

H. H. MORSE.

Stringing Devices for Piano-Fortes, &c.

No. 150,700.

Patented May 12, 1874.

Fig. 1.

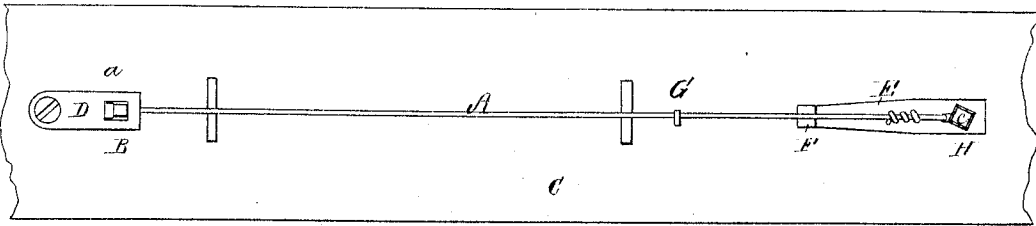


Fig. 2.

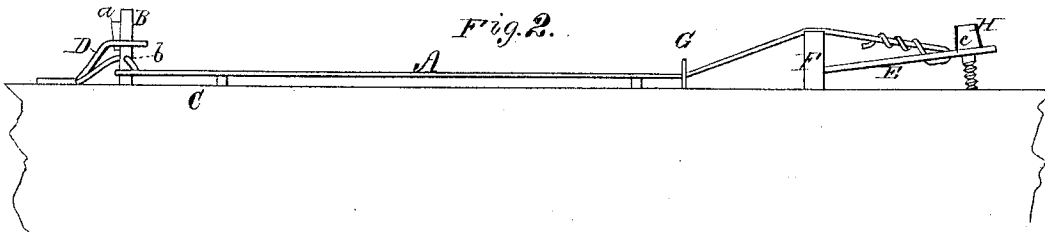
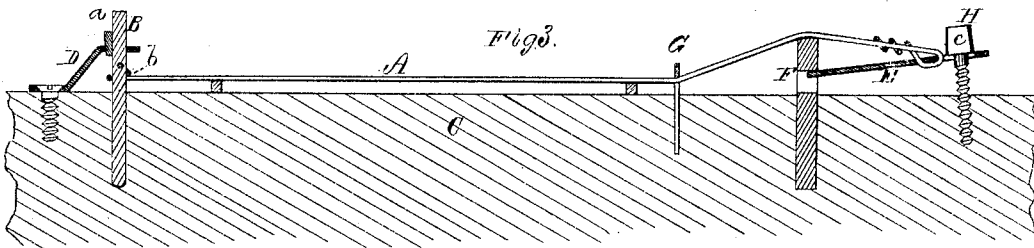


Fig. 3.



Witnesses.

S. M. Piper.

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by his attorney.

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UNITED STATES PATENT OFFICE.

HERBERT H. MORSE, OF BRATTLEBOROUGH, VERMONT.

IMPROVEMENT IN STRINGING DEVICES FOR PIANO-FORTES, &c.

Specification forming part of Letters Patent No. **150,700**, dated May 12, 1874; application filed April 1, 1874.

To all whom it may concern:

Be it known that I, HERBERT H. MORSE, of Brattleborough, of the county of Windham and State of Vermont, have invented a new and useful Improvement in Mechanism for Supporting and Tuning the Strings of Piano-Fortes or various other Musical Instruments; and I do hereby declare the same to be fully described in the following specification and represented in the accompanying drawings, of which—

Figure 1 denotes a top view, Fig. 2 a side elevation, and Fig. 3 a longitudinal section, of a string and its adjuncts, to be hereinafter explained.

By my invention a piano can be tuned up to "concert" or any required pitch with little danger of soon relapsing therefrom. In general, after a piano may have been in use for a few years it will be found difficult to keep it in tune unless it be tuned below concert pitch; but with my means of sustaining and straining each string, the chance of it continuing in tune is very much increased, if not rendered certain.

In the drawings, the string is represented at A, it being, at or near the bridge end of it, secured to a straining-pin, B, prismatic above the string frame or board C, as shown, and extended through a bracket, D, formed and fixed thereto. A wedge or key, *a*, driven into the pin-hole of the bracket serves to prevent the pin from revolving after it may have been turned sufficiently to wind the string upon it. The string goes through a hole, *b*, made laterally through the pin. At its opposite end the string A is secured, as shown, to a lever, E. This lever, at its inner end, is pivoted to a bridge or post, F, over and upon whose top

the string extends and rests, it being, if desirable, first carried through a hook or pin, G, inserted in the string-frame and near the post F. A screw, H, provided with a pyramidal head, *c*, goes down through the lever E and screws into the string-frame, the shoulder of the head resting on the lever. The lever and the screw serve as a means of tuning the string. By the pin B the string may be first set up or strained approximately to the right pitch, after which the wedge is to be driven by the side of the pin and into its hole in the bracket, the wedge serving to prevent the pin from revolving in the bracket.

By applying a tuning-key to the head of the screw H and turning it, the lever E may be depressed very gradually until the string may be brought to the correct pitch.

Instead of the bracket, the wedge, and the straining-pin B, a common hitch-pin may be used to fasten the string, the post F, the lever E, and the screw H being employed to effect the straining of it. I prefer, however, to have the duplex straining apparatus as hereinbefore described, using the lever and screw only as means of completing the straining of the string after it may have been partially strained by the pin B, used as described.

I claim as my invention in piano-fortes or stringed instruments as follows, viz:

The rotary straining-pin B, and the bracket D and wedge *a*, in combination with the string A and the part F, the lever E, and the screw H, arranged with and applied to it, all substantially as specified.

HERBERT H. MORSE.

Witnesses:

O. F. BAILEY,
WM. C. HORTON.