(No Model.)

A. L. SCRANTON.

DOOR HANGER.

No. 259,220. Patented June 6, 1882.

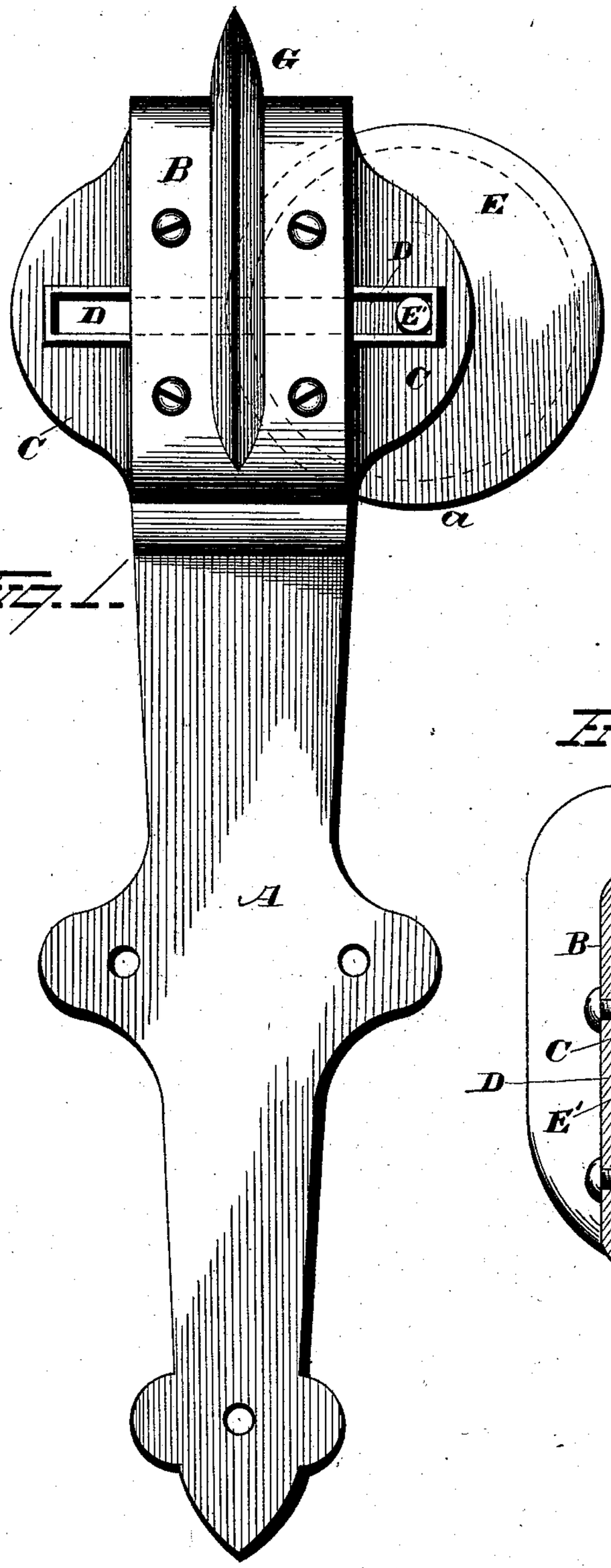


Fig. 1.

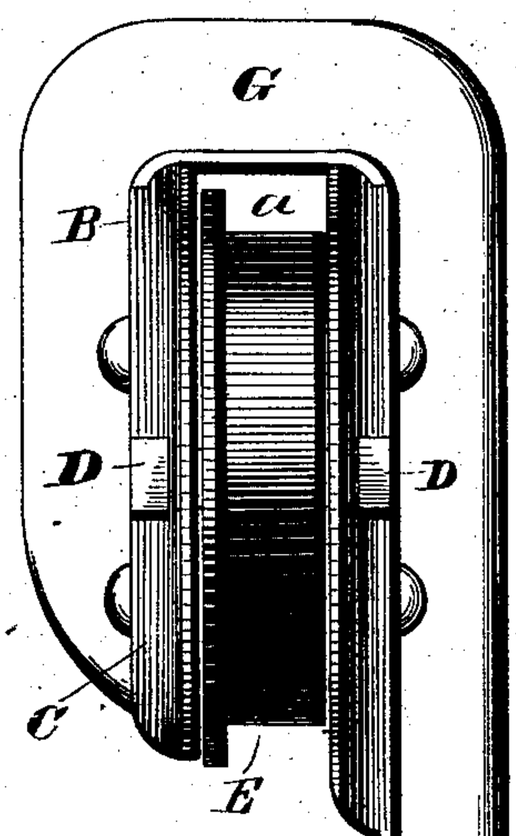
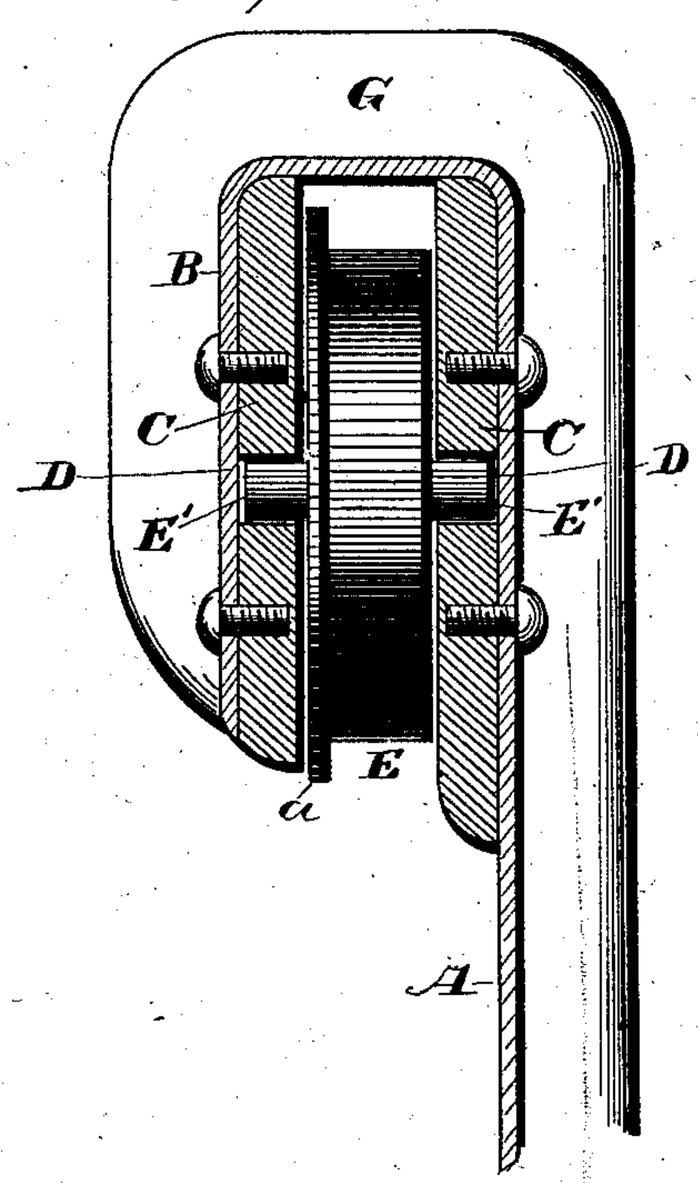


Fig. 2.

Fig. 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

ALFRED L. SCRANTON, OF ROCHELLE, ILLINOIS, ASSIGNOR OF ONE-HALF TO A. HERBERT SCRANTON AND ADA S. JONES, BOTH OF SAME PLACE.

DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 259,220, dated June 6, 1882.

Application filed April 13, 1882. (No model.)

To all whom it may concern:

Be it known that I, ALFRED L. SCRANTON, of Rochelle, in the county of Ogle and State of Illinois, have invented certain new and useful Improvements in 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My invention relates to an improvement in door-hangers, the object of the same being to provide a cheap, strong, and durable device that can be attached to any size door and adapted by its peculiar construction to run easily with comparatively a small amount of friction; and with these ends in view my invention consists in certain details in construction and combinations of parts, as will be more fully explained, and pointed out in the claims.

In the accompanying drawings, Figure 1 is a front elevation of my improved device. Fig. 2 is a side view thereof, and Fig. 3 is a vertical longitudinal sectional view of the same.

A represents the hanger, having screw-holes therein for its attachment to a door, and provided at its upper end with the curved portion B, beneath which the removable bearings C are secured by screws or otherwise. These bearings correspond in length to the width of the door, and each bearing is provided with an oblong slot, D, in which the spindle E′ of the roller E move, and which also corresponds to the width of the door and the size of the roller E and its spindle E′. This hanger A can be made of any suitable metal, and when shaped as shown in the drawings is preferably provided with a strengthening flange or rib, G, running preferably throughout the entire length of the same on the outer face of the hanger. This flange enables the hanger to be made comparatively light in structure, and at the same time possess the requisite strength to withstand all the strain brought to bear thereon. Those portions of the hanger A to which the movable bearing C is secured can be of increased size to afford additional bearing for the pieces C; or they can be grooved, either bevel or plain, for the reception of the said pieces, and thereby enable their inner faces to rest flush, or nearly flush, with the inner adjacent faces of the hanger A. The removable pieces C can be of any suitable shape and thickness, and the slots D can extend all or a part of the way through, as desired. As before stated, the length of these slots is in proportion to the width of the door, or the distance the door has to travel. To determine the length of the slots D in any particular case, it is necessary to notice that the distance traveled by the door in one revolution of the roller E is equal to the circumference of the said roller plus the circumference of the spindle E′. The distance the door has to travel divided by the sum of their two circumferences will determine the number of revolutions of the wheel and spindle, which number multiplied by the circumference of the spindle E′ determines the length of the slot. To this, however, must be added the diameter of the spindle E′, and the sum will be the total length of the slot D. These slots D rest in the same horizontal plane, and the spindle E′ of the roller E rests and moves therein. In the present instance I have shown a roller with one flange, *a*, but it is evident that another one can be placed on the opposite side thereof to assist in holding the roller on the track.

The construction of my improved roller is not limited to the form of hanger shown, which is merely a barn-door hanger, but can be changed to suit any construction or style of door, and can be so arranged that no portion will be exposed to view.

The hangers A are adapted to receive any size bearing-pieces C, and hence it is only necessary to have one size of hanger.

My improved construction of hangers is simple, can be manufactured at a comparatively small cost, and since it acts upon the principle of a roller instead of a wheel the amount of resistance to overcome is comparatively small.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. As a new article of manufacture, a door-

hanger provided with bearing-pieces removably secured to the inner sides of the hanger, and having oblong slots therein, and a roller provided with spindles adapted to bear in said slots, substantially as set forth.

2. The combination, with a curved door-hanger, of bearing-pieces provided with oblong slots and adapted to be removably secured by screws between the opposite vertical portions of the hanger, and a roller whose spindles are adapted to bear in the slots of said bearing-pieces, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand.

ALFRED L. SCRANTON.

Witnesses:
J. O. McCONOUGHY,
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