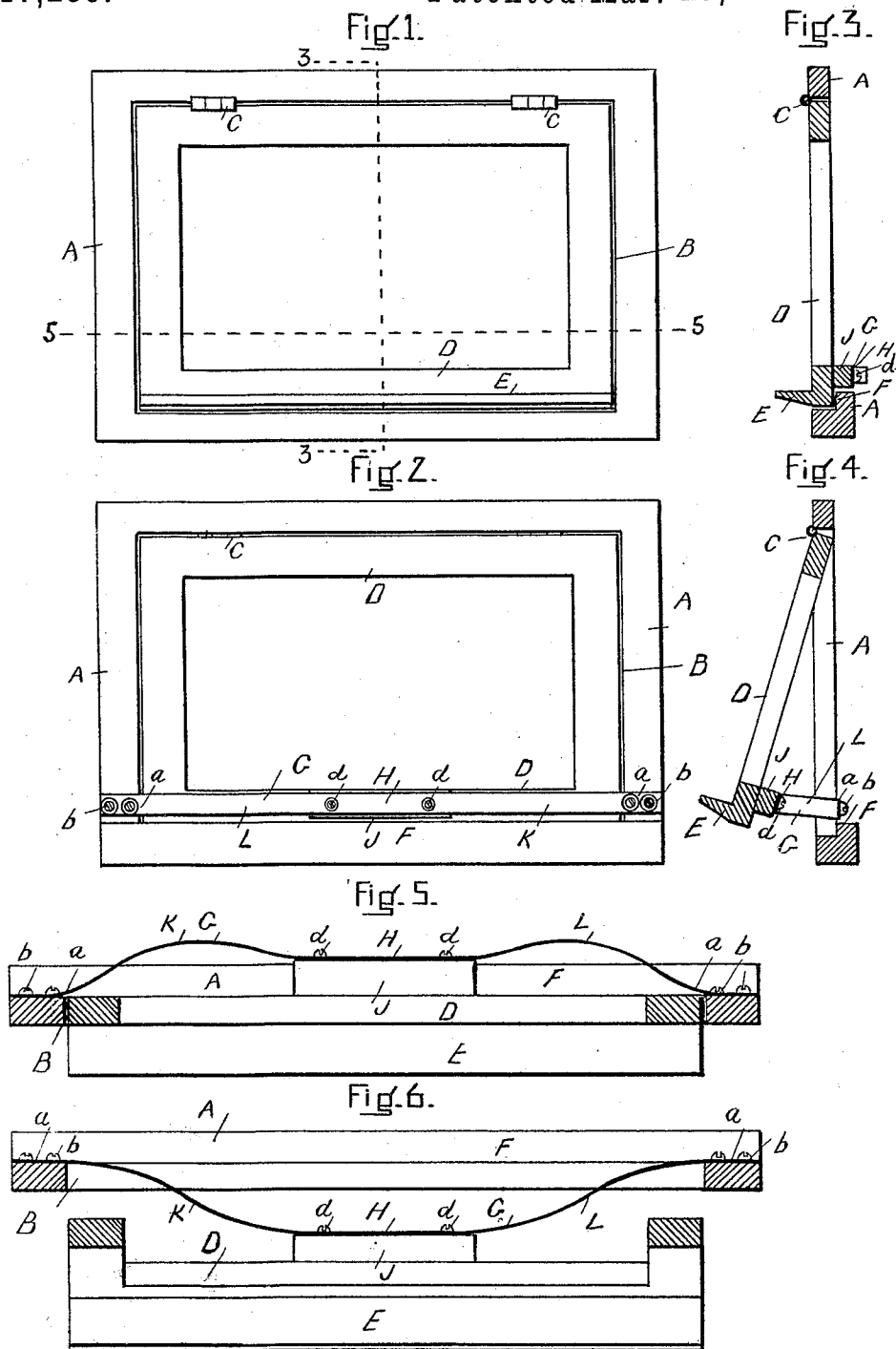


(No Model.)

J. P. RICHARDSON.
MUSIC DESK FOR UPRIGHT PIANOS.

No. 517,239.

Patented Mar. 27, 1894.



WITNESSES.

Garrie E. Nichols.
Walter B. Deane.

INVENTOR.

John P. Richardson
By *Edwin W. Brown*
Attorney.

UNITED STATES PATENT OFFICE.

JOHN P. RICHARDSON, OF CAMBRIDGE, ASSIGNOR TO THE MASON & HAMLIN
ORGAN AND PIANO COMPANY, OF BOSTON, MASSACHUSETTS.

MUSIC-DESK FOR UPRIGHT PIANOS.

SPECIFICATION forming part of Letters Patent No. 517,239, dated March 27, 1894.

Application filed December 29, 1890. Serial No. 376,114. (No model.)

To all whom it may concern:

Be it known that I, JOHN P. RICHARDSON, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Music-Desks for Upright Pianofortes, of which the following is a full, clear, and exact description.

This invention consists in the combination with a piano forte frame and a desk suitably hinged or pivoted thereto of a spring suitably secured to the desk and supporting frame for operation thereof, all substantially as herein-after fully described, reference being had to the accompanying sheet of drawings in which is illustrated a desk hinged to a frame of an upright piano forte constructed and arranged for operation in accordance with this invention.

Figures 1 and 2, represent respectively a front and back view of a desk for an upright piano forte and its supporting frame; Fig. 3, a vertical cross section on line 3—3, Fig. 1, with the desk closed and Fig. 4, a similar cross section with the desk opened out for use; Figs. 5 and 6, horizontal sections on line 5—5, Fig. 1, having the desk respectively closed and opened, these two views being enlarged.

In the drawings A represents a portion of the front board or frame of an upright piano forte above the keys, in an opening B, of which, hinged at C, is the desk D, having a front resting strip E, for the music, &c., so that the desk can be swung out into its open position for use, as shown in Fig. 4, and swung back in the frame into its closed position, resting against the lower back strip F, of the frame when not in use, as shown in Fig. 3, all substantially as usual in desks for upright piano fortes and needing no more particular description herein except as to its connection with the present invention.

G is a flat strip of spring metal extending horizontally along the lower portion of the desk and frame, and secured by its two ends a, by screws b, to the back of the frame and at its central portion H, by screws d, to a backwardly projecting central portion J, of the desk, the two ends of the spring strip being so secured to the frame in reference to the central fastening point of the desk, that the portions K, L, of the strip are bent out-

ward or compressed as shown in Fig. 5, more particularly. By this compression and also because the central fastening on the desk is back of a vertical plane between the pivots or hinges C, of the desk and the fastening points b, on the frame, the spring strip acts to move the desk back from said vertical plane into its closed position and hold it there as shown in Figs. 3 and 5, more particularly and when the desk is swung outward it will act to move it forward from said vertical plane into its open position and there hold it, as shown in Fig. 4.

When the desk is closed, to open it out for use, take hold of the resting strip or ledge E, and pulling it sufficiently forward the spring will act to swing it forward to its outward position, as shown in Fig. 4; to close the desk, push it backward, when the spring will act to move it into its closed position. It is essential for the spring to act to hold the desk in both its closed and open positions, to secure it to the desk at a point back of the vertical plane between the desk hinge and its fastening to the frame.

The spring strip is made in one piece as shown which is preferable when it has a central portion H, between fastenings on the desk, as it serves in the compression of the spring in operation of the desk to prevent any strain upon the central fastening. The strip is preferably made of steel although as is obvious it can be made of any suitable material having the necessary springy nature; also the central portion can be fastened to the back of the desk at one point in lieu of two, but it is preferable where the desk is quite wide and from the limited movement of the desk in swinging it outward for use to secure the spring strip at two or more points; also in lieu of having the spring in one piece it can be made in two parts and each being secured by one of its ends to the frame and by its other end to the back of the desk; also in lieu of being in form of a flat strip, it can be of any suitable form, for instance in the form of a wire.

This invention is applicable to desks for other purposes and uses, as well as for pianos.

Having thus described my invention, what I claim is—

1. In a piano forte in combination, a sup-

porting frame, a desk pivoted thereto, a spring strip or wire secured by its central portion to the back of the desk and extending therefrom each side and secured by its ends to the back 5 of the frame, the portions of the strip or wire between its central portion and its ends being bent or compressed for the purpose specified.

2. In a piano forte, in combination, a supporting frame, a desk pivoted thereto, a spring strip or wire secured by one end to the back of the frame and by its other end to the back of the desk, the spring strip or wire between its fastenings being bent or compressed for 15 the purpose specified.

3. In a piano forte, in combination, a supporting frame, a desk pivoted thereto, a spring strip or wire secured by its central portion to a projecting piece on the back of the desk,

and extending therefrom each side and secured by its ends to the back of the frame, the two portions of the strip or wire between its central portion and its ends being bent or compressed for the purpose specified. 20

4. In a piano forte, in combination, a supporting frame, a desk pivoted thereto, a spring strip or wire secured by one end to a projecting piece on the back of the frame and by its other end to the back of the desk, the spring strip or wire between its fastenings being 25 bent or compressed for the purpose specified. 30

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

JOHN P. RICHARDSON.

Witnesses:

EDWIN W. BROWN,
CARRIE E. NICHOLS.