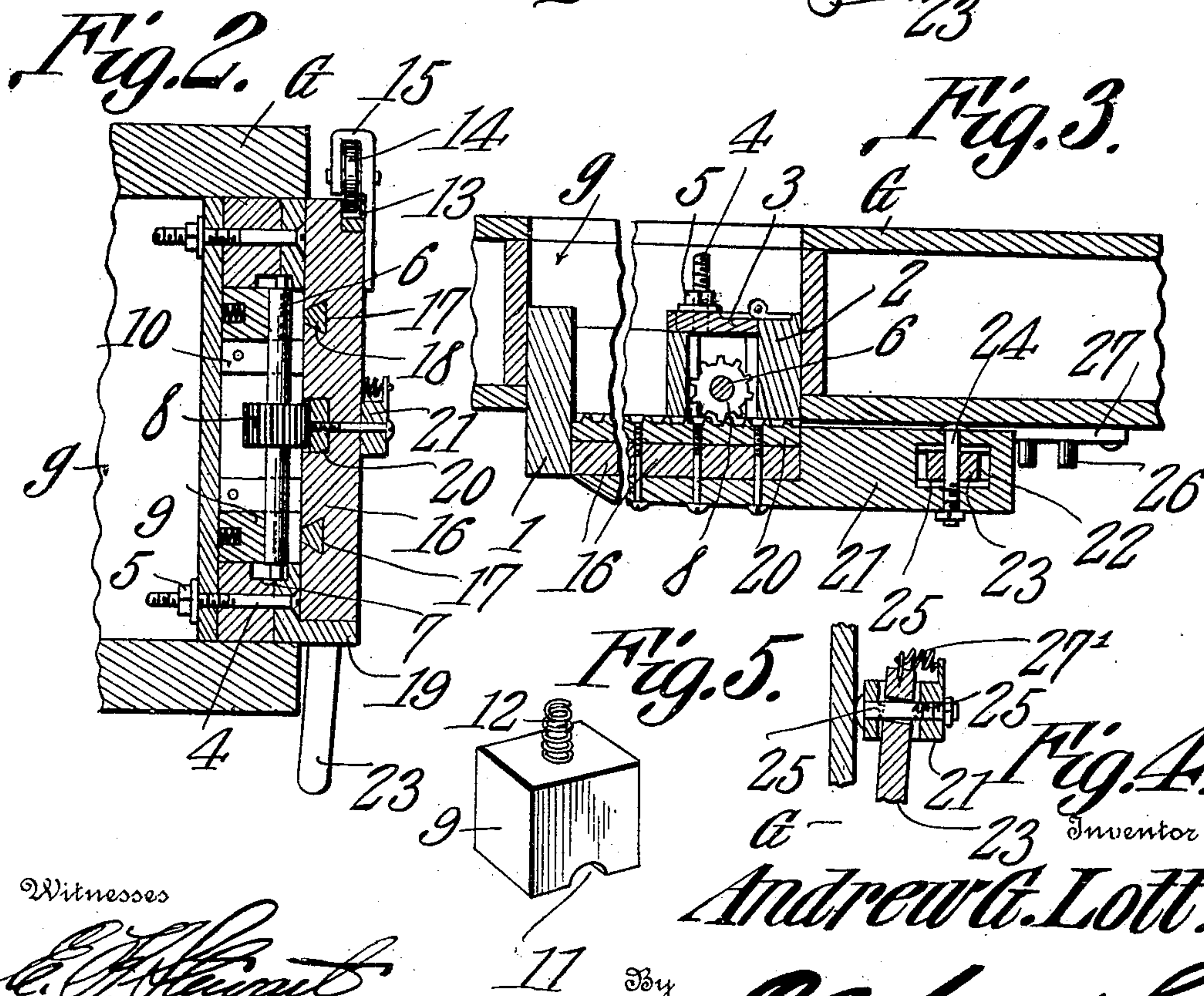


CAR DOOR.

APPLICATION FILED MAR. 16, 1910.

Patented Sept. 6, 1910.



Witnesses

Witnesses
E. J. Havant
Herbert D. Lawson.

Andrew G. Lott.

Chenoweth
Attorneys

UNITED STATES PATENT OFFICE.

ANDREW GAINS LOTT, OF CAMDEN, TEXAS, ASSIGNOR OF ONE-HALF TO JOHN A. HANDLEY, JR., OF BARNES, TEXAS.

CAR-DOOR.

969,711.

Specification of Letters Patent.

Patented Sept. 6, 1910.

Application filed March 16, 1910. Serial No. 549,629.

To all whom it may concern:

Be it known that I, ANDREW GAINS LOTT, a citizen of the United States, residing at Camden, in the county of Polk and State of Texas, have invented a new and useful Car-Door, of which the following is a specification.

This invention relates to car doors and its object is to provide a sliding door having novel means whereby the same can be conveniently actuated.

A further object is to provide a door having means for taking up wear upon the cooperating portions of the door and its guides whereby rattling of the door is prevented.

A further object is to provide a structure of this type which is compact in construction, easy to operate, and will not readily get out of order.

With these and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a front elevation of a door having the present improvements combined therewith, the adjoining portion of the car structure being also shown. Fig. 2 is a section on line A—B Fig. 1. Fig. 3 is a section on line C—D Fig. 1. Fig. 4 is a section on line E—F Fig. 1. Fig. 5 is a perspective view of one of the bearing blocks.

Referring to the figures by characters of reference G designates the car structure having the usual door opening *g* and secured to one of the jambs of the door opening is a supplemental jamb 1 extending outwardly beyond the outer face of the car structure. Another hollow jamb 2 is secured to the opposed door jamb and has its outer face open and flush with the outer surface of the car wall, there being a hinged closure 3 mounted upon the inner portion of this supplemental jamb 2 and which is held normally closed by means of bolts 4 extending through the end portions of the jamb 2 and through openings within the closure 3, the said bolts being engaged by nuts 5 which bear upon the closure. A shaft 6 is arranged vertically

within the jamb 2 and bears at its ends within slots or grooves 7 formed in the upper and lower ends of the jamb. This shaft has a gear 8 upon an intermediate portion thereof and bearing blocks 9 are slidably mounted between the end portions of the jambs and guide cleats 10 which are arranged within the jamb and parallel with said ends, each block being provided at one end with a recess 11 in which the shaft 6 is seated.

A spring 12 bears against one end of the block 9 and also against the closure 3, it being understood that when this closure is shut, it places the springs 12 under stress and thus causes the blocks 9 to bear constantly against the shaft 6 and push it toward the outer or open face of the jamb 2.

A supporting rail, preferably in the form of an angle iron 13, is secured to the outer side of the car structure and above the door opening, this rail being connected to the car structure in any preferred manner. The said rail supports rollers 14 to which are connected hangers 15, the said hangers being attached to the upper end portion of the door 16. This door has longitudinally extending grooves 17 in its inner face and which are adapted to receive guide rails 18 attached to the outer face of the wall of the car structure and arranged one above the other. The grooves 17 are preferably dovetailed and the rails 18 are correspondingly shaped so as to hold the door 16 against lateral swinging relative to the car structure. A ledge 19 may be extended laterally from the car structure and below the door. A rack bar 20 is secured to the inner face of the door 16 and engaged at all times by the gear 8. This rack bar is preferably located along the longitudinal center of the door.

A cross bar 21 is secured upon the outer face of the door 16 and extends beyond one edge of the door, the said bar being provided, adjacent its free end, with an opening 22 through which extends one end portion of a lever 23. This lever is adapted to swing upon a pivot bolt 24 extending through the opening and is also loosely mounted on said bolt so as to be capable of swinging laterally relative to the bar 21. Opposed bearing ribs 25 may be located within the opening 22 so as to facilitate the

lateral swinging of the lever 23. The said lever extends downwardly from the bar 21 and is designed to be seated between any two adjoining lugs 26 extending laterally from a plate 27 which is secured to the car structure, there being a series of these lugs 26 disposed parallel with the bar 21. A spring 27' is connected to the upper end of lever 23 and also to the bar 21 and serves to hold the lower portion of the lever normally pressed inwardly between two of the lugs 26.

Attention is directed to the fact that the door herein described can be readily connected to an ordinary freight car, it merely being necessary to secure the supplemental jambs within the opposite side portions of the door opening and to then fasten the supporting rail 13 and the guide rails 18 to the outer surface of the car wall and to secure the plates 27 in place on said wall. The door can then be mounted upon the rails and as the gear 8 presses constantly in an outward direction against the rack 20, it will be apparent that the walls of the grooves 17 in the door 16 will constantly bear against the adjoining walls of the guide rails 18 and the door will thus be held against rattling.

When it is desired to shift the door longitudinally the lever 23 is swung laterally so as to move across the outer end of one or more of the lugs 26 and as soon as the lever is released at its lower end the spring 27' swings it back in position between two adjoining lugs. The said lever can then be swung with one of the lugs as its fulcrum and will operate to pull or push upon the bar 21 and produce a corresponding movement of the door 16.

It will be apparent that by opening the closure 3 access may be conveniently had to the interior of the jamb 2 and by securing said closure in shut position the springs 12 will be maintained under stress and the gear 8 caused to bear constantly against the rack bar 20.

Any suitable means may be provided for locking the door in closed position, a hasp

29 and a staple 30 having been shown in the present instance for this purpose.

Various changes can of course be made in the construction and arrangement of the parts without departing from the spirit or sacrificing any of the advantages of the invention as defined in the appended claims.

What is claimed is:—

1. A device of the class described comprising guide rails, a door slidably mounted thereon, a jamb including a hinged portion, means for holding said portion against movement, spring pressed revoluble means housed within the jamb and engaging the door for holding it in constant frictional engagement with the rails, and means for actuating the door, said movable member of the jamb constituting means for controlling the stress of the spring.

2. The combination with a car structure, guide rails, a door slidably mounted thereon, a hollow jamb, a shaft slidably and revolubly mounted within the jamb, revoluble means on the shaft for engaging the door, bearing blocks movably mounted within the jamb and engaging the shaft, and means upon the blocks for exerting a constant yielding pressure thereon and against the shaft to force the revoluble means against the door and press the door against the guide rails.

3. The combination with a car structure, of supplemental jambs secured thereto, one of said jambs being hollow, rails, a door slidably mounted on the rails, said door constituting a closure for one of the jambs and being movable against the other jamb, spring pressed revoluble means within one of said jambs and constantly bearing outwardly against the door to hold the door against rattling upon the rails and means for actuating the door.

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

ANDREW GAINS LOTT.

Witnesses:

A. C. STRINGER,
JAMES J. WILLIAMS.