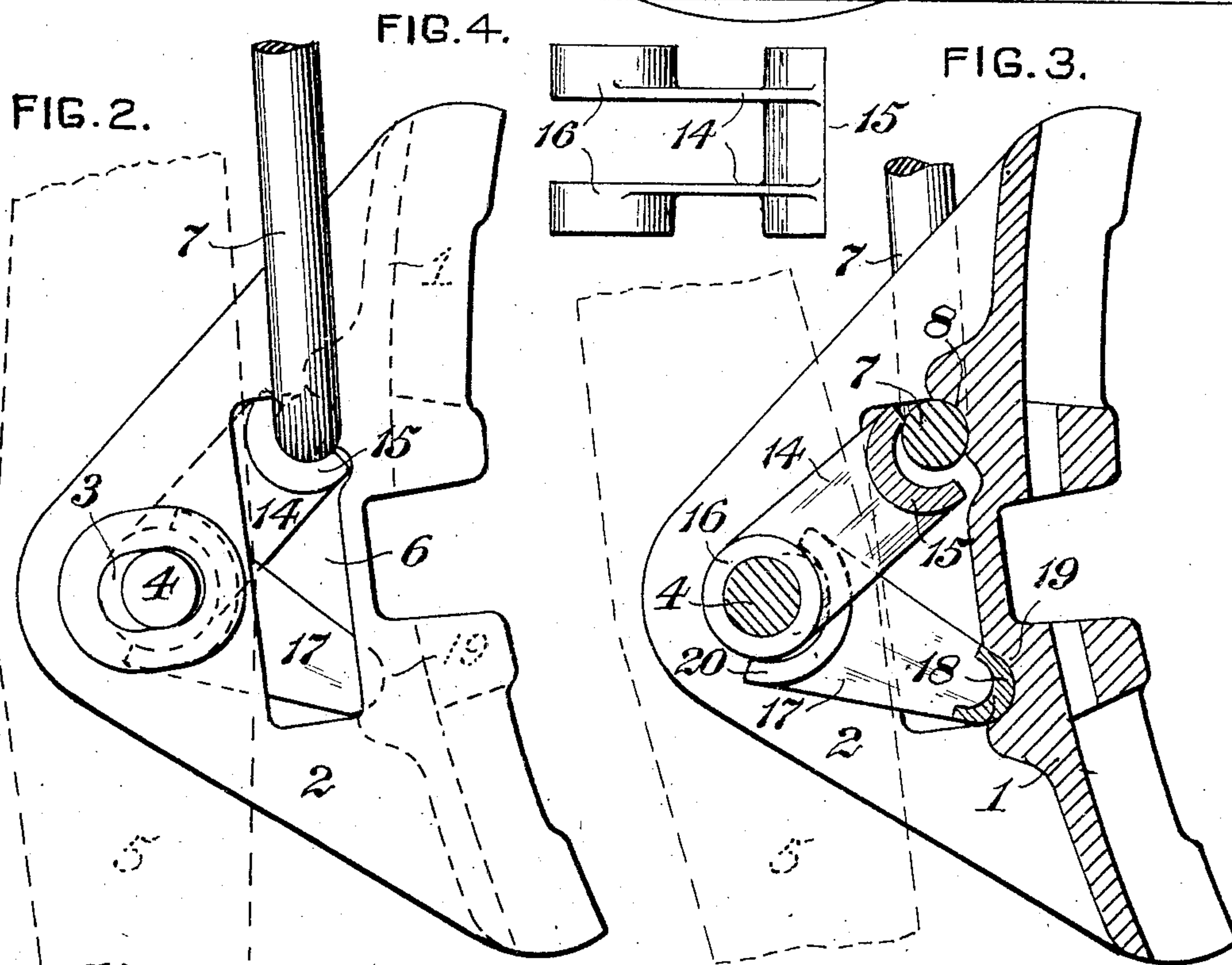
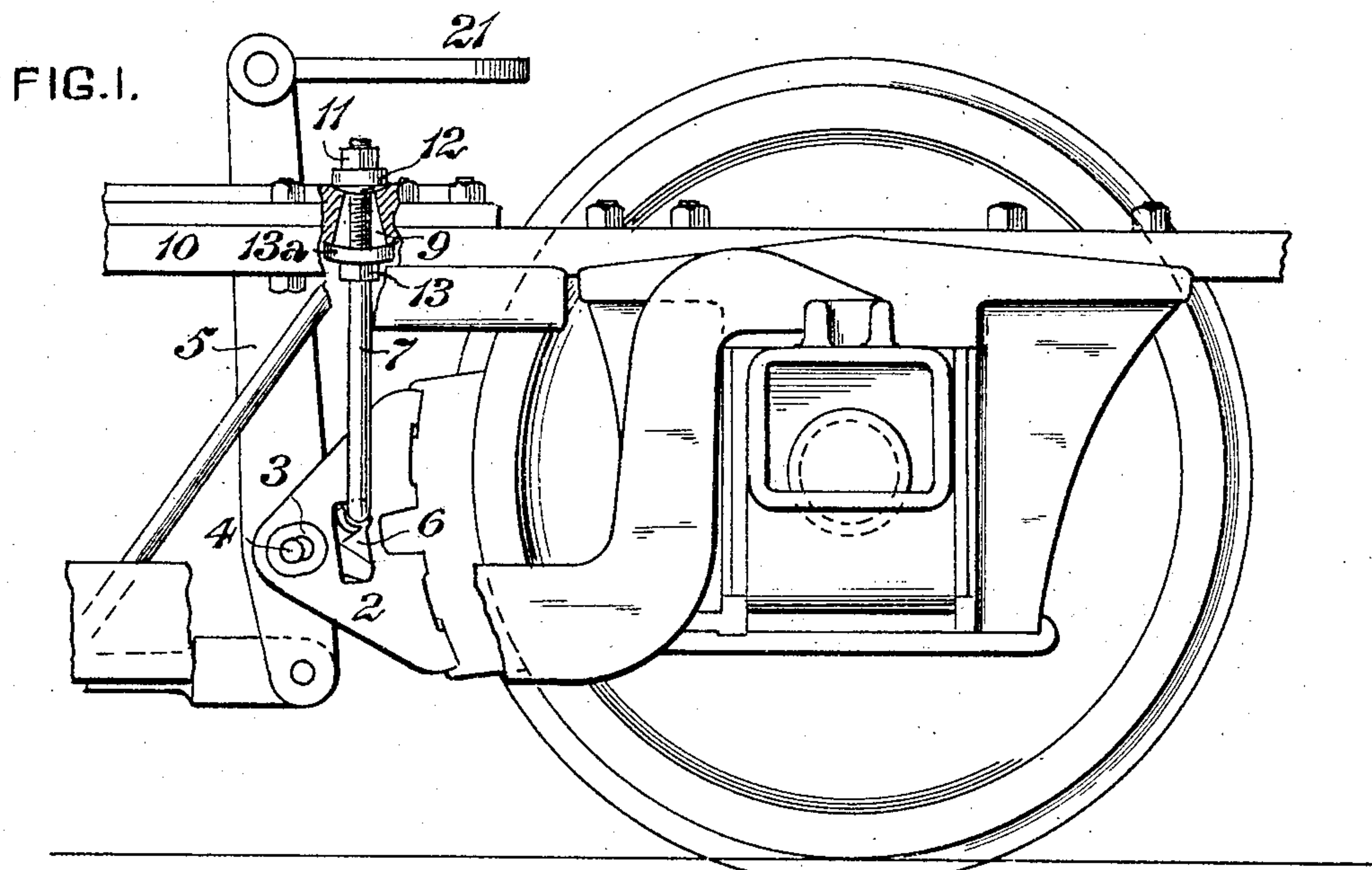


No. 786,488.

PATENTED APR. 4, 1905.

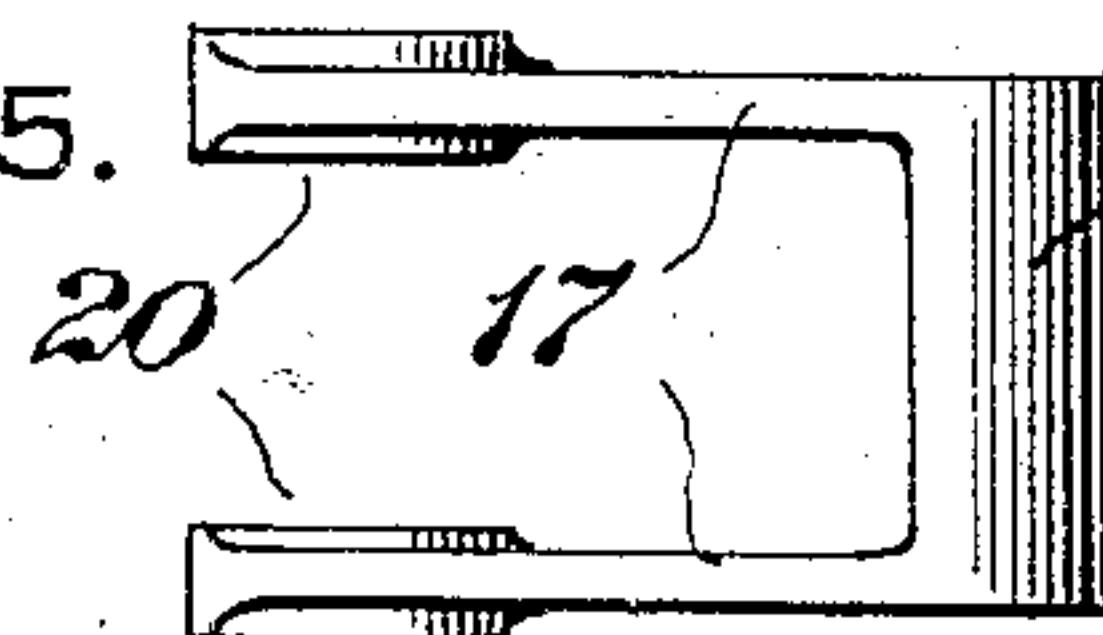
W. DALTON.
RAILROAD TRUCK BRAKE.
APPLICATION FILED JAN. 14, 1905.



WITNESSES

James C. Herron.
S. R. Bell.

FIG. 5.



INVENTOR

Wm. Dalton,
by S. R. Bell
Att'y.

UNITED STATES PATENT OFFICE.

WILLIAM DALTON, OF SCHENECTADY, NEW YORK, ASSIGNOR TO AMERICAN LOCOMOTIVE COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW YORK.

RAILROAD-TRUCK BRAKE.

SPECIFICATION forming part of Letters Patent No. 786,488, dated April 4, 1905.

Application filed January 14, 1905. Serial No. 241,014.

To all whom it may concern,

Be it known that I, WILLIAM DALTON, of Schenectady, in the county of Schenectady and State of New York, have invented a certain
5 new and useful Improvement in Railroad-Truck Brakes, of which improvement the following is a specification.

The object of my invention is to provide means whereby the brake-heads of railroad-car trucks may be so supported and connected
10 with their operating-levers as to enable the latter to be located in substantially vertical planes and to prevent chattering of the brake-rigging due to lost motion between the brake-
15 heads and their supporting-hangers.

The improvement claimed is hereinafter fully set forth.

In the accompanying drawings, Figure 1 is a side view in elevation of a portion of a car-truck, illustrating an application of my invention; Fig. 2, a similar view, on an enlarged
20 scale, of a brake-head and its connections, showing the parts in the positions occupied when the brake is "set" or applied; Fig. 3, a similar view showing the brake-head in vertical central section and the parts in the positions occupied when the brake is released; Fig. 4, a plan or top view of the upper member of the toggle mechanism detached, and
25 Fig. 5 a similar view of the lower member of the toggle mechanism.

In the practice of my invention I provide a brake-head which comprises a central body 1, which is suitably curved and recessed to fit
35 against the back of a brake-shoe of the ordinary construction, and two parallel side plates 2, which project rearwardly in substantially triangular form from the body. Slots 3, having semicircular ends and elongated to a distance greater than the diameter of their ends,
40 are formed in the side plates of the brake-head adjacent to their rear ends, said slots serving to receive a transverse pin 4, by which the brake-head is coupled to an operating
45 brake-lever 5. Vertical slots 6 are also formed in the side plates of the brake-head, through which is passed the lower horizontal portion of a U-shaped brake-hanger 7, which fits against a curved bearing-face 8 on the back

of the body of the brake-head. The upper
50 ends of the vertical side arms of the brake-hanger pass through conical openings 9 in the upper frame 10 of the truck and are connected thereto, with the capacity of oscillatory movement therein, by nuts 11, engaging threads on
55 the side arms of the hanger and bearing on spherical-faced washers 12, fitting corresponding recesses on the top of the frame-bar, and nuts 13, also engaging the side arms and bearing on correspondingly-faced washers 13^a, fitting
60 corresponding seats on the bottom of the frame-bar.

Power is applied to the brake-head from the brake-lever to set or apply the brake through the intermediation of a toggle mechanism having an upper and a lower member. The upper member is composed of two parallel arms 14, which are connected at one end by a concave segmental bearing-plate 15 and which
65 have eyes or short sleeves 16 formed on their opposite ends and drilled to fit on the pin 4 of the brake-lever on opposite sides of said lever. The bearing-plate 15 fits closely against the horizontal portion of the brake-hanger when the brakes are set, as shown in Fig. 2,
70 and is free therefrom when they are released, as shown in Fig. 3. The lower member of the toggle mechanism is composed of two parallel arms 17, set sufficiently far apart to admit the arms of the upper member between
80 them and connected at one end by a convex bearing-plate 18, which fits against a correspondingly-curved bearing-face 19 on the body of the brake-head. Concave segmental bearing-plates 20 are formed on the opposite ends
85 of the arms 17 and fit closely against the adjacent portions of the peripheries of the eyes 16 of the upper member when the brakes are set, as indicated in dotted lines in Fig. 2.

In operation when braking power is applied
90 to the brake-lever 5 through the pull-rod 21 to set the brakes the brake-lever pin 4 is forced toward the wheel through the elongated slots 3, and pressure is applied to the brake-head to force it and its connected brake-shoe
95 against the tread of the wheel through the upper and lower members of the toggle mechanism, the bearing-surfaces of which are forced

one against the other at their joints adjacent to the brake-lever pin, and both members are forced against the brake-head at their opposite ends. All slack or lost motion between the brake-head and brake-hanger is thereby taken up when the brakes are set, and when they are released the connection will be a loose one, as shown in Fig. 3, so as to admit of lateral traverse of the brake-head in correspondence with end play of the axle and avoid the side flange wear, which is experienced with devices which hold the brake-head rigidly as to side motion.

I claim as my invention and desire to secure by Letters Patent—

1. The combination of a brake-head, a supporting brake-hanger, a brake-operating lever, a pin coupling said lever to the brake-head with a limited degree of relative traverse, and a toggle mechanism interposed between said pin and the brake-head.

2. The combination of a brake-head, a supporting brake-hanger, a brake-operating lever, a pin coupling said lever to the brake-head with a limited degree of relative traverse, a toggle-mechanism member having eyes at one end fitting on said pin and a bearing-plate on the other adapted to exert pressure on the brake-head, and a toggle-mechanism member having bearing-plates on its opposite ends adapted to abut against the first-specified toggle member and against the brake-head, respectively.

3. The combination of a brake-head, a brake-

hanger coupled at its upper end, by an oscillatory joint, to a truck-frame and supporting the brake-head with the capacity of relative lateral motion at its lower end, a brake-operating lever, a pin coupling said lever to the brake-head with a limited degree of relative traverse, and a toggle mechanism interposed between said pin and the brake-head.

4. The combination of a brake-head having a body and rearwardly-projecting side plates, a U-shaped brake-hanger passing through vertical slots in the side plates and fitting a curved bearing-face on the body, means for connecting the upper ends of the hanger to a truck-frame with the capacity of oscillatory movement, a brake-operating lever located in a substantially vertical plane between the side plates of the brake-head, a transverse coupling-pin fitting truly in said lever and passing through elongated slots in the side plates of the brake-head, a toggle-mechanism member having eyes at one end fitting on said pin and a bearing-plate on the other adapted to abut against the brake-hanger, and a toggle-mechanism member having concave bearing-plates on one end adapted to abut against the eyes of the first-specified toggle-mechanism member and a convex bearing-plate on the other end adapted to abut against a bearing-face on the brake-head.

WILLIAM DALTON.

Witnesses:

S. J. BENNER,
F. T. BRIGGS.