(No Model.)

H. B. ENOS.

PIANO TUNING PIN.

No. 486,561. Patented Nov. 22, 1892.

Fig. 1.

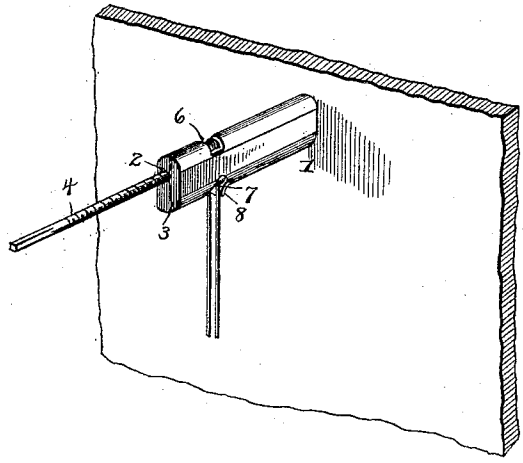


Fig. 2.

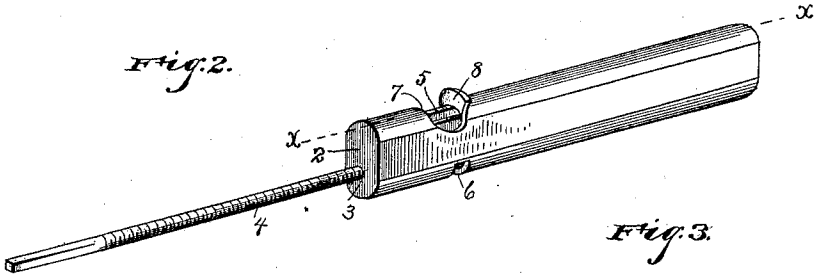


Fig. 3.

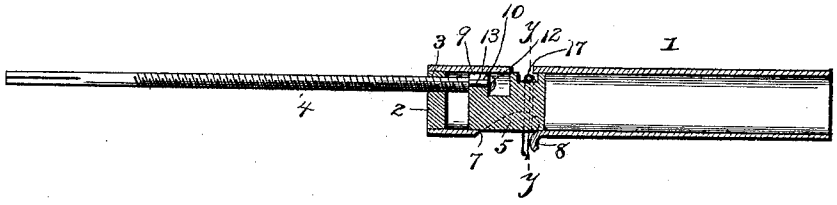


Fig. 4.

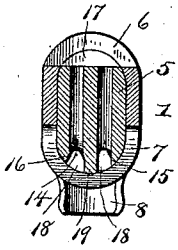
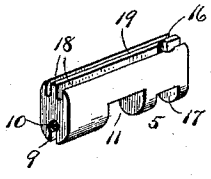


Fig. 5.



Witnesses

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PIANO TUNING-PIN.

SPECIFICATION forming part of Letters Patent No. 486,561, dated November 22, 1892.

Application filed June 7, 1892. Serial No. 435,836. (No model.)

To all whom it may concern:

Be it known that I, HENRY B. ENOS, a citizen of the United States, residing at Corpus Christi, in the county of Nueces and State of Texas, have invented a new and useful Piano-Pin, of which the following is a specification.

This invention relates to certain new and useful improvements in piano-pins; and it consists of the construction and arrangement of parts thereof, as will be more fully hereinafter described and claimed.

The object of this invention is to provide a device of the character set forth having superior advantages and of a simple and effective construction and arrangement of parts, which will provide for a more accurate tuning of the piano with which the device is used and at the same time preserve the strings against breakage by avoiding the use of sharp corners.

In the drawings, Figure 1 is a perspective view of the improved pin shown mounted in operative position. Fig. 2 is a similar view of the pin detached and on a larger scale. Fig. 3 is a horizontal section on the line *x x* of Fig. 2. Fig. 4 is a transverse vertical section on the line *y y* of Fig. 3. Fig. 5 is a detail perspective view of the string-block.

Similar numerals of reference are employed to designate corresponding parts in the several figures.

Referring to the drawings, the numeral 1 designates a hollow tube having a closed top 2, with a screw-threaded opening 3 therein adapted to receive the pin 4, which acts as a set-screw and is swiveled to a string-block 5. The said tube or pin 1 is formed with a slot 6 in one side thereof and an enlarged opening or mouth 7 at the opposite side, having a lower lip 8, which is bent downward at an angle and slightly concaved on its upper surface. The string-block 5 has a slot 9 projecting inward from one side thereof and entering an opening 10, and below said slot and opening in the adjacent portion of the said block is formed a recess 11, which provides a shoulder, against which bears the swivel-head 12, terminating the reduced portion 13 of the lower end of the set-screw 4, said reduced portion being adapted to rotatably fit within the opening 10 of the said block 5. The lower portion of the block 5 has parallel openings 14 and 15, extending horizontally therethrough, the opening 14 having the upper face thereof or the sharp edge which would naturally be formed at the upper part of the same cut away, as at 16, in order to remove all liability of injury to the string. The opposite side of the block, where the openings 14 and 15 pass out, is formed with a transverse recess 17, which is adapted to align with the slot 6 in the pin 1, as fully shown in the accompanying drawings, and said openings are so situated that they will allow the portion of the string projecting through on said side of the block after the fastening-loop has been formed to be depressed or set back, so as not to contact with the sides of the tubular pin, and thereby avoid breaking or wearing away of the string at this point. The block is also provided with parallel vertical grooves 18, intersected by a partition-wall 19, and in which the two parts of the string are adapted to be pressed when the block is adjusted downward to increase the tension of the string carried thereby or connected thereto to tune or otherwise manipulate the same. When the block is in position within the tubular pin set forth, the string connected therewith has the parts of the same firmly secured and bearing on the lip 8, and when it is required that the said string be adjusted said operation is accomplished through the set-screw 4, which is operated by a key, as will be readily understood. The opening or hole 14 is rounded to prevent the string from breaking, as set forth, while the opposite hole is sharp at its edges to give the string a short turn thereagainst and prevent its pulling out or slipping. It will be observed that when the string-block is in position to receive the string it is protected above and below by the hollow pin set forth, and thereby prevents it being pulled out or broken. By means of the pin herein set forth the strings will remain in their adjustment and nothing will throw them out of tune or pitch but the stretching operation thereof, which is due to natural causes, as will be readily understood by those skilled in the art.

The device set forth is extremely advantageous in the construction and arrangement of its parts, and the several parts thereof are so arranged that a string can be readily and quickly connected thereto and be conveniently

adjusted after said connection has been made without injuring or straining the string at any point.

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

1. The combination of a tubular pin, a grooved string-block mounted therein and having a pair of openings extending therethrough from said grooved portion thereof, and a set-screw connected to said string-block and adapted to adjust the same, substantially as described.

2. The combination of a tubular pin having a slot on one side thereof and a mouth with a lip on the opposite side, a string-block having openings extending therethrough and vertical grooves therein, and a set-screw swiveled to said block and adapted to adjust the same, substantially as described.

3. The combination of a tubular pin, a string-block mounted therein and having openings therethrough for the reception of the string and a vertical opening in the upper portion thereof with a slot opening outward therefrom, and a set-screw having a reduced end, with a head adapted to engage said opening and slot for the purpose of adjustment, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

HENRY B. ENOS.

Witnesses:
W. G. HOLDEN,
F. W. MOORE.