(No Model.) 2 Sheets—Sheet 1.

J. A. TRIMBLE.

DOOR HANGER WHEEL.

No. 521,225. Patented June 12, 1894.

Fig. 2.

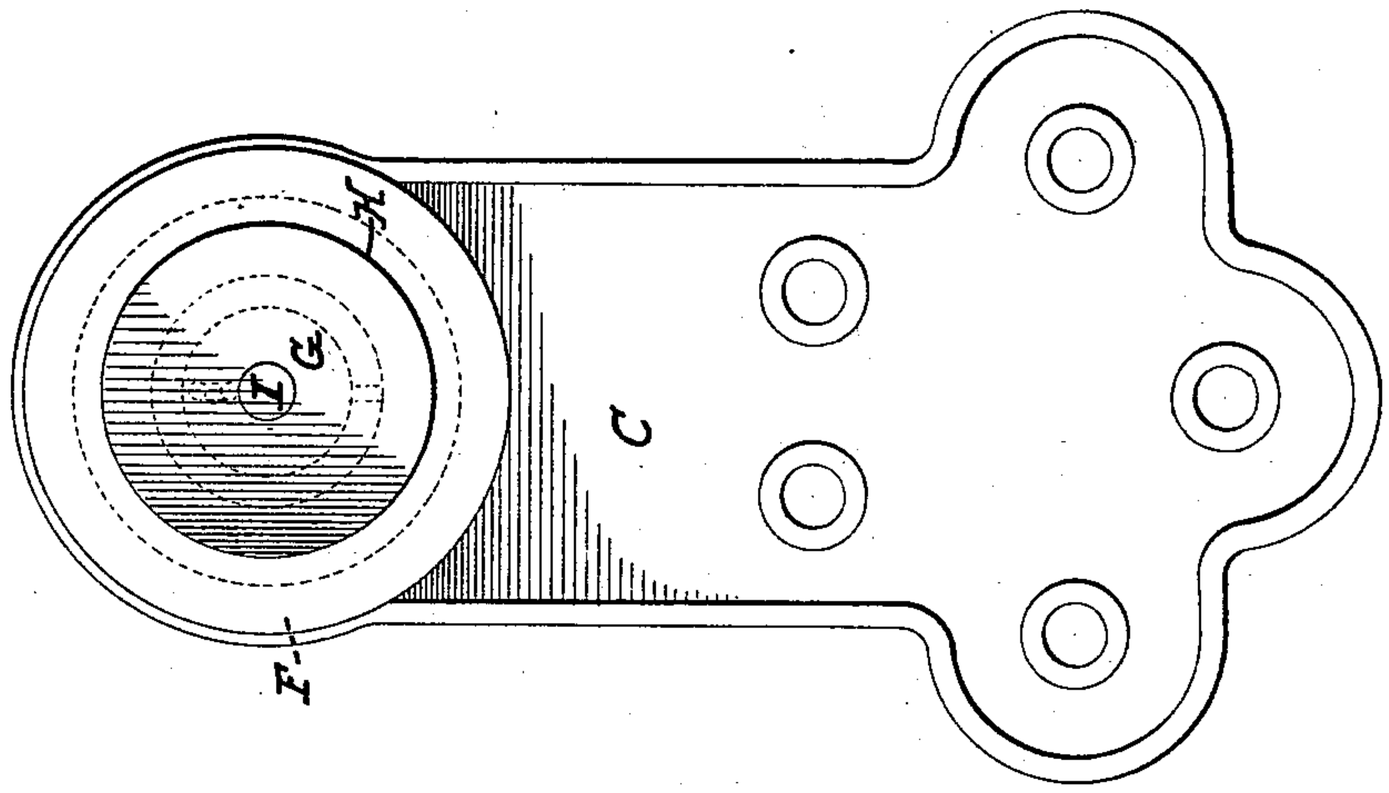
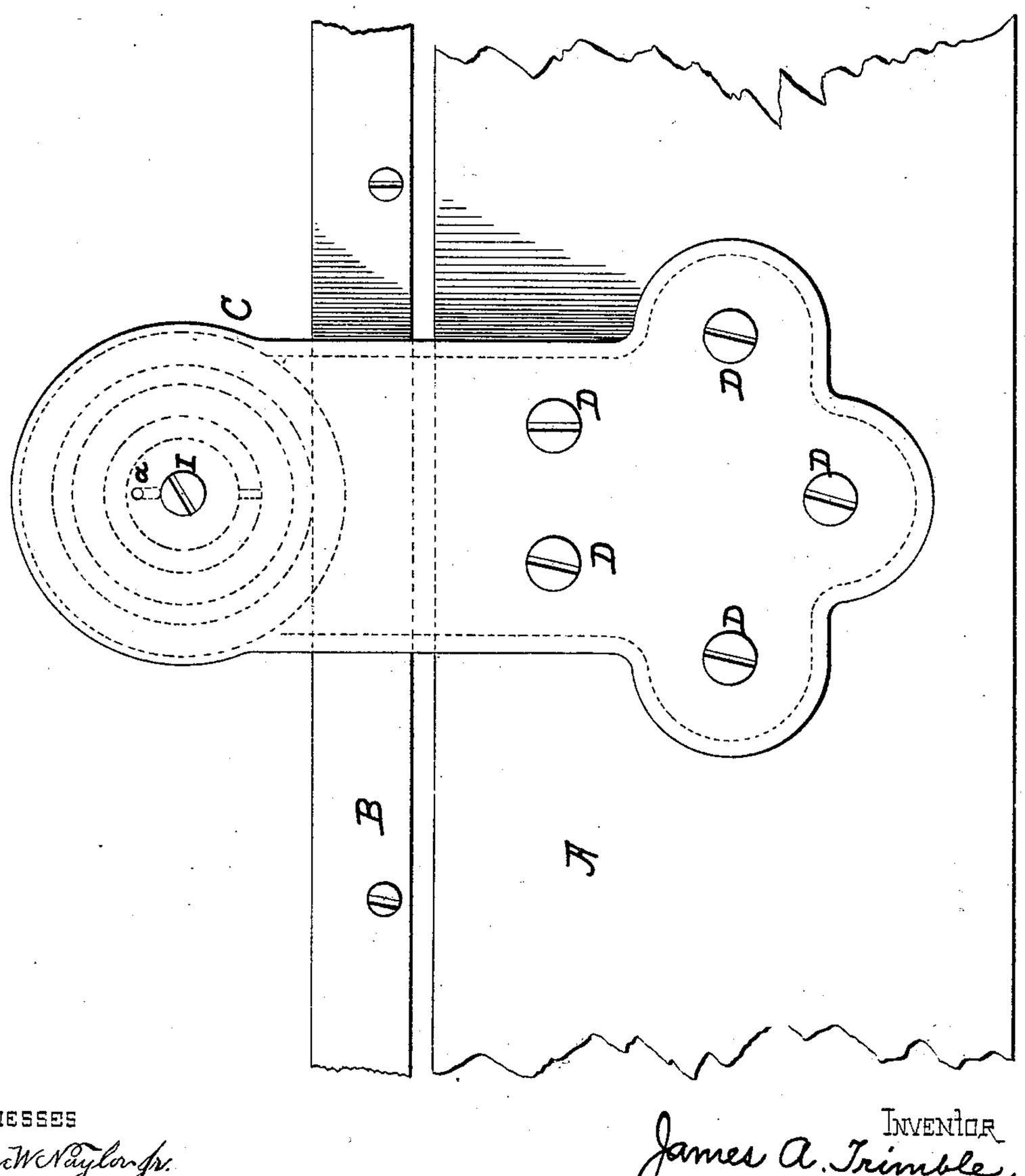


Fig. 1.



Witnesses
George W. Naylor Jr.
Ed. D. Miller.

Inventor
James A. Trimble,
By his Attorney,
Chas. E. Gill

THE NATIONAL LITHOGRAPHING COMPANY.
WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

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Fig. 4.

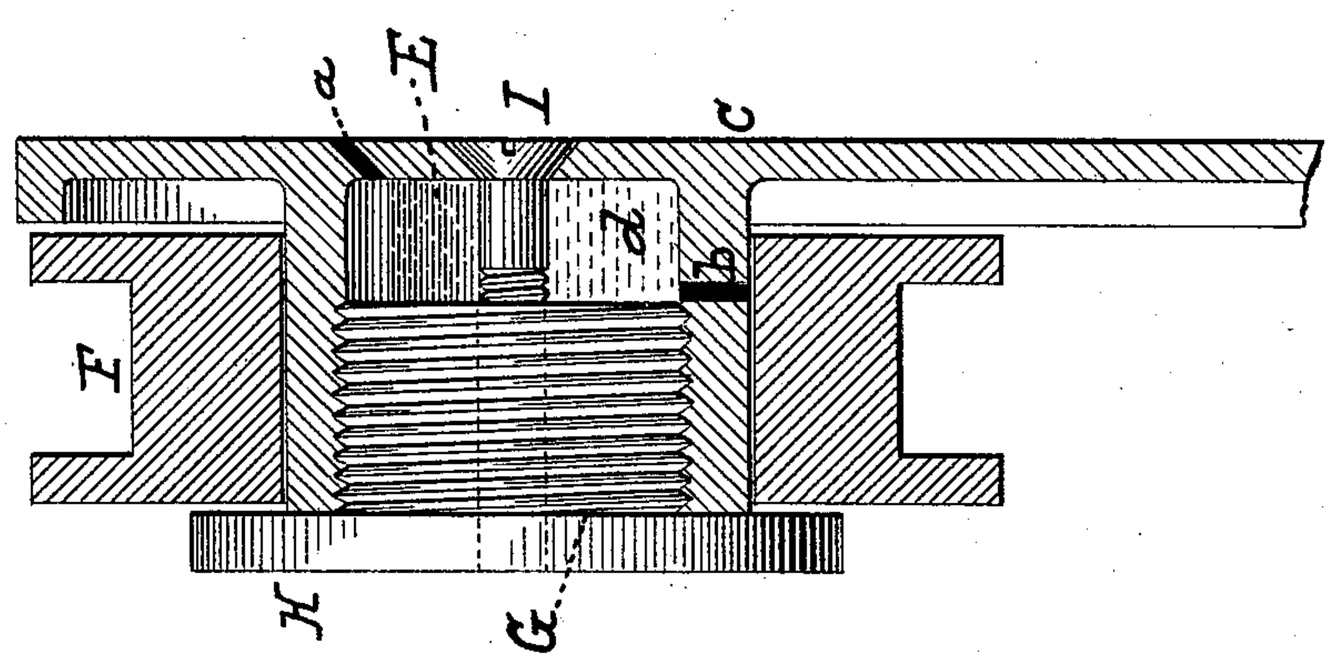
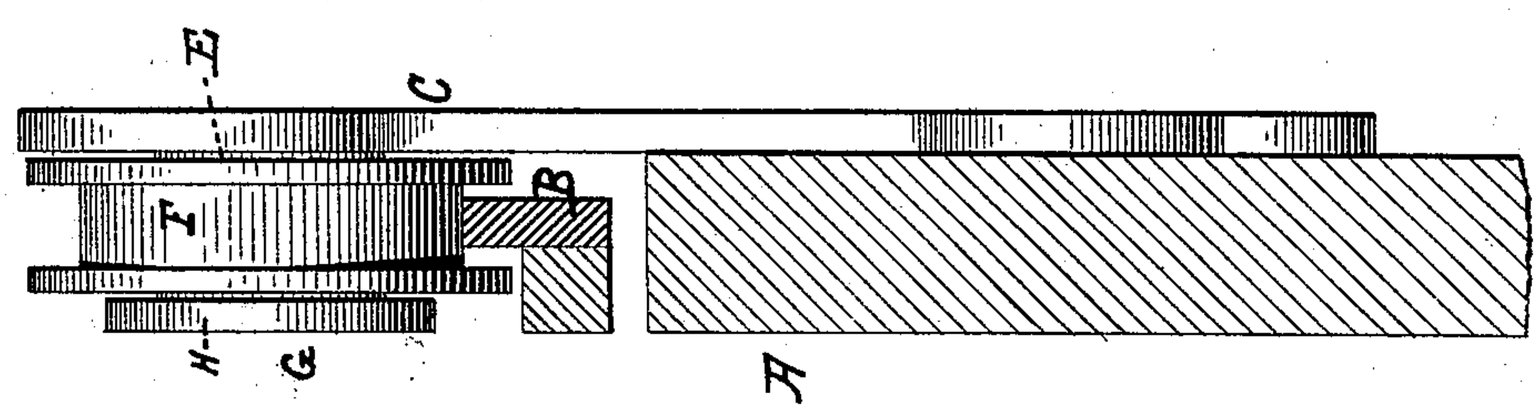


Fig. 5.



WITNESSES

George W. Naylor Jr.

Ed. D. Miller.

INVENTOR

James A. Trimble,

By his Attorney,

Chas. E. Gill

THE NATIONAL LITHOGRAPHING COMPANY.
WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES A. TRIMBLE, OF NEW YORK, N. Y.

DOOR-HANGER WHEEL.

SPECIFICATION forming part of Letters Patent No. 521,225, dated June 12, 1894.

Application filed December 21, 1893. Serial No. 494,296. (No model.)

To all whom it may concern:

Be it known that I, JAMES A. TRIMBLE, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Door-Hanger Wheels, of which the following is a specification.

The invention relates to improvements in door hanger wheels, and consists in the novel features of construction hereinafter particularly described and pointed out in the claims.

Referring to the accompanying drawings, Figure 1 is a detached face view of a portion of a door and tramway the former being provided with a hanger constructed in accordance with and embodying the invention. Fig. 2 is a detached view of the hanger separated from the door and illustrating the side thereof opposite to that presented in Fig. 1. Fig. 3 is an edge view of the hanger, the door and tramway being illustrated in vertical section, and Fig. 4 is a central vertical section through the hanger detached from the door.

In the accompanying drawings A designates the door; B the tramway, and C the door hanger, which at its lower end is fastened to the door in the usual manner by screws D. The upper portion of the hanger C is cast with a hollow cylindrical hub E, which, as illustrated in Fig. 4, receives the roller F and is internally threaded to receive the threaded cap G, the latter being provided with the disk or flange H whose diameter is greater than that of the hub E and forms an annular shoulder adapted to retain the roller F upon said hub E. The cylindrical hub E is provided with an inlet port *a* at its upper end and with an outlet port or aperture *b* at its lower end, the former being provided for the introduction of the oil *d* to said hub, and the aperture *b* constituting the exit for said oil to the roller F, which when in position passes over the said aperture *b* as illustrated in Fig. 4. The fact that the outlet of the aperture *b* is against the inner bearing surface of the roller F serves to prevent a too rapid feeding of the oil from the hub E and results in said roller being properly lubricated without any excess of oil passing thereto. It is the purpose of my invention to provide the interior of the cylindrical hub E with sufficient oil to last a considerable length of time during the use of the door prior to the necessity arising for said hub being replenished with the lubricant.

In order to avoid any danger of the threaded cap G during the use of the door working loose or escaping from the hub E, I have provided the screw I which passes through the vertical face of the hanger C and into the disk H forming a part of the cap G. The threaded portion of the cap G is hollow, and the disk H thereof is solid with the exception of the aperture formed at its center and internally threaded to receive the threaded end of the screw I. The threads on the cap G and those on the screw I both form right hand screws, but since the said threaded parts enter from opposite sides of the hanger, the said threads will oppose each other and prevent any loosening of either from the hanger. The hanger C is a single casting threaded to receive the cap G, which is also in one piece. In arranging the parts, the roller is first placed upon the cylindrical hub E and the cap G thereafter applied to retain the said roller F in position, after which the screw I is inserted through the hanger and into the cap for the purpose of securely locking the parts together and preventing the cap G from becoming loosened during the use of the door. After the roller F, cap G and screw I have been secured together and the hanger applied to the door, the oil or other lubricant *d* is introduced through the aperture *a* into the interior of the hub E, where it will be retained by the contact of the hanger of the roller F against the said hub, only sufficient of the lubricant *d* being permitted to escape to properly ease the motion of the roller and prevent undue friction or noise.

It will be observed upon reference to Fig. 2 that the space occupied by the roller F and cap G is not greater than that occupied by the width or thickness of the door A and this is a feature of advantage particularly where the doors are to be used on street cars and in all other instances in which it may be desirable to economize space and have as small an opening as possible for the sliding door.

The means described above for securing the roller F upon the hub E is particularly advantageous in that thereby all flanges or yokes extending from the hanger C to the

outer face of the wheel F have been avoided. These flanges or yokes are prevalent in door hangers that are in use and are highly objectionable, particularly for street car doors, in view of the increased space required for them.

The hanger made the subject of this application is compact, occupies the minimum amount of space, is thoroughly durable, simple of construction, easy of application and has a neat, presentable appearance.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The hanger C having the hollow cylindrical hub E integral therewith, said hub being provided with the inlet *a* at its upper end, the outlet *b* at its lower end, and the internal threads, combined with the wheel F mounted on said hub, the threaded cap G having the retaining flange and threaded to engage the internal threads of said hub, and the screw I entering the opposite end of said hub and engaging said cap; substantially as set forth.

2. The hanger C having the hub E and the wheel F mounted upon the said hub, combined with the cap G entering one end of the hub and provided with the retaining flange, and the screw I entering the opposite end of said hub and engaging said cap; substantially as set forth.

Signed at New York, in the county of New York and State of New York, this 15th day of December, A. D. 1893.

JAMES A. TRIMBLE.

Witnesses:
CHAS. C. GILL,
ED. D. MILLER.