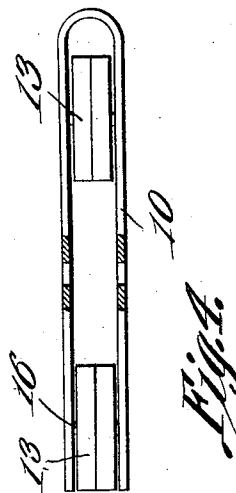
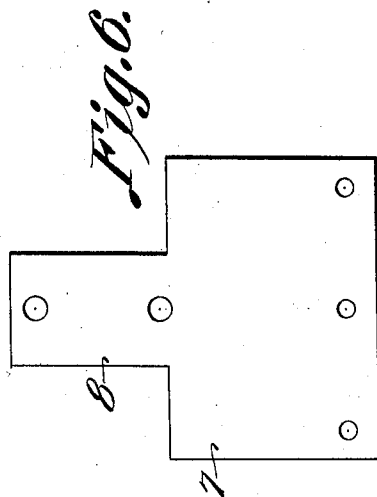
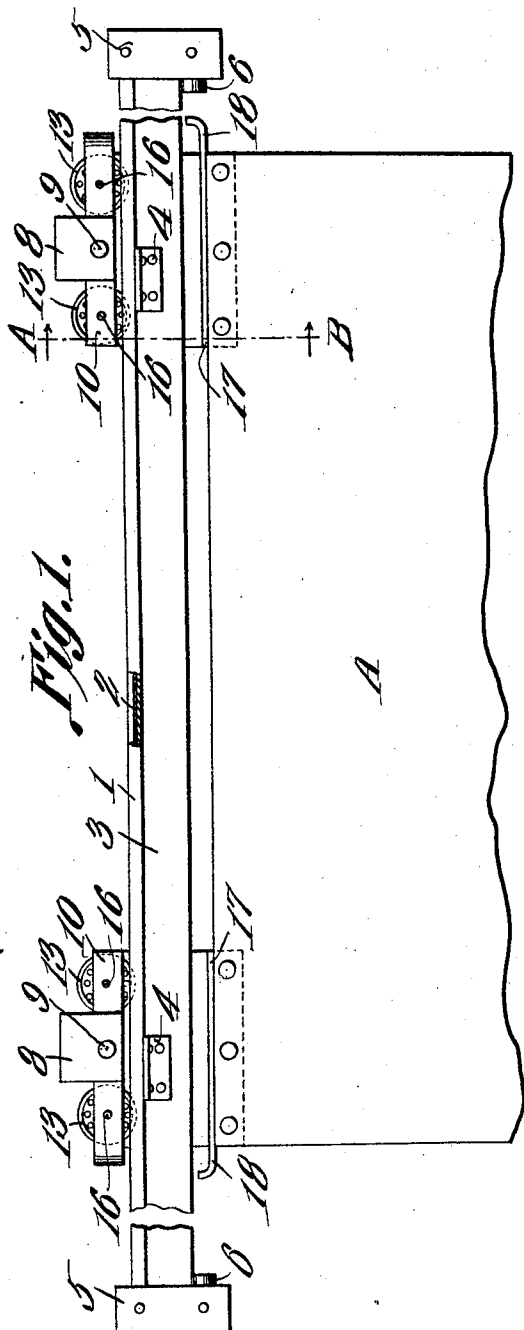


G. T. BUDDLE.
DOOR HANGER.
APPLICATION FILED OCT. 11, 1911.

1,046,961.

Patented Dec. 10, 1912.

2 SHEETS—SHEET 1.



Witnesses

J. P. Tomlin
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Inventor

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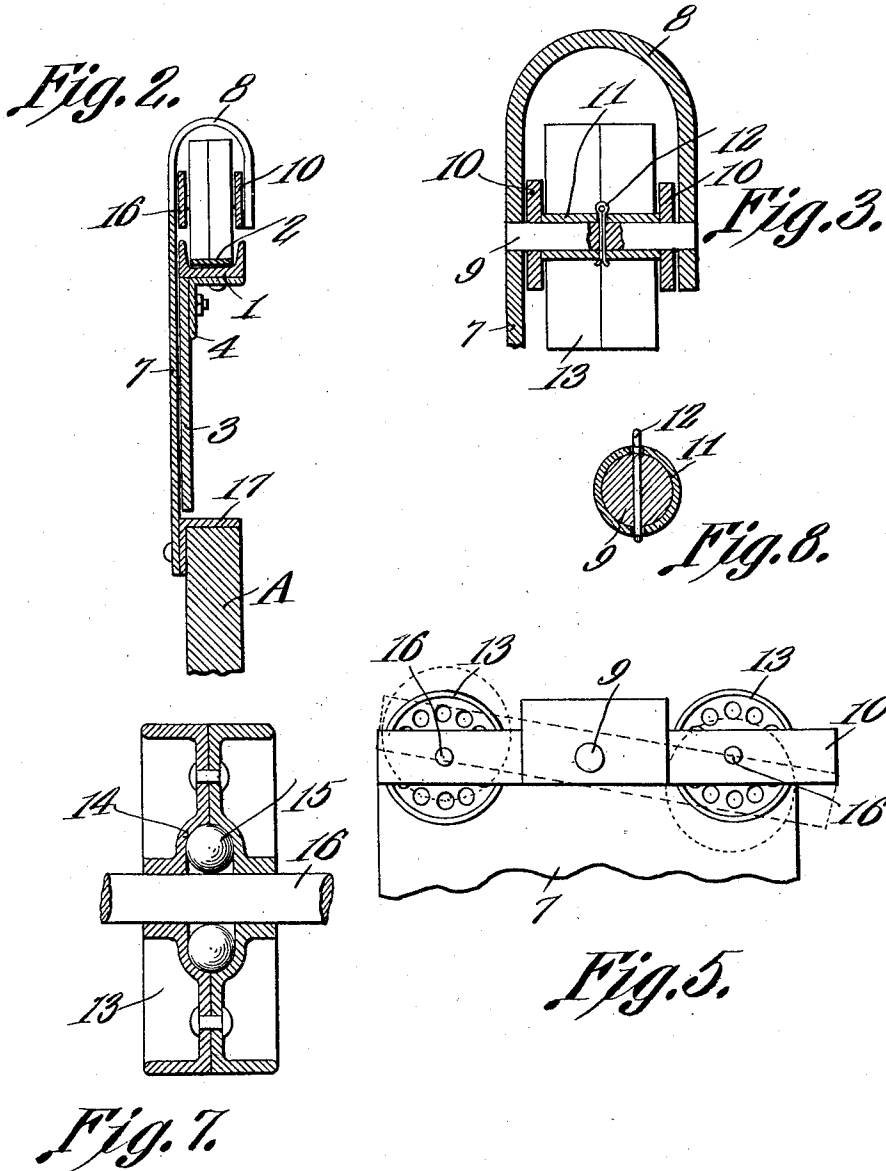
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UNITED STATES PATENT OFFICE.

GEORGE T. BUDDLE, OF CHICAGO, ILLINOIS.

DOOR-HANGER.

1,046,961.

Specification of Letters Patent.

Patented Dec. 10, 1912.

Application filed October 11, 1911. Serial No. 654,068.

To all whom it may concern:

Be it known that I, GEORGE T. BUDDLE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Door-Hanger, of which the following is a specification.

This invention relates to hangers especially adapted for use in connection with elevator doors and the like, one of the objects of the invention being to provide a hanger which is simple in construction and which is provided with a tiltable carriage the parts of which are so mounted and portioned as to prevent the wheels from jumping off of the track on which they are mounted should the door be jolted or accidentally raised from any cause.

A further object is to provide an improved form of track for supporting the carriage.

Another object is to provide simple means for attaching the carriage to the head of the hanger.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed, without departing from the spirit of the invention.

In the accompanying drawings the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a side elevation of the upper portion of a door having connected to it hangers constructed in accordance with the present invention, said hangers being supported by a track parts of which are broken away. Fig. 2 is an enlarged section on line A—B Fig. 1. Fig. 3 is an enlarged transverse section through the middle portion of the carriage and the adjacent portion of the hanger head. Fig. 4 is a plan view of the carriage, portions thereof being shown in section. Fig. 5 is a side elevation of the carriage and adjacent portions of the hanger, one position of the carriage relative to the hanger being indicated by dotted lines. Fig. 6 is a view of the blank from which the hanger is formed. Fig. 7 is an enlarged transverse section through one of the wheels. Fig. 8 is

an enlarged transverse section through the pivot pin of the carriage and the spacing sleeve thereon.

Referring to the figures by characters of reference 1 designates a channel member constituting the track on which the carriage of the hanger is adapted to travel, there being a smooth strip 2 of steel or other hard material seated in and extending longitudinally of the channeled member and constituting a wear strip. An apron 3 is arranged along the bottom of the channel member 1 at one edge thereof and is connected to said member by brackets 4 bolted or otherwise secured to the parts. End castings 5 or the like are connected to the end portions of the apron 3 and carry cushions 6 of rubber or other suitable soft material, these cushions being located below the apron 3.

The hanger consists of a flat plate 7 adapted to extend below the apron 3 and above the channel member 1, said plate being provided, at its upper end, with an inverted U-shaped head 8 located adjacent the center of the plate and carrying a pivot pin 9 supported at both ends by said head. The elongated U-shaped frame 10 of the carriage is pivotally mounted upon this pin and lies close to the opposed walls of the head, and a sleeve 11 is mounted on the pin 9 and bears at its ends against opposite sides of the frame 10, this sleeve being secured to the pin 9 by a cotter pin 12 or the like extending through the sleeve and the pin 9. Thus it will be seen that longitudinal displacement of the pivot pin 9 is prevented but said pin can be easily removed in the event of wear or breakage simply by detaching the cotter pin 12.

Supporting wheels 13 are journaled within the end portions of the frame 10 and each wheel is preferably formed of oppositely disposed similar disks riveted or otherwise connected together, as shown in Fig. 7, the two rings coöperating to form a race 14 therebetween in which anti-friction balls 15 are mounted and adapted to contact with the bearing pin 16 extending transversely within the frame 10. An angle strip 17 is riveted or otherwise secured to the lower edge portion of the plate 7 and is supported close to but out of contact with the lower edge of the apron 3. This strip 17 is adapted to lap and to be secured to the upper edge portion

of a door A. By referring to Fig. 1 it will be seen that the top of each angle strip 17 has a tongue 18 extending beyond the adjacent end of the door A, said tongue having an upturned free end adapted to contact with the apron 3 above the path thereof when the door is tilted. By bending this tongue the upward movement of the door relative to the rail can be limited so as to prevent the wheels of the carriage from lifting out of the channel member 1.

By referring particularly to Fig. 5 it will be seen that the frame 10 of the carriage is mounted off center, the arched or crown portion of the frame being at a greater distance from the pivot pin 9 than is the other end of said frame. The arched or crown portion of the frame thus acts as a weight to maintain one of the wheels constantly in the channel member 1 should the door be jarred upwardly with such force as to lift the other wheel from the channel member.

It is to be understood that a hanger such as herein described is to be connected preferably to each upper corner of a door and by mounting the supporting wheels within tiltable carriages and providing the tongues 18 which cooperate with apron 3 to limit the upward movement of the door relative to the rail, it will be seen that there is no danger of the carriage becoming derailed and, should any of the working parts become worn so as to make derailment possible, the tongues 18 can be bent farther upward toward the apron 3 so as to further restrict the upward movement of the door such as produced when the door is jolted.

Lateral swinging of the door is of course

prevented by the hanger plate 7 bearing against the apron 3.

Cushions 6 are adapted to be contacted by the corner portions of the door.

What is claimed is:—

1. A door hanger including a head at the upper end thereof, a carriage pivotally mounted within the head, and supporting wheels journaled within the end portions of the carriage, said carriage being mounted off center.

2. A hanger including a head, a journal mounted within the head, a carriage frame pivotally mounted off center upon said journal, means within the frame and engaging said journal for holding the same against removal from the head and frame, and supporting wheels journaled within the frame.

3. The combination with a hanger head, of a pivot pin movable longitudinally therein, a U-shaped carriage frame pivotally mounted on the pin, a sleeve upon the pin and bearing at its ends against the inner faces of the sides of the carriage frame, means extending through the sleeve and pin for holding the sleeve and carriage frame against movement longitudinally of the pin and for holding the pin against displacement in the head, and supporting wheels journaled within the end portions of the frame.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

GEORGE T. BUDDLE.

Witnesses:

CHARLES E. BALL,
F. J. ZEBE.