

C. KREUTZER.
Violin.

No. 222,287.

Patented Dec. 2, 1879.

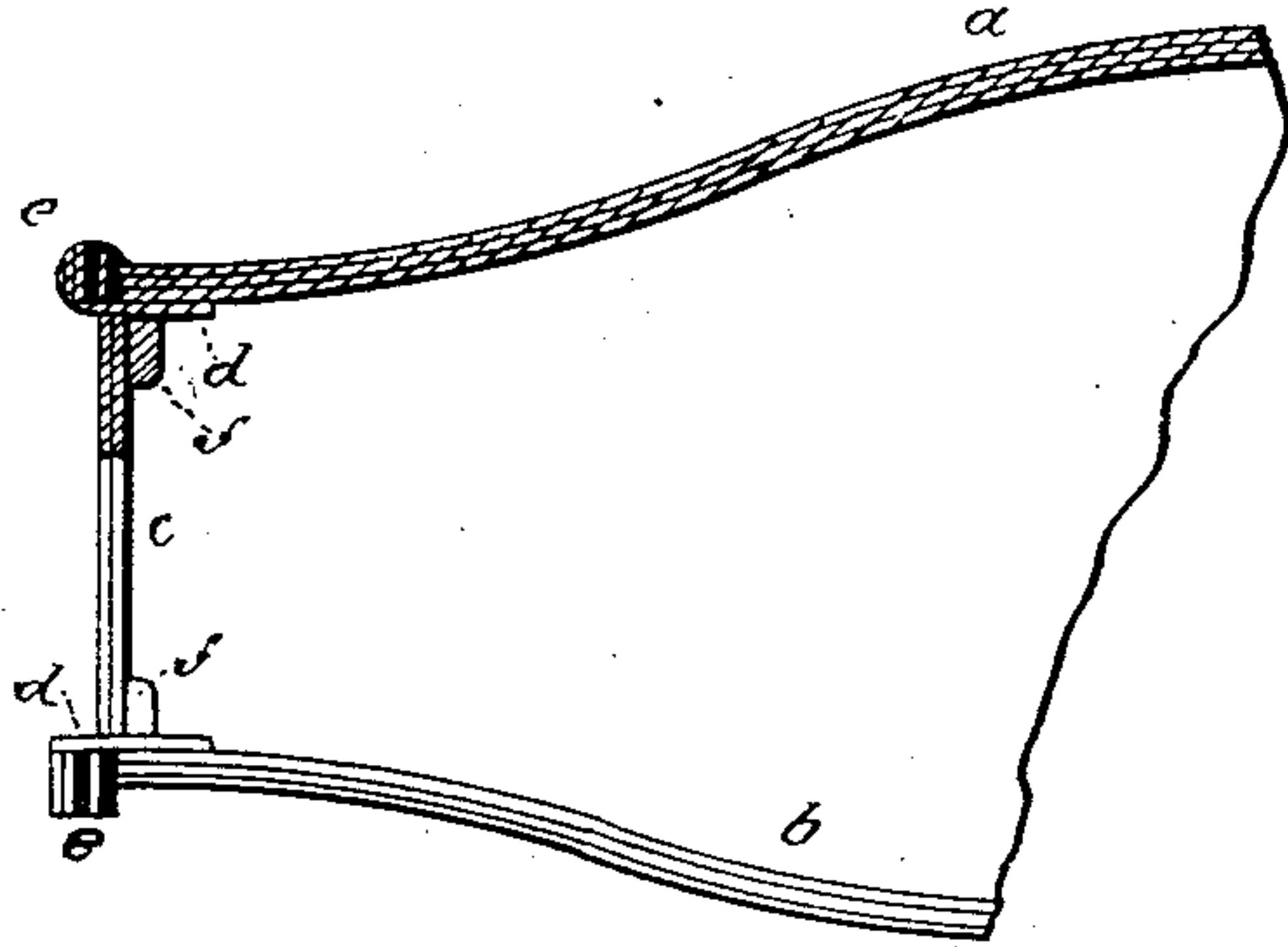


Fig: 1.

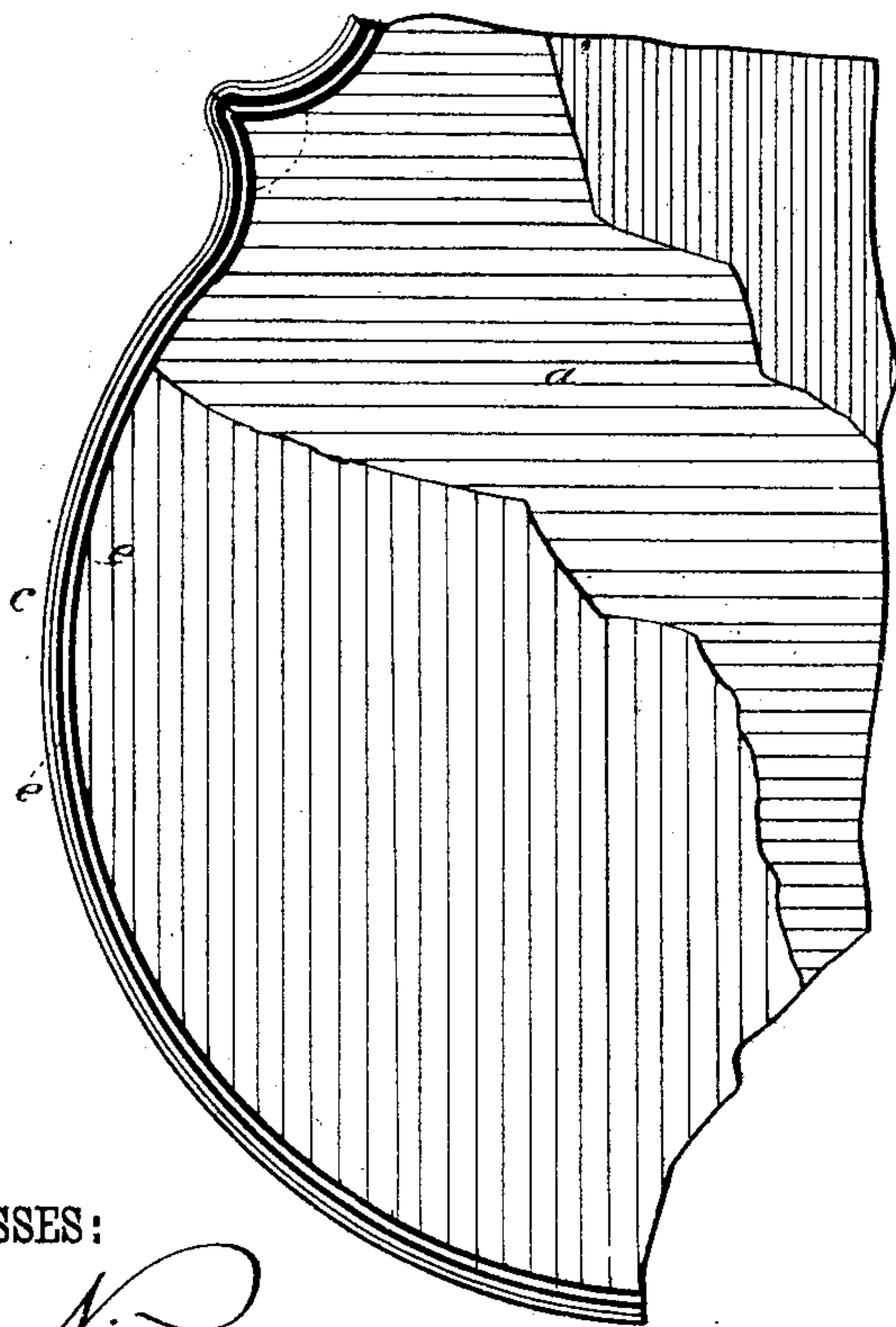


Fig: 2.

WITNESSES:

Chas. Nida.
C. Sedgwick

INVENTOR:

C. Kreutzer
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ATTORNEYS.

UNITED STATES PATENT OFFICE.

CARL KREUTZER, OF NEW YORK, N. Y.

IMPROVEMENT IN VIOLINS.

Specification forming part of Letters Patent No. **222,287**, dated December 2, 1879; application filed April 5, 1879.

To all whom it may concern:

Be it known that I, CARL KREUTZER, of the city, county, and State of New York, have invented a new and useful Improvement in the Construction of Violins, of which the following is a specification.

My invention relates to the construction of violin-bodies, and has for its object to improve the tone of the instruments, and render them lighter, more ornamental, and less costly.

Heretofore the backs and bellies of violins have been worked out to shape with chisels, and the sides attached by gluing, with the edges of the front and back overlapping. The overlapping edges are then rounded and inlaid with ebony for ornament.

I construct the back, belly, and sides from sheets of veneer or thin wood glued together with the grain crossing. These compound veneer-sheets are cut out and stamped up to shape, and the body then formed by gluing the parts together. The ornamental edge is formed of a separate piece, that consists of alternate layers of light-colored wood and ebony, and is worked to a beaded form after attachment.

The invention is shown in the accompanying drawings, wherein Figure 1 is a cross-section of a portion of a violin-body constructed in accordance with my invention. Fig. 2 is a top view, partially broken open.

Similar letters of reference indicate corresponding parts.

In the drawings, *a* is the front or belly, *b* the back, and *c* the side, of a violin-body, which may be of any desired size and of the usual shape. The front *a* and back *b* are each made from two or more thicknesses of veneer, attached together by glue, with the grain cross-

ing to prevent splitting. These parts *a b* are bent to the proper shape by pressure between dies while wet, and when dry retain the shape thus given to them.

The sides *c* throughout are formed of two thicknesses of veneer, bent as before described, but of several pieces rather than one continuous piece.

In gluing the side pieces, *c*, to the front *a* and back *b* a narrow strip, *d*, is attached at the inside of *a* and *b*, and the side *c* attached to *d*. A corner bracing-strip, *f*, is also used to stiffen the joint. The strip *d* projects slightly beyond the sides, forming a rabbet with the edge of the front and back for the ornamental edge strip *e*, that is attached by gluing. This strip *e* is cut from a veneer-sheet of several thicknesses of light and dark wood, such as white wood and ebony, and after being attached to the violin is rounded to a beaded form, and gives a neat ornamental appearance that is superior to inlaid wood. The layers of veneer have an intermediate layer of cloth.

This construction furnishes a violin of superior tone and durability, and which can be produced cheaply.

The bodies may be made very light, yet strong, and not liable to split or crack.

I am aware that it is not new to make a violin of veneers with the grain crossed; but

What I claim as new and of my invention is—

In a violin formed of veneers, secured together with the grains crossing, the strips *d* and *f*, arranged as shown and described.

CARL KREUTZER.

Witnesses:

C. SEDGWICK,
GEO. D. WALKER.