(No Model.)

R. G. DAVISON.

DOOR HANGER.

No. 517,213. Patented Mar. 27, 1894.

Fig. 1

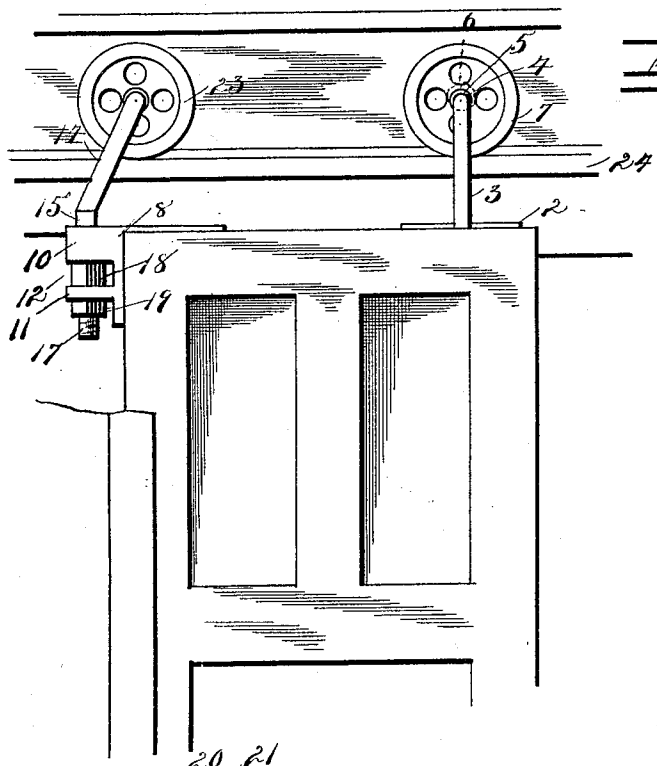


Fig. 2

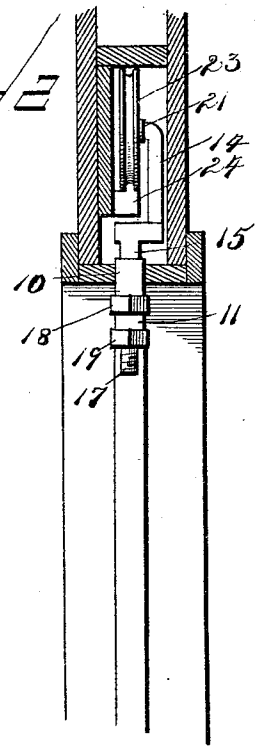


Fig. 3

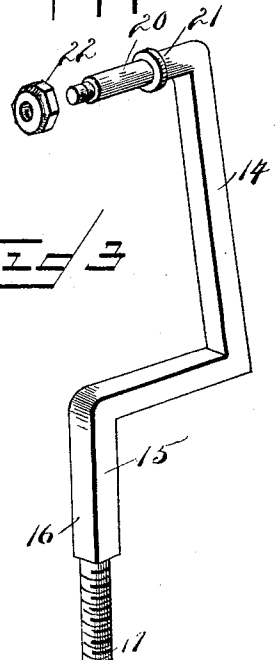
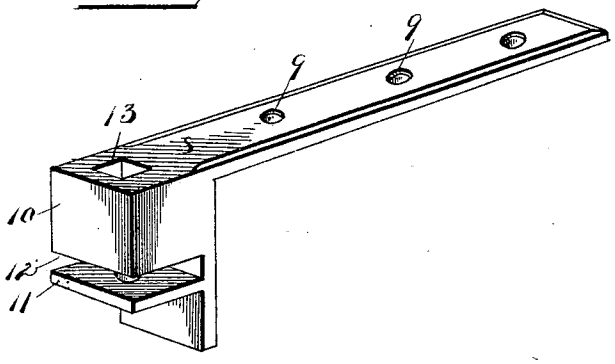


Fig. 4



Inventor

Robert G. Davison

Witnesses

W. E. Schmeider

W. S. Duvall.

By his Attorneys.

C. A. Snow & Co.

THE NATIONAL LITHOGRAPHING COMPANY,
WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ROBERT G. DAVISON, OF ROCHESTER, NEW YORK.

DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 517,213, dated March 27, 1894.

Application filed July 8, 1893. Serial No. 479,929. (No model.)

To all whom it may concern:

Be it known that I, ROBERT G. DAVISON, a citizen of the United States, residing at Rochester, in the county of Monroe and State of New York, have invented a new and useful Door-Hanger, of which the following is a specification.

My invention relates to improvements in hangers for sliding-doors, the objects in view being to construct a hanger that shall be cheap and simple as well as durable; that is readily applicable to all sliding doors; is so constructed as to prevent the same from swerving and rubbing; that is capable of being readily adjusted; that is, raised or lowered; which shall require but a minimum length of track for operation; and shall not require a pocket or off-set in the side for the accommodation of its bearings.

Other objects and advantages of the invention will appear in the following description and the novel features thereof will be particularly pointed out in the claims.

Referring to the drawings—Figure 1 is an elevation of the upper portion of a sliding-door having a hanger-support in accordance with my invention. Fig. 2 is a vertical sectional view of the door-support and the track, the door being shown in end elevation. Fig. 3 is a detail in perspective of the rear hanger-arm. Fig. 4 is a similar view of the hanger-plate or bracket.

Like numerals of reference indicate like parts in all the figures of the drawings.

The door may, of course, be of any desired design or construction, and has secured to its advance or front end upon its upper side or edge an oblong plate 2 through whose center at one side there extends a vertical hanger-arm 3, the upper end of which is laterally disposed forming a bearing 4, the center of which is directly above the center of the door, and is provided at its inner end with a bearing-collar 5 and at its outer end with a nut 6. Upon this bearing 4 there is mounted for revolution a grooved wheel 7.

Over the rear corner of the door there is mounted an L-shaped metal plate 8, the same having screw threads 9 through which screws may be passed into the upper and rear edges of the door whereby the plate is secured firmly in position. The rear side of the plate is provided with a pair of vertically opposite lugs 10 and 11 between which a space 12 is formed, the said plate extending below the lowermost lug, as shown. The lugs 10 and 11 are provided with vertically opposite bores, the upper one of which is rectangular and indicated as 13. The arm for supporting the rear wheel consists of an inclined portion 14 and a vertical shank 15, the said shank between the inclined portion 14 and its lower end being provided with a rectangular portion 16 which fits the rectangular bore 13 of the upper projection 10. Below this point the arm is screw threaded as at 17. Nuts 18 and 19 are located at the upper and lower sides of the lowermost lug 11, the first mentioned nut being located in the space 12. These nuts are threaded upon the threaded portion 17 of the shank of the arm, and through a manipulation of said nuts it will be observed that the arm, as a whole, may be raised and lowered. The inclined portion 14 is off-set from the shank of the arm and at its upper end is provided with an inwardly-disposed bearing or axle 20, the same having a collar 21 at one side and a nut 22 at the other end. The center of the axle is directly over the center of the door in direct alignment with the center of the front hanger-arm. Upon this axle is mounted a rear wheel 23, the same, like the wheel 7, being grooved.

24 designates a convex track formed of hard wood and secured to the timber and upon which are designed to ride the wheels described.

It will be seen that by forming the axles or bearings integrally with the hanger arms I avoid the necessity of forming two bearings for each axle, and hence the usual yoke, so that I avoid the expense of the yoke, and furthermore, the necessity of constructing a pocket in which the said yoke may ride. By inclining the rear hanger arm the wheel is brought wholly within the vertical plane of the rear edge of the door and hence cannot come in contact with obstructing timbers that may lie in the path of the wheel in rear of the door. Furthermore, I avoid the necessity of increasing the length of the track for the accommodation of the wheel.

By a loosening of the lower nut 19 it will be seen that the nut 18 may be rotated so as to raise or lower the hanger arm, and thus the

rear end of the door adjusted vertically to a proper degree. When such adjustment has been secured the nut 19 is retightened or run up upon the lower end of the arm and serves to clamp the parts in position. By reason of the rectangular portion of the arm fitting in the rectangular bore of the plate 8, it will be seen that any swerving and consequent rubbing of the door is clearly avoided.

It is to be understood that changes in the form, proportion, and the minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of this invention.

Having described my invention, what I claim is—

1. In a door hanger, the rear hanger consisting of the plate 8 adapted to be applied and secured to the upper corner of a door, and the arm for supporting the wheel comprising the inclined portion 14 and a vertical shank 15; the latter being secured in position to the plate by means substantially as shown, and the inclined portion 14 having its upper end bent inward and forming an integral bearing or axle 20 for the wheel, substantially as specified.

2. The combination with a track, a door, a front hanger and its wheel, of an inverted L-shaped plate mounted on the rear corner of the door and provided with vertically opposite bored lugs arranged at its rear side, a hanger arm mounted in the bores of the lugs and having its lower end threaded, nuts arranged on the threaded portion below the lower lug and between the two lugs, an axle extending laterally from the upper end of the arm, and a wheel mounted on said axle, substantially as specified.

3. In a door hanger, the rear hanger arm secured to the edge of the door and having its upper end inclined inwardly over the upper end of the door, and the wheel mounted on an axle of said arm and adapted to lie wholly within the vertical plane of the rear edge of the door, substantially as specified.

In testimony that I claim the foregoing as my own I have here affixed my signature in the presence of two witnesses

ROBERT G. DAVISON.

Witnesses:
MERTON E. LEWIS,
EDWARD H. STICKELS.