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A. CASE.

IMPLEMENT FOR USE IN REPLACING CAR AXLE BRASSES.

APPLICATION FILED APR. 18, 1903. RENEWED JAN. 19, 1904.

NO MODEL.

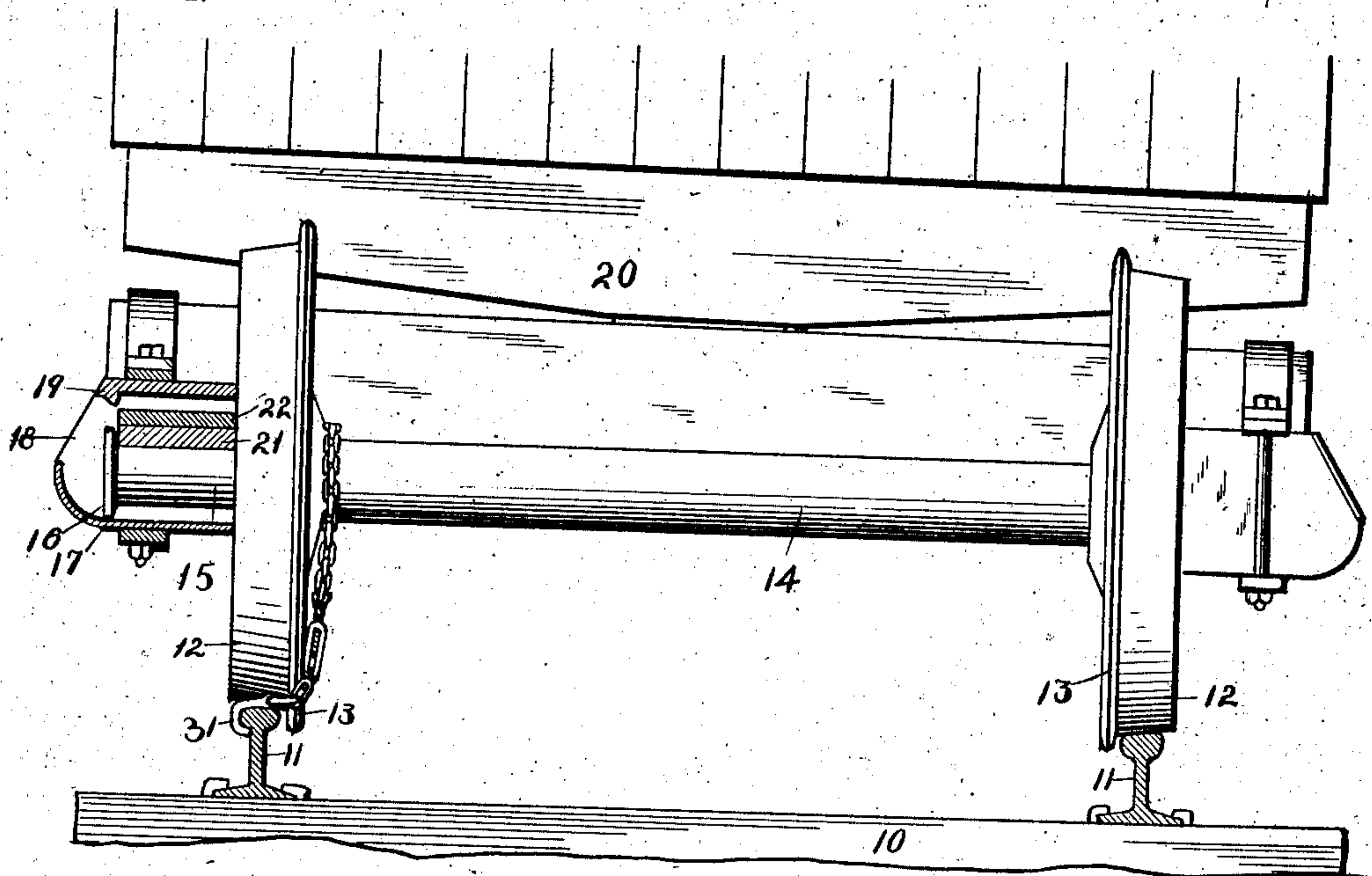


Fig. 1.

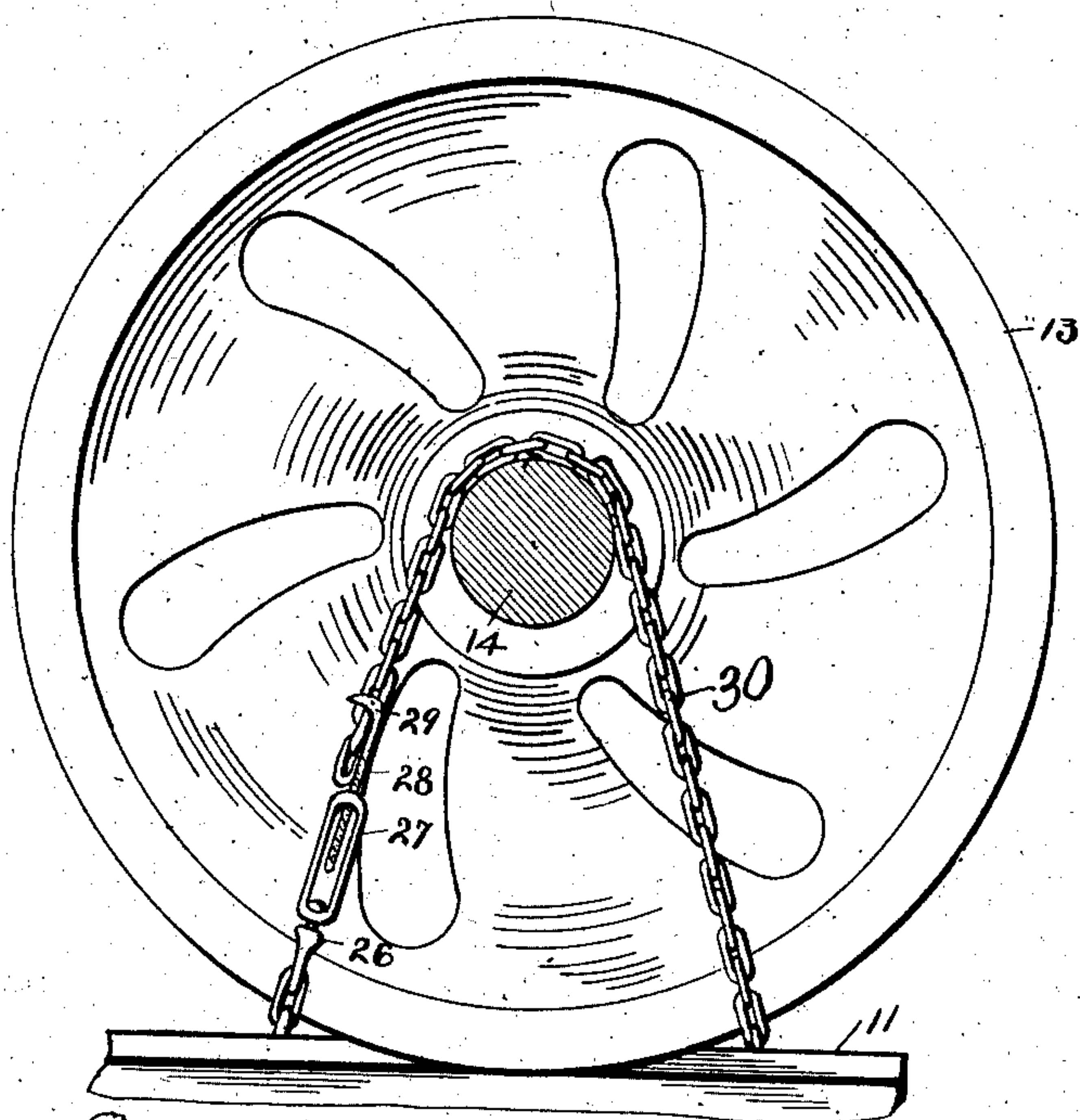


Fig. 2.

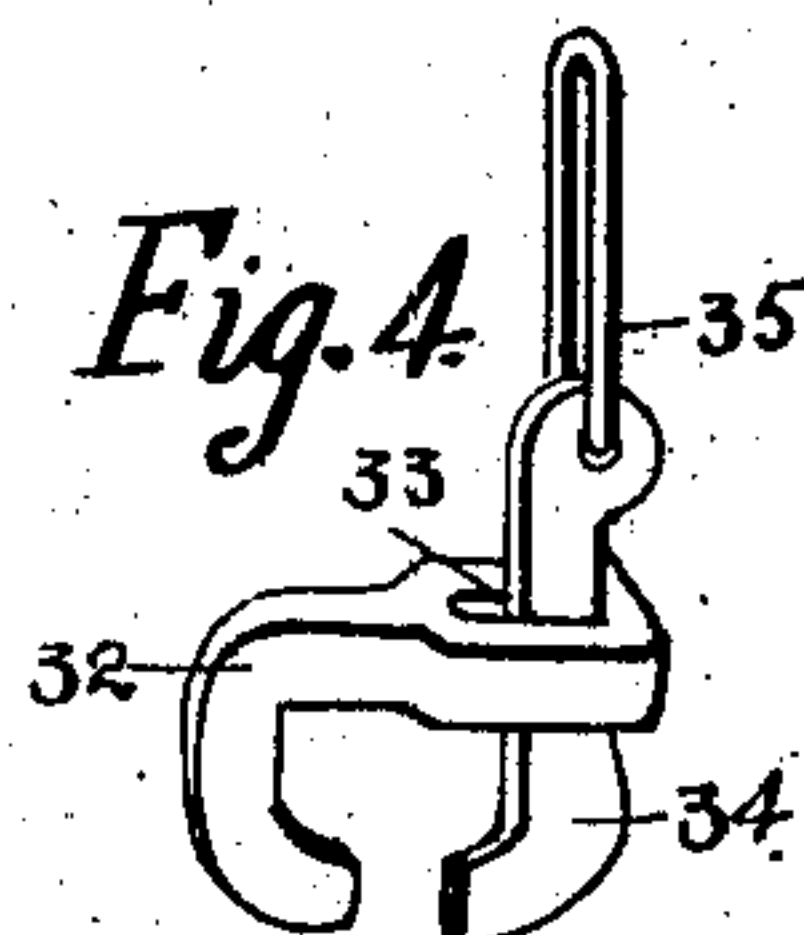


Fig. 3.

Witnesses

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IMPLEMENT FOR USE IN REPLACING CAR-AXLE BRASSES.

SPECIFICATION forming part of Letters Patent No. 757,266, dated April 12, 1904.

Application filed April 18, 1903. Renewed January 19, 1904. Serial No. 189,761. (No model.)

To all whom it may concern:

Be it known that I, AMOS CASE, a citizen of the United States, residing at Perry, in the county of Dallas and State of Iowa, have invented a certain new and useful Instrument for Use in Replacing Car-Axle Brasses, of which the following is a specification.

When the brasses which form the bearings for railway-cars become worn or defective for any reason, they are usually replaced by first elevating the bearing-box, after which the brass which rests on top of the car-axle journal may be removed through the box. In performing this operation it has been found that in many instances the elevation of one of the boxes takes the weight off the adjacent journal and the weight of the car upon the box on the opposite side tends to tilt the axle and cause the journal on the side being raised to move upwardly, making it impossible to remove the brasses, and some means must be provided for holding this journal downwardly when the box is elevated.

My object is to provide an implement of simple, durable, and inexpensive construction and of light weight and small size that may easily and conveniently be carried with a car-repairing outfit and that may quickly and easily be applied to a car-axle and attached to the railway-rail upon which the car is resting in such manner as to securely hold the car-axle in position while one of the boxes is being elevated, so that the removal of the brass may be quickly and easily accomplished.

A further object is to provide an improved grip device for attaching the chains to a railway-rail.

My invention consists in certain details in the construction, arrangement, and combination of the various parts of the device whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 shows an end elevation of a part of a railway-car with the wheels resting upon railway-rails and showing one of the boxes elevated in position where the brass may easily be removed and also showing my improved implement in position holding the car-axle

downwardly, the journal-box and the brass being shown in vertical section. Fig. 2 shows a vertical sectional view through a car-axle looking outwardly toward the wheel and showing my improved implement in position holding the wheel to the rail. Fig. 3 shows my improved implement detached, and Fig. 4 shows a detail perspective view of my preferred form of grip device.

Referring to the accompanying drawings, I have used the reference-numeral 10 to indicate a cross-tie upon which the rails 11 of the ordinary construction are fixed.

The numeral 12 is used to indicate the car-wheels, having the flanges 13. These wheels are fixed to the axle 14. This axle is provided with a journal 15 on each end projecting outwardly from the wheel, and on the outer end of each journal is an integral rim 16.

The numeral 17 indicates a bearing-box of ordinary construction, having an opening 18, through which access may be had to the journal and the brass. Projecting downwardly from the box 17 is a rib 19 in vertical alignment with the rim 16. The car proper (indicated by the numeral 20) rests upon the boxes.

The numeral 21 indicates a brass of the kind used in car journal-boxes, and 22 indicates a wedge of the ordinary form used between the brass and the top of the bearing-box.

In order to remove the brass from a bearing-box, it is necessary to first elevate the box to position shown in Fig. 1, so that the rib 19 and the rim 16 are separated sufficiently to permit the withdrawal of the wedge 22, after which the brass may be easily removed by first elevating it over the rim 16.

My improved device for holding the car-wheel to the track comprises first a hook 23 of such shape as to admit one-half of the ball of a rail, the shank 24 of the hook resting on top of the rail. Connected with the shank 24 is a short chain-section 25, and a swivel 26 is attached to the chain-section 25 and to a turnbuckle 27. Mounted in the other end of this turnbuckle 27 is a screw-threaded rod 28, having a slotted end 29 bent at right angles to its body portions.

The numeral 30 indicates a chain, the links of which are designed to enter the slotted end

29, and on one end of the chain 30 is a hook 31, similar to the hook 23.

In practical use the operator proceeds as follows: He first places the hook 31 in position against the outer portion of the ball of the rail directly under the journal to be held downwardly. He then passes the chain 30 under the wheel-flange, as clearly shown in Fig. 2. He then passes the chain 30 over the car-axle between the wheels. He then attaches the hook 23 to the rail at the opposite edge of the car-wheel, engaging the outer portion of the ball of the rail, the chain 25 being passed under the wheel-rim in the same way as the chain 30 was previously passed. He then stretches both chains as tight as possible and places the hook 29 in engagement with the adjacent link of the chain 30. He then turns the buckle as tight as may be done by hand. When this is done, he applies a lifting-jacket or other suitable means to the bearing-box from which it is desired to remove the brass. After the bearing-box is elevated the weight of the car is tilted in such a manner that it is thrown upon the journal at the opposite end of the axle, and the weight tends to elevate the journal in the box to which the jack is applied. However, the chain and hooks applied in the manner shown prevent this upward movement of the journal, and the wheel-rim thus prevents the hooks from sliding along the rail toward each other. The wheel-rim also holds the hooks firmly in position in engagement with the outer portion of the ball of the rail. Obviously hooks of this kind would not firmly engage a rail unless held to the proper position by means of the car-wheel rim. By this means the journal is held downwardly, and when the bearing-box is elevated to the position shown in Fig. 1 of the drawings the wedge and brass may be quickly and easily removed or replaced.

The form of hook illustrated in Fig. 4 comprises a member 32, designed to rest against the outer face and top of the ball of a rail, and the top portion thereof projects inwardly beyond the ball of the rail and is provided with an opening 33. Slidingly mounted in the opening is a second hook member 34, designed to engage the inner face of the ball of

the rail, and a link 35 is attached to its upper end to provide for fastening a chain thereto. With this form of hook the chain may be attached at the inner face of the rail and yet the hook cannot be tilted upwardly at that point by a pull upon the chain.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States therefor, is—

1. The combination with a car wheel and axle, and a railway-rail supporting the car-wheel, of two hooks shaped to admit a portion of the ball of the rail and provided with shanks to rest on top of the rail, and a chain attached to the hooks, passed under the car-wheel on opposite sides of its point of contact with the rail, and passed over the car-axle inside of the wheel, for the purposes stated.

2. The combination with a car wheel and axle and a railway-rail supporting the car-wheel, of two hooks designed to admit the outer portion of a ball of a rail, a chain attached to the hooks, passed under the wheel at opposite sides of its point of contact with the rail and passed over the car-axle, and means in the chain for adjusting its length, for the purposes stated.

3. In a device of the class described, the combination of a hook designed to admit the outer portion of the ball of a rail, provided with a shank to rest on top of the rail, a chain connected with the hook, a turnbuckle connected with the chain, a screw-threaded rod having a slotted head at right angles to the body of the rod, said rod mounted in the turnbuckle, a second hook shaped to engage the outer portion of the ball of a rail, and a chain connected with the second hook, its links being designed to enter the slotted head of the said rod, for the purposes stated.

4. In a device of the class described, a hook member to engage one side of the ball of a rail and to fit on top of the ball and project beyond the opposite side thereof, and a second hook member slidingly connected with the first to engage the opposite side of the ball of a rail.

AMOS CASE.

Witnesses:

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