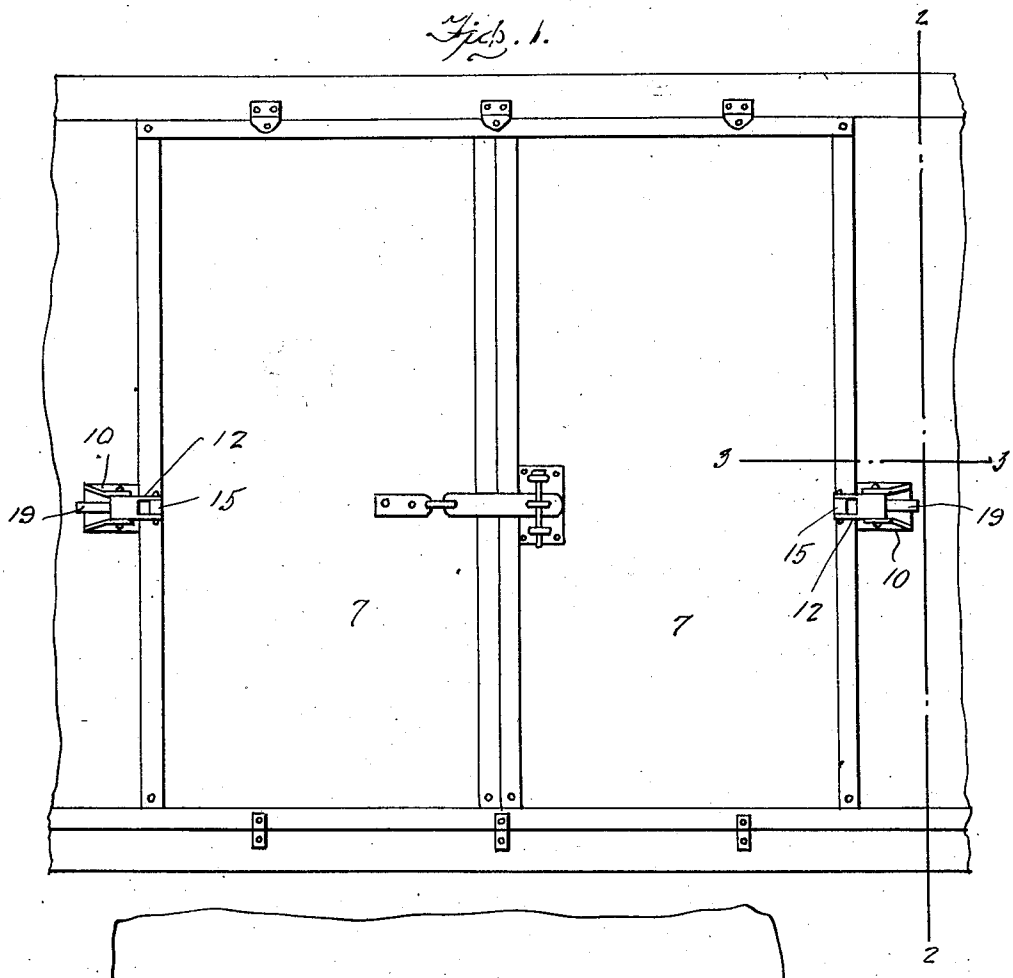
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AUTOMATIC DOOR KEEPER

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Fig. 1.



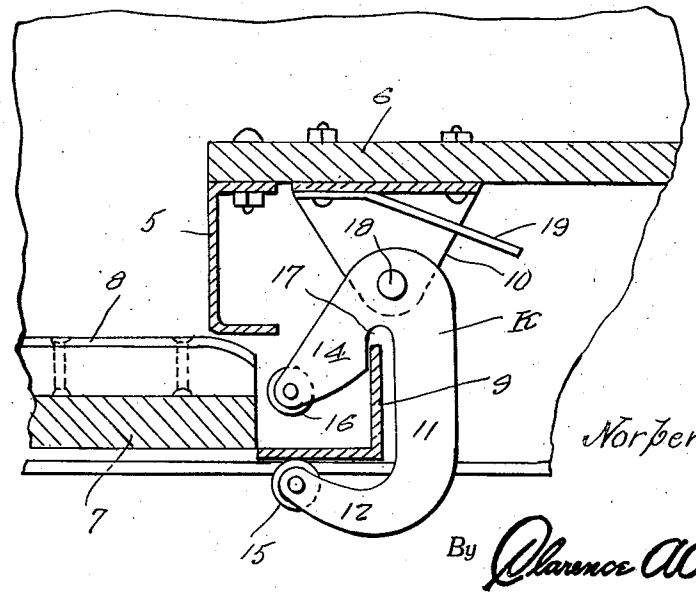


Fig. 3.

Inventor
Norbert Rassier

By Clarence A. O'Brien
Attorney

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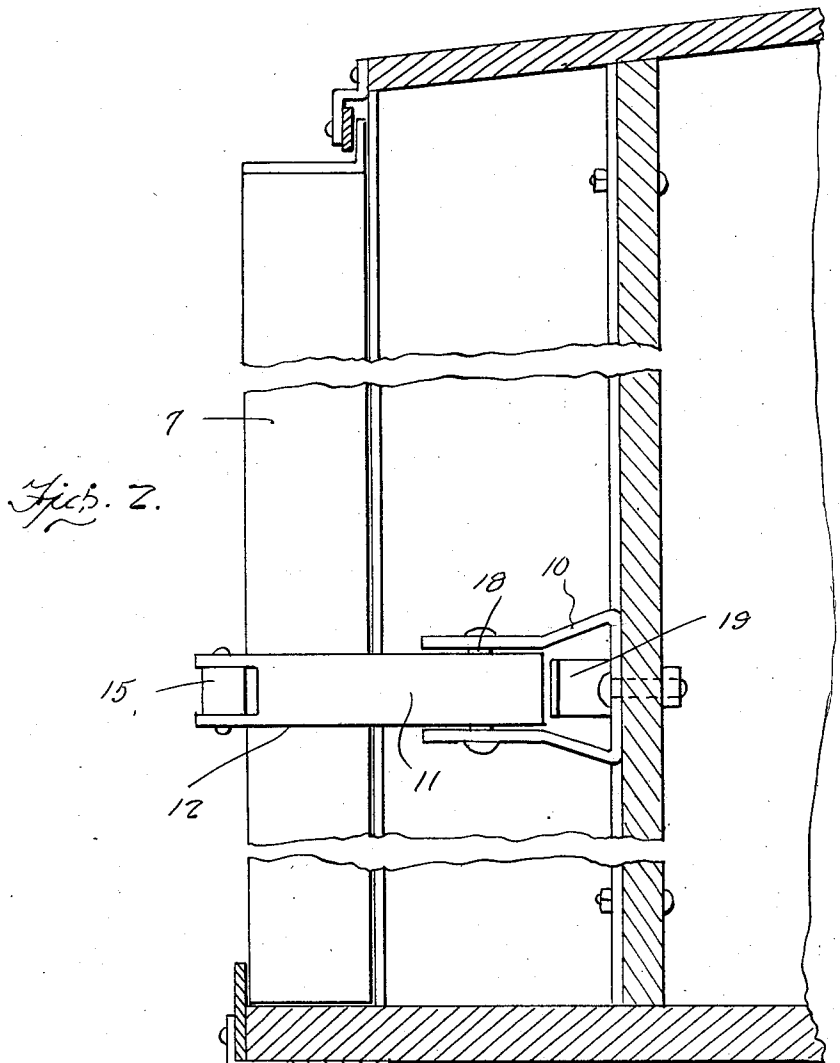


Fig. 2.

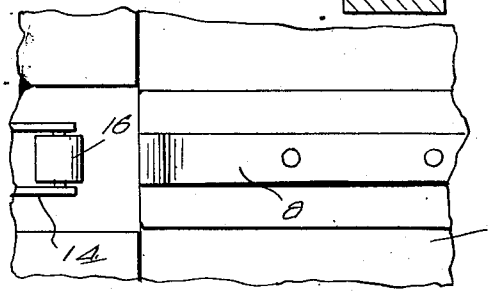


Fig. 4.

Inventor
Norbert Rassier

By Clarence A. O'Brien
Attorney

Patented Oct. 28, 1930 1,779,752

UNITED STATES PATENT OFFICE

NORBERT RASSIER, OF ST. JOSEPH, MINNESOTA

AUTOMATIC DOORKEEPER

Application filed October 28, 1929. Serial No. 402,999.

The present invention relates to an automatic door keeper designed particularly for use with the sliding doors of box cars and the like.

The prime object of the invention resides in the provision of a means for holding the door of a freight car tight against the door frame when the door is in a closed position.

Another very important object of the invention resides in the provision of a structure of this nature which is automatic in its operation.

A still further very important object of the invention resides in the provision of a structure of this nature which is simple in its individual parts, inexpensive to manufacture, strong and durable, thoroughly efficient and reliable in use and operation, and otherwise well adapted to the purpose for which it is designed.

With the above and numerous other objects in view as will appear as the description proceeds, the invention resides in certain novel features of construction, and in the combination and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawing:

Figure 1 is a fragmentary side elevation of a doorway such as is used on a freight car showing my improved structure,

Figure 2 is a sectional view taken vertically and substantially on the line 2—2 of Figure 1,

Figure 3 is a horizontal section taken substantially on the line 3—3 of Figure 1, and

Figure 4 is a fragmentary detail side view showing the rail on the inner side of the door.

Referring to the drawing in detail it will be seen that on the side edges of the doorway there are mounted channel irons 5 attached to the side wall 6. Doors 7 are hung to slide in the usual well known manner. Rails 8 are horizontally disposed transversely across the inner faces of the doors 7.

On the outer edges of the doors are angle irons 9 vertically disposed. Brackets 10 mounted on the side wall 6 one adjacent each channel iron 7 and keepers K are rockably mounted therein. Each keeper K is of a somewhat U-shaped formation to comprise a relatively elongated bight portion 11 with a curved leg 12 at one end and a straight acute leg 14 at the other end.

These legs 12 and 14 are bifurcated at their terminals and have journaled therein rollers 15 and 16 respectively. A crotch 17 is formed between the arm 14 and the bight 11. The juncture of the arm 14 with the bight 11 is pivotally mounted as at 18 in the bracket 10.

A leaf spring 19 is mounted in the bracket. When the door is closed the edge of the angle iron 9 is disposed in the crotch 17 so that the closing of the door tends to swing the keeper to impinge the roller 15 against the angle iron 9 thereby shoving the door inwardly to maintain it closed tightly.

Now when the door is slid open the keeper K is swung in a counter clockwise direction, referring to Figure 3, and engages the spring 19 which holds the keeper in such position that the rollers 15 and 16 are engaged by the rail 8 and therefore when the door is closed the spring immediately swings the keeper to proper position so that the angle iron 9 engages the arm 14 and then the crotch 17 swinging the keeper further in a clockwise direction and impinging the roller 15 against the angle iron 19 as heretofore brought out.

It is thought that the construction, operation, utility and advantages of this invention will now be quite apparent to those skilled in this art without a more detailed description thereof.

The present embodiment of the invention has been disclosed in considerable detail merely for the purposes of exemplification since in actual practice it attains the features of advantage enumerated as desirable in the statement of the invention and the above description.

It will be apparent that changes in the details of construction, and in the combination and arrangement of parts may be resorted to without departing from the spirit or scope of the invention as hereinafter claimed or sacrificing any of its advantages.

Having thus described my invention, what I claim as new is:

1. In combination, a slidably mounted door in a doorway, a bracket, a U-shaped keeper rockably mounted at the juncture of one leg and bight of the keeper, an angle iron on the end of the door for cooperating with the keeper, said keeper having one leg acutely disposed to form a crotch with the bight thereof and in this crotch the free edge of the angle iron is adapted to engage so that when the door is closed the keeper is swung to impinge against the angle iron and shove the door tightly closed.

2. In combination, a slidably mounted door in a doorway, a bracket, a U-shaped keeper rockably mounted at the juncture of one leg and bight of the keeper, an angle iron on the end of the door for cooperating with the keeper, said keeper having one leg acutely disposed to form a crotch with the bight thereof and in this crotch the free edge of the angle iron is adapted to engage so that when the door is closed the keeper is swung to impinge against the angle iron and shove the door tightly closed, a bracket into which said keeper is pivoted, and a spring in the bracket to urge the keeper to operative position when the door is closed.

3. In combination, a slidably mounted door in a doorway, a bracket, a U-shaped keeper rockably mounted at the juncture of one leg and bight of the keeper, an angle iron on the end of the door for cooperating with the keeper, said keeper having one leg acutely disposed to form a crotch with the bight thereof and in this crotch the free edge of the angle iron is adapted to engage so that when the door is closed the keeper is swung to impinge against the angle iron and shove the door tightly closed, a bracket into which said keeper is pivoted, and a spring in the bracket to urge the keeper to operative position when the door is closed, the terminals of the legs being bifurcated, rollers journaled in the bifurcated ends, and a rail on the inner side of the door to engage the rollers as the door is opened and force the bight of the keeper against said spring.

In testimony whereof I affix my signature.

NORBERT RASSIER.