

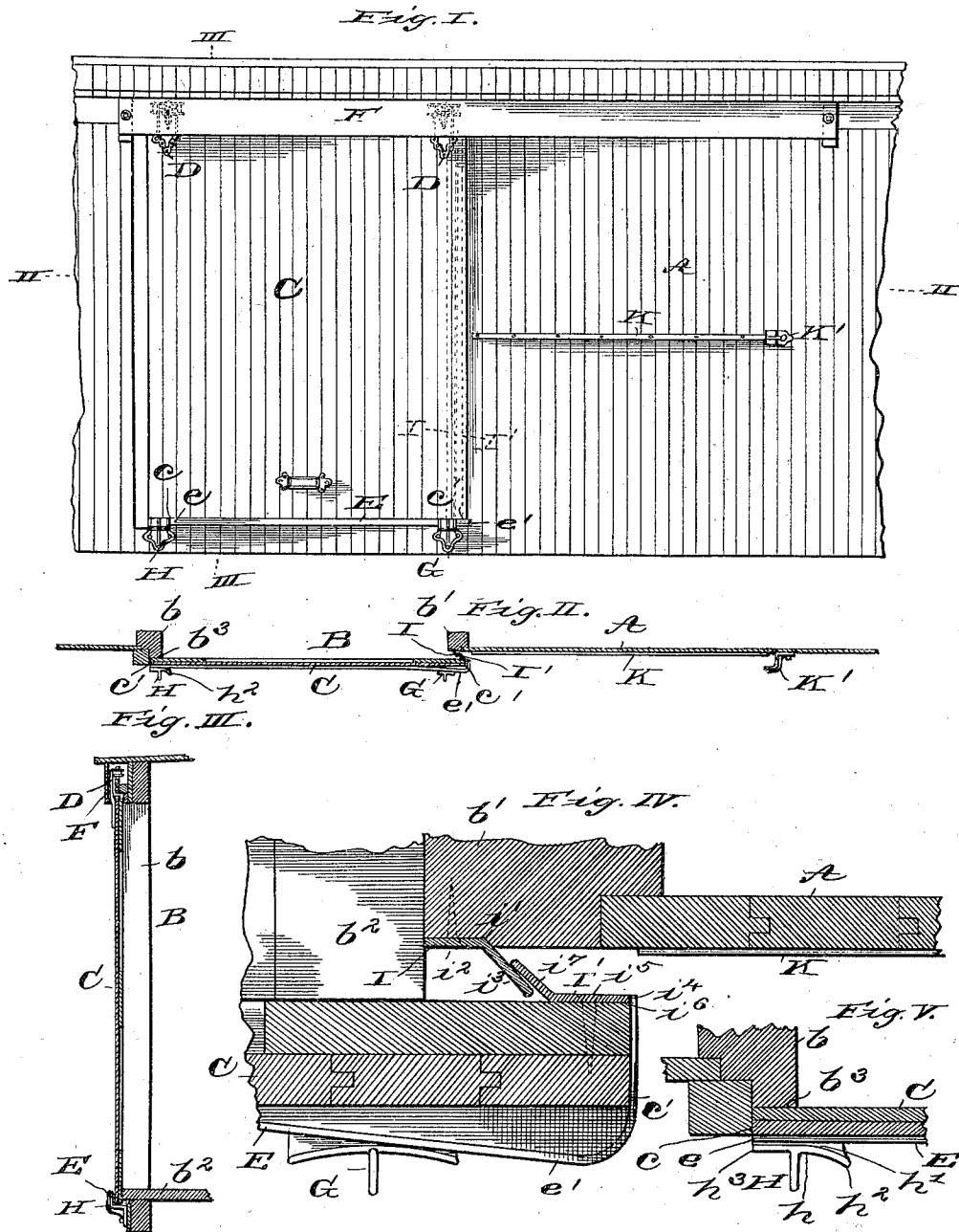
No. 645,095.

Patented Mar. 13, 1900.

L. A. HOERR.
SLIDING DOOR.

(Application filed Mar. 27, 1899.)

(No Model.)



Witnesses—

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UNITED STATES PATENT OFFICE.

LOUIS A. HOERR, OF ST. LOUIS, MISSOURI.

SLIDING DOOR.

SPECIFICATION forming part of Letters Patent No. 645,095, dated March 13, 1900.

Application filed March 27, 1899. Serial No. 710,634. (No model.)

To all whom it may concern:

Be it known that I, LOUIS A. HOERR, a citizen of the United States, residing at St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Sliding Doors, of which the following is a specification.

My improvement relates chiefly to sliding doors such as are used on freight-cars; and the main object of my improvement is to provide means for making such doors storm-proof. I attain that object by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a portion of a freight-car provided with a door embodying my improvements. Fig. 2 is a horizontal section on line 2 2, Fig. 1. Fig. 3 is a vertical section on line 3 3, Fig. 1; and Figs. 4 and 5 are enlarged sectional views showing details of construction.

Similar letters refer to similar parts throughout the several views.

A represents the side of a freight-car in which there is a doorway B, having a front post b and a rear post b' and through which the car-flooring b^2 preferably projects far enough to come in contact with or close to the door C, by which the doorway is closed when said door is in the position in which it is shown.

The door C is supported by hangers D and near its lower edge is preferably provided with a rub-strip E, whose front end e is preferably flat and substantially parallel with the face of the door and whose rear end preferably makes an outward bend e' , so as to enable it to perform the wedging function hereinafter described.

F represents a housing-cap projecting down in front of the upper edge of the door C.

All of the above-mentioned parts are of common form except the rub-strip E.

G represents a guide-bracket of common form, with which the outwardly-inclined portion e' of the rub-strip E comes in contact when the door is nearly closed and by means of which the door when closed is preferably wedged tightly against the projecting flooring b^2 , near its rear edge.

H represents a guide-bracket preferably used to force the front edge of the door against

the projecting portion b^2 of the car-flooring and into the vertical recess b^3 , preferably formed in the front door-post b . It differs from the downtrack brackets heretofore used in the form of its upwardly-projecting lip or flange h , which rises from its sole h' and flares outwardly at h^2 toward the rear side of the door, as shown most clearly in Fig. 5, and at the other end h^3 preferably bears against the face of the door when the door is closed.

Where the preferred form of rub-strip E and bracket H are used, the front end of the rub-strip E strikes the flaring portion h^2 of the flange h when nearly closed, and as it slides in the door is guided to its seat.

I, Figs. 2 and 3, represents a weather-strip, which preferably extends from the flooring b^2 to a point above the level of the lower edge of the housing-cap F and preferably consists of a base-plate i , which preferably rests in a recess i' , formed in the post b' for its reception, and which is preferably attached to said post by means of screws i^2 or other fastenings, and i^3 is a flange extending outward and backward from the said base-plate, preferably from the rear edge and at an angle to the face of said base-plate.

J represents a weather-strip designed to engage the strip I. In the form shown it is provided with a base-plate i^4 , which is attached to the inner side of the door B by means of screws i^5 or other suitable fastenings. From one edge, preferably the front edge, of the base-plate i^4 a flange i^7 extends forward and inward at an angle to the inner face of the door, which is preferably less acute than the angle of the outwardly-projecting flange i^3 of the strip I, which it is designed to engage. It is preferably made narrower than the flange i^3 , so as to prevent its striking the inner end of the rub-strip K, hereinafter described, and also to prevent its binding when the door is being opened. The flange i^3 is preferably, though not necessarily, wide enough to touch or nearly touch the inner face of the door-frame C' when the door is closed. This form of weather-strip has several advantages. In the first place it never binds when the door warps or is bent by the weight of freight resting against it, and its engaging flanges are under all circumstances preferably free to separate, while the overlapping flanges afford a very

efficient protection against rain and snow. Very little of either can pass the flange i' , and after passing it it is forced to turn and move outward and strikes the door and falls
5 either between the flanges i' and i^3 or in the open space directly forward of the flange i^3 .

K represents a rub-strip of common form designed to prevent the door from swinging against the side of the car when being opened,
10 and K' is a bracket designed to act as a stop. The form of the weather-strip I' enables the rear edge of the door to shield it from injury when the door strikes the bracket K', and for that reason the bracket K' may be of any com-
15 mon form.

I claim—

The combination with a car having a portion of the flooring thereof extending through the doorway beyond the side of the car, of a sliding door adapted to be held out of con- 20 tact with the side of the car by said flooring; a weather-strip secured to said car and consisting of a base-plate and a flange, and a similar weather-strip secured to said door and adapted to coöperate with said first-named 25 weather-strip.

LOUIS A. HOERR.

In presence of—

BENJ. F. REX,

C. D. GREENE, Jr.