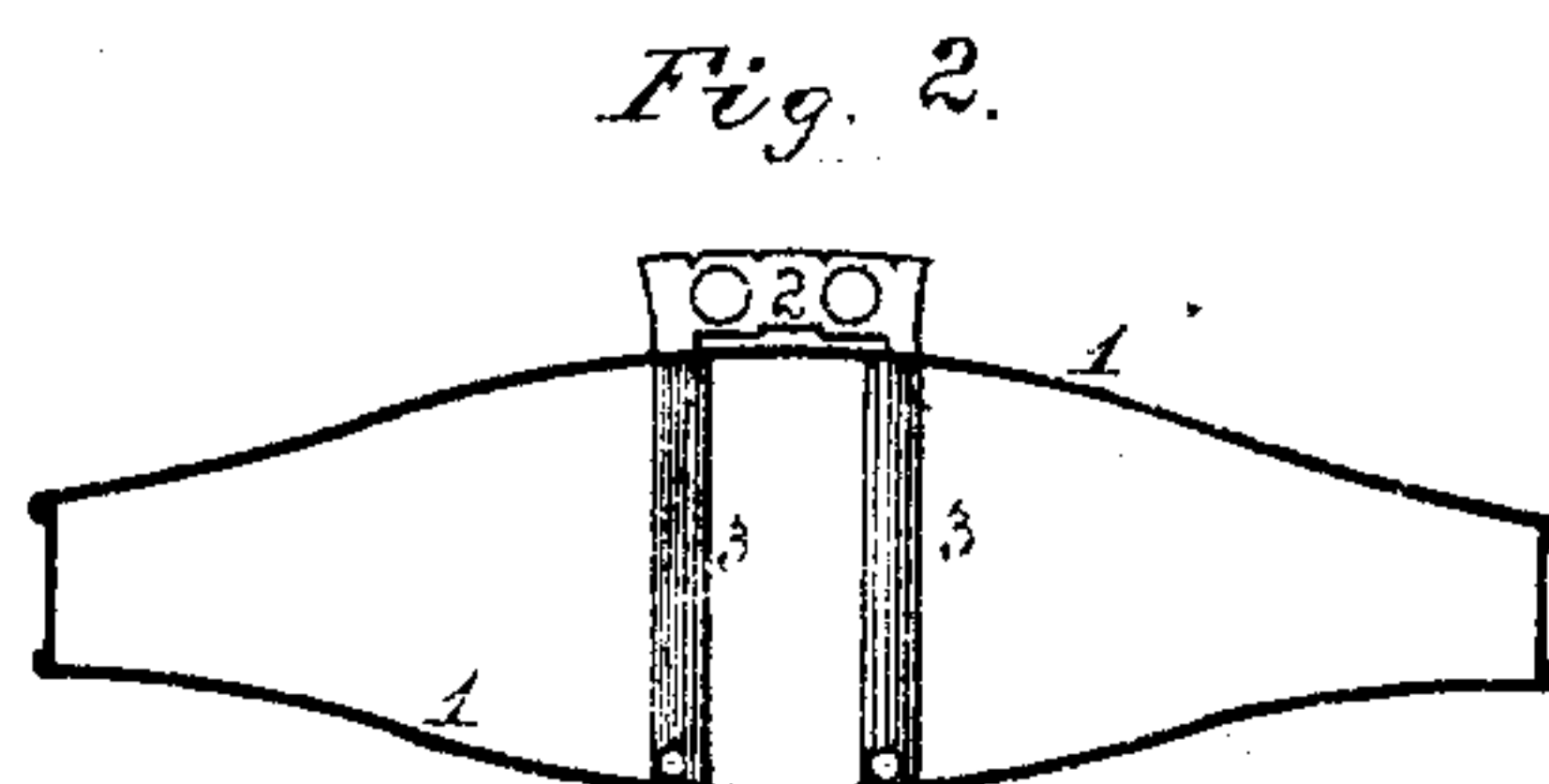
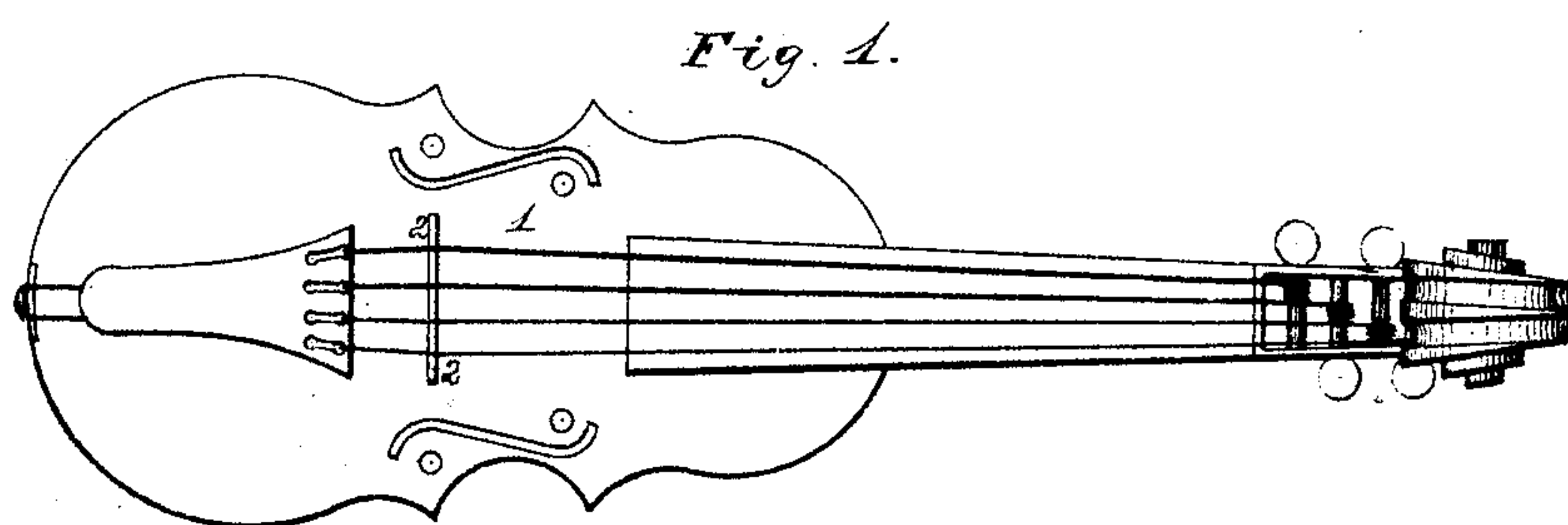


J. BELKNAP.
Violins.

No, 143,117.

Patented September 23, 1873.



WITNESSES.

H. R. Duhamel
Alex Davidson.

INVENTOR.

Joseph Belknap.
Per H. J. Affol.
Attorney.

UNITED STATES PATENT OFFICE

JOSEPH BELKNAP, OF ADRIAN, MICHIGAN.

IMPROVEMENT IN VIOLINS.

Specification forming part of Letters Patent No. **143,117**, dated September 23, 1873; application filed July 15, 1873.

To all whom it may concern:

Be it known that I, JOSEPH BELKNAP, of Adrian, county of Lenawee and State of Michigan, have invented certain new and useful Improvements in Violins, of which the following is a specification:

The nature of my invention relates to an improvement in violins; and it consists in making the entire instrument of metal which will vibrate or ring in unison with the vibration of the strings. It also consists in making the bridge a solid part of the body, and placing just under it two or more sounding-tubes having an opening in their lower ends, and which unite the top and bottom parts of the body together, as will be more fully set forth hereafter.

The accompanying drawing represents my invention.

1 represents the body of the instrument, made entirely of metal, the different parts being stamped or molded into the required shape, and then soldered or brazed together in any suitable manner. For this purpose any suitable metal may be used which has a greater ring or vibration than wood, and which will vibrate in unison with the strings.

The neck and head may be made of metal, or they may be made of wood, as heretofore.

The bridge 2 is brazed or soldered to the top of the body, so as to form a solid part thereof. Between the top and bottom parts of the body, just under the bridge, are placed two or more sounding-tubes; 3, having an opening made through their lower ends, through which the sound escapes, and which also form a solid part of the body.

The vibration of the strings passing down through the bridge, and down through the tubes and out at the bottom, produces a softer, sweeter, and more harmonious sound than can be produced in any instrument now in use.

Having thus described my invention, I claim—

1. As a new article of manufacture, a violin having the body 1 made wholly of metal, substantially as set forth.

2. The combination of the metallic body 1, bridge 2, and tubes 3, substantially as shown and described.

In testimony that I claim the foregoing as my invention I hereunto affix my signature this 10th day of July, 1873.

JOSEPH BELKNAP.

Witnesses:

R. R. ROBBINS,
H. D. CONDICT.