

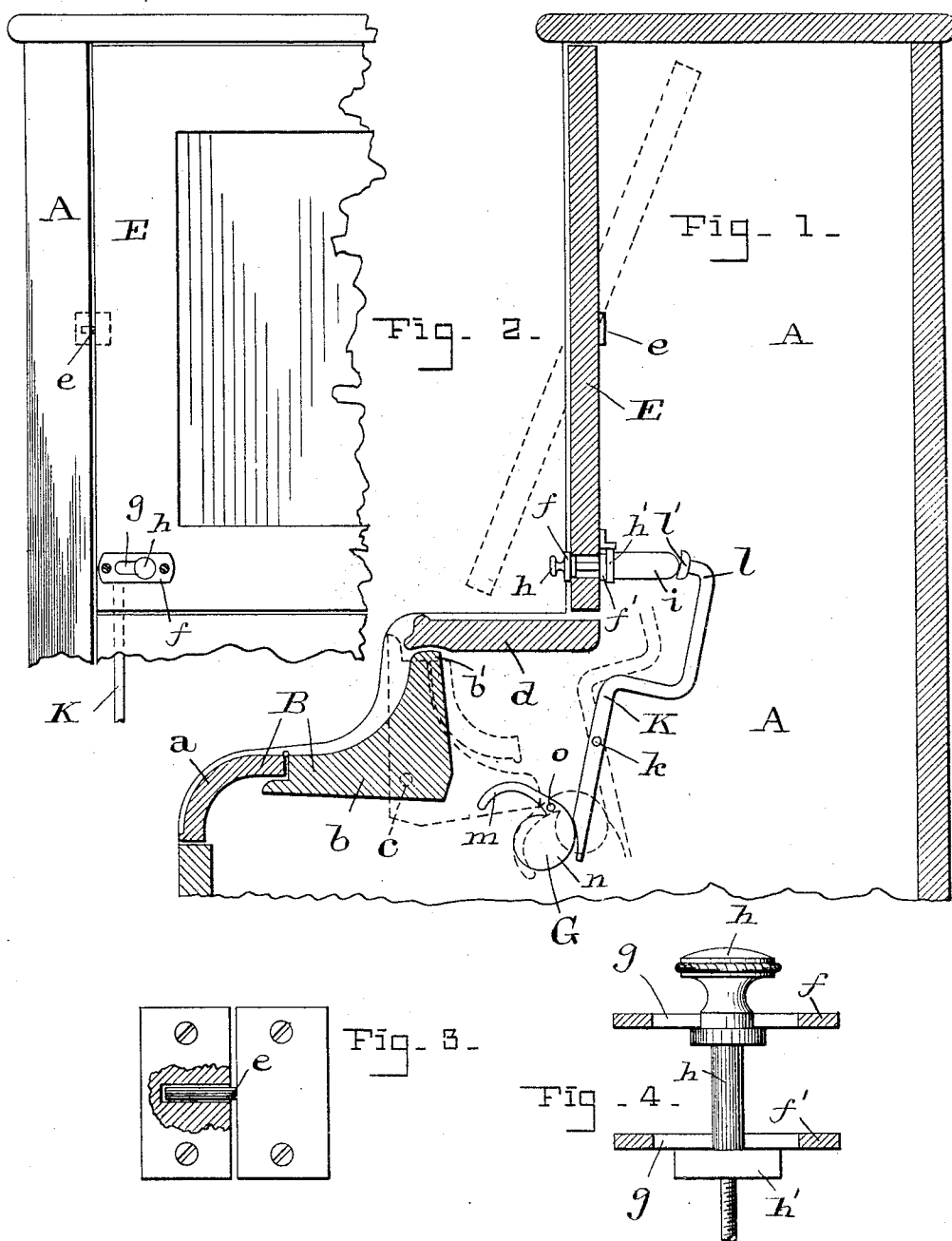
(No Model.)

C. A. PFEIFFER.

FALL BOARD AND SWING DESK FRAME FOR PIANOS.

No. 533,736.

Patented Feb. 5, 1895.



WITNESSES :-

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CHARLES A. PFEIFFER, OF BALTIMORE, MARYLAND.

FALL-BOARD AND SWING DESK-FRAME FOR PIANOS.

SPECIFICATION forming part of Letters Patent No. 533,736, dated February 5, 1895.

Application filed November 24, 1894. Serial No. 529,812, (No model.)

To all whom it may concern:

Be it known that I, CHARLES A. PFEIFFER, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Fall-Boards and Swing Desk-Frames for Pianos, of which the following is a specification.

This invention relates to an improvement in the cases of upright pianos whereby upon opening the fall-board which covers the key-board, the front or desk-frame will automatically open and allow the sound to readily escape.

The object of the invention is to provide improved means which will combine with or co-operate with the fall-board and movable upright desk-frame board, so that whenever the fall-board is opened the desk-frame will also open.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a vertical cross-section of the case of an upright piano with my improvements. Fig. 2 is a front elevation of one end of the desk-frame. Fig. 3 is a view of the central pivot of the desk-frame. Fig. 4 is a view of the shifting bolt which throws the lever out of use.

In the accompanying drawings the letter, A, designates the case of an upright piano of ordinary construction.

The fall-board, B, has a hinged front part, *a*, and a rolling rear part, *b*. The front part is hinged to the rear part so that the front may be turned up and then both front and back rolled to expose the key-board. The rear part, *b*, of the fall-board is pivoted, as at, *c*, so that it and the previously-folded front part, *a*, may be turned back within the case beneath the horizontal ledge, *d*, as indicated by the broken line position shown in Fig. 1.

The desk-frame, E, is vertical or upright and is pivoted centrally, at, *e*, to each side of the piano case at the front above the ledge, *d*, whereby its upper end may swing back into the case and the lower end may swing out over the horizontal ledge. When the desk-frame is thus swung out, as shown by the broken lines in Fig. 1, the case is open to allow the volume of sound to readily escape.

Means are provided which connect between the fall-board and the movable swing desk-frame, whereby, when the said fall-board, is turned up to uncover the key-board, the desk-frame will be opened automatically and held in such position.

A lever, K, is pivoted near its lower end, as at, *k*, within the body of the case so that its upper end will force the lower end of the swing desk-frame, E, outward and thereby open said frame when the fall-board, B, is opened. This lever, K, has a curved or brace-shaped upper end, *l*, said shape being provided in order to have the extremity, *l'*, point or project in a lateral direction toward the desk-frame, E, and thus when the lever is tilted said extremity, *l'*, may pass outward above the ledge, *d*. A cam, G, is pivoted so as to co-operate with both the rolling fall-board and the lever, K. This cam has a curved arm, *m*, and a weighted end, *n*, and its pivot, *o*, is so placed that normally the gravity of the weighted end, *n*, will cause the curved arm, *m*, to tilt upward to a position where the end, *b'*, of the rolling part of the fall-board will strike it and press said cam-arm downward and swing the cam-end, *n*, laterally against the lower part of the lever, K. Thus the cam is acted on by the rolling fall-board and in turn the cam operates the lever which latter swings the desk-frame, E.

The fall-board, desk-frame, lever, and cam, it is obvious, may readily be made so that when the fall-board is rolled the desk-frame, E, will tilt. I provide additional means, however, to coact with these parts by shifting which, if it is desired, the upper end of the lever may be thrown out from its connection with the desk-frame, E, so that upon rolling the fall-board said lever will not tilt the desk-frame.

The lower end of the desk-frame, E, is provided with metal plates, *f*, *f'*, one on its front and the other on its rear side. Each plate is provided with a horizontal slot, *g*, the slots of both plates being in line and coincident with an opening through said frame. A shifting bolt, *h*, has its head on the exterior or front side of the desk-frame and extends through the slot, *g*, and the end of the bolt projects on the inner or rear side and carries a block,

h' , provided with a horizontally-projecting stud, i , of wood, or some other suitable material.

It will be seen from the above construction 5 that when the shifting bolt, h , is at one end of the horizontal slot, g , the stud, i , will have position where the point-end, l' , of the lever will take against it and thereby the lever will force the swing desk-frame open, but if it is 10 desired to open the fall-board without tilting the desk-frame, the shifting-bolt, h , is shifted laterally to the opposite end of the slot, g , so as to place the stud, i , in a position where the lever-end, l' , will not engage it when the lever 15 is operated by the rolling fall-board, B.

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

1. The combination of the upright piano 20 case having the rolling fall-board, B; a swing desk-frame pivoted to permit its lower end to swing and thereby open or close the case; a lever, K, pivoted within the case so that its upper end will engage the swing desk-frame 25 and force the frame open; and a pivoted cam, G, also within the case and having a curved arm, m , and a weighted end, n , and coacting with the rolling fall-board and desk-frame, whereby when the fall-board is opened, it will 30 act on said arm while the weighted end will press against the lever and cause the latter to swing open the desk-frame.

2. The combination of the upright piano 35 case having the rolling fall-board, B; a swing desk-frame pivoted to permit its lower end

to swing and thereby open or close the case; a pivoted lever, K, having an upper end adapted to engage the swing desk-frame and force the frame open; a pivoted cam coacting 40 between the fall-board and swinging desk-frame, so that when the fall-board is opened it causes the cam to tilt the said lever; and means on the desk-frame to shift and serving to connect between the upper end of the lever 45 and the desk-frame, whereby said lever may be thrown out of its connection with the swing desk-frame, so that upon rolling the fall-board the desk-frame will not tilt.

3. The combination of the upright piano case having the rolling fall-board, B; a swing 50 desk-frame pivoted to permit its lower end to swing and thereby open or close the case, and provided on its front and rearsides with plates, f, f' , and having a slot, g , through the plates and frame; a shifting-bolt projecting through 55 said slot and having on the inner side of the desk-frame a stud; a lever, K, pivoted within the case and its upper end adapted to tilt and engage the said stud when the latter is in one position, and force the frame open; and a cam, 60 G, coacting between the fall-board and the lever, whereby when said fall-board is rolled open, it will cause the cam to tilt the lever.

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

CHARLES A. PFEIFFER.

Witnesses:

CHARLES B. MANN, Jr.,

C. CALVERT HINES.