

No. 707,637.

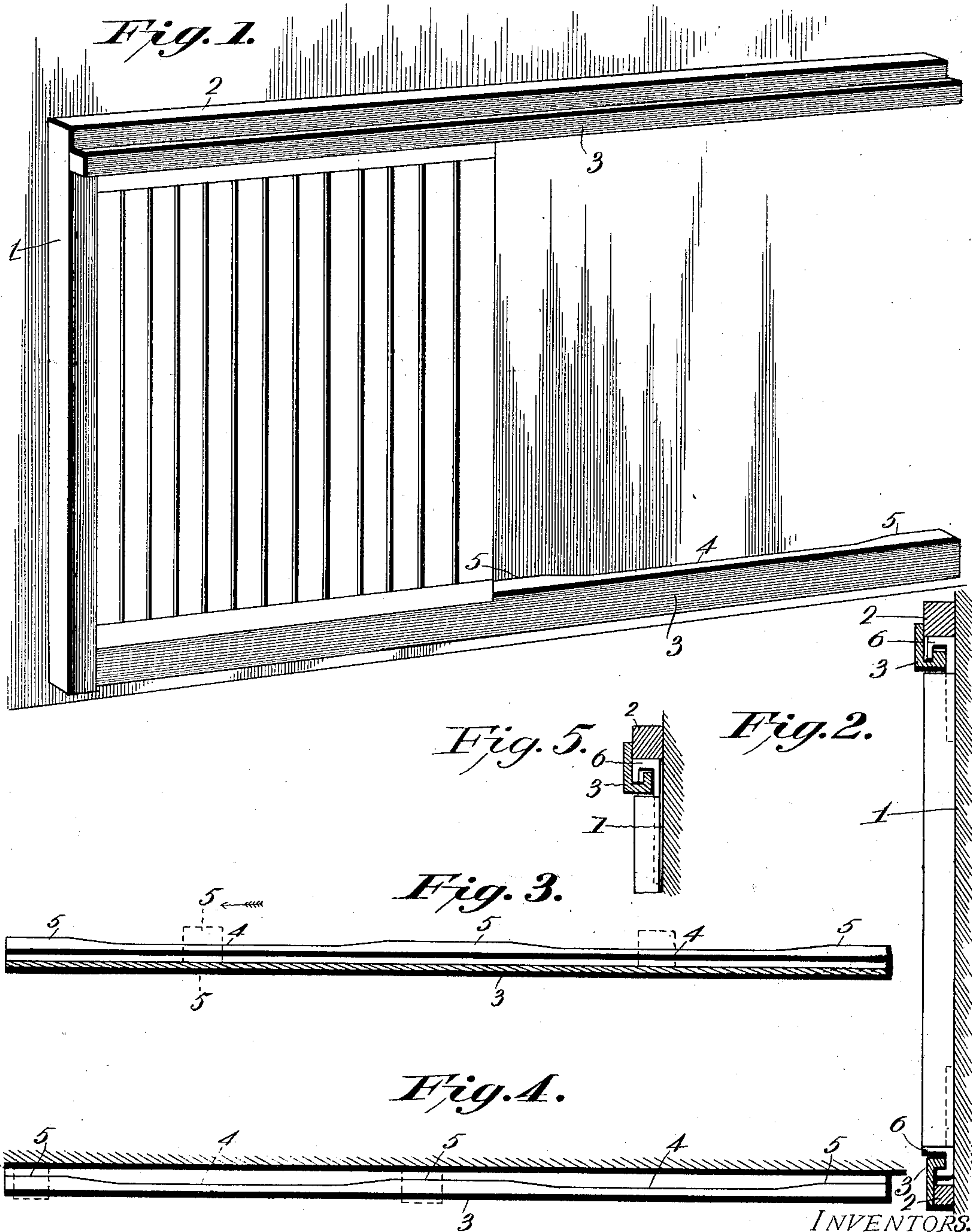
Patented Aug. 26, 1902.

G. A. PROCTOR & E. F. CARPENTER.

SLIDING DOOR.

(Application filed Oct. 14, 1901.)

(No Model.)



WITNESSES:

W. Walker,
Chas. Lyman Warden

INVENTORS.
George A. Proctor
E. F. Carpenter,
BY *Henry T. Bright*
Attorney

UNITED STATES PATENT OFFICE.

GEORGE A. PROCTOR AND EDWIN F. CARPENTER, OF JANESVILLE,
WISCONSIN.

SLIDING DOOR.

SPECIFICATION forming part of Letters Patent No. 707,637, dated August 26, 1902.

Application filed October 14, 1901. Serial No. 78,563. (No model.)

To all whom it may concern:

Be it known that we, GEORGE A. PROCTOR and EDWIN F. CARPENTER, citizens of the United States, residing at Janesville, in the
5 county of Rock and State of Wisconsin, have invented certain new and useful Improvements in Sliding Doors; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as
10 will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to doors and hangers, and particularly to that class known as "sliding" doors.

15 The object of the invention is to provide a hanger and in combination therewith a novel track, whereby the door is frictionally held against accidental displacement when in a closed or open position.

20 Furthermore, the object of the invention is to provide means for preventing dislodgment of the hangers from their tracks or guides, thereby preventing accidental removal of the door.

25 Furthermore, the object of the invention is to produce a hanger for sliding doors which comprises few inexpensive parts of durable construction, easily operated or controlled, and proving efficient and satisfactory
30 in use.

With the above and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully
35 set forth and claimed.

In describing the invention in detail reference will be had to the accompanying drawings, forming part of this specification, wherein like characters denote corresponding parts
40 in the several views, and in which—

Figure 1 is a view in perspective of a door-frame and the tracks embodying the invention. Fig. 2 is an end elevation of the door and hangers, with the upper and lower tracks
45 or guides in section. Fig. 3 is a plan view of the upper track, partly in section. Fig. 4 is a plan view of the lower door-support. Fig. 5 is a partial end elevation of the door and

hangers, showing the upper track in section on the line 5 5 of Fig. 3.

In these drawings, 1 indicates the door-frame, which may be formed in a car-body or in any building where a sliding door is employed.

2 is a stringer forming part of the door-frame, to which is secured a track 3, which is L-shaped in cross-section. The inner edge of the track is provided with a series of thickened portions 5, tapering to the plane of the edge 4, thereby producing cam-surfaces over
50 which the hangers 6 must ride and by which said hangers are directed toward or allowed to recede from the side of the structure which the door is to guard. The purpose of forcing the door toward the structure is to cause its
55 engagement with said structure, frictionally retaining the door in the position placed by the operation against opening by collision, jerks, or other disturbing influences. As soon as the thickened portions are passed by
60 the hangers when traveling in either direction freer movement is accorded the door, thereby reducing the power required for its movement. The lower guides or tracks are in the form of an inverted L, while the hang-
65 ers above are in the shape of an inverted L and the lower hangers are L-shaped, so that the tracks and hangers interlock to prevent the dislodgment of the door. It will be noted that these hangers and tracks are ap-
70 plicable to all sliding doors for cars, barns, and in other connections. Hence it must be understood that various changes may be resorted to in the proportions and details of construction for successfully carrying the de-
75 vice into practice without departing from the scope of the invention.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a sliding door, a frame, L-shape hangers, tracks interlockingly connected therewith, a flange on the upper track projecting from the bearing-face, said flange having enlargements tapered from each end toward the
80 center and an intermediate enlargement op-
85
90
95

positely tapered to the surface of the tracks, said tapered portions forming cams for moving the door into engagement with the side of a car or into its frame, as and for the purpose described.

5 2. In a sliding door an upper track having a flange projecting from the bearing-face said flange having thickened portions forming cams and a lower guide having enlargements, said enlargements being tapered to

form cam-surfaces which force the door inwardly, as and for the purpose described.

In testimony whereof we affix our signatures in presence of two witnesses.

GEORGE A. PROCTOR.
EDWIN F. CARPENTER.

Witnesses:

CHARLES W. REEDER,
RALPH PAGE.