No. 649,856. Patented May 15, 1900.

J. H. MOYER.

TONGUE BAR ADJUSTING MECHANISM.

(Application filed June 7, 1899.)

(No Model.)

Fig. 1.

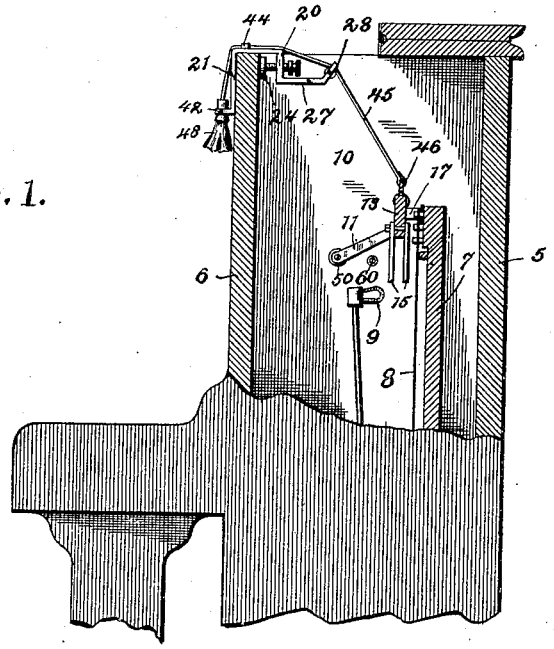


Fig. 4.

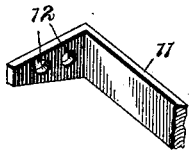
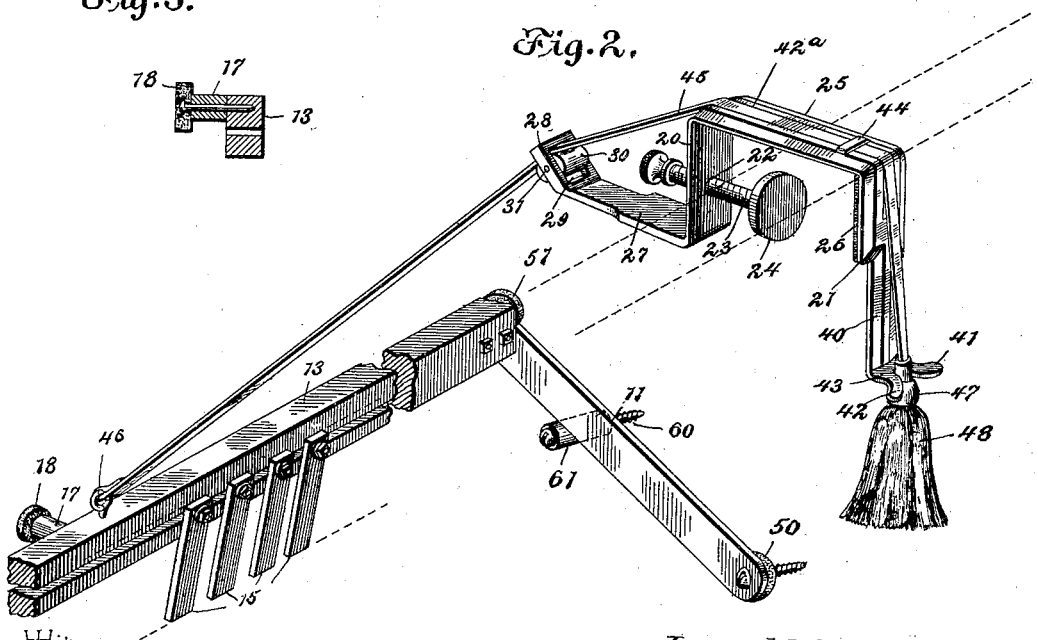


Fig. 3.

Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

JESSE HECHLER MOYER, OF TEMPLE, TEXAS.

TONGUE-BAR-ADJUSTING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 649,856, dated May 15, 1900.

Application filed June 7, 1899. Serial No. 719,695. (No model.)

To all whom it may concern:

Be it known that I, JESSE HECHLER MOYER, a citizen of the United States, residing at Temple, in the county of Bell and State of Texas, have invented a new and useful Tongue-Bar-Adjusting Mechanism, of which the following is a specification.

This invention relates to pianos, and more particularly to attachments therefor; and it has for its object, specifically, to provide a cheap and efficient operating mechanism for a tongue-bar such as described in my Patent No. 573,474, granted December 22, 1896.

The present invention consists of a clamp adapted for attachment to the central portion of the front panel of a piano, and which clamp carries guides, through which is passed a flexible connection with a pivotally-supported tongue-bar positioned transversely of the piano-strings, the outer end of the flexible connection having an enlargement adapted to engage the lower faces of holding-ears upon the clamp when the said flexible connection above said enlargement is passed between the ears, thus holding the tongue-bar in a retracted position.

In the drawings forming a portion of this specification, and in which like numerals of reference indicate similar parts in the several views, Figure 1 is a vertical transverse section of a piano adjacent the central portion thereof and showing the position of my clamp upon the front board or panel of the piano. Fig. 2 is a perspective view of the clamp and portions of the tongue-bar with which its flexible connection is connected. Fig. 3 is a section on line 3 3 of Fig. 2. Fig. 4 is a detail perspective of the rear end of one of the supporting-arms of the tongue-bar.

Referring now to the drawings, 5 represents the back of a piano-casing, and 6 the front panel thereof, a sounding-board 7 being arranged within the casing and having stretched thereover the usual tone-producing wires 8, adapted to be vibrated when struck by a hammer 9, having suitable operating mechanism.

Pivotally connected with the inner faces of the ends 10 of the piano are supporting-arms 11, the ends of which are extended inwardly and at right angles to the body portion thereof, said inwardly-extending ends having perforations 12 for the passage of screws, through the medium of which the arms are secured to a tongue-bar 13, which is adapted to be supported adjacent the strings 8 to lower its series of depending tongues 15 into the paths of their respective hammers 9, in accordance with the construction shown in the patent above referred to.

Upon the rear face of the tongue-bar 13 and at a suitable point intermediate its ends is a stud 17, having a rubber tip 18, adapted to engage a suitable portion of the piano when the tongue-bar is lowered to place its tongues in operative relation to the hammers, said rubber tip absorbing the vibration and preventing rebounding of the tongue-bar.

Connected with the front board or panel 6 of the piano-casing is a clamp comprising vertical parallel portions 20 and 21, of which the former is provided with a screw-threaded perforation 22, through which is passed a clamping-screw 23, having a clamping-disk 24 between the portions 20 and 21. The portions 20 and 21 have a connecting-web 25, and upon the inner face of the portion 21 and in a position to coöperate with the disk or plate 24 with a clamping action is a padding 26, which engages directly the outer face of the board or panel 6, while the plate 24 engages the opposite portion of the inner face.

Extending inwardly of the piano-casing from the portion 20 is an extension 27, the extremity of which is turned upwardly at 28 and is provided with an opening 29, in which is arranged a roller 30, journaled upon a pin 31, mounted in the sides of said opening.

The portion 21 of the clamp is extended downwardly below the padding 26, said downwardly-extending portion being contracted, as shown at 40, and having at its lower extremity outwardly-extending ears 41 and 42, the adjacent walls of which are curved inwardly and rearwardly and terminate in a connecting flat wall 43, resulting in the formation of a curvilinear tapering slot having a flat wall at its base.

The upper face of the connecting-web 25 is grooved longitudinally, as shown at 42^a, which groove extends downwardly of the portion 21 of the clamp for a suitable distance. Transversely of the web 25 and adjacent the outer end thereof is a keeper 44, which extends over

the groove in said web and prevents the displacement of a flexible connection or strap 45, which lies in said groove and is adapted for longitudinal movement therein, said connection being passed between the upper face of the roller 30 and the adjacent wall of the opening 29 and having its inner end attached to the tongue-bar through the medium of a screw-eye 46 or in any other desired manner.

The outer end of the connection 45 is provided with an enlargement, which may be the ball 47 of a tassel 48, the length of the connection being such that when drawn outwardly to an extent sufficient to raise the fingers 15 from operative relation to the hammers 9 the ball or enlargement 47 will be in a position to engage the lower faces of the ears 42 and with said connection taut. Thus by drawing the connection into this position it may be readily connected with the ears to hold the tongues in their inoperative position. Conversely, the lengths of the major and minor extensions of the portion 21 are such that when the connection is released there will be a sufficient slack to enable the dropping of the attachment into its operative position with relation to the strings of the instrument and their vibrating hammers.

As shown in Fig. 2 of the drawings, felt punchings 50 are arranged intermediate the arms 11 and the adjacent faces of the piano-casing and surrounding the pivotal connections in order to form a tight joint, similar punchings 51 being secured to the ends of the tongue-bar or upon the outer ends of the arms 11 to slidably engage the inner faces of the casing ends and secure a tight fit to prevent lateral movement.

It will be readily understood that I may secure my attachment in any one of a number of ways, that I may vary the specific construction, and that in the manufacture of the device I may employ any material or materials that may be deemed expedient.

In order to limit the downward movement of the self-supporting arms 11, I arrange screws 60 in the paths of said arms, which screws have coverings of rubber 61 to absorb vibration.

Having thus described the invention, what I claim is—

1. The combination with a movable tongue-bar, of an operating mechanism therefor embracing parallel members, and a connecting-web, a movable clamping-plate carried by one of said members and adapted to exert a clamping action in connection with the other member, an extension of one of said members having a guide-opening, a flexible connection attached to the tongue-bar and passed through said opening, a guide upon said web, through which said connection is passed, means for operating said connection, and means for holding the connection at different points of its operation.

2. The combination with a movable tongue-bar, of an operating mechanism therefor, embracing parallel members, and a connecting-web, a groove in said web, an extension of one of said members having a guide-opening therein, a guide-roller journaled in said opening, a flexible connection passed through said groove and opening in contact with said roller and attached to the tongue-bar, means for moving said connection to move the tongue-bar, and ears carried by one of said members and adapted to receive between them an enlargement of the connection.

3. The combination with a tongue-bar having a yieldable stop, of arms rigidly connected therewith at one end and adapted for pivotal connection at the other, and an operating mechanism for said tongue-bar comprising two parallel members having a connecting-web, one of said members extending below the other, the shorter of said members having an extension provided with a guide-opening, a groove formed in said web and having a keeper extending thereover, a flexible connection attached to one end of the tongue-bar and passed outwardly through said guide-opening and groove and having an enlargement at its outer end, and ears carried by the extended member and adapted to receive said enlargement and hold the connection at the limit of its outward movement.

4. The combination with a movable tongue-bar, of an operating mechanism therefor embracing parallel members, and a connecting-web, a movable clamping-plate carried by one of said members and adapted to exert a clamping action in connection with the other member, an extension of one of said members having a guide-opening, a flexible connection attached to the tongue-bar and passed through said opening, a guide upon said web, through which said connection is passed, and means for holding the connection at different points of its operation.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

JESSE HECHLER MOYER.

Witnesses:
J. K. CAMPBELL,
W. A. JAKEL.