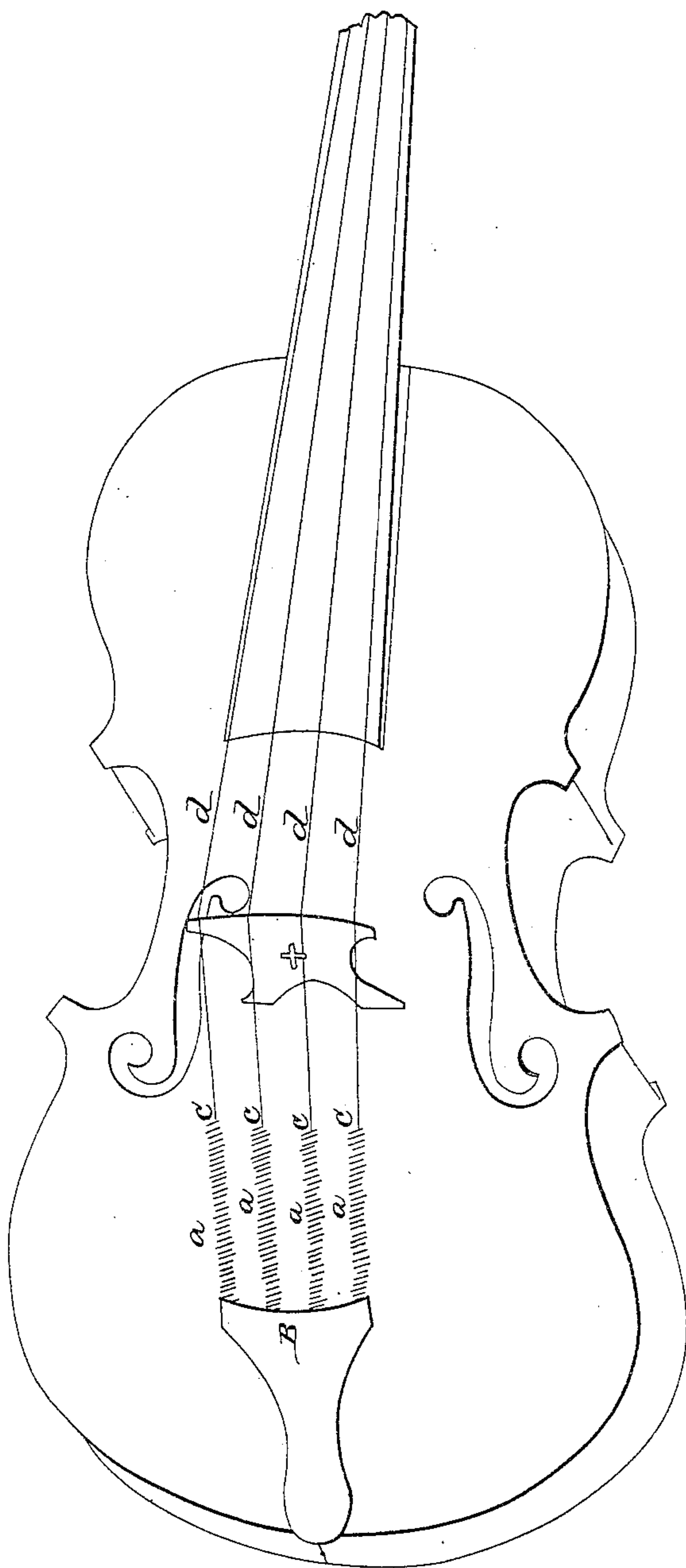


W. RANDLE.  
STRING FOR MUSICAL INSTRUMENTS.

No. 16,995.

Patented Apr. 7, 1857.



*Witnesses;*  
*Thomas J. Handel*  
*Wm L. Fair*

*Inventor;*  
*William Randle*

# UNITED STATES PATENT OFFICE.

WILLIAM RANDLE, OF FLORIDA, NEW YORK.

## IMPROVEMENT IN STRINGS FOR MUSICAL INSTRUMENTS.

Specification forming part of Letters Patent No. **16,995**, dated April 7, 1857.

*To all whom it may concern:*

Be it known that I, WILLIAM RANDLE, of Florida, in the town of Warwick, in the county of Orange and State of New York, have invented a new and Improved Mode of Preventing the Strings of Musical Instruments from Breaking; and I do hereby declare that the following is a full and exact description thereof.

The nature of my invention consists in providing for each string one or more springs to prevent the strings from breaking when exposed to the dampness of the atmosphere or other causes which will contract the strings and cause them to break, which is often the case with the ordinary mode of construction.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my instruments in the ordinary way and apply to each string one or more springs, so that the springs will yield to the strings when the strings are contracted by the dampness or other causes which will have

the same effect, and thereby prevent the strings from breaking, as shown in the drawing.

In the accompanying drawing the figure represents my improvement as applied to a violin.

*a a a a* are spiral springs secured to the tail-piece or hitch-block.

*c c c c* are eyes or loops by which the strings *d d d d* are secured to the springs of the violin.

I do not wish to confine my claim to violins alone, but to all string instruments, except those that have all metallic strings.

What I claim as my invention, and desire to secure by Letters Patent, is—

The application of one or more springs applied to each string, as described, or its equivalent, and for the purpose set forth.

WILLIAM RANDLE.

Witnesses:

THOMAS J. RANDEL,  
WM. L. VAIL.