

No. 606,808.

Patented July 5, 1898.

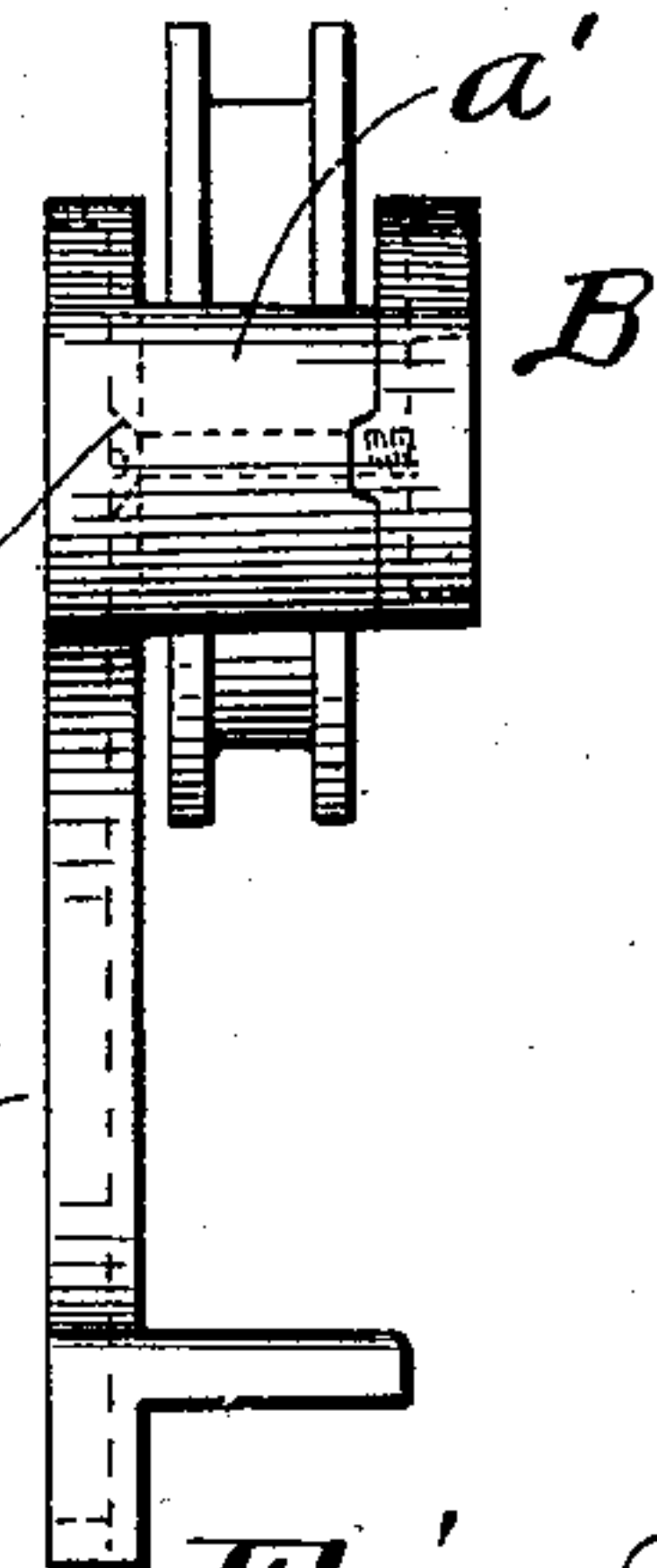
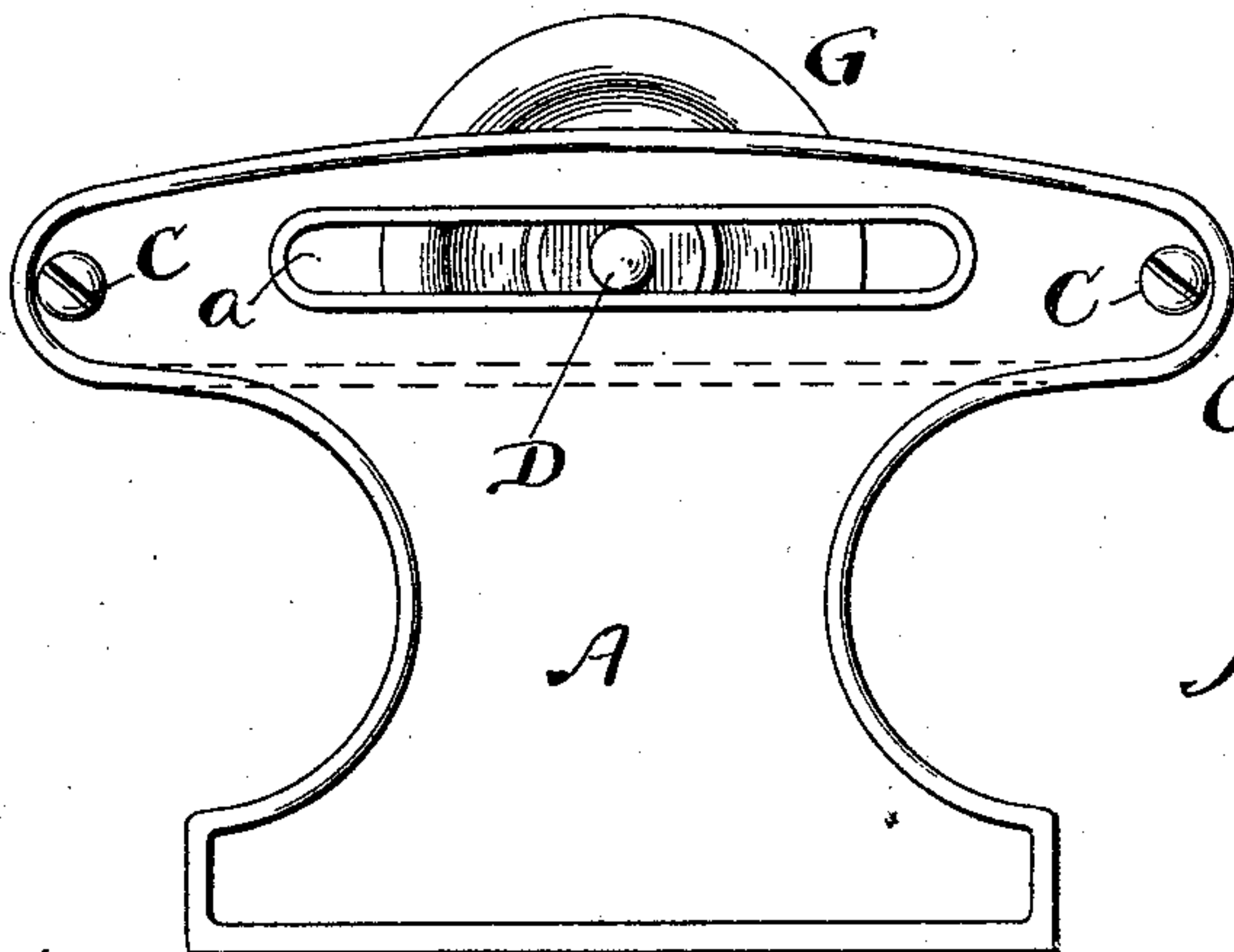
VAN ZANDT M. MOORE.

DOOR HANGER.

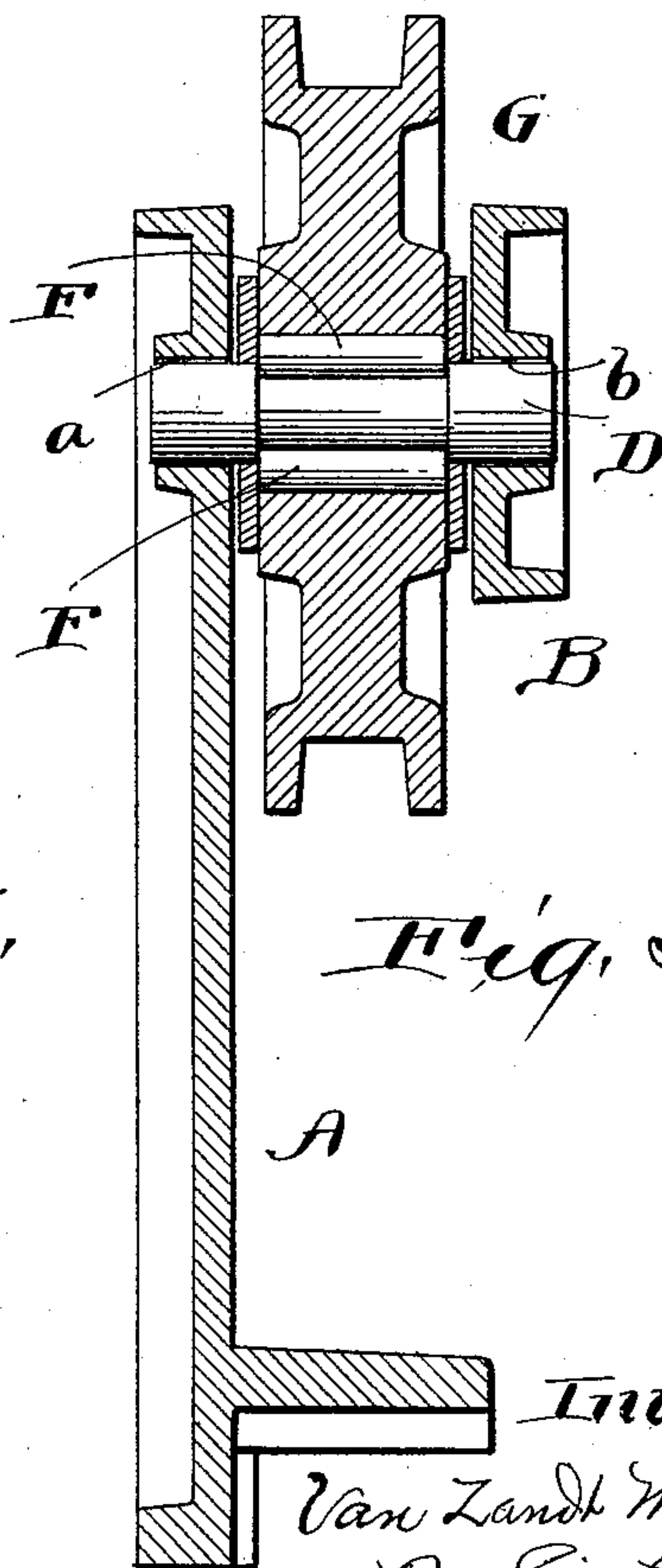
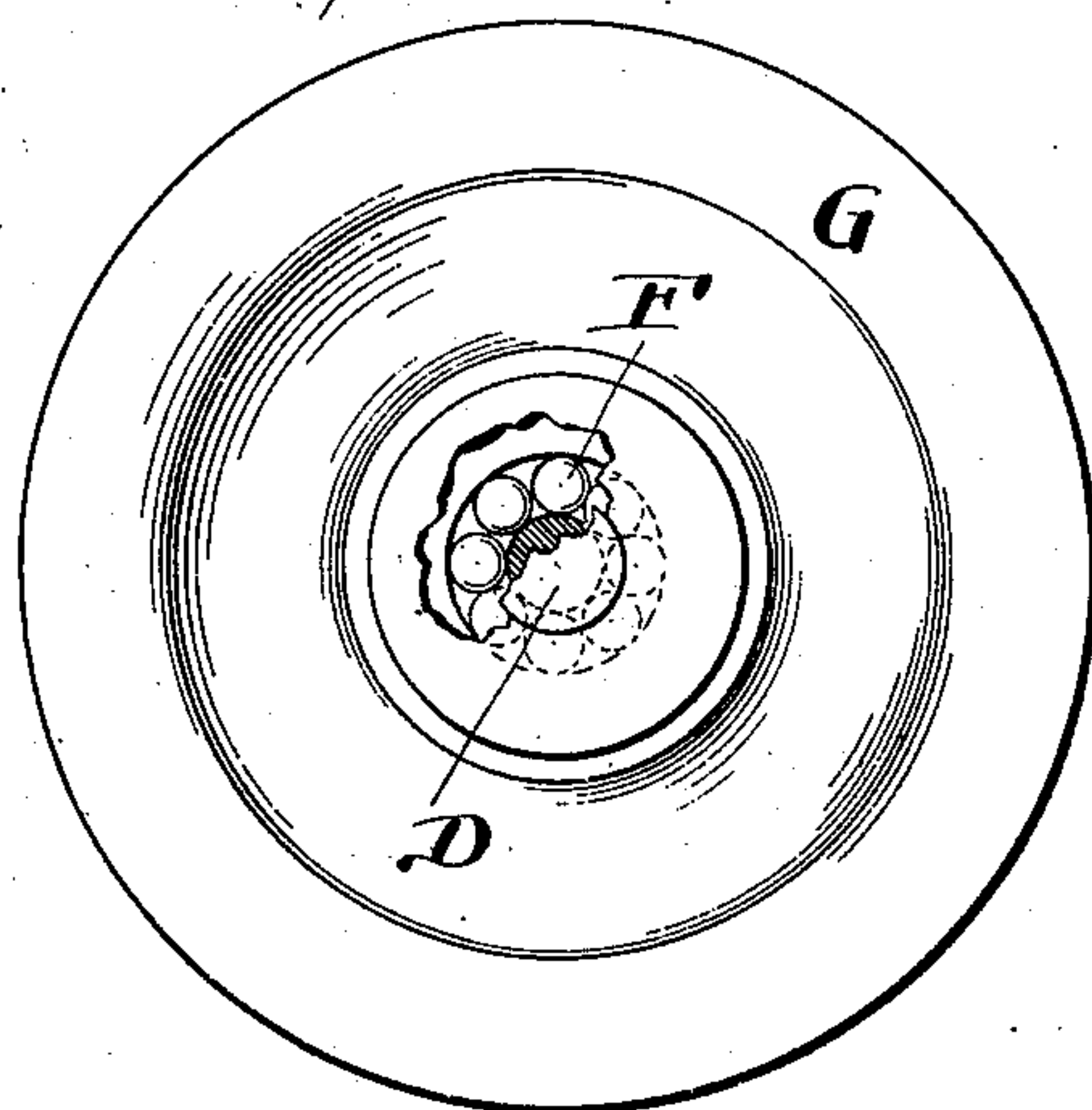
(Application filed Feb. 23, 1898.)

(No Model.)

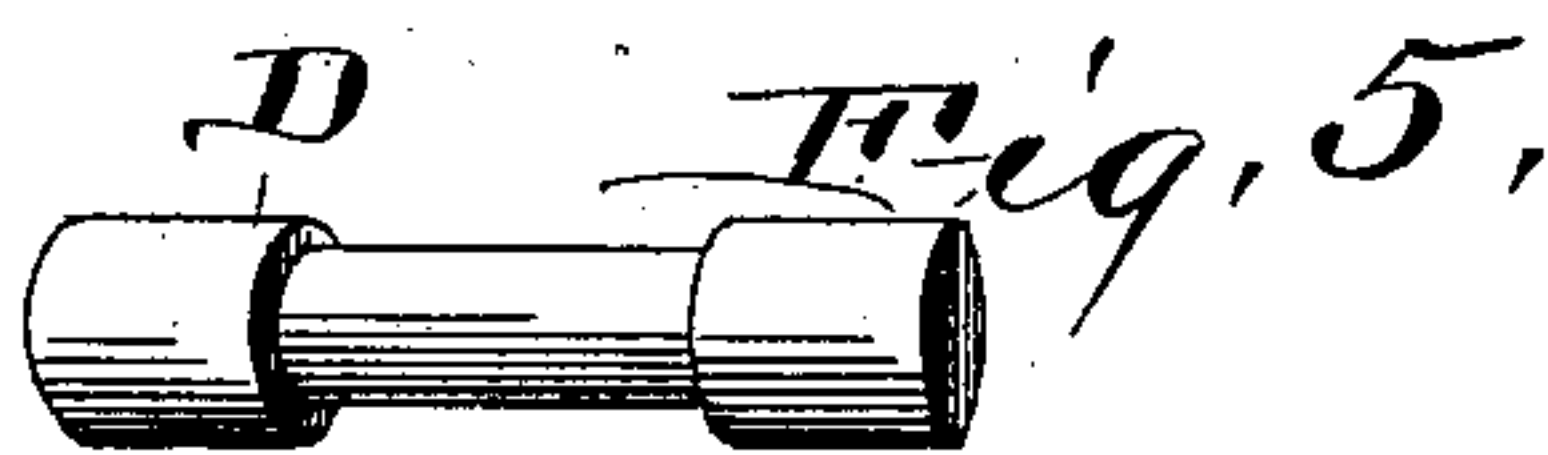
*Fig. 1.*



*Fig. 4.*



*Fig. 3.*



Witnesses  
E. B. Gilchrist  
Philip C. Knowlton

Inventor:  
Van Zandt M. Moore  
By his Attorneys,  
Thurston & Bates

# UNITED STATES PATENT OFFICE.

VAN ZANDT M. MOORE, OF CLEVELAND, OHIO, ASSIGNOR TO THE MOORE MANUFACTURING COMPANY, OF SAME PLACE.

## DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 606,808, dated July 5, 1898.

Application filed February 23, 1898. Serial No. 671,231. (No model.)

*To all whom it may concern:*

Be it known that I, VAN ZANDT M. 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 the class of door-hangers in which a wheel is mounted upon roller-bearings on an axle, the ends of which are loosely mounted and consequently adapted to travel in horizontal slots in the frame.

The invention may be said to be an improvement upon the hanger shown and described in my prior patent, No. 585,276. In the hanger shown in that patent the endwise displacement of the axle is prevented by plates or their equivalent, which are secured to the frame beyond but close to the ends of said axle. One useful result which is secured by the present invention is to dispense with these plates, the endwise displacement of the axle being prevented by other means which are more simple and less expensive.

The invention may be best described as consisting in the construction and combination of parts hereinafter described and claimed.

In the drawings, Figure 1 is a front elevation of a hanger embodying my invention. Fig. 2 is an end view thereof. Fig. 3 is a vertical sectional view. Fig. 4 is a front view of the wheel, axle, and washer, the latter being partly broken away. Fig. 5 is a perspective view of the axle, and Fig. 6 is a perspective view of one of the antifriction-rollers.

The hanger-frame consists of two parallel plates A and B, which are held in proper relation to each other by means of the spacing-lugs *a'*, made, preferably, integral with the plate A and the screws C. The plate A is extended downward a considerable distance and

is the part of the hanger to which the door is attached.

The plate A and the upper part of the plate B perform the functions which in the prior hangers have been performed by what are known as "rider-bars." In these plates are the horizontal slots *a* and *b*, respectively. The ends of the axle D enter and are movable along said slots. The middle part of the axle is of smaller diameter than the ends which pass into the slots. A series of antifriction-rollers F are arranged about this reduced part of the axle, and a grooved wheel G is mounted upon these rollers, said wheel lying between the two plates A and B. The length of the rollers is just a trifle less than the length of the reduced part of the axle, so that they may rotate freely.

It will be observed that the axle cannot move endwise unless there is a corresponding endwise movement of the rollers. This movement is prevented by means of washers which embrace the axle on opposite sides of the wheel, which washers nearly fill the spaces between the plates A and B and said wheel.

Having described my invention, I claim—

In a door-hanger, the combination of two parallel plates, containing horizontal slots, one of said plates being adapted to be secured to a door, with an axle whose ends lie and are movable in said slots, and whose middle part is of smaller diameter than the ends, a plurality of antifriction-rollers which encircle the reduced part of said axle, a wheel which embraces and is mounted upon said rollers, and two washers embracing the axle and lying between the said plates and the wheel, substantially as specified.

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

VAN ZANDT M. MOORE.

Witnesses:

ALBERT H. BATES,

PHILIP E. KNOWLTON.