No. 753,667. PATENTED MAR. 1, 1904.

H. BRYDA.

LOCK.

APPLICATION FILED AUG. 17, 1903.

NO MODEL.

Fig. 1.

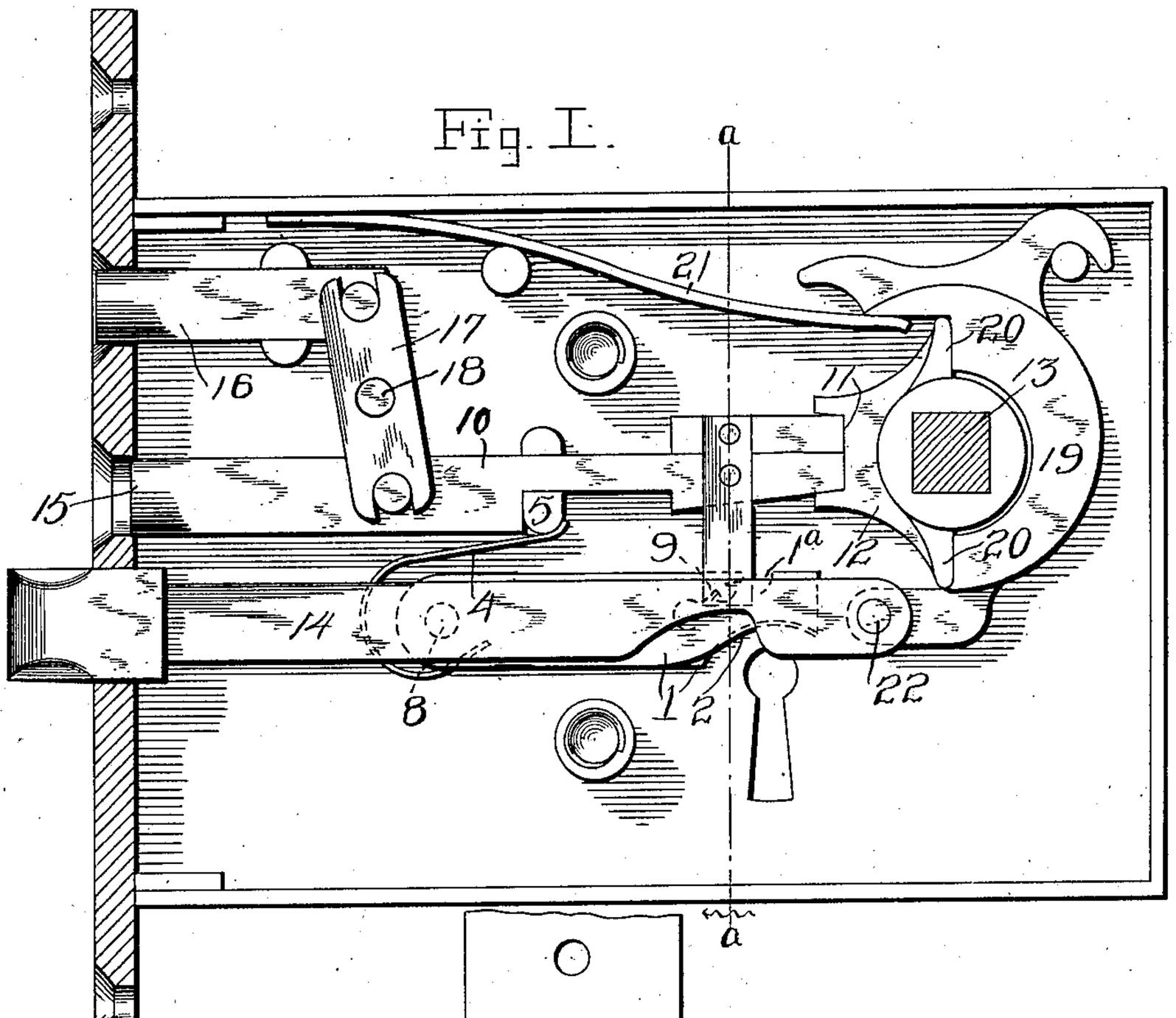


Fig. 2.

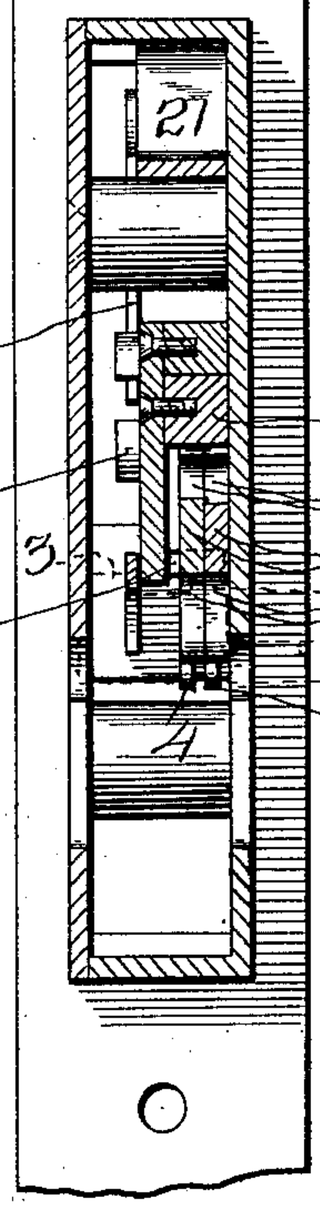


Fig. 3.

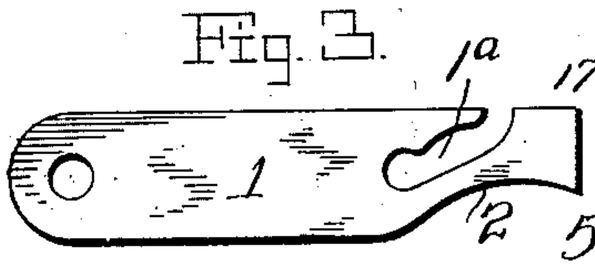
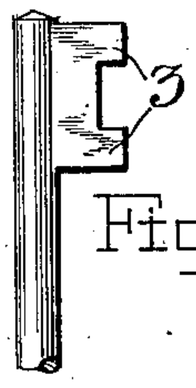


Fig. 4.



Witnesses

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No. 753,667. Patented March 1, 1904.

UNITED STATES PATENT OFFICE.

HENRY BRYDA, OF WOONSOCKET, RHODE ISLAND.

LOCK.

SPECIFICATION forming part of Letters Patent No. 753,667, dated March 1, 1904.

Application filed August 17, 1903. Serial No. 169,764. (No model.)

To all whom it may concern:

Be it known that I, HENRY BRYDA, a citizen of the United States, residing at Woonsocket, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Door-Locks; and I do 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 improvements in door-locks; and it consists in the peculiar construction and combination of devices hereinafter described and claimed.

The object of my invention is to provide a novel lock having a plurality of transposable permutation-tumblers for locking the bolt and adapted to be arranged for operation by keys of different forms.

In the accompanying drawings, Figure 1 is an elevation of a lock embodying my improvements, one side of the lock-case being removed. Fig. 2 is a sectional view of the same, taken on the plane indicated by the line *a a* of Fig. 1 and showing the key in operative position. Fig. 3 is a detail elevation of one of the tumblers. Fig. 4 is a similar view of the key.

In accordance with my invention I provide a number of transposable tumblers 1, which are preferably of the general form shown and are pivotally mounted at one end and each provided with a device to engage a detent on the lock-bolt. The edges of the tumblers nearest the keyhole are recessed, as at 2, and the said recesses of the respective tumblers vary in size and form, so that each of the tumblers is adapted to be engaged by a different shoulder 3 of the key. The tumblers are superposed and when they aline either secure or release the bolt, according to their position with reference to the detent of the bolt. By transposing the tumblers a number of permutations may be effected, each of which will require a key of different construction. The tumblers may be so disposed with relation to each other as to effect permutations in which a key of given construction may be used only from one side of the door on which the lock is placed, and they may be so disposed as to effect permutations in which a key of proper construction can be inserted and used from either side of the lock. Springs 4 are attached to the several tumblers and coact with a suitable stud 5, with which the lock-case is provided, to normally hold the tumblers in position to engage the detent of the bolt to secure the latter in either locking or unlocking position.

The tumblers are pivoted on a fixed stud 8, with which the lock-case is provided, and coact with the detent 9 of a bolt 10 to lock and release the latter, said tumblers having curved slots 1^a to receive the detent. Said bolt 10 may be shifted manually into or out of engagement with a notch 11 in the pivoted yoke-sleeve 12, through which the knob-stem 13 extends, to lock or unlock the said yoke-sleeve, and hence also the latch-bolt 14, which is operated manually by turning the knobs. When the tumblers are turned by the key, the curved slots 1^a operate as cams, which coact with the detent 9 to move the bolt 10 out of engagement with the notch 11 of the pivoted yoke-sleeve 12. The bolt 10 may be moved in one direction by pressing on its outer end at 15 and may be moved in the opposite direction by pressing upon the outer end of a shifting bolt 16, which is connected to the bolt 10 by a shifting link 17, pivoted at 18, at a point between the bolts 10 and 16. A rocking link 19, operated by the arms 20 of the yoke-sleeve 12 and engaged and moved normally in one direction by a spring 21, is connected pivotally to the latch-bolt 14, as at 22.

From the foregoing description, taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

1. In a lock, the combination of a pivoted knob-stem yoke-sleeve, a manually-operated bolt to engage and disengage the same, said

bolt having a detent, pivoted, spring-pressed tumblers coacting with said detent, to lock and release said bolt, a latch-bolt, and a spring-pressed rocking link operated by the yoke-sleeve and connected to the latch-bolt to actuate the latter.

2. In a lock, the combination of a pivoted knob-stem yoke-sleeve, a manually-operated bolt to engage and disengage the same, said bolt having a detent; pivoted, spring-pressed tumblers coacting with said detent to lock and release said bolt, a latch-bolt, a spring-pressed rocking link operated by the yoke-sleeve and connected to the latch-bolt to actuate the latter, and a shifting bolt connected to and coacting with the manually-operated bolt.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

HENRY BRYDA.

Witnesses:

WILLIAM LANDRY,

ANASTASEE BOUCHER.