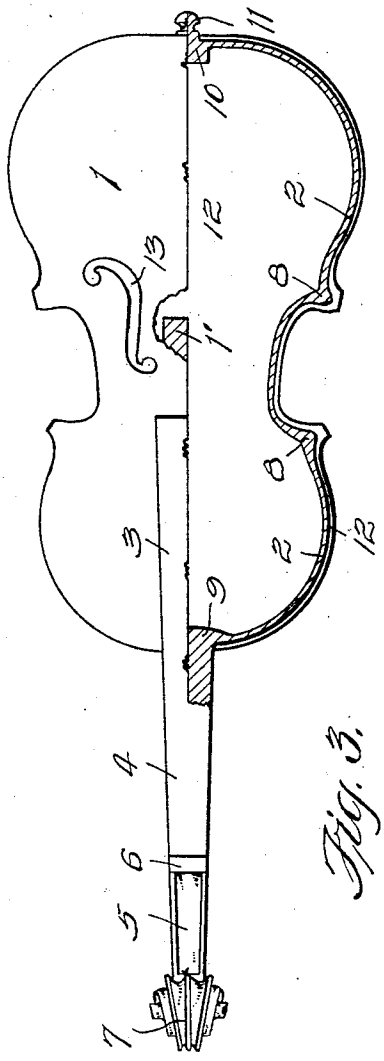


Fig. 3.

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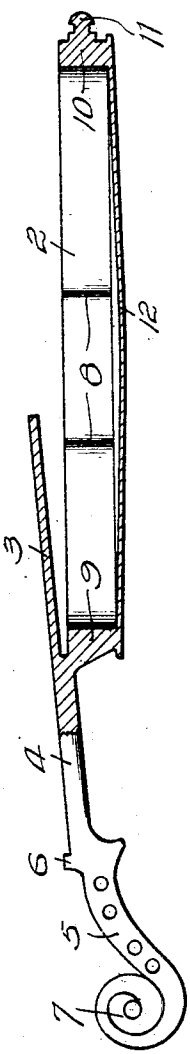


Fig. 4.

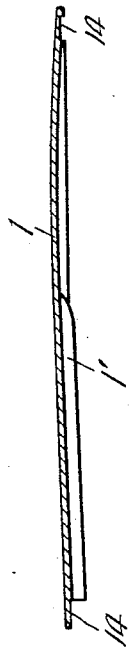


Fig. 5.

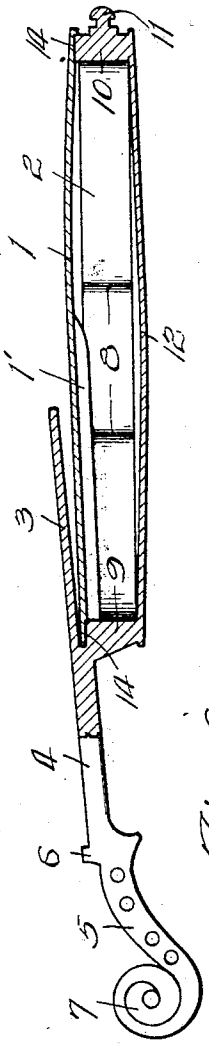


Fig. 6.

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Patented May 8, 1928. 1,668,832

UNITED STATES PATENT OFFICE.

JOHN C. SWANSON, OF ST. LOUIS, MISSOURI.

VIOLIN.

Application filed November 25, 1921. Serial No. 517,549.

My invention relates to certain new and useful improvements in the manufacture of violins and similar stringed musical instruments, and, is a distinct and practical tested improvement to overcome certain important practical objections to, and defects in, violins and similar stringed musical instruments made from many separate and distinct pieces that are glued together.

The method of constructing violins and similar stringed musical instruments heretofore has been, as is manifest, to assemble a great number of separate and distinct parts and fasten them together by means of glue, and, the object of my present invention is to construct a violin or similar stringed instrument of but two pieces presenting the same arched and curved appearance in all directions as the instrument constructed of many separate and distinct parts.

With the above and other objects in view, the invention consists in the novel features of construction, arrangement and combination of parts hereinafter described and finally pointed out in the claims hereto appended.

Referring to the accompanying drawings forming a part of this specification wherein like characters of reference denote similar parts throughout the several views:

Fig. 1, is a view partly in side elevation and partly in sectional elevation of the upper section of a violin constructed in accordance with my invention.

Fig. 2, is a sectional view of the removable back of the instrument.

Fig. 3, is a front plan view of the violin with a portion of the top and finger board broken away to show the end blocks.

Fig. 4, is a view partly in side elevation and partly in sectional elevation of a modified form of violin with the top removed.

Fig. 5, is a sectional elevation of the removable top plate.

Fig. 6, is a view similar to Fig. 4, but showing the top plate assembled in position.

In carrying out the aim of my present invention, I will now describe what I call the first part of the violin.

The first part of the violin consists of a sounding body comprising the top plate, table, or belly 1 having the bass bar 1′, the rim, ribs or sides 2, the neck 4, the finger board 3, the key box 5, the nut 6, the scroll 7, the corner blocks or reinforcements 8 and the forward and rear end blocks 9 and 10, respectively, and the tail peg member 11. From an examination of Fig. 1, it will be observed that all of these parts are formed from a single piece of wood thus obviating the necessity of gluing separate and distinct pieces together, as is manifest.

The second part of the violin consists of a suitable back 12 which is glued to the ribs 2 in the usual well known manner.

By having the top, bass bar, ribs, neck, finger board, key box, saddle, corner blocks and end blocks formed from a single piece of wood so they are continuous, it is evident that according to the science of acoustics, this construction tends to make the instrument more sonorous and resonant than instruments made up of many parts and glued together, which glue acts as a damp or hindrance to the vibrations or sound waves.

In the modified form of violin shown, it will be seen that I have merely reversed the top 1 and back 12, that is top 1 is removable and back 12 is an integral part with the ribs 2 and its associated integral parts, namely, the neck 3, finger board 4, key box 5, nut 6, scroll 7, corner blocks 8, end blocks 9 and 10 and tail piece 11. The top 1 in both styles is provided with the usual sound openings 13. The back, when removable, and also the top, when removable, is provided with a groove 14 to receive the ribs which act as tongues, as is manifest.

I am aware that in the old method of constructing a violin that it is generally believed necessary to have the top, table or belly of pine wood, while from tests I do not now agree in this belief. I do wish to call attention to the fact that I have shown the modified form of instrument so that the top may be made from pine wood and the remainder of the violin of harder wood, such as maple. I am also aware that finger boards are generally made of ebony wood, as well as the nut, and, wish to call attention to the fact that the neck, finger board, ribs and back are integral, or made from one piece of material with no glue joints. The same may be treated by any well known process to harden, preserve and beautify same without any danger of falling to pieces as would a violin constructed in the old way.

From the foregoing description, it is apparent that I provide an instrument constructed in accordance with my invention which is not liable to be affected by atmospheric changes such as cause stringed instru-

ments, such as violins, to warp, breaking the strings and very often pulling the instrument apart. The instrument is very durable on account of having eliminated all glued joints, but one. The top or table is not subject to sinking, as it is cut or carved from wood instead of being pressed or moulded.

From the foregoing description, the many advantages of the herein described invention will readily present themselves to those skilled in the art to which it appertains.

I do not wish to be understood as having limited myself to the details of construction shown and described, but desire to have it understood that the invention I have shown in the drawings is merely illustrative, as it is manifest that various minor changes may be made in the exact construction and particular arrangement of parts without departing from the spirit of my invention, hence I reserve the right to make any such changes, or modifications as may fairly fall within the scope of the appended claims when fairly construed.

What I claim is:

1. A violin having its top, sides, bass-bar, end blocks, corner reinforcements, tail-peg, neck, finger-board, nut, key box and scroll carved from a single piece of hard wood and a back having a marginal groove fitted and secured to the lower face and edge of the sides, end blocks and corner reinforcements.

2. In a violin, a top member, a rim member directed downwardly therefrom, a forward and a rear end block member, a bass-bar corner reinforcement for the rim member, a tail peg member, a neck member, a finger board member, a nut member, a key box member and a scroll member all carved from a single piece of hardwood, and a single back member removably secured to the lower faces of the rim member, end block members and the corner reinforcements of the rim member.

In testimony whereof, I have hereunto signed my name to the specification.

JOHN C. SWANSON.