

(No Model.)

2 Sheets—Sheet 1.

T. A. TAYLOR.
LOCKING SYSTEM FOR JAILS.

No. 532,495.

Patented Jan. 15, 1895.

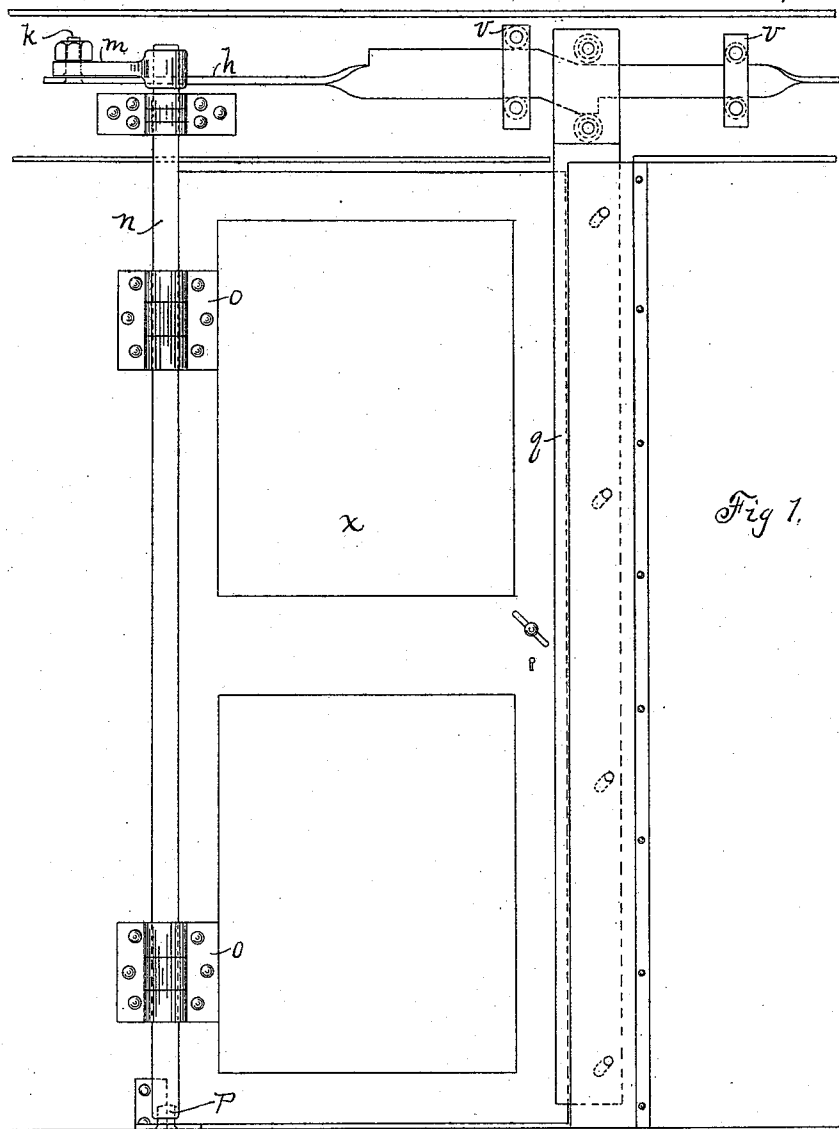


Fig. 1.

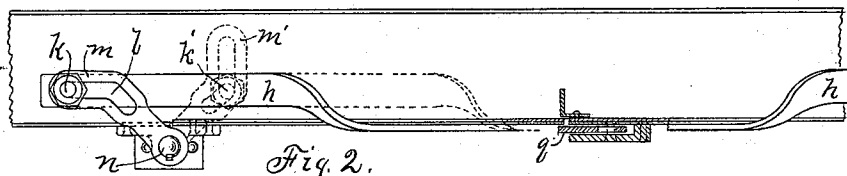


Fig. 2.

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Per C. D. Hudgens Attorney

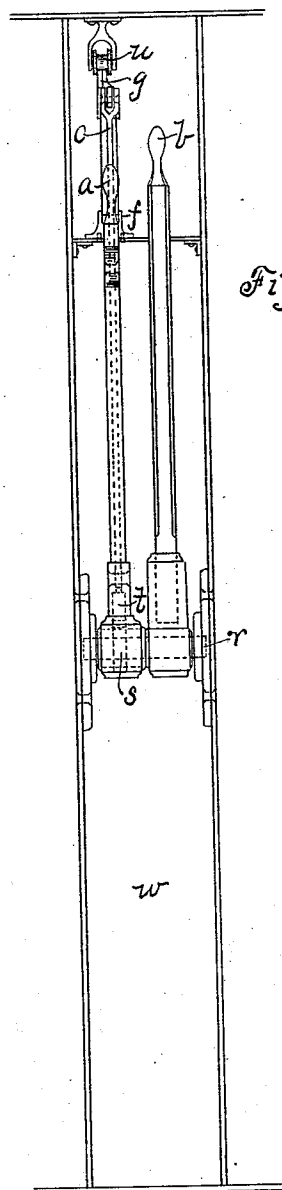
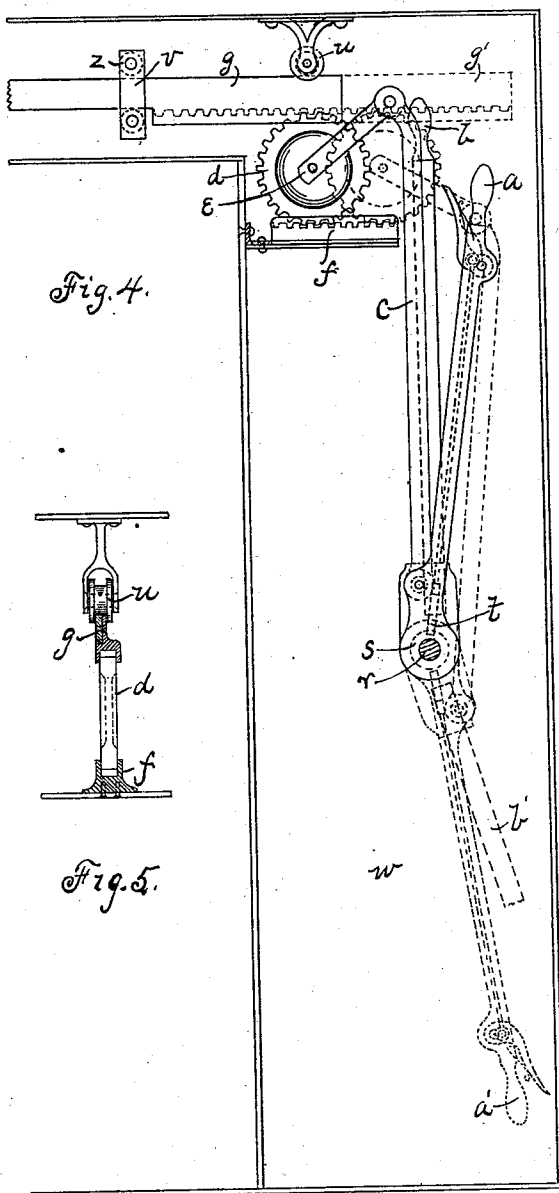
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2 Sheets—Sheet 2.

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LOCKING SYSTEM FOR JAILS.

No. 532,495.

Patented Jan. 15, 1895.



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UNITED STATES PATENT OFFICE.

THOMAS A. TAYLOR, OF KENTON, OHIO, ASSIGNOR TO THE CHAMPION IRON COMPANY, OF SAME PLACE.

LOCKING SYSTEM FOR JAILS.

SPECIFICATION forming part of Letters Patent No. 532,495, dated January 15, 1895.

Application filed July 14, 1893. Serial No. 480,547. (No model.)

To all whom it may concern:

Be it known that I, THOMAS A. TAYLOR, a citizen of the United States, residing at Kenton, in the county of Hardin and State of Ohio, have invented a new and useful Improvement in Systems for Locking Jails, of which the following is a specification.

My invention relates to a device for opening and closing the doors of prison cells from a point outside of the prisoner's corridor and out of the reach of prisoners, thus obviating the dangers of personal attack and injury to the jailer by any of the prisoners.

The device consists of a series of levers and cranks connecting with a shaft forming the hinge of each door, all of which are connected with levers outside of the prisoner's corridor, as hereinafter shown and specified in such a manner as will enable the operator to close and open the doors at his will.

The manner and device by which I accomplish the above objects are illustrated in the accompanying drawings, in which—

Figure 1 is an elevation of a cell door with device attached. Fig. 2 is a plan view of same. Fig. 3 is a front elevation of lock box and levers. Fig. 4 is a side elevation of same. Fig. 5 is an end view of the racks and pinion shown in Fig. 4.

Similar letters refer to similar parts throughout the several views.

The various parts as indicated by the solid lines in the different views show the position of the said parts when the door is closed and locked. When the door is unlocked and open the position of the various moving parts is represented by dotted lines.

This device is so arranged that each door may be opened individually by the lever *a* and its connecting bar *h*, one of which is provided for each cell door, and it is also arranged so that all of the doors may be opened simultaneously by the one lever *b* in case of fire.

To open the cell door *x*, which is typical of all of the cell doors, throw the lever *a* down to the position *a'* in which operation the link *c* rotates the spur wheel *d* by means of the crank *e*, the lower part of which wheel *d* engages with the stationary rack *f* and the upper part with the movable rack *g* which forms

the end of the bar *h* and causes bar *h* and rack *g* to move laterally to the position *g'*. As the bar *h* moves laterally, the pin *k* travels along the slot *l* of the crank *m*, which is firmly attached to the upper end of the shaft *n* which is firmly keyed to the leaf of the hinges *o* which attach to the door *x* and turns freely in the leaf of the hinge *o* which is fastened to the cell front. The lower end of the shaft *n* is made concave and sits upon the end of the pin *p* on which most of the weight of the door rests for the purpose of reducing the friction in the hinges, thus making the door swing more freely. While the pin *k* is traversing that portion of the slot *l* which is parallel with the bar *h*, the bar *q* which locks the door is withdrawn by the means illustrated, and the pin *k* then strikes the portion of the slot *l* which sits at an angle with the bar *h* and the crank *m* is swung into the position *m'* and the door *x* is carried open by the shaft *n*.

The device for locking the door *x* is disclaimed as a part of this invention, as that device was patented to C. Dana Hudgens on May 23, 1893, No. 498,059, and my invention is intended to co-operate with said invention or any similar one to which it may be applied as an attachment.

The lever *a* is connected loosely to the axis *r* and fits over the circular disk *s* which is firmly keyed to the axis *r*. The disk *s* has two notches in its periphery into which the tongue *t* engages when the lever *a* is in the open and closed position thereby holding the device stationary at those points making it impossible to move the levers *a* by any attempt of prisoners to swing or move the doors within the cage.

When it is desired to open all of the doors *x* at once, the lever *b* is thrown down to the position *b'* and as it is keyed firmly to the axis *r* it carries with it the disk *s* and all levers *a* which are connected with the disk *s* and all doors are opened. The reverse movement of the levers *a* or *b* closes the door *x* either singly or simultaneously.

All of the levers *a* and *b* and other necessary parts, such as racks *f*, roller guides *u*, and axis *r* are located, arranged and attached

as shown in the lock box *w*, which is provided with a door and incloses the whole working device connected with levers.

The bar *h* is held in position and guided by the guide *v* having anti-friction rollers *z*.

Having described the construction and operation of the various parts of my invention, I claim and desire to secure by Letters Patent—

1. The combination of the door *x*, hinges *o*, pin *p*, shaft *n*, crank *m*, having the slot *l*, the pin *k*, the bar *h* having the rack *g*, the guides *v* having rollers *z*, the roller *u*, the pinion *d*, having the crank *e*, the link *c*, the rack *f*, the lever *a* having the tongue *t*, the disk *s*, the axis *r*, the lever *b*, and the lock box *w* substantially as shown and described.

2. The combination of the door *x*, the shaft *n*, the crank *m*, having the slot *l*, the pin *k*, bar *h*, having the rack *g*, the rack *f*, the pin-

ion *d* having the crank *e*, the link *c*, the lever *a* having the tongue *t*, the disk *s*, the axis *r*, the lever *b*, and the lock box *w* substantially as shown and described.

3. The combination of the bar *h* having the rack *g*, the rack *f*, the pinion *d* having the crank *e*, the link *c*, the lever *a* having the tongue *t*, the disk *s*, the axis *r*, the lever *b*, and the lock box *w* substantially as shown and described.

4. The combination of the bar *h* having the rack *g*, the rack *f*, the pinion *d* having the crank *e*, the link *c*, the lever *a*, having the tongue *t*, the disk *s*, the axis *r* and the lock box *w* as and for purposes stated.

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Witnesses:

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