(Model.)

A. PACIORKOWSKI.

LOCK.

No. 326,673. Patented Sept. 22, 1885.

Fig. 2.

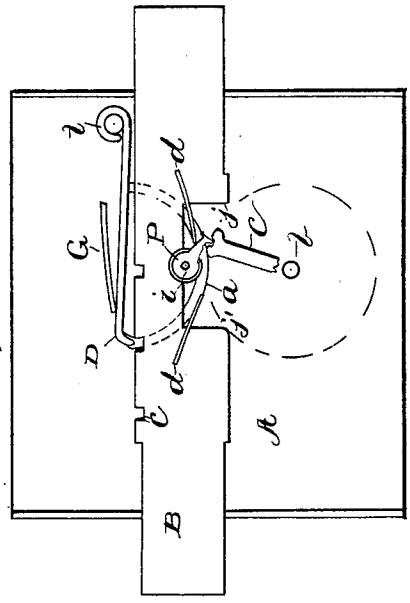


Fig. 4.

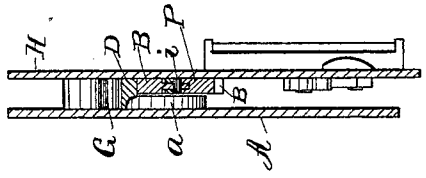


Fig. 1.

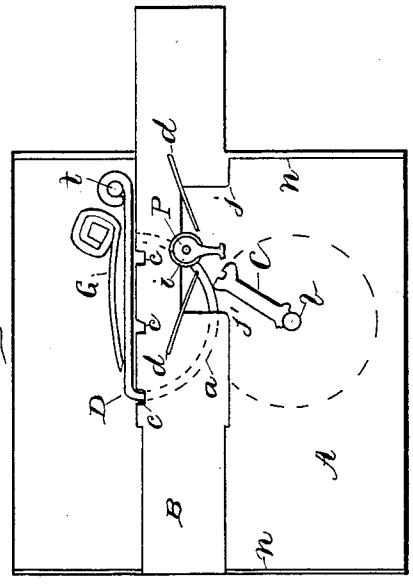
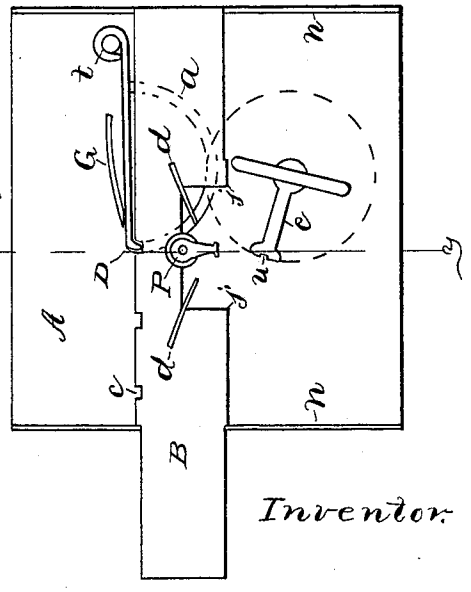


Fig. 3.



Witnesses:

John T. Booth

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Inventor:

Anthony Paciorkowski

by Geo. A. Mosher

atty.

N. PETERS. Photo-Lithographer. Washington, D. C.

UNITED STATES PATENT OFFICE.

ANTHONY PACIORKOWSKI, OF TROY, NEW YORK, ASSIGNOR OF TWO-THIRDS TO KAZIMIERZ PACIORKOWSKI, 1ST, AND KAZIMIERZ PACIORKOWSKI, 2D, OF SAME PLACE.

LOCK.

SPECIFICATION forming part of Letters Patent No. 326,673, dated September 22, 1885.

Application filed December 8, 1884. (Model.)

To all whom it may concern:

Be it known that I, ANTHONY PACIORKOWSKI, a resident of the city of Troy, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in Locks; and I do hereby declare that the following is a full, clear, and exact description of the invention, that will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

Similar letters refer to similar parts in the several figures therein.

My invention relates to improvements in locks.

The object of my invention is to provide a cheap and simple lock which can be doubly locked and cannot be readily unlocked without a knowledge on the part of the operator of the key, of the character of the lock, and the method of manipulating the key-hole guard to expose the key-hole.

My invention consists in providing the bolt with an oscillating pawl adapted to engage with the key and slide the bolt still farther after it has been once moved by actual contact with the key either to slide the bolt into its hasp or to withdraw it therefrom.

Figure 1 of the drawings is an interior plan view with the plate removed, showing the lock unlocked. Fig. 2 is a similar view showing the position of the parts when locked by contact of the key with the bolt, and in position to be doubly locked by action of the key upon the pawl. Fig. 3 is a similar view showing the position of the parts when doubly locked. Fig. 4 is a vertical cross-section taken at the broken line *x y* in Fig. 3, and showing the front plate in position upon the lock.

A is the back or inner plate of the lock with outwardly-projecting flanges *n*, adapted to form a bearing for the exterior plate, H, and provided with transverse grooves to permit the bolt B to slide back and forth therein.

D is a stop or dog, pivoted at *t* to the plate A, and provided with the curved arm *a*, upon which arm the key C operates to disengage the stop from the notches *c* in the bolt. The dog is controlled and forced into the notches by the spring G, attached to the plate A. The key is inserted through opening I in plate H, (shown in Fig. 6,) and turned to the position shown in Fig. 1, where the bolt is shown unlocked. To lock the bolt, the key is then turned to the left against the arm *a* until it reaches the position shown in Fig. 2, where it has forced the dog D out of the notch C and come in contact with the shoulder *j'* of the bolt. If the key is then forced forward in the same direction until it slips from the shoulder *j'*, the bolt will have advanced to the position shown in Fig. 2, and the arm *a* being released the dog D is forced by its controlling-spring down into the second notch *c*, and holds the bolt in position singly locked. The key is then turned back toward the right, driving the lower or oscillating end of pawl P before it to the position shown in Fig. 2. The pawl is pivoted to a projecting tongue of the bolt by the pivot *i*, as shown in the several figures and in cross-section in Fig. 4. The spring *d* forces the end of the pawl into the notch *u* in the end of the key. The key is once more turned to the left, forcing the pawl and bolt before it to the position shown in Fig. 3, which shows the bolt doubly locked, and stop D in the third notch *c*, which holds the bolt securely locked. To unlock the bolt the operation is simply reversed. The key is turned to the right until it strikes arm *a* and shoulder *j*, as shown by the broken circular line in Fig. 3, which forces the dog from its notch and the bolt back to the position shown in Fig. 2, as shown by the circular broken line. From the same broken line it also appears that if rotary movement of the key is continued it will strike the shoulder *j*, and in this way it would be impossible to completely unlock the bolt; but by turning the key backward to the left until it passes the oscillating end of the pawl, or until spring *d* forces the end of the pawl into the notch in the end of the key, as shown in Fig. 2—except their position in engagement would be to the left of a vertical line passing through the pivot *i* of the pawl instead of to the right—the operator can then force the pawl and bolt along to the right to the position shown in Fig. 1, in which the bolt is shown

completely unlocked. The pawl P, being free to oscillate upon its pivot, assumes, when uncontrolled, the vertical position shown in Figs. 1 and 3. I am thus able to doubly lock the bolt in such a manner that it can be unlocked only by a key adapted to engage with the pawl P, and that must be given two partial turns in one direction with an intermediate partial turn in the opposite direction.

The spring *d* may be dispensed with, provided the pawl is pivoted to oscillate freely and the key-notch *u* provided with sharp edges to engage readily with the end of the pawl.

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

In a lock, the combination of a sliding bolt, B, provided with key-engaging shoulders *j j'*, a pawl, P, pivoted thereon, spring-controlled catch D, provided with a key-engaging arm, *a*, and pawl-controlling springs *d*, substantially as and for the purposes set forth.

In testimony whereof I have hereunto set my hand this 18th day of November, 1884.

ANTHONY PACIORKOWSKI.

Witnesses:
GEO. A. MOSHER,
CHAS. L. ALDEN.