E. Kershaw,

Hasp Lock.

No. 7,525. Patented July 30, 1850.

Fig. 5.

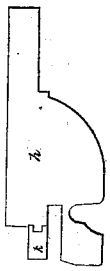


Fig. 4.

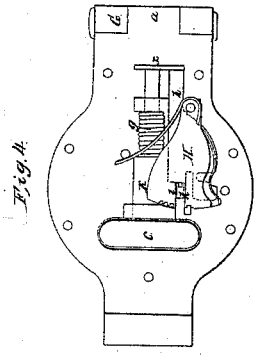


Fig. 3.

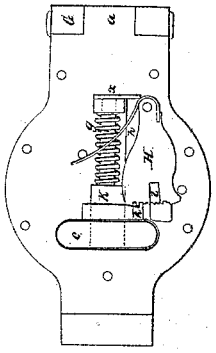


Fig. 2.

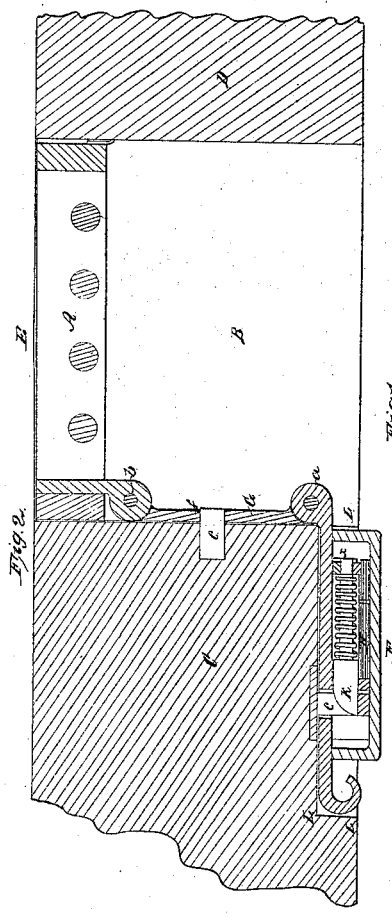
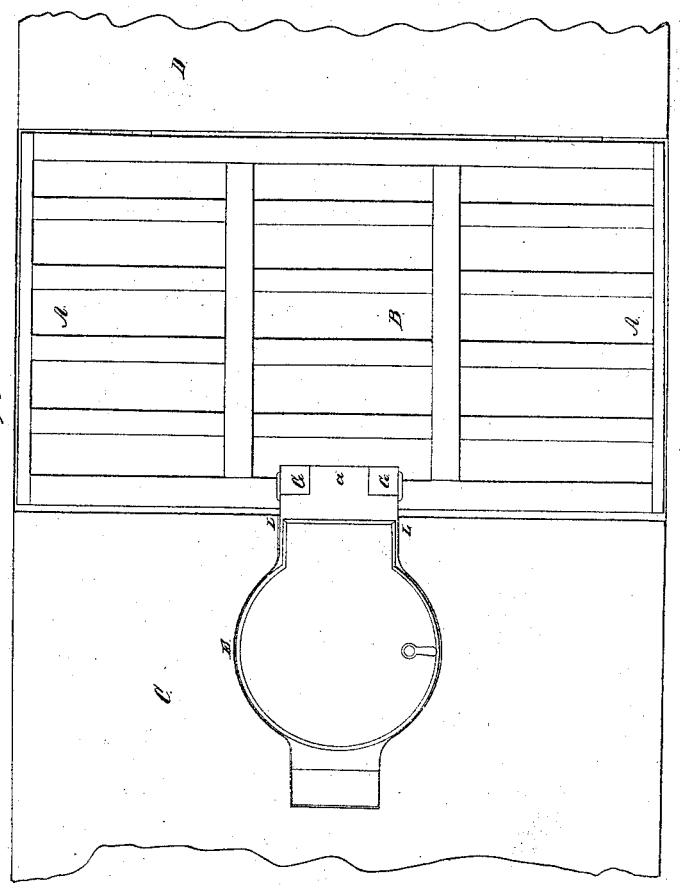


Fig. 1.



UNITED STATES PATENT OFFICE.

EDWARD KERSHAW, OF BOSTON, MASSACHUSETTS.

ATTACHMENT OF PRISON-LOCKS.

Specification of Letters Patent No. 7,525, dated July 30, 1850.

To all whom it may concern:

Be it known that I, EDWARD KERSHAW, of Boston, in the county of Suffolk and State of Massachusetts, have invented a new and useful Improvement in Locks or Fastenings for the Cell-Doors of a Prison; and I do hereby declare that the same is fully described and represented in the following specification and accompanying drawings, letters, figures, and references thereof.

Of the said drawings, Figure 1 denotes a front elevation of a cell door, and opening thereof, having my improvement or invention applied to them. Fig. 2, is a horizontal section of the same, taken through the lock. Fig. 3, is an external view of the lock and its hinged arm, the cover of the box of the former being removed in order to exhibit the internal parts of the lock. In this latter view the spring bolt is exhibited as thrown forward or as locked. Fig. 4 is a view similar to Fig. 3, except that the bolt and tumblers are represented in the positions they assume when the bolt is thrown back or is unlocked.

In Figs. 1, and 2, of the said drawings, A, denotes the cell door, B, the door opening, and C, D, the front walls of the cell E. The lock is seen at E. It is hinged to one end of a metallic arm, G, whose other end is hinged to the cell door, the two hinges being seen at *a*, *b*, and they being so made as to enable the lock and its arm to be moved horizontally. The lock case is a close box made with an opening in its rear side for the admission of the staple *c*, which is made to project from the front face of the wall C. The said lock case also has a key hole *d* made through its front side or cover. When the cell door is locked, the arm G lies flat against the side of the door opening, while the lock stands at right angles to the arm, and lays flat against the front or outside face of the wall C, or within a recess L cut therein and of a proper shape to receive the same. A stud or iron pin *e*, is fixed in and made to project from the side of the door opening, and into a hole *f*, corresponding in diameter with it, and made either in or through the arm G, and this when the door is locked. The said stud, and its opening *f*, are of great importance inasmuch as they relieve the lock or its bolt or the staple from any strain, which a prisoner in the cell could produce by pushing against the door.

The bolt *k*, of the lock is what is usually termed a spring bolt, as it is thrown forward by the power of a spring *g*, only, while it is operated in the opposite direction or thrown back by means of the key, acting against a slide *h*, near which is the series of tumblers or levers H. These levers turn upward and downward on a pin *i*, extended from the case of the lock. Fig. 5, is a separate view of the slide *h*. From its front surface, and at or near its front end, the stud *k*, projects, and acts in connection with a straight horizontal opening *l*, made in each tumbler. The manner of constructing the stud *k*, and opening *l*, consists in making the said stud of double or about double its usual horizontal width, in connection with making the opening *l*, a straight one, instead of a right angled one, or one which for some distance is carried horizontally, and next downward, at or about at a right angle, which becomes necessary when the bolt is to be held back by the series of tumblers, as in the ordinary way. As the resistance of the slide in my lock, or the main bolt in other tumbler locks depends entirely on the strength of the main bolt, my mode of construction enables me to use a stud of double the strength of the stud applied to a bolt which is kept back (when unlocked) by its stud and a recess of each of the tumblers extending downward at right angles to the horizontal opening of the tumbler. The horizontal width of the stud in a lock last described cannot be so great as the distance moved by the bolt, it being customary to make the same, just or about one half the said distance, the tumbler recess for reception of the stud, when the bolt is unlocked, being situated a distance from the front edge of the tumbler, equal to the width of the stud. The slide *h*, when forced back by the key, acts against an arm or projection *x*, extending down from the spring bolt *k*.

What I claim as my invention is—

The combination of the stud *e*, and its recess or hole *f*, or their equivalent, with the side of the cell door opening, and the double hinged arm G, and lock, substantially in manner and for the purpose of preventing strain on the lock by pressure against the cell door, by a prisoner or person within the cell as above specified.

In testimony whereof I have hereto set my signature this fifth day of June A. D. 1850

EDWARD KERSHAW.

Witnesses:

JOHN NOBLE,

FRANCIS GOULD.