

H. Ahrend,

Piano Lock.

No. 107,585.

Patented Sept. 20. 1870.

Fig: 1.

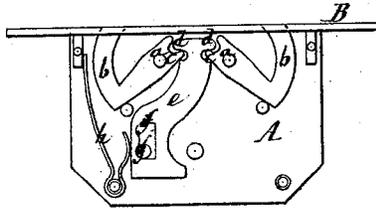
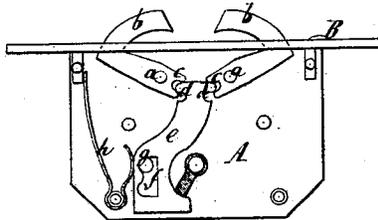


Fig: 2.



Witnesses:
L. Mahlers.
C. F. Kastenhuber

Inventor.
Herman Ahrend
per
Van Santvoord & Haupt
ATTOR

United States Patent Office.

HERRMANN AHREND, OF NEWARK, NEW JERSEY.

Letters Patent No. 107,585, dated September 20, 1870.

IMPROVEMENT IN LOCKS FOR PIANOS, &c.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern :

Be it known that I, HERRMANN AHREND, of Newark, in the county of Essex and State of New Jersey, have invented a new and useful Improvement in Locks for Piano-Fortes, &c.; and I do hereby declare the following to be a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification, in which drawing—

Figure 1 represents a face view of the locking mechanism when unlocked.

Figure 2 is a similar view of the same when in its locking position.

Similar letters indicate corresponding parts.

This invention consists in the arrangement of a sliding tumbler, provided with a T-head, which engages with notches in the inner ends of two oscillating hooks, in such a manner that, when the sliding tumbler is forced up, both hooks are simultaneously thrown in; and when the tumbler is forced down, both hooks are simultaneously thrown out, in their locking position, and retained there against any force which may be brought to bear upon their outer ends, while the whole locking mechanism is exceedingly simple, being composed of not more than three pieces, viz., the two hooks and the sliding tumbler.

In the drawing—

The letter A designates the plate which supports the various parts composing the working mechanism of my lock, and which is connected to the face-plate B.

In the plate A are secured two studs, *a a*, which form the fulcrums for the hooks *b b*.

The heads of these hooks are curved, and they move in slots in the face-plate B. Their tail ends are provided with notches, *c c*, to engage with the ends *d d* of a T-headed slide, *e*.

This slide forms the tumbler of the lock. It is provided with a slot, *f*, one edge of which is cam-shaped, and forced up against a stud, *g*, by the action of a spring, *h*. Before the slide can be moved up or down it has to be forced back against the action of the spring *h*, so as to throw the stud *g* clear of the cam-shaped edge of the slot *f*, and, by moving the slide down, from the position shown in fig. 1 to that shown in fig. 2, the hooks *b b* are simultaneously thrown out, and, since the tumbler is locked by the action of the cam-shaped slot *f* and stud *g*, no force brought to bear on the outer ends of either or both hooks is capable to throw the same back.

By reversing the motion of the slide *e* the hooks are returned to the position shown in fig. 1.

The motion of the slide *e* is effected either by the bit of a key, as indicated in fig. 2 of the drawing, or a nut may be used, which is operated by a key with a square end.

By these means a lock is obtained which is exceedingly simple in its construction, its locking mechanism being composed of not more than three parts and one spring, and, at the same time, the hooks, when in their locking position, cannot be forced back by pressure applied to their outer ends, and when the hooks are thrown back they completely fill their openings in the face-plate of the lock.

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

The sliding tumbler *e*, provided with a T-head, which engages with the notched ends of two hooks, *b b*, substantially in the manner herein shown and described.

HERRMANN AHREND.

Witnesses:

W. HAUFF,
C. WAHLERS.