

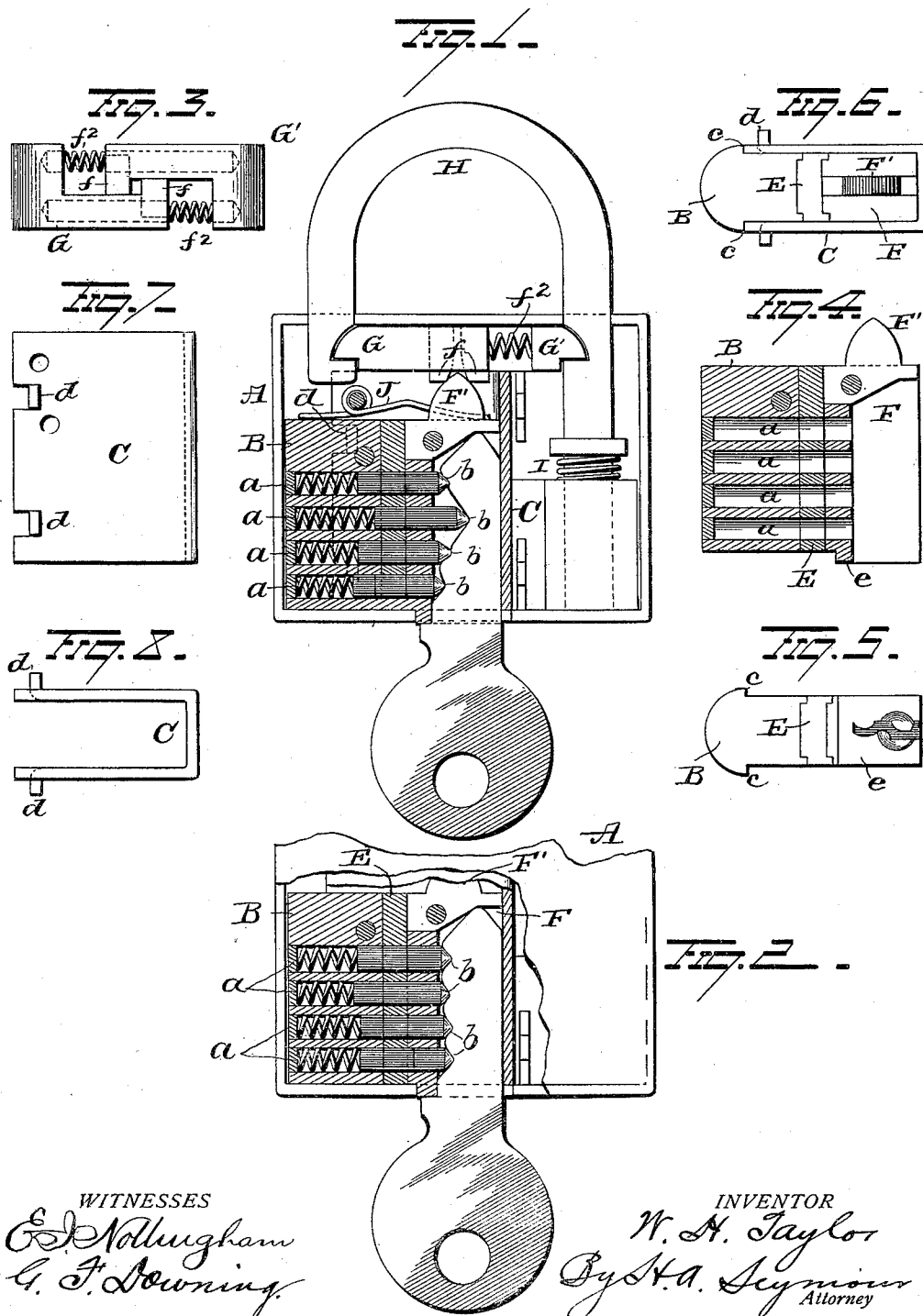
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Patented June 26, 1900.

W. H. TAYLOR.
MASTER KEY LOCK.

(Application filed Apr. 6, 1900.)

(No Model.)



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MASTER-KEY LOCK.

SPECIFICATION forming part of Letters Patent No. 652,337, dated June 26, 1900.

Application filed April 6, 1900. Serial No. 11,833. (No model.)

To all whom it may concern:

Be it known that I, WARREN H. TAYLOR, of Stamford, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Master-Key Locking Mechanism; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to an improvement in master-key locking mechanism; and it consists in certain novel parts and combinations of parts of pin-tumbler mechanism whereby the lock may be opened by the master-key and by the key constructed for the special lock.

In the accompanying drawings, Figure 1 is a view, partly in section, of a padlock embodying my invention, showing a master-key therein. Fig. 2 is a similar view of a portion of the lock, showing a change-key therein. Fig. 3 is a plan view of the bolt mechanism of the lock. Fig. 4 is a view in section of the tumbler-chamber and sliding blocks. Fig. 5 is an outer end view, and Fig. 6 an inner end view, of same; and Fig. 7 is a side view, and Fig. 8 an end view, of the block-guide or casing.

While I have shown and shall describe my improvements in connection with a padlock, the invention resides in the adaptation of the pin-tumbler mechanism to sliding blocks. Hence the particular locking mechanism is not material.

A represents the lock-casing, preferably made of two struck-up pieces of sheet metal, and B represents the tumbler-case, having a series of pockets *a* therein for the reception of the pin-tumblers *b*. This tumbler-casing is provided with straight parallel sides and ends and a curved edge, the latter being semi-cylindrical in shape and provided with shoulders *c*, which latter rest upon the outer edge of the inner casing or block-guide C. The case B is riveted to the casing or guide C, and the latter in turn is provided at its outer end with ears *d*, which pass through holes in the outside sheet-metal casing A and when riveted or upset hold the parts together. The pin-tumbler case B is provided with a longi-

tudinal groove in which is seated a guide-rib formed on the adjacent face of the master-block E. This sliding master-block E has holes therethrough corresponding in number, position, and diameter to the chambers in the case B and is provided with a groove to receive the rib formed on the adjacent face of the key-block F. The blocks E and F rest within the guide or casing C, with their pin-slots in line with the recesses in the tumbler-case B, and the block is provided with a rectangular face or portion *e*, which latter projects through the lock-casing A and carries the keyway. The block F is also provided with a series of pin-slots corresponding to the slots in the case B and master-block E and is provided on its inner end with the projection F', which when moved engages with the sliding bolts G and G', which in the present instance lock the shackle in place. The shackle H is carried by the casing A and is encircled by a spring I, which when the shackle is released by the bolts throws out the shackle in the usual manner. The bolts G and G' are mounted in the casing A between and in a position to enter recesses in the legs of the shackle, and each is provided on its inner end with an inwardly-projecting overlapping lip *f*, which latter are beveled on their inner or adjacent faces and which rest in a line with the projection F' on the sliding key-block F, so that when the latter is slid longitudinally the projection F' enters between the lips *f* and withdraws both bolts, springs *f*² being interposed between the two bolts, as shown, for the purpose of normally holding them in their locked or expanded positions.

The pins or tumblers *b* are each divided at two points, or some of the series may be divided at two points and some at one point, and when these points of division coincide either with the line between the key-block F and master-block E or with line between master-block E and tumbler-case B a continued longitudinal pressure on the key will cause the key-block F to slide longitudinally and the projection F' thereon to enter between the overlapping lips *f* of the bolts G and G', and thus disengage the bolts from the hasp. For preventing accidental longitudinal movement of the key-block and also for hold-

ing the block F while the key is being inserted, so as to prevent any binding of the tumblers and consequent hard or stiff working of the key and the lock, I have provided the spring J, which latter is wound on a pivot, with one end bearing against the tumbler-case and the other against the key-block F. This spring is sufficiently stiff to prevent any movement of the block during the insertion of the key, but is designed to yield or give under pressure applied to the key after the latter has been fully seated and also operates to restore the block F to its normal position when pressure is withdrawn from the key.

In these locks when the master-key is used the sections of the pin-tumblers have a regular line of union at the juncture of the key-block F and master-block E, while the change-key is constructed to separate the sections on the line of juncture of the tumbler-case B and the master-block E.

As before stated, my improvement relates more particularly to pin-tumbler mechanism combined with a sliding key-block for actuating any style of locking mechanism. Hence I would have it understood that I do not limit myself to any particular style of lock, but consider myself at liberty to employ my improvements on any form of lock.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a tumbler-case, a sliding master-block and a sliding key-block, the case and blocks having recesses for the tumblers, of the sectional pin-tumblers adapted to lock both blocks to the case, or be moved so as to release the key-block, or release the master-block from the case and lock it to the key-block.

2. The combination with an outer casing, an inner case or guide, a tumbler-case, and a sliding master-block and sliding key-block carried by said inner case or guide, of sectional pin-tumblers located within recesses in said blocks and tumbler-case, substantially as and for the purpose set forth.

3. In a lock the combination with a longitudinally-sliding key-block, and a sliding

bolt actuated by direct contact with said sliding key-block of tumblers for locking the block against movement.

4. In a lock the combination with a sliding key-block, a sliding bolt actuated by direct contact with said key-block and a spring for holding said key-block in its normal position, of tumblers for locking the block against movement.

5. In a lock the combination with a sliding key-block having a pointed projection on its inner end and spring-actuated bolts having overhanging lips the inner faces of which are adapted to be engaged by said projection on the key-block, of tumblers for locking the block against movement.

6. In a lock, the combination with a sliding key-block having a pointed projection on its inner end, and a spring-actuated bolt having a lip adapted to be engaged by the projection on the key-block and moved thereby against the pressure of the spring, of tumblers for locking the block against movement.

7. In a lock the combination with a longitudinally-sliding key-block, a sliding master-block adjacent to said key-block and sectional pin-tumblers in said blocks, of a bolt actuated by the sliding movement of the key-block.

8. In a lock the combination with a sliding key-block, a sliding master-block, sectional pin-tumblers in said blocks, and a spring tending to hold said key-block in its normal position, of a bolt actuated by the sliding movement of the key-block.

9. In a lock the combination with an outer case, an inner case, a longitudinally-sliding key-block and a sliding master-block within said inner case, and tumblers for locking said block against movement, of a bolt actuated by said key-block.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

WARREN H. TAYLOR.

Witnesses:

SCHUYLER MERRITT,
W. S. ABEL.