E. T. ROBINSON. RAILWAY CAR.

APPLICATION FILED FEB. 11, 1908. 917,361. Patented Apr. 6, 1909. Filg. II.
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MITED STATES PATENT OFFICE.

EDWARD T. ROBINSON, OF ST. LOUIS, MISSOURI, ASSIGNOR TO ST. LOUIS CAR COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION.

RAILWAY-CAR.

No. 917,361.

Specification of Letters Patent.

Patented April 6, 1909.

Application filed February 11, 1908. Serial No. 415,352.

To all whom it may concern:

Be it known that I, Edward T. Robinson, | is moved when it is elevated if movement of the upper sash. a citizen of the United States of America, residing at the city of St. Louis, in the State of 5 Missouri, have invented certain new and useful Improvements in Railway-Cars, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this speci-10 fication.

My invention relates to that class of railway cars provided with lower and upper window sashes that are adapted to be elevated into compartments beneath the lower deck 15 roofs of the cars for the purpose of leaving the window openings unobstructed when the

car is in use in warm weather.

The present invention has for its object, the provision of means whereby the upper sashes 20 of the cars may be lifted and elevated into the deck compartment with the lower sashes, and also provision of means whereby the upper sashes are carried downwardly with the lower sashes when the lower sashes are re-25 turned to their positions of utility into the

window openings.

Figure 1 is an elevation of part of a railway car containing my improvements and viewed at the interior of the car part of the deck 30 ceiling being broken away. Fig. II is a vertical cross section taken on line II—II, Fig. I. Fig. III is an enlarged vertical section taken through the upper portions of a pair of mating lower and upper sashes, illustrated in the 35 positions assumed when they are in the deck compartment of the car and illustrating the means by which the upper sash is connected to the lower sash at such time. Fig. IV is an enlarged elevation of the dog carried by the 40 upper sash and adapted to engage a receiving member carried by the lower sash.

In the accompanying drawings: 1 designates the posts of a car window which contain sash run-ways for lower and upper win-45 dow sashes, and which run-ways extend into a sash receiving compartment 2, located between the lower deck 3 and the deck ceiling 4

of the car.

5 designates an inner lower sash and 6 an 50 outer upper sash adapted to be seated in the run-ways in the posts 1, and to be jointly elevated into the sash receiving compartment 2.

7 are channel strips attached to the inside face of the upper sash in which the lower sash

is moved when it is elevated independent of 55

8 designates lift plates that are attached to the upper sash at its upper end and are provided with lips 9 (see Figs. I and II) which project forwardly from the upper ends of the 60

plates and are adapted to be engaged by the upper end of the lower sash when said lower sash is elevated to a sufficient degree to bring its top surface to said lips. When the two sashes are to be jointly elevated into the 65 sash receiving compartment 2, a further upward movement of the lower sash results in the upper sash being carried with the lower sash, due to the presence of the lift plates, until the two sashes are jointly placed in the 70 inclined position illustrated in dotted lines, Fig. II, to be sustained in the sash receiving compartment by the resting of the lower end of the lower sash upon brackets 10 (see Fig. I) that are mounted at the lower end of said 75

compartment by securing them to any convenient fixed part of the car, such as the letter-board A. When the sashes are in the sash receiving compartment, the upper sash is held from downward movement relative 80

to the lower sash, due to the engagement of the lift plate lips with the upper edge or top of the lower sash.

To provide for the downward movement of the upper sash with the lower sash, when 85 the sashes are to be again put in place in the window opening, I employ the following parts:

11 is a pocket plate secured to the lower sash at its upper end, and provided with a pocket 12 located above the sash and having 90 an open side presented toward the upper

sash. 13 is a bracket attached to the top of the upper sash and having a bifurcated upper end located above said sash. 14 is a dog 95 pivotally mounted in the upper end of said bracket intermediate of its ends. This dog has a lower short arm 15, and an upper long arm 16, the latter of which is provided with a nose 17, that is adapted to enter the pocket 100 in the pocket plate 11. When the lower and upper sashes are elevated into the sash receiving compartment 2 to occupy inclined positions in said compartment, the upper long arm of the dog 13 being heavier than 105 the lower short arm of said dog, falls toward the upper end of the lower sash and as a consequence, the nose of said arm enters

into the pocket of the pocket plate 11 to remain therein while the sashes are in the sash receiving compartment. It will be seen that when the lower sash is disen-5 gaged from the brackets that support it in the sash receiving compartment and lowered from said compartment into the window opening, it carries with it the pocket plate 11 and that, due to the engagement between 10 the sashes provided by the dog 13 and the pocket plate, the upper sash is carried downwardly with the lower sash. The engagement of the dog with the pocket plate is maintained until just previous to the com-15 pletion of the downward movement of the upper sash at which time the lower arm of the dog strikes against a fixed vertical part of the car such as the letter-board A with the result of causing the long arm of the dog 20 to be carried away from the pocket plate 11, thereby releasing the lower sash in order that it may be lowered to its proper position. I claim:

- 1. In a railway car, the combination with a car body having sash runways and a deck 25 sash receiving compartment, of an upper sash, a lower sash, a dog carried by said upper sash and having an upper long arm provided with a nose adapted to engage said lower sash when said sashes are in said sash 30 receiving compartment, substantially as set forth.
- 2. In a railway car, the combination with a car body having sash runways and a deck sash receiving compartment, of an upper sash, a lower sash, a pocket plate carried by said lower sash, and a dog carried by said upper sash and having an upperlong arm adapted to engage said pocket plate when said sashes are in said sash receiving compartment, sub- 40 stantially as set forth.

EDWARD T. ROBINSON.

In presence of:
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