

April 4, 1961

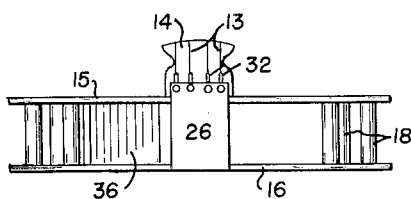
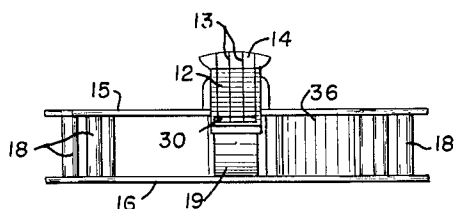
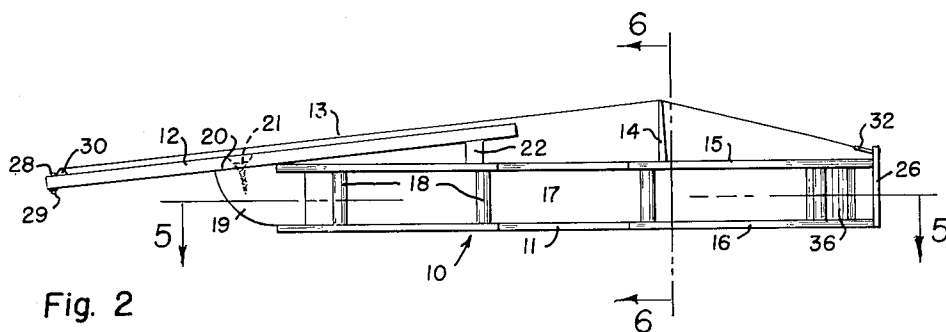
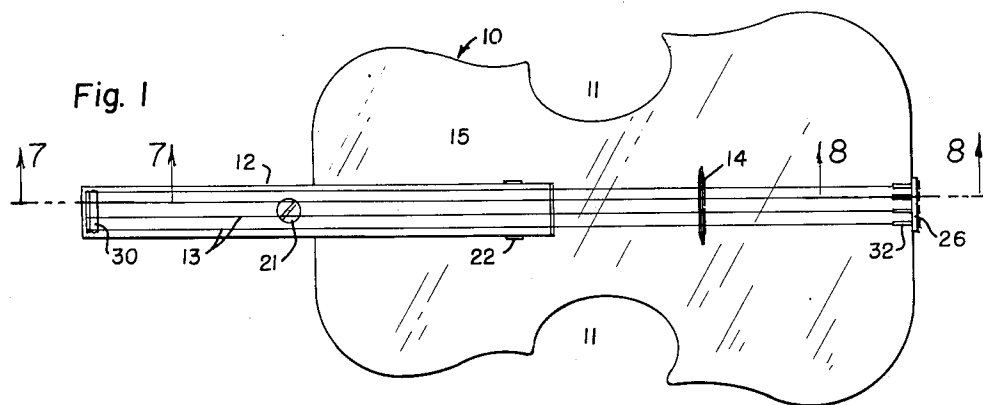
R. L. HORNSETH

2,977,835

VIOLIN

Filed Sept. 17, 1956

2 Sheets-Sheet 1



INVENTOR.
Robert L. Hornseth
BY WHITEHEAD, VOGL & LOWE
PER *Frank C. Lowe*
ATTORNEYS

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R. L. HORNSETH

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2 Sheets-Sheet 2

Fig. 5

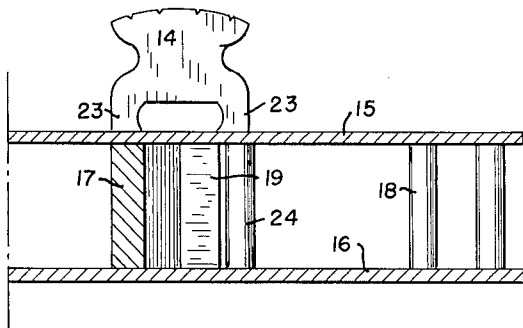
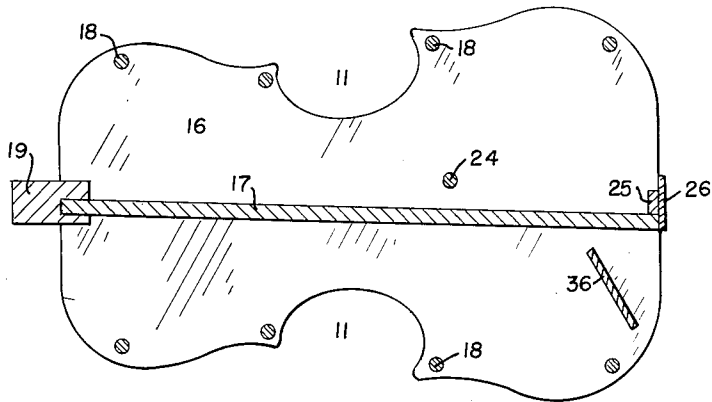


Fig. 6

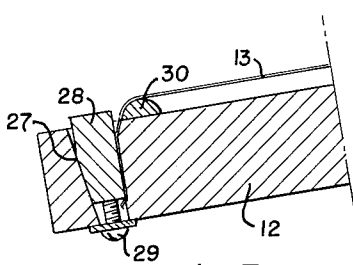


Fig. 7

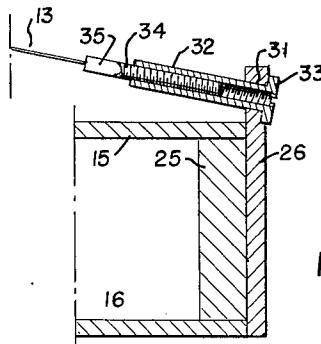


Fig. 8

INVENTOR.
Robert L. Hornseth
BY WHITEHEAD, VOGL & LOWE
PER *Frank C. Lowe*
ATTORNEYS

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2,977,835

VIOLIN

Robert L. Hornseth, 419 Van Buren St., Pueblo, Colo.

Filed Sept. 17, 1956, Ser. No. 610,165

2 Claims. (Cl. 84—275)

This invention relates to violins, viols and similar stringed musical instruments and more particularly to an improved construction of a violin-like musical instrument which will be hereinafter described and referred to as such, although it is to be understood that the invention may be incorporated into other similar stringed musical instruments.

An object of the invention is to provide a novel and improved violin which is a substantial simplification over conventional violin constructions and permits low cost production of high quality units.

Another object of the invention is to provide a simplified and improved violin which nevertheless retains the high tone quality found in the better types of conventional violins.

Another object of the invention is to provide an improved simplified low cost violin which is especially adapted to be used en masse as a practice instrument for schools and for similar purposes.

Yet other objects of the invention are to provide a novel and improved violin of simplified construction which may be of ordinary wood veneer or sheet plastics, is neat appearing, and is a rugged durable unit.

With the foregoing and other objects in view, all of which more fully hereinafter appear, my invention comprises certain new and improved constructions, combinations and arrangements of parts and elements as hereinafter described and as defined in the appended claims and illustrated in preferred embodiment in the accompanying drawing, in which:

Figure 1 is a plan view of the improved violin as being stringed and ready for use;

Figure 2 is a side elevation view of the violin;

Figure 3 is an end elevation view as from the finger board end of the violin;

Figure 4 is an end elevation view from the base end of the violin;

Figure 5 is a sectional plan as taken from the indicated line 5—5 at Fig. 2;

Figure 6 is an enlarged fragmentary sectional detail as taken from the indicated line 6—6 at Fig. 2;

Figure 7 is an enlarged fragmentary sectional detail as taken from the indicated line 7—7 at Fig. 1;

Figure 8 is an enlarged fragmentary sectional detail as taken from the indicated line 8—8 at Fig. 1.

The violin is an easy instrument for many people to play, and it is capable of producing high quality music providing the instrument is properly built and of the right material. However, a first class instrument is comparatively expensive, and the cheaper instruments are often devoid of good tone quality to the point where it becomes undesirable to play them. It follows that a more wide spread general use of such an instrument is limited because high quality instruments are expensive, and many people who would like to play a violin occasionally for a pastime do not care to make the investment of purchasing a high quality instrument which will give the desired results.

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There is also a definite need for a good low cost violin for groups of people, such as in music classes of grade and high schools and of various conservatories where part of a student's general training is to acquire some skill on the violin. The need is to provide an instrument which the student can easily afford which, nevertheless, has a good tonal quality and will produce results that the player will appreciate.

With such in view, the present invention was conceived and developed and comprises, in essence, a simplified construction of a violin to provide a unit which eliminates non-essential elements of conventional violins, yet which retains elements that provide for good tonal qualities. The invention was brought about by the discovery of a selected arrangement of elements forming such material simplification over a conventional violin as hereinafter described in detail.

Referring more particularly to the drawing, my improved violin is built in a manner which includes an open body 10 having the general box-like appearance of a conventional violin and in plan, presents a generally conventional pair of sections defined by side indentations or bouts 11.

A finger board 12 extends from the end of the body to carry a set of strings 13 which reach from the extended end of the finger board to extend over a bridge 14 upstanding from the upper surface of the body 10 and to the base end of the violin the generally conventional arrangement, although these strings are held in a simplified and improved manner as hereinafter described.

A body 10 includes a pair of panels, a top panel 15 and a bottom panel 16 which lies in spaced parallelism. Each panel is shaped substantially the same as the other, and they are arranged with bouts 11 as hereinbefore described, to attain the configuration of a conventional violin. In preferred embodiment they are illustrated as being flat but each panel may be warped to provide opposing dish-like shapes, not shown, but which are somewhat the same as that of a conventional violin. The bouts 11 function in the same manner as those of a conventional violin and are offset toward one end of the panels to provide for areas which form different tone registers, the smaller area near the finger board being for higher tones and the larger area at the base end being for lower tones.

The panels 15 and 16 are held apart in spaced parallelism by a central longitudinal upright rib 17 and by spacer columns 18 at the rim edges of the panels. The edges of the rib 17 are glued or otherwise integrally secured to the inner surfaces of the opposing panels while the ends of the spacer columns 18 which are likewise pinned, glued or otherwise integrally affixed to each panel. It was found that a desirable arrangement included eight such columns as illustrated, and these columns 18 hold the rim edges of the panels in a selected fixed spacing without enclosing the body of the unit and function the same as that of the sidewalls of a conventional violin.

The finger board 12 is carried upon an abutment 19 at that end of the rib 17 adjacent the finger board, and this abutment is formed as a widened portion of the strut which extends beyond the end of the panels to turn upwardly and provide a slightly inclined landing 20, whereupon the finger board 12 is set and affixed as by a screw 21 to extend outwardly beyond the end of the body 10 and over the top panel 15.

This connection to the abutment is approximately at the center of the finger board, and one end thereof extends outwardly beyond the violin body while the other end extends upwardly and over a portion of the panel 15. The finger board portion over the panel is spaced thereabove, and a spacer block 22 is set underneath the end of the finger board and upon the top panel 15 at a point which

is in substantially transverse alignment with the edge of the bouts 11.

The construction of the violin, by so integrating the finger board 12 with the longitudinal strut 17 at the abutment and at the block 22 as hereinabove described, provides a rigid unit which effectively opposes the stresses of taut violin strings and at the same time, which avoids stressing and warping of the top and bottom panels because of the tension of the strings.

The use of a conventional bridge 14 with a pair of spaced supporting feet 23, which rest upon the surface of the top panel 15 necessitates supporting the top panel 15 immediately underneath the feet 23. To accomplish this, the rib 17 is offset a selected distance to be directly under one foot 23, preferably the foot at the G-string position while a column 24 is set between the panels 15 and 16 directly under the other foot 23.

The end of the rib 17 at the base of the violin is reinforced by an abutment 25 which stands between the top and bottom panels 15 and 16. This abutment secures the edges of the panels to the end of the rib and holds a string-retaining back plate 26 at the base of the violin which extends upwardly above the top panel 15 with orifices therethrough for holding strings as hereinafter described.

The strings of the violin are fixedly secured or anchored to the extended end of the finger board in any desired manner as, for example, in a tapered pocket 27. A lock block 28 of similar configuration which may carry the strings is pulled in this pocket pulling the strings with it as by a set screw 29, all as illustrated clearly at Fig. 7.

From this anchored end the strings extend over a bridge 30 which lies across the finger board 12 adjacent to the pocket 27, and the strings then extend in spaced relationship above the finger board along and to the bridge 14 which upstands from the top panel in conventional manner. Thence the strings extend downwardly toward the back plate 25 where they are adjustably secured for proper tuning.

An orifice 31 extends through the back plate 26 for each string 13 and carries an internally threaded lug 32 having a slotted head 33 therein. Each lug is adapted to receive an externally threaded shank 34 attached to the end of a string 13 which is adapted to be pulled into the lug for adjustment of string tension. The shank 34 includes a flat 35 so that it may be held as by pliers while the lug 31 is being turned to any desired degree of string tightness. It follows that with this arrangement the relatively expensive scroll and string adjusting pegs of a conventional violin at the end of the finger board are completely eliminated, because this simplified arrangement is as fully effective to properly stretch and tune the strings as is the conventional more elaborate unit.

As a further refinement to the invention a short reinforcing wall 36 is placed between the top and bottom panels 15 and 16 at the base of the violin at the side where the players' chin will normally rest. This is desirable to hold the top and bottom panels 15 and 16 apart without undue flexure or strain because of pressure a player may exert by gripping his chin against the violin.

This violin may be played in the manner of a conventional violin, and the tuning of the strings will likewise be the same. The top and bottom panels 15 and 16 with their bouted configuration will vibrate in resonance with the tones of the strings and bring out desired tonal qualities the same as in a conventional violin, even though the panels 15 and 16 are not enclosed by side plates in the conventional manner.

It was discovered that a violin built in the manner hereinabove described could be made of relatively cheap material such as plywood or sheets of plastic, that these materials would effectively respond to tonal resonance in a satisfactory manner, and that the instruments could be made en masse with comparatively cheap, easily worked material.

While I have described my invention in detail, it is obvious that others skilled in the art may devise alternate and equivalent constructions which are within the scope and spirit of my invention. Hence, I desire that my protection be limited not by the constructions and details herein illustrated and described but only by the proper scope of the appended claims.

I claim:

1. A body for a viol-type string instrument, comprising a pair of flat panels arranged in spaced parallelism to form a top panel and bottom panel, a longitudinal rib extending therethrough between the panels near the longitudinal axis thereof, with each longitudinal edge of the rib contacting a panel along its entire length and being securely affixed throughout its entire length of contact to the inner surface of a panel to thereby secure the top and bottom panels together.

2. A body for a viol-type stringed instrument, comprising a pair of flat panels arranged in spaced parallelism to form a top panel and a bottom panel, a longitudinal rib extending therethrough between the panels near the longitudinal axis thereof, with each longitudinal edge of the rib being affixed to the inner surface of a panel along the entire length of the rib to secure the panels together and a spaced array of spacer columns about the body between the panels near the rim edges thereof adapted to supplement the longitudinal rib in holding the panels in spaced parallelism.

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