

(No Model.)

J. KELLER.

DEVICE FOR MUTING PIANOS.

No. 396,698.

Patented Jan. 22, 1889.

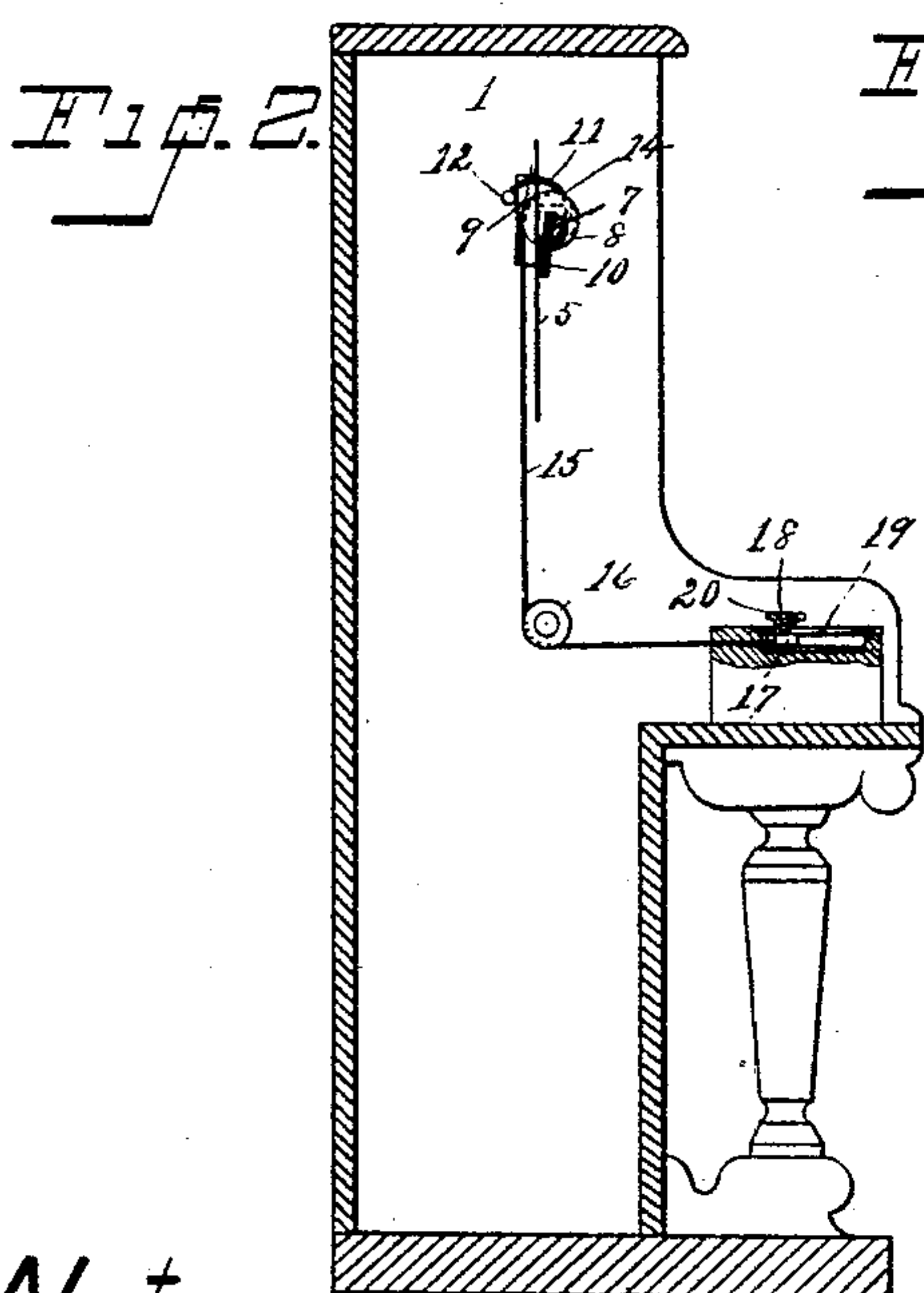
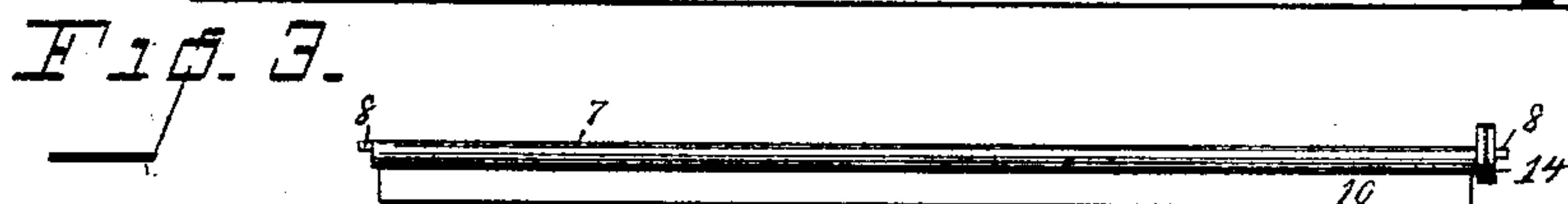
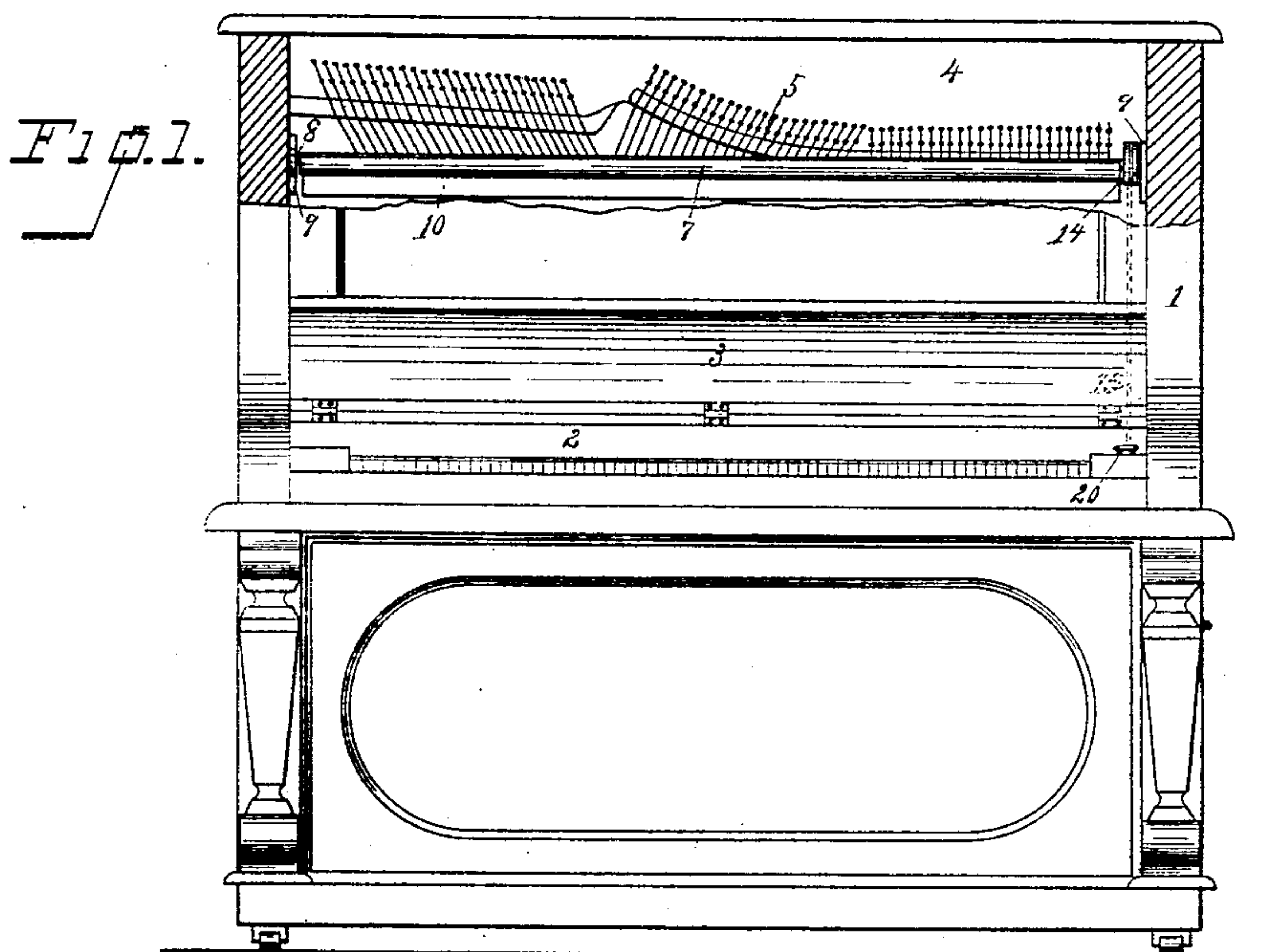
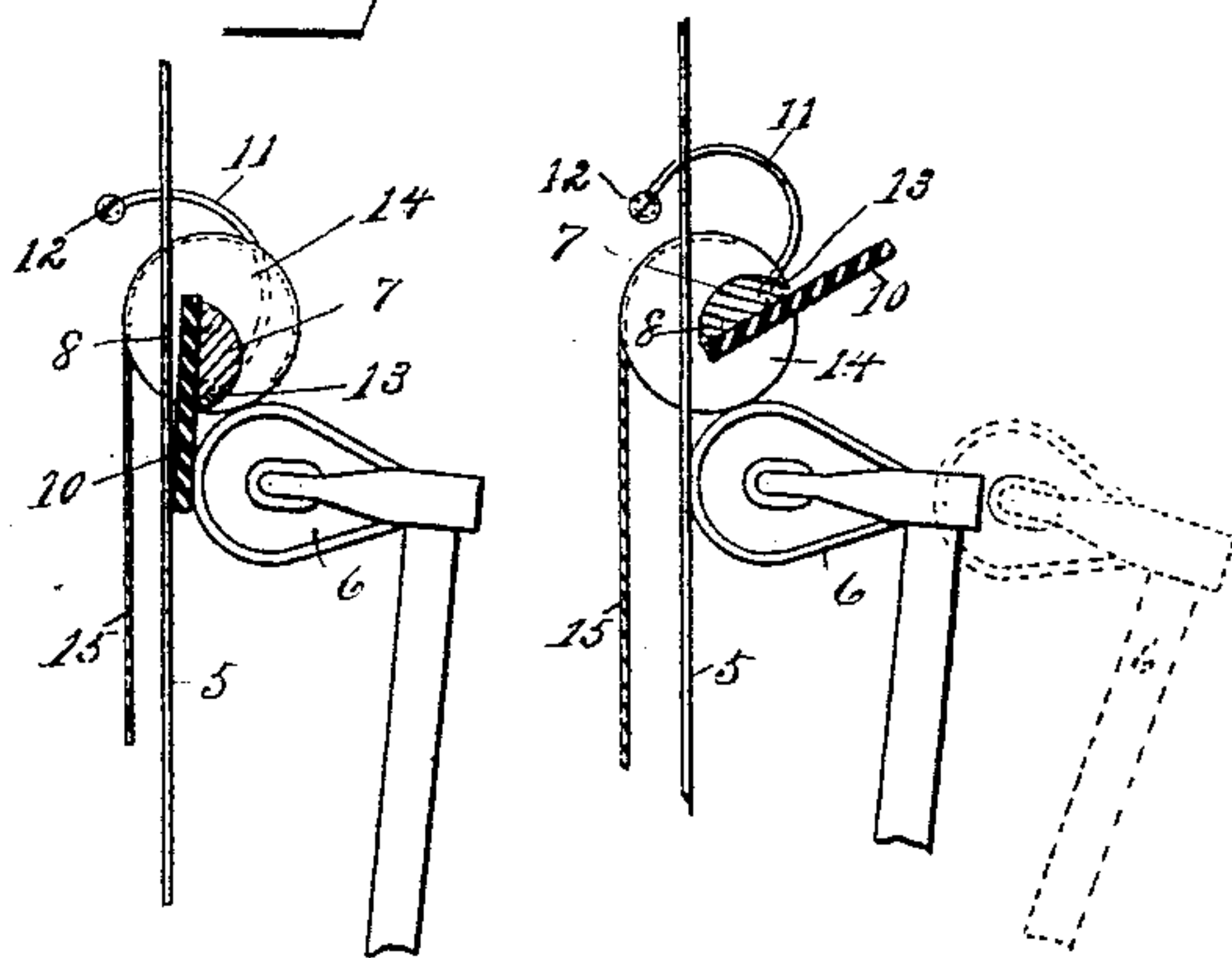


Fig. 4. Fig. 5.



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UNITED STATES PATENT OFFICE.

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DEVICE FOR MUTING PIANOS.

SPECIFICATION forming part of Letters Patent No. 396,698, dated January 22, 1889.

Application filed May 22, 1888. Serial No. 274,690. (No model.)

To all whom it may concern:

Be it known that I, JOSEPH KELLER, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Devices for Muting Pianos; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to provide a simple and inexpensive device for muting pianos which may be readily applied to instruments already in use.

With these ends in view I have devised the novel construction of which the following description, in connection with the accompanying drawings, is a specification, numbers being used to denote the several parts.

Figure 1 is a front elevation of an upright piano, the cover being lifted and a portion of the front of the case broken away to show the application of my improvement; Fig. 2, a cross-section of an upright piano at one end of the key-board, showing the manner in which my novel muting device is operated; Fig. 3, a detail view of the bar and strip detached; Fig. 4, a cross-section, on an enlarged scale, showing my novel muting device in operative position; and Fig. 5 a similar section showing the muting device out of operative position.

I have shown my invention as applied to an ordinary upright piano, although of course it may be applied to other styles, if desired.

1 denotes the case, 2 the key-board, 3 the cover, 4 the sounding-board, 5 the strings, and 6 one of the hammers, of an upright piano.

7 denotes a bar, which is preferably made of steel and formed half-round, as shown. The opposite ends of this bar are provided with trunnions 8, which are journaled in brackets 9, secured to the opposite inner sides of the case. This bar is pivoted just above the hammers, and is provided on its inner face with a strip of rubber, 10, which extends the entire length of the key-board and projects downward far enough below the bar so that when in operative position it will engage the

strings and receive the blows of the hammers, which are transmitted to the strings through the strip of rubber. I have experimented with various substances in connection with the bar to serve as a muting-strip—for instance, cloth, felt, leather, &c. I have found, however, that a strip of rubber serves the purpose much better than another material.

The object of the device is not merely to muffle the tones, but to make the tones wholly inaudible at a short distance. It is of course essential that the tones shall be perfectly audible to a performer; but any volume of tone above what is required for this purpose it is desired to dispense with. This result is perfectly accomplished by a rubber muting-strip applied in this manner. It will of course be understood that the muting-strip may be thrown into and out of operative position in various ways. I preferably hold the muting-strip in operative position by means of a spring or springs, 11, one end of each spring being secured to the inner side of the casing, as at 12, and the other end secured to the outer edge of the end of the bar, as at 13.

14 is a roller at one end of the bar, and 15 a cord attached to the roller. This cord extends downward and around a pulley, 16, within the casing, the other end being attached to a slide, 17, which moves in ways at the end of the key-board. A stud, 18, projects upward through a slot, 19, and is engaged by a thumb-screw, 20, by which the slide is locked in its retracted position, the operation being to partially revolve the bar and carry the muting-strip upward out of reach of the hammers, as clearly shown in Fig. 5. The instant the thumb-screw is released spring 11 will act to throw the bar backward into operative position, and will place the muting-strip in contact with the strings, in which position it will receive the blows of the hammers, as in Fig. 4.

Having thus described my invention, I claim—

1. In a piano, a bar, 7, pivoted close to the strings above the hammers and carrying a strip, 10, adapted to rest on the strings and be engaged by the hammers, in combination with a spring acting upon the bar to place the strip in operative position.

2. The combination, with the strings and hammers, of a pivoted bar and a strip of rubber carried by said bar and adapted to lie between the strings and hammers, and a spring
5 acting to hold the strip in operative position.

3. The pivoted bar, strip 10, carried thereby, and a roller upon said bar, in combination with a cord attached to the roller and extending downward and outward, where it is at-
10 tached to a slide, and a stud and set-screw, whereby the slide is locked in its retracted position to hold the strip out of engagement with the string.

4. Bar 7, carrying strip 10 and roller 14, in

combination with a spring acting to hold the 15 strip in operative position, and a cord extending from the roller and connected to a slide provided with a set-screw, whereby the bar may be partially rotated to place the strip out of operative position, and retained in that 20 position.

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

JOSEPH KELLER.

Witnesses:

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BERTHA E. LEE.