B. M. Van Der Veer,

Latch.

No. 47,470. Patented Apr. 25, 1865.

Fig. 3

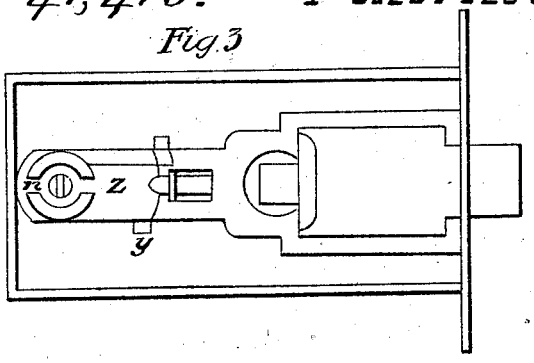


Fig. 9.

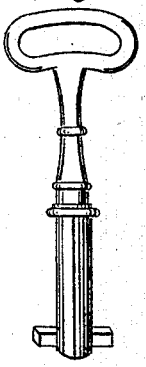


Fig. 1.

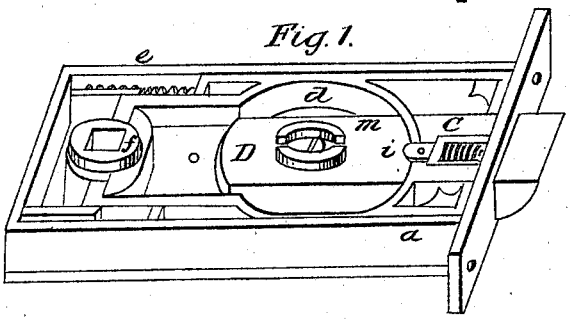


Fig. 10

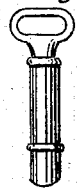


Fig. 2

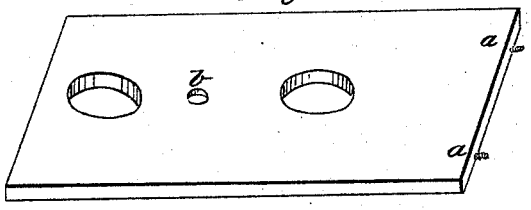


Fig. 7

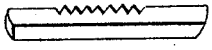


Fig. 5

Fig. 6.

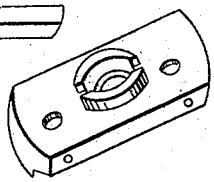
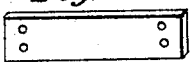


Fig. 4

Fig. 8



Witnesses
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UNITED STATES PATENT OFFICE.

BENJAMIN M. VAN DER VEER, OF CLYDE, NEW YORK.

IMPROVEMENT IN LOCKS.

Specification forming part of Letters Patent No. **47,470**, dated April 25, 1865.

To all whom it may concern:

Be it known that I, BENJAMIN M. VAN DER VEER, of Clyde, in the county of Wayne, in the State of New York, have invented a new and Improved Mortise-Lock, which I denominate and call the "Central-Line Lock;" and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists in doing away with or discarding entirely the lock portion or part of the combined mortise latch and lock now in general use, and by a new and simple internal arrangement make the spring-latch to do the office of both latch and lock as perfectly as a mortise or any other lock, thereby greatly reducing the size, and saving half the material and labor in manufacturing. It is universal in its application as a lock, without altering or reversing any part of its machinery or inverting the key-hole or turning the latch over in order to convert it into what is called a "right-and-left-hand lock."

To enable others skilled in the art to make and use my invention, I will describe its construction and operation.

Its form is that of all "mortise-locks," so called, and its internal machinery may be put in the cases of all other locks—such as are bolted or screwed on doors, closets, &c.—and the same material is used in its construction and manufacture.

Figure 1 is a perspective view of the lock with its cover off, showing its whole internal arrangement. Fig. 2 is the cover, and is fastened on by two points or tenons, letter *a*, which are inserted in the holes to receive them in the face end of the lock and by a screw in the cover, as seen at letter *b*, Fig. 2. Fig. 3 is a line-drawing, showing how the lock is made for heavy outside doors by simply placing the traverse-dog behind the latch-frame, as seen at *z*.

c, Fig. 1, is the head of the latch, to which is attached the frame-work *d d d*, which may be made with friction-points, all of which is thrown forward by the common wire coiled springs, as seen at *e*, and backward by the usual lever-axle, through which the shaft to a knob or handle passes, as seen at *f*. The main springs may be placed in front or rear within the case with the same effect.

D is what I term a "traverse" or "key" dog, turning on its axle *k*, and is operated by the key when in the key-hole *r*, throwing it up (when the lock is in position) with sufficient force to relieve it from the spring-catch *o* in the head of the latch, thereby unlocking the door, and leaving the latch to perform its functions as a spring-latch. Reversing the motion or turning it down again locks the door, which is indicated by the click of the catch in passing into the notch or slot *i* in the end of the dog, and which holds it in its horizontal position, as seen in the drawings; but I also place a stop on the lower side of the dog, as seen at Y, Fig. 3. This omitted, and the dog may be turned in either direction, down or up, from its horizontal position with the same results.

Figs. 4 and 6 are equally-divided halves of the traverse-dog, Fig. 4 being the upper side view of the lower half, and is countersunk to receive half the thickness of the cog-wheel, Fig. 5, and cogged bar or bolt, Fig. 7, the lower side of the upper half of Fig. 6 exactly corresponding thereto.

You now take the cog-wheel and drop it into its place in Fig. 4, the lower axle of which passing through the eye or hub *g*. Then put the cogged bar, Fig. 7, in its place *h*, Fig. 4. Now lay Fig. 6 over Fig. 4 and screw them together, as indicated by the screw-holes therein. Next take the plate, Fig. 8, and screw it on the side, as seen by the upper edge at *m*, Fig. 1. The traverse-dog is now completed, and by means of a sink or slot in the end of the cog-wheel axle, as seen in the bottom of the key-hole in the axle of the dog at *n*, Fig. 3, the bolt of the dog is operated by the small night-key, Fig. 10, throwing it into the latch-head *c*, Fig. 1, (better seen at S, Fig. 3,) when the dog has performed its office of locking the door by the main key, Fig. 9. This dog-bolt is only necessary (unless you choose) in locks made for outside doors, in which case the sink or slot that receives the night-key is only to be made in one end of the cog-wheel axle, and that end to be the inner or room side of the lock when on the door. A door thus locked at night on the inside defies any attempt from the outside to unlock it, even with duplicate keys in the hands of the operator. This lock also guards against espionage through the key-hole, as well as cold and dust, to which all ordinary locks are exposed.

Any further description is unnecessary, as its construction, operation, novelty, and utility can be fully understood and determined by the drawings.

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

The traverse or key dog, with its bolt operated by the keys in locking and unlocking the latch, together with the spring-catch in the head of the latch, which holds the dog in its linear or central position after having accomplished its mission.

BENJAMIN M. VAN DER VEER.

Witnesses:

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