

72038 *A. Helmstaedter's Lock.*

PATENTED
DEC 10 1867

Fig: 1

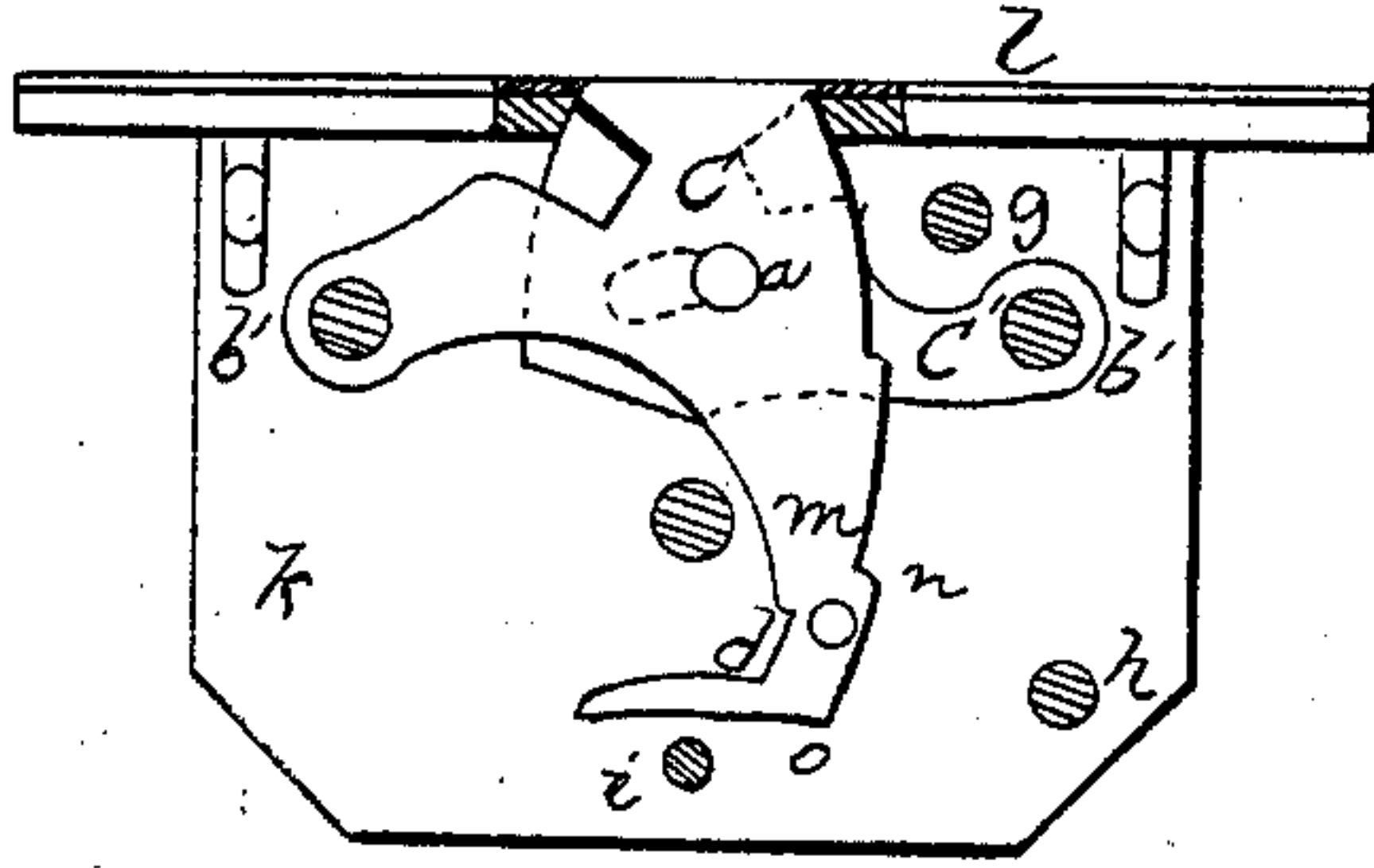


Fig: 2.

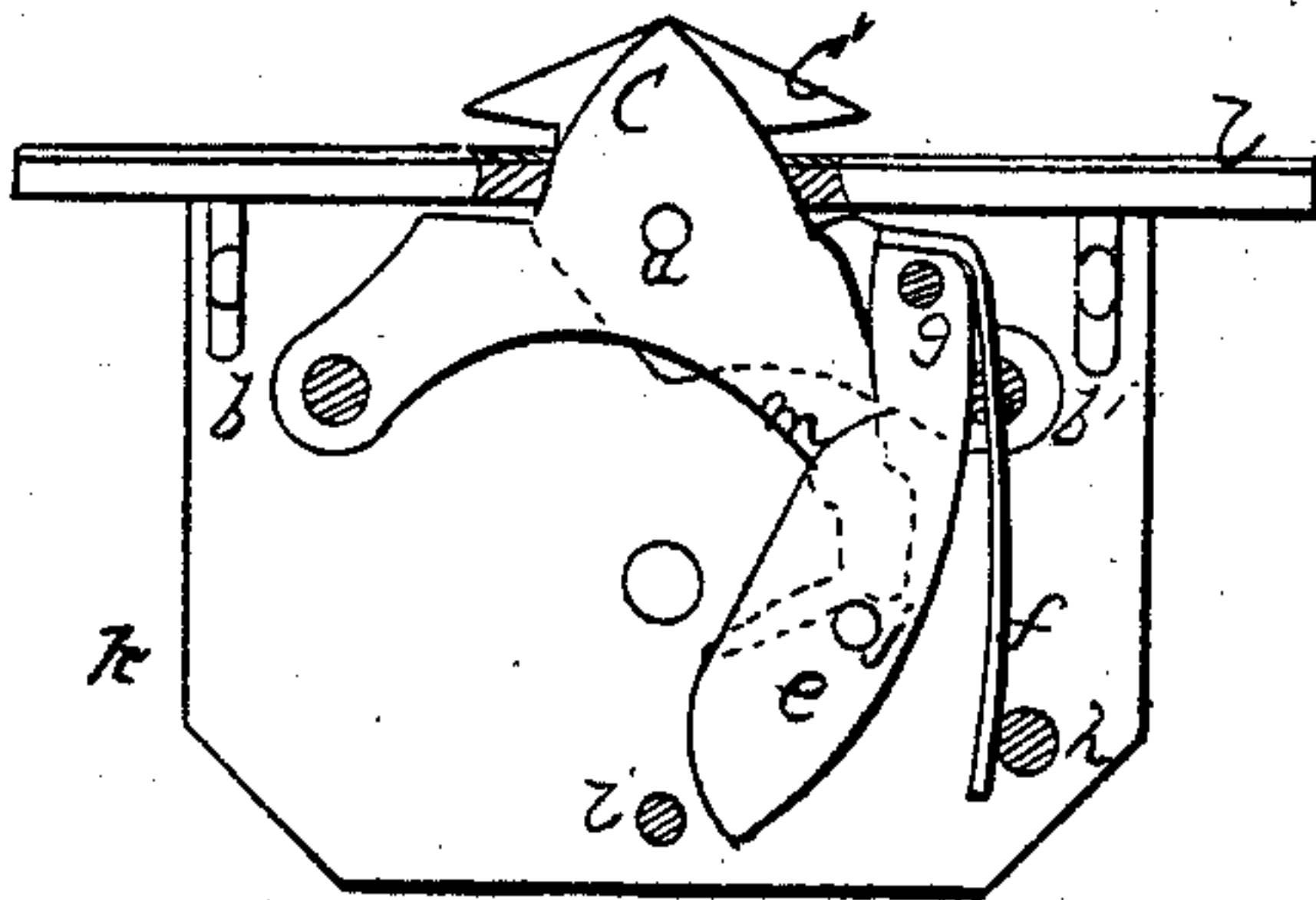
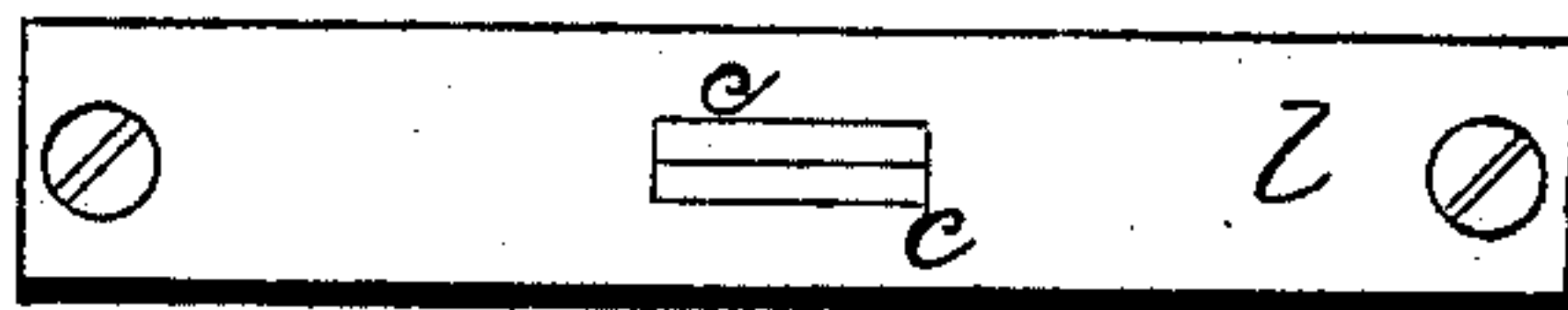


Fig: 3.



Adam Helmstaedter.

Witnesses:
Gustav Berg
John B. Poller

Inventor:
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per
V. Sestorod, Clerk

United States Patent Office.

ADAM HELMSTAEDTER, OF NEWARK, NEW JERSEY.

Letters Patent No. 72,038, dated December 10, 1867.

IMPROVEMENT IN PIANO-LOCKS.

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, ADAM HELMSTAEDTER, of No. 25 Railroad avenue, Newark, in the county of Essex, in the State of New Jersey, have invented a new and useful Improvement in Locks; and I do hereby declare that the following is 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—

Figure 1 is a sectional view of a lock made according to my invention, the tumbler and one of the side plates being removed.

Figure 2 is a like view, with the addition of the tumbler and its spring.

Figure 3 is a view of the face of the lock.

This invention relates to that class of locks, whose bolts hook over or around the staple or keeper.

It consists in a peculiar construction and arrangement of hooked bolts, which are operated by the key of the lock, in conjunction with a tumbler and spring.

The letter *k* designates that part of the frame of the lock to which the bolts are connected. The letter *l* designates the face-plate, through a slot in which the bolts emerge when they are driven or forced outwards into connection with the keeper of the lock. The bolts are two in number, *c c'*, the latter being operated through its connection with the former by means of a pin, *a*, which projects from the inner face of the body of said bolt *c*, and works in a curved slot formed in the body of bolt *c'*, as is shown in fig. 1. Both bolts have hooks on one of their edges, but said hooks are arranged in reverse order, the arrangement being such that each hook points in the direction which its bolt takes when it swings outwards on its pivot. The bolt *c* is set on a pin, *b*, of a frame-plate, *k*, of the lock, on which pin it vibrates or swings. The lower edge of this bolt *c* is elongated, as shown in figs. 1 and 2, to form a limb, *m*, whose forward edge has a cavity, *d*, against or in which the tongue of the key works, in order to swing or vibrate the bolt outwards or inwards. The rear edge of the limb *m* has an upper shoulder, *n*, and a lower shoulder, *o*, which are engaged by the pin *j* of the tumbler at the times when bolt *c* is in its higher or lower position respectively, the pin *j* at those times serving to lock the bolt and prevent it from being moved until the tumbler is pushed backwards and its pin disengaged. The bolt *c'* has no bottom elongation like the part *m* of the other bolt, and it is operated through its connection with the pin *a* of bolt *c*, as above explained. Said bolt *c'* is pivoted on a pin, *b'*, fixed like pin *b* in plate *k* of the frame. The tumbler *e* is hung to plate *k* by means of a pin, *g*, and is pressed forwards by a spring, *f*, whose free end acts against a stop, *h*, a stop, *i*, being provided to limit the forward movement of the tumbler.

From the construction and arrangement above shown, it will be observed that when the bolts *c c'* are operated, they swing or vibrate on their respective pivots or centres of motion, *b b'*, and, furthermore, that, when they have been forced out of the lock, their upper parts which emerge from the lock swing away from each other into any keeper or staple provided for that purpose, and form in effect a dove-tailed joint therewith. When the bolts are drawn down, their outer faces come in line with each other and with the face-plate.

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

The pin *a*, secured in the oscillating hook *C*, and catching in a slot in the hook *C'*, substantially as and for the purpose described.

ADAM HELMSTAEDTER.

Witnesses:

W. HAUFF,
GUSTAV BERG.