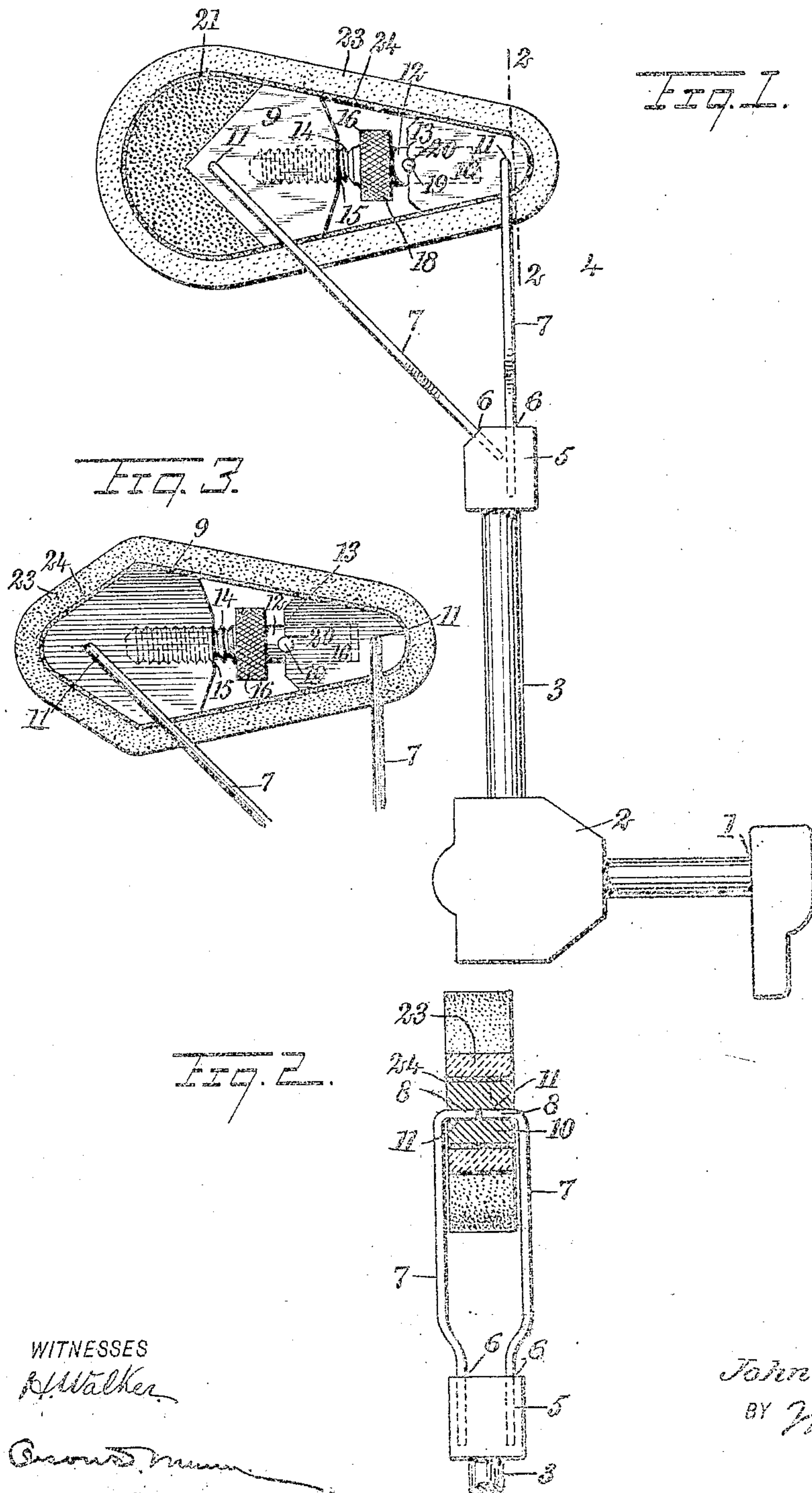


J. W. E. LAKER.  
PIANO HAMMER.  
APPLICATION FILED MAY 16, 1908.

912,860.

Patented Feb. 16, 1909.



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# UNITED STATES PATENT OFFICE.

JOHN W. E. LAKER, OF VICTORIA, BRITISH COLUMBIA, CANADA.

PIANO-HAMMER.

No. 912,860.

Specification of Letters Patent.

Patented Feb. 16, 1909.

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To all whom it may concern:

Be it known that I, JOHN W. E. LAKER, a subject of the King of Great Britain, and a resident of Victoria, in the Province of British Columbia and Dominion of Canada, have invented a new and Improved Piano-Hammer, of which the following is a full, clear, and exact description.

This invention relates to piano hammers, and more particularly such as have heads provided with adjustable means for removably mounting the felt strips used in striking the wires.

An object of the invention is to provide a device of the class described, having a head resiliently supported on the hammer shank, thereby causing a more decided blow to be struck, and at the same time permitting of a quicker rebound than in the ordinary piano hammer.

A further object of the invention is to provide a piano hammer having adjustable means for removably mounting the felt strip, thus allowing different materials for producing different effects and tones, to be easily substituted.

The invention consists in the construction and combination of parts to be more fully described hereinafter and particularly set forth in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views, and in which—

Figure 1 is a side elevation of the invention; Fig. 2 is a cross section on the line 2—2 of Fig. 1, and Fig. 3 is a side elevation of a modification of the device, the filler being omitted.

Before proceeding to a more detailed description of my invention, it should be understood that I provide a piano hammer having a head resiliently mounted on the hammer shank, and which has adjustable means to permit of the removal of the felt strip used in striking the piano wires; the felt strip being adjustably held in position, can be easily shifted when the striking surface becomes worn out, so that a fresh surface will be presented for striking the wires. Further, as the felt strips are easily removable, other strips of different material can be substituted to produce different tones.

Referring more particularly to the drawings, I provide a piano hammer including a

hammer back stop 1, a hammer butt 2, a hammer shank 3, and a hammer head 4. The latter has a base 5 preferably integral with the hammer shank 3, in which openings 6 are located. Arranged within these openings are supports 7, having their upper ends laterally disposed to form fingers 8. Blocks 9 and 10 respectively have openings at their sides, in which the fingers 8 of the supports 7 are arranged. The rear supports 7 extend to the rear block 10, the forward supports 7 extending to the forward block 9, the openings 6 being arranged at angles with each other for this purpose. The block 10 presents a tapered, curved surface at one end, the other end being substantially straight. The block 9 is somewhat larger than the block 10, and presents a face substantially parallel to the block 10 at the face adjacent thereto. Arranged between these blocks and having one end 12 arranged within an opening 13 in the block 10, and having its other end 14 suitably threaded to engage a similarly threaded opening 15 in the block 9, is a spreading screw 16, having a manual grip 18 at the center thereof. This screw is preferably constructed of aluminum or other suitable material. A pin 19 is located on the end 12 of the screw and serves to engage grooves 20 in the block 10, so that the screw will be held against rotation after the blocks have been adjusted in position. A filler 21, of some suitable material, such as felt or the like, and presenting a rounded surface at its outer end, is arranged adjacent to the front face of the block 9, which face is tapered so that it tends to spread the filler as it is adjusted. Encompassing the filler and the blocks is an adjustable endless strip, preferably composed of an outer and inner felt 23 and 24, respectively.

In the operation of my device, the blocks 9 and 10 are adjusted by means of the spreading screw so that they are forced apart and firmly hold the felt strip in position. When it is necessary to remove the latter, the screw is rotated so that the blocks are approached, and the strip released. The supports 7 are then withdrawn from the openings 11 in the blocks, and the strip can then be easily taken from the same. As shown most clearly in Fig. 2, the supports 7 are in duplicate so that a more decided blow is possible, and at the same time the resiliency of the supports is increased so that as they are preferably constructed of wire or



the like, a quicker rebound after the blow has been struck is produced. The felt strip being easily adjustable, can be shifted so that when the striking surface becomes worn a new surface is presented for striking the wires.

It should be noted that the hammers in the piano are of different sizes and that in my hammer for producing treble notes the filler 21 may be omitted, leaving only the felt strip covering the blocks, as shown most clearly in Fig. 3.

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

1. In a device of the class described, a hammer shank, and a head carried thereby, said head comprising relatively adjustable blocks, and a felt band movably encompassing said blocks.

2. In a device of the class described, a hammer shank, resilient supports carried by said hammer shank, blocks arranged at the ends of said supports, a felt carried by said blocks, and means for adjusting said blocks with respect to one another.

3. In a device of the class described, a hammer shank, pairs of supports arranged upon said hammer shank, blocks removably arranged between the ends of said supports of each pair, a felt carried by said blocks, and means for adjusting said blocks.

4. In a device of the class described, a hammer shank, pairs of supports carried by said hammer shank, a block arranged between the ends of said supports of each pair, means for moving said supports relative to one another, a filler at the end of one of said blocks, and a strip arranged about said filler and said blocks.

5. In a piano hammer, a hammer shank, a base integral therewith, pairs of supports irremovably carried by said base, said supports having their upper ends laterally disposed, blocks having openings on their adjacent sides, and mounted between said laterally disposed ends, a spreading member having its ends arranged within said openings of said blocks, one of the ends of said member being threaded, whereby it serves for the adjustment of said blocks with respect to one another, a filler located at the front of one of said blocks, and an endless felt strip arranged about said filler and said blocks and adjustable when said spreading member is operated to loosen said blocks, said blocks serving to tighten said strip.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN W. E. LAKER.

Witnesses:

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