

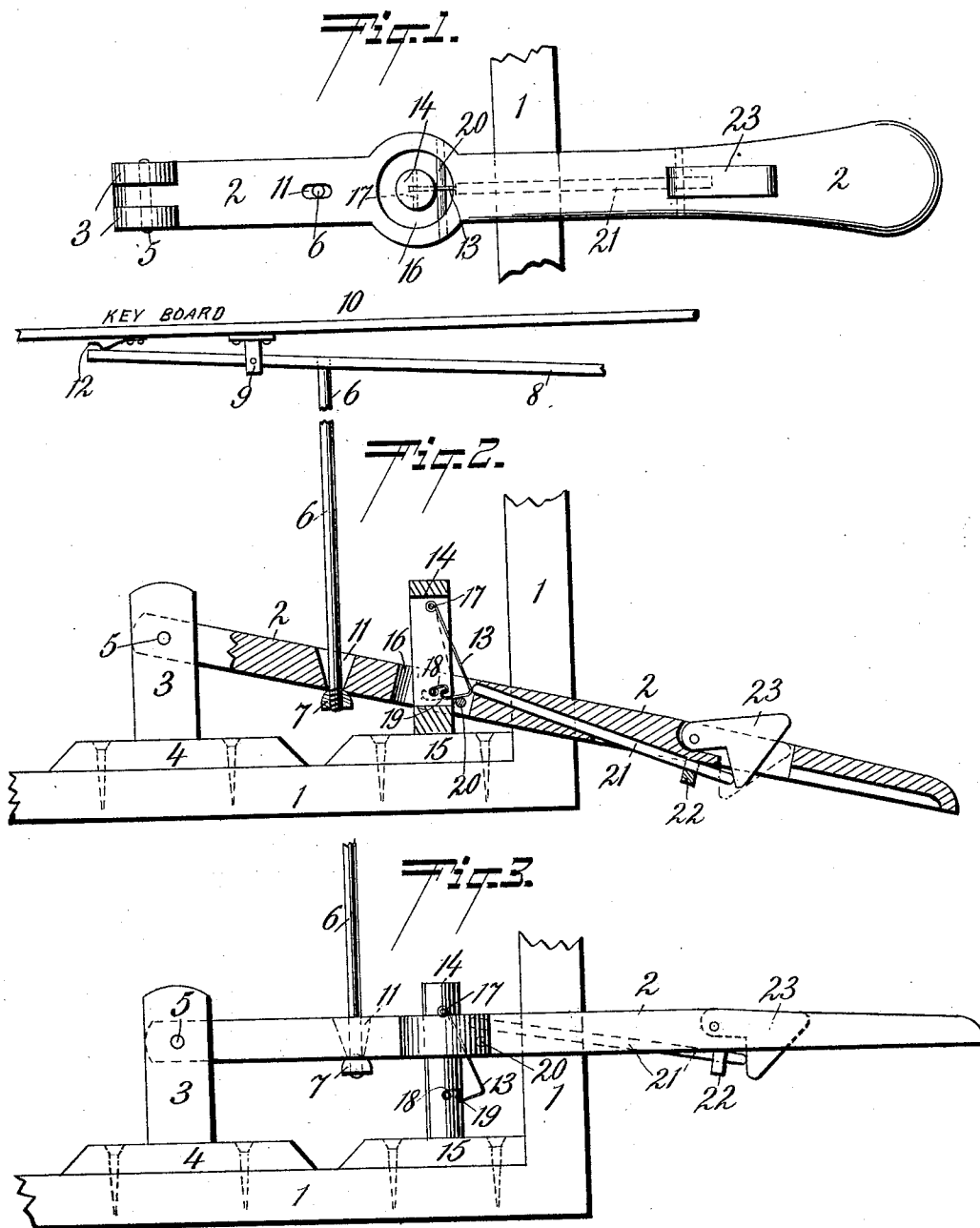
(No Model.)

2 Sheets—Sheet 1.

G. B. SHEARER.
LOCKING DEVICE FOR PIANO PEDALS.

No. 518,163.

Patented Apr. 10, 1894.



Attest:

J. H. Schott
Alfred T. Sage.

Inventor
George B. Shearer,
by W. B. Henderson
Attorney.

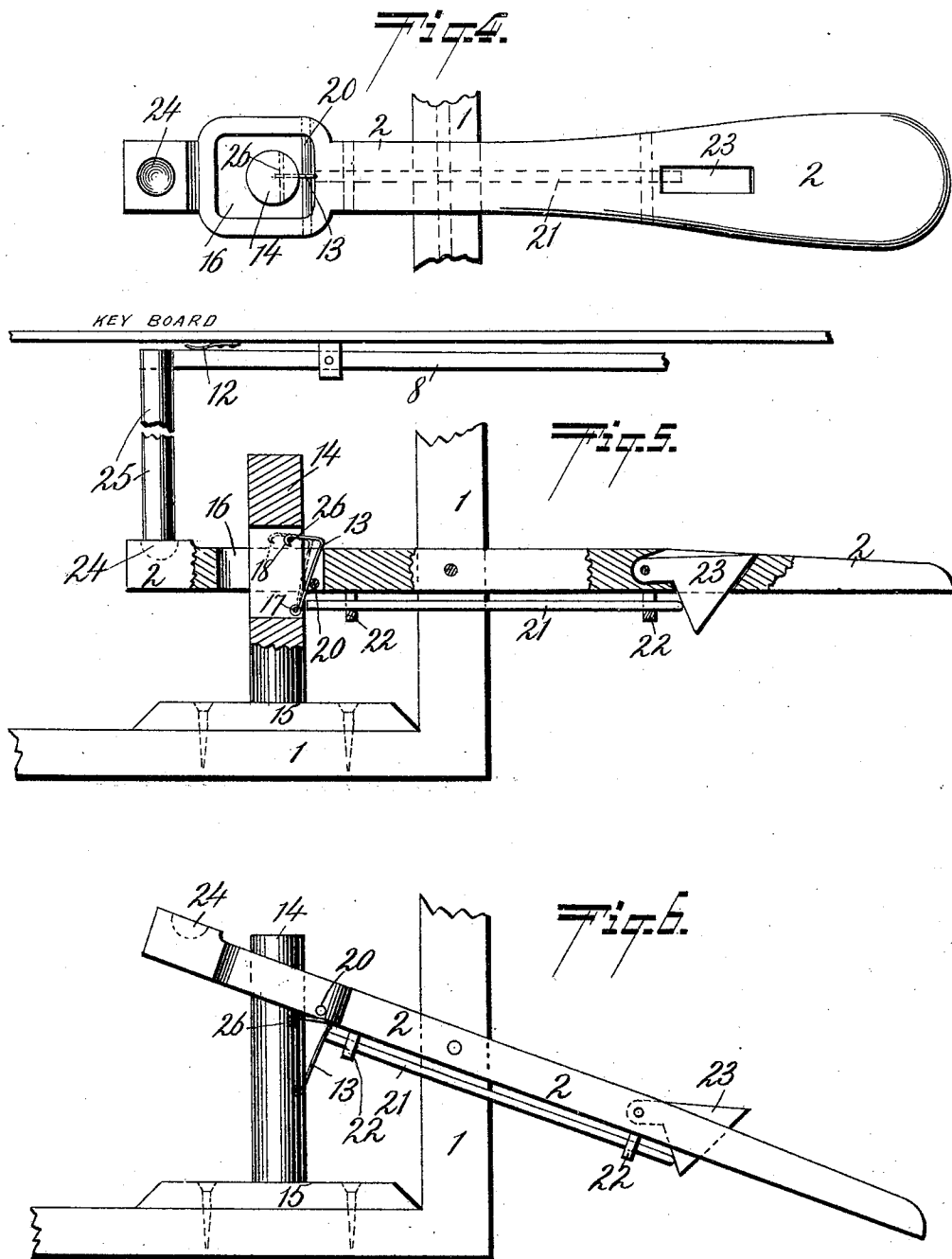
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UNITED STATES PATENT OFFICE.

GEORGE BENTON SHEARER, OF ONEONTA, NEW YORK.

LOCKING DEVICE FOR PIANO-PEDALS.

SPECIFICATION forming part of Letters Patent No. 518,163, dated April 10, 1894.

Application filed July 28, 1893. Serial No. 481,742. (No model.)

To all whom it may concern:

Be it known that I, GEORGE BENTON SHEARER, a citizen of the United States, residing at Oneonta, in the county of Otsego and State of

5 New York, have invented certain new and useful Improvements in Locking Devices for Piano-Pedals; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled
10 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.

15 My invention relates to pianos, and has reference particularly to practice pedals for the same, and seeks for its object to provide improved means for operating what is technically known as a "muffler" so as to soften
20 or muffle the sound of the piano when desired in practicing, although it may be used for other purposes.

The invention will be hereinafter particularly described and then sought to be specifically defined by the claims, reference being had to the accompanying drawings, forming a part hereof, and in which—

Figure 1 is a plan view of a piano pedal showing parts of my invention applied thereto. Fig. 2 is a side elevation of the device with parts in section and shows the pedal in its depressed position for throwing the "muffler" (not shown) into action. Fig. 3 is a side elevation of parts of the device showing the
35 pedal in its position when the muffler is out of action. Fig. 4 is a plan view of a modified form of the invention. Fig. 5 is a side elevation with parts in section of the modified form showing the pedal in position when the muffler (not shown) is not in action; and Fig. 40 6 is a side elevation of parts of the device showing the pedal in its depressed position when the muffler is in action.

A muffler adapted to be dropped and raised
45 in order to muffle the sound when practicing upon the piano and to move it from between the hammers and strings at other times, and a rod leading down from the muffler and
50 having connection with operating mechanism for drawing the muffler into and out of action, are well known in the art and need not be

illustrated to understand my invention and I will therefore confine my description and illustration to the parts which constitute my 55 invention.

In the accompanying drawings the numeral 1 indicates a portion of the case of a piano and 2 designates a foot pedal or lever which may be suitably fulcrumed, say to a standard 60 3 rising from a base block 4 secured by screws or otherwise to the base of the case, the end of the lever being secured to said standard by a pivot pin 5 or otherwise as found convenient or desirable. This pedal has a rod 6 65 attached to it in any suitable way, say by passing the rod through the pedal and having a nut or other form of head 7 secured to its end so as to bear against the under face of the pedal, the upper end of the rod being suitably 70 secured to a horizontally extending arm or lever 8 which may be pivoted or fulcrumed to a bracket 9 secured to the under side of the key board 10 which arm or lever 8 is adapted to be connected at one end with a rod or con- 75 necting means (not shown) leading up to the muffler (not shown). The opening or hole 11 in the pedal 2 through which the rod 6 passes is enlarged or made flaring from its lower end upwardly in order that the pedal may have a 80 free up and down movement without binding on the rod as clearly illustrated in Figs. 2 and 3 of the drawings, and a spring 12 will be suitably located, say so as to bear against the rear end of the arm or lever for the purpose 85 of restoring said arm or lever and the muffler to their normal position whenever the pedal 2 is released from a lock so that the spring may act to move the parts, the strength of the spring 12 preferably being such that it will 90 hold the pedal 2 in the position illustrated in Fig. 3 when the muffler is out of action.

In order to lock the pedal in its depressed position so as to hold the muffler between the hammers and the strings during the period 95 of practicing on the piano, I provide a spring stop 13 attached to a suitable support which is preferably a post 14 secured to a base block 15 attached by screws or otherwise to the base 100 of the case and by preference made to extend through an opening 16 in the pedal, the said spring stop preferably working in a slot in the post 14 and secured at one end to the post by a pin 17 while the other end is formed with

a hook 18 or otherwise so as to engage a catch 19 so that at the proper time the spring stop can be pressed inwardly and afterward can be free to spring outwardly to its normal position. This spring stop is designed to engage with a projection or pin 20 on the pedal 2 so that when said projection or pin bears against the shoulder portion of said stop the pedal will be held in its depressed position, as illustrated clearly in Fig. 2 of the drawings, in which position the lever or arm 8 is drawn down so as to bring the muffler (not shown) between the hammers and the strings.

When it is desired to release the pedal 2 so that the muffler may be thrown to its normal position out of action, a pin or bolt 21 which may have its bearing partly in the pedal 2 and partly in the ear 22 as illustrated in Figs. 2 and 3 of the drawings, is pressed forward by a pivoted finger or trigger 23 so as to bear against the spring stop 13 and press it inward to free it from the stop or projection 20 whereupon the spring 12 will act upon the rear arm of the lever 8 so as to lift the pedal 2 and throw up the forward end of the lever 8 in order that the muffler may be thrown out of action. The finger or trigger 23 is pivoted in a slot formed in the pedal 2 as clearly illustrated in Figs. 1, 2 and 3 of the drawings, the position of the several parts when in their normal condition being illustrated in Fig. 3 of the drawings. When it is desired to throw the muffler into operation it is necessary to press down the pedal 2 with the foot which movement causes the pin or projection 20 to press the spring stop 13 inwardly until said pin or projection reaches a point below the shoulder of said spring stop when the spring at once, upon being relieved of pressure, assumes its normal position and the stop or pin bearing against its shoulder, the pedal will be held in its depressed position and the muffler between the hammer and strings, in which position the pin or bolt at its lower end bears against the trigger 23 and presses its upper end above the top of the foot pedal in the position shown in Fig. 2 of the drawings, which action may be effected either by the gravitation of the pin or bolt 21 or by the spring stop 13 bearing against the upper end of said pin or bolt and pressing it downward as indicated in Fig. 2 of the drawings. When the parts are in the position indicated in Fig. 2 the mere pressure of the foot upon the trigger 23 forces the pin or bolt upward and causes it to bear against the spring stop 13 so as to push it out of engagement with the pin or projection 20 while the spring 12 will act to throw the parts in their normal position.

Instead of employing the arrangement of parts illustrated in Figs. 1, 2 and 3, I may employ the arrangement shown in Figs. 4, 5, and 6 by which the same results are accomplished and by which substantially the same

action of the parts is obtained. In Figs. 4, 5 and 6 I have illustrated the pedal 2 as fulcrumed to the forward portion of the case 1 and its rear end formed with the cup or depression 24 in which fits loosely the lower end of the rod 25 which at its upper end is connected to the rear end of the arm or lever 8. In this modification I have illustrated the position of the spring stop 13 as reversed from that shown in Fig. 2 of the drawings so that in the modification the projecting portion of this spring stop is at the top instead of at the bottom of the spring. The hooked end of the spring stop is also shown as engaging a pin 26 which is the equivalent of the catch 19 shown in Fig. 2 of the drawings and operates to serve the same purpose. In this modification I have shown the sliding pin or bolt 21 as sustained by the two ears 22 instead of by one of said ears and the pedal as illustrated in Fig. 2 of the drawings. The sliding pin or bolt however operates in the same manner as the form illustrated in Fig. 2 and is designed for the same purpose.

Under the construction illustrated in Figs. 4, 5 and 6, when the pedal is depressed the pin or projection 20 is pressed against the face of the spring stop 13 so as to force the stop inwardly until said pin or projection rises above the top or shoulder of the spring stop whereupon the spring rebounds, assuming its normal position and the stop or projection being above and bearing against it the pedal is held in its depressed position so as to hold the muffler between the hammers and the strings. At the same time the spring pin or bolt 21 is bearing against the trigger or finger 23 so as to press the same slightly above the top of the pedal in order that it may be depressed by the foot when it is desired to throw the sliding pin or bolt against the spring stop 13 to press the same inward from under the pin or projection 20 so that the spring 12 may be free to act on the lever 8 to press down the rear end of the pedal 2 and the arm or lever 8 so as to throw the muffler out of action.

It will be observed that the construction illustrated in the several figures of the drawings act on the same principle and in substantially the same way to produce substantially the same results and one form therefore is the equivalent of the other. It is also obvious to the skilled in the art that while the constructions illustrated may possess advantages still the essential features of this invention can be embodied in various details which will not depart from the spirit of the invention.

By the construction illustrated I provide a very simple and efficient mechanism for operating the muffler of a piano or similar instrument, and a construction embodying but few parts which are positive in action and

contained within a small space and which will prove durable in use and not liable to get out of order.

5 Having described my invention and set forth its merits, what I claim is—

10 1. The combination of the foot-pedal, the arm or lever and rod connecting it to said pedal, the spring-stop and pin or projection to engage it, one of which is attached to the pedal and the other to a suitable support, to lock the pedal, and means for moving said spring stop from out of engagement with said pin or projection, substantially as and for the purposes described.

15 2. The combination of the foot pedal, the arm or lever and rod connecting it to said pedal, the spring-stop and pin or projection to engage it, one of which is attached to the pedal and the other to a suitable support, a sliding pin or bolt to act on the spring stop to disengage it from said pin or projection, and means for actuating said sliding bolt, substantially as and for the purposes described.

20 3. The combination of the foot pedal, the arm or lever and rod connecting it to said pedal, the spring-stop and pin or projection to engage it, one of which is attached to the pedal and the other to a suitable support, a sliding pin or bolt to act on said spring-stop

to disengage it from the pin or projection, and 30 a finger or trigger acting on said sliding bolt, substantially as and for the purposes described.

4. The combination of the foot pedal, the spring-stop and pin or projection to engage it, 35 one of which is attached to the pedal and the other to a suitable support, to lock the pedal, means for disengaging said spring-stop and pin or projection to unlock the pedal, and means for restoring the pedal to its normal 40 position, substantially as and for the purposes described.

5. The combination of the foot pedal, the post or standard provided with the spring-stop adapted to be moved into and out of said 45 post or standard, the pin or projection carried by the foot pedal in a position to engage said spring stop, and the sliding bolt and pivoted trigger carried by the pedal and adapted to actuate the spring-stop to disengage it from 50 its pin or projection, substantially as and for the purposes described.

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

GEORGE BENTON SHEARER.

Witnesses:

JOHN W. BUSH,

DOUGLAS W. MILLER.