

(Model.)

J. D. WILBER.

DOOR HANGER.

No. 279,898.

Patented June 19, 1883.

Fig. 1.

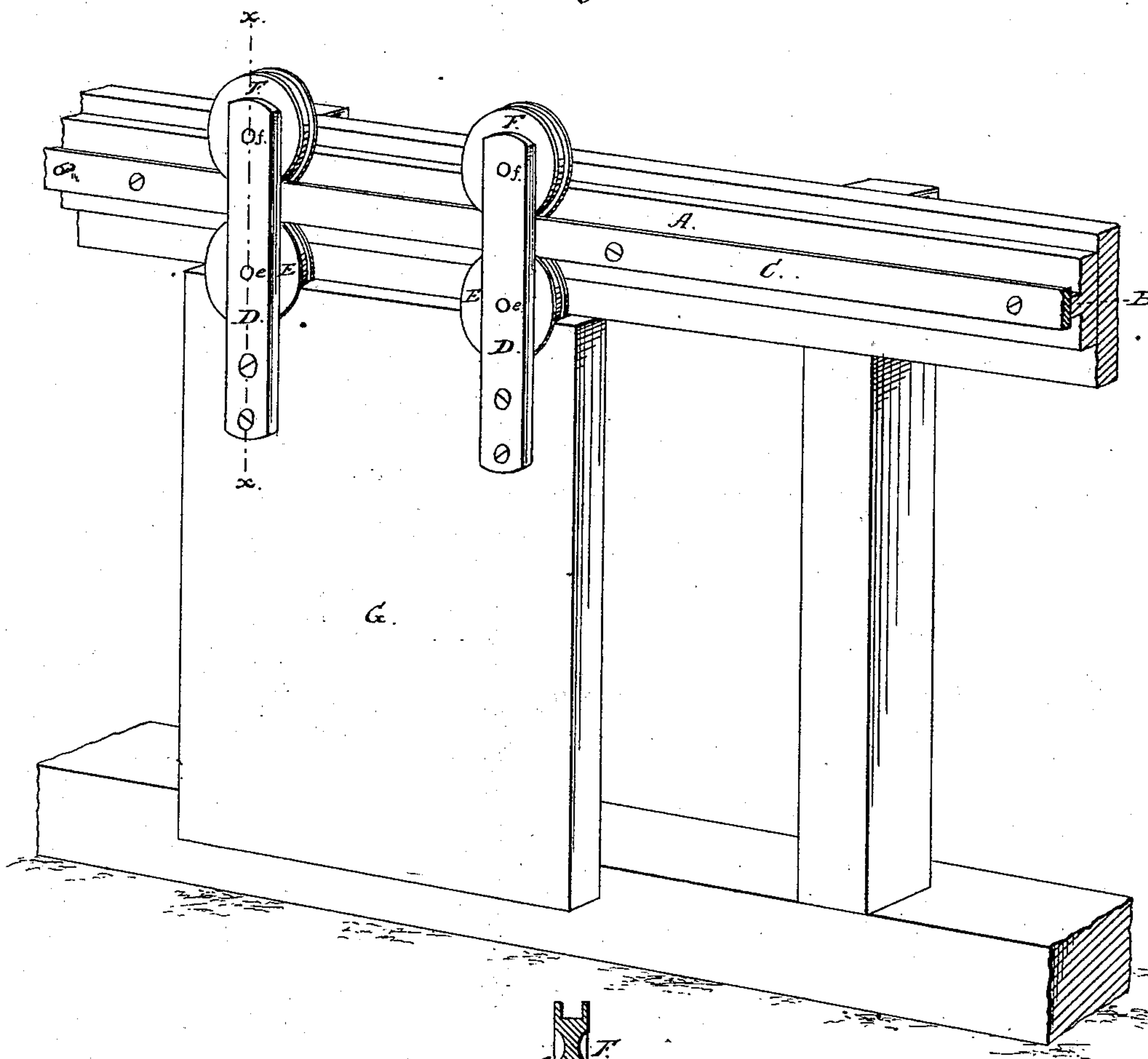
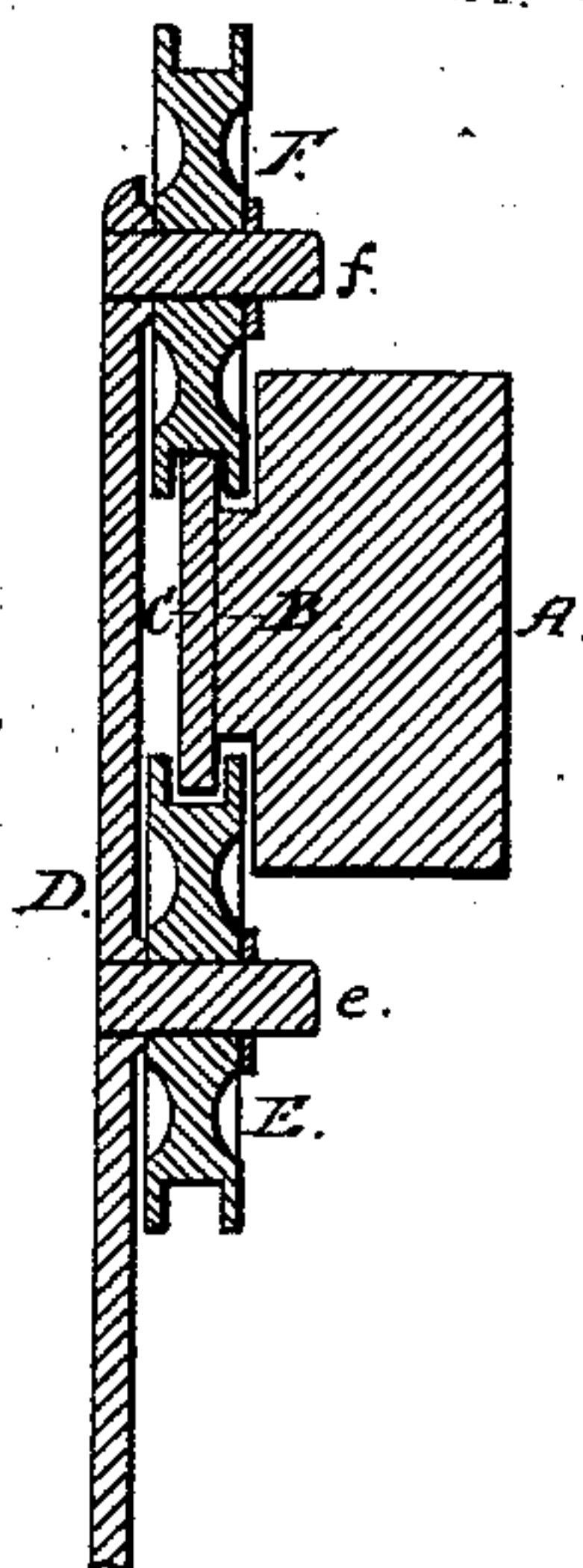


Fig. 2.



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DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 279,898, dated June 19, 1883.

Application filed October 19, 1880. (Model.)

To all whom it may concern:

Be it known that I, JOHN D. WILBER, of Towanda, in the county of Bradford and State of Pennsylvania, have invented a new and useful
5 Improvement in Door-Rollers; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

10 My invention relates to devices used for suspending sliding or rolling doors or gates, and especially to those used for large and heavy doors, such as barn-doors.

15 In all devices of this class at present in use a number of difficulties are encountered—viz., the too rapid wearing of the wheels and of the surfaces on which they run in consequence of friction, the tendency of the door to displacement when it is lifted slightly in
20 sliding it back and forth, and the tendency of the door to bind the wheel by pressing inwardly or outwardly against it.

The object of my invention is to obviate these deficiencies; and to this end it consists
25 in the use of four wheels with square-grooved peripheries, two above and two below, a metal strip on which they run, this strip being secured to the door-jamb above the door, and the axles of the wheels, at a proper distance
30 apart, being secured to hangers at a right angle to their inner face, which in turn are fastened to the upper part of the door, all as more fully hereinafter explained.

35 In the annexed drawings, Figure 1 is a perspective view of a door provided with a hanger and its track constructed according to my invention; and Fig. 2, a vertical section of one of the hangers and track, taken on the line *xx* in Fig. 1.

40 A is a beam of wood secured to the wall above the door G, and having a projecting lip, B, also of wood, extending from its center along its entire length.

45 To lip B is centrally secured the metal strip C by means of screws or bolts passing into or through beam A. This metal strip is of a sufficient width to project above and below lip B a distance equal to the depth of the grooves in the peripheries of the wheels, presently to
50 be described.

The strip C forms a track for the wheels to run on. It is about one and one-half inch wide by one-fourth inch thick. It of course extends to some distance beyond the side of the door, so that the latter may be slid out of the
55 way, though in the drawings a part is broken off. A projection is made at each end of the track to prevent the wheels from sliding off.

The two hangers D D are secured to the upper part of the door and project above it. For
60 convenience I will describe but one of these hangers with its attachment, the other being similar in all respects. It is an oblong strip of iron, having secured to it, at the proper distance apart and at right angle to said face, the
65 two metal axles *ef*, which form bearings for the wheels E F. These wheels are of equal diameter and have their peripheries square-grooved, and when the wheels are properly mounted above and below the strip C, these
70 grooves are of such a width and depth as to fit over and inclose the edges of said strip projecting beyond lip B. The depth of this lip is equal to or a little more than the width of that
75 part of the wheel which travels between strip C and the part of beam A adjacent to said lip.

In the top of the door are cut two semicircular notches to make room for the lower wheels. The upper wheels rest on the strip C and support the door, and ordinarily the
80 door rolls only on these wheels. The depth of the grooves prevents the wheels from being displaced, and the wheels run easily on the track; but in sliding a heavy door there is always an upward lift given it. In the door-
85 rollers now in use this tends to lift the door from the track; but in my invention the result is that the lower wheels are pressed against the track, and the door rolls on them instead of on the upper ones.

90 The advantages of my invention are various. The hangers being rigid and the wheels deeply grooved, there can be no lateral displacement of the door, binding the wheels and causing an undue amount of friction, as is often the
95 case with other rollers.

The metal strip forms a substantial and rigid support easily put up. An upward lift in rolling doors of this class is almost inevitable, and in other rollers this produces great disad-
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vantages; but in my invention the pressure is merely transferred from the upper to the lower rollers, so that no inconvenience is felt.

Doors on which my device is used admit of
5 being fitted much more closely than is usually the case.

What I claim is—

In combination, beam A, lip B, cast with said beam, metal strip C, and hangers D, provided with wheels E F, with square-grooved

peripheries adapted to inclose the projecting edges of strip C, upon which they travel above and below, substantially as described, shown, and for the purpose set forth.

This specification signed and witnessed this 15
16th day of October, 1880.

JOHN D. WILBER.

Witnesses:

M. W. ROSS,

L. F. GARDNER.