No. 610,409. Patented Sept. 6, 1898.

E. Y. MOORE.

DOOR HANGER.

(Application filed Apr. 20, 1898.)

(No Model.)

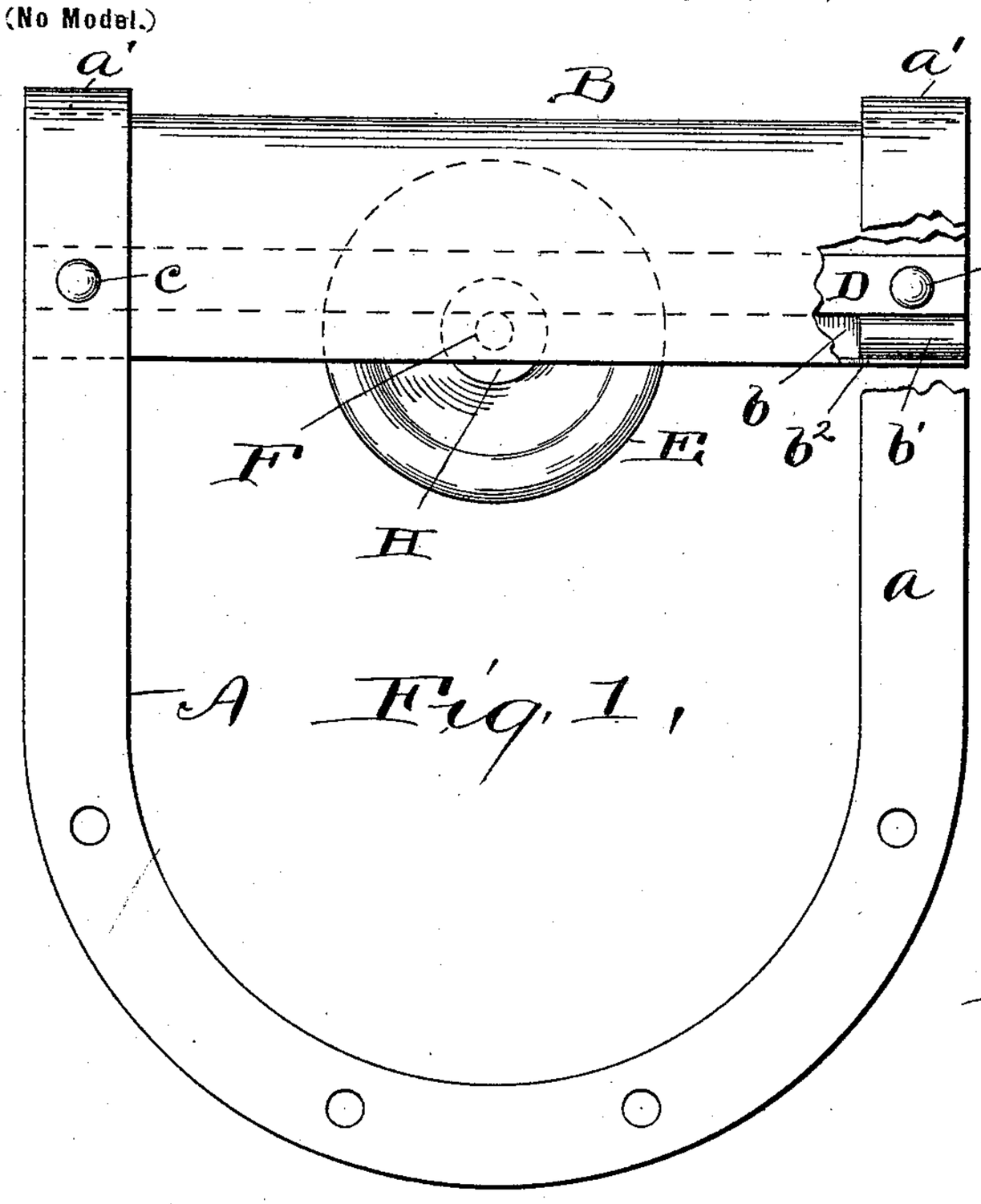

Fig. 1,

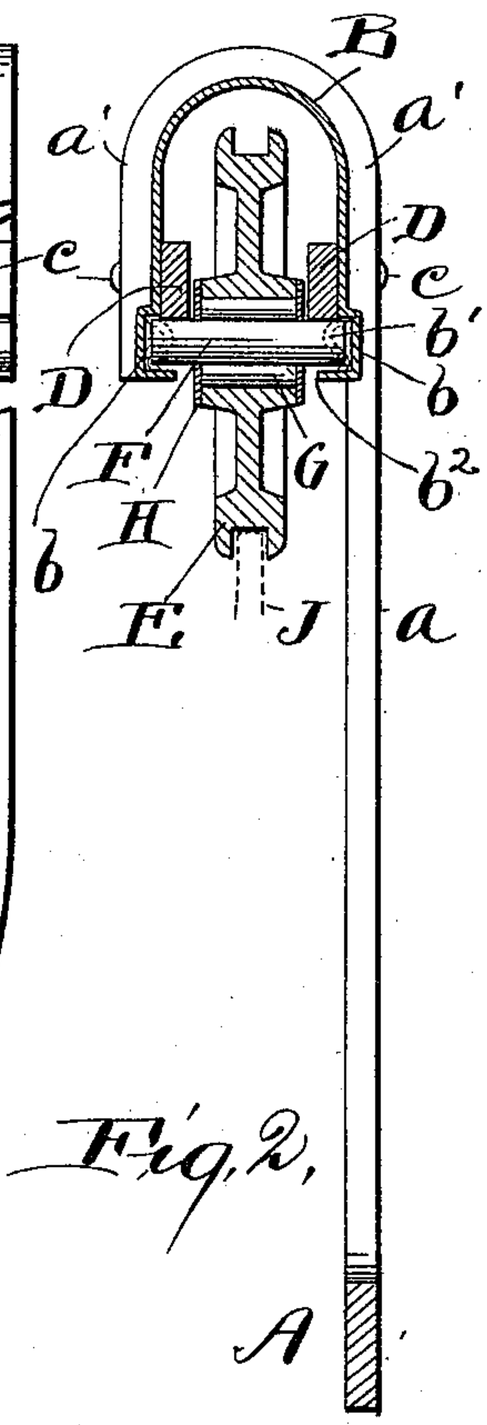

Fig. 2,

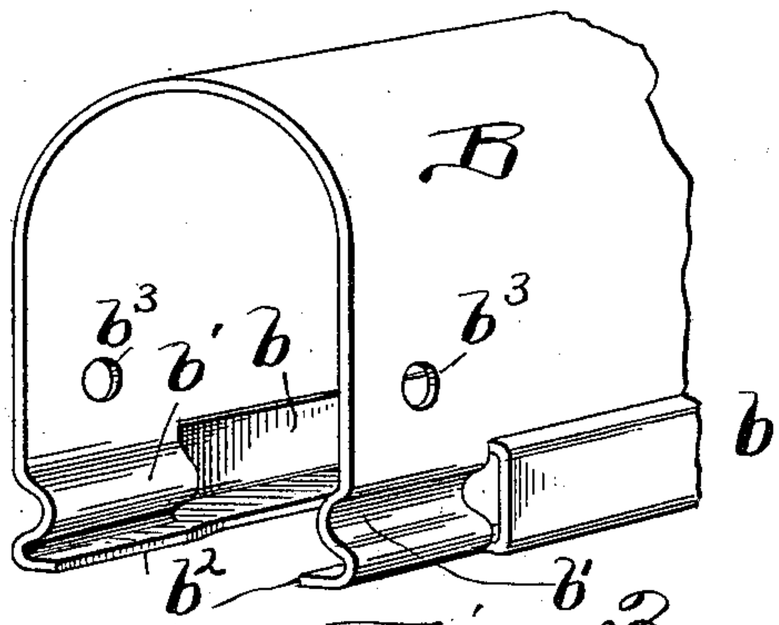

Fig. 3,

Witnesses,
E. B. Gilchrist
Philip E. Knowlton.

Inventor:
Edward Y. Moore,
By his Attorneys,
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UNITED STATES PATENT OFFICE.

EDWARD Y. MOORE, OF CLEVELAND, OHIO, ASSIGNOR TO THE MOORE MANUFACTURING COMPANY, OF SAME PLACE.

DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 610,409, dated September 6, 1898.

Application filed April 20, 1898. Serial No. 678,268. (No model.)

To all whom it may concern:

Be it known that I, EDWARD Y. MOORE, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Door-Hangers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

My invention relates to that class of door-hangers in which a wheel is mounted upon a loose axle the ends of which are adapted to roll along suitable bars.

My invention may be said to be an improvement upon the hanger shown and described in Patent No. 585,276. In that patent is shown a hanger in which the wheel is mounted upon a set of rollers which lie around a loose pin or axle, and in order that the axle may at all times bear upon the full surface of the rider-bars and at the same time have play at its ends those rider-bars are set in from the cover, which limits the play of the axle, while additional stops are provided at the ends of the hanger to prevent the wheel passing out of the same.

The object of the present invention is to obtain the advantages of such prior construction while obviating the necessity of so insetting the rider-bars and of employing such additional stops.

The invention may be said to consist in the combinations of parts hereinafter described and claimed.

The invention also consists in the cover itself, constructed as shown and described, whereby I am enabled to obtain the desired results referred to.

In the drawings, Figure 1 is a side elevation of the hanger complete, a portion of the cover and hanger-frame at one end being broken away to show the parts behind them. Fig. 2 is a vertical section of the hanger through the center of the wheel. Fig. 3 is a perspective view of a portion of the cover.

Referring to the parts by letters, A represents the hanger-frame, which is of the customary U shape shown, thus having the two parallel arms *a*. The upper ends of these arms are bent over into a yoke in the form of an arch or inverted U transverse to the plane of the frame, as is shown at *a'* in Fig. 2.

B represents the cover, which is made of sheet metal and is in the general form of an inverted trough. This cover is placed within the yokes *a'* of the frame and is secured thereto by suitable bolts or rivets C. Within the cover and lying closely against it are the two parallel rider-bars D. These rider-bars are held in place by the aforesaid rivets C, which pass from the rider-bars through holes b^3 in the cover and through the sides of the yoke, thus binding the frame, cover, and rider-bars tightly together.

E represents the wheel, which is loosely journaled on the axle F, preferably through the intervention of suitable rollers G, which may be held in place by washers H. The wheel is adapted to bear upon some suitable track, as J, and thus the axle F will bear on the under side of the rider-bars and may roll along the bars as the door starts to move and will also allow the wheel to be revolved upon it.

In order to allow the desired loose play of the axle and at the same time limit that play, the cover opposite the ends of the axle between the arms of the frame is bent outward in the form of a channel, as shown at *b*. This allows the axle to loosely cover the full bearing-surface of the rider-bars and at the same time preventing its displacement. To prevent the wheel passing entirely out of the hanger at the end of its travel, I bend the cover opposite the ends of the channels *b* inward in the form of a bead, as shown at *b'*. This bead stands in the path of the axle at the end of its desired travel, thus forming a very simple and effective stop. A suitable flange b^2 is formed at the lower edge of the cover to maintain the wheel and axle in place when the hanger is not in use or when the downward strain of the door is removed. The outward bends or channels *b* terminate at the edges of the yokes *a'*, and thus not only guide the cover into proper place in assembling the hanger, but also increase the rigidity of the structure.

It will thus be seen that the rigid portion

of the hanger need consist only of a frame, a cover, two rider-bars, and four rivets.

Having described my invention, I claim—

In a door-hanger, a wheel and axle combined with a sheet-metal cover of an inverted-trough shape and bent near its bottom edges into the form of a channel, the intermediate portion of which is outward and receives the ends of the axle, but the end portions of which are separated by a transverse cut from said outward bend and are bent inward, whereby the rigidity of the cover is increased, and stops are formed by the inward bend to limit the travel of the wheel-axle, substantially as described.

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

EDWARD Y. MOORE.

Witnesses:
PHILIP E. KNOWLTON,
ALBERT H. BATES.