

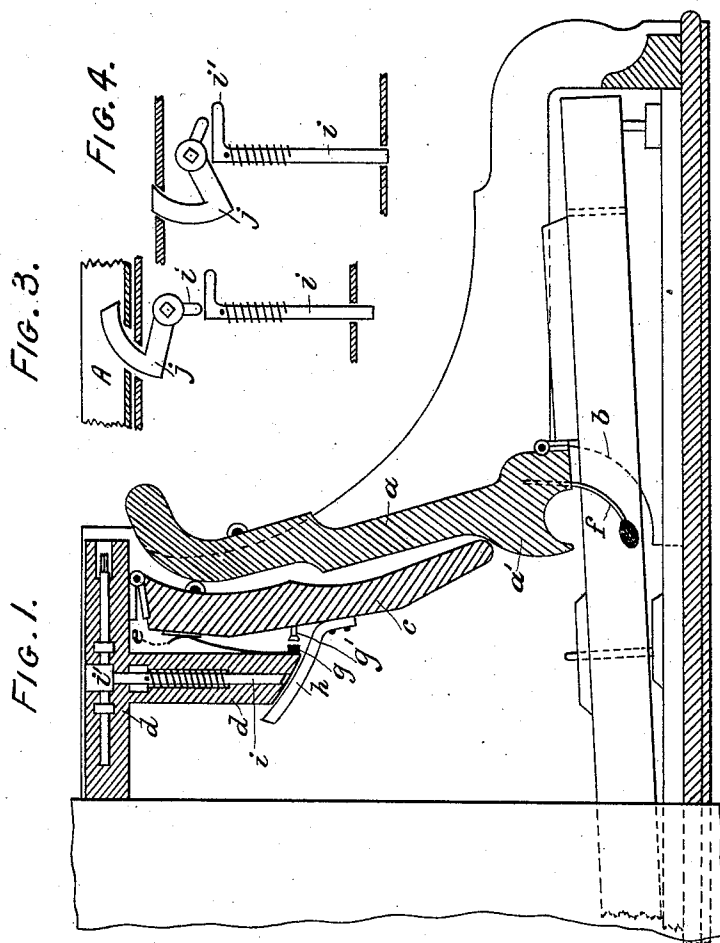
(No Model.)

2 Sheets—Sheet 1.

A. H. HASTINGS.
PIANO CASE.

No. 469,341.

Patented Feb. 23, 1892.



WITNESSES:

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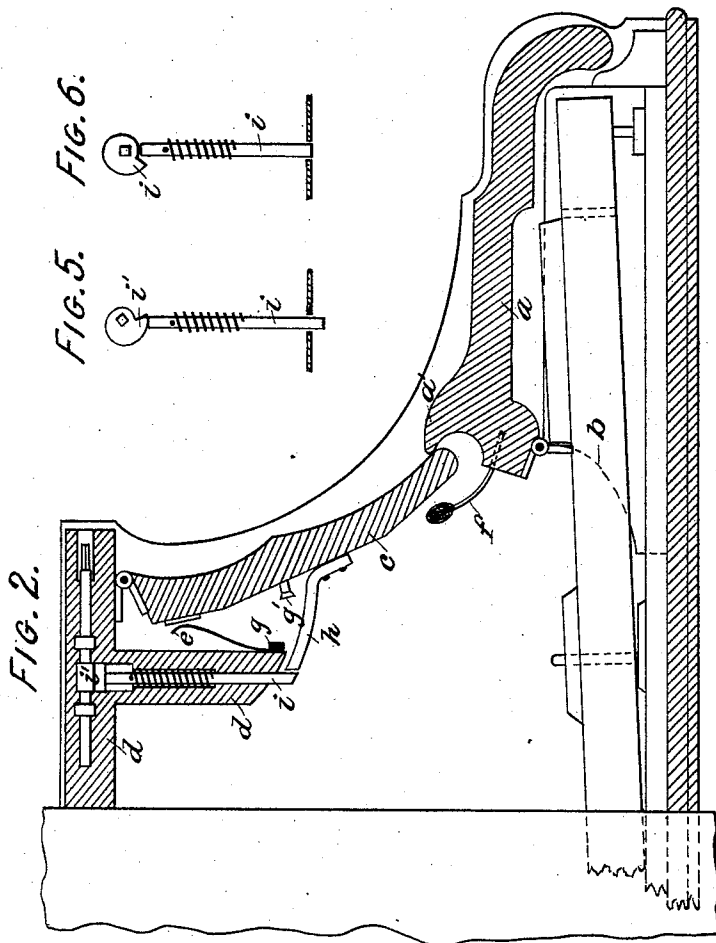
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2 Sheets—Sheet 2.

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PIANO CASE.

No. 469,341.

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WITNESSES:

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UNITED STATES PATENT OFFICE.

AZARIAH HORACE HASTINGS, OF NEW YORK, N. Y.

PIANO-CASE.

SPECIFICATION forming part of Letters Patent No. 469,341, dated February 23, 1892.

Application filed October 14, 1891. Serial No. 408,720. (No model.)

To all whom it may concern:

Be it known that I, AZARIAH HORACE HASTINGS, a citizen of the United States, residing in New York, in the county and State of New York, have invented certain new and useful Improvements in Piano-Cases, of which the following is a specification.

My invention relates to improvements in piano-cases, and particularly to that part of the cases of grand and upright pianos known as the "front falls" and their attachments, together with a locking device for the same. With the old style of falls the broad front surface when open cannot turn back beyond the vertical without coming in contact with the key-levers, and the front ledge projects its full width forward over the back of the key-board, greatly interfering with the fingering. Moreover, when the fall is being raised, an open space is left between its rear edge and the case-bar, and through this space all objects which might be on the fall are tilted and slid back into the action. To overcome these serious defects, various falls have been devised, such as sliding falls and falls hinged together in separate pieces and pivotally attached to the key-blocks or sides of the case; but such constructions are objectionable, in that they are expensive and complicated and fail to attain the desired ends.

It is the object of this invention, therefore, to produce a front fall for grand and upright pianos which shall be simple and economical in construction, which will when opened assume a position beyond the vertical from the rear of the sharps without coming in contact with the key-levers, and which will leave no open space under the case-bar when being raised.

A further object of my invention consists in a locking device for positively and securely retaining the fall in its closed position.

In the accompanying drawings, illustrating my invention, in the several views of which like parts are similarly designated, Figure 1 is a side view, partly in section, of my improvement in its open position. Fig. 2 is a similar view in closed position. Fig. 3 is a front view of my improved lock in its closed or locked relation, and Fig. 4 is a similar view showing the lock retracted or unlocked. Fig. 5 is a front view of the form of lock I prefer to em-

ploy on upright pianos, showing the locked relation. Fig. 6 is a similar view of the same unlocked.

a represents the front fall proper, which is hinged or otherwise pivotally connected at its rear end to the key-blocks *b* or sides of the case. The back of said fall *a* is slightly cam-shaped or provided with a finger *a'*, on which the lower end of the oscillating lid *c* works. This lid *c* is pivotally attached to the front case-bar *d* in such position as to let the front edge of the fall *a* back to any desired angle. To maintain a close and constant contact between the lower end of lid *c* and the cam or finger *a'* of fall *a*, I arrange a spring *e* between the case-bar *d* and the oscillating lid *c*, and to keep said lid in more positive relation when the fall is closed, I attach one or more hooks *f* to the rear edge of the fall, which when said fall is closed presses against the back of lid *c*. To limit the backward movement of lid *c*, a stop or cushion *g* may be arranged on the case-bar *d* and a regulating-screw *g'* on the lid *c*. It is of course obvious that where necessary or desirable the contact parts may be covered or cushioned to prevent noise.

To lock the parts in their closed relation, I employ a brace or projection *h*, attached to the rear of the lid *c*, and which passes immediately beneath the case-bar *d*, so that the ordinary grand-piano lock-bolt will closely pass its end and prevent any movement of the parts. I prefer to so arrange the locking mechanism that the front fall and attachments and the top lid or cover *A*, Fig. 3, will be locked and unlocked at the same time and by the same movement, and this I accomplish by inserting in the case-bar *d* a spring lock-pin *i*, which is operated by the lug *i'*, Figs. 3 and 4, constituting part of the locking device, the remainder consisting of a hook *j*, having a straight shank and curved bill, which latter works through a plate attached to the top lid or cover *A* to lock it. The relative position of the lug *i'* and the hook *j* is such that at the same time that the hook *j* penetrates the plate in the top lid or cover *A* the lug *i'* is brought to bear upon the spring locking-pin *i*, forcing it downward to the rear of the brace or projection *h*. This locking mechanism, as shown and described, I prefer to locate in the case-

bar *d*, thereby obviating the difficulties and inconveniences now experienced by the shrinking and warping.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In a piano-case, a front fall pivotally connected to the case, in combination with an oscillating lid pivoted at its upper end and having its lower end free to engage with the rear of the fall, substantially as described.

2. In a piano-case, a front fall provided at its rear edge with a cam or finger, in combination with an oscillating lid hinged at its upper end to the case-bar and having its lower end free to engage with and be operated upon by said cam or finger, substantially as described.

3. In a piano-case, a front fall provided at its rear edge with a cam or finger, in combination with an oscillating lid pivoted at its upper end and having its lower end free to engage with and be operated upon by the said cam or finger, and a spring operating at the rear of said lid to maintain its lower edge in close contact with said cam or finger, substantially as specified.

4. In a piano-case, the combination of a front fall provided with a cam or finger, an oscillating lid the lower end of which is maintained in close relation with said cam or finger by a spring, and a hook extending from the rear of the fall and abutting against the rear of the oscillating lid when the fall is closed, substantially as described, for the purpose set forth.

5. In a piano-case, an oscillating lid provided with a rearwardly-extending projection adapted to pass beneath the case-bar in open position and to receive a bolt or equivalent locking device in closed position, substantially as described.

6. In a piano-case, means, substantially as described, for locking the upper lid or cover and the front fall and attachments, consisting of a hook adapted to enter a plate in the said upper lid or cover, and a lug or cam adapted to press down a bolt to lock the said fall and attachments, as set forth.

7. In a piano-case, the combination of a front fall hinged to the key-block and provided at its rear with a cam or finger, an oscillating lid hinged to the case-bar and having its lower edge free to engage with and be operated on by the said cam or finger, a spring operating at the rear of said lid, a hook extending from the rear edge of the fall and adapted to engage the lid when closed, and a rearwardly-extending projection on the oscillating lid, adapted to be engaged by a bolt or equivalent locking device extending through the case-bar and operated by a lug or cam to which is also attached a hook having a straight shank and curved bill adapted to enter a plate in the upper lid or cover, all combined and arranged to operate substantially as and for the purposes set forth.

AZARIAH HORACE HASTINGS.

Witnesses:

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EWELL A. DICK.