





# UNITED STATES PATENT OFFICE.

HENRY WESNIDGE, OF WORTHINGTON, INDIANA.

## SLIDING-DOOR HANGER.

SPECIFICATION forming part of Letters Patent No. 661,298, dated November 6, 1900.

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*To all whom it may concern:*

Be it known that I, HENRY WESNIDGE, a citizen of the United States, residing at Worthington, in the county of Greene and State of Indiana, have invented certain new and useful Improvements in Sliding-Door Hangers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain new and useful improvements in hangers for sliding doors.

One object of the invention is to provide a construction of hanger mechanism which will effectually prevent strain on the track and carrier under the swinging action of the door and at the same time obviate all liability of the carrier leaving the track when the door is tilted in opening and closing it.

A further object is to make provision for the use of sections of tubing or ordinary gas-piping as a trackway, so as to secure a light, rigid, and durable structure which is capable of being easily mounted and dismounted, made of any required length, and constructed at a minimum cost.

With these and other minor objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is an elevational view of a sliding door mounted in accordance with my invention. Fig. 2 is a vertical section through a portion of the door, the wheeled carrier, and the trackway. Fig. 3 is a cross-section through the tubular track, showing the application of the same to a supporting-bracket. Fig. 4 is a side elevation of the bracket detached. Fig. 5 is a longitudinal sectional view of the meeting ends of two track-sections, showing the manner of connecting same. Fig. 6 is a detail perspective view of the plug employed for connecting the ends of the track-sections.

Referring now more particularly to the drawings, wherein like letters of reference designate corresponding parts throughout the several views, A represents the sliding door, which may be of any approved form, size,

and construction to suit varying conditions of service, B the track arranged in the usual way above the door-opening, and C the wheeled carrier supporting the door and mounted to travel along said track.

The track B is constructed, in accordance with my invention, of one or more cylindric tubes or pipe-sections D, according to the length thereof, said tubes or pipe-sections being arranged end to end in longitudinal alignment and supported at suitable intervals by brackets E. These brackets are of peculiar construction and, in connection with the means employed to connect the ends of the pipe-sections, are designed to support the same in such manner as to permit of the use of ordinary gas-piping, which is deemed preferable, because it is easily procurable and possesses the requisite amount of strength with extreme lightness, durability, and rigidity, and is also capable of being easily handled and put up and taken down with readiness and facility. The brackets are made of malleable metal, and, as shown in the drawings, each comprises in its construction upper and lower arms *e* and *e'*, provided at their rear ends with feet *f*, perforated for the passage of bolts or other fastening devices to secure them in place. These arms are preferably arranged as shown, one having a horizontal and the other an upwardly-inclined position to secure an effective mutual bracing action, and are connected at their forward ends by a short bearing or supporting portion *g*. The lower front end of this bearing or supporting portion is rounded off to form an inclined shoulder *h*, and the upper portion is prolonged or extended to form a prong *i*, which is thickened and preferably made round or cylindrical in form to serve the combined purposes of a bearing-arm and riveting connection. This prong passes through horizontally-alined openings *j*, formed in opposite sides of the pipe-section D, and is made somewhat longer than the diameter of the same, so that the outer or free end thereof may be upset by means of a hammer or like tool and headed, like a rivet, as shown at *k*, to hold the pipe-section against outward displacement. The pipe-section when thus secured is held in engagement with the shoulder *h*, which subserves the purpose of a brace to re-



inforce the prong, and thereby prevent the latter and the pipe from bending or sagging under the weight of the door. The ends of the pipes are connected by plugs *l*, which are  
5 fitted therein and bridge the space between them and are riveted or otherwise connected thereto. These plugs effectually brace the pipes and hold the same in line and by being located internally thereof offer no ob-  
10 struction to the passage of the carrier, so that the latter has a smooth or unbroken surface to roll upon. By employing a track of this construction a considerable saving in weight and cost of material is secured and a light,  
15 durable, and rigid structure provided. Another material advantage arising from the use of a tubular track is that it always presents the same surface for the carrier to roll upon, so that the latter cannot possibly tilt  
20 or be forced out of an upright position in the event of sagging or outward displacement of the walls of the building and force the door out of line.

The carrier *C* is composed of attaching and  
25 wheel-supporting members *M* and *N*, which are united by a bolt or similar fastening *m* and toothed or otherwise constructed to form an adjustable connection at their meeting ends, whereby they may be adjusted to shorten  
30 or lengthen the carrier to raise or lower the door to allow the latter to clear obstructions or effect a tight closure at the bottom in case of sagging of the parts of the door-frame. The lower or attaching part *M* of the carrier  
35 may be of any approved form and secured to the door in any well-known way; but the upper part *N* is preferably bent to form a *U*-shaped housing *n* to receive the wheel or roller *O*, which travels on the track. This wheel is

mounted on a spindle or stub-shafts which 40  
are journaled in the arms of the housing and is grooved to embrace the periphery of the upper surface of the track to prevent the carrier from becoming dislodged by lateral play. The wheel is adapted to rock to a limited ex- 45  
tent on the cylindrical track to obviate strain on the track, carrier, and brackets when the door swings inwardly or outwardly. To prevent the wheel from jumping off the track when the door tilts upward when forced open 50  
or closed, a small roller *p* is mounted upon the carrier and is adapted to bear upon the under side of the track and limit the upward movement of the door and carrier when the latter tilts, as will be readily understood. 55

Having thus described the invention, what is claimed as new is—

1. In a door-hanger, the combination of a track, and a supporting-bracket therefor provided with a riveting connection extending 60  
through the track and a shoulder for the track to bear upon and reinforcing said connection.

2. In a door-hanger, the combination of a track, and a supporting-bracket therefor comprising upper and lower arms provided at 65  
their rear ends with feet and connected at their front ends by a bearing portion, said bearing portion being provided with a shoulder at its free end and a prong projecting outwardly above said shoulder and through the 70  
track, substantially as set forth.

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

HENRY WESNIDGE. [L. S.]

Witnesses:

WILLIAM Z. BARKER,  
FRANCIS M. FAGALY.