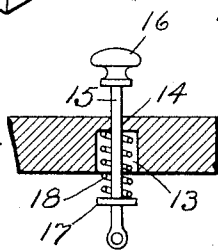
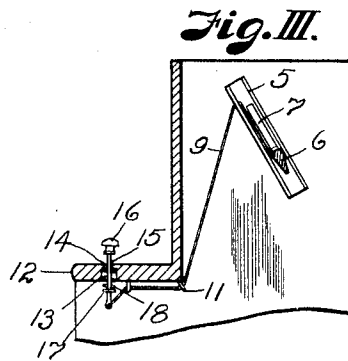
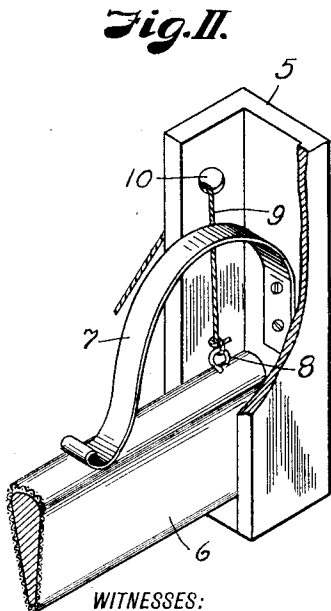
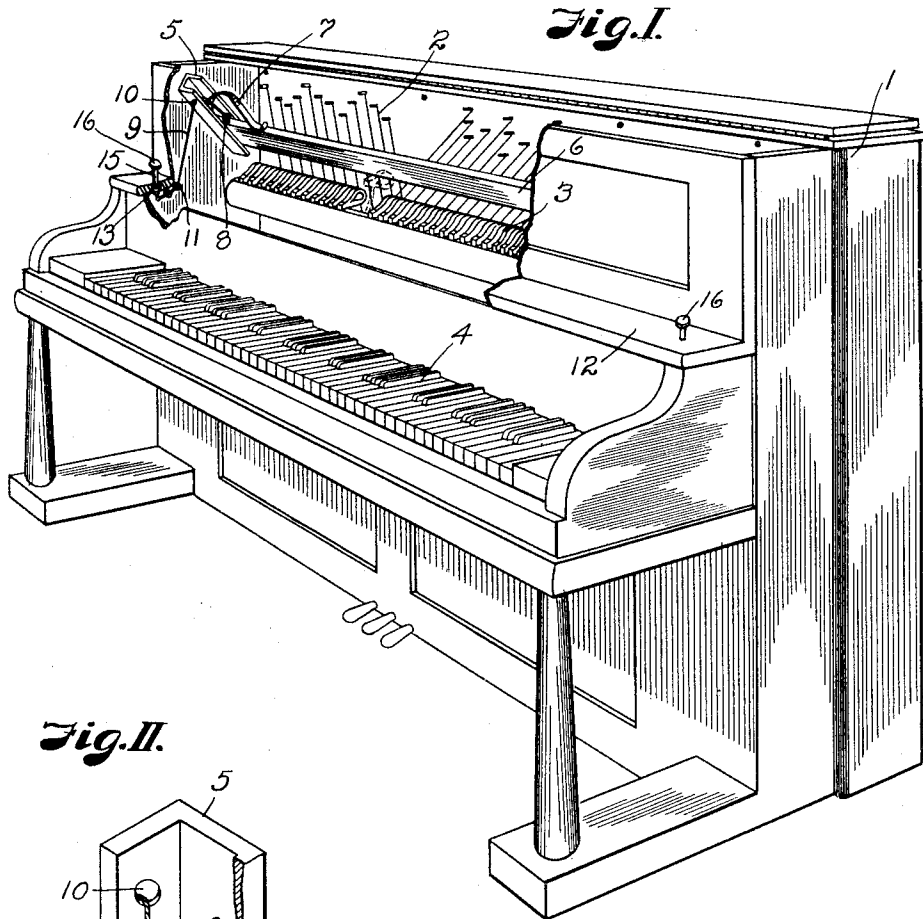


A. STEIN.
SILENCING ATTACHMENT FOR PIANOS.
APPLICATION FILED NOV. 23, 1911.

1,038,015.

Patented Sept. 10, 1912.



WITNESSES:

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ALBERT STEIN, OF KANSAS CITY, MISSOURI.

SILENCING ATTACHMENT FOR PIANOS.

1,038,015.

Specification of Letters Patent.

Patented Sept. 10, 1912.

Application filed November 23, 1911. Serial No. 661,987.

To all whom it may concern:

Be it known that I, ALBERT STEIN, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Silencing Attachments for Pianos; and I do 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, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention relates to a silencing attachment for pianos and has for its object to provide means for preventing the sounding of the strings of a piano when the keys are struck, so that the instrument may be used for practising without annoying persons within hearing of the instrument. In accomplishing this object, I have provided the improved details of structure herein-after described and illustrated in the accompanying drawings, wherein:—

Figure I is a perspective view of a piano equipped with my improved silencing attachment, a part of the front board of the piano being removed. Fig. II is an enlarged detail perspective of a part of the silencing bar with its guide and spring. Fig. III is a vertical section through the upper portion of the piano, showing the silencing bar and its controlling parts. Fig. IV is a detail view of the bar controlling pin.

Referring more in detail to the parts:—1 designates an upright piano having the vertically arranged strings 2 and the usual actions, the hammers 3 and keys 4 of which only are shown, as the action itself may be of any ordinary construction and does not form a part of the present invention.

Fixed to the ends of the piano case, on the inside thereof, are trough guides 5, and extending across the case is a bar 6, the ends of which are adapted for travel within the guides, the latter being so arranged that the front face of the bar 6 is perpendicular to the hammers when the latter contact therewith. The bar 6 is preferably covered with felt, or the like, to provide a deadening base against which the hammers may strike and to provide a friction inducing surface for contact with the guides, so that the bar will be frictionally held within the guides, although adaptable for sliding travel therein.

Fixed to the guides 5 and bearing against the upper edge of the bar 6, are springs 7 which tend to force the bar downwardly. Connected with the ends of the bar, preferably through eyelets 8, are cords 9 which extend upwardly through the guides and are run through apertures 10 therein and down through eyelets 11 which are located adjacent to and preferably beneath the music rail 12.

In the under side of rail 12 are sockets 13 having apertures 14 opening through the top of the rail, and extending through said sockets and apertures are posts 15 having buttons 16 on their upper ends and having their lower ends connected with the cords 9. Surrounding the posts 15 and bearing against the tops of the sockets 13 and against collars 17 on the lower ends of the posts are springs 18, which yieldingly tension the posts downwardly.

When the piano is in normal condition, the posts 15 are in lowered position with the buttons 16 yieldingly held close to the music rail by the tension of springs 18, the bar 6 being in upper position so that the hammers may pass therebeneath to engage the strings. With the parts so arranged the springs 7, which are stronger than the pin springs 18 are tensioned, but the friction of the bar in its guides offsets this difference in spring tension so that the parts balance, and the bar may be shifted by manipulating the posts.

In using the attachment, presuming the parts to be assembled as described and the silencing bar 6 in upper position so that the hammers 3 may clear the bar and strike the strings 2, and it is desired to use the piano without producing sound, the posts 15 are raised by lifting on the buttons 16. When the posts are raised, the cords 9 are slackened and the silencing bar lowered by tension of the flat spring 7 until it is in position for engagement by the hammers 3; the bar being held in such position by the friction of its felt cover against the sides of the guides and by the tension of the springs 7. When it is desired to return the bar to inoperative position and expose the strings to the hammers, the posts 15 are lowered with the tension of the springs 18 to lift the bar against the tension of the flat springs 7, until the bar has assumed its upper position, when the instrument may be used in the usual manner.

It is apparent that when the posts are in lowered position the buttons will lie close to the music rail and will not mar the appearance of the instrument.

5 Having thus described my invention, what I claim as new therein and desire to secure by Letters-Patent is:

1. The combination with a piano having a suitable case and strings, of inclined guides 10 mounted on the ends of the case and having apertures in their upper ends, a bar slidably mounted in said guides, springs disposed in the guides and bearing against the top of the bar, cords fixed to the bar and extending 15 up through said guides and through said apertures, posts extending through the case and connected with said cords, and having springs adapted for yieldingly tensioning said posts to position for lowering said 20 cords.

2. The combination with a piano having a case, and strings, of inclined guides mounted on the ends of the case and having apertures in their upper ends, a bar slidably 25 mounted on said guides, springs disposed in the guides and bearing against the top of said bar, cords attached to the bar and passing through said apertures, posts extending

through the case and connected with said cords, and springs adapted for tensioning 30 the posts downwardly to assist in elevating the said bar against the tension of the guide springs.

3. The combination with a piano having a case, hammers and strings, of inclined 35 guides mounted on the ends of the case and having apertures in their upper ends, a bar slidably mounted in said guides, and having a felt silencing base against which the hammers are adapted to strike and friction sur- 40 faces adapted for contact with the guides, springs mounted in the guides and engaging the top of the bar, cords attached to said bar and passing through said guide aper- 45 tures, posts extending through the case and connected with said cords, and springs adapted for tensioning the posts downwardly, to assist in elevating the bar against the tension of guide springs and the friction 50 of the guides.

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

ALBERT STEIN.

Witnesses:

MYRTLE M. JACKSON,
W. E. ARTHUR BUDD.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."