

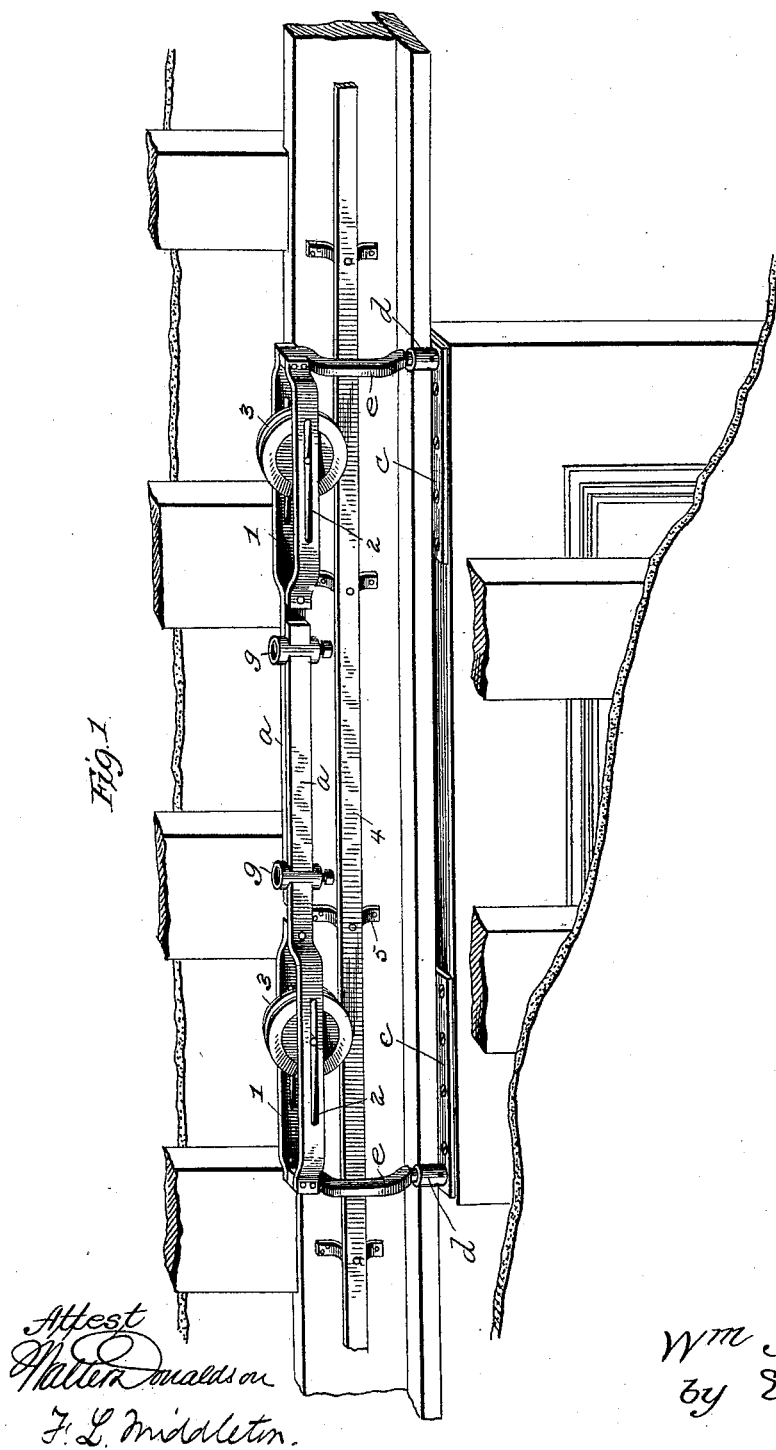
(No Model.)

2 Sheets—Sheet 1.

W. J. LANE.
DOOR HANGER.

No. 422,306.

Patented Feb. 25, 1890.



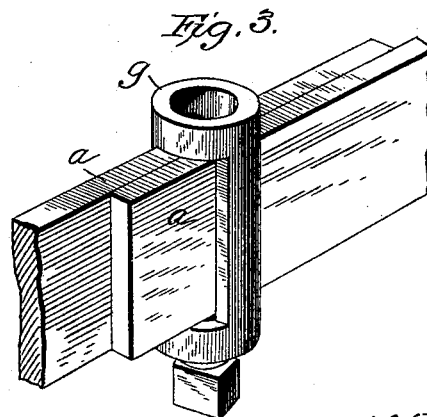
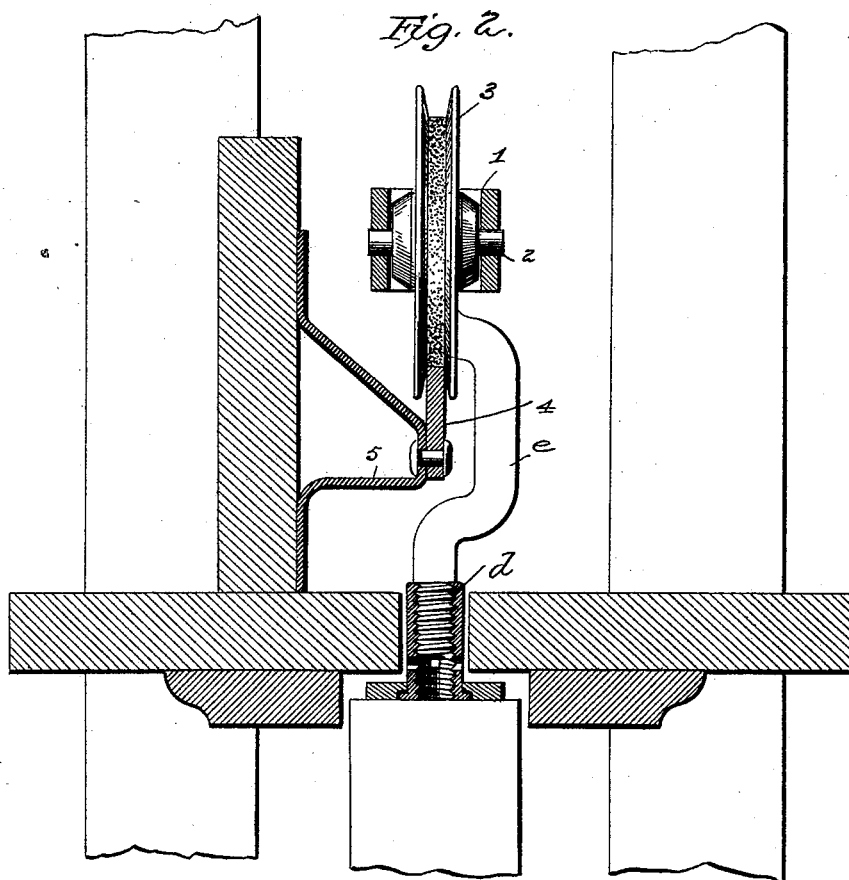
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Walter Donaldson
J. L. Middleton

Inventor
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UNITED STATES PATENT OFFICE.

WILLIAM J. LANE, OF POUGHKEEPSIE, NEW YORK.

DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 422,306, dated February 25, 1890.

Application filed November 12, 1889. Serial No. 329,988. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM J. LANE, of Poughkeepsie, in the county of Dutchess and State of New York, have invented a new and useful Improvement in Door-Hangers; and I do hereby declare that the following is a full, clear, and exact description of the same.

It is the object of my present invention to provide a hanger for doors, and while I have shown the invention as applied to house-doors, to which use it is particularly adapted, I desire it to be understood that I do not limit myself to this specific application, as it may be applied to barn-doors and other like situations with good effect.

I have aimed by my invention to produce a hanger composed of few parts and of economical construction, one capable of vertical adjustment and adjustment longitudinally, so as to adapt it to doors of different widths, a device adapted to run on a single track. Further, to keep the parts in perfect alignment by connecting the ways at each end, and also to prevent lateral oscillation of the door by providing ways or bearings for the journals of the sheaves above and below the same. I have also improved the details of construction.

In the accompanying drawings, Figure 1 is a side elevation of the hanger shown as applied to a door, part of the door being shown and a portion of the surrounding frame-work. Fig. 2 is a vertical section through the door, track, and bracket, with some of the parts in side elevation. Fig. 3 is a detail view of the block for holding the parts of the hanger together.

In the drawings, Fig. 2 represents the relative position of the door, the track, and the hanger, the door being supported from its upper end and moving between two rows of studs arranged in the ordinary manner.

The hanger proper is composed of two parts, each provided with a way and a sheave, and these two parts have horizontal extensions *a*, which overlap, as shown in Fig. 1, and are held together by blocks *g*, so as to be capable of adjustment to increase or diminish the distance between the ways, according to the width of the door to which the hanger is to be applied. The extensions *a* are preferably of flat metal and are passed through openings

in the blocks *g*, corresponding in size to the height and width of the two extensions as they lie side by side. These blocks have a screw-threaded opening through their lower end, in which is inserted a set-screw, which, when the ways have been properly adjusted, are turned up until their ends bear against the lower edges of the extensions, thus holding the block and the extensions clamped together.

Instead of the set-screws passing through the bottom of the block they may pass through the upper ends. It will also be understood that while the holding-block described is the preferred way of holding the extensions together other means may be provided for clamping the parts together, and at the same time allowing for their longitudinal adjustment. Each of the extensions terminates on its outer end in a loop, which embraces a sheave, ways being provided in the loop by horizontal slots formed in the walls thereof, and in these slots the journals of the sheaves are adapted to run. These slots provide practically a rigid bearing for the journals of the sheaves, and thus prevent the tendency to lateral oscillation which is seen in those forms of hangers where the journals have a bearing upon one side only, though this latter arrangement may be used.

By connecting the ways together by the intermediate extension the hanger is practically rigid, and when the parts thereof have been properly adjusted and are found to be true there is no liability of irregularity in the running of the sheaves, and no danger of the way at one end getting out of alignment with the way at the opposite end, which is very often the case when the ways of each end of the door are independent of each other.

Connection is made to the door by means of the plate *c*, which is securely fastened to the upper edge of the door, one at each end. A screw-threaded sleeve *d* has a connection with the plate by means of its flanged lower end fitting a counterbore in the under face of the plate while its body portion passes up through an opening in the said plate, thus making a close firm bearing, which, aided by the proximity of the rail, prevents undue lateral movement and renders unnecessary means—such as a roller—for lateral bearing.

This sleeve is internally screw-threaded and engages with the threaded lower end of a depending arm *e*, which is bent at its central portion to pass around the track, while the upper end is securely fastened by rivets or otherwise between the ends of the bars forming the ways. The sleeve has a series of holes on its lower end for the insertion of a pin for purposes of adjustment; but any other means may be provided for turning the sleeve to adjust the hanger vertically. If desired, the sleeve may be upon the depending arm and a screw-threaded bolt project up from the holding-plate.

It will be seen that by providing the ways in the form of a loop with the sheaves inclosed that the hanger is adapted to a single track, thus requiring but a single wheel at each end and allowing for the use of a cheap form of track, which may consist, as shown in Fig. 2, of a flat bar riveted to track-brackets suitably secured to a board extending in the direction of the movement of the hanger.

I claim as my invention—

1. A door-hanger consisting of ways at each end, formed by a loop encircling a single sheave, a depending arm secured between the

bars forming the loop, one of the bars of each loop having an overlapping extension *a*, and means for securing these extensions adjustably together, substantially as described.

2. In a door-hanger, ways at each end thereof, overlapping extensions, one from each way, and a holding-block for said extensions, with means for clamping said extensions and block together, substantially as described.

3. In a door-hanger, a plate for attachment to the top of the door having a counterbored opening, a threaded sleeve, and a threaded shank adapted thereto, one of said parts having a flanged end and adapted to the counterbored opening, the said sleeve and shank forming an adjustable connection between the hanger and the door, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

WILLIAM J. LANE.

Witnesses:

GEO. H. SHERMAN,
E. M. MEEKS.