

No. 750,608.

PATENTED JAN. 26, 1904.

F. B. COOK.
DOOR HANGER.

APPLICATION FILED MAY 16, 1903.

NO MODEL.

Fig. 1.

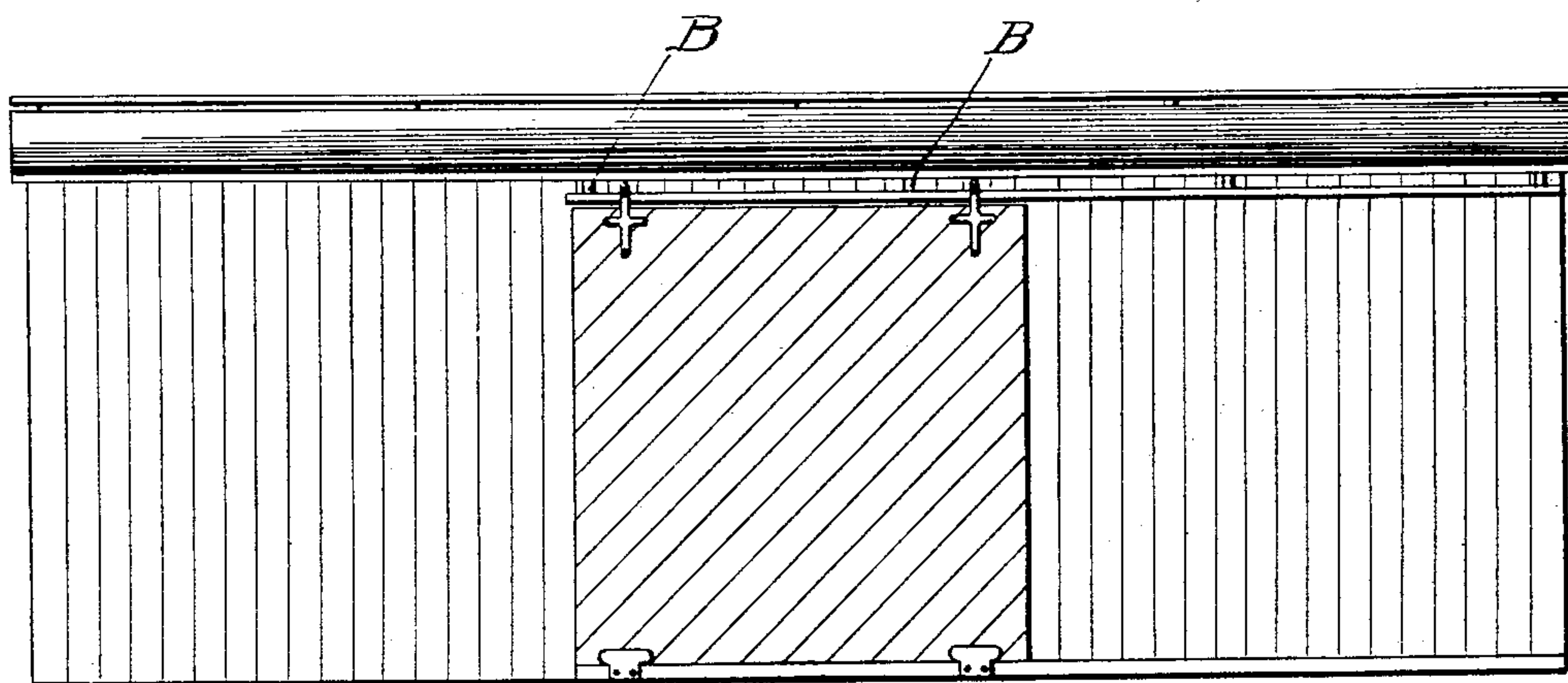


Fig. 2.

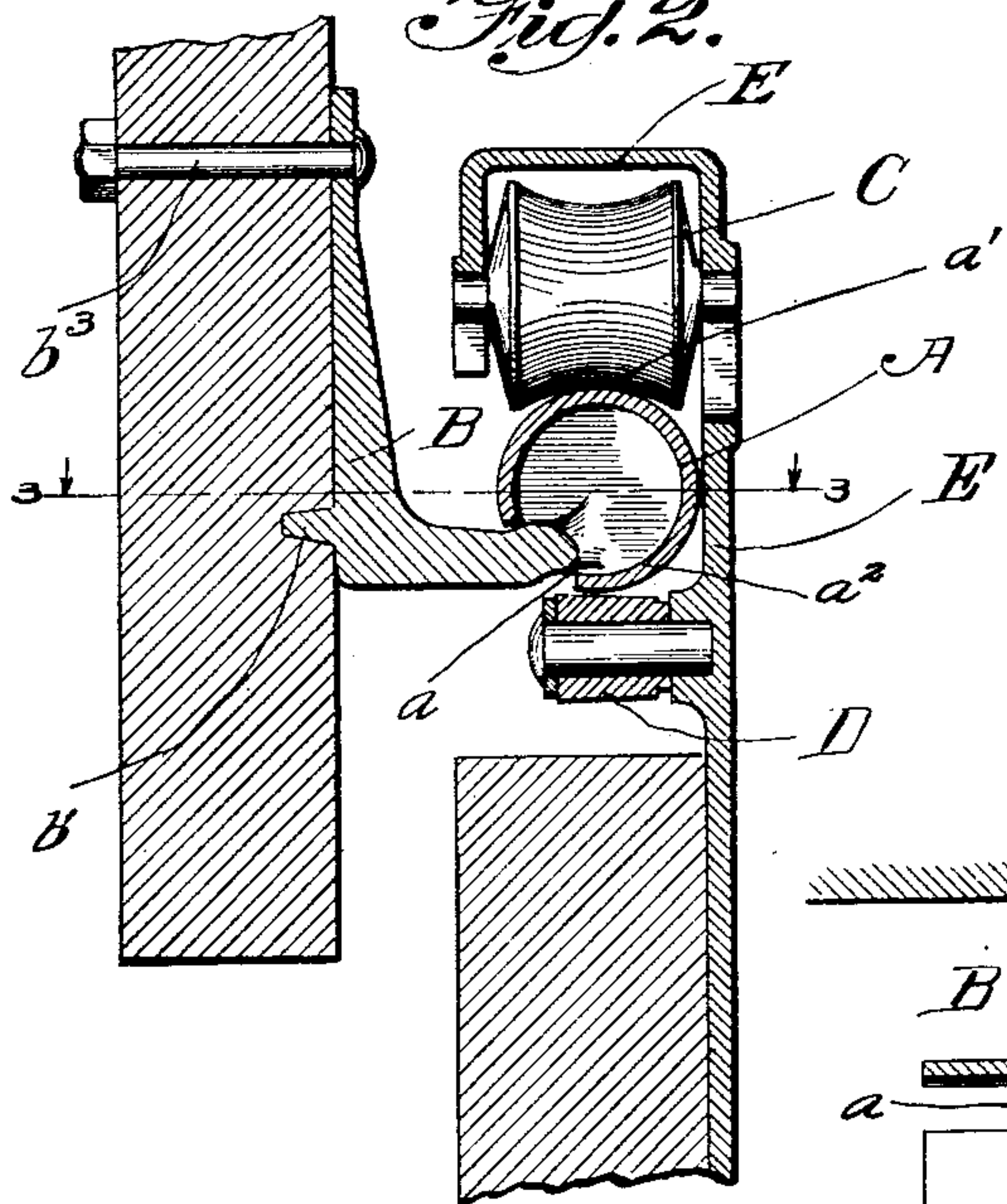


Fig. 4.

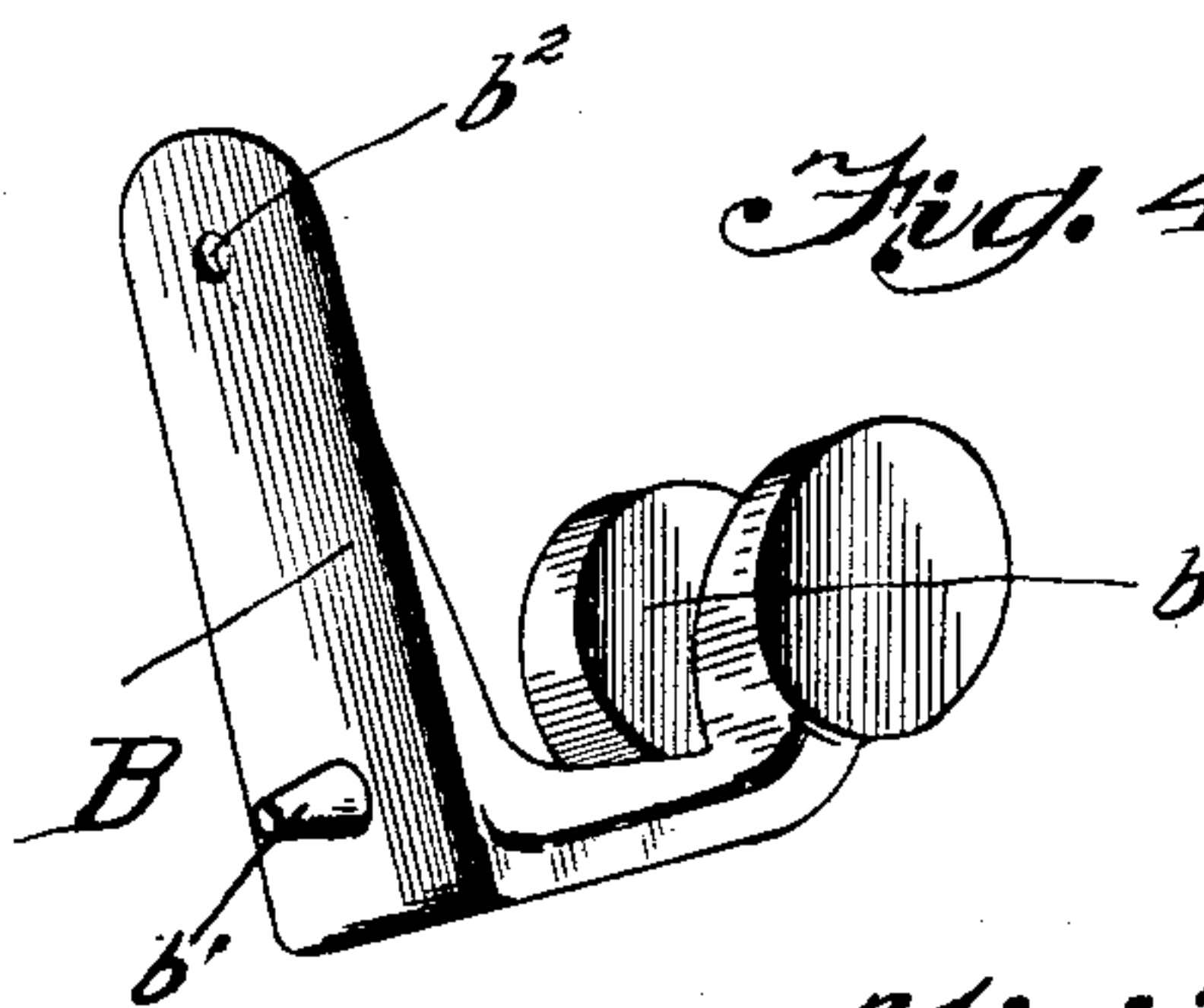
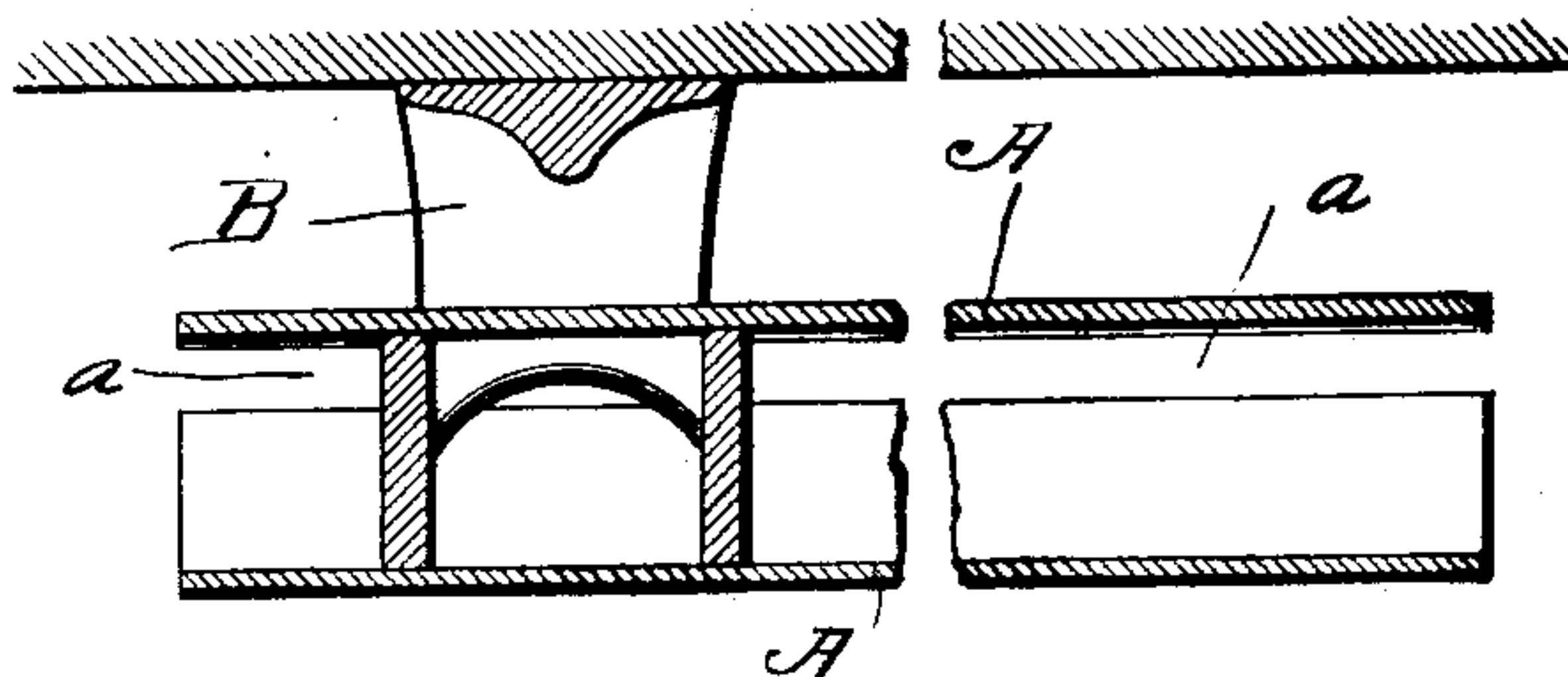


Fig. 3.



Witnesses:

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UNITED STATES PATENT OFFICE.

FRANK B. COOK, OF CHICAGO, ILLINOIS.

DOOR-HANGER.

SPECIFICATION forming part of Letters Patent No. 750,608, dated January 26, 1904.

Application filed May 16, 1903. Serial No. 157,348. (No model.)

To all whom it may concern:

Be it known that I, FRANK B. COOK, a citizen of the United States of America, and a resident of Chicago, Cook county, Illinois, have
 5 invented a certain new and useful Improvement in Door-Hangers, of which the following is a specification.

My invention relates to door-hangers of that type in which externally - arranged
 10 hanger-rolls travel upon a tubular track or way supported by internally-arranged brackets or supporting devices. In a door-hanger characterized by my invention the said tubular track or way is slotted longitudinally, and
 15 the supporting-brackets project through the longitudinally-extending slot at any suitable or desired points along the length thereof, the combining of the longitudinally-slotted tubular track or way with externally-arranged
 20 rolls and internally-arranged brackets in the manner stated not only providing a suitable track or way whereon externally-arranged hanger-rolls may travel back and forth, but also making it possible to employ any suitable
 25 or desired number of brackets and at any suitable or desired points along the length of the tubular track or way without in any way varying the construction of the tubular track or way, and in addition permitting the use of
 30 brackets of unvarying or uniform character. Furthermore, in a door-hanger characterized by my invention the said longitudinally-extending slot in the tubular track or way is located at a point between the bottom and inner
 35 side of the tube, so as to not only, in effect, provide upper and lower bearing portions for supporting rolls and means for preventing the rolls from leaving the track or way, but also provide the tubular track or way with a lateral
 40 aperture of such character as to enable it to readily drain itself of water, &c., which may enter its interior. These two novel features may be employed and embodied in a hanger structure separately or independently of each
 45 other, or, on the other hand and as will hereinafter more fully appear, these two novel features—to wit, the combination of the continuous slot and the track or way with internally-arranged brackets located at any suitable or
 50 desired points along the length of the tube and

the location of said slot at a point between the bottom and one side of the tube—may be combined in one and the same hanger structure.

The nature and advantages of my invention will, however, hereinafter more fully appear. 55

In the accompanying drawings, Figure 1 is a side elevation of a car having a door provided with my improved hangers. Fig. 2 is an enlarged vertical cross-section of my improved hanger and the tubular track or way
 60 on which it travels. Fig. 3 is a horizontal section on line 3 3 in Fig. 2. Fig. 4 is a perspective of one of the brackets for supporting my improved tubular track or way.

As thus illustrated, my improved tubular
 65 track or way A is preferably mounted horizontally above the door and is supported by brackets B. As a matter of special improvement the said tubular track or way preferably consists of a straight length of tubing provided
 70 with a longitudinally-extending slot a . This slot, it will be observed, when the track is in position is located at a point between the bottom and the inner side of the tubing or piping. In this way the tubular track or way is adapted
 75 to provide upper and lower bearing portions for the rolls C and D and to at the same time drain or clear itself of any water, dust, or dirt which might enter its interior. In other words, the piece of tubing is of a character to provide
 80 upper and lower ways a' and a'' notwithstanding the fact that it is provided with a continuous and longitudinally-extending slot adapted to receive the head portion b of each bracket and even though said slot is so located as to
 85 enable the tubular track or way to readily drain itself of water, &c., which may enter its interior. These brackets, as illustrated, extend through the slot and have their head portions adapted to accurately fit the bore of
 90 the tubing, so as to support the latter firmly in place. With the tubular track or way slotted longitudinally from end to end the brackets can all be of a uniform character, and the tubular track or way can be removed without
 95 the necessity of detaching any of the brackets from the support to which they are secured. The provision of a continuous and longitudinally-extending slot permits the brackets to be located at any suitable or desired points 100

along the length of the tubular track or way and permits the use of any suitable or desired number of the brackets B without the necessity of in any way varying or changing the construction of the tubular track or way. If the slot extends from one extreme end of the tube to the other extreme end thereof, then in such case the tubular track or way B can be made by simply rolling up a piece of sheet metal into tube form and by bringing the edges thereof close enough together to provide a slot of the desired size and character. The provision of a slot extending longitudinally of and opening at the ends of the tube permits the use throughout the length of the tube of brackets having heads which accurately and snugly fit the bore or interior of the tube. Each bracket is preferably provided with a point or projection b' , adapted to project into the support to which the bracket is secured, and is also provided with an opening b'' , through which a fastening bolt or screw b''' can be inserted. The said rolls can be mounted in any suitable manner on the hanger-body E, the upper roll being preferably grooved to enable it to travel upon the tubular track or way, the lower roll being preferably somewhat smaller and more cylindrical in character, this lower roll serving as a mere guard to prevent the hanger from rising from the track or way. This lower roll D is preferably and desirably of brass, it being subject to a more severe rusting action than the upper roll.

A hanger arrangement of the foregoing character is simple and comparatively cheap to manufacture and is efficient and serviceable in use. It is adapted more particularly for use in connection with car-doors, and hence I have only illustrated it for this purpose.

As an advantage gained by inserting the brackets through the side of the tube at points along a line between the side and bottom it will be seen that this feature when the brackets are made longer than shown permits the door to be swung up into a practically horizontal position without rotating the tube and without rendering it impossible to slide the door along the track, the hanger-rolls passing the brackets as readily when the door is thus positioned as when in its normal position.

What I claim as my invention is—

1. A door-hanger comprising a longitudinally-slotted tube, supporting-brackets projecting through the said slot and engaging the interior of the tube, said longitudinal slot permitting endwise or longitudinal movement of

the tube relative to the supporting-brackets and a hanger member supported by and adapted to travel upon the exterior of said tube. 60

2. A door-hanger comprising a hollow member slotted longitudinally from end to end, said slot being disposed between the bottom and inner side of the tube, supporting means extending through the slot and engaging the interior of the said hollow member, said longitudinal slot permitting relative endwise or longitudinal movement of the tube on the supporting means, and a hanger member supported by and adapted to travel upon the exterior of said hollow member. 65 70

3. A door-hanger comprising a longitudinally-slotted tube, supporting-brackets projecting through the said slot and engaging the interior of the tube, said longitudinal slot permitting endwise or longitudinal movement of the tube relative to the supporting-brackets and a hanger member supported by and adapted to travel upon the exterior of said tube and means adapted to engage the lower portion of said tube to prevent displacement of said hanger member. 75 80

4. A door-hanger comprising a tube slotted longitudinally substantially its entire length, said slot being disposed between the bottom and inner side of the tube, supporting-brackets projecting through said longitudinal slot and engaging the interior of said tube, said slot permitting relative shift between the brackets and tube longitudinally of the latter and adapting the tube to drain itself of water, a hanger member supported by and adapted to travel upon the exterior of said tube and means to engage the lower bearing portion of the tube to prevent displacement of the hanger member. 85 90 95

5. A door-hanger comprising supporting-brackets, a tube slotted from end to end and adapted to be engaged with the supporting-brackets by relative longitudinal movement therewith, said brackets extending through the slot and having enlarged portions and engaging the interior of said tube, a hanger member supported upon the exterior of said tube and means for preventing displacement of the hanger member, the said slot being disposed between the bottom and inner side of the tube. 100 105

Signed by me at Chicago, Illinois, this 12th day of May, 1903.

FRANK B. COOK.

Witnesses:

CHARLES HICKOK,
WM. A. HARDERS.