

A. O. & G. E. BANKS.
HANGER FOR FREIGHT CAR DOORS.
APPLICATION FILED APR. 19, 1909.

937,751.

Patented Oct. 26, 1909.

2 SHEETS—SHEET 1.

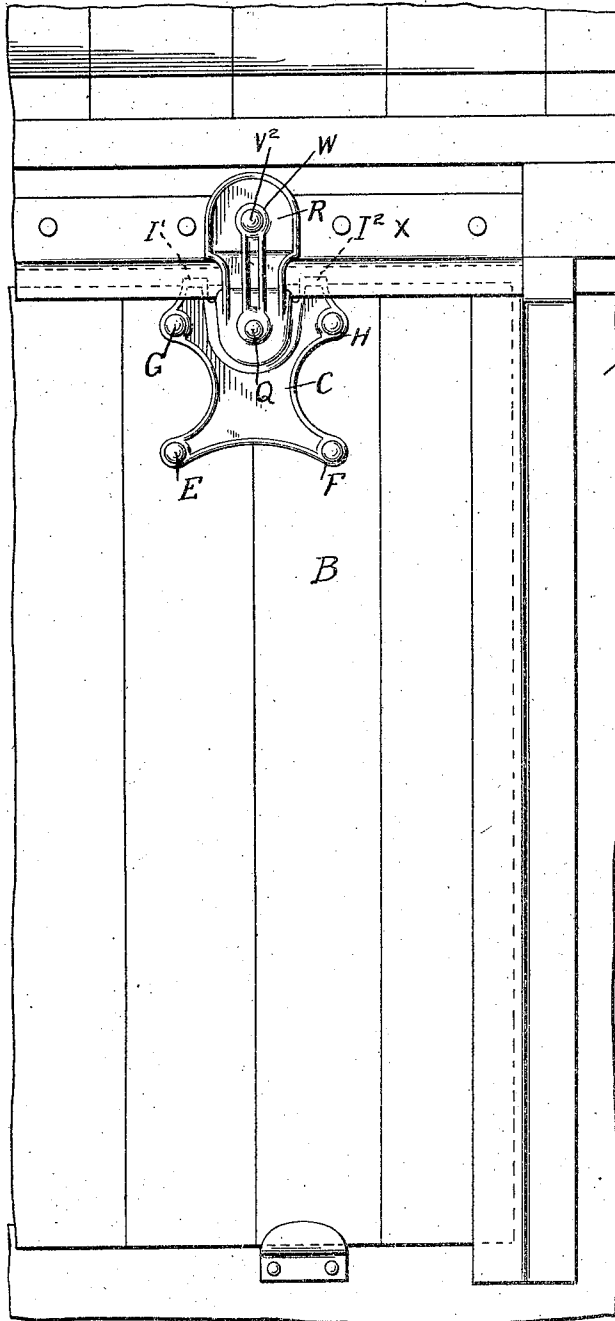


Fig. 1.

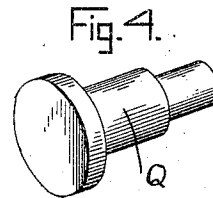


Fig. 4.

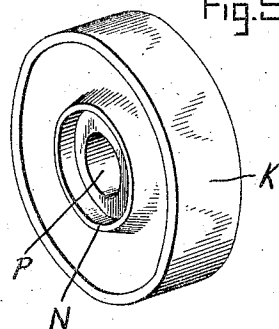


Fig. 5.

Inventor.

Witnesses

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By

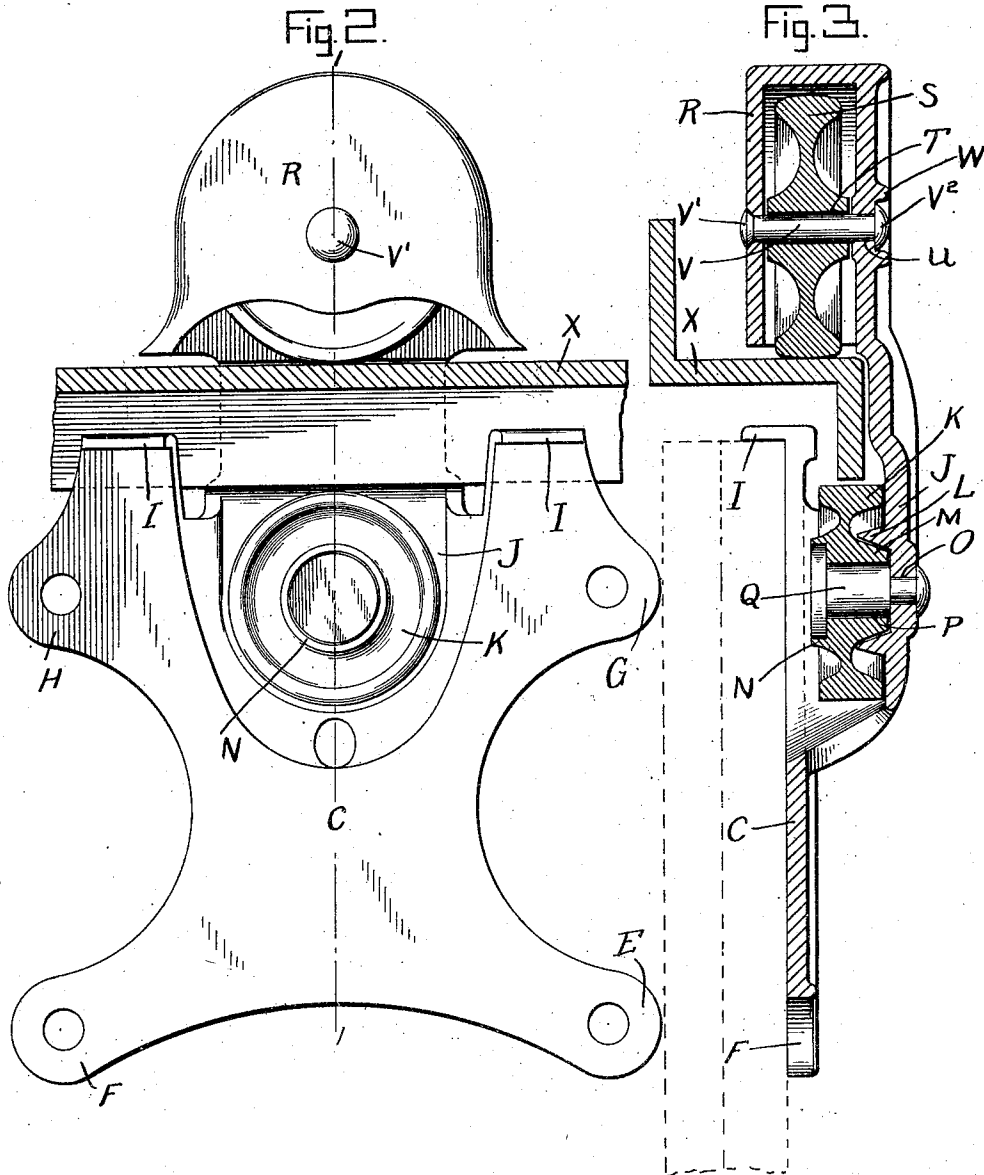
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UNITED STATES PATENT OFFICE.

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HANGER FOR FREIGHT-CAR DOORS.

937,751.

Specification of Letters Patent.

Patented Oct. 26, 1909.

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To all whom it may concern:

Be it known that we, AMOS O. BANKS and GEORGE E. BANKS, citizens of the United States, the former residing at Baltimore city, and the latter in Brunswick, in the county of Frederick, and State of Maryland, have invented certain new and useful Improvements in Hangers for Freight-Car Doors, of which the following is a specification.

Heretofore in the construction of freight car doors and their hangers of the double wheel class it has been the practice to provide a boxing for the lower track wheel in the side next to the hanger, this boxing being made slightly in curvilinear form. In order to apply these hanger plates it has been found necessary to cut out a portion of the door of the car at the top. When these hanger plates are placed in position the curved side of the boxing is thrown against the track, and when a car is loaded with a shifting load and pressure is brought to bear against the doors the entire pressure comes against the bottom of the boxing at the point of connection with the hanger plates, this point of connection being the most vulnerable or weakest point and it is liable to either bend or break and in either case it would render the door unserviceable.

To overcome these and other objections is the purpose of our present invention which is an improvement upon Letters Patent granted to Amos O. Banks and John J. Tatum, No. 896,265, dated August 18, 1908.

Our invention relates to improvements in freight car door hangers, and has primarily for its object dispensing with the cutting out of a portion of the door at its top in order to form a boxing or housing for a smaller and lower track wheel, and also providing the upper lugs of the hanger plate with guides formed integrally with and at the upper ends of said lugs.

With these and other objects in view the invention consists in the novel construction and combination of parts as will be hereinafter more in detail described and the asserted novelty specifically claimed.

We have fully and clearly illustrated our invention in the accompanying drawings, in which—

Figure 1 represents a side elevation of a portion of a car and its door in front elevation with our improved hanger applied to

the latter. Fig. 2 is a rear elevation of the same partly in section. Fig. 3 is a sectional edge view taken on the line 1—1, of Fig. 2, and Figs. 4 and 5 are detail views.

Similar letters of reference denote similar parts in the several figures.

Referring to the drawings; A indicates a portion of a car and B the door thereof, both of which being of the ordinary construction form no part of our invention.

C designates a hanger plate provided with upper and lower lugs E, F, G, H which are formed integrally with the body or casting of the hanger plate, the upper lugs G and H terminating in rearwardly projecting bearing flanges I, I and friction lugs I' I'. Formed integrally with the body of the hanger plate is an offset arm forming with said plate a boxing J, within which a wheel K, is rotatively mounted, a slotted flaring annulus L being formed upon the inner face of the offset within which loosely engages a slightly flaring or corresponding hub M formed upon the side of the wheel K adjacent to the offset or boxing. Upon the opposite side of the wheel is likewise formed an annulus N and through the aligned openings O and P respectively in the offset and wheel is passed a shouldered axle Q having upon its inner end a flattened head and upon its opposite or outer end a button shaped head, the flattened head seated in the annulus N. In the lower portion of the offset or boxing is formed an opening for a purpose which will be hereinafter explained. The upper portion of this offset arm terminates in a hood R within which is rotatively mounted but out of alinement with the lower and smaller wheel another and larger wheel S which travels upon the horizontal face of a Z-shaped track, the said wheel and hood having aligned openings T and U through which is transversely passed an axle V, having formed upon each end thereof button-heads V', V², the head V² fitting loosely in an annulus W formed upon the outer face or side of the hood.

X designates a Z-shaped track, the depending portion of which is interposed between the upper and lower wheels, and it is also interposed between the outer face of the hanger plate and the inner face of the offset arm respectively and upon which the wheels travel, and as before stated the wheels

being out of alinement they both bear upon the track, the upper one upon the horizontal portion and the lower one upon its depending edge as clearly shown in Fig. 3 of the drawings.

The friction lugs I' T² of the hanger plate serve the purpose of preventing the face of the door from contacting with the rail or track thus relieving the door from all wear and tear; while at the same time the position guides I, I, simplify the application of the hanger to the door to a great extent inasmuch as measuring position and distances of location and the unnecessary handling of the door before the hangers can be applied are avoided. When applying other hangers of the ordinary construction to doors it becomes necessary to handle them a number of times in order to locate the proper position for the same. By our construction of hanger plate guides this inconvenience and loss of time is entirely obviated which together with dispensing with cutting out of the tops of the door is an advantage of the first importance as it also saves and reduces the cost of applying the hangers to a minimum. The function of the bottom wheel is such that when the door lifts in opening or closing, this wheel will come in contact with the lower edge of the rail and prevents the door from binding or locking itself. The opening in the lower end of the offset allows all

melted snow and water to pass out from the parts of the device that may enter therein from without.

Having thus described our invention what we claim as new and desire to secure by Letters Patent, is;—

The combination with a car and car door; of a hanger plate having upper and lower lugs, bearing flanges, and friction lugs formed integrally therewith, a Z-shaped track located above and adjacent to the upper lugs and their friction lugs, an offset arm formed integrally with the hanger plate having a slightly flaring annulus formed upon the inner face of said offset arm, a wheel having a hub formed thereon upon its side adjacent to the inner face of the offset arm to operatively engage the slightly flaring annulus formed upon its opposite side, a flattened headed shouldered axle engaging said annulus, said offset arm having a hood formed upon the upper end thereof, and a wheel journaled in the hood, all arranged and operated substantially as described, and for the purpose set forth.

In testimony whereof we affix our signatures, in presence of two witnesses.

AMOS O. BANKS.

GEORGE E. BANKS.

Witnesses:

HENRY F. SPALDING,
MURRAY HANSON.