No. 894,229. PATENTED JULY 28, 1908.

T. C. PROUTY.

SUPPORTING BRACKET FOR DOOR HANGER TRACKS.

APPLICATION FILED JAN. 28, 1903.

Fig. 1.

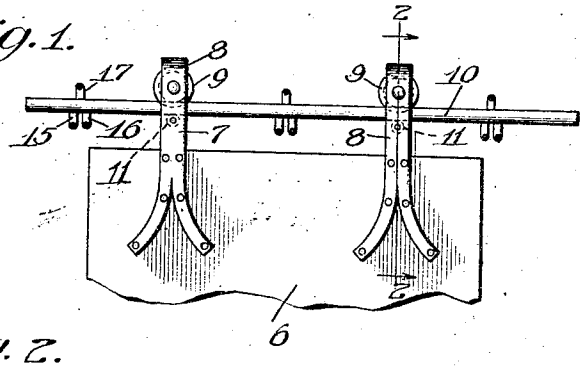


Fig. 2.

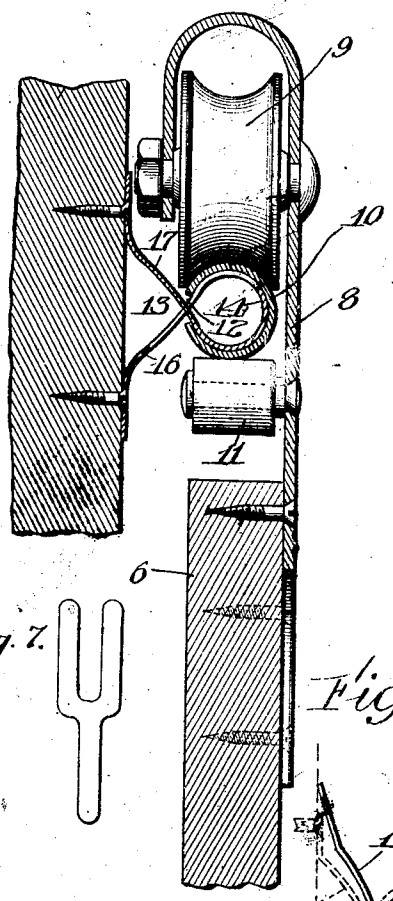


Fig. 3

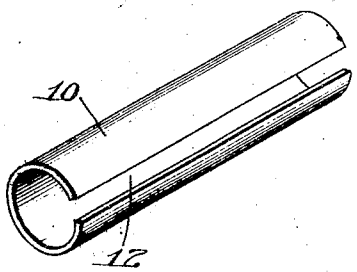


Fig. 4

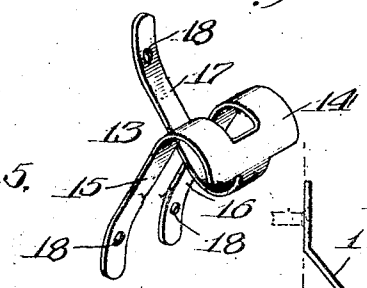


Fig. 7.

Fig. 5.

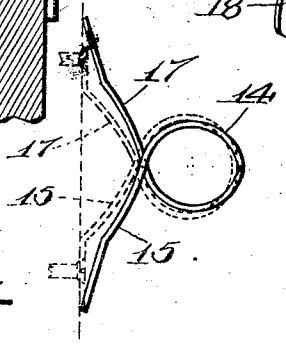
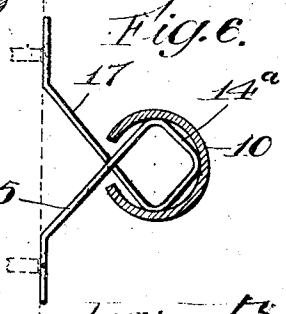


Fig. 6.



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UNITED STATES PATENT OFFICE.

THEODORE C. PROUTY, OF AURORA, ILLINOIS, ASSIGNOR TO WILCOX MANUFACTURING COMPANY, OF AURORA, ILLINOIS, A CORPORATION OF ILLINOIS.

SUPPORTING-BRACKET FOR DOOR-HANGER TRACKS.

No. 894,229. Specification of Letters Patent. Patented July 28, 1908.

Application filed January 28, 1905. Serial No. 243,130.

To all whom it may concern:

Be it known that I, THEODORE C. PROUTY, a citizen of the United States, residing at Aurora, in the county of Kane and State of Illinois, have invented certain new and useful Improvements in Supporting-Brackets for Door-Hanger Tracks, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to supporting-devices for tubular door-hanger tracks, and has particularly to do with supporting-devices which engage the interior of the track so as to leave the exterior of the track clear to serve as the run-way for the door-hanger wheel.

The object of my invention is to provide a supporting-device of the class described which will be self-binding as to its engagement with the track; and to this end it consists in providing a supporting-bracket having a head which engages the interior of the track and is normally of somewhat less external diameter than the internal diameter of the track so that it may move longitudinally therein but which is expanded automatically, by the attachment of the bracket to its support so as to engage the track more firmly than before. Two important advantages of this construction are that the release of the bracket from its support automatically releases its grip upon the track and consequently permits the bracket to be shifted longitudinally thereof with ease, and the securing of the bracket to its support immediately causes it to grip the track firmly and hold it against longitudinal movement. So far as I am aware no one has heretofore produced a bracket, or other supporting-device, operating in this way, and the claims hereinafter made are to be construed accordingly.

In the accompanying drawings,—Figure 1 is an elevation of a part of a door, showing the application of my improved bracket; Fig. 2 is an enlarged vertical section on line 2—2 of Fig. 1; Fig. 3 is a perspective view of one form of tubular track which may be employed with my improved bracket; Fig. 4 is a perspective view of my improved bracket; Fig. 5 is an edge view thereof; Fig. 6 is a view showing a modification, and Fig. 7 is a plan view on a reduced scale of the blank from which the bracket is made.

I shall now describe the embodiment of my invention illustrated.

Referring to the drawings,—6 indicates the door, and 7—8 door hangers. I prefer to use hangers of the construction shown, but any other suitable form of hanger may be employed. In the form shown the hanger is provided with an upper roller or wheel 9, which runs upon a tubular track 10, and a lower roller 11, which runs below the track 10, as best shown in Fig. 2. The track illustrated consists of a tube open at the side, as shown at 12 in Fig. 3, the opening extending from end to end of the track, but this is not essential. Moreover, instead of using a track substantially circular in cross section, as illustrated, it may be made oval, square, or of any other suitable shape in cross section.

13 indicates my improved bracket, which, as best shown in Figs. 4 and 5, comprises a head 14 and attaching arms 15—16—17. As will be apparent from an inspection of Fig. 4, the bracket is formed from a blank somewhat in the shape of the letter Y,—the arm 17 forming the stem and the arms 15—16 the two members of the fork. The head is composed of the intermediate portion of the blank formed by bending the arm 17 around between the arms 15—16 the inner portions of which are also rolled over so that the head 14 forms a loop extending from the intersection of the crossed arms. The head 14, in the construction shown, is substantially cylindrical in form. Where the bracket is intended for use with a track of other than circular form in cross section the head would be suitably shaped so as to engage the inner surface thereof when expanded, as hereinafter described. The end portions of the three arms 15—16—17 are designed to be secured to a suitable support,—and to that end are provided with screw-holes 18. The portions in which the screw-holes are placed are not flattened so as to normally lie flat against the surface of the support, but are inclined, as illustrated in full lines in Fig. 5. They may, however, be forced closely up against the support by means of the attaching screws, as illustrated in dotted lines in Fig. 5. By this construction before the ends of the arms 15—16—17 are secured in the support the head 14 is contracted, but after the screws, or other attaching-devices, are inserted the head is expanded,—this being due to the drawing together of the outer end portions of said arms by the insertion of the screws, as illustrated in dotted lines in Fig. 5. It will

be apparent from the foregoing description that while the head 14 in its normal or contracted condition may be freely moved within the track, when the head is expanded it grips the interior of the track tightly and prevents longitudinal movement thereof. If a greater degree of expansion is desired than that which is naturally secured by screwing the arms 15—16—17 tightly down upon their support it may be attained by moving the outer ends of said arms closer together and then screwing them down. The bracket is made of elastic material, such as steel, so that it has a resilient action and permits of the adjustment of the parts necessary to secure the result hereinbefore described.

In Fig. 6 I have illustrated the embodiment of my invention in a bracket having a head 14^a which engages the track at three separate points instead of fitting closely the inner surface of the track, as in Fig. 2. In addition to the advantages mentioned, my improved bracket possesses the further advantage that it may be very economically made, since the brackets may be stamped out of a flat sheet of material without waste, as the parts of consecutive blanks match.

I wish it to be understood that my invention is not restricted to the specific construction illustrated and described, except in so far as particularly claimed; also that while my improved bracket is designed primarily for supporting the track for door hangers it may be used for any purpose to which it is adapted.

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

1. A tube-supporting bracket, comprising a head adapted to engage a tube internally, and means arranged to automatically expand said head when said bracket is attached to its support said head being normally of reduced diameter.

2. A tube-supporting bracket, comprising a tubular head adapted to engage a tube internally, and crossed attaching arms for connecting said head with a suitable support.

3. A tube supporting bracket, comprising a head, and attaching means formed from a substantially Y-shaped blank.

4. A tube-supporting bracket, comprising a head, and attaching arms, said arms being arranged to expand said head when moved closer together and to contract said head when moved away from each other

5. A tube-supporting bracket, comprising a head, and attaching arms formed by bending a suitable blank intermediately to form a loop, the end portions of the blank being crossed and forming attaching arms.

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