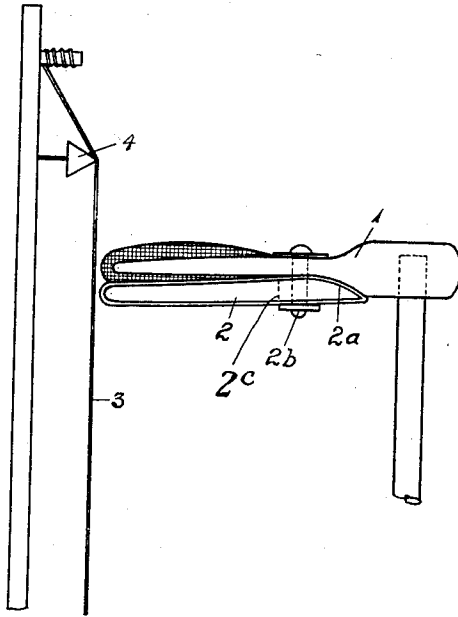


F. M. WILLIAMS.
DOUBLE PIANO HAMMER.
APPLICATION FILED JAN. 11, 1910.

1,008,626.

Patented Nov. 14, 1911.



WITNESSES:

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FREDERICK M. WILLIAMS, OF SAGINAW, MICHIGAN.

DOUBLE PIANO-HAMMER.

1,008,626.

Specification of Letters Patent. Patented Nov. 14, 1911.

Application filed January 11, 1910. Serial No. 537,574.

To all whom it may concern:

Be it known that I, FREDERICK M. WILLIAMS, a citizen of the United States, residing at Saginaw, in the county of Saginaw and State of Michigan, have invented certain new and useful Improvements in Double Piano-Hammers; 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 is an improvement in pianos and relates more particularly to piano hammers.

The object of the invention is to provide means readily attachable to the usual piano hammer, whereby the tone is made louder.

The improvement is illustrated in the accompanying drawings, in which the figure is a side elevation of my device as adapted for use with an ordinary piano wire.

As is clearly shown in the drawings, the improvement consists in applying to one side of an ordinary piano hammer 1, a second or auxiliary hammer 2, the point of impact of which against the piano wire 3 is preferably below the point of impact of the ordinary hammer 1, or the point of application of the impact of hammer 2 may be above that of hammer 1 instead of below, if desired. The function of the auxiliary hammer 2 will be understood from the following explanation.

Heretofore it has been customary, in certain grades of upright pianos, to cause the hammer 1 to strike the string 3 at a point close to the bridge 4. If, however, the point of application of the impact happened to be at a point other than the proper striking point of string 3, there resulted a muffled or imperfect tone. To overcome this defect and to provide a device that can easily be applied to an existing piano without necessarily removing the piano to the factory, I have devised the auxiliary hammer 2 which can be applied to the hammer 1 so as to impinge against the string 3 at the

proper striking point, even though the hammer 1 may be somewhat away from its correct position. For that purpose the hammer 2 is curved at its rear end 2^a to conform to the curvature of hammer 1, and a bolt or other suitable fastening means 2^b is passed through the hammer 1 and through a slot 2^c in the rear end of hammer 2. This construction enables the striking tips of the two hammers to be adjusted with relation to each other and to the string. If desired, any suitable liner (not shown) may be inserted between the faces of hammers 1 and 2 to further separate their impinging tips.

The effect of the hammer 2 is to increase the volume of sound from string 3, providing hammer 1 has not been correctly located with reference to the proper striking point of string 3, and the sound volume is increased because of the fact that the auxiliary hammer 2 is made to strike the proper point.

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

1. In combination with a piano hammer and string, an auxiliary hammer removably attached to one face of said piano hammer, the impinging tip of said auxiliary hammer being adapted to strike the string simultaneously with the impinging tip of the piano hammer, and means for adjusting said auxiliary hammer lengthwise on the piano hammer.

2. In combination with a piano hammer, an auxiliary hammer removably secured to said piano hammer, said auxiliary hammer having its rear end shaped to the contour of the piano hammer, and being formed with a slot at its rear end, and a bolt securing said auxiliary hammer to the piano hammer.

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

FREDERICK M. WILLIAMS.

Witnesses:

CHRISTINE A. BRAIDEL,
NELLIE M. ANGUS. *