

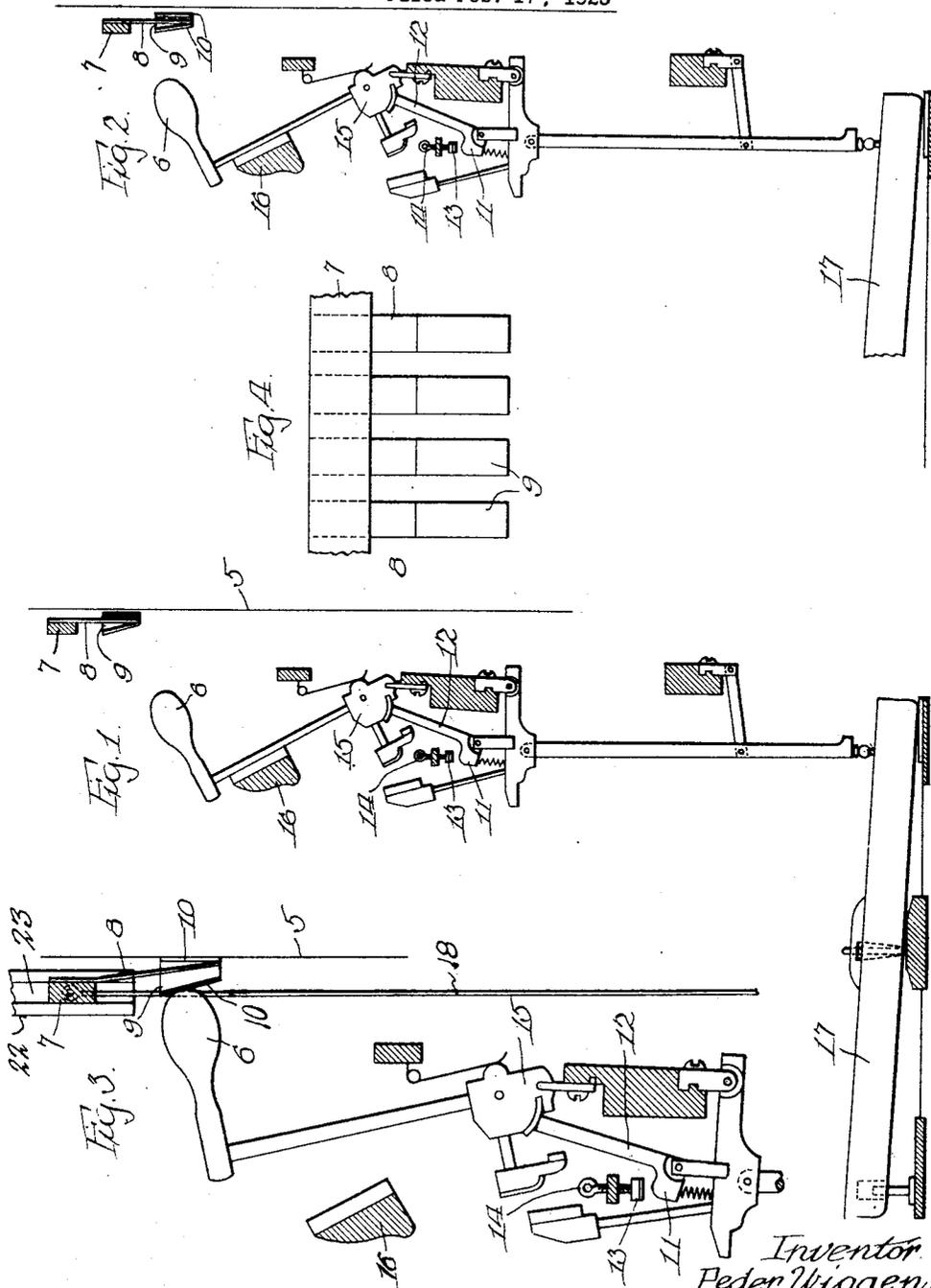
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BANJO ATTACHMENT FOR PIANOS

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UNITED STATES PATENT OFFICE.

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BANJO ATTACHMENT FOR PIANOS.

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This invention relates, generally, to pianos, but has particular relation to that type of piano attachments which are interposed between the hammers and strings of a piano for the purpose of changing the tone of the instrument, and it consists in certain peculiarities of the construction, novel arrangement and combination of the parts thereof as will be hereinafter more fully set forth and specifically claimed.

The primary object of the invention, is, to provide an attachment for pianos for interposition between the strings and hammers thereof for the purpose of producing a banjo effect when the instrument is played, or, in other words, to provide means whereby the natural or normal tone of the instrument can be readily changed to that of a banjo or vice versa.

Another object of the invention is to so construct parts of the attachment that said parts may be readily interposed between the strings and hammers of the piano without liability of some of them being prevented by the hammers assuming their proper operative positions.

Other objects and advantages of the invention will become apparent from the following description and explanation.

In the accompanying drawing, which serves to illustrate an embodiment of the invention,—

Fig. 1 is a view partly in side elevation and partly in section of a piano action and a part of one of the strings of the piano, showing my improved attachment in its raised or inoperative position and illustrating the parts of the action in their normal positions or at rest.

Fig. 2 is a like view of similar parts but showing the attachment in its operative position.

Fig. 3 is an enlarged view of a portion of a piano action and a part of one of the strings of a piano showing the attachment in its operative position and illustrating the hammer of the action in the position it will assume with respect to a part of the attachment when the banjo effect on the string is produced, and Fig. 4 is an enlarged side view of a fragment of the attachment.

The reference numeral 5 designates a portion of a string of a piano, and 6 the hammer of the action between which string and hammer one of the elements of the attachment is

adapted to be interposed. The attachment comprises a horizontally disposed rail or bar 7 and a plurality of flexible pendant strips or tongues 8, which tongues or strips may be of any suitable material and secured to the bar 7 at their upper portions by any suitable means. The attachment also includes a block 9 of wood or other suitable material, one of which is secured to each of the pendants 8 and by preference has its front and rear surfaces covered with felt 10 or similar material, for co-operation with the hammer and piano string.

As shown, the blocks 9 each has its wall or surface adjacent the hammer by which it is to be struck, downwardly inclined towards the string 5, while its opposite surface is vertical and normally occupies a position parallel to the string with which it is intended to co-operate in producing a banjo effect in the sound or tone produced by said string. The bar or rail 7 of the attachment is horizontally mounted between the strings of the piano and the hammers of the actions, but above said hammers as is clearly shown in Figs. 1 to 3 inclusive of the drawing. This bar or rail is adapted to be elevated by any suitable mechanism, for instance, such as a pair of lifting rods 18, each of which is pivotally connected at its upper end to the rail or bar 7 and operated by such lever mechanism as may be found convenient. By operating the lever mechanism, not shown, the rods 18 are lifted to cause an elevation of the bar or rail 7 and the parts attached thereto. For the purpose of guiding the movements of the bar or rail 7, a vertically disposed guide member 22 having a vertical groove or guide-way 23 for the reception and operation of each end of the bar or rail 7 is suitably mounted on the inner surface of the side walls of the piano frame or casing. The blocks or enlargements 9 on the lower portions of the pendants 8 are of sufficient thickness that when they are lowered into the paths of the hammers 6, as is clearly shown in Figs. 2 and 3 of the drawing, they will block or prevent the movement of the hammers near enough the strings 5 to cause the foot 11 of the jack 12 of the action striking the head 13 of the adjustable stop member 14 for the said foot, thereby preventing the upper end of the jack being released from the hammer-butt 15 as occurs when the attachment is elevated or in its inoperative

position, or when the piano is played in the ordinary manner, for it is well known that as soon as the hammers strike the strings 5 in the ordinary manner of playing the instrument, the feet 11 of the jacks 12 at the same instant strike the heads 13 of the stop members 14 and thus allows the hammers to instantly rebound and when the keys are released, rest against the hammer rest rail 16 of the action as shown in Figs. 1 and 2 of the drawing.

Now by using the enlargements 9 on the pendants 8 of sufficient thickness when said enlargements are interposed between the strings 5 and hammers 6, that they will prevent, when struck by the hammers, the feet 11 of the jacks 12 contacting with the heads 13 of the stop members 14 for said feet, it is manifest that the upper end of the jack will be held in contact with the hammerbutt and not instantly released therefrom, as in the ordinary playing of the instrument.

By tapering the blocks or enlargements 9 towards their lower ends, or rather by providing said enlargements with their surfaces adjacent the hammers inclined downwardly and towards the strings 5 and with their surfaces adjacent the strings in a parallel plane with said strings, it is manifest that the lower ends of the enlargements being of less thickness than their upper ends, will more readily be interposed between the hammers and the strings when the supporting bar 7 of the attachment is lowered for this purpose. It is further obvious that as the surfaces of the enlargements 9 adjacent the strings are arranged in parallelism with said strings, that a considerable area of each enlargement will be provided to contact with the strings and thus effectually prevent vibration of the strings and thereby produce a banjo effect, while the enlargements are held against the strings by the hammers of the action.

As it may be desirable to effect the change in the tone of the instrument from its natural sound or tone to that of a banjo, while playing a piece of music, it is manifest that by reason of the above mentioned construction of the enlargement of the attachment, they will have a tendency to slide off the upper rounded portions of the hammers in a direction towards the strings, should they strike any of the hammers when the attachment is being lowered.

From the foregoing and by reference to

the drawing, it will be readily understood and clearly seen that an essential feature of the invention is the provision of the blocks or enlargements 9 on the lower portion of the flexible pendants or strips 8 which shall be of sufficient thickness that when interposed between the hammers and strings of instrument and in contact with both strings and hammers, they will block the movement of the hammers towards the strings and prevent the feet 11 of the jacks 12 contacting with the heads 13 of the stop members 14 for said feet, thus causing the hammers to dwell for a while in contact with the enlargements of the attachment which at this time are pressed against the strings of the instrument.

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

1. A banjo attachment for pianos, comprising a movable support, means for moving the same, a flexible pendant secured thereto and an enlargement on the lower portion of said pendant adapted to be interposed by said moving means for its support between a piano string and a co-operating hammer therewith of the piano-action, the said enlargement being of such thickness as when in its interposed position to block the movement of the hammer towards the string when said enlargement is struck by the hammer and held thereby in contact with the string and thus prevent the foot of the jack, operating said hammer, contacting with the stop member for said foot.

2. A banjo attachment for pianos, consisting of a vertically movable support, means to raise and lower the same a flexible pendant secured thereto and an enlargement on the lower portion of said pendant adapted to be interposed by said moving means for its support between a piano string and a co-operating hammer therewith of the piano-action, the said enlargement having its surface adjacent the hammer inclined downwardly towards said string and being of such thickness at its upper part as when in its interposed position to block the movement of the hammer towards the string when said enlargement is struck by the hammer and held thereby in contact with the string and thus prevent the foot of the jack, operating said hammer, contacting with the stop member for said foot.

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