

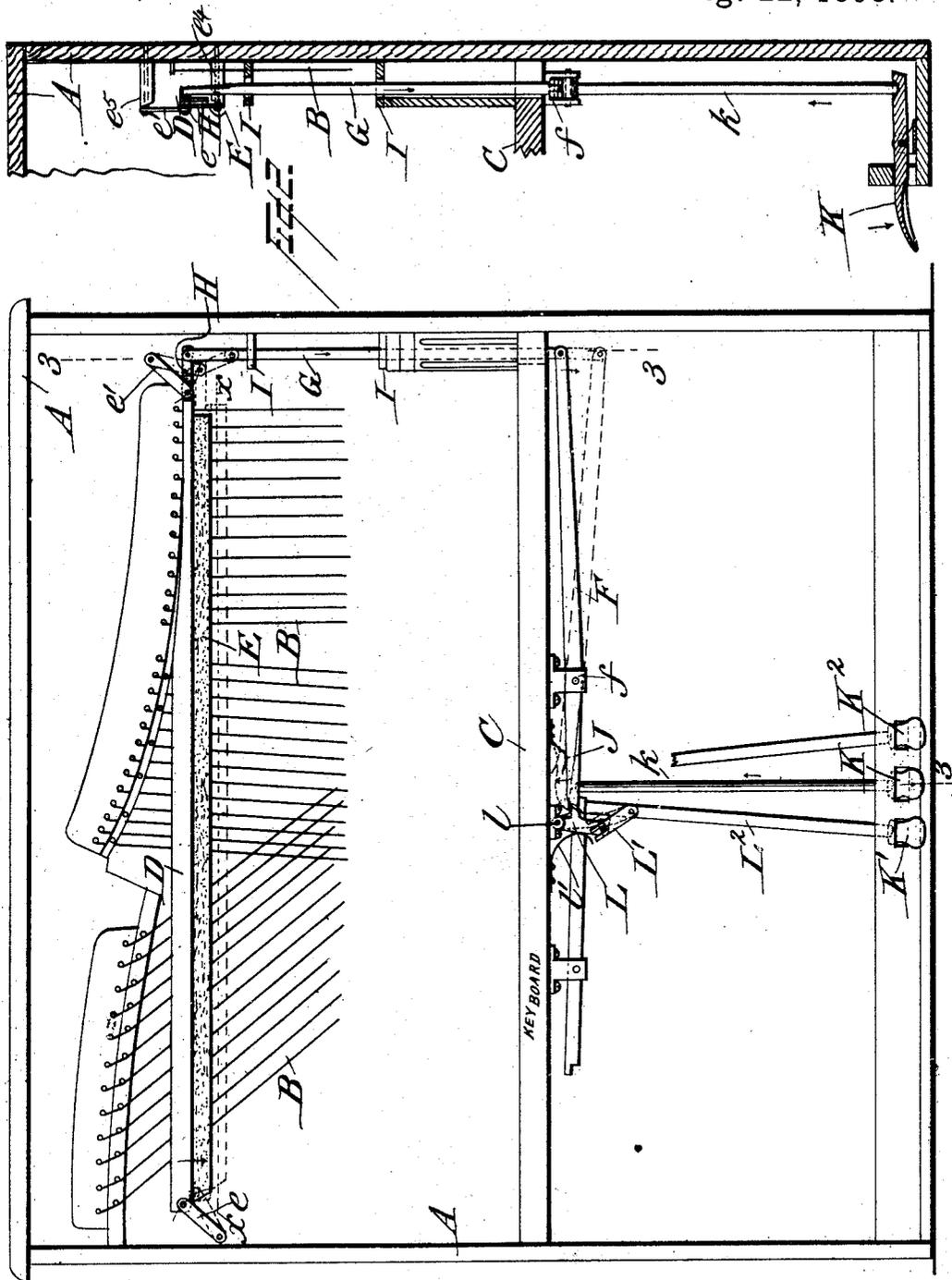
(No Model.)

2 Sheets—Sheet 1.

# G. B. SHEARER, PIANO PRACTICE PEDAL.

No. 503,880.

Patented Aug. 22, 1893.



Attest:  
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 by *W. B. Henderson,*  
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# UNITED STATES PATENT OFFICE.

GEORGE BENTON SHEARER, OF ONEONTA, NEW YORK.

## PIANO PRACTICE-PEDAL.

SPECIFICATION forming part of Letters Patent No. 503,880, dated August 22, 1893.

Application filed December 1, 1892. Serial No. 453,771. (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 New York, have invented certain new and useful Improvements in Piano Practice-Pedals; 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 letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in pianos, and it has for its object the improved construction of a muffler whereby an instrument can be used in long continued practicing without annoying the unwilling hearers who are compelled to stay in the immediate neighborhood, by incessant playing; which will serve to preserve the hammers and strings from injury to which they are necessarily liable from the continuous use incident to such practice; and which will in no way affect the quality of the music so far as its practice features are concerned, other than to greatly decrease its strength of sound; and furthermore, which will not in any way interfere with the ordinary use of the instrument.

The invention consists in the construction and combination of parts hereinafter particularly described and then sought to be clearly defined by the claims.

In the accompanying drawings, in which similar letters of reference designate corresponding parts, Figure 1 is a front elevation of a piano embodying the invention, only so much of the instrument being shown, however, as is necessary for the proper illustration. Fig. 2 is a transverse vertical section on the line 3—3 of Fig. 1. Fig. 3 is a detail view showing the drop-bar and the muffler connected thereto, and the system of levers whereby the drop bar is operated, being broken away in certain portions. Fig. 4 is a detail view, showing the drop-bar and the swings and lever connected directly with the same, the drop-bar being shown as supporting

the muffler in its operative position, in full lines, and in a raised position in dotted lines. Fig. 5 is a side elevation of the same.

The invention is shown and described as being applied to an upright piano, but it is obvious however, that it can be applied to other styles without departing from the spirit of the invention.

Referring to the drawings by letter, A designates the casing of an upright piano, B the strings and C the key-board, all constructed and arranged in the usual manner.

D designates the drop-bar to which the muffler E, of felt, cloth, leather or other analogous material is attached. It is supported or suspended by the swings  $e$  and  $e'$ , pivoted to each end of the bar respectively and to the lugs  $e^4$  and  $e^5$ . These lugs project from the metal plate  $e^6$  of the piano and are either formed integral with the same or made separate and attached in any suitable manner, and have their outer faces to which the swings are pivoted, beveled for a purpose which will be explained farther on. This attachment of the drop-bar will allow the latter to be easily moved to the side and downward and at the same time toward the strings to the position shown by dotted lines in Figs. 1 and 3, and in full lines as shown in Figs. 4 and 5. The muffler so interposed will be in a position to be struck by the hammers and through it the blows will be given to the strings. It will in no way interfere with the operation of the various parts as it swings clear of them.

The mechanism for moving the muffler will now be described. F designates a lever pivoted to the under side of the key-board in the hanger  $f$ , in such a position that its inner end will extend to a central position and the outer end to a position beneath the right hand end of the drop bar D. A vertical rod G is pivoted at its lower end to the outer end of the lever F and is connected at its upper end with the end of the drop-bar by the swing or link H which is pivoted to the said rod and to the drop-bar at the pivotal point of the swing or link  $e'$  with said drop bar. Guides I I serve to hold the rod G in its proper upright posi-

tion. To the under side of the key-board, between it and the inner end of the lever F, a spring J is secured, which presses upon the lever and will, normally, through the several connections, hold the drop-bar in a raised position. Intermediate of the loud and soft pedals  $K^1$  and  $K^2$ , respectively, a third or practice pedal K is pivoted. It has attached to its inner end the rod  $k$ , which is attached at its upper end to the inner end of the lever F. By means of this pedal, the lever F can be raised against the action of the spring J, and thereby through the intermediate connections, lower the muffler to a position to perform its function. A catch L is pivoted in the hanger  $l$  to the under side of the key-board and is pressed by the spring  $l'$  toward the inner end of the lever F, so that when the latter is raised it will be caught by the catch and be held in the elevated position. To release the catch, a link  $L'$  connects it with the rod  $l^2$  of this pedal  $K'$ , so that when the latter is depressed, the rod being forced upward, the catch, through the link  $L'$ , will be disengaged from the lever F, allowing the muffler to assume its normal position. If it is desired to mute the string  $s$ , by pressing down upon the pedal K so as to pull down the rod G farther than is required to merely muffle the strings by interposing the felt, the muffler can be pressed against the strings and held there by pressure of the foot on the pedal. The slots in the guides I I through which the rod G passes will be elongated so as to allow a side movement or play to the upper end of the rod sufficient to accommodate the swinging of the drop-bar D; and washers M, of felt or other suitable material, are preferably placed between the swing H and the drop bar D and bar G at the points of juncture between said parts so as to cushion the parts at such points as the joints at such points are loose so as to permit them to accommodate themselves to the necessary movements. In practice the rod G will stand about one inch, more or less, from the iron plate of the case, and the distance of the drop bar D from the strings will be about three eighths of an inch farther from them than when drawn down into position for muffling the strings. The length of the studs or posts  $e^1$  and  $e^2$ , and the distance of the swings and connected parts from the strings are somewhat exaggerated in the drawings for the purpose of clearness in illustration but the proper distance will readily occur to those skilled in the art. The swings will preferably be made of light spring steel so as to yield somewhat in the movement of the drop-bar to and from the strings.

I have shown and described springs for moving in one direction the lever and the locking catch but it is to be understood that the term "spring" includes its equivalents.

I do not confine myself to the particular

details shown and described when they can be changed without departing from the essential features thereof.

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

1. In a piano the combination of a drop-bar having a muffler secured thereto supported by means capable of movement downwardly, longitudinally and inwardly to move the muffler downward, inward and laterally lengthwise, and mechanism for moving said drop-bar and muffler, substantially as described.

2. In a piano, the combination of a drop bar having a muffler secured thereto, links pivoted above and below said bar and having their ends next to the bar secured thereto to permit the bar to move downward and laterally lengthwise, and mechanism for moving said bar, substantially as and for the purposes described.

3. In a piano, the combination of a drop-bar having a muffler secured thereto, links pivoted above and below said bar and having their ends next to the bar secured thereto to permit the bar to move downward, inward and laterally lengthwise, and mechanism for moving said bar, substantially as and for the purposes described.

4. In a piano, the combination of a drop-bar having a muffler secured thereto adapted to be thrown between the hammers and the strings, the pedal, the spring pressed intermediate lever the rods connecting the ends of said lever with the pedal and drop-bar respectively, and the spring catch adapted to engage with an end of the said lever to lock it in a position to hold the muffler between the hammers and strings, substantially as and for the purposes described.

5. In a piano, the combination of a drop bar having the muffler secured thereto adapted to be thrown between the hammers and the strings, the pedal, the spring pressed intermediate lever, the rods connecting the ends of said lever with the pedal and drop-bar respectively, the automatic catch adapted to engage with an end of the said lever to lock it in a position to hold the muffler between the hammers and strings, the second pedal rod, and the link connecting the said pedal rod near the upper end with the catch, substantially as and for the purposes described.

6. In a piano, the combination of a drop-bar having a muffler secured thereto adapted to be thrown between the hammers and the strings, the pedal, the intermediate lever supported beneath and adjacent to the key-board and automatically movable in one direction, and connected at one end with the drop bar, the rod connecting the other end of said lever with the pedal, an automatic catch located adjacent to the key board and adapted to engage with an end of the said lever to lock it in a position to hold the muffler between the hammers and the strings, the second pedal

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rod, and means for connecting said rod with the automatic catch to release the catch from engagement with the lever, substantially as and for the purposes described.

5 7. In a piano the combination of the drop-  
bar, the muffler secured thereto, the lugs hav-  
ing their faces beveled located one above and  
one below the drop-bar and adjacent to the  
10 ends of the same, the swings connecting the  
ends of the drop-bar with the lugs being piv-

oted to the beveled faces of the latter, and mechanism for moving the drop-bar, substantially as described.

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

GEORGE BENTON SHEARER.

Witnesses:

DELOS HOWE KELLEY,  
DOUGLAS WINSLOW MILLER.