No. 650,006. Patented May 22, 1900.

L. HAAS.

PIANO DESK CHECK.

(Application filed Oct. 26, 1899.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

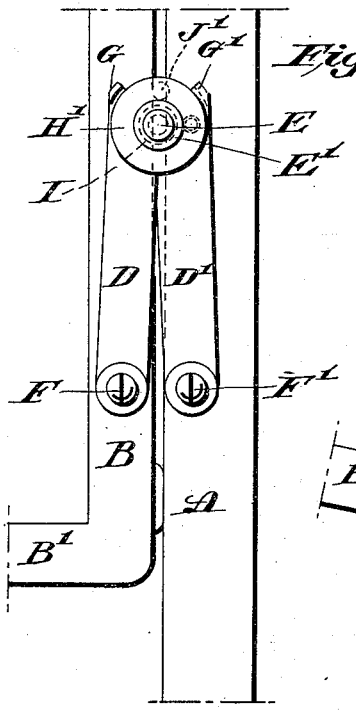


Fig. 2.

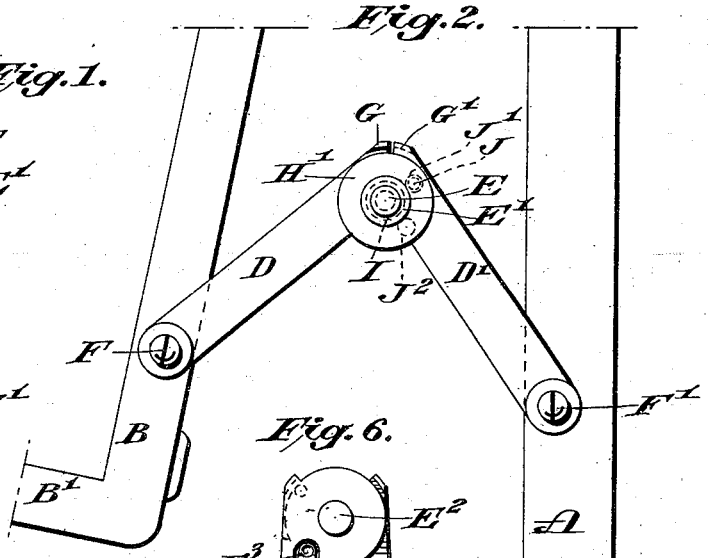


Fig. 6.

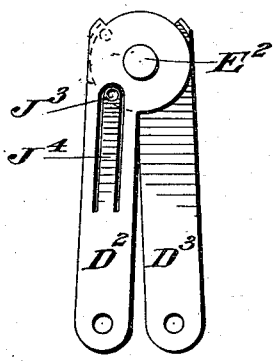


Fig. 3.

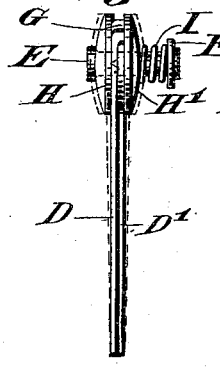


Fig. 7.

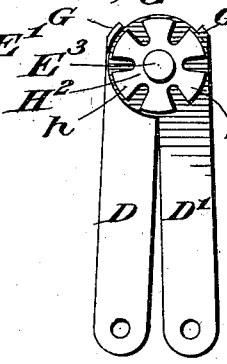


Fig. 8.

Fig. 4.

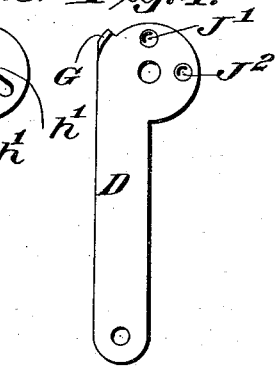
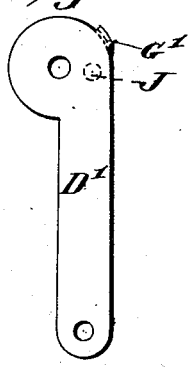


Fig. 5.



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No. 650,006. Patented May 22, 1900.

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PIANO DESK CHECK.

(Application filed Oct. 26, 1899.)

(No Model.) 2 Sheets—Sheet 2.

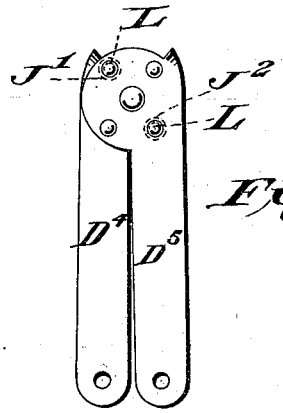

Fig. 9.

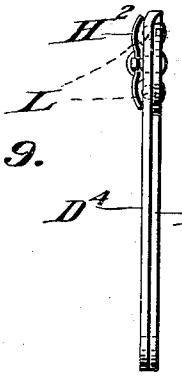

Fig. 10.

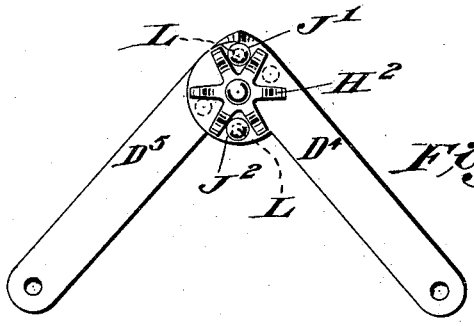

Fig. 11.

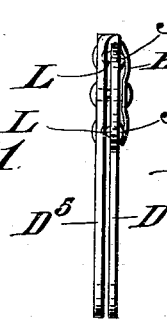

Fig. 12.

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PIANO-DESK CHECK.

SPECIFICATION forming part of Letters Patent No. 650,006, dated May 22, 1900.

Application filed October 26, 1899. Serial No. 734,897. (No model.)

To all whom it may concern:

Be it known that I, LOUIS HAAS, a citizen of the United States, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Piano-Desk Checks, of which the following is a full, clear, and exact description.

My invention relates to pianos, and particularly to the music-desk portion of the case, it being a means for checking the swing of the music-desk and for temporarily holding it in the operative position.

The object of my invention is to provide a device which is of simple, inexpensive, and effective construction and by which the music-desk may be pulled out to the operative position and there firmly held so long as desired. Heretofore great trouble and inconvenience have been experienced by the breaking of these checks or portions thereof, the danger of which in the present improved construction is overcome.

In pianos it is most important that all metal portions should be of such construction or so attached as to be unaffected by the vibration of the strings of the instrument. Manifestly any mechanical appliance improperly applied to such an instrument—for example, a loose spring or an improperly-supported spring—will be caused to vibrate upon the striking of some sympathetic note, thus producing a noise termed in the trade "singing." This of course is a fatal defect, which the present construction avoids.

In the drawings, Figure 1 is a side elevation of a portion of a piano-case and a music-desk, showing the check in one of its positions. Fig. 2 is a similar view, the music-desk being pulled out to the operative position and illustrating the relative position of the check when the music-desk is pulled out. Fig. 3 is a front elevation of the detachable check as it appears in the position shown in Fig. 1. Figs. 4 and 5 are detached portions of the check shown in Figs. 1, 2, and 3. Figs. 6 to 12 are views of modifications.

A is a portion of a piano-case.

B is a music-desk, which in practice it is common to hinge at its upper edge to the case A. The desk B is provided with a ledge B′, upon which the lower edge of a sheet of music may rest. When it is desired to place a sheet of music upon the desk B, the lower portion of the latter is pulled out, as shown in Fig. 2, so that it will incline rearward at a suitable angle to properly support the music and prevent its falling off. To hold the desk B in either the position shown in Fig. 1 or the position shown in Fig. 2, I have devised a novel means constructed in its preferable form substantially as follows:

D D′ are blades having broad bearing-faces pivotally connected with each other. The free ends of said blades are connected with the music-desk B and the piano-case A. The latter connections are indicated by the letters F F′, respectively. The ends of the blades D D′ that are connected with each other bear stop devices G G′, which may take the form of offsets staggered laterally, so as to engage each other when the blades are in the position shown in Fig. 2. These stops G G′ may be so placed as to enable the angle of inclination of the music-desk to be readily predetermined by thus limiting the range of movement of the blades on their pivot.

E is the pivot-pin, connecting the ends of the blades D D′ with each other. In the preferable form this pivot-pin is headed at one end, and a washer H of suitable form is placed between said head and the adjacent blade—for example, D. The pivot-pin extends sufficiently beyond the blade D′ to permit the interposition of another washer H′ and a spring I, which is preferably in the form of a strong coiled spring held in place by a suitable fastening E′. From the bearing-face of one of the blades—for example, D′—projects a detent J, which presses against the bearing-face of the blade D. In the adjacent face of the blade member D may be formed any desired number of depressions J′ J^2, which may be located in the path of travel of the detent J. When the blades D D′ are in the position indicated in Fig. 1, the detent J will project into the depression J^2. When the position of the blades are substantially as shown in Fig. 1, the projection J will project into the depression J^2. When the music-desk B is moved from the position shown in Fig. 1 to the position shown in Fig. 2, the detent J must necessarily rise out of the depression J^2; otherwise the desk would be held in the position shown in Fig. 1. In order to permit

this, a spring I or its equivalent allows the detent J to recede from the holding-depression. When the blade members are opened to the desired position, the detent J will be moved into the depression J′, thus temporarily holding with sufficient firmness the check in the position indicated in Fig. 2.

It is obvious that this construction is susceptible of a variety of modifications and uses, and accordingly I have illustrated in the drawings a few of such modifications which might fairly be considered as within the spirit and scope of this invention.

In Fig. 6 instead of pivotally connecting the blades in such a manner that the bearing-faces may be moved apart I have substituted in place of the rigid detent J a yielding detent J^3. In this figure, D^2 D^3 are the blades. E^2 is the pivotal connection. The blade D^3 is obviously provided with depressions (not shown) which may correspond, substantially, to the depressions J′ J^2 of Fig. 4. This yielding detent J^3 may be carried by a spring J^4, formed integral with the blade D^2 or independently thereof and connected thereto in such a manner as to effect the desired end.

In Fig. 7 I have shown what might fairly be deemed the equivalent of the spring I. In this figure I have modified the construction of the washers H H′, so that the same are yielding instead of rigid, thus permitting the bearing-faces of the blades to spring apart for the aforesaid purpose. In this figure, D D′ are blades which correspond to the blades shown in Figs. 1 to 5. E^3 is a pivot which may correspond substantially to the pivot E. The modification resides in the spring-washer H^2, and consists in forming the incisions in the outer edge of the washer to leave spring-arms *h h*, which will yield, and thus permit the bearing-faces of the blade members to spring apart.

In Fig. 8 I have shown another modification of a spring-washer, in which the incisions are made on the inner edge instead of on the outer edge, thus forming yielding arms *h′ h′*.

These modifications will suggest a variety of other changes by which the detent J may be permitted to continuously and yieldingly bear against the opposite bearing-face (as distinguished from the edge) of the opposing blade in such a manner as to give the desired frictional engagement to temporarily hold the blades in any of their relative positions.

In Figs 9 to 12, inclusive, I have shown the retaining-detent in the form of an antifriction-ball L, of steel or other sufficiently-hard material, which ball may be carried in a deep depression in one of the blades—for example, blade D^4. One surface of the ball projects slightly above the bearing-face of the member D^4, and said projecting surface is pressed against the bearing-face of the blade member D^5, in which the previously-described holding-depressions J′ J^2 may be formed, in either of which the ball-detent L will be frictionally held so long as desired for the purposes previously described. In Figs. 11 and 12 the radially-armed spring-washer H^2 is shown, although other equivalent springs may be substituted therefor. Any desired number of antifriction-balls L may be employed, although in these drawings I have shown only two of such devices.

What I claim is—

1. A check comprising a pair of blades, a pivotal connection therefor, a flat bearing-face on each blade, inclined-sided depressions in one of said flat faces, a nose projecting from the other face and constantly pressing against the face in which the depressions are formed to frictionally hold said blades, by engagement in said depressions in their relative positions, a spring whereby said constant frictional engagement is maintained, stop devices to check the movement of said blade members.

2. A check comprising a pair of blades, a pivotal connection therefor, a bearing-face on each blade, a ball-bearing resistance-piece projecting from one of said faces and against the other, an independent spring carried by said pivotal connection to cause said resistance-piece to yieldingly and constantly bear against the face of the opposite blade, and depressions in said opposite face in the path of travel of said resistance-piece.

Signed at New York, N. Y., this 25th day of October, 1899.

LOUIS HAAS.

Witnesses:
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ROLLAND BROWN.