C. W. STANDRIDGE.

HARMONIC ATTACHMENT FOR PIANOS.

APPLICATION FILED JUNE 22, 1916.

1,234,814.

Patented July 31, 1917.

2 SHEETS—SHEET 1.

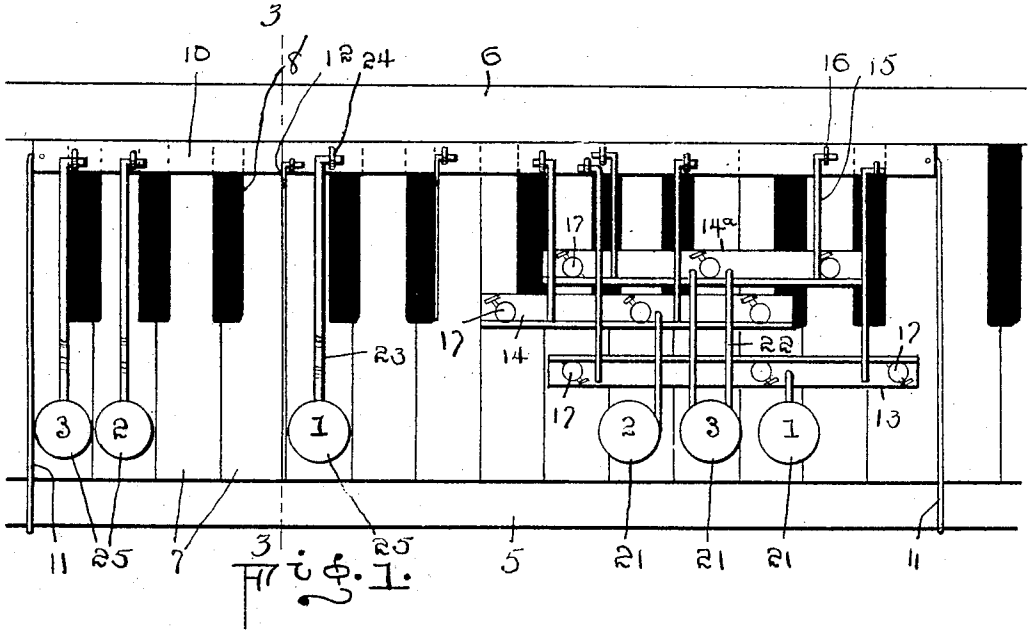


Fig. 1.

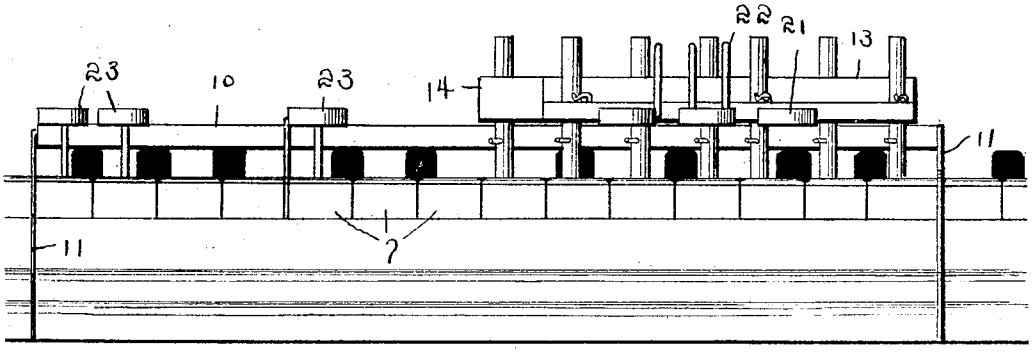


Fig. 2.

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2 SHEETS—SHEET 2.

Fig. 3.

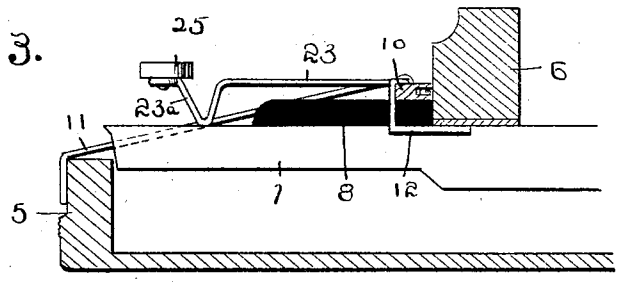


Fig. 5.

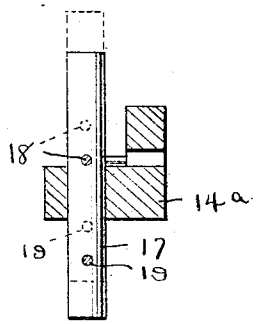
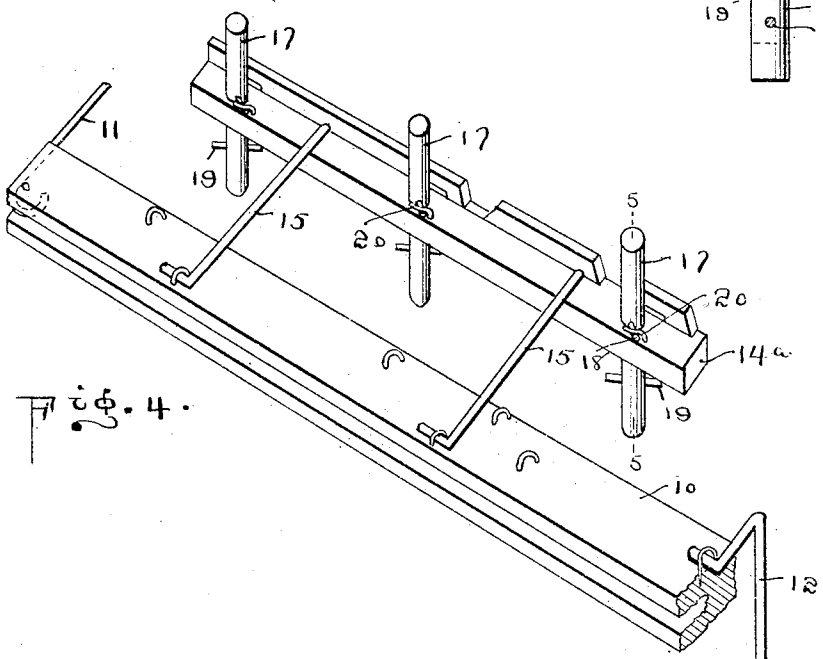


Fig. 4.



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UNITED STATES PATENT OFFICE.

CLARENCE W. STANDRIDGE, OF ASHER, OKLAHOMA.

HARMONIC ATTACHMENT FOR PIANOS.

1,234,814. Specification of Letters Patent. Patented July 31, 1917.

Application filed June 22, 1916. Serial No. 105,266.

To all whom it may concern:

Be it known that I, CLARENCE W. STANDRIDGE, a citizen of the United States, residing at Asher, in the county of Pottawatomie and State of Oklahoma, have invented certain new and useful Improvements in Harmonic Attachments for 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.

This invention has for its object to provide an improved harmonic attachment for pianos embodying novel features of construction enabling the operator to secure the attachment in various positions upon the piano and thus produce chords in various keys.

Another object is the provision of a novel type of pivoted block carrying key actuating pins, which may be moved to inoperative position, when desired.

With these and other objects in view, the invention consists in the novel construction, combination and arrangement of parts as will be hereinafter specifically described, claimed and illustrated in the accompanying drawing, in which:

Figure 1 represents a top plan view of the attachment, illustrating a fragment of the keyboard of a piano,

Fig. 2 represents a fragmentary front elevation of the keyboard, showing the attachment applied thereto,

Fig. 3 represents a transverse sectional view on the line 3—3 of Fig. 1,

Fig. 4 represents a rear perspective view of the attachment, partly broken away, parts being removed,

Fig. 5 represents a vertical sectional view on the line 5—5 of Fig. 4.

Referring to the drawing in detail, wherein similar reference numerals designate corresponding parts throughout the several views, the numerals 5 and 6 indicate the front rails, respectively, of the key bed and case of an ordinary upright piano in which are arranged white and black keys 7 and 8, respectively. The harmonic attachment comprises a long narrow strip 10 carrying at its opposite ends the pivoted key bed rail-engaging hooks 11, provided with relatively long thin shanks adapted for insertion between the piano keys and downwardly directed beaks adapted to engage the front member 5. Relatively short hooks 12 are pivotally secured intermediate the ends of the strip 10 and are provided with angular beaks adapted to be inserted between the piano keys and engaged under the rail 6 of the piano case to assist in retaining the attachment in position upon the piano. Front, intermediate and rear pin blocks 13, 14 and 14ª, respectively, are arranged over the piano keys in front of the strip 10 and each block is provided with a pair of spaced supporting arms 15 extending rearwardly therefrom and having angular rear terminals pivotally mounted in loops 16 attached to the strip 10. Three spaced pins 17 are slidably engaged in openings formed in each of the several pin blocks and each pin is provided above and below the pin blocks with stop pins 18 and 19, whereby the vertical movement of the pins with relation to the blocks is limited. The lower terminals of the pins are supported upon the keys of the piano and they are held in downwardly extended or operative position by spring retaining members 20 under which the upper stop pins 18 are movable.

It will be understood that the several pins 17 supported in each block are so arranged as to overlie predetermined keys whereby when a block is depressed a chord is produced and the chords may be varied by adjusting the strip 10 longitudinally of the keyboard of the piano. Each pin block is provided with forwardly projecting arms 22, carrying knobs 21, whereby the blocks may be conveniently actuated.

To assist in properly positioning the pins 17 of the pin blocks over the proper keys to produce a chord in a desired key, I provide a plurality of indicator arms 23, which are pivotally secured at 24 to the strip 10 to the left of the pin blocks and are formed with depending loops or U-shaped members 23ª, which rest upon the keys of the piano so as to depress the key simultaneously with the depression of the indicator arm 23. Knobs 25 are connected with the forward extremities of the arms 23 for convenience in depressing said arms.

What is claimed is:

1. A harmonic attachment for pianos comprising a supporting strip, means for attaching said strip to the key board of a piano, a pin block pivotally connected with said strip, rotatable pins carried in said block for vertical adjustment, means to limit the upward movement of said pins, a hori-

zontal stop pin carried by each of said pins and adapted to engage the upper surface of said pin block to limit the downward movement of the pins, and spring retaining members carried by the pin block, said horizontal stop pins being adapted to engage under the retaining members to hold said pins in adjusted position.

2. A harmonic attachment for pianos comprising a supporting strip, a pin block pivotally connected with said strip, key-engaging pins carried by said block, relatively long hooks having angular ends pivotally secured adjacent each end of the strip and adapted to engage the rail of the key bed, and relatively short hooks pivoted to the strip intermediate the relatively long hooks for engaging the rail of the piano case, as and for the purpose specified.

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

CLARENCE W. STANDRIDGE.

Witnesses:
G. B. HILTON,
L. M. CAUDLE.

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