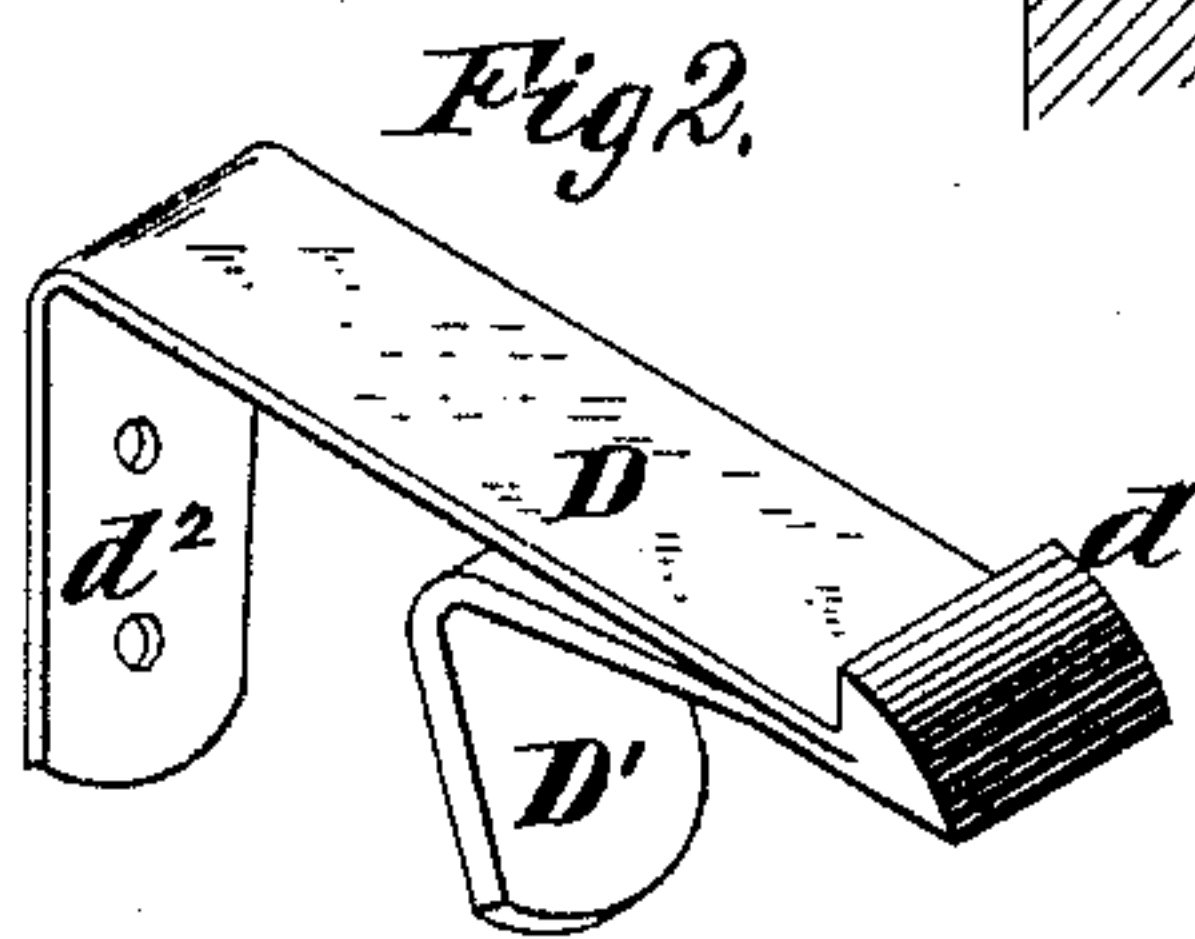
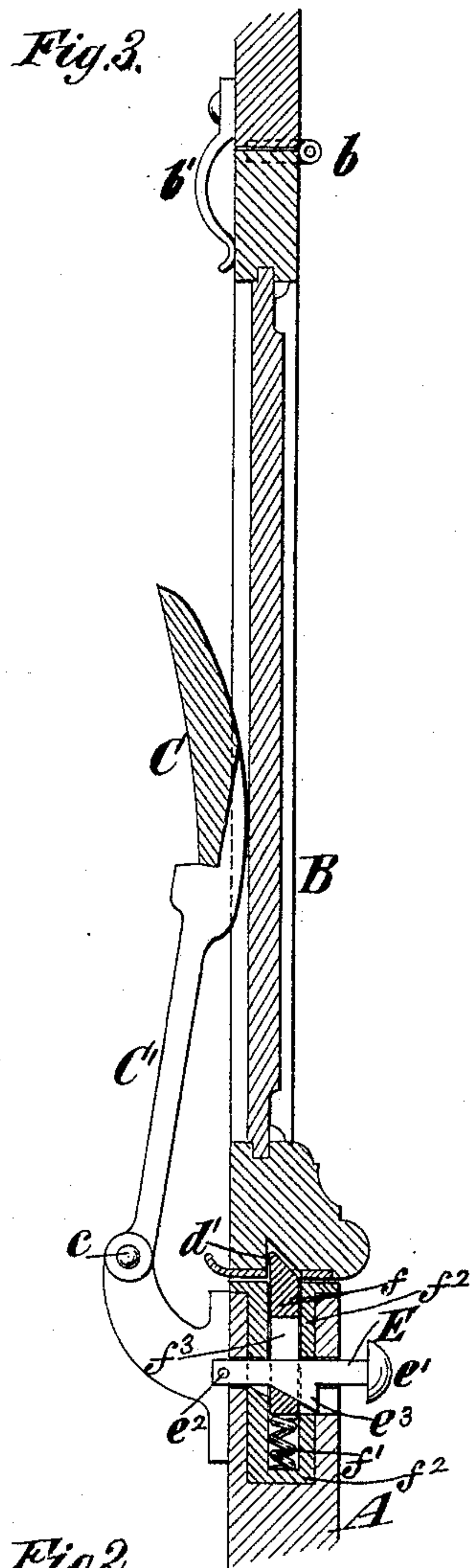
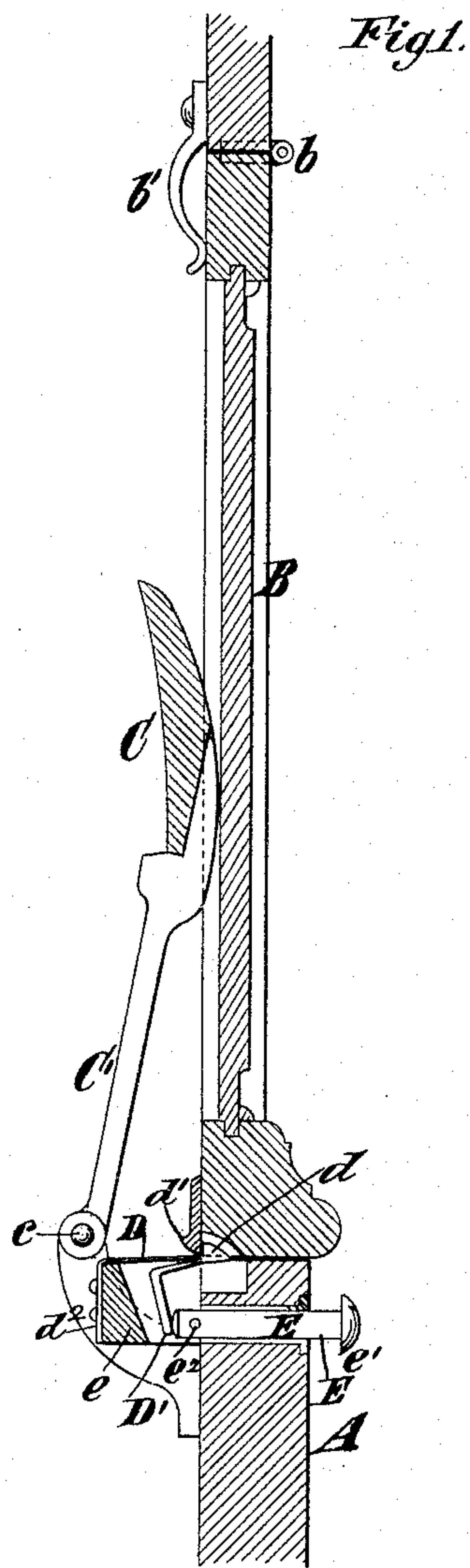


(No Model.)

S. LA GRASSA.  
UPRIGHT PIANO CASE.

No. 354,323.

Patented Dec. 14, 1886.



Witnesses.  
Emil Hertel.  
C. Sundgren

Inventor.  
Salvatore LaGrassa  
by his Atty  
Brown & Hall



# UNITED STATES PATENT OFFICE.

SALVADORE LA GRASSA, OF NEW YORK, N. Y., ASSIGNOR TO HARDMAN,  
PECK & CO., OF SAME PLACE.

## UPRIGHT-PIANO CASE.

SPECIFICATION forming part of Letters Patent No. 354,323, dated December 14, 1886.

Application filed June 28, 1886. Serial No. 206,563. (No model.)

*To all whom it may concern:*

Be it known that I, SALVADORE LA GRASSA, of the city and county of New York, in the State of New York, have invented a new and useful Improvement in Retaining-Catches for Swinging Desks of Pianos and other Musical Instruments, of which the following is a specification.

In United States Letters Patent No. 339,169, granted April 6, 1886, is shown and described a swinging desk which serves, when swung outward, to support music. Such swinging desk consists of a panel which is hinged at its upper edge in the front of the case of an upright piano; and there is employed in connection therewith a frame or rack which is pivoted within the case and behind the hinged panel, and which falls or swings forward or downward when the hinged panel swings forward, and comes to a position below the hinged panel, in order that it may serve in connection with the hinged panel as a desk or rack for supporting the music. In such an arrangement of parts the hinged panel is thrown automatically outward by a spring, when a catch which engages with the lower edge of the panel is retracted. This catch, in one construction, has consisted of a resilient spring arm or shank, secured at its rear end within the case and extending forward through a notch in the fixed portion of the front below the hinged panel, in order that the thumb or finger might be pressed upon it to push it downward or retract it, and in another construction a vertically-sliding bolt has been arranged below the panel and provided with an outward projection, which extends through a slot in the front, and which may be pressed down to retract the bolt.

The form of catch first above described is unsightly, and when the finger is pressed upon it to retract it, and the hinged panel is released and thrown outward by a spring, the top of the finger or thumb is liable to be scraped by the lower edge of the hinged panel.

The form of catch last above described necessitates an unsightly slot in the front of the case for the bolt projection to work in, and as the thumb or finger is to be placed above the projection for pushing it down it is liable to

be scraped by the lower edge of the panel, as above described.

The object of my invention is to provide a retaining-catch for the purpose above described which is more sightly than that heretofore used, and which may be retracted by a simple push rod and button working horizontally through the fixed portion of the front at a little distance below the hinged panel.

My invention avoids notching the fixed portion of the front below the hinged panel, so that the spring-catch may project through the front, and it also avoids any liability of the finger or thumb being scraped and injured by the hinged panel when it flies outward.

My invention consists in the combination, with the fixed front of a musical instrument and a hinged panel above, provided with a spring for throwing it out to form a desk or music-rack, of a spring-actuated catch for retaining the panel closed, and a push rod or pin sliding horizontally through the fixed front below the panel, and serving when pushed inward to retract the catch and release the swinging desk or panel. The retaining-catch in the above combination may advantageously consist of a spring arm or shank having at its forward free end a shoulder or projection, forming a catch for engagement with the shoulder upon the lower edge of the hinged panel, and provided with a downward projection or supplemental arm, on which the push rod or pin may act for retracting the catch.

In the accompanying drawings, Figure 1 is a sectional view of a portion of the front of an upright piano illustrating my invention as applied thereto. Fig. 2 is a perspective view of the retaining-catch alone; and Fig. 3 is a sectional elevation corresponding to Fig. 1, and illustrating a modification of my invention.

Similar letters of reference designate corresponding parts in the several figures.

A designates a fixed portion of the front, which is above the key-board, and B designates the swinging desk or hinged panel, which is pivoted or hinged at *b* at or near its upper edge. At the upper edge of the hinged panel or desk a spring, *b'*, acts upon its inner side for throwing it outward when its lower edge is released.

Within the case and behind the hinged panel



or swinging desk B is a rack or frame comprising a bar, C, having at each end arms C', which are pivoted at c. When the hinged panel or swinging desk B is closed, this rack or frame C  
 5 C' swings up behind it, as shown in Figs. 1 and 2; but when the hinged panel or swinging desk is released and thrown suddenly outward by the force of the spring b' the rack or frame CC'  
 10 position below the bottom of the outwardly-inclined swinging desk or panel B, so as to serve in connection therewith to support the music. These parts may all be constructed and arranged as shown in the aforesaid patent, and  
 15 are not a feature of my invention.

The retaining-catch which I prefer to employ for holding the hinged panel or swinging desk B in the position shown in Fig. 1 is represented in Figs. 1 and 2. It consists, essentially, of an elastic or yielding arm, D, which  
 20 is secured at its rear or inner end, and has at its forward free end a shoulder or projection, d, for engaging a lip or shoulder, d', upon the lower edge of the swinging desk. The spring-  
 25 arm D may consist of a flat strip of steel having at its inner end a downwardly-projecting portion, d<sup>2</sup>, whereby it may be secured by screws to a block, e, secured to the inner side of the front portion, A. The natural resili-  
 30 ence of this arm D serves to always hold the shoulder or projection d in engagement with the corresponding shoulder or lip, d', upon the hinged panel or swinging desk, and to retain the latter closed, as shown in Fig. 1.

The spring arm or shank D of the catch is provided with a downward projection or supplemental arm, D', upon which acts a push-pin, E, extending horizontally through the front portion, A, and provided with a push-  
 40 button, e', outside such front portion. This push-pin E may be secured against outward displacement by a small cross-pin, e<sup>2</sup>, and its inner end acts against the downward projection or arm D'. It will be obvious that when  
 45 this push-pin E is forced inward by a slight pressure of the thumb or finger its action upon the arm D' will draw downward the arm D at its forward end, and will thereby retract the shoulder or projection d sufficiently to free it  
 50 from the shoulder or lip d', and will permit the swinging desk or hinged panel B to be thrown outward by its spring b'.

The little push-pin, with its ornamental button, extending through the fixed portion A, is  
 55 far more sightly than was the nose of the spring-catch heretofore used, and when the thumb or finger is pressed upon the push-pin it is so far removed below the lower edge of the swinging desk or hinged panel B that the latter will not  
 60 scrape over and injure the finger or thumb.

In Fig. 3 I have shown a catch of different form, which may be employed for the same purpose, and which has advantages when combined with the swinging desk or hinged panel B, as it also comprises a push-pin, E, working  
 65 through the fixed front portion, A, and having a button, e', applied to it. The catch shown in Fig. 3 consists of a vertically-sliding bolt, f, which is thrown upward by a spring, f', into  
 70 engagement with the lip or shoulder d' upon the lower edge of the hinged panel or swinging desk B. This bolt and its spring are arranged within a socket or case, f<sup>2</sup>, which may be introduced into a hole bored in the portion A. The  
 75 push-pin E passes through a slot, f<sup>3</sup>, in the bolt f, and has upon its lower side a wedge or inclined surface, e<sup>3</sup>, which acts upon the lower inclined end of the slot f<sup>3</sup> when the push-pin  
 80 is forced inward to lower or retract the bolt f out of engagement with the lip or shoulder d', and thus permit the desk to swing open.

Although I prefer to employ the form of retaining catch shown in Fig. 2, the construction shown in Fig. 3 would form a like combination with the fixed front portion, A, and the swing-  
 85 ing desk or hinged panel B, and would be more advantageous than the form of catch heretofore employed for a like situation.

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

1. The combination, with the fixed front of a musical instrument and a hinged panel above, provided with a spring for throwing it out to form a desk or music-rack, of a spring-actuated catch for retaining the panel closed, and  
 95 a push-pin working through the fixed front and sliding in a horizontal direction to retract the catch, substantially as herein described.

2. The spring arm or shank D, having at its forward free end a shoulder or projection  
 100 forming a catch, and provided with a downward projection, on which a push-pin may act for retracting the catch, substantially as herein described.

3. The combination, with the fixed front of a musical instrument and an upper hinged panel provided with a spring for throwing it outward to form a desk or music-rack, of a spring arm or shank, D, secured at the rear end, and having at its forward free end a shoulder or  
 110 projection to form a catch, and also having a downward projection, D', and a push-pin, e', sliding horizontally through the fixed front, to act on the projection D' to retract the catch, substantially as herein described.

SALVADORE LA GRASSA.

Witnesses:

FREDK. HAYNES,  
 EMIL HERTER.