No. 786,961. PATENTED APR. 11, 1905.

T. DRAKES.

CAR DOOR LOCK.

APPLICATION FILED MAY 31, 1904.

Fig. 1.

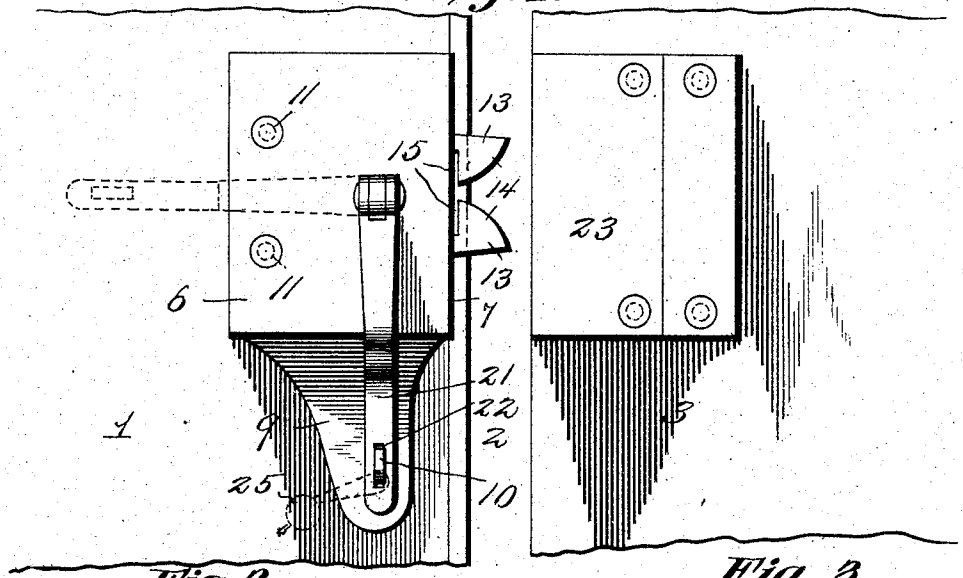


Fig. 2.

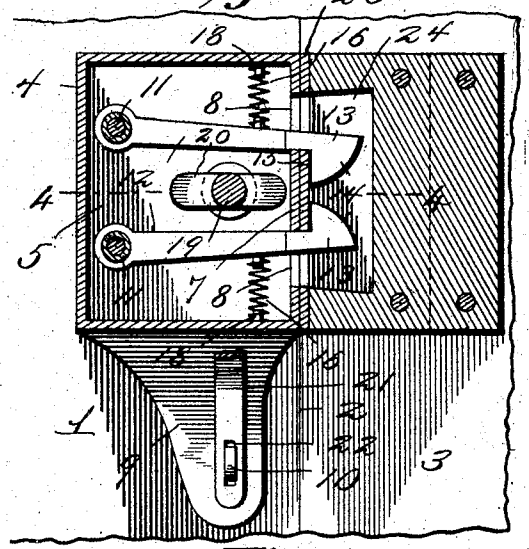


Fig. 3.

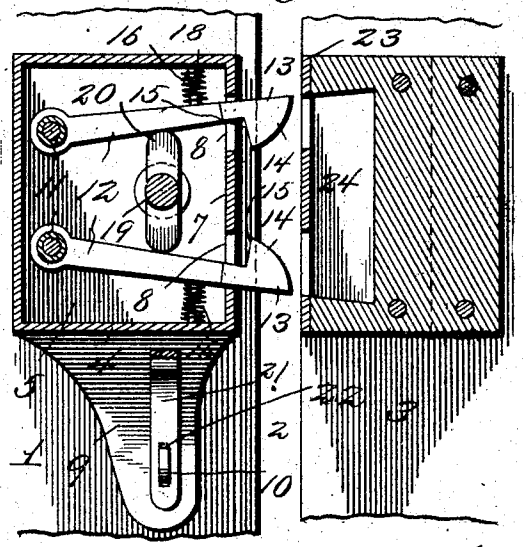


Fig. 4.

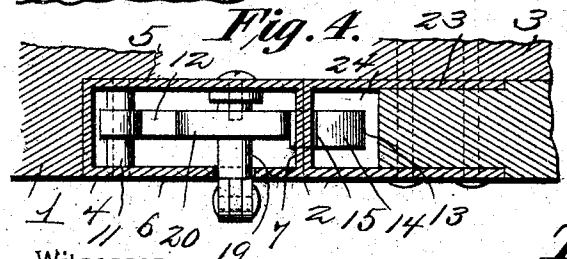
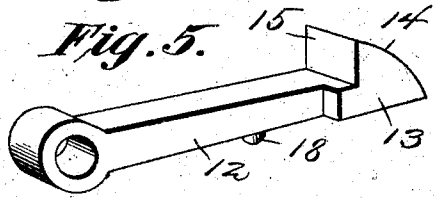


Fig. 5.



Witnesses

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No. 786,961. Patented April 11, 1905.

UNITED STATES PATENT OFFICE.

THOMAS DRAKES, OF NOVINGER, MISSOURI.

CAR-DOOR LOCK.

SPECIFICATION forming part of Letters Patent No. 786,961, dated April 11, 1905.

Application filed May 31, 1904. Serial No. 210,546.

To all whom it may concern:

Be it known that I, THOMAS DRAKES, a citizen of the United States, residing at Novinger, in the county of Adair and State of Missouri, have invented a new and useful Car-Door Lock, of which the following is a specification.

My invention relates to locks designed especially for use upon the sliding doors of freight-cars and other analogous longitudinally-slidable closures, and has for its objects to produce a comparatively simple inexpensive device of this character which will automatically engage and maintain the closure in secure locked position, one which may be readily manipulated for releasing and permitting opening of the door, and one in which the operating member or handle will subserve the function of a hasp for coöperation in locking the parts.

To these ends the invention comprises the novel features of construction and combination of parts more fully hereinafter described.

In the accompanying drawings, Figure 1 is an elevation of a lock embodying the invention and illustrating the same applied. Fig. 2 is a vertical sectional elevation thereof showing the parts in locked position. Fig. 3 is a similar view showing the parts in unlocked or releasing position. Fig. 4 is a horizontal section on the line 4 4 of Fig. 2. Fig. 5 is a detail perspective view of one of the locking members.

Referring to the drawings, 1 designates a portion of the side wall of a car provided with a doorway 2, adapted to be closed by a longitudinally-slidable door or closure 3, these parts being all of the usual or any appropriate construction and material, inasmuch as they constitute no part of the invention.

In the lock constituting the subject of the invention, 4 is a casing composed, preferably, of sheet metal and comprising an inner side wall or base 5, an outer side wall 6, and a forward end wall 7, provided with a pair of spaced openings 8, there being formed continuous with the wall or base 5 a depending extension or apron 9, carrying adjacent to its lower end and at a point suitably remote from the casing 4 a fixed staple or analogous seal-receiving member 10. Within the casing 4 is fixed a pair of spaced pivoting posts or axles 11, upon which, respectively, is pivoted the rear inner ends of a pair of coöperating locking-bolts 12, provided upon their forward ends which project severally through the openings 8 with engaging heads 13, the forward end faces 14 of which are relatively reversely curved, while their inner faces present engaging shoulders 15, the bolts which are adapted to swing toward and from each other being normally pressed toward each other and to engaging position by means of springs 16, which bear at their inner ends, respectively, upon the outer opposite faces of the bolts and at their outer ends upon bearing members provided for the purpose within the casing and carrying, together with the bolts, studs or projections 18, which enter and constitute seats for the ends of the springs. Suitably pivoted for rotation in the casing and between the bolts is a shaft 19, carrying a fixed cam member or tumbler 20, which projects laterally and in opposite directions from the shaft for simultaneous action upon the bolts when the shaft is rotated, their being provided for the latter purpose an operating member or handle 21, arranged at the outer face of the casing and appropriately pivoted to the outer projecting end of the shaft to swing in a plane perpendicular to the longitudinal axis of the latter, the operating-handle being angularly bent between its ends to properly fit over the casing and having at its outer end a slot or opening 22, designed for the reception of the fixed member or staple 10. It is to be noted in this particular that when the handle is in position for engagement with the staple the cam 20 will lie in a passive or inactive position between the bolts 12 and that when the handle is released from the staple and turned in either direction for rotating the shaft the cam will act upon the bolts for throwing the latter relatively outward away from each other and against the influence or tension of the springs 16.

Bolted or otherwise secured to the door or closure 3 is a keeper 23, preferably formed from sheet metal folded into substantially U shape, as seen in Fig. 4, around the edge of the door and provided at its forward end with

a pair of spaced lock-receiving openings or sockets 24, adapted to receive, respectively, the engaging heads of the bolts 12, the forward edge of the door being by preference recessed for the reception of the keeper and sufficiently for the forward end of the latter to come flush with the edge of the door, whereby when the door moves to closed position its edge will contact with the meeting portion of the doorway-frame, thus relieving the parts of the lock from undue jarring and straining. Attention is directed to the fact that when the door is moved to closed position the portion or web of the keeper between the openings 24 will act upon the curved faces 14 of the locks for throwing the latter outward and permitting their automatic engagement with the keeper, the disengagement or unlocking of the bolts being positively effected in the manner heretofore explained.

When the parts are in locked position with the handle 21, which obviously subserves the function of a hasp in engagement with the staple 10, a seal 25 may be applied through the latter for securing the handle against movement and effectually sealing the car.

From the foregoing it will be seen that I produce a comparatively simple inexpensive device admirably adapted for the attainment of the ends in view, it being understood that minor changes in the details may be resorted to without departing from the spirit of the invention.

Having thus described the invention, what is claimed is—

In a lock, the combination with a casing, of a pair of pivotal bolts mounted to swing toward and away from one another, a tumbler mounted between the bolts for simultaneous engagement therewith, a crank-handle located upon the exterior of the casing and connected to the tumbler for actuating the same, and a keeper located externally of the casing for engagement by the crank-handle.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

THOS. DRAKES.

Witnesses:
MARTIN RABBITT,
R. G. ROMBAUER.