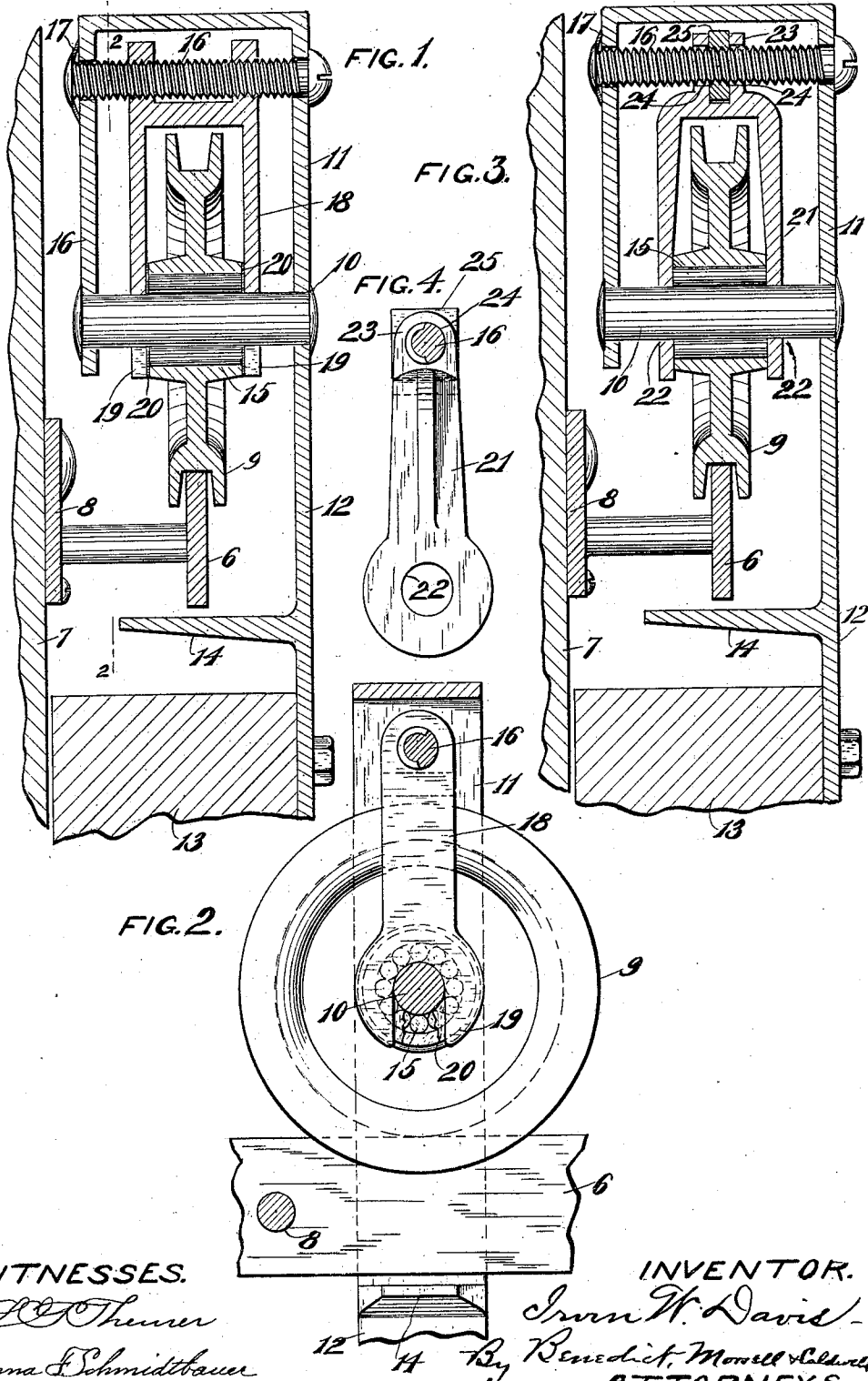


I. W. DAVIS.
DOOR HANGER.
APPLICATION FILED APR. 23, 1909.

982,257.

Patented Jan. 24, 1911.



WITNESSES.

L. E. Thuermer
Anna E. Schmidbauer

INVENTOR.

I. W. Davis
By *Benedict, Monell & Clevell*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

IRVIN W. DAVIS, OF MILWAUKEE, WISCONSIN.

DOOR-HANGER.

982,257.

Specification of Letters Patent.

Patented Jan. 24, 1911.

Application filed April 23, 1909. Serial No. 491,781.

To all whom it may concern:

Be it known that I, IRVIN W. DAVIS, residing in Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented new and useful Improvements in Door-Hangers, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

This invention relates to improvements in door hangers for barns and other outside doors and more particularly to means for adjusting the position of the wheel to compensate for different thicknesses of doors.

The principal object of the invention is to provide a door hanger which is simple in construction and inexpensive to manufacture and contains but a minimum number of parts.

A further object of the invention is to provide a door hanger of the character described which may be adjusted to prevent the door from binding or rubbing against the frame by means of an ordinary screw driver without disconnecting or removing the door or any parts of the hanger.

With the above, and other objects in view, the invention consists of the door hanger and its parts and combinations, and all equivalents thereof.

In the accompanying drawing, in which the same reference characters indicate the same parts in all of the views; Figure 1 is a vertical central section view of the improved hanger shown attached to a fragment of a door and a frame, the latter part also being in section; Fig. 2 is a section view of the hanger taken on line 2—2 of Fig. 1; Fig. 3 is a vertical central section view of a modified form of hanger; and Fig. 4 is a detail of the wheel guide and adjusting screw shown in Fig. 3, the screw being in section.

Referring to the drawing the numeral 6 indicates the track which is secured to the wall 7 of a building by means of a bracket 8. A grooved wheel 9 is adapted to rest and travel on said track and the ends of an axle 10 of said wheel are rigidly fastened to a hanger frame 11. The hanger frame has a depending arm 12 connected to a door 13 and the depending arm is provided with a stop or guard 14 cast integral therewith which projects beneath the track and is positioned to prevent the wheel from "jumping" the track. The grooved wheel is provided with roller bearings 15 interposed be-

tween the wheel hub and the axle to reduce friction to a minimum.

The upper portion of the hanger frame is provided with an adjusting screw 16 extending transversely across from one portion of the frame to the other and the end of the screw is upset over a spring washer 17 so that said screw is permitted to turn freely in the frame but is prevented from moving endwise by the head of the screw on one end and the washer on the opposite end.

A forked guide 18 having a wide threaded engagement with the screw and depending therefrom on both sides of the grooved wheel and provided with bifurcated lower ends 19 which straddle the axle is the means for adjusting the frame to compensate for different thicknesses of doors by moving said doors farther from or nearer to the door frame of the building.

Washers 20 surrounding the axle are interposed between the lower bifurcated ends of the forked guide and the opposite faces of the hub of the grooved wheel to hold the roller bearings in place and to reduce friction. The wide threaded engagement of the forked guide with the adjusting screw serves to prevent said guide from being tilted by lateral movement of the grooved pulley.

In the modified form shown in Figs. 3 and 4 the lower portions of the forked guide 21 are provided with openings 22 through which the axle 10 is inserted before it is riveted to the hanger frame. The ears 23 formed on the upper end of the forked guide are also provided with openings 24 which in this form are positioned closer together to form a recess to accommodate a nut 25 threaded on the adjusting screw. The adjusting screw passes loosely through the openings in the ears and the nut threaded thereon is prevented from turning by striking against the surface of the guide forming the lower portion of the recess.

The hanger is adjusted by turning the adjusting screw with an ordinary screw driver, which movement will cause the hanger frame and axle to move with relation to the wheel and track when suspended from a track, or when adjusted before being placed on a track the wheel will be caused to move with relation to the axle and hanger frame thereby providing for a greater or less distance between the depending arm of the hanger and the door frame whereby the hanger is adapted to compensate for doors of varying

thicknesses. When the hanger is properly adjusted the parts will stay in adjusted position without the necessity of providing jam nuts or other locking means as there is no tendency of the screw turning.

From the foregoing description it will be seen that a door hanger is provided which is very simple in construction and operation and is inexpensive to manufacture.

10 What I claim as my invention is:

1. A door hanger adapted to be supported from a track, comprising a hanger frame having a depending arm adapted to be connected to a door, and provided with an axle longitudinally fixed with relation to the hanger frame, a wheel mounted directly on said axle and adapted to be supported on the track, a member for adjusting the frame and axle laterally with relation to the wheel, and a screw connected to said member at a point outside of the wheel for moving said member.

2. A door hanger adapted to be supported from a track, comprising a hanger frame having a depending arm adapted to be connected to a door and provided with an axle longitudinally fixed with relation to the hanger frame, a wheel mounted directly on said axle and adapted to be supported on

the track, a forked member straddling said wheel for adjusting the frame and axle laterally with relation to the wheel, and a screw carried by said hanger frame and having a threaded connection with the forked member for moving said member.

3. A door hanger adapted to be supported from a track, comprising a hanger frame having a depending arm adapted to be connected to a door and provided with an axle longitudinally fixed with relation to the hanger frame, a grooved wheel loosely mounted on the axle and adapted to be supported on the track, a forked member straddling said wheel and with its lower portions adjacent to the faces of the hub of said wheel and partly surrounding the axle, a screw extending through openings provided in two portions of the hanger frame and having a threaded connection with the forked member for moving said member, and a spring washer interposed between one end of the screw and the hanger frame.

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

IRVIN W. DAVIS.

Witnesses:

C. H. KEENEY,
ANNA F. SCHMIDTBAUER.