J. A. JONES.

PORTABLE STOP FOR ELECTRIC CRANES.

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1,177,707.

Patented Apr. 4, 1916.

Fig 1

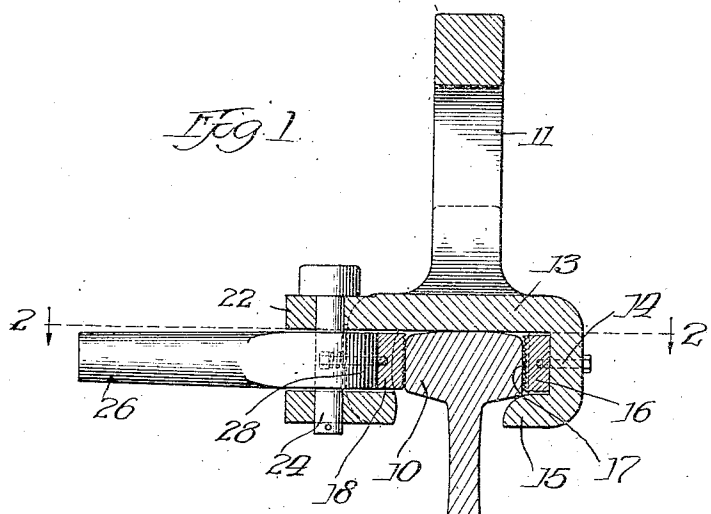


Fig 2

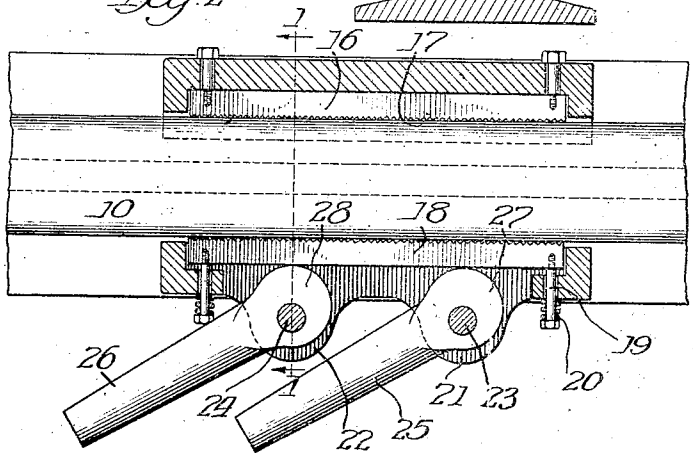
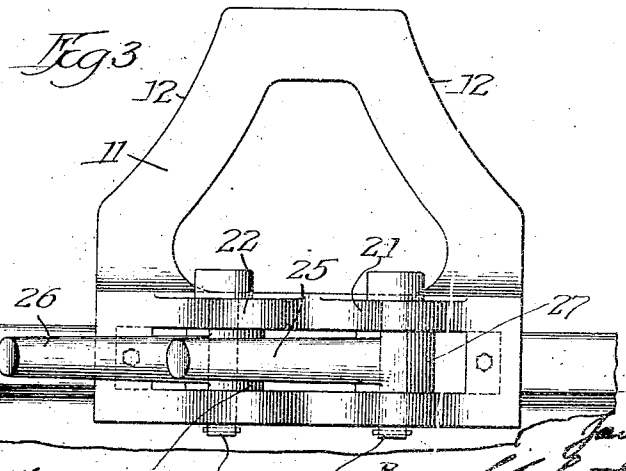


Fig 3



Witnesses:

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UNITED STATES PATENT OFFICE.

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PORTABLE STOP FOR ELECTRIC CRANES.

1,177,707. Specification of Letters Patent. Patented Apr. 4, 1916.

Application filed January 31, 1916. Serial No. 75,409.

To all whom it may concern:

Be it known that I, JAMES A. JONES, a citizen of the United States, and resident of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Portable Stops for Electric Cranes, of which the following is a specification.

My invention relates to a portable stop adapted for application to the rails upon which electric cranes are supported and for similar uses where such stops are required.

In the operation of cranes of the traveling type it is sometimes necessary as a safety precaution to locate a positive stop on the runway in order to surely prevent the crane from entering a danger zone. Furthermore, it is not uncommon to provide two or more traveling cranes operating on the same track. When repairs are necessary to one of these cranes it is desirable to locate a stop on the track at the side from which another crane is operating to obviate the danger of collision and the possible injury of the men engaged in repairing the still crane.

An object in the construction of the present device is to provide one which shall be of exceedingly simple construction, of light weight and which may be readily applied and removed without the loss of time or the use of instruments or tools.

The invention will be more readily understood by reference to the accompanying drawings, wherein—

Figure 1 is a vertical section through a stop as applied to the track, the section being taken on the line 1—1 of Fig. 2; Fig. 2 is a section on the line 2—2 of Fig. 1, and Fig. 3 is a side elevation of the construction.

Referring more particularly to the drawings, it will be seen that I have indicated the track at 10, which is of the usual T shape. The stop comprises an arched portion 11. The upper corners are curved to the radius of the wheels which operate on the track 10. The arched portion 11 is integral with the base 13, which rests directly upon the rail head, the base being provided with a depending flange 14, which is inturned to form a marginal flange 15, said flange 15 being adapted to underlie a portion of the rail head. Rigidly mounted within the channel formed by the inturned flange 15 and the base 13 at one side of the base is a hard steel bar 16, one face or edge 17 of which is serrated or toothed whereby to firmly engage the head of the rail. In the channel at the opposite side of the base is mounted a similar bar 18, the latter bar being mounted for reciprocation in a horizontal plane by reason of the pins 19 and coil springs 20, the springs tending to hold the bar in a retracted position with relation to the rail head. Two pairs of apertured ears 21, 22, project horizontally from the base and the flanged portion 15 of the device, the apertures in each pair of lugs or ears being in register and accommodating pins 23, 24, the pins serving to retain in place the levers 25, 26. The inner ends of the levers are in the form of cams, *i. e.*, the apertures for the pins 23, 24 are located eccentrically of the semi-circular end portions 27, 28 of the levers. The arrangement is such that by moving the levers in a clockwise direction, as viewed in Fig. 2, a powerful gripping action is secured on the bar 18, causing the same to firmly engage the head of the rail.

It will be seen that the device may be quickly applied and removed from a rail without the use of tools, that the same is light and may be readily handled by one workman and is extremely simple and economical in first cost.

I claim:

1. In a portable stop, the combination of a wheel-engaging stop portion, a base portion adapted to coöperate with a rail, a hard steel toothed bar mounted in said base portion, and a cam lever pivoted in said base portion and adapted to act upon said bar to force the same into engagement with a rail head, substantially as described.

2. In a device of the class described, the combination of a wheel-engaging stop, a base integral with said stop and adapted to coöperate with a rail head, a pair of hard steel toothed bars mounted in said base portion and oppositely disposed to engage two sides of a rail head, and a cam lever mounted to engage one of said cam bars to force the same into engagement with the rail head, substantially as described.

3. In a device of the class described, the

combination of a wheel-engaging stop, an integral base portion having downwardly and inwardly inclined marginal edges thereby providing channels at each side of a rail head, a hard steel toothed bar mounted in each of said channels and a pair of cam levers mounted in said base and adapted to act upon one of said hard steel bars whereby to force the same into engagement with a rail head, substantially as described.

Signed at Chicago, Illinois, this 22nd day of January, A. D. 1916.

JAMES A. JONES.

Witnesses:
D. V. MEDALIE,
H. T. ROBERTS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."