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S. ULBRICH.

VIOLIN OR OTHER STRING INSTRUMENT BODY.

APPLICATION FILED APR. 20, 1908.

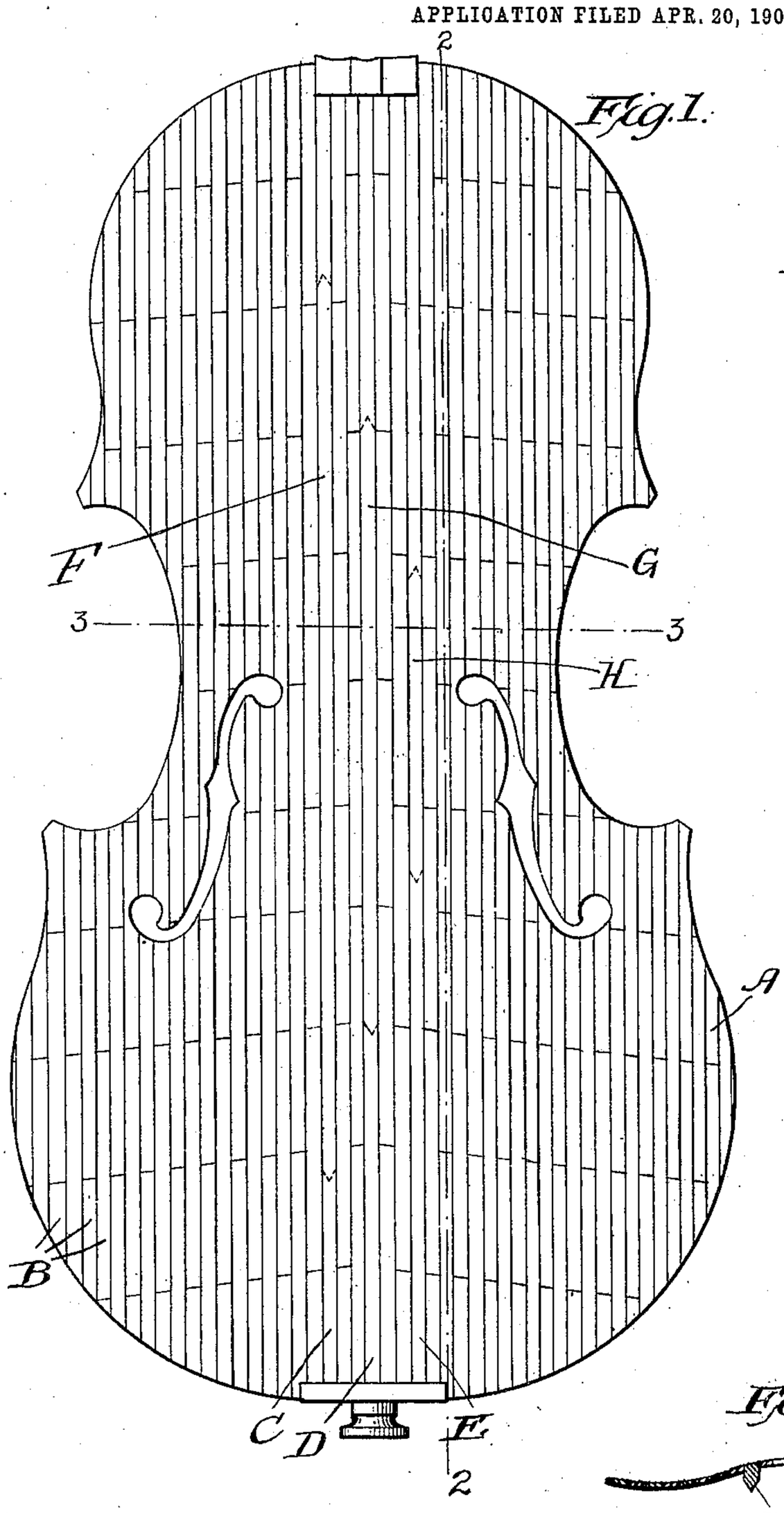

Fig. 1.

Fig. 2.

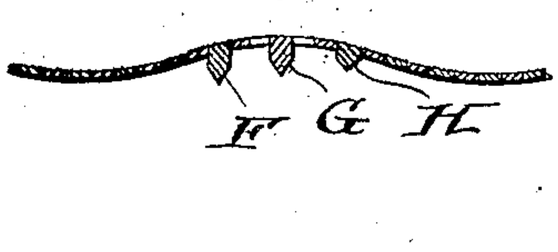

Fig. 3.

Witnesses
Ray White.
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Samuel Ulbrich
By Rudolph Ulrich Atty.

UNITED STATES PATENT OFFICE.

SAMUEL ULBRICH, OF CHICAGO, ILLINOIS.

VIOLIN OR OTHER STRING-INSTRUMENT BODY.

No. 897,036. Specification of Letters Patent. Patented Aug. 25, 1908.

Application filed April 20, 1908. Serial No. 428,038.

To all whom it may concern:

Be it known that I, SAMUEL ULBRICH, subject of the Emperor of Austria-Hungary, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Violin or other String-Instrument Bodies; and I do hereby 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.

This invention relates to a novel construction in a violin, the object being to provide an instrument having a softer and more pleasing tone and of better quality than violins of ordinary construction, and consists in the features of construction and combinations of parts hereinafter fully described and claimed.

In the accompanying drawings illustrating my invention: Figure —1— is a plan view of a violin body constructed in accordance with my invention. Fig. —2— is a longitudinal section of the belly of the violin body on the line 2—2 of Fig. —1—. Fig. —3— is a transverse section of the belly of the body on the line 3—3 of Fig. —1—.

It is well known that new violins even though carefully made, have a harsh, unpleasant tone, whereas old violins have a rich, full and very pleasing tone as a general rule. The instruments of today are made practically the same in all particulars as the older violins in respect to the materials used and the shape and details of construction, but still the tone produced is so much more harsh and lacks so much in fullness and quality as to render new violins comparatively of little value.

The object of this invention is to so construct a new violin as to enable tones of good quality and lacking in harshness to be produced. To this end the belly A of the instrument is composed of a large number of separate pieces B, C, D and E, which are joined together by means of glue. The pieces B are oblong in shape and disposed in rows the end joints thereof being staggered with relation to each other, while the pieces C, D and E are longer extending preferably the full length of the instrument and are provided on their inner faces with substantially V-shaped ribs F, G and H of various relative lengths and which constitute bars, the rib F constituting the base-bar, the rib G the middle register bar, and the rib H the upper register bar, said bars being disposed respectively substantially under the strings representing said registers. All of said pieces are preferably cut out of the same piece of wood, the latter being first cut longitudinally into strips of equal width, and these in turn cut transversely, all of said pieces thus produced being replaced in the same relation to the others as they occurred in the board from which they were cut. The latter is of greater thickness than the distance between the highest and lowest planes of the upper wall of the instrument to be produced therefrom, and, after being cut up as above described, the pieces are glued together in their proper relative positions and the board thus produced is then carved and worked into proper shape.

In the remaining details of construction my said violin is substantially identical with others, but in the quality of its tone it is far superior to other new violins. The reasons for this are more or less problematical. I believe however, that in destroying the homogeneity of the top plate, the vibrations thereof are rendered more uniform and regular and are further restrained and governed by the bars F, G and H, the introduction of which I have proved by exhaustive experiment to be effective in further improving the tone of the instrument. The proportionate lengths and depths of said respective bars are also relatively important, the bar F being longest and of greatest depth and the bars G and H being respectively shorter and shallower to accord with the lighter tones and more rapid vibrations of the middle and upper register tones.

The substantially mosaic construction of the belly of the instrument is the more effective factor in the production of tones of finer quality, such effect being due doubtless to the same causes that improve the tone of newer violins after fracture and repair of the belly or back plates.

While I have shown and described my invention as applied to a violin, I desire it to be understood that I contemplate applying the same to all other string instruments.

I claim as my invention:

1. A violin, comprising a plurality of rows of relatively small sections glued together and forming the belly thereof, said sections being cut from the same board and reassembled in the same relative positions occupied in the board.

2. A violin, comprising a plurality of rows

of relatively small sections glued together and forming the belly thereof, said sections being cut from the same board and reassembled in the same relative positions occupied in the board, the end joints between the pieces composing adjacent rows being staggered with relation to each other.

3. In a violin a plurality of small sections assembled in parallel rows and glued together to form the belly thereof, the sections of adjacent rows breaking joint with each other, there being intermediate full length sections interposed between some of the rows of smaller sections, said full length sections being of greater depth than the said rows of smaller sections.

4. In a violin a plurality of small sections assembled in parallel rows and glued together to form the belly thereof, the sections of adjacent rows breaking joint with each other, there being intermediate full length sections interposed between some of the rows of smaller sections, said full length sections being of greater depth between their ends than the said rows of smaller sections, the deeper portions of said full length sections being respectively of different lengths.

In testimony whereof I have signed my name in presence of two subscribing witnesses.

SAMUEL ULBRICH.

Witnesses:
RUDOLPH WM. LOTZ,
E. L. MOORE.