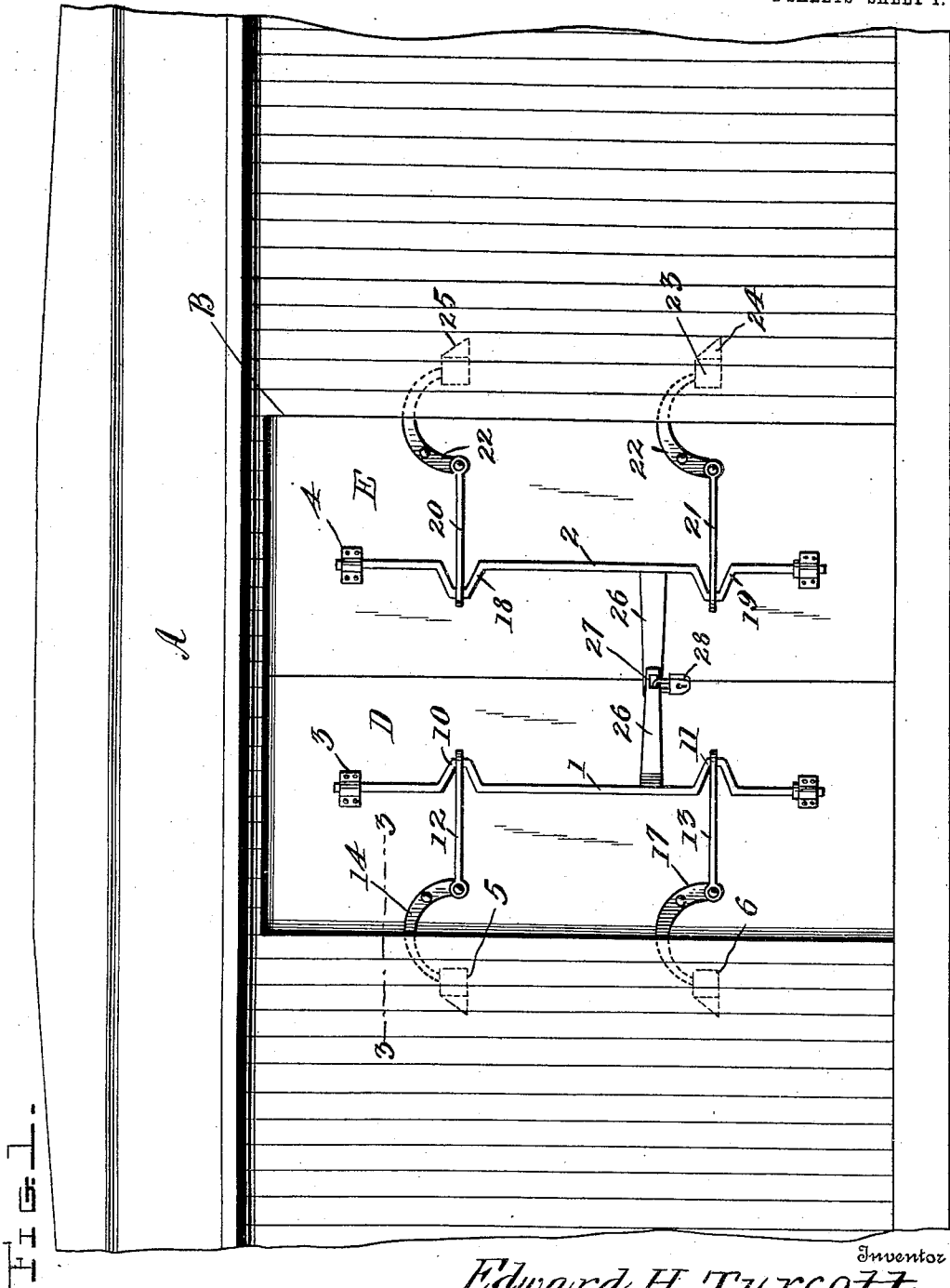


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APPLICATION FILED JUNE 15, 1909.

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Patented Oct. 5, 1909.
2 SHEETS—SHEET 1.



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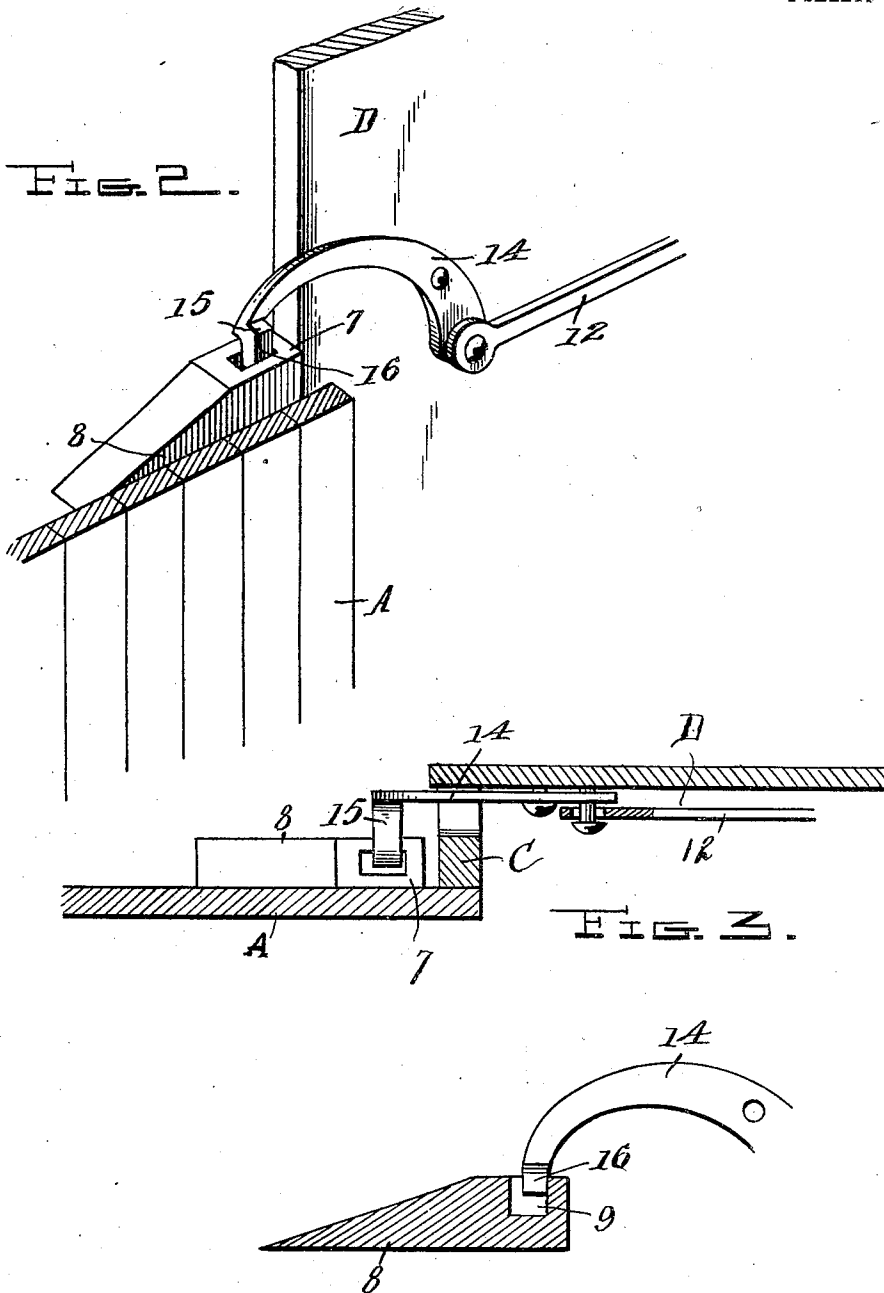


FIG. 4.

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EDWARD HARRIES TURCOTT, OF WALKER, LOUISIANA.

SLIDING-DOOR FASTENER.

936,191.

Specification of Letters Patent.

Patented Oct. 5, 1909.

Application filed June 15, 1909. Serial No. 502,338.

To all whom it may concern:

Be it known that I, EDWARD H. TURCOTT, a citizen of the United States, residing at Walker, in the parish of Livingston and State of Louisiana, have invented new and useful Improvements in Sliding-Door Fasteners, of which the following is a specification.

This invention relates to door fasteners and more particularly to mechanism adapted for use in connection with sliding car doors, and an object of my invention resides in the provision of door carried key locked means adapted for coöperation with simple and effective car carried retaining means whereby the doors can be held in their closed and locked positions.

The above mentioned and other objects are attained by the construction, combinations and arrangements of parts, as disclosed on the drawings, set forth in this specification, and particularly pointed out in the appended claims.

In the drawings, forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views:—Figure 1 is a side elevation of a portion of a car the same being provided with a pair of sliding doors upon which is operatively mounted my improved door locking mechanism. Fig. 2 is a detail sectional perspective view of a portion of the car and car door showing in detail one of the pivoted dogs and its coöperative retaining member. Fig. 3 is a detail horizontal section taken on the line 3—3 of Fig. 1, parts being shown in section in order to more clearly illustrate the invention. Fig. 4 is a detail longitudinal section taken through one of the retaining members, one of the pivoted dogs being shown in its operative position in connection with said retaining member.

The invention herein illustrated is used principally in connection with a car of the type shown briefly at A or any other suitable structure, and for convenience it will be described that the said car is provided at one side with a door opening B which is surrounded by a suitable casing C. Upon reference particularly to Fig. 1 it will be appreciated that the door opening is adapted to be closed by a pair of sliding door sections D and E which may be of any suitable well known construction best adapted for the purpose intended.

My improved door locking mechanism

consists of a pair of vertically disposed crank shafts 1 and 2, the latter being journaled at its ends in suitable bearing boxes 3 upon the door section D, and as shown the shaft 2 is journaled in boxes 4 which are secured to the door section E. The side of the car is provided with a pair of spaced retaining members 5 and 6, and as shown each member consists of a body 7 which has formed integrally therewith an outwardly extending portion 8 which has its upper face inclined downwardly and outwardly to form a cam surface for a purpose to be hereinafter fully described. The body 7 of each member 5 and 6 is provided with a vertically extending passage 9. The shaft 1 is provided with a pair of cranks 10 and 11, and as shown these cranks have pivotally connected thereto the inner ends of horizontally disposed links 12 and 13. An arcuate locking dog 14 is pivotally mounted upon the door section D and is pivoted at a point beneath the link supporting pivot to the outer end of the link 12. The other end of the dog 14 is offset as illustrated at 15, and upon said offset portion is formed a depending tooth or finger 16. Upon reference to Fig. 1 of the drawings it will be seen that the tooth or finger 16 of the dog 14 is adapted for locking engagement in the passage 9 formed in the member 5. The outer extremity of the link 13 is pivotally connected to a dog 17 which is disposed immediately beneath the dog 14. The dog 17 is pivotally mounted upon the door section D and is identical in construction with the dog 14, and as will be clearly appreciated upon reference to Fig. 1 it will be seen that the outer extremity of the dog 17 is adapted for locking engagement in the passage 9 formed in the retaining member 6.

The shaft 2 is provided with a pair of cranks 18 and 19 which have pivoted thereto the inner ends of links 20 and 21. The outer ends of the links 20 and 21 are pivotally connected with the inner ends of dogs 22 which are pivotally mounted upon the door section E. The dogs 22 are identical in construction with the dogs 14 and 17 and will not be described in detail, but it may be stated that the outer extremities of the said dogs 22 coöperate with retaining members 23 which are identical in construction with the members 5 and 6. The outwardly extending portions 24 of the members 23 are provided with downwardly and outwardly

inclined cam faces 25 which extend in opposite directions to the downwardly and outwardly cam faces of the member 5 and 6.

Horizontally disposed arms 26 extend 5 from the shafts 1 and 2, and as shown the inner ends of these arms are perforated so as to receive the retaining bail or latch element 27 of a key-actuated lock 28. Upon 10 reference to Fig. 3 of the drawings, it will be seen that the side portions of the casing C are slotted to accommodate the entrance of the dogs of the links forming portions of my improved locking mechanism. The 15 mechanism as shown applied to the door sections D and E in Fig. 1 of the drawings is in its locked position. When it is desired to release the mechanism the key-actuated lock 28 can be released from the arms 26, whereupon the shafts 1 and 2 can be re- 20 volved, the arms 26 acting as hand operated levers. When the arms 26 are swung in opposite directions to each other the shafts 1 and 2 will of course be oppositely revolved. When the shafts 1 and 2 are revolved as just 25 described the links 12, 13, 20 and 21 will be moved approximately in horizontal planes and incident to the fact that the said links are pivotally connected as hereinbefore described to the locking dogs it will be seen 30 that said dogs will be actuated whereby their depending fingers 16 will be thrown out of engagement with the retaining members as will be appreciated. After the crank shafts have been operated so that the retain- 35 ing member engaging portions of the dogs are thrown into their inoperative positions and in positions beyond the passages formed in said retaining members the shafts can be again revolved so that the crank portions of 40 the shafts and the links and dogs respectively will lie approximately in parallel positions with respect to the door sections D and E. In this manner the operatively connected elements of the mechanism lie in a 45 compact manner and the door sections are free for clear sliding movement when it is desired to open the doorway B of the car A. By providing the downwardly and outwardly inclined faces upon the dog retain- 50 ing members it will be seen that when the door sections D and E are moved into the closed positions the depending fingers 16 or outer extremities of the dogs hereinbefore

described will ride upon the inclined faces and will be properly seated in the passages 55 formed in said retaining members. Incident to the fact that the retaining members are carried by the car and that the other operative parts of my improved mechanism are carried by the door sections it is obvious that 60 when the arms or members 26 are secured to each other the door sections will be effectively held against sliding movement in either direction.

I claim:—

1. In door locking mechanism, a sliding 65 door, dogs pivotally mounted upon said door, means adapted for locking engagement with said dogs so that the door is held against sliding movement, and door carried 70 means operatively connected with said dogs whereby they can be simultaneously moved out of locking engagement with said engaging means.

2. In mechanism of the class described, a 75 structure having a door opening, a pair of sliding door sections, members carried by the structure and located at the sides of the door opening, revoluble shaft actuated dogs adapted for locking engagement with said 80 members, and means adapted to hold the shafts against rotation.

3. In mechanism of the class described, a structure having a door opening formed therein, a sliding door adapted to close said 85 opening, members located adjacent to the sides of the door opening, and door carried means adapted for locking engagement with said members when the door is moved into position to close the said door opening. 90

4. In mechanism of the class described, a structure having a door opening formed therein, a door carried by the structure and comprising a plurality of slidably mounted sections, crank shafts carried by the said sections, members located adjacent to the sides 95 of the door opening, means operatively connected with the shafts adapted for locking engagement with the members, and means adapted to hold the shafts against rotation. 100

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD HARRIES TURCOTT.

Witnesses:

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OLIN A. KIRSH.