

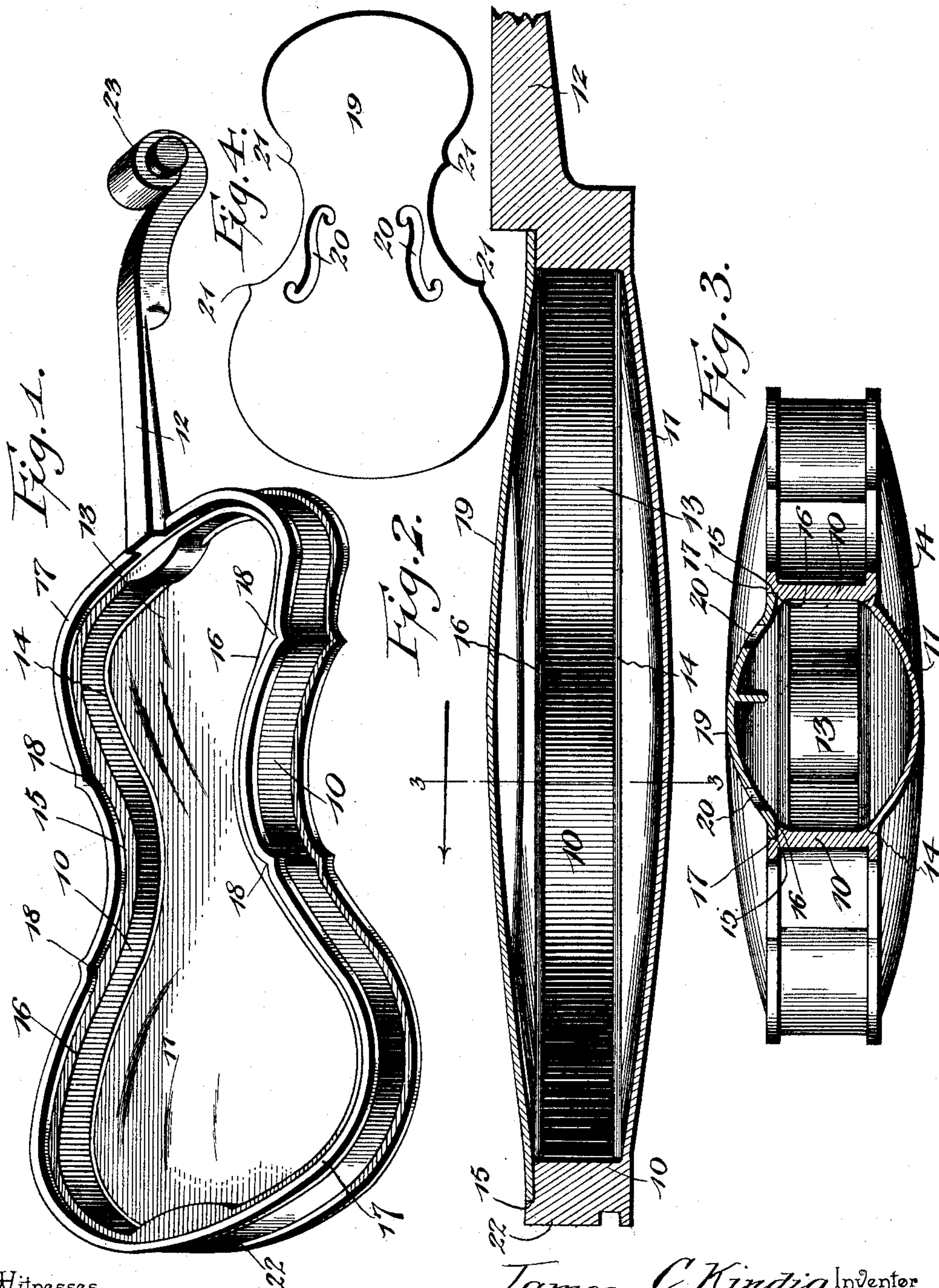
No. 629,374.

Patented July 25, 1899.

J. C. KINDIG.  
VIOLIN.

(Application filed Sept. 6, 1898.)

(No Model.)



Witnesses

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# UNITED STATES PATENT OFFICE.

JAMES C. KINDIG, OF KANSAS CITY, MISSOURI.

## VIOLIN.

SPECIFICATION forming part of Letters Patent No. 629,374, dated July 25, 1899.

Application filed September 6, 1898. Serial No. 690,290. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES C. KINDIG, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented a new and useful Violin, of which the following is a specification.

My invention relates to improvements in violins, guitars, mandolins, and analogous stringed musical instruments; and the object in view is to improve the construction by dispensing with the number of parts ordinarily employed in the manufacture of the body and the number of glue-joints which unite the parts of the body and the neck together, such glue-joints being liable to give way in the ordinary instrument.

Further objects of the invention are to simplify and cheapen the construction, to render it more durable, and to increase the volume of the sound, and, furthermore, to protect the edges of the soft-wood top or sound-board by a flange of the hard-wood rim.

In the common method of making the bodies and necks of stringed musical instruments of the class to which this improvement relates it is the practice to make the body of a number of pieces, which are bent to the desired shape, and the neck is made in a separate piece from the body, all of these parts being joined together by adhesive cement or glue; but this method strains the wood, due to the bending of the pieces which form the body, and provides a large number of joints, which under atmospheric changes and usage of the instrument are liable to break open. I overcome these objections by making the body and neck all from a solid block of hard wood, which is cut or carved to the desired or proper shape to produce the sound-chamber in the body, and the rim of this hard-wood body is rabbeted to produce flanges, arranged to form a seat for the accommodation of the soft-wood top or sound-board of the instrument, said top or sound-board being protected by a surrounding flange of the hard-wood rim, which lies flush with said top.

The invention further consists in the novel construction and arrangement of parts, which will be hereinafter fully described and claimed.

To enable others to understand the inven-

tion, I have illustrated it in the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a perspective view of the body or neck of a violin constructed in accordance with this invention and showing the top removed to more clearly represent the seat formed by the rabbet in the rim. Fig. 2 is a longitudinal section of the instrument with the top or sound-board in position. Fig. 3 is a transverse section on the plane indicated by the dotted line 3 3 of Fig. 2. Fig. 4 is a detail plan view of the top or sound-board.

Like numerals of reference denote like and corresponding parts in each of the several figures of the drawings.

In carrying my invention into practice I provide a block of hard wood, from which the body and neck of a musical instrument are carved or cut to the desired or any preferred shape. This block may be a single piece of hard wood of any preferred nature, or the block may be built up of layers of wood united together by cement and subjected to pressure to render the mass solid. The body produced by carving from a block of hard wood comprises the rim 10, the bottom 11, and the neck 12, all of which are integral one with the other, because they are carved from a block of hard wood. The body and neck may be of any shape or contour preferred by the skilled constructor, and in the operation of carving the body the usual sound-chamber 13 is produced therein. The liner or flange 14 is formed at the line where the rim and bottom are joined together, and this flange or liner extends continuously around the body, of which it forms an integral part, and is housed or contained within the sound-chamber 13.

The upper side of the body is open, as represented by Fig. 1, and in the upper edge of the rim 10 is produced a rabbet 15, which extends continuously around the rim. The formation of this rabbet produces a horizontal ledge or liner 16 and the vertical surrounding flange 17, and these flanges are arranged on the free edge of the rim to provide a seat for the reception of the soft-wood top or sound-board.

As represented by the drawings, the rim and body are curved at the middle portions thereof, and they are given a shape or con-



tour resembling the ordinary instrument. As the rabbet and the flanges formed thereby partake of the contour of the body, offsets 18 are formed in the rabbet 15 and the offstand-  
5 ing surrounding flange 17.

The soft-wood top or sound-board 19 is a single piece, which is arched in cross-section and provided with the usual sound-slots 20. This top 19 is fashioned to correspond with  
10 the contour of the rim, and its dimensions are such as to make it fit snugly in the rabbet 15 of said rim. The contour or shape of the top 19 produces the prongs 21, which are adapted to fit in the offsets 18 of the rim-  
15 flange 17. This top 19 is sprung in place in the rabbet or seat 15 of the rim, and its tongues fit snugly within the offsets 18, so as to insure proper registration of the top with the rim. If desired, the rim may be glued or  
20 cemented to the top to hold the parts firmly joined together.

One of the important features of my invention consists in having the soft-wood top 19 flush with the surrounding flange 17 of the  
25 hard-wood body, and this method of joining the parts together causes the hard-wood surrounding flange 17 to protect the edges of the soft-wood top from injury and wear.

In the process of cutting or carving the body  
30 from a single block of wood I provide a tongue or projection 22 at the end of the body opposite to the neck. This tongue 22 is integral with the rim of the body and it provides for the convenient attachment of the tailpiece  
35 in a secure firm manner.

As is usual in the art, the head 23 is cut on the neck of the instrument for the reception of the key or keys around which the strings are coiled. My musical instrument is de-  
40 signed to be equipped, like others of its class, with the tailpiece, the bridge, the key or keys, and the strings; but as these features are common in the art I have not deemed it necessary to illustrate the same.

45 From the foregoing description, taken in connection with the drawings, it will be observed that I have provided a musical instrument in which the body and neck are made from a single piece of hard wood, thus obvi-  
50 ating the straining of the wood due to the

bending of the several pieces thereof to give the desired shape to the instrument. My improved construction obviates the employment of a large number of adhesive joints which unite the sectional construction of the body  
55 ordinarily employed, and at best the instrument has a single adhesive joint between the soft-wood top and the hard-wood body. The internal liner and the tailpiece-tongue are integral with the body, and the instrument is  
60 thus rendered exceedingly strong and durable. The soft-wood top is securely seated in the rabbeted edge of the rim, and the edges of said top are housed within a hard-wood rim to be protected effectually thereby. 65

While I have represented my invention as embodied in a violin, I would have it understood that I do not restrict myself to this special adaptation, because I am aware that the invention may be employed in the construction of violoncellos, guitars, mandolins, and  
70 analogous stringed instruments.

Changes may be made in the form of some of the parts, while their essential features are retained and the spirit of the invention embodied. Hence I do not desire to be limited  
75 to the precise form of all the parts as shown, reserving the right to vary therefrom.

Having thus described the invention, what I claim is— 80

As a new article of manufacture, a violin-frame having its rim, back and neck cut from a single piece of hard wood, and provided in the margin of its rim with a rabbet which extends continuously around the inner face of  
85 the rim, and forms thereon an integral off-standing, continuous rib, and a sound-board fitted and secured at its edges within the rabbet of the rim, the portions of the sounding-board adjacent to the edges thereof lying flush  
90 with the edge of the offstanding rib, and being covered and protected thereby, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in  
95 the presence of two witnesses.

JAMES C. KINDIG.

Witnesses:

A. C. BINDBEUTEL,  
THOMAS H. WEST.