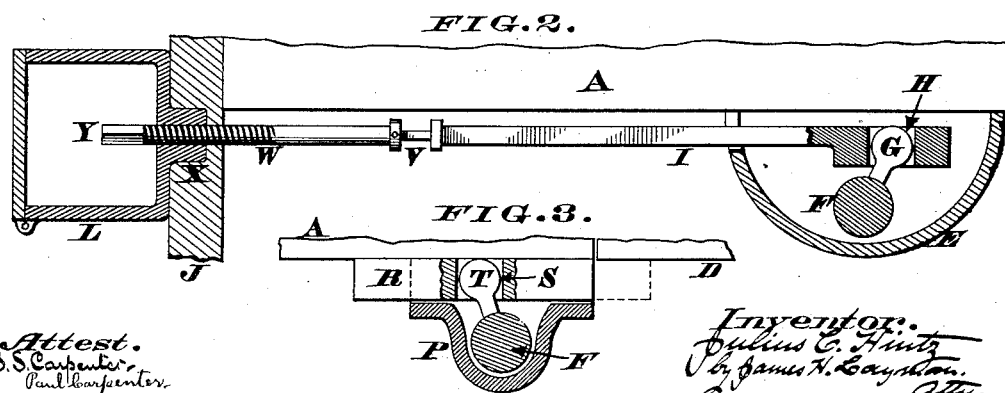
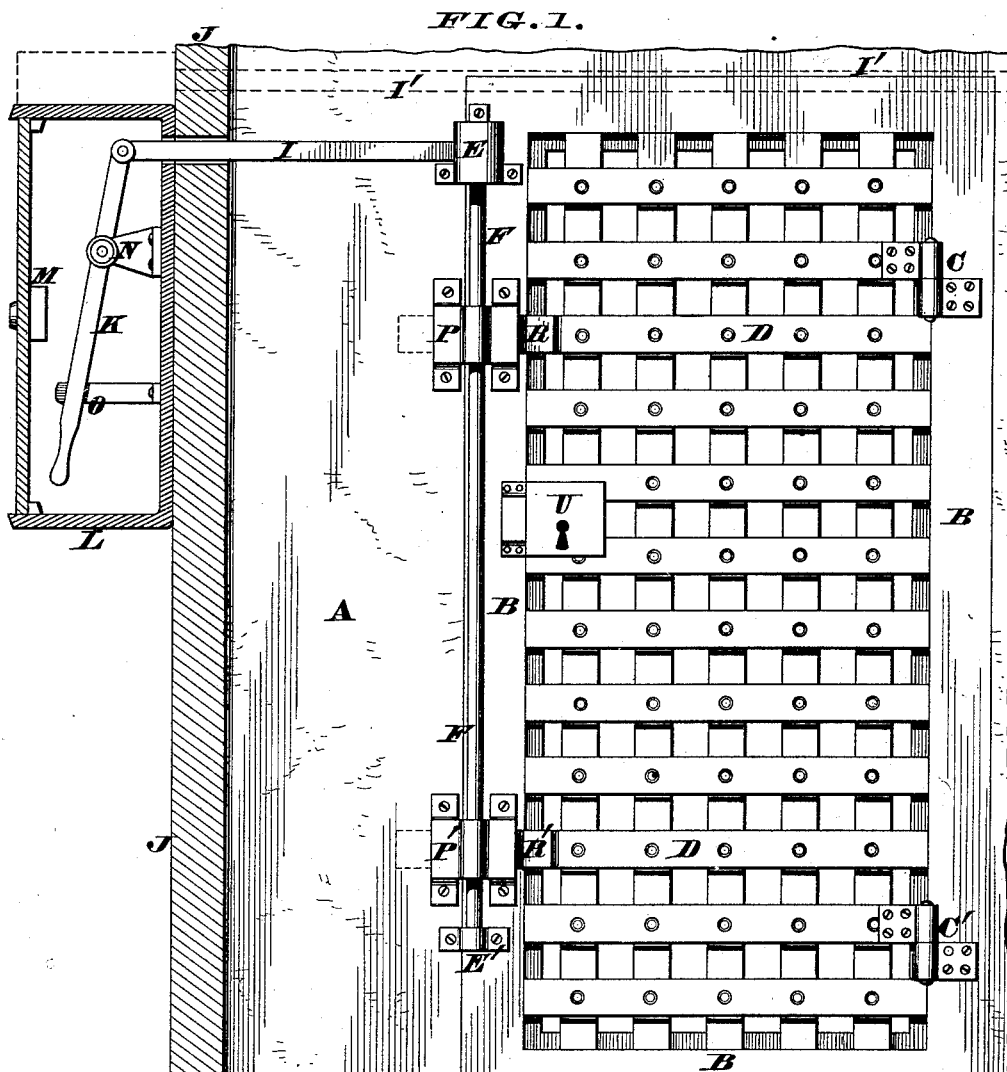


(No Model.)

J. C. HINTZ.
BOLT FOR JAIL DOORS.

No. 345,786.

Patented July 20, 1886.



Attest.
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UNITED STATES PATENT OFFICE.

JULIUS C. HINTZ, OF CINCINNATI, OHIO.

BOLT FOR JAIL-DOORS.

SPECIFICATION forming part of Letters Patent No. 345,786, dated July 20, 1886.

Application filed May 3, 1886. Serial No. 200,957. (No model.)

To all whom it may concern:

Be it known that I, JULIUS C. HINTZ, a citizen of the United States, residing at Cincinnati, in the county of Hamilton, State of Ohio,

have invented certain new and useful Improvements in Jail-Door Fasteners, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to those jail-door fasteners which are capable of being operated by appliances external of the corridor or other passages into which such doors usually open, and the principal member of my fastener is a rock-shaft provided with devices that actuate the bolts or other locking-slides. The aforesaid rock-shaft is journaled in suitable bearings, attached either to the door-casing, grating, or wall of a cell, and when turned in one direction the bolts are shot or advanced so as to lock the door, but when turned in an opposite manner the bolts are retracted to permit the door being opened. This rocking of the shaft is effected by a shifter, one end of which is connected to a lever or equivalent device housed within a box, the key of which is in the custody of the guard or jailer, as hereinafter more fully described.

Another feature of my invention consists in coupling this shifter to a screw that engages with a fixed nut, the end of said screw being provided with a non-circular arbor or "square" to receive either a crank, socket-wrench, hand-wheel, or key, the proper turning of which will either advance or retract said shifter, as hereinafter more fully described.

In the annexed drawings, Figure 1 is a front elevation of a jail-door provided with my improved fastener, the bolts of the same being shown in their advanced or locked position. Fig. 2 is an enlarged horizontal section through a modified form of the shifting-rod and its accessories, the rock-shaft being turned to advance the bolts. Fig. 3 is a horizontal section through one of the lock-cases, the rock-shaft being turned to retract the bolts.

A represents a portion of a jail, prison, or other cell, which may be made either of masonry, plate metal, or grating, and has a door-casing, B, secured thereto. This casing is furnished with stout hinges C C', upon which the door D is hung, the latter being preferably

a grating, although it may be composed of solid plates, if desired. Attached to the opposite side of the doorway are two journal-bearings, E E', for the vertical rock-shaft F, previously alluded to, the upper end of said shaft being provided with a lateral dog, G, that engages with a slot, H, near one extremity of a shifter-rod, I, as seen in Fig. 2. This rod is carried through a partition or wall, J, that divides the corridor or cell passage from the guard-room of the jail, and is then coupled to a swinging lever, K, housed within a box, L. Box L is situated in the guard-room, and the door of the former is usually secured by a combination-lock, M.

N is the pivot of the aforesaid lever, the lower end of which latter is adapted to be sprung over a stop, O, when the door D is closed and locked, as more fully described hereinafter. Rock-shaft F traverses a pair of cases, P P', properly secured to the walls of the cell, or to a suitable attachment of the same, said cases being provided with reciprocating slides or bolts R R'. Each bolt is slotted at S, to receive a lateral dog, T, of the rock-shaft F, as seen in Fig. 3.

U is a lock that may be applied to the door for ordinary use. After the cell-door has been closed the lower end of lever K is pulled forward until it engages over the stop O, which act swings the dog G around to the position seen in Fig. 2, thereby advancing or shooting the bolts R R', and causing them to bear against said door, as seen in Fig. 1, and indicated by the dotted lines in Fig. 3. The door of box L is now locked, and the key of the same is retained by the guard or other officer, thus rendering it impossible for the cell-door to be opened as long as the lever K is engaged with the stop; but when it is desired to liberate a prisoner from the cell the guard or jailer unlocks the door of box L, disengages the lever K from the stop O, and then forces the handle of said lever back, or toward the rear of said box. This act turns the rock-shaft F within its bearings E E' until the various dogs of said shaft assume the position seen in Fig. 3. Consequently all the bolts or slides R R' are simultaneously retracted, as seen in said illustration, and indicated by the dotted lines in Fig. 1. The cell-door is thus unlocked and free to be opened.

In the modification of my invention seen in Fig. 2 the shifter-rod I is united by a suitable coupling, V, to a screw, W, which latter is engaged with a nut, X, that may be made in the back of the box L. The end of the screw housed within said box has a square or other non-circular arbor, Y, to receive either a key, crank, hand-wheel, or other convenient device wherewith said screw can be turned by the guard. By this arrangement the lever K, stop O, and long inclosing-box L (seen in Fig. 1) are dispensed with. The dotted lines I' in the same illustration indicate where a secondary shifter-rod may be located, for the purpose of operating the rock-shaft of an adjacent cell when it is desired to open one door independently of another, in which event said secondary shifter would have its special lever; but when it is desired to unlock a number of doors simultaneously the rod I can be prolonged to operate all the rock-shafts of the same tier of cells.

It is evident that racks and pinions, or a

link, crank, or eccentric movement may be substituted for the dogs and slots herein shown and described.

I claim as my invention—

1. In combination with a cell-door, a rock-shaft that advances and retracts a reciprocating slide, for the purpose described, said rock-shaft being operated by a shifter provided with a locking device, substantially as set forth.

2. In combination with a cell-door, as D, the bearings E E', rock-shaft F, slotted shifter H I, slotted reciprocating slide R S, and dogs G T, said shifter being provided with a locking device, substantially as described.

3. In combination with the shifter of a jail-door fastener, the coupling V, screw W, and nut X, for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

JULIUS C. HINTZ.

Witnesses:

JAMES H. LAYMAN,
S. S. CARPENTER.