

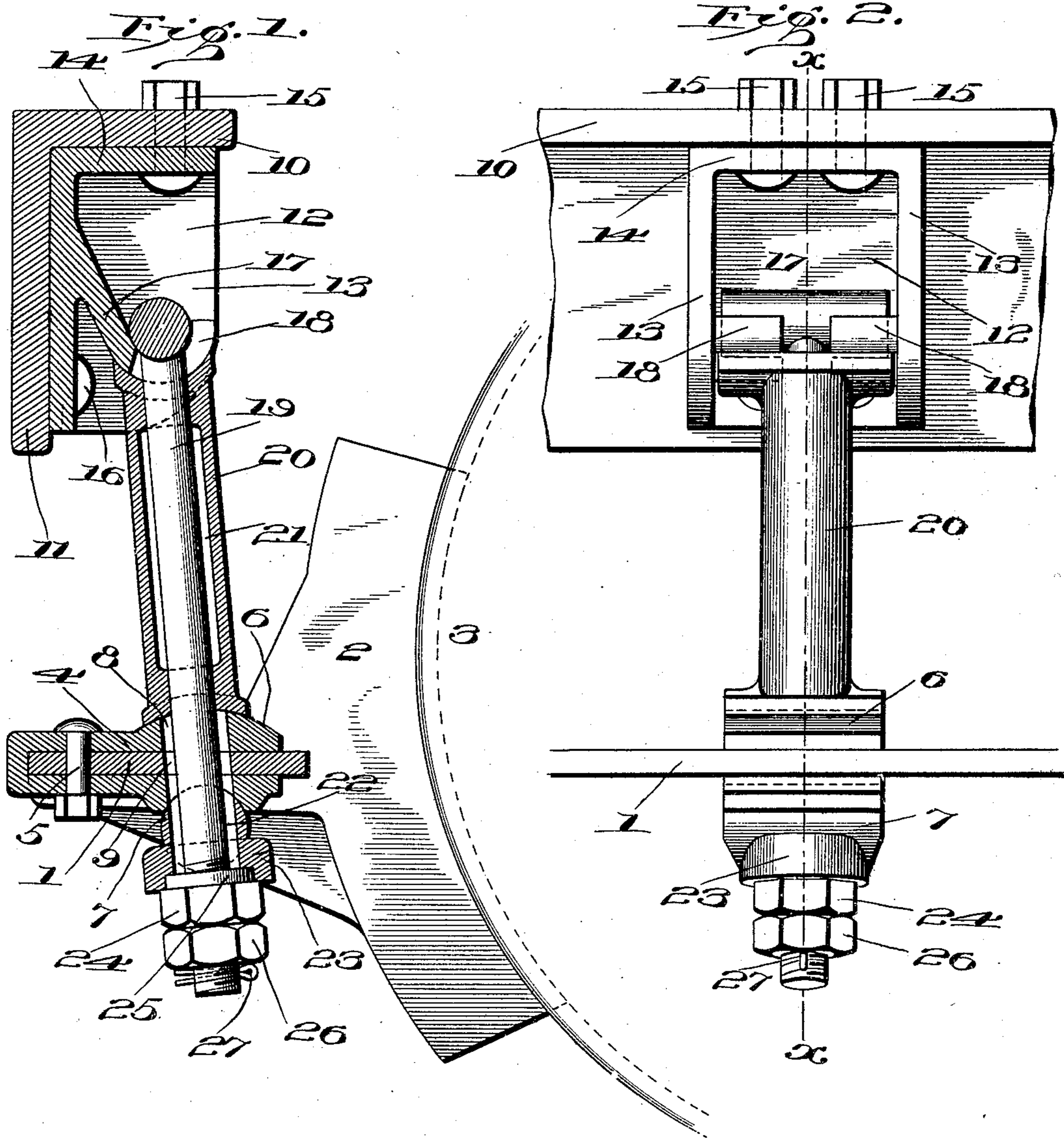
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W. H. WILKINSON.

BRAKE HANGER.

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WITNESSES:

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BRAKE-HANGER.

SPECIFICATION forming part of Letters Patent No. 790,991, dated May 30, 1905.

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To all whom it may concern:

Be it known that I, WALTER H. WILKINSON, residing at Kingston, in the county of Ulster and State of New York, have invented certain
5 new and useful Improvements in Brake-Hangers, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which it appertains to make and use the same.

10 This invention relates to the means of suspension of a brake-shoe.

One of the objects thereof is to provide a brake-hanger which shall be adapted to be securely supported from a truck-frame and in
15 which all chattering will be obviated.

Another object is to provide means for securely fastening the same to a transom.

Another object is to provide a simple and readily-accessible means of adjustment where-
20 by all looseness of the several parts due to wear or other cause may be taken up.

Other objects will be in part obvious and in part pointed out hereinafter.

The invention accordingly consists in the
25 combinations of elements, arrangement of parts, and features of construction, which will be exemplified in the device herein described and the scope of the application of which will be indicated in the following claims.

30 In the accompanying drawings, wherein is shown one of various possible embodiments of my invention, Figure 1 is a sectional elevation of the same, taken substantially on the line *xx* of Fig. 2 and showing a brake-shoe and a portion of a wheel in elevation. Fig.
35 2 is an elevation of some of the parts shown in Fig. 1.

Similar reference characters refer to similar parts throughout both views.

40 In order to render clearer the general nature of my invention, it may be noted that in constructions of this general type substantially the entire stress due to the engagement of the wheels by the brake-shoes is transmitted
45 through the hangers to the truck-frame. Due to this fact the hangers must necessarily be of strong construction and must be strongly and rigidly secured to the truck-frame and

yet have the desired free rocking movement with relation thereto. This is well accom- 50
plished by bringing the point of support of the hangers as near as possible to the transom from which they are supported. In this manner the leverage exercised upon the supporting-bracket by the hanger is shortened 55
and the tendency to tear the parts free from the frame diminished. This effect is heightened by providing an upper portion of the bracket projecting substantially over the same and rigidly securing this part to the outturned 60
flange of the transom. It is also highly desirable to have the means of adjustment whereby the chattering of the hanger is obviated readily accessible without the necessity of re-
65 moving any part of the truck.

The above and other advantages are attained in constructions of the nature of that hereinafter described.

Referring now to Fig. 1 of the drawings, there is represented at 1 a brake-beam of a 70
well-known metallic type, having secured at its ends brake-shoes 2, adapted to engage in the ordinary manner with the wheels 3. On brake-beam 1 is mounted a bearing 4, which is held in place by means of bolt 5 and is pro- 75
vided at its upper surface with a convex portion 6. Upon the lower surface of this bearing there is formed a concave recess 7 for the purposes hereinafter described, and an open-
80 ing 8, registering with a similar opening 9 in the brake-beam, is also provided. Secured within the angle formed by the outwardly-projecting flange 10 of a transom 11 is a bracket 12, which is formed with side wings 13 and a horizontal connecting-web 14. The 85
latter part fits beneath flange 10 upon the transom 11 and is held in place by means of bolts 15. The rear wall of the bracket is also secured to the transom, as by means of bolt 16 or in any other desired manner. With- 90
in bracket 12 is a depending hook 17, recessed, as shown at 18. Supported within this hook is a link or T-bolt 19, the T-head formed thereon or secured thereto resting within the same and the shank passing downwardly 95
through recess 18. About this link or bolt is

positioned a sleeve 20, the upper and lower portions of which fit, respectively, the lower surface of the hook 17 and the upper convex portion 6 of the bearing 4. This sleeve has
 5 a rocking connection with reference to these parts, or, in other words, is adapted to oscillate about the same, the contacting surfaces being of equal radii of curvature. By "rocking connection" as used throughout this specification and in the following claims is meant
 10 such a relation as will permit the member having said connection to oscillate or rock about the member with which it is connected. The inner surface of sleeve 20 is preferably
 15 recessed, as shown at 21, so as to obviate friction in adjustment, as will be clear from the description of operation hereinafter given. Bolt 19 projects through the openings 8 and 9, formed, respectively, in bearing 4 and
 20 brake-beam 1, and passes through an opening or perforation 22 in a rocker-block 23, which fits the concave recessed portion 7 in the lower part of the bearing. This rocker-block is provided with a depending base against
 25 which a nut 24, tapped upon bolt 19, is adapted to abut, a projecting shoulder 25 formed thereon preferably fitting within a suitable recess in the lower surface of the rocker-block. A check or lock nut 26 is provided,
 30 and, if desired, a linchpin 27 may be passed through the lower extremity of the bolt in order to obviate the possibility of the parts becoming loosened and detached.

The curved surfaces of recess 7 and projection 6, together with the surfaces of the rocker-block and hanger, respectively contacting therewith, are concentric, so as to permit a free rocking movement of the link and
 35 T-bolt 19 and the surrounding sleeve with reference to the bearing-block without any cramping or loosening of the several parts. In like manner the upper and lower surfaces of the supporting-hook 17 are concentric about the center of the T-head of bolt 19, and
 40 thus permit a similar free rocking movement.

It may here be noted that by the term "brake-hanger" as used throughout this specification and in the following claims is
 50 intended any means whereby brake-shoes are either directly or indirectly supported.

The operation of the above-described embodiment of my invention is substantially as follows: Assuming the parts to be lying in
 55 the position shown in the drawings, a free rocking movement is permitted the brake-beam with respect to the link and sleeve, which together constitute the hanger proper, and also of these parts with respect to the bracket
 60 from which they are supported. Owing to this freedom of movement the brake-shoes may be readily either applied or retracted, the brake-beam moving substantially in its own plane and the brake-hanger oscillating with
 65 reference to the beam and to the supporting-

bracket. Any looseness in the device due to wear of the contacting surfaces or other cause is readily taken up by means of the adjusting-nut 24, which is locked in position in a well-known manner by lock-nut 26. In this man-
 70 ner the braking mechanism is maintained in such condition that any chattering of the parts upon the application of the brakes is obviated and yet entire freedom in application is attained. The severe stresses to which the
 75 brake-hanger is subjected are thus transmitted directly to the bracket at a point which is closely adjacent to the transom 11, and the tendency to tear this part free from the transom is materially lessened, this strength and
 80 rigidity being increased by the connection between the outwardly-projecting flange 10 of the transom and the corresponding part of the bracket. Although the upper portion of the hanging-link is thus to a certain extent
 85 somewhat inaccessible, it is generally unnecessary to have access to the same, as the entire adjustment is carried out by means of the nuts 24 and 26, which are in a convenient position.
 90

It will thus be seen that I have provided a simple and convenient means of supporting braking mechanism whereby the same has a connection to the frame which is strong and rigid to a marked degree. Moreover, the
 95 brake-beam is supported directly from the hanger, thus insuring a more compact construction and uniform application of the brakes. It will also be noted that the several parts are easily assembled and adjusted and
 100 that the same are of simple and durable construction. The overhanging flange of the bracket, moreover, tends to lessen the accumulation of dust within the bearing of T-bolt 19, as well as to increase the strength of construction, as before set forth. It may also be
 105 noted that the construction herein described is applicable with slight changes to many forms of trucks now in use.

As many changes could be made in the above construction and many apparently widely different embodiments of my invention could be made without departing from the scope thereof, I intend that all matter contained in
 110 the above description and shown in the accompanying drawings shall be interpreted as illustrative and not in a limiting sense. I desire it also to be understood that the language used in the following claims is intended
 115 to cover all of the generic and specific features of the invention herein described and all statements of the scope of the invention which as a matter of language might be said to fall therebetween.

Having now described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a brake-hanger, in combination, a shoe-supporting member, a bracket, a bolt supporting said shoe-supporting member on said
 130

bracket, a sleeve about said bolt adapted to maintain said bracket and said shoe-supporting member at a fixed distance apart, and adjusting means upon said bolt positioned below said shoe-supporting member whereby the effective length of the same can be varied.

2. In a brake-hanger, in combination, a shoe-supporting member, a bracket, a bolt supported on said bracket projecting through said shoe-supporting member, a sleeve about said bolt adapted to maintain said bracket and said shoe-supporting member at a constant distance apart; an adjusting means upon the lower end of said bolt whereby the effective length thereof can be varied, and a projecting flange upon said bracket overhanging the connection of said bolt therewith.

3. In a brake-hanger, in combination, a shoe-supporting member, a bracket, a bolt supported on said bracket projecting through said shoe-supporting member, a sleeve about said bolt adapted to maintain said bracket and said shoe-supporting member at a constant distance apart; an adjusting means upon the lower end of said bolt whereby the effective length thereof can be varied, and a projecting flange upon said bracket overhanging the connection of said bolt therewith, said bolt and said sleeve having rocking connections with said bracket and said shoe-supporting member.

4. In a brake-hanger, in combination, a shoe-supporting member having a part thereon the upper surface of which is convex and the lower surface of which is concave, a supporting member the upper surface of which is concave and the lower surface of which is convex, a sleeve resting against said convex surfaces, a bolt passing through said sleeve and resting within the concave portion of said second-mentioned member, a rocker-block positioned upon said bolt and resting within the lower concave surface upon said shoe-supporting member and a nut upon said bolt abutting against said rocker-block whereby the effective length of said bolt can be varied, said convex and concave surfaces upon said supporting member and upon said brake-supporting member being substantially concentric.

5. In a brake-hanger, in combination, a brake-supporting member, an angle-transom, a bracket fitting within said transom and secured to the flanges thereof, a hooked supporting member within said bracket, a bearing-block on said brake-supporting member, a T-bolt resting within and projecting through said hooked supporting member and said bearing-block, a sleeve about said T-bolt abutting against the lower surface of said hooked supporting member and the upper surface of said bearing-block, a rocker-block on said T-bolt resting within said bearing-block and means whereby the effective length of said T-bolt can be varied.

6. In a brake-hanger, in combination, a shoe-

supporting member having a part thereon the upper surface of which is convex and the lower surface of which is concave, a supporting member the upper surface of which is concave and the lower surface of which is convex, a sleeve resting against said convex surfaces, a T-bolt passing through said sleeve and resting within the concave portion of said supporting member, a rocker-block positioned upon said bolt and resting within the lower concave surface upon said shoe-supporting member and a nut upon said T-bolt abutting against said rocker-block whereby the effective length of said bolt can be varied, said convex and concave surfaces upon said supporting member and upon said brake-supporting member being substantially concentric.

7. In a brake-hanger, in combination, a brake-supporting member, an angle-transom, a bracket fitting within said transom and secured to the flange thereof, a hooked supporting member within said bracket, a bearing-block upon said brake-supporting member, a T-bolt resting within and projecting through said hooked supporting member and said bearing-block, a sleeve about said T-bolt abutting against the lower surface of said hooked supporting member and the upper surface of said bearing-block, a rocker-block on said T-bolt resting within said bearing-block and means whereby the effective length of said T-bolt can be varied, said T-bolt and sleeve having rocking connections with said bracket and said bearing-block.

8. In a brake-hanger, in combination, a shoe-supporting member, a truck-frame, a bracket resting within said truck-frame and beneath an overhanging flange thereof, said bracket being provided with a portion resting against said flange and secured thereto a hook-shaped member in said bracket, a sleeve abutting against the lower surface of said hook-shaped member and an upwardly-projecting part upon said shoe-supporting member, a T-bolt within said sleeve resting with its transverse portion within said hook-shaped member and projecting through the same and through said shoe-supporting member, a rocker-block engaging a downwardly-projecting part upon said shoe-supporting member and an adjusting-nut upon said bolt abutting against said rocker-block, the transverse portion of said T-bolt being positioned within said bracket and below the flange upon said truck-frame, and said T-bolt and sleeve having rocking connections with said hook-shaped and shoe-supporting members.

9. In a brake-hanger, in combination, a brake-beam, a bracket, a bolt resting within said bracket and projecting through said brake-beam, a sleeve about said bolt stretched between said bracket and said brake-beam and an adjusting-nut on the lower end of said bolt.

10. In a brake-hanger, in combination, a

brake-beam, a bracket, a hook-shaped part within said bracket, a T-bolt resting against and projecting through said part and extending through said brake-beam, a sleeve about
 5 said T-bolt abutting against said brake-beam and the lower portion of said hook-shaped part, a rocker-block upon said T-bolt resting against a downwardly-projecting part on said brake-beam and an adjusting-nut tapped upon
 10 said T-bolt and abutting against said rocker-block.

11. In a brake-hanger, in combination, a brake-beam, a bracket, a hook-shaped part within said bracket, a T-bolt resting against
 15 and projecting through said part and extending through said brake-beam, a sleeve about said T-bolt abutting against an upwardly-projecting part on said brake-beam and said hook-shaped part, a rocker-block upon said T-bolt
 20 resting against a downwardly-projecting part on said brake-beam and an adjusting-nut tapped upon said T-bolt and abutting against said rocker-block, said bracket being provided with a flange overhanging said hook-
 25 shaped part.

12. In a brake-hanger, in combination, a brake-beam, a bracket, a hook-shaped part within said bracket, a T-bolt resting within and projecting through said part and extending
 30 through said brake-beam, a sleeve about said T-bolt abutting against an upwardly-projecting part on said brake-beam and the lower portion of said hook-shaped part, a rocker-block upon said T-bolt resting against a downwardly-pro-

jecting part on said brake-beam, an adjust- 35
 ing-nut tapped upon said T-bolt and abutting against said rocker-block, said bracket being provided with a flange overhanging said hook-shaped part and an angle-transom within
 40 which said bracket is fitted, the outwardly-projecting flange thereof being secured to the flange of said bracket.

13. In a brake-hanger, in combination, a brake-beam, a bearing-block thereon, an angle-transom, a bracket secured to said angle- 45
 transom and resting between the flanges thereof, a hook-shaped part within said bracket below the flange of said angle-transom, a T-bolt resting within and projecting through
 50 said hook-shaped member and extending through said bearing-block and brake-beam, a sleeve about said T-bolt abutting against the upper surface of said bearing-block and the lower surface of said hook-shaped part, a
 55 rocker-block on said T-bolt engaging the lower surface of said bearing-block and an adjusting-nut tapped upon said T-bolt abutting against the lower surface of said rocker-block, said link and sleeve having a rocking
 60 connection with said hook-shaped member and said bearing-block.

In testimony whereof I affix my signature in the presence of two witnesses.

WALTER H. WILKINSON.

Witnesses:

JNO. J. RILEY,
 G. H. BOWERS.