No. 743,682. PATENTED NOV. 10, 1903.

R. S. BOWEN.

MUSIC DESK FOR PIANOS.

APPLICATION FILED FEB. 6, 1903.

NO MODEL.

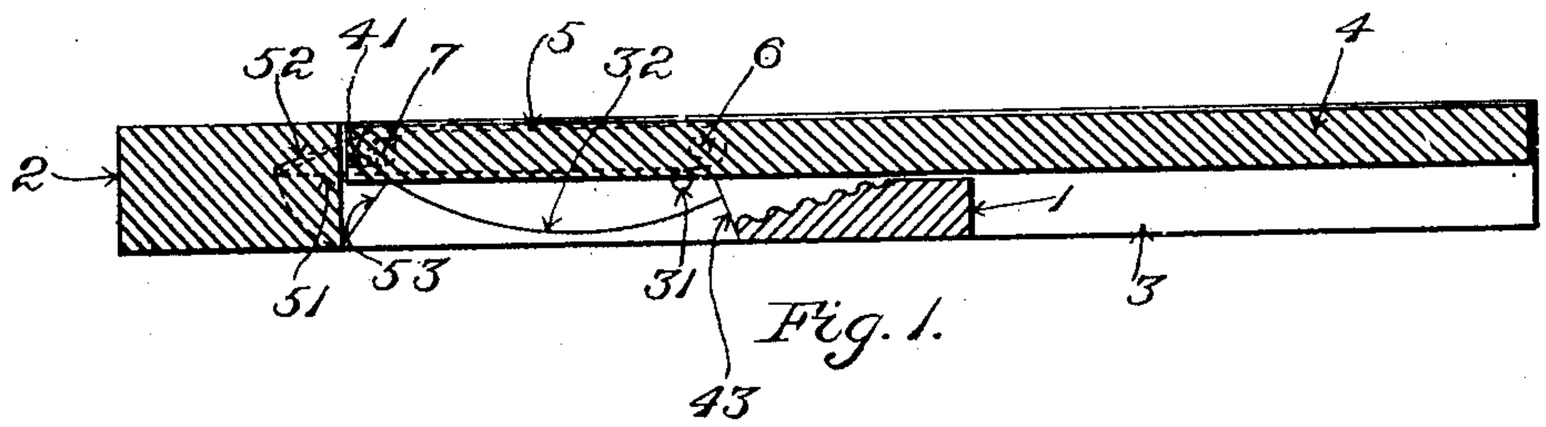

Fig. 1.

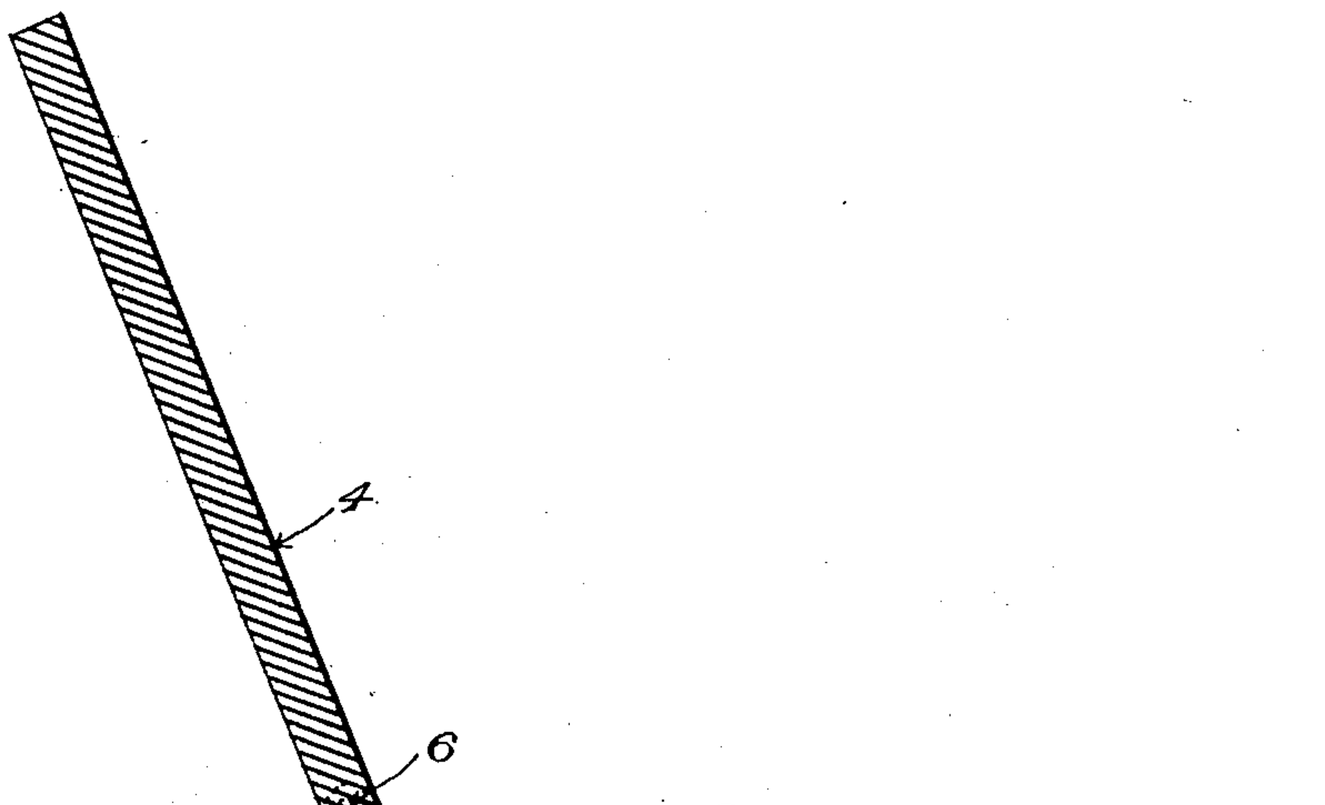

Fig. 2.

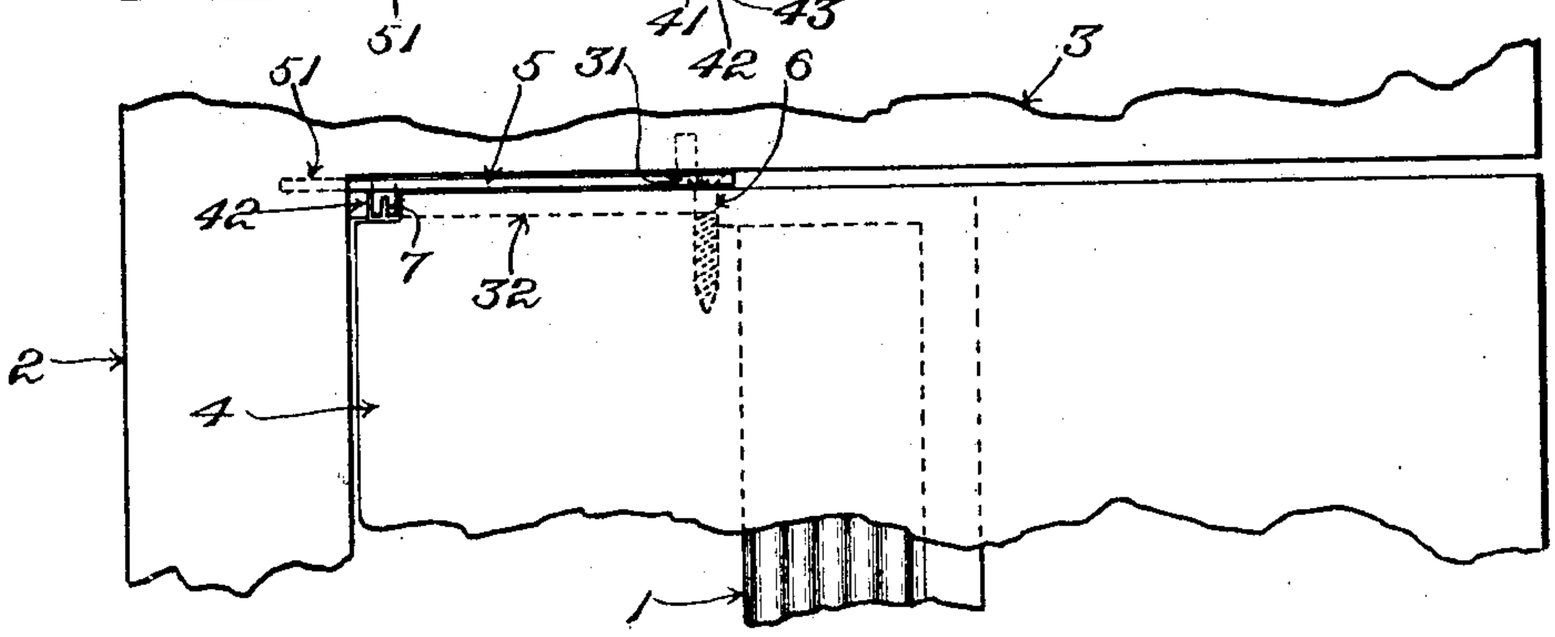

Fig. 3.

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No. 743,682. Patented November 10, 1903.

UNITED STATES PATENT OFFICE.

ROBERT S. BOWEN, OF NEWTONVILLE, MASSACHUSETTS, ASSIGNOR TO CHICKERING & SONS, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

MUSIC-DESK FOR PIANOS.

SPECIFICATION forming part of Letters Patent No. 743,682, dated November 10, 1903.

Application filed February 6, 1903. Serial No. 142,142. (No model.)

To all whom it may concern:

Be it known that I, ROBERT S. BOWEN, a citizen of the United States, residing at Newtonville, in the county of Middlesex, State of Massachusetts, have invented a certain new and useful Improvement in Music-Desks for Pianos, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention has relation to music-desks of the class which are used in connection with pianos of the horizontal type; and it consists in a novel and improved manner and means of mounting and arranging a music-desk so as to permit and facilitate the raising of the said desk from its closed position to its position for use and the lowering thereof from the latter position to the former and also insure that the desk shall remain securely in its position for use after being raised into such position.

I have illustrated the invention in the best form in which the same has thus far been embodied by me in the accompanying drawings, in which—

Figure 1 is a view showing in vertical transverse section portion of a piano having the said embodiment of the invention applied thereto, the desk being in its lowered and closed position. Fig. 2 is a similar view, but with the desk in its raised position in readiness for use. Fig. 3 is a partial plan with the desk in lowered and closed position, as in Fig. 1.

The drawings show only the music-desk, the features in which the invention more immediately resides, and so much of the frame on which such desk is mounted in a piano as is requisite for a clear understanding of the relations and working of the invention.

The front rail of the desk-supporting frame is shown at 1, the back rail at 2, and one of the end pieces with which the said rails are connected is shown at 3. The desk is shown at 4. The upper surface of the front rail serves as a support for the lower edges of music-sheets resting against the desk 4 in its raised position (shown in Fig. 2) and preferably is rearwardly inclined and corrugated, as shown, in order the better to hold said lower edges from slipping.

The desk 4 is connected with the end pieces 3 by links 5, one of the latter being employed in connection with each end of the desk. The said links ordinarily are termed "props." Each thereof is connected pivotally at one extremity thereof with the edge of the corresponding end of the desk 4, as at 6, the point of pivotal connection being located intermediate the width of the desk, somewhat near the edge of the desk which is at the rear when the desk is in its lowered and closed position. (Shown in Fig. 1.) Each prop 5 is also connected pivotally at a short distance from its opposite extremity, as at 7, with the adjacent end piece 3, a short portion 51 of the prop extending beyond the pivot. A slot 52 (shown by dotted lines in Fig. 2) is formed in the adjacent portion of the back rail 2, and within this slot the tail portion 51 of the prop works in the movements of the prop. In the present embodiment of the invention the pivot at 6 is constituted of an ordinary wood-screw passing inwardly through a hole in the prop and entering the lateral edge or end of the desk, the prop lying flatwise alongside such edge and the broad head of the screw serving to retain the prop in its connection with the desk. The pivot at 7 is constituted of a screw passing outwardly through a hole in the prop into the end piece 3. In order that it may answer the purposes of a stop, the screw 7 is formed with a cylindrical head, which is shown best in Fig. 3. This cylindrical head is caused to project inwardly beyond the plane of the inner surface of the prop across the path of movement of a shoulder or engaging portion 41, with which the desk is formed or provided adjacent its rear edge. In the horizontal and closed position of the desk the prop lies at the end of the desk in the narrow slit between the said end and the adjacent end piece 3. In this position the lower edge of the prop rests upon and is supported by a pin 31 or other projection or shoulder extending inwardly from the end piece 3, while the said shoulder or engaging portion 41 of the desk 4 extends beneath the stop 7 and is caused

to bear upwardly against the under surface thereof by the preponderance of weight in advance of the points 6 6, at which the desk is hung to the outer ends of the props 5 5. The pin 31 is located at proper height relative to the upper surface of front rail 1 to sustain the prop in position to support the desk at a slight distance above the said upper surface, while the stop 7 limits the turning movement of the desk upon the pivot 6, so that the desk is prevented from making contact with said surface to mar the finish of the same. At its inner side the end piece 3 is provided with a ledge 32, (shown in dotted lines in Fig. 3,) and the end of the desk near its rear edge is formed or provided with a shoulder 42 to rest upon the said ledge. Starting with the desk in its horizontal and closed position, when the forward edge of the desk is lifted the stop 7 holds the rear edge thereof from rising. The desk swings upward around stop 7 as a pivotal center, carrying prop 5 upward until the rising movement of the latter is arrested by contact of its tail portion 51 with the stop-shoulder 53, adjacent or constituted by the inner end of the ledge 32. Preferably the upper surface of ledge 32 has a curvature which renders said surface concentric with the pivot 6 in this position of the desk and prop. Thereafter as power continues to be applied, tending to carry the raised edge of the desk rearward, the desk swivels upon the pivot 6, connecting it with the prop 5, the shoulder 42 of the desk sliding forwardly along ledge 32 until the lowered rear edge of the desk brings up against the stop-shoulder at 43 at or adjacent the rear edge of the front rail 1. This arrests the desk in its position for use. The engagement of the tail portion 51 of the prop with the rear stop-shoulder 53 prevents the desk from being lifted, so as to disengage its lower edge from the front of stop-shoulder 43, which would leave the desk free to overturn rearwardly.

The stop 7 and the stop-shoulder at 41 on the rear edge of the disk, engaging with the under surface of the said stop 7 in the lowered position of the desk, serve to prevent the rear edge of the desk from rising and thereby being carried into contact with the adjacent portion of the back rail 2 in beginning to raise the desk by power applied at its front edge. For example, in the absence of such stop devices if lifting power were applied at one end of the desk only the tendency to twist the desk would cause this engagement. The said stop devices are so located as to prevent the upper angle of the rear edge of the desk from striking against the back rail as the desk turns in being raised. Should the said rear edge of the desk engage with the back rail as the upward movement of the desk occurs the point of contact would become a fulcrum for the desk and continued movement around such fulcrum would result in the application of strain to the pivots 6 and 7. The stop devices in question prevent twisting and cramping of the desk in being raised.

What I claim is—

1. In combination, the frame having the supporting-ledge, the prop pivotally connected at or adjacent its one end with said frame, and the desk having the other end of said prop pivotally connected therewith at an intermediate point in the width of the desk, and having at its rear edge a surface or projection engaging with said ledge to sustain the desk vertically in the raised position of the desk, substantially as described.

2. In combination, the frame, the prop pivotally connected at or adjacent its one end with the said frame, the desk having the other end of said prop pivotally connected therewith at an intermediate point in the width of the desk, the said frame having a stop to limit the rising movement of the prop and a support engaged by the lowered rear edge of the desk in the upturned position of said desk and serving to sustain the desk vertically in its position for use, substantially as described.

3. In combination, the frame, the prop pivotally connected at or adjacent its one end with the said frame, the desk having the other end of said prop pivotally connected therewith at an intermediate point in the width of the desk, the said frame having a stop to limit the rising movement of the prop, a support engaged by the lowered rear edge of the desk in the upturned position of said desk, and serving to sustain the desk vertically in its position for use, and a stop engaging with said rear edge to limit the movement of the desk in being raised for use.

4. In combination, the frame having the supporting-ledge, the prop pivotally connected at or adjacent its one end with said frame, the desk having the other end of said prop pivotally connected therewith at an intermediate point in the width of the desk, and having at such rear edge a surface or projection engaging with said ledge to sustain the desk vertically in the raised portion of the desk, and a stop by which the rising of the rear edge of the desk in the closed position of the latter is prevented, substantially as described.

5. In combination, the frame, the prop pivotally connected at or adjacent its one end with said frame, and the desk having pivotally connected therewith at an intermediate point in its width the other end of said prop, the said frame having a stop to limit the rising movement of the prop, the ledge receiving the lowered rear edge of the desk in the upturned position of said desk and serving to sustain the desk vertically in its position for use, and a stop engaging with the said rear edge to limit the movement of the desk in being raised for use, substantially as described.

6. In combination, the frame having the front rail, the prop by which the desk is supported in its upraised position for use, the desk, a support on said frame for said prop in its lowered position, and a stop for the rear edge of the desk in its horizontal position, the said support and stop serving to support the desk in the horizontal position of the movable parts above and out of contact with said front rail, substantially as described.

7. In combination, the frame having the back rail, the prop, the desk, and a stop adjacent said back rail and engaging with the rear edge of the desk in the closed position of the latter to prevent said edge from moving into engagement with said back rail as the desk is raised, substantially as described.

8. In combination, the frame, the prop, the desk, and the pivotal screw connecting the prop with said frame and constituting a stop for the rear edge of the desk in the closed position of the latter, the said frame having in connection therewith the stop to limit the rising movement of the prop, the ledge to support the rear edge of the desk in the upturned position of the desk, and the stop to limit the forward movement of the rear edge of the desk, substantially as described.

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

ROBERT S. BOWEN.

Witnesses:
CHAS. F. RANDALL,
WILLIAM A. COPELAND.