(No Model.)

O. A. HENJUM.

CAR BRAKE.

No. 463,152. Patented Nov. 17, 1891.

Fig. 2.

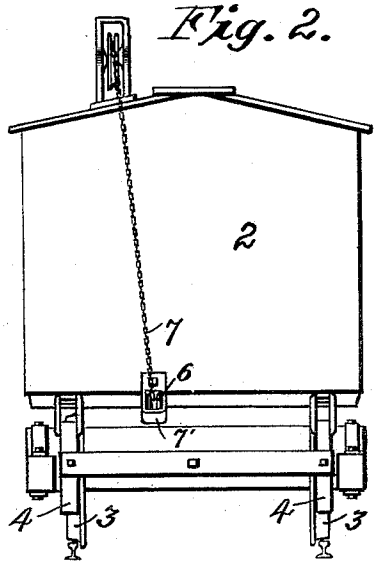


Fig. 1.

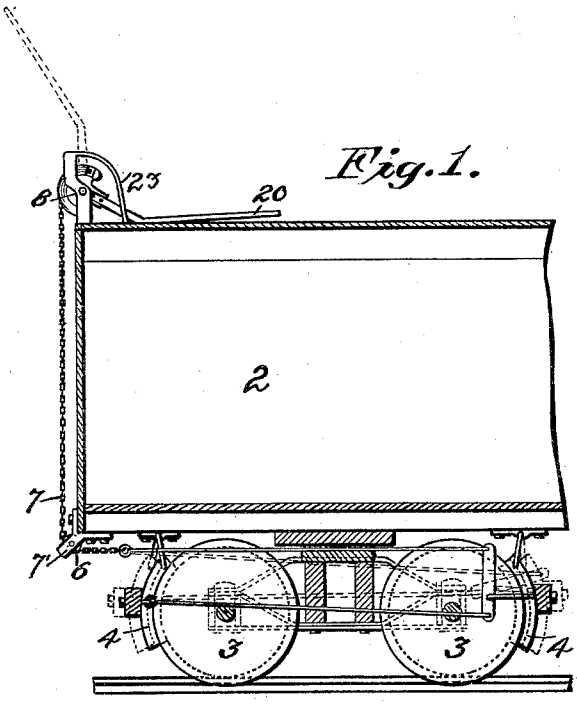


Fig. 5.

Fig. 3.

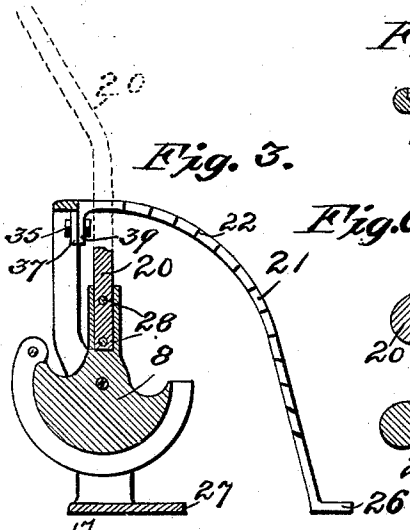


Fig. 6.

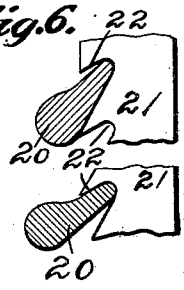


Fig. 7.

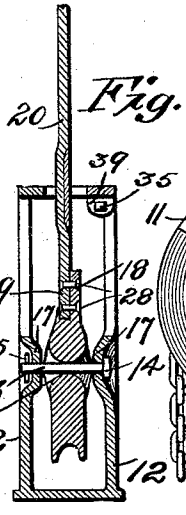


Fig. 8.

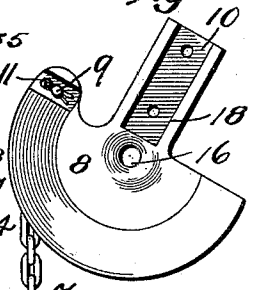
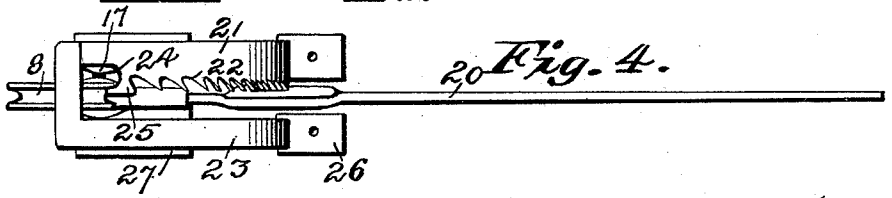


Fig. 4.



Witnesses.
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Inventor.
Ole A. Henjum.
By Paul & Merwin Attys.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

OLE A. HENJUM, OF MINNEAPOLIS, MINNESOTA.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 463,152, dated November 17, 1891.

Application filed July 20, 1891. Serial No. 400,008. (No model.)

To all whom it may concern:

Be it known that I, OLE A. HENJUM, of Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain Improvements in Car-Brakes, of which the following is a specification.

The object of the invention is to provide means for more easily and powerfully operating railway-car-wheel brakes.

The invention is especially applicable for use on freight-cars; and it consists in a long lever provided on the top of the car in combination with a semicircular sheave secured on the same, said sheave being pivoted on a suitable support, and a chain or cable passing from the same and attached to a brake-lever or rod under the car.

In the accompanying drawings, forming a part of this specification, Figure 1 is a side view showing a car provided with one of my devices. Fig. 2 is an end view of the same. Figs. 3, 4, 5, 6, 7, and 8 are details.

In the drawings, 2 represents an ordinary freight-car, and 3 the truck-wheels thereof. The brake-shoes 4 are supported in the usual manner and adapted to be operated by the movement of the usual brake levers and rods arranged under the car. Any suitable brake-shoes may be used. A sheave 6 is provided on the end of the car, and the brake chain or cable 7 extends out and up over it to the power device on the car roof or top. The chain is prevented from slipping out of this pulley by the inclosing clasp 7′. The upper end of the chain is secured on the grooved half disk or sheave 8 by a bolt 9 (shown in Fig. 8) and arranged in the upper corner thereof.

It is sometimes necessary to take up slack in the chain 7, and I therefore secure the bolt 9 in the sheave 8 by means of a spring-pin 11, passing through the end of the bolt. The sheave 8 is pivoted on the upright standards 12 by the strong bolt 13. One end of this bolt has the ordinary head 14, and the other end is fastened in place by the spring-pin 15, passing through the end of the pin. This pin is preferably countersunk in the metal. The standards 12 are placed a considerable distance apart, so that the sheave or wheel may have room to wabble between the same. Such a movement of the sheave is permitted by the flaring out of the journal-hole 16 therein, as shown in Fig. 7, allowing the sheave to rock on the bolt 13. The sheave is held midway between the standards 12 by the bosses 17, formed on and extending from the standards. The short arm 18 is cast on the wheel 8, and is provided with the groove 10, adapted to receive the end 19 of the power-lever 20. In order to hold this power-lever in one position or another, I provide the curved strap 21, extending down from the top of one of the standards and provided with the large notches 22, in which the handle 20 is adapted to be secured. The other strap 23 is provided as a guard to prevent the handle from being thrown to one side too far.

In the top of the device I provide a large notch 24, adapted to receive and hold the lever and prevent the same from falling down and accidentally applying the brake. The small tongue 25 serves to prevent the lever from slipping out of the notch 24 when placed therein.

The device is secured on the car-top by means of the broad feet 26 and 27, provided at the lower end of the standards 12, and the straps 21 and 23, through which bolts pass down into the roof. I preferably make the standards 12 in the forms shown in Figs. 1 and 3, the upper portions thereof extending out over the lower portion, so that the top of the casting may be notched in far enough to allow the handle 20 to stand upright or even lean slightly forward over the end of the car. The end of the handle is secured in the part 18 of the sheave by the bolts 28, as shown in Figs. 3, 5, and 8. The part 21, in which are formed the notches 22, is preferably made separable, and is secured to the upright 12 by means of a bolt 35, passing through a lug 37 on the standard, and a lug 39 on said curved strap 21. The handle 20 at the portion which comes opposite the strap 21 is of substantially the form shown in cross-section in Fig. 6. The upper and right-hand portion thereof is inclined upward and made thinner than the main portion of the handle, so as to fit into the notches 22. By this means when the brake has been applied and the device is to be locked the handle may be slipped in sidewise into one of the notches 22, the wheel 8 turning or wabbling on its axis sufficiently to permit this, and then the handle draws up

into the position shown in the lower part of Fig. 6, thereby locking the handle and the wheel and securely holding the brake without any slack in the chain. In other words, the handle engages the ratchet-teeth by means of a sidewise movement which is accomplished through the movement of the wheel 8 upon its axis.

In order that the handle 20 may be in position to be conveniently grasped, I make it of the bent form shown in Figs. 1 and 3, so that when it is thrown down, so as to bring its lowest portion against the roof of the car, as shown in Fig. 1, the end of the handle will be raised sufficiently above the top of the car to permit the hands to be placed under it when it is to be raised. As the standards 12 are arranged to project over the forward portion of the car, as shown in Fig. 1, the edge of the wheel 8 also projects over the car and thereby brings the chain into a substantially vertical position, as shown in Fig. 1.

It will be understood that the invention may be applied to any ordinary freight-car and may be used in connection with any of the usual forms of brakes. I therefore do not limit myself to the use of any particular form of brake.

I claim as my invention—

1. The combination, with the car and brake, of the standards 12, mounted upon said car and provided with the inwardly-projecting bosses 17, the bolt 14, passing through said bosses, the wheel-segment 8, having the flaring opening 16 at its center, mounted upon said bolt 14 and provided with a groove in its edge and adapted to receive the brake-chain, and the removable bolt 9, passing through said chain and through said wheel-segment and secured therein by the spring-pin 11, the handle 20, secured to said segment and arranged to engage the notched plate 21, substantially as described.

2. The combination, with the car and car-brake, of the standards 12, secured upon the car and arranged to project over the forward edge thereof, the wheel-segment 8, journaled in said standards, the handle 20, secured in a groove 10 in said segment by means of bolts 28, and having its upper portion bent forward, and the curved strap 21, provided with a series of notches 22, substantially as described.

3. The combination, with the standards 12 and the segment 8, pivoted therein and connected to the brake 10, of the removable strap 21, provided with the notches 22, and having the large notch 24 arranged to hold the handle 20 when it is turned to a vertical position.

4. The combination, with the brake and the standards 12, of the wheel-segment 8, to which the brake-chain is secured, provided with a flaring opening through its center, whereby said segment is adapted to wabble upon its journal, the handle 20, secured to said segment and provided with the upwardly-projecting thinner portion, the curved strap 21, provided with a series of curved notches or recesses 22, into any one of which said handle is to be brought by giving said segment a sidewise movement upon its axis, substantially as described.

In testimony whereof I have hereunto set my hand this 16th day of July, 1891.

OLE A. HENJUM.

In presence of—
A. C. PAUL,
F. S. LYON.