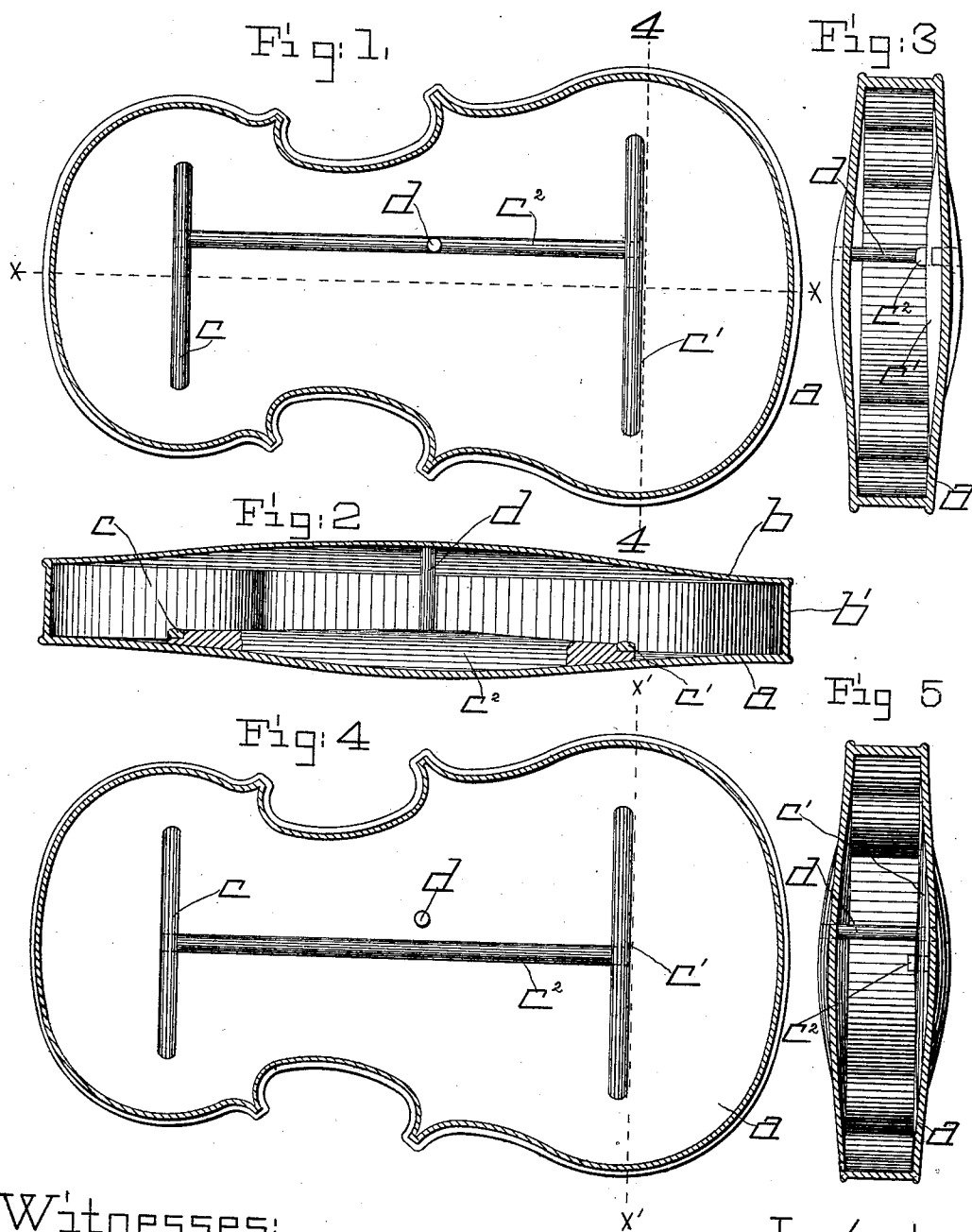


(No Model.)

E. McNICHOL.
STRINGED INSTRUMENT.

No. 468,114.

Patented Feb. 2, 1892.



Witnesses:
Edward F. Allen
John W. Dalry.

Inventor
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UNITED STATES PATENT OFFICE.

EDGAR McNICHOL, OF WEST JONESPORT, MAINE.

STRINGED INSTRUMENT.

SPECIFICATION forming part of Letters Patent No. 468,114, dated February 2, 1892.

Application filed February 3, 1891. Serial No. 380,035. (No model.)

To all whom it may concern:

Be it known that I, EDGAR McNICHOL, a subject of the Queen of Great Britain, residing at West Jonesport, county of Washington, State of Maine, have invented an improvement in Stringed Instruments, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention has for its object to improve the construction of stringed instruments of the viol family—as the violin, for instance—whereby the quality of the tone is greatly enhanced.

In accordance with this invention I place on the back of the instrument a connected distributing-frame for distributing equably the pressure of the sounding-post and consequently the vibrations, and I arrange the sounding-post either upon or near to said distributing-frame, so that the latter may receive the vibrations and distribute them in the best possible manner.

The distributing-frame preferably comprises two cross-bars, each located at or near a transverse line at or near the center of each lobe of the instrument, and a longitudinal connecting-bar which unites the two cross-bars, the three bars thus joined being secured to the back of the instrument by glue or otherwise, as desired, and in contact with the back, preferably, throughout their entire length. While this form of distributing-frame may be a most desirable one, yet it will be understood that any form of distributing-frame comprising arms which radiate toward the side walls and in contact with the back of the instrument, as desired, which arms are all connected together or formed in one piece, comes within the scope of my present invention, and such form of frame I shall hereinafter denominate as a “connected” distributing-frame.

Figure 1 shows in plan view the inside of the back of a stringed instrument of the viol family having arranged on it a connected distributing-frame embodying the principles of this invention; Fig. 2, a longitudinal section of the instrument shown in Fig. 1, taken on the dotted line $x x$, the front being included and in

proper position; Fig. 3, a vertical section of the instrument shown in Fig. 1, taken on the dotted line $y y$, the front being included; Fig. 4, a plan view of the back, showing a connected distributing-frame similar to that shown in Fig. 1, but the connecting-bar of the frame is located near the sounding-post; and Fig. 5, a vertical section of the parts shown in Fig. 4, taken on the dotted line $x' x'$.

The back a , front b , and side walls b' are all of usual shape and construction to constitute the body of a stringed instrument, such as a violin.

The back a is shown as having connected to it a distributing-frame, which is represented in Figs. 1 and 3, comprising two cross-bars represented as parallel bars $c c'$ and a longitudinal connecting-bar c^2 , the bars $c c'$ being beveled at or near each end of the back and of said connecting-bar. This frame $c c' c^2$, it will be seen, presents in one piece a set of arms extended in different directions and into remote parts of the back.

The distributing-frame herein represented as composed of three pieces may, however, comprise any desired number of pieces, or may be made in one piece.

The sounding-post d (see Figs. 1 to 3) bears at one end against the under side of the front or top b and at the other end upon the bar c^2 , so that the vibrations of the front or top will be imparted or conducted through the post directly to the distributing-frame, by which they are distributed to all parts of the back.

I find in practice that good results may, however, be produced by locating the sounding-post in the usual manner, as represented in Fig. 4, and placing the distributing-frame centrally, so that the post will be supported by the back near the distributing-frame. In this instance it will be seen that the distributing-frame lies along the strongest part of the back of the instrument, the vibrations being communicated to it (the frame) from the post through the intermediate portion of the back, and thence throughout the entire back.

By distributing the vibrations to the back by means of the distributing-frame, as herein intended, the back is caused to exert a greater

influence on the tone by its co-operation with the other vibrating parts of the instrument.

The above-described frame may be composed of plates or bars of varying thickness and width as well as of varying length.

It is further understood that the distributing-frame herein described may be applied to the outside of the back instead of the inside.

10 I claim—

1. In a stringed instrument of the viol family, the back *a*, sounding-post *d*, and the connected distributing-frame secured to said back and comprising bars located near the
15 ends of the back, and a central bar connecting the aforesaid bars, which crosses the cen-

ter of the vibrating field, substantially as and for the purpose set forth.

2. In a stringed instrument, the back *a*, sounding-post *d*, and the connected distributing-frame secured to said back and comprising the parallel cross-bars *c c'*, and the longitudinal bar *c²* connecting them, substantially as and for the purposes set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EDGAR McNICHOL.

Witnesses:

BERNICE J. NOYES,
EDWARD F. ALLEN.