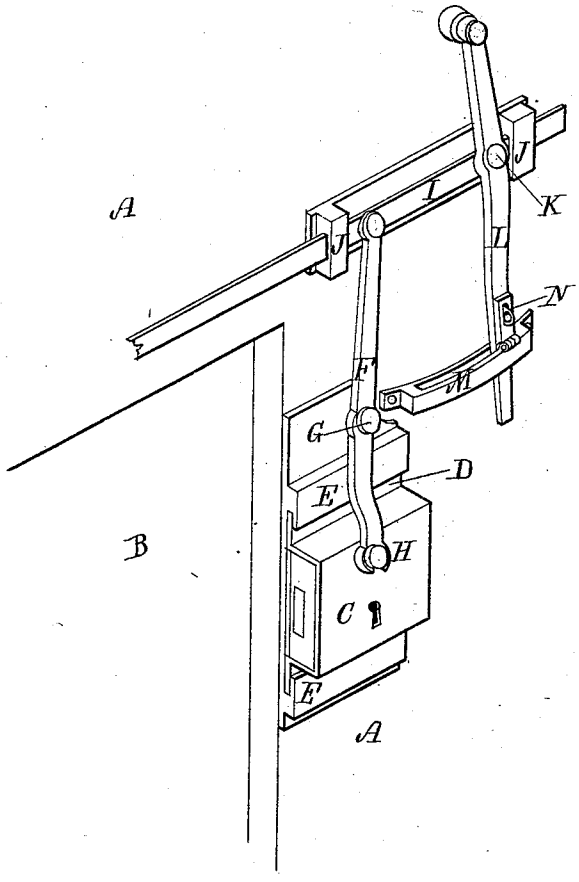
G. ROPES.

LOCKS FOR CELL DOORS.

No. 190,374. Patented May 1, 1877.



Witnesses.
F. Hunnewell.
W. Boardman.

Inventor.
George Ropes.
A. Curtis, Atty.

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GEORGE ROPES, OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN LOCKS FOR CELL-DOORS.

Specification forming part of Letters Patent No. **190,374**, dated May 1, 1877; application filed March 28, 1877.

To all whom it may concern:

Be it known that I, GEORGE ROPES, of Boston, Suffolk county, Massachusetts, have invented a new and useful System of Securing Cell-Doors, of which the following is a specification:

The purpose of this invention is to combine the advantages or merits of the ordinary system of individual door-locks and of the method of simultaneously bolting or unbolting a series of doors by means of the gang-bolt plan—that is, one long bolt or connected series of bolts moved by one actuator—my method being especially designed for prisons or other penal institutions in which it becomes necessary to fasten and unfasten a large number of doors.

This invention consists in the novel manner of applying the lock of each door, and in connecting a series of such locks by an actuator common to all, in manner substantially as hereinafter explained, whereby, by means of said actuator, the entire series of locks are compelled to move in unison, and be locked or unlocked by united bodily movement on their supports, or be forced to and held rigidly in a position in which the bolt of each lock may be thrown individually.

The drawing accompanying this specification represents a perspective view of a device embodying my improvements.

In this drawing, A represents a portion of the wall surrounding the door of a prison-cell, while B represents the door. The lock which secures the door B is shown at C as of any ordinary make, and affixed to the outer side of a plate, D, which is supported in a vertical position against the wall A by guides E E, in such manner as to be capable of sliding horizontally to and fro in such guides. F represents an upright lever, pivoted to the wall A above the lock by a stud, as shown at G, and swiveled at its lower end to the lock, as shown at H, while its upper end is pivoted to a long horizontal sliding rod or bar, I, which is disposed above the top of the doorway, and slides in guides or brackets J J, &c., affixed to the wall A.

To one end of the bar I, I pivot, by a fulcrum-pin, K, an upright actuating-lever, L, the upper end of such lever being pivoted to the wall A, while its lower end extends into a segmental slotted plate or guide, M, secured to the wall A, a locking-hasp, N, of any suitable construction being hinged to the end of the said guide most remote from the lock C, by means of which the lower end of the lever L may be locked in position at such locality, after the entire series of doors have been locked by the agency of the bar I.

In practice the bar I (if in the case of a prison, for instance) extends along the wall and over the doors of the cells of an entire corridor, for example, and the locks of all such doors are each connected with such bar by a lever, which is a duplicate of lever F, so that when the said bar is moved in one direction by its lever L the entire series of locks are moved in their guides to a point so far remote from the door that when their bolts are thrown such bolts do not reach the door to secure it, while if the bar I is forced to its extreme limit in the opposite direction, as shown in the drawing, each lock is moved forward toward the door, so as to occupy the ordinary position of a lock and be capable of securing the door.

It will thus be seen that the bolt of each lock, under one condition, loses its individuality, and becomes one of a gang which operate simultaneously to secure a given number of cell-doors, and under the other condition it constitutes part of an individual lock to secure a single door independent of the others.

It will further be seen that by the aid of the lever L, which may be situated at the most convenient point of a corridor, the entire series of doors may be locked or unlocked at once, or each lock permitted to exercise its individual functions.

I do not confine myself to the precise mechanical details of mounting and simultaneously actuating a series of locks, as herein shown.

Modifications may be made in these details for carrying my system into effect without losing sight of the gist and spirit of my invention, which I consider to embrace the mounting and connecting together of a series of door-locks by suitable mechanism in such

manner that said series of locks may be shifted in position with respect to their doors by a common actuator.

For instance, in lieu of applying the lock C so that it shall slide in a horizontal plane with a slip motion between it and the lever F, it may be secured bodily to the lower end of such lever, and move with the latter in proper guides in the arc of a circle.

I therefore claim as my invention, and desire to secure by Letters Patent of the United States, as follows:

1. A door-lock supported in suitable bearings or supports, and susceptible of lateral shifting movements to and fro in such supports with respect to the door, substantially as and for purposes stated.

2. A series of door-locks capable of shifting movements, connected each with a common bar or rod by a lever, substantially as and for purposes stated.

3. The combination of the lock C, lever F, bar I, and lever L, under the arrangement and for operation substantially as and for purposes stated.

GEORGE ROPES.

Witnesses:
L. L. BATES,
W. E. BOARDMAN.