

W. Wilton,
Piano Lock.
N^o 19,529. Patented Mar. 2, 1858.

Fig. 1

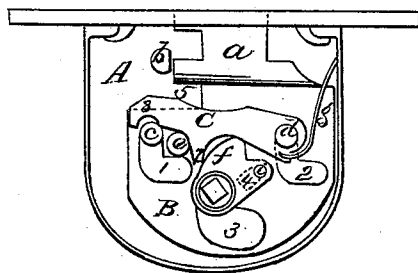
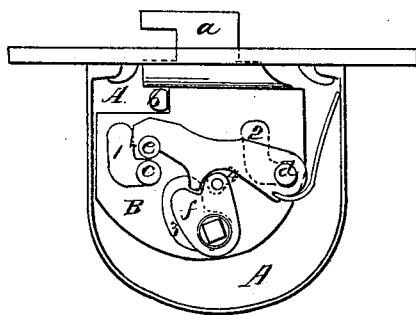


Fig. 2



UNITED STATES PATENT OFFICE.

NATHANIEL WILTON, OF BOSTON, MASSACHUSETTS.

PIANO-LOCK.

Specification of Letters Patent No. 19,529, dated March 2, 1858.

To all whom it may concern:

Be it known that I, NATHANIEL WILTON, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Piano-Locks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 is a view of the interior of a lock, the top plate being removed to show the parts within, the bolt being withdrawn or unlocked. Fig. 2 is a view of the same with the bolt shot.

My invention has reference to the improvement of that class of locks known as "piano locks" which are usually employed where the lid of the article to be secured shuts down vertically upon the part to which the lock is attached, and to avoid having an unsightly hasp to shut into the lock, the bolt is made to enter a recess or mortise in the edge of the lid. This requires the bolt to have two motions, one upward or vertical to enter the slot, and then one forward or horizontal to secure the lid by hooking over a plate set in the edge of the lid.

In the drawings A, is the case of the lock, the bolt *a*, is attached to and forms part of a bolt plate B, which slides upon the inner face of the case, being guided in its motions by certain pins and slots which will be described. The bolt plate B, has cut in it slots, 1, 2, 3, and 4, and a recess 5. From the case A, rise pins *b*, *c*, *d*, the pin *b*, being received into the recess 5, when the bolt is shot as in Fig. 2. The pins *c*, and *d*, occupy the slots 1 and 2, which are of such a form that as the plate B, is moved from the position of Fig. 1, it must first take a vertical and then a horizontal direction. In this latter movement the pin *b*, entering the recess 5, steadies the upper part or bolt, and also holds it securely against any downward pressure that may be applied to it.

Motion is given to the plate B, by the tumbler *f*, which has attached to its under side a pin *i*, that enters the slot 4 in the plate. A hub on this tumbler passes through the case A, and receives a key or wrench. The plate B is cut away at 3, to accommodate this hub of the tumbler. The pin *d*, is carried up through the plate B, and serves as a pivot for a latch C, of the form shown in the drawings. It is pressed down toward the tumbler *f*, by a spring *g*, which bears against the side of the case. When the bolt is shot (Fig. 2) a notch 8 near the end of this latch catches a pin *e*, attached to the plate B, and secures the bolt from being forced or jarred back, as was liable to happen to most locks of this class with which I am acquainted. When the lock is to be unlocked the tumbler *f*, first strikes upon a piece 7, of the latch and lifts it off the pin *e*, and then through the pin *i*, and slot 4 completes the movement of the plate B. The latch presses upon the pin *e*, when the plate is descending vertically and assists the bolt to come home by the action of the spring *g*. By thus raising the bolt vertically to its full height before it receives its horizontal movements, instead of giving it a diagonal direction I am enabled to enter the bolt in a smaller recess in the lid, and to hold the lid down more firmly.

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

The construction of the bolt plate B, with slots 1 and 2 of the form shown whereby said plate is guided in its two positive motions as described, and actuating the said bolt directly by the key in its motions as set forth.

NATHL. WILTON.

Witnesses:

THOS. R. ROACH,
THOS. L. GLOVER.