

N. Ward,

Trunk Lock,

Nº 69,115,

Patented Sep. 24, 1867.

Fig: 3



Fig: 1.

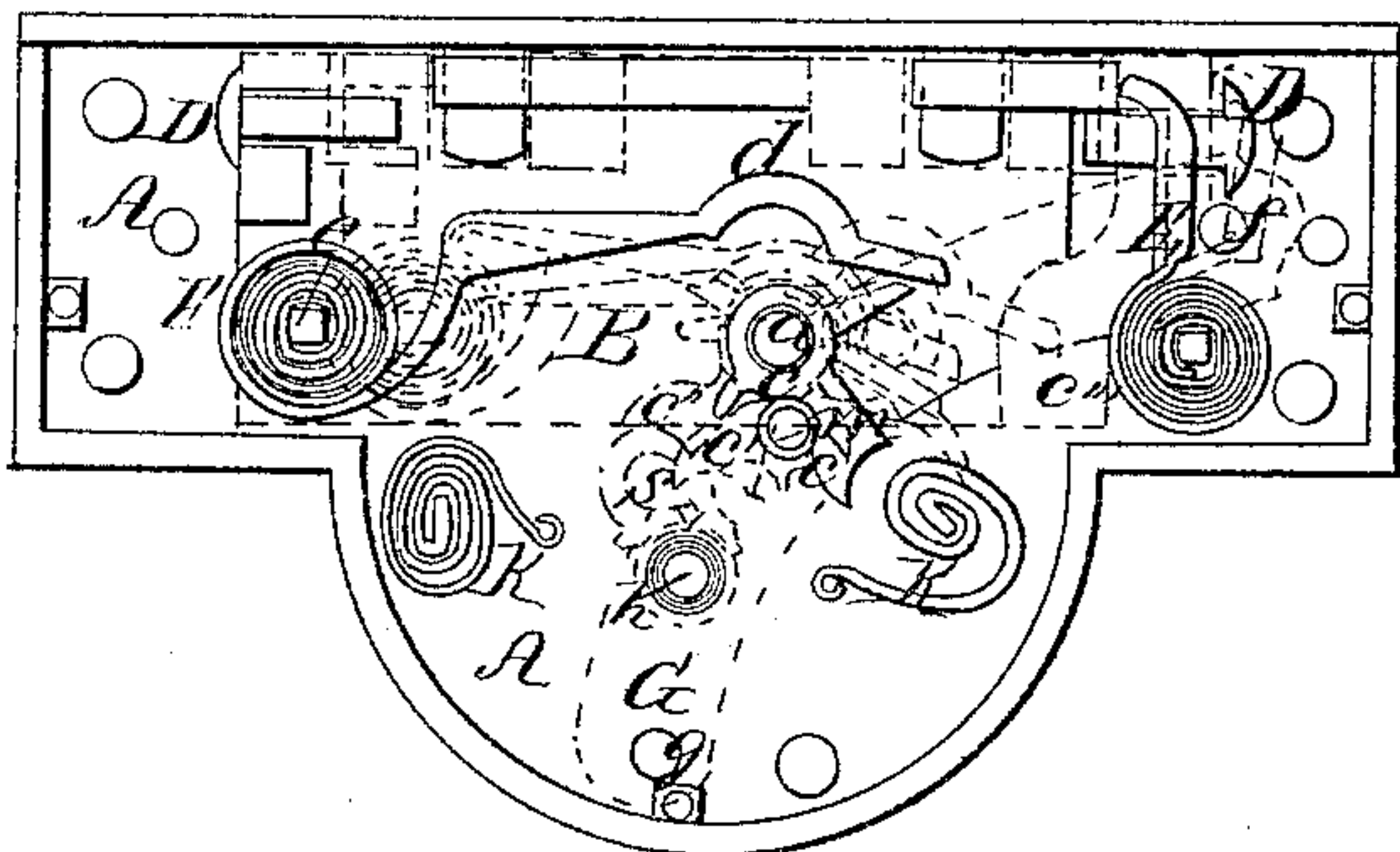
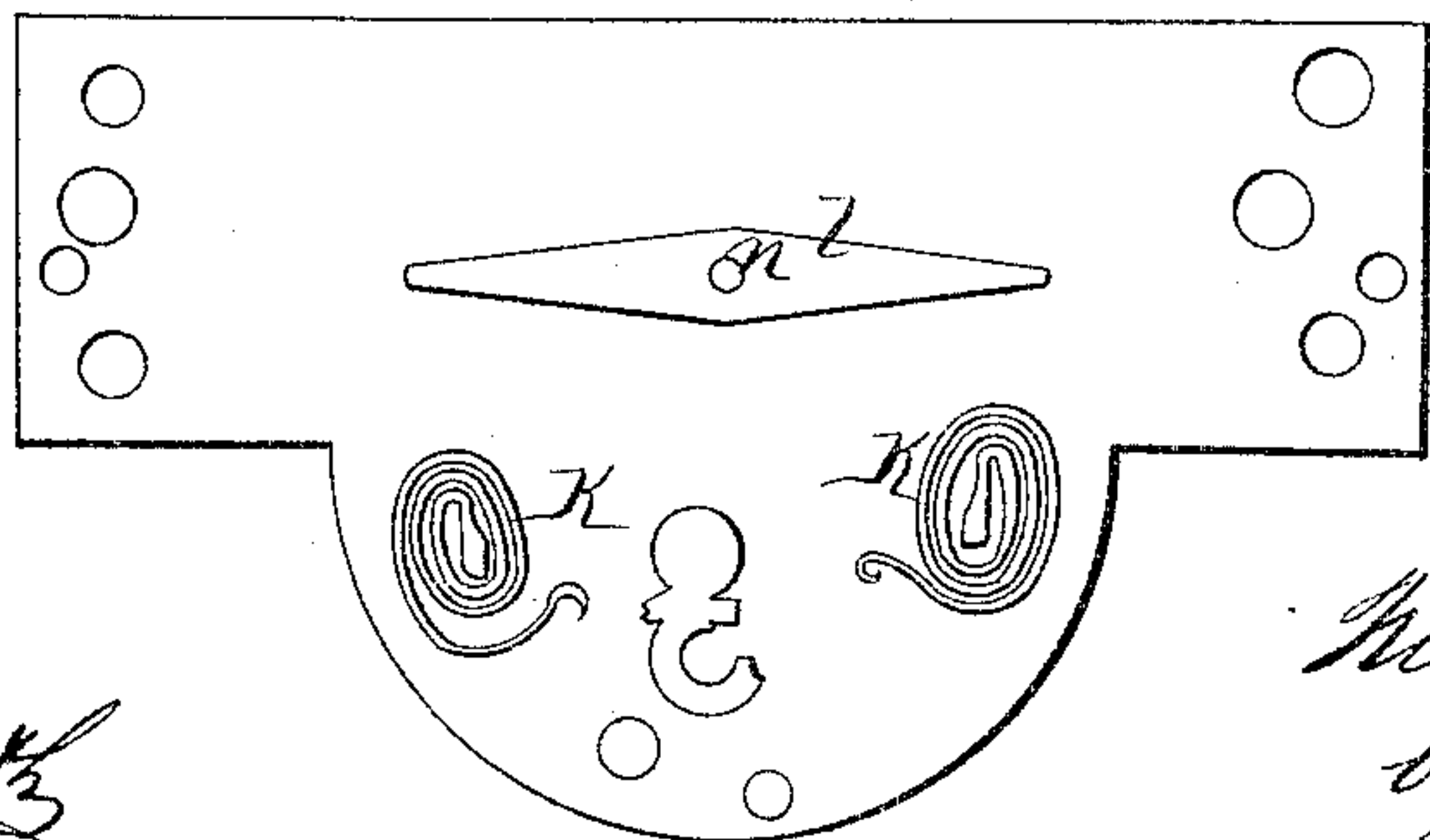


Fig: 2,



Witnesses;

Sydney C. Smith

H. Morris Smith

Inventor;

Nils Ward

by his Attorneys

Brown, Corbin & Co.

United States Patent Office.

NILS NARD, OF HAVRE DE GRACE, MARYLAND.

Letters Patent No. 69,115, dated September 24, 1867.

IMPROVEMENT IN TRUNK-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, NILS NARD, of Havre de Grace, in Harford county, and State of Maryland, have invented a new and useful improvement in "Locks for Doors, Chests, &c.;" and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, through letters of reference marked thereon, forming part of this specification, in which—

Figure 1 represents a front view of the lock, the face-plate of the casing being removed, and the plate to which the bolts are attached being shown in red outline.

Figure 2 is an inside or inverted view of the face-plate; and

Figure 3 is a detached view of the staples of a chest-lock as here represented.

My invention has reference mainly to that class of locks known as night-latches, spring trunk-locks, or the like, but with slight modifications may be applied to every kind of lock; and it consists in the interposition of a pivoted attachment to the bolt or bolt-plate, through the medium of which the key operates on the bolt instead of upon the bolt itself, as in the ordinary lock; also in the combination with said intermediate piece of a spring-catch for retaining it in position out of reach of the key.

To enable others skilled in the art to make and use my invention, I will describe its construction and operation by referring to the drawings, in which—

A represents the casing of the lock, which may be constructed of any form suitable for the purpose for which the lock is intended to be used, a chest-lock being the character represented in the drawing. Within this case is fitted a plate, B, which carries, and to which are firmly attached the bolts C. This plate has a sliding motion longitudinally, in which it is guided and stayed at either end by the T-shaped guides D, and is pressed forward into its locked position by the spring E at its rear. To the inner side of the plate B is firmly attached a pivot, *a*, on which is supported the intermediate vibrating dog or piece, *c*, through which the key operates to retract the bolt. This piece *c* is of peculiar formation, being somewhat of a T'form, with a lower and two lateral limbs, and is controlled by a spring, F, attached at *e* to the inner side of the plate B. The extension *d* of this spring is of similar conformation on its under side to that of the upper side of the piece *c*, or the lateral limbs thereof. A spring-plate, G, represented in dotted lines, of a curved or any convenient form, is attached to the rear outside of the casing by a screw or rivet at *f*, and at its opposite end is held in position by a stud or screw, *g*, the head of which serves to limit its motion, and to this spring is attached the stem *h*, over which the pipe of the key fits, and also a stub or catch, *m*, which serves to retain the piece *c* in its position out of reach of the key. The spring *l*, attached by a rivet or screw, *n*, to the inside of the face-plate, bears by its two ends on the bolt-plate B, and serves to keep it in place on its guides D. Surrounding the key-stem *h*, I arrange a series of springs, *k*, attached at their one end to the inner side of the casing A or its face-plate, whilst their other ends are free, and arranged at such distance from the key-stem that in turning the key they will be struck by it and caused to vibrate, whereby sound similar to that of a bell is produced to give alarm, and indicate an attempt to open the chest or door.

Having thus described the several parts of my lock, its operation will be as follows: The several parts of the lock being in the position represented in fig. 1, the key may be inserted and turned in either direction, and no other effect will be produced than the striking of the springs *k*, and producing sound therefrom to create an alarm. In order to operate the lock it is necessary first to depress the spring G by pressure on the end of the stem *h*, which will cause the stub or catch *n* attached to said spring to recede and liberate the piece *c*, allowing it to fall into the position represented by red lines at *c'*, in which position, if the key is inserted and turned to the right, said piece *c* will be thrown back to its original position, and no effect produced upon the bolt; and if said key is turned to the left, the piece *c* will yield and allow it to pass, also without having any effect upon the bolt. But in order to operate the bolt, the piece *c*, being liberated from the catch *m*, and assuming the position represented at *c'*, as before described, the key must be inserted and turned to the left until the angle *r* of the concave end of the lower limb of the piece *c* is allowed to pass the nose of the key, when its further motion will be arrested by the angle *s* of the lower limb of said piece *c* coming in contact with the said nose of the key in the position represented in blue lines *c''*. When this position is attained, which is easily done by a person who understands the operation of the lock, the key is to be turned to the right, when the

bolt-plate B will be forced back, by the key bearing against the lower limb of the piece *c*, into the position represented in dotted red lines at *c''*, when the bolts will be withdrawn from the staples or the mortise, as the case may be. On releasing the key the several parts will resume the position represented at *c''*, after which the key should be turned slightly to the left to allow the piece *c* to fall into the position represented at *c'*, when it should be turned to the right and withdrawn, which will leave the piece *c* in its normal position, out of reach of the key, until released from the stud *m*, as represented in the drawing, fig. 1.

Having thus fully described the construction and operation of my lock, what I claim as new, and desire to secure by Letters Patent, is—

1. The vibrating dog or piece *c*, pivoted or hinged to the bolt-plate for the purpose of retracting the same, substantially as described.

2. The combination of the vibrating dog or piece *c*, spring-catch *m*, and spring-lever *d*, substantially as and operating in the manner set forth.

3. The combination of the pipe-stem *h* with the spring G, carrying the stud *m* and dog *c*, substantially as and for the purposes specified.

In testimony whereof I hereunto subscribe my name this 2d day of May, 1867.

NILS NARD.

Witnesses:

SYDNEY E. SMITH,

W. MORRIS SMITH.