H. F. JACOBS.

Tuning Attachment for Piano-Fortes.

No. 204,152. Patented May 28, 1878.

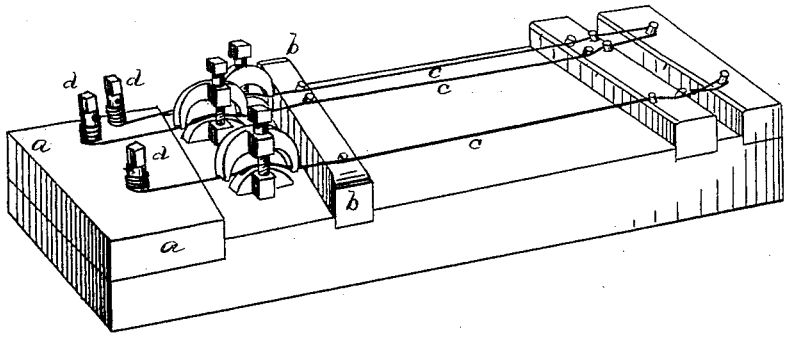

Fig. 1.

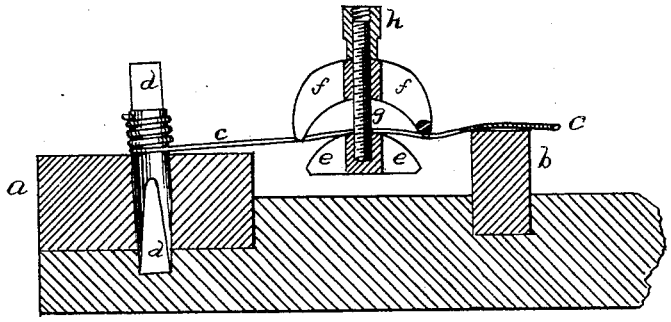

Fig. 2.

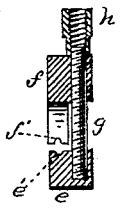

Fig. 3.

WITNESSES

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HERMAN F. JACOBS, OF WESTON, MASSACHUSETTS.

IMPROVEMENT IN TUNING ATTACHMENTS FOR PIANO-FORTES.

Specification forming part of Letters Patent No. **204,152**, dated May 28, 1878; application filed February 12, 1878.

To all whom it may concern:

Be it known that I, HERMAN F. JACOBS, of Weston, in the county of Middlesex and State of Massachusetts, have invented a new and Improved Piano-Forte-Tuning Attachment, of which the following is a specification:

Heretofore the usual method of tuning pianos consisted in turning the pins to which the strings are attached, so as to make the strings tighter or slacker.

In my improvement the pins are immovably fixed in the pin-block, so that they cannot be turned, and a device by means of which the strings or wires can be tightened or slackened is placed upon the strings, between the pin and bridge.

The construction of this tuning device is below described.

The object of the invention is to provide a means of more accurately and readily tuning the piano, and of keeping it in tune a long time without the necessity for retuning.

In the accompanying drawing, in which similar letters of reference indicate like parts, Figure 1 is a perspective view of my device attached to the strings of a piano. Fig. 2 is a longitudinal enlarged section of my device in position. Fig. 3 is a cross-section of the tuner removed from the string.

a represents the pin-block; *b*, the bridge, and *c c* the strings, constructed as usual. *d d* are the pins, which, instead of being made round where they enter the pin-block *a*, so that they can be turned, are made square, or of such a shape as to hold them immovably in the block.

Placed upon each wire, between the pin-block *a* and the bridge *b*, is one of my tuning devices.

The tuning device consists, mainly, of the two parts *e* and *f*, the former below and the latter above the wire. The part *e* is of the shape of the segment of a circle, and is provided with a crease, *e'*, for the accommodation of the wire. The part *f* is crescent-shaped, and has notches *f'* cut in its ends, so as to hold it in place upon the wire.

The screw *g* passes through the part *f* and into the part *e*, in which latter part is a corresponding screw-thread. There being no thread in the part *f*, turning the nut *h* to the right forces the upper part *f* down upon the wire, which curves, and is consequently tightened more and more over the lower part *e* as the nut *h* is turned. This, of course, raises the tone.

To lower the tone and slacken the wire, turn the nut to the left. By this means a greater accuracy and nicety of tone is obtainable, and all "jumping," as is common with the pins when arranged in the old way, is obviated. It is believed that by means of this contrivance a piano once correctly tuned will remain in tune for an indefinite period of time, seldom, if ever, needing retuning.

The device, as will be seen, is inexpensive and easy of application.

The shape of the parts *e* and *f* may be varied somewhat, if desired, and the nut *h* and screw *g* be made in a single piece, forming a bolt, without materially altering the invention.

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

1. The combination of the herein-described tuning device, consisting of the parts *e e'* and *f f'*, held together as shown, and the pin *d*, said pin being immovably fixed in the pin-block, so as to be incapable of being turned, all substantially as and for the purpose above set forth.

2. The combination of the part *e*, provided with the crease *e'*, and the part *f*, provided with the notches *f'*, said parts being held together by means of a screw and head or nut, substantially as and for the purpose set forth.

HERMAN F. JACOBS.

Witnesses:
HENRY W. WILLIAMS,
JOHN E. TRENNING.