(No Model.)

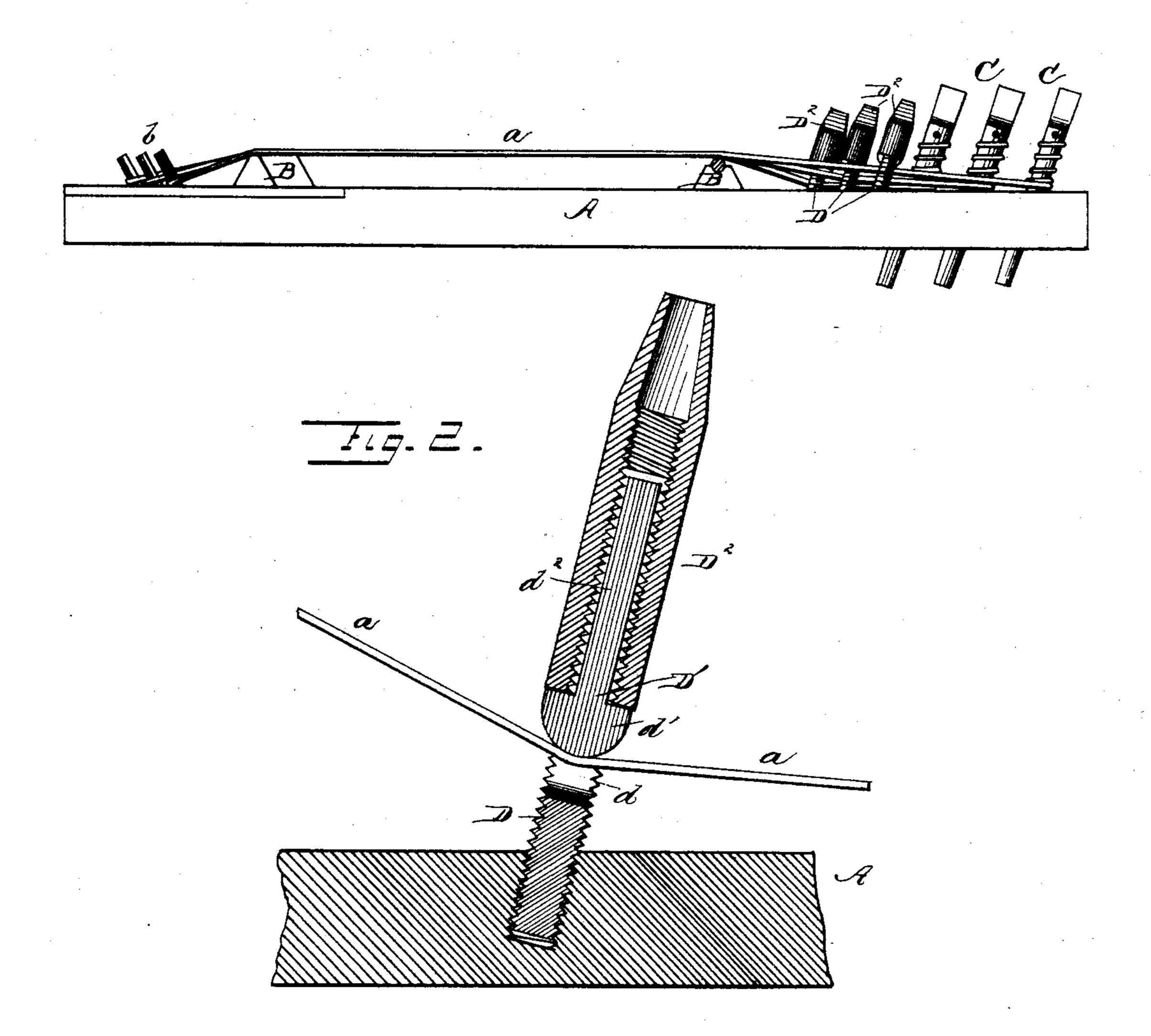
## M. JOHNSON.

TUNING DEVICE FOR STRINGED INSTRUMENTS.

No. 288,062.

Patented Nov. 6, 1883.

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Inventor.

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## United States Patent Office.

MATHEW JOHNSON, OF CHICAGO, ILLINOIS.

## TUNING DEVICE FOR STRINGED INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 288,062, dated November 6, 1883.

Application filed November 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, Mathew Johnson, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented a new Improvement in Auxiliary Tuning Devices for Stringed Instruments, of which the following is a specification, to wit:

This invention relates to improvements in devices for tuning the strings of a piano or any stringed instrument having a bridge and strings tuned for permanent use; and it consists in a small "holder" adapted to engage the strings between the bridge and the pins to which they are secured, and adjustable to give more or less tension to the strings, said holder being constructed as hereinafter more fully described and claimed.

In order to enable others skilled in the art to which my invention appertains to avail themselves of its benefits, I will now proceed to describe its construction and operation, referring to the accompanying drawings, in which—

Figure 1 is a side view of my invention applied to piano-strings, and Fig. 2 is an enlarged section of the same.

A represents the sounding-board of a piano, and a a the strings, which are secured at one 30 end to the pins bb, and, passing over the bridges B B, are attached at the other end to the keys C C, in the usual manner. Between the keys C C and the bridge B, I secure in the soundingboard a series of pins or posts, D, which are 35 screw-threaded and slotted vertically nearly their whole length above the board A. The strings a a pass through the slots d d in the posts D, which are so set as not to deflect the strings either to the right or left, and 40 within the slots d d is placed a loose flat piece of metal, D', with a head, d', on its lower end, which projects beyond the sides of the posts D and rests upon the strings. The piece D' is cut away behind the head d', and formed with a long shank,  $d^2$ , which is inclosed by an internally-threaded cap, D<sup>2</sup>, screwed down over the post D till its lower end rests upon

the head d' of the metal slide D'. This cap is,

upon its upper end, formed square or angular for the attachment of a key to screw it up or 50 down on the post.

It is intended that when the piano is made the strings will be tuned, in the usual way, by the securing-keys C.C. When, however, by frequent handling or changes of climate or temperature, they stretch or become loosened, as

frequently happens, it is not necessary to employ a professional "tuner," as is now done; but any one may, by screwing down the cap D², force down the metal slide D′, thus depress- 60 ing the string, giving it enough additional tension to raise it to the desired pitch.

This invention is very simple and easily operated by any one, does not require much power to use it, and is a valuable auxiliary to the 65 usual tuning - keys used upon such instruments. Its use is not confined to pianos, but it will be found equally effective in any stringed instrument in which the strings are passed

I am aware that tuning devices have heretofore been arranged to act upon the strings of the piano between the keys and bridge, and therefore I do not claim such, broadly; but,

Having thus fully described my invention, 75 what I claim as new, and desire to secure by Letters Patent, is—

1. In a piano or similar stringed instrument which is permanently tuned, a slotted post, D, through which the string is passed, and pro-80 vided with a cap which is passed over the post, and adapted to be forced down upon the string to deflect it from its normal position, substantially as shown and described.

2. The combination, with the sounding- 85 board, bridge, strings, and permanent tuning-keys of a piano or similar instrument, of the slotted post D, screw-cap D<sup>2</sup>, and slide D', constructed and arranged to operate substantially as and for the purpose herein described. 90

In testimony whereof I affix my signature in presence of two witnesses.

MATHEW JOHNSON.

Witnesses:

J. E. STEVENSON, FRANK JOHNSON.