(No Model.)

P. A. PETTERSON.

CAR BRAKE.

No. 455,495. Patented July 7, 1891.

Fig. 1.

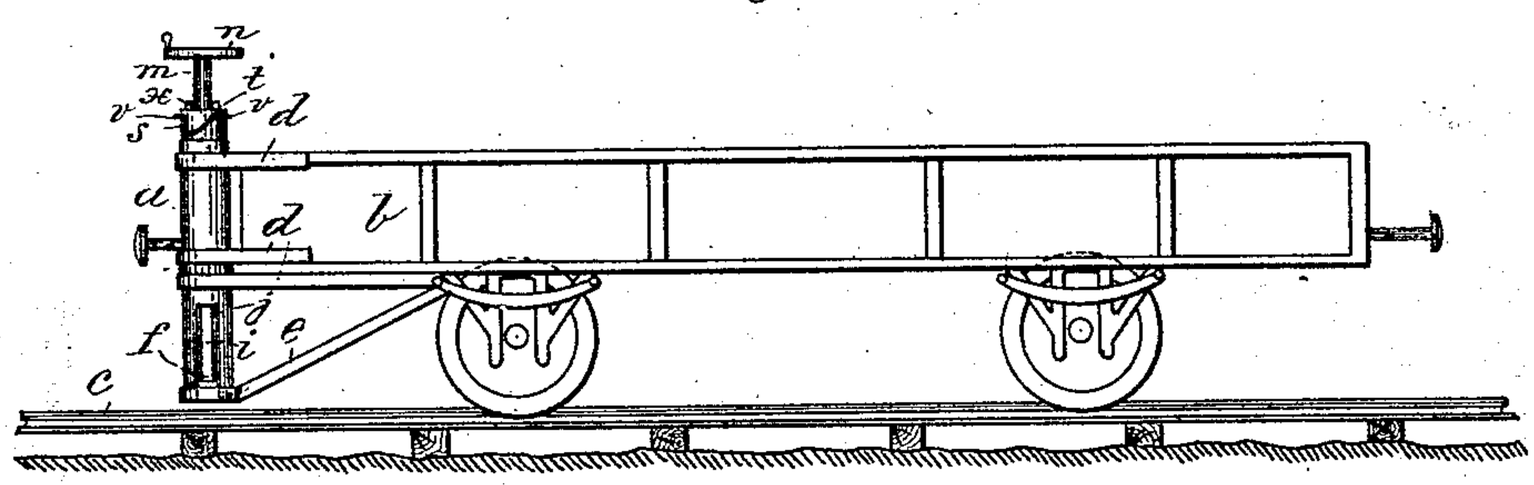


Fig. 2.

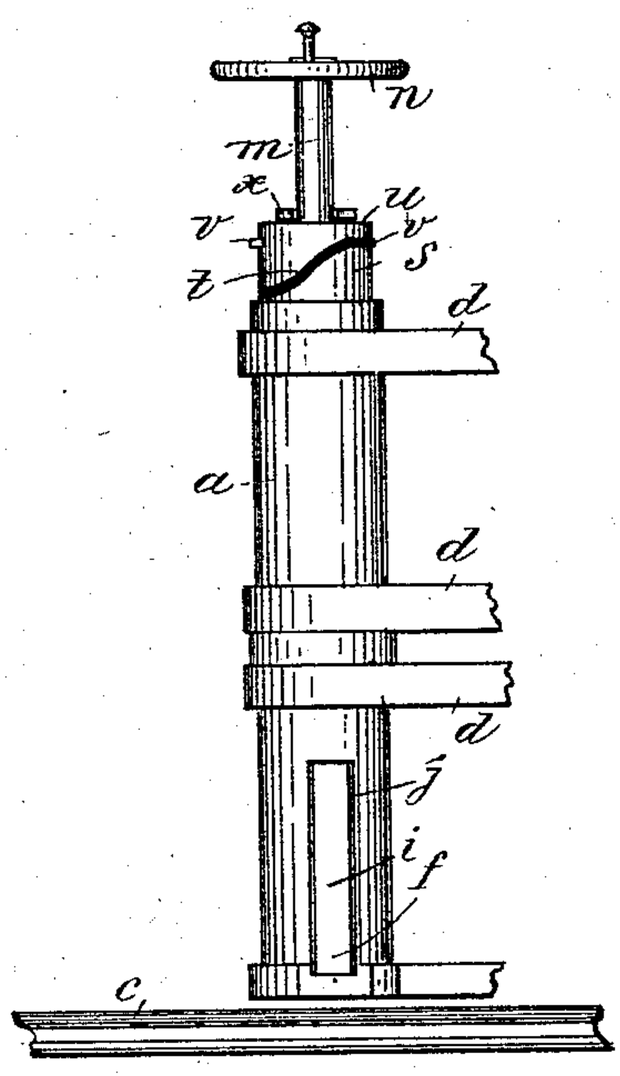


Fig. 3.

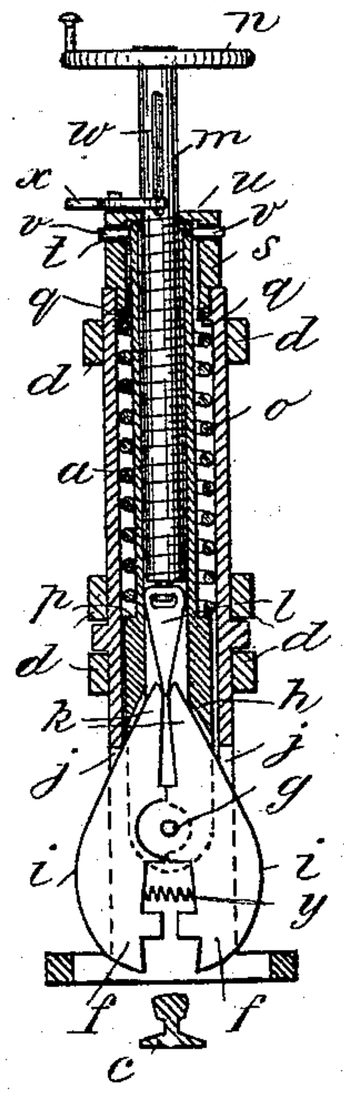


Fig. 4.

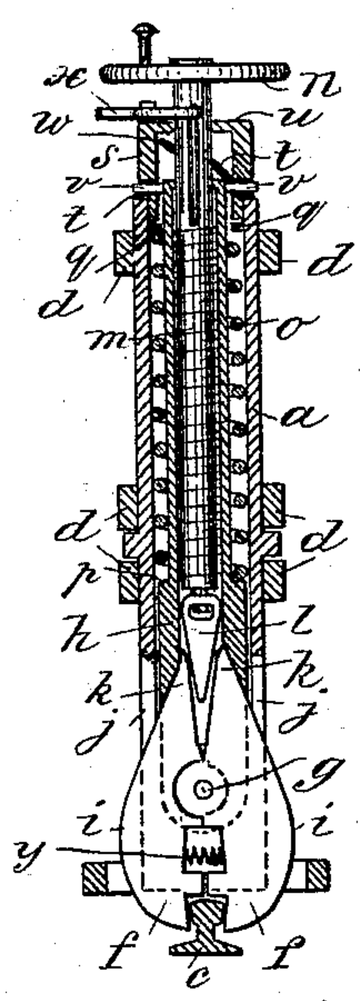
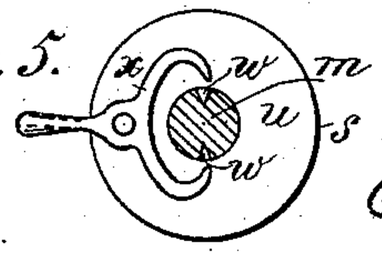


Fig. 5.



Witnesses:
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UNITED STATES PATENT OFFICE.

PER ADOLF PETTERSON, OF NEW YORK, N. Y.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 455,495, dated July 7, 1891.

Application filed November 8, 1890. Serial No. 370,819. (No model.)

To all whom it may concern:

Be it known that I, PER ADOLF PETTERSON, a citizen of the United States, and a resident of New York city, in the county and State of New York, have invented new and useful Improvements in Car-Brakes, of which the following is a specification.

My invention consists in a contrivance of a pair of gripping-jaws and a wedge device for causing the jaws to grip the rail mounted on the platform and normally supported above the rail and adapted to be shifted down and caused to grip the rail on opposite sides of the head, so as to take hold positively and more effectually than the common friction-brakes, as hereinafter fully described, reference being made to the accompanying drawings, in which—

Figure 1 is a side elevation of a platform-car provided with a brake of my invention. Fig. 2 is a side elevation of the brake device enlarged. Fig. 3 is a sectional elevation of the brake device, showing the parts in the normal positions. Fig. 4 is a sectional elevation showing the positions of the parts as when gripping a rail, and Fig. 5 is a top view with the working-shaft in section.

In a strong supporting-tube *a*, set upright and securely fastened by bars *d* and a brace *e* to the platform or car-body *b* above the rail *c*, I arrange at the lower end a strong pair of gripping-jaws *f* by pivoting them at *g* to the lower end of an inner tube *h*, with the outer edges *i* projecting through slots *j* of the tube *a* in suitable arrangement for the jaws to grip the sides of the rail-head when lowered sufficiently and caused to close thereon. The jaws have the shanks *k* extending upward a suitable distance above the pivot *g* for being wedged apart to grip the rail, and a wedge *l* is provided for the purpose, said wedge being swiveled to the lower end of the working-shaft *m*, fitted in the inner tube *h* and having the usual hand-wheel *n* on the upper end. Between the outer holding-tube *a* and the inner tube *h* is a coiled spring *o*, confined between flange *p* on said inner tube and the flange *q* of outer tube *a*, so as to force the jaws down into the working position when permitted to do so.

On the top of tube *a* is a short tubular cap *s*, fitted to rotate and having opposite spiral slots *t* and a closed but centrally-perforated head *u*. The tube *h* has studs *v* projecting into said spiral slots of the cap for raising said tube and the jaws to the normal positions after the brake has been used, which is to be effected by turning said cap *s* half a turn to the left, and said slots permit the jaws to be forced down by the spring *o* when said cap is turned to the right.

The working-shaft *m* is screw-threaded in the tube *h* and rises and falls with it when shifted up and down by the cap and the spring, and it also screws down and up in said tube for forcing the jaws apart to grip the rail and for releasing them from the rail.

The working-shaft *m* has a couple of slots *w*, and on the top of the cap *s* a pawl-lever *x* is pivoted suitably for being made to engage one of said slots, according as it is thrust one way or the other with one hand, by which said cap is so connected with the working-shaft that the hand-wheel may be utilized for turning the cap to raise or lower the jaws; but the cap may of course have a hand-wheel or lever specially fitted to it, so as to turn it independently of the working-shaft, if desired. The spring *y* is provided for opening the jaws.

The spiral slots *t* may assume a level course or a slightly-downward incline in the reverse direction at the top, as indicated in Fig. 2, in which the stud-pins will be held so as to prevent the working of the cap by the jarring of the car, so as to let the jaws descend.

My invention is alike applicable to cars of any form or kind.

I claim—

1. The combination, with a railroad-car, of the rail-gripping jaws and jaw-actuating wedge mounted on the car vertically in the position for gripping the rails and having the jaw lowering and raising cap for adjusting said jaws and the screw-threaded working-shaft for actuating the wedge, substantially as described.

2. The combination of the supporting-tube attached to the car, the inner tube having the jaw pivoted to it and being vertically adjustable in the outer tube, the spring and spirally-slotted cap for adjusting the jaws, and the working-shaft and wedge mounted in the jaw-supporting tube, said supporting-tube at-

tached to the car being slotted at the lower end and the jaws arranged in said slots, substantially as described.

3. The combination of the supporting-tube attached to the car, the inner tube having the jaws pivoted to it and being vertically adjustable in the outer tube, the spring and spirally-slotted cap for adjusting the jaws, the working-shaft and wedge mounted in the jaw-supporting shaft, and the lever-pawl attached to the cap, said working-shaft having the slots for the pawl, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 13th day of October, 1890.

PER ADOLF PETTERSON.

Witnesses:
W. J. MORGAN,
A. P. THAYER.