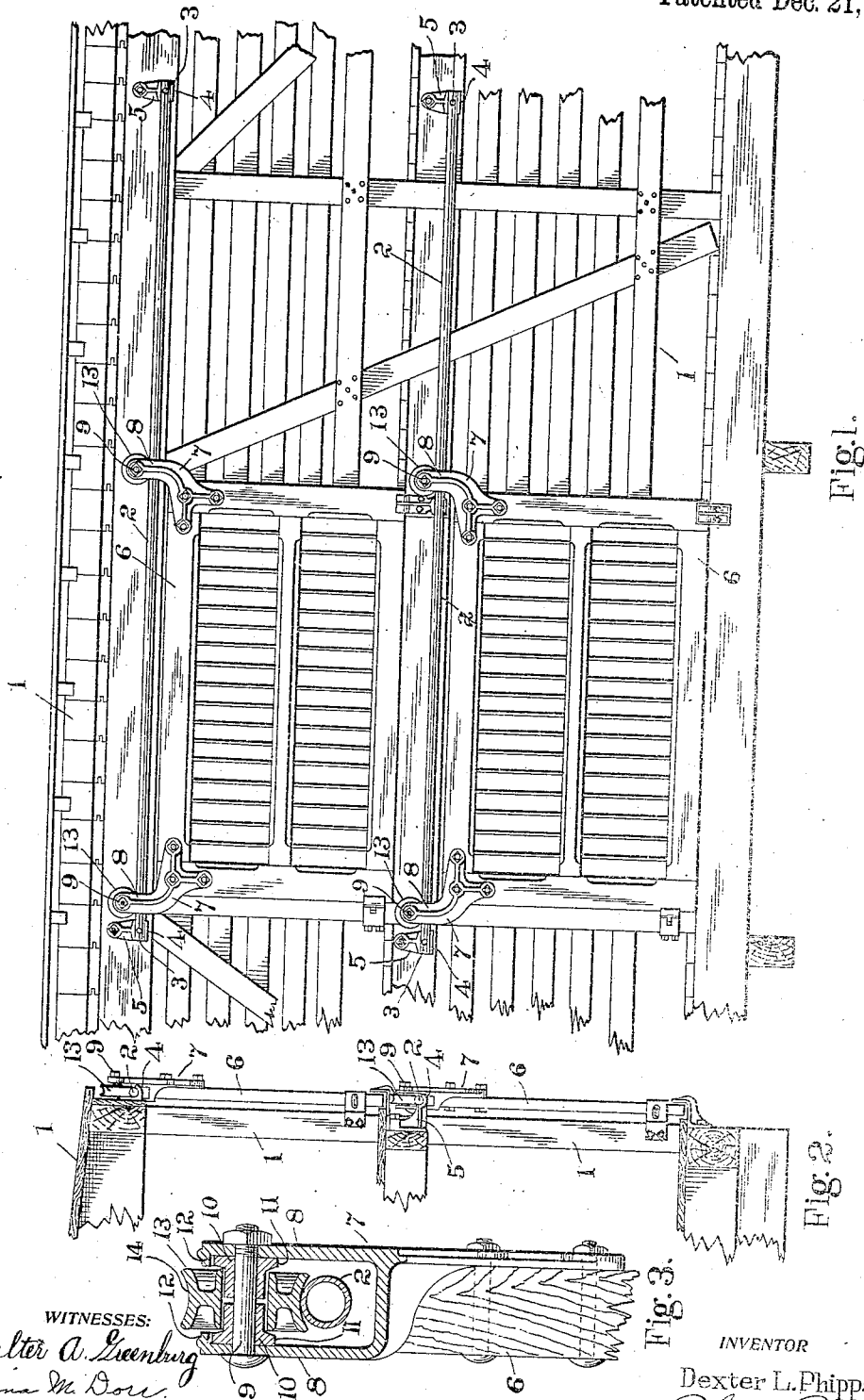


D. L. PHIPPS.
SLIDING DOOR HANGER.
APPLICATION FILED DEC. 26, 1908.

943,784.

Patented Dec. 21, 1909.



WITNESSES:
Walter A. Greenburg
Anna M. Dore

INVENTOR
Dexter L. Phipps
BY *[Signature]*
ATTORNEYS

UNITED STATES PATENT OFFICE.

DEXTER L. PHIPPS, OF CHICAGO, ILLINOIS.

SLIDING-DOOR HANGER.

943,784.

Specification of Letters Patent. Patented Dec. 21, 1909.

Application filed December 26, 1908. Serial No. 469,361.

To all whom it may concern:

Be it known that I, DEXTER L. PHIPPS, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Sliding-Door Hangers, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to supporting means for endwise movable doors and more especially to a device of that class adapted for freight car doors, so disposed as not to be readily displaced, broken or made in-
15 operative by the rough and violent usage to which such doors are subjected in ordinary services.

The invention consists in the matters hereinafter set forth, and more particularly
20 pointed out in the appended claims.

Referring to the drawings, Figure 1 is a view of a car side and doors therefor movably mounted by means embodying features of the invention. Fig. 2 is a view in end
25 elevation of the doors and their supports. Fig. 3 is an enlarged view in vertical section in detail, of a hanger and rail.

In the drawings, 1 indicates a portion of the side wall and roof of a freight car of
30 standard construction, of the double deck type. Track rails 2 are secured over the door openings and in the preferred form are iron pipe held near the ends by bolts 3 in half round sockets 4 of appropriately shaped
35 brackets 5 bolted or otherwise properly secured to the car frame. A car door 6 of conventional construction is supported on each track by a pair of hangers 7 bolted to its upper part. In the preferred form, each
40 hanger is forked or has an upwardly extending pair of arms 8 through which a bolt 9 passes. A tubular bearing consisting of a pair of cylinders 10, whose inner ends abut, that reinforces or acts as an enlargement of
45 the bolt body, is placed thereon and acts as a spacing member to hold the arms at proper intervals apart. They are provided with end thrust flanges 11 on the respective outer ends of the cylinders.

50 The arms 8 extend above the bearing and have inwardly projecting marginal flanges 12 which overhang the bearing flanges which they partially house and retain the cylinders from dropping out in case the bolt either
55 breaks or loses its retaining nut and works out. A roller 13 having a grooved tread

14 adapted to run on the track rail 2, is journaled on each bearing, the hanger arms being so disposed that the roller is substantially central over the door; the outer arm 60 preferably having its inner face flush with the outer face of the door, and the inner arm being inset the thickness of the door. Where the cylinders are omitted or made integral with the bolt the rollers are journaled on the
65 latter and the arms extended sufficiently so that the inner flanges thereon house the rollers and prevent them from leaving the hanger if the bolt breaks or works out. By this arrangement the arms cannot be drawn
70 together by the roller bolt sufficiently to bind the roller, as the bearing prevents this, so that the roller is always free to turn.

While especially adapted for cars, the track and hanger may also be used for any
75 sliding doors.

Obviously, changes in the details of construction may be made without departing from the spirit of the invention and I do not care to limit myself to any particular
80 form or arrangement of parts.

What I claim as my invention is:—

1. Supporting means for a sliding door comprising an overhead track and hangers adapted to be secured to the upper part of a
85 door, each having a pair of upwardly extending arms with inwardly extending portions at their upper ends, a bearing bolt in the arms below the inwardly extending portions a cylindrical bearing on the bolt and
90 a roller engaging the track rotatably mounted on the bearing.

2. Supporting means for a sliding door comprising an overhead track, hangers adapted to be secured to a door, each having
95 a pair of arms with inwardly extending flanges on their upper ends, a bolt passing through the arms below the flanges, a cylindrical bearing secured between the arms on the bolt, and a roller journaled on the bear-
100 ing engaging the track, the arm flanges being adapted to retain the bearing and roller when the latter are released by the bolt.

3. Supporting means for a sliding door
105 comprising an overhead track, hangers adapted to be secured to a door, each having a pair of upwardly extending arms with inwardly extending flanges on the upper ends, a bolt passing through the arms below
110 the ends, a tubular bearing on the bolt consisting of a pair of abutting cylinders each

having an end thrust flange on the outer
end, the bearing forming a spacer between
the arms and the inner flanges on the arms
above the bearing being adapted to retain
5 the bearing when released by the bolt, and
a roller journaled on the bearing engaging
the track.

In testimony whereof I affix my signature
in presence of two witnesses.

DEXTER L. PHIPPS.

Witnesses:

THOS. P. CONVEY,
H. STEELE.