

J. B. HAMILTON.  
String for Musical-Instruments.

No. 161,226.

Patented March 23, 1875.

*Fig:1*



*Fig:2*



*Witnesses:*

*Michael Ryan*  
*Jos. Haynes*

*J. B. Hamilton*  
*by his Attorneys*  
*Brown & Allen*

# UNITED STATES PATENT OFFICE.

JAMES BAILLIE HAMILTON, OF OXFORD, ENGLAND.

## IMPROVEMENT IN STRINGS FOR MUSICAL INSTRUMENTS.

Specification forming part of Letters Patent No. **161,226**, dated March 23, 1875; application filed November 13, 1874.

*To all whom it may concern :*

Be it known that I, JAMES BAILLIE HAMILTON, of University College, Oxford, Oxford county, England, have invented Improvements in the Construction of Strings to be used for Musical Instruments, of which the following is a specification :

This invention has for its object to furnish strings for musical instruments, whereby the power of resisting the tension is greatly increased, and the musical tone of the string is much improved. To this end my invention consists of a string for musical instruments, composed of a coiled wire or metallic strip flattened in a direction parallel with the axis of the coil, thereby producing the results before mentioned.

In the drawings, Figures 1 and 2 represent my improved strings for musical instruments.

The string is made of wire, which is flattened and coiled, the flattened portions being in a line parallel with the axis of the coil, this being accomplished by drawing or pressing the wire to the required shape. The flattened wire may be coiled upon a mandrel or core, or by other suitable means, and when the core

is withdrawn it will leave the wire in the form of the loaded string of a piano-forte. The string is stretched upon the sounding-board in the usual way, and can be applied as well to percussion-stringed instruments as to those in which a free reed and string are used in combination.

By constructing the string of a coiled wire flattened in a direction parallel to the axis of the core, the power of resisting the tension to which the string is subjected is greatly increased over those strings which are made from a simple piece of coiled wire, circular or in cross-section.

I claim—

A string for musical instruments, composed of a coiled wire or metallic strip flattened in a direction parallel with the axis of the coil, in the manner and for the object specified.

J. BAILLIE HAMILTON,

Witnesses:

RICHARD HEATT,

WILLIAM H. BAKER,

*Clerks to Messrs. Collette & Collette,  
23 Lincoln's Inn Fields.*