June 12, 1923.

1,458,388

L. W. BOYD

RAILWAY CAR DOOR STOP AND SEAL

Filed March 23, 1922

Fig. 1.

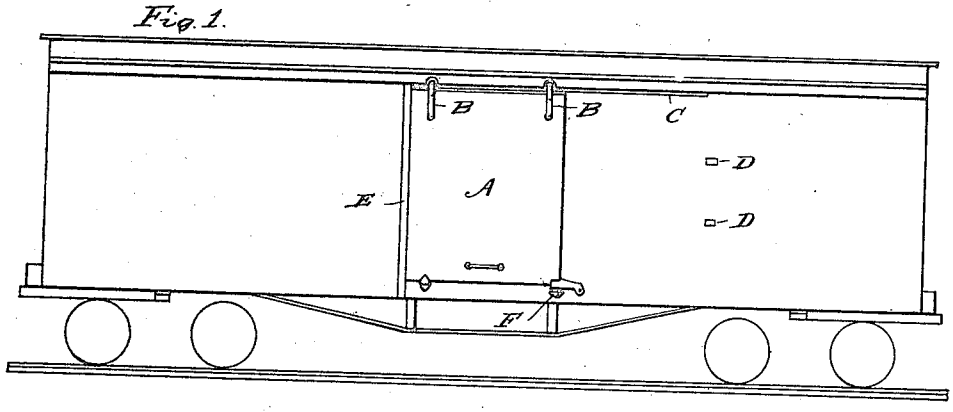
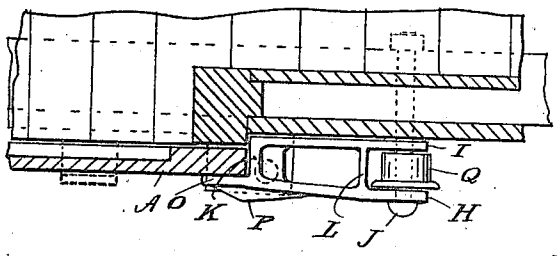


Fig. 3.



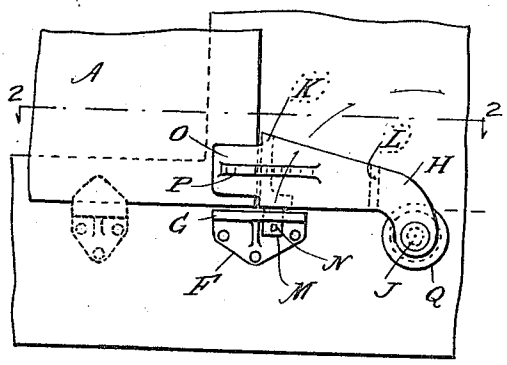


Fig. 2.

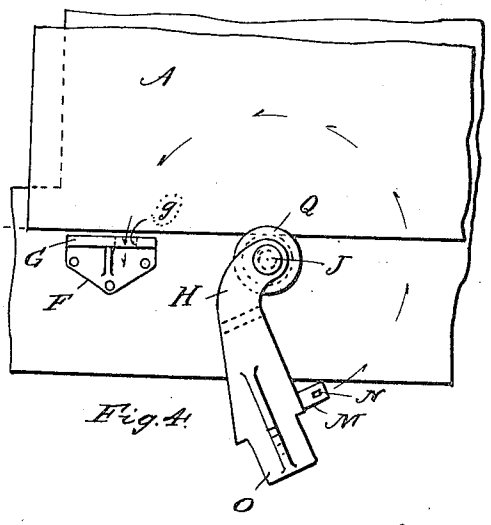


Fig. 4.

Inventor

Lemuel W. Boyd,

By H. M. Plaisted,

Attorney.

Patented June 12, 1923. 1,458,388

UNITED STATES PATENT OFFICE.

LEMUEL WILLIAM BOYD, OF MADISON, ILLINOIS.

RAILWAY-CAR-DOOR STOP AND SEAL.

Application filed March 23, 1922. Serial No. 546,121.

To all whom it may concern:

Be it known that I, LEMUEL W. BOYD, a citizen of the United States, residing at Madison, in the county of Madison and State of Illinois, have invented certain new and useful Improvements in Railway-Car-Door Stops and Seals, of which the following is a specification.

This invention relates to certain new and useful improvements in railway car door stop and seals, the peculiarities of which will be hereinafter fully described and claimed.

The main object of my invention is to provide a strong and efficient device for holding a railway car door in its closed position and sealing it; and secondly to facilitate operating the door into its open and closed positions.

In the accompanying drawing on which like reference letters indicate corresponding parts, Fig. 1 represents a side view of a railway box car with my improvements applied to the door; Fig. 2, an enlarged side view of a portion of the door and adjacent part of the car, and my device holding the door in its closed position; Fig. 3, a sectional plan view of the same on the horizontal plane through the line 2—2 of Fig. 2; and Fig. 4, a similar view to Fig. 2, with the door open and supported on my roller.

Referring to the drawing, the letter A represents a sliding door on a box car or other location, the top being provided with hangers B by which it is supported on a rail C in the usual or approved manner so that the door may be slid backward against stops D for opening the car. The front stop is formed by a strip E that closes the crack between the side of the car and the door to prevent sparks entering the car as well as to limit the forward movement of the door in its closed position.

At the lower rear corner of the door A, I provide a bracket F with a horizontal lip G in which is a hole *g* that is located just to the rear of the said door when in its closed position. The other member of my device consists of a rotatable member, one end of which is provided with separated cheek plates H and I provided with holes that line up with each other so that a pivot bolt J passing through the holes and the side sill of the car, will form a support for the rotatable member. The opposite end of the rotatable member from the pivot consists of a web K or other stop surface that is adapted to engage the rear end of the car door in its closed position as shown in Figs. 2 and 3. The cheek plates H and I preferably continue through to said stop surface K and are connected by another web L near the pivot end so as to form a light strong rotatable stop member which has on the end opposite the pivot, a pin M projecting from the bottom of the web K and passing through the said hole *g* in the bracket lip G before mentioned, when the stop is engaging the rear of the car door. An aperture N in said pin allows of inserting the usual seal or other device for securing the door in a fastened position.

The end of the stop member engaging the door, preferably has a lateral forwardly projecting lip O strengthened by a brace P and engaging the side of the door as shown, to prevent swinging the bottom of the car door away from the side of the car. The hole *g* in the bracket is only large enough to allow the passage of the pin M through it, but when the sealing strip is inserted it cannot be withdrawn without breaking the seal. The sealing pin M acts with the lip O to hold the door against the side of the car when in locking position shown in Figs. 2 and 3. The usual sealing strip passes through the pin aperture N only, and has no connection with any other part since the pin cannot be withdrawn after sealing as the hole *g* will not allow the strip and seal to pass through the hole without breaking the seal.

At the pivot end of the rotatable member is located a roller Q, mounted on the pivot bolt J and between the cheek plates H and I as shown in the figures. The pivot bolt J is located just below the path of the bottom of the door, so that the roller will engage the bottom of the door and raise it slightly from the hangers B, and thus facilitate sliding the door back and forth. Fig. 4, shows the stop member rotated to its lower position, and the roller engaging the bottom of the door. When the door is closed, the stop member is rotated as indicated in Fig. 4, and the apertured pin M enters the hole in the bracket lip G at the same time the end of the stop engages the rear of the door as shown in Fig. 2.

Thus a light strong stop is provided, and when the cheek plates H and I extend upward to the end and form a hollow space between the webs K and L, there is no chance

for ice to form as rain, as well as snow and sleet, will pass through the vertically disposed plates forming the rotatable stop member. My device eliminates the expense of one guide at the rear lower corner of the door where it is usually placed as indicated by dotted lines in Fig. 2, as the lip O and bracket F takes the place of this guide. Also my device brings the seal down low where one can readily get an accurate seal record; it increases the life of the door as there is no excuse for nailing or cleating the door to keep it closed, thereby also avoiding a large proportion of the thefts from box cars as the majority of merchandise is stolen from cars where the door is jarred open while in transit and the car is set out on some side track where any one coming along will find the door open. The use of the usual separate pin and hasp seal is also avoided by my combination device.

I claim:

1. The combination with a sliding car door having supporting hangers at the top, of a device of the character described comprising a rotatable stop member having separated cheek plates forming a space at one end and provided with pivot holes,—the opposite end being adapted to engage the rear of said door in closed position,—a pivot bolt passing through the pivot holes in said cheek plates and into the side of the car below the path of the door, and a door-supporting roller located in the space between said cheek plates and mounted on said pivot bolt, substantially as described.

2. A device of the character described comprising a rotatable stop member consisting of a stop shoulder opposite the pivot end having a forwardly projecting lateral lip and having an apertured sealing pin projecting downward near said shoulder,—the pivot end having separated cheek plates with pivot holes, a roller mounted between said cheek plates, a supporting pivot bolt through said cheek plates and roller, and a bracket having a horizontal portion with a hole adapted to allow the passage of the sealing pin only, substantially as described.

In testimony whereof I have affixed my signature.

LEMUEL WILLIAM BOYD.