

(No Model.)

J. V. H. NOTT.
LATCH.

No. 428,348.

Patented May 20, 1890

Fig. 1.

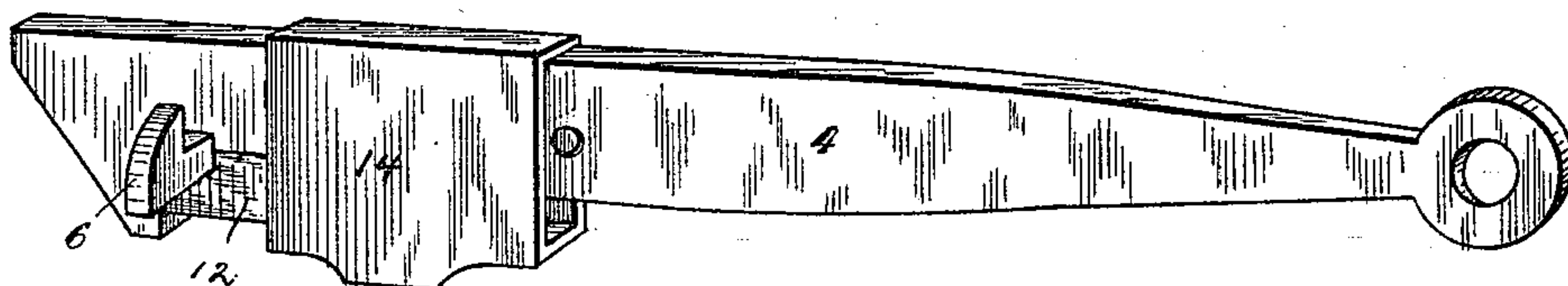


Fig. 2.

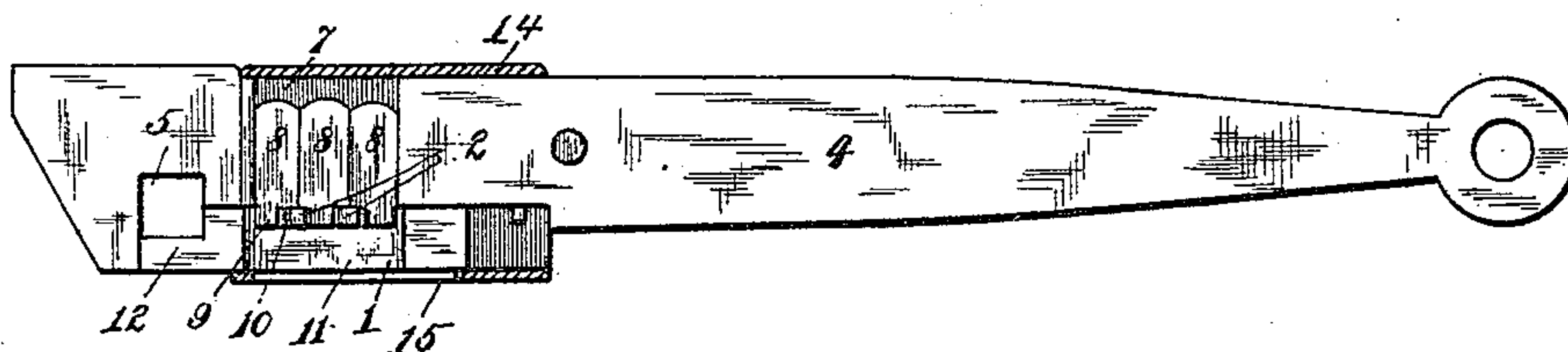


Fig. 4.

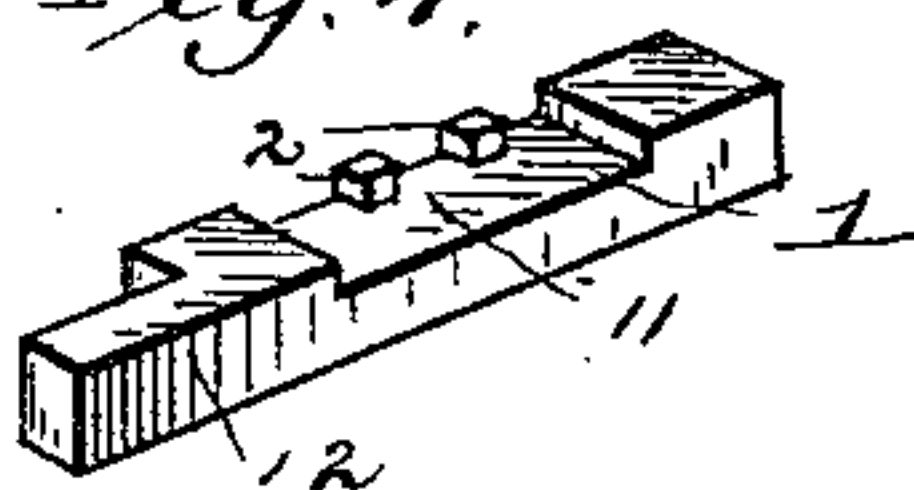


Fig. 3.

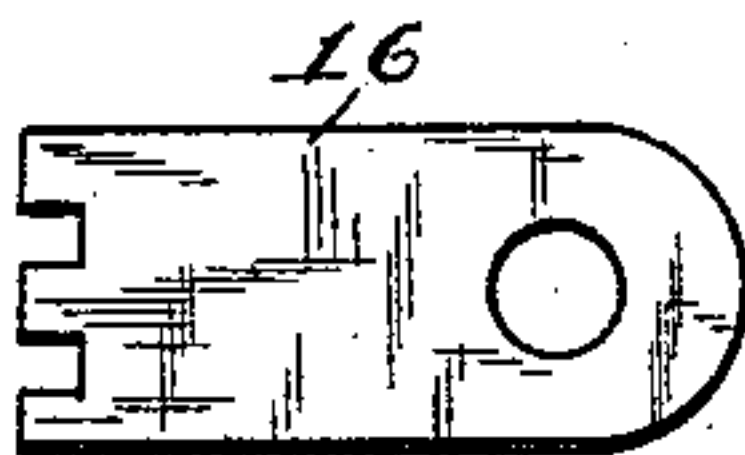
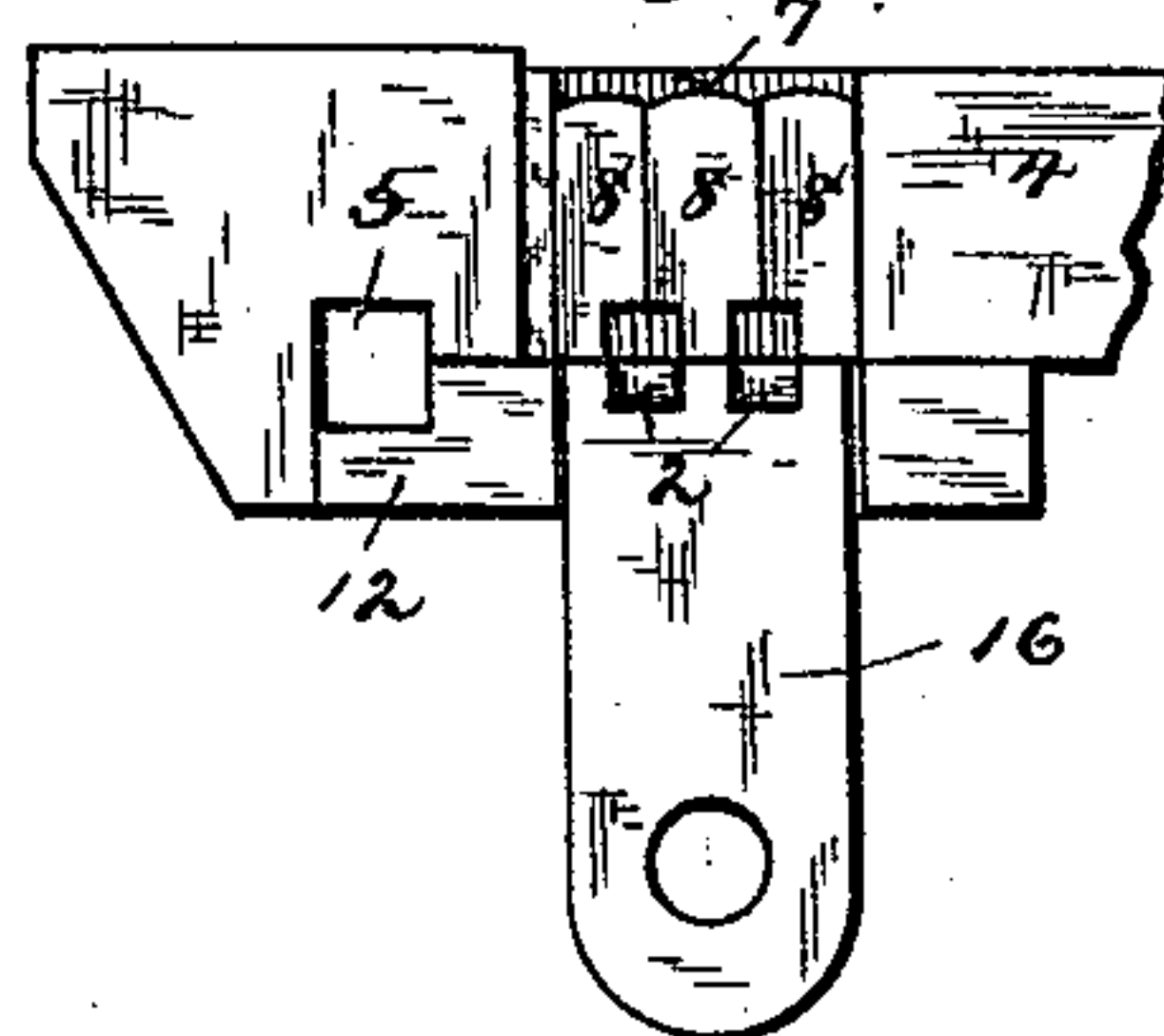


Fig. 5.



Witnesses:

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UNITED STATES PATENT OFFICE.

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LATCH.

SPECIFICATION forming part of Letters Patent No. 428,348, dated May 20, 1890.

Application filed March 7, 1890. Serial No. 342,992. (No model.)

To all whom it may concern:

Be it known that I, JOHN V. H. NOTT, a citizen of the United States, residing at Kingston, in the county of Ulster and State of New York, have invented a new and useful Door-Latch, of which the following is a specification.

This invention has relation to latches of that class adapted to be locked upon the catch-hook without the use of padlocks and by means of a bolt and locking mechanism mounted in the latch itself; and the objects and advantages of the invention, together with the novel features thereof, will be hereinafter described, and particularly pointed out in the claim.

Referring to the drawings, Figure 1 is a front elevation of a latch constructed in accordance with my invention, the same being applied to a door. Fig. 2 is a detail in elevation of the latch, the lock-plate being shown in section and exposing the interior mechanism. Fig. 3 is a detail in plan of the key. Fig. 4 is a detail view of the bolt. Fig. 5 is a detail view showing how the key unlocks the latch.

Like numerals of reference indicate like parts in all the figures of the drawings.

The gravity-latch 4 is provided with a forward recessed end 5, adapted to take over the hook-catch 6, which, as is usual, is secured to the door-frame and projects therefrom in line with the recess in the latch. In rear of the hook-engaging recess the front face of the latch is provided with a transverse recess 7, in which there is mounted a series of wards 8. The number of wards comprising the series is in this instance three; but it will be obvious to those skilled in locks that the number may be varied, and also other co-operating elements, in a manner hereinafter apparent. The lower ends of the wards are cut away, leaving reduced ends 9, intermediate which will of course occur recesses 10. These wards are mounted loosely within the recess 7, and are adapted to fall by gravity, or may be spring-pressed, if so desired.

11 represents the bolt, which is provided with a forward reduced locking-shoulder 12,

adapted when shot to combine with the locking-recess to form a catch-hook-receiving opening. The bolt is also provided on its front face with a recess 1, which agrees in size with the ward-receiving recess of the latch, and said bolt, within the recess and at its upper edge, is provided with an intermediate series of lugs 2, which, when the recesses are in registry, or, in other words, the bolt shot, will be directly opposite or in a vertical line with the recesses occurring between the reduced ends of the wards. The latch and bolt are covered by a housing or latch-plate 14, which latter at a point vertically opposite the ward-recess is provided with a corresponding opening 15. A screw or other means applied to the rear end of the housing serves to connect the same with the latch, and the housing cannot be removed and the wards tampered with until the latch-lock has been operated upon by the key.

16 represents the key, a special one of which being employed for each lock. The working end of the key is provided with a number of prongs or lugs agreeing with the number and size of the locking ends of the wards, so that all of the wards may be simultaneously pushed upward and thus withdrawn from between the lugs of the bolt. The teeth of the key of course form intermediate spaces 18, which receive the lugs of the bolt, and are of such a size as to agree with the same, so that the liability of pressing the key beyond the upper edge of the bolt and into the ward-chamber is obviated.

It will be observed that a lock of the class described is extremely hard to pick, in that all of the wards must be operated simultaneously.

Having thus described my invention, what I claim is—

The combination, with the latch and its catch-hook, said latch being provided with a transverse recess in its front face, of a series of wards having reduced ends mounted for independent movement in the recess, a sliding bolt having a recess agreeing with that in the latch, and provided with a series of lugs agreeing with the spaces between the

wards as formed by their reduced ends, and
the lock-plate encircling the latch and bolt,
and having an opening agreeing in size with
the recess or ward-chamber of the latch and
5 adapted to receive a key, substantially as
specified.

In testimony that I claim the foregoing as

my own I have hereto affixed my signature in
presence of two witnesses.

JOHN V. H. NOTT.

Witnesses:

ISRAEL SNYDER,
MARVIN E. PARROTT.