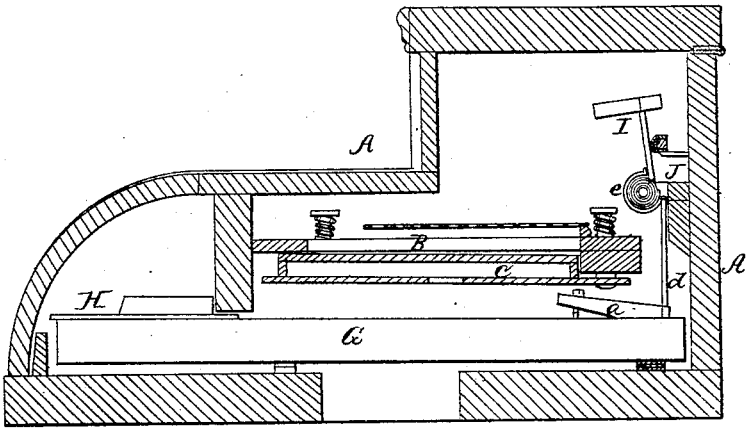
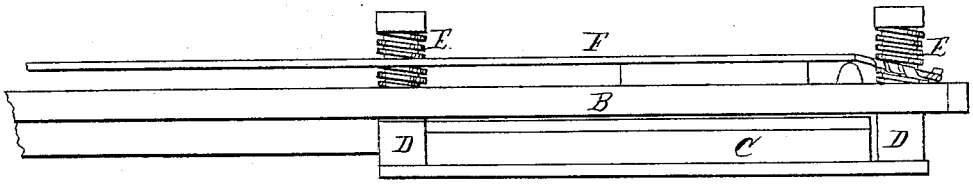
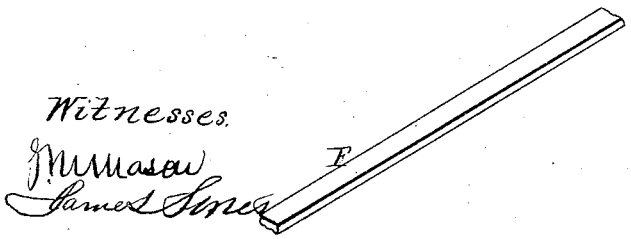
C. Robbins,

Piano,

No. 52,610, Patented Feb. 13, 1866.







Witnesses.
J. McMasow
James Stone

Inventor
C. Robbins
per Cole Alexander
atty

UNITED STATES PATENT OFFICE.

CHANDLER ROBBINS, OF CHICAGO, ILLINOIS.

IMPROVEMENT IN PIANOS.

Specification forming part of Letters Patent No. **52,610**, dated February 13, 1866.

To all whom it may concern:

Be it known that I, CHANDLER ROBBINS, of Chicago, in the State of Illinois, have invented certain new and useful Improvements in Pianos; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

In the annexed drawings, making part of this specification, A is the case of the piano, which may be constructed in any of the known ways. Within the case A is secured an iron frame, B, which is also constructed in any of the usual and known ways. Beneath the iron frame, and at one end of it, is situated the sounding board or box C. This board or box is secured to the iron frame by means of four bolts with heads on one end and nuts on the other. Between the board or box and the frame, on the under side of the frame, is an india-rubber collar, D, and between the frame and the nut, above the frame, is a coiled-wire spring, E. The bolt passes through the collar, the frame, and the spring, so that when the nut E is screwed down the sounding board or box is securely attached to the frame, but in such a manner that it will vibrate.

G represents the lever, to the front end of which is attached the key H. This lever passes back and operates the hammer, which is connected with it, as follows: Upon the upper side of the lever is a small piece, *a*, which is pivoted to it, and also connected by a screw, and to this piece is secured a rod, *d*, which stands in a vertical position. The upper end of this rod is provided with a metallic strap, *e*, which is secured not only to it, but also to the handle or shank of the hammer. The handle or shank of the hammer is pivoted between the jaws of a projection, J, from the back of case A, and around the pivot in an opening in the handle or shank is a wire spring, which serves to raise or return the hammer after it has been thrown down upon the strings. By pressing upon the key H the lever G is thrown up at its rear end, moving the rod *d* up behind the hammer and by means of the strap *e* drawing down the hammer upon the key. The wire spring in the heel of the hammer-handle throws the hammer up as soon as pressure is taken from the key.

The string F is made of metal, and is made flat, thus differing materially from the string ordinarily used in stringed instruments. This string may be covered or not.

The object in using a flat string is that I am enabled to use a much shorter string than I could if I used a round one, obtaining a mellow, sweet, and powerful tone from it, which I could not obtain from a long one.

By using a short string I am enabled to make a smaller piano with as rich a tone as can be obtained in the usual way from a large one with round strings.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. Hanging the sounding box or board to the iron frame, substantially as specified, allowing of the most complete vibration, as is herein set forth.

2. The combination of the lever G, the strap *e*, and the hammer I, as and for the purpose herein specified.

3. The strings F, made flat, as and for the purpose set forth.

In witness that I claim the foregoing I have hereunto set my hand and seal in the presence of witnesses.

CHANDLER ROBBINS. [L. S.]

Witnesses:

D. H. HORNE,

I. R. ANDREWS.