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Patented Sept. 18, 1900.

L. RADKE.

HOUSING AND HANGER FOR SLIDING DOORS.

(Application filed Dec. 15, 1899.)

(No Model.)

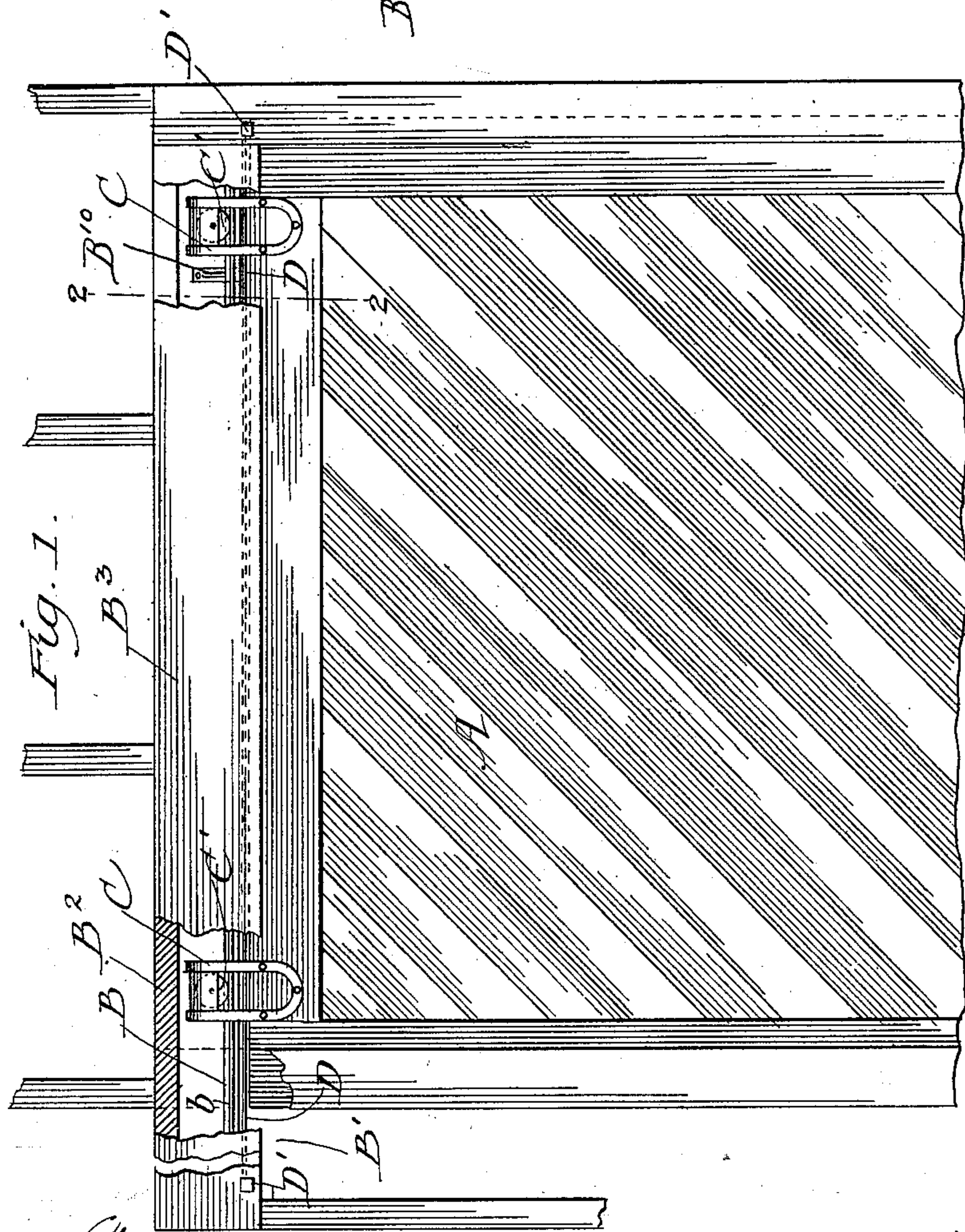
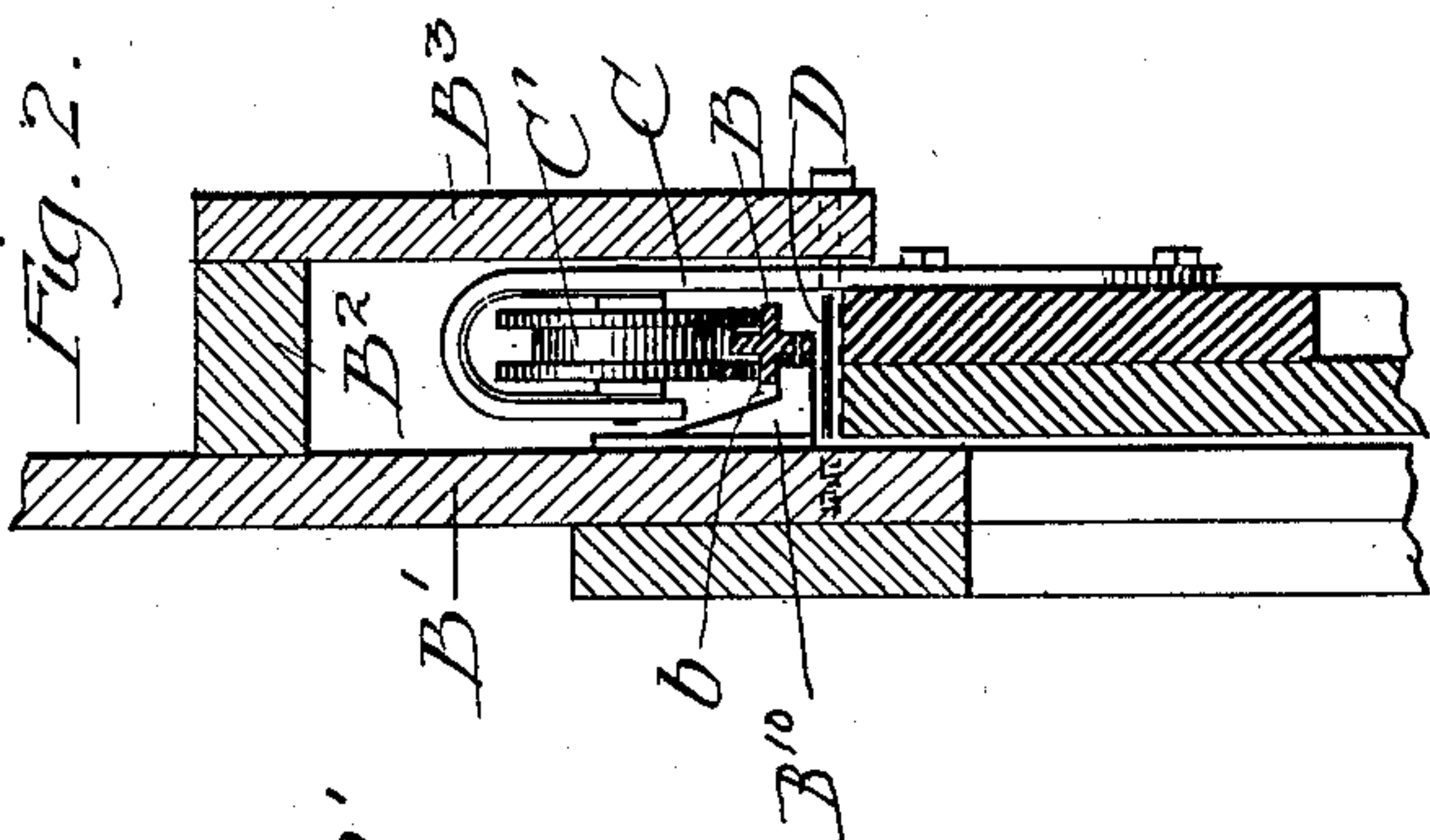


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

LOUIS RADKE, OF SHARON, WISCONSIN, ASSIGNOR TO LOUIS RADKE AND JAMES H. PHELPS, OF SAME PLACE.

HOUSING AND HANGER FOR SLIDING DOORS.

SPECIFICATION forming part of Letters Patent No. 657,991, dated September 18, 1900.

Application filed December 15, 1899. Serial No. 740,401. (No model.)

To all whom it may concern:

Be it known that I, LOUIS RADKE, a citizen of the United States, residing in Sharon, in the county of Walworth and State of Wisconsin, have invented a new and useful Improvement in Housings and Hangers for Sliding Doors, of which the following is a specification.

This invention relates to improvements in housings and hangers for sliding doors.

The object of my invention is to provide means for the protection of the runway of the door, so that the track upon which the door slides and the space surrounding the track will be maintained free from all obstructions.

Heretofore in the practical operation of sliding doors for barns and other buildings a great deal of difficulty, trouble, and inconvenience have been experienced from birds, especially sparrows, building their nests within the housing which surrounds the track or runway at the top and sides, and thus obstructing the running of the hanger-wheels on the track and frequently rendering it impossible to operate the door and often wrecking it by throwing the hanger-wheels from the track. As the housings heretofore in use in connection with the ordinary metal track-rail and roller-hangers for sliding doors have been open at the bottom, the birds can freely enter the housing between its side walls and the track-rail either when the door is open or when it is closed, and snow and ice frequently collect in the housing, and thus give further obstruction, and the deposits or collections within the housing from this cause also tend to speedily decay the same, making frequent repairs necessary and adding to the cost of maintaining this class of doors. My invention overcomes the above objections or difficulties in a very simple manner.

My invention consists in the combination, with the door and its hanger and the track and its housing, of a protecting plate or strip located in the housing below the tread of the track and closing the bottom of the housing against admission of sparrows or other birds and snow and ice both when the door is shut and open.

It also consists in the novel devices and

novel combinations of parts and devices herein shown and described.

In my invention the housing, which is of wood, is in a separate piece and independent from the track, which is of metal and consists of a single metal rail supported on suitable brackets centrally in the housing.

The invention will be more fully understood by reference to the accompanying drawings, in which—

Figure 1 is an elevation, partly broken away, of the door and its housing. Fig. 2 is a vertical cross-section on line 2-2 of Fig. 1, and Fig. 3 is a detail view of one form of the protecting-plate.

In the drawings, A represents the sliding door. B is the track for the door, located in the housing B' B² B³. The door is supported by the hangers C C from the track B, which is secured to its supporting-brackets B¹⁰. The hangers C C are provided with wheels or rollers C' C', adapted to engage and travel upon the upper surface or tread b of the track B.

D is the protecting plate or strip, which I have shown as located in the housing below the track B and which extends each side of the track and nearly to the side walls of the housing, thus contracting the opening at the bottom thereof. Upon one side of the protecting-plate a space is left sufficient for the hanger to travel in, and a space is preferably left at the opposite side of the plate or strip, so that any dirt that may find its way into the housing above the strip can readily drop out. The spaces left at the sides of the strip are very narrow—not large enough to permit snow and ice to accumulate or for sparrows or other small birds to enter.

The protecting plate or strip D preferably consists of a strip of thin sheet metal, and D' shows the supports to which it is attached and by which it is held in position to cooperate with the other parts. These supports to adapt the invention to be readily applied to doors already erected and in use are preferably two in number, one located at each end of the protecting-strip, and to enable the strip to be stretched tight and the slack to be taken up the supports preferably consist of large wood-screws adapted to be firmly

screwed into the framework of the building or door-frame and provided with round smooth shanks equal in length to the width of the protecting-strip and around which it
5 may be wound to take up the slack. By simply turning these strip-winding wood-screws the metal protecting-strip may be stretched tight and held in proper relation to the other parts with which it coöperates.

10 While I have shown the protecting piece or strip D as made of sheet metal and supported by these roller or winding screws, it will of course be understood by those skilled in the art that the particular construction of
15 the strip may be varied, as well as the particular means of supporting it in position, without departing from my invention.

The importance of this invention will be appreciated from Fig. 2, which shows that
20 the opening closed by my protecting-plate is a wide one, giving birds and snow easy access to the interior of the housing.

I claim—

1. In a door-hanger, the combination with
25 a sliding door, a roller-hanger therefor, a suitable track for said hanger supported above the door, and a housing for said hanger and track, the outer side wall thereof extending slightly below the upper edge of the door
30 when in its normal or operative position, of a separate protecting piece, or strip, located in said housing beneath said track of sufficient width to nearly close the bottom of the housing leaving a narrow slot wherein the

hanger-arm is permitted to travel, substan- 35
tially as and for the purpose set forth.

2. In a door-hanger, the combination with a sliding door, a roller-hanger therefor, a suitable track for said hanger supported above the door, and a housing for said hanger and
40 track, the outer side wall thereof extending slightly below the upper edge of the door when in its normal or operative position, of a separate protecting piece, or strip, located in said housing beneath said track of suffi- 45
cient width to nearly close the bottom of the housing leaving a narrow slot wherein the hanger-arm is permitted to travel, and means for supporting and winding said strip, sub-
50 stantially as specified.

3. In a door-hanger, the combination with a sliding door, a roller-hanger therefor, a suitable track for said hanger supported above the door, and a housing for said hanger and
55 track, the outer side wall thereof extending slightly below the upper edge of the door when in its normal or operative position, of a separate protecting piece, or strip, located in said housing beneath said track of suffi-
60 cient width to nearly close the bottom of the housing leaving a narrow slot wherein the hanger-arm is permitted to travel, and winding-screws for supporting said strip at each end, substantially as specified.

LOUIS RADKE.

In presence of—

GEORGE C. MANSFIELD,
CHARLES W. SEARL.