(No Model.)

F. W. STREHLAN.

CAR BRAKE.

No. 264,582. Patented Sept. 19, 1882.

Fig. 1.

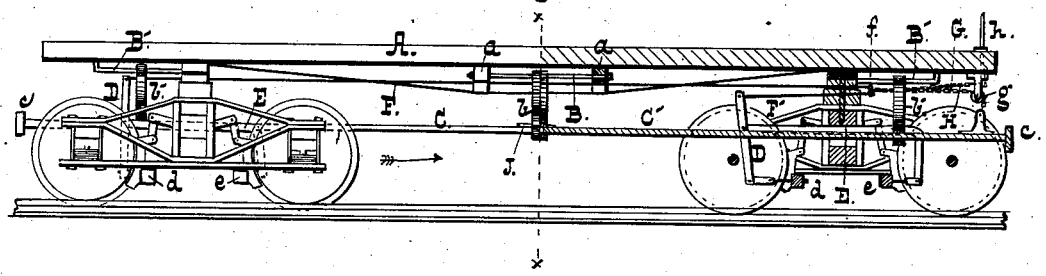


Fig. 2.

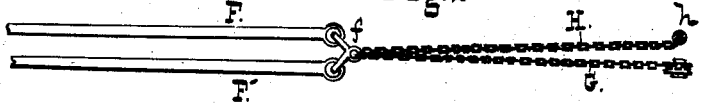
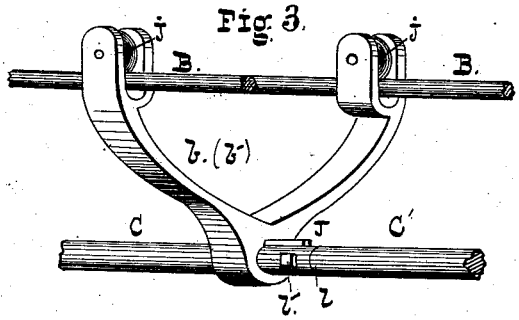


Fig. 3.



Witnesses
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CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 264,582, dated September 19, 1882.

Application filed July 5, 1882. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK W. STREHLAN, of Baltimore city, State of Maryland, have invented certain new and useful Improvements in Steam or Air Brakes; and I hereby declare the same to be fully, clearly, and exactly described as follows, reference being had to the accompanying drawings, in which—

Figure 1 is an elevation of a car embodying my invention, the part of the figure to the right of the line *x x* being in central vertical sectional view. Fig. 2 is a plan of a detail of the device, and Fig. 3 is a perspective view of one of the yokes for supporting the push-bar and its immediate attachments.

My invention relates in general to that class of brakes for railway-cars operated by means of steam from the locomotive-boiler, or by compressed air led from a reservoir which is placed under the tender or the foot-board of the engine, and which is kept stored with compressed air by means of a donkey-pump or a pump driven by means of an eccentric on one of the axles.

More specifically, my invention relates to that class of brakes in which a push-bar permanently located under each car is forced backward to apply the shoes to the wheels.

The invention will first be described, and then pointed out in the claims.

In the drawings, A is the platform of the car-body, and *a a* are the transverse truss-beams, which are connected by a pair of rods, B B, (see also Fig. 3,) that sustain a U-shaped support, *b*. Similar rods, B′, extend from the bolsters toward the ends of the car, and on them are mounted similar supports, *b′*.

The push-bar is made in two pieces, C C′, bolted and lapped as shown at *l l′*, whereby it may be taken apart and slid out endwise when repairs are necessary. Keys J secure the bar to the supports, which latter are provided with rollers *j*, so as to slide freely upon the rods B B′.

To the brake-beams *d* are pivoted levers D, from which extend rods E to the opposite beams, *e*.

Pull-rods F F′ are attached to the upper ends of the levers D, and are connected by a three-eye shackle, *f*, (see Fig. 2,) from which a chain, G, leads over a pulley, *g*, and is attached to the rod C′, and a second chain, H, leads to the shaft *h* of the hand-brake windlass.

The form of brake mechanism shown as applied to the trucks is preferred; but of course I may use in connection with the push-bar any of the conventional and well-known forms, such as the "Stevens" or "Hodge."

On the ends of the push-bar C C′ are buffers *c*.

I have not shown the couplings or coupler-buffers of the car, as they have nothing to do with my invention. It will be understood, of course, that they project far enough to prevent the rods C C′ of the several cars from coming in contact when backing.

I have also not shown the cylinder, piston, and push-bar on the tender or engine, as that part of the device is old and well known.

In operation, supposing the car to be moving in the direction of the arrow and the push-bar to be forced in the opposite direction, the chain G will be drawn around the pulley *g*, the upper ends of the levers D will move forward, and the shoes will be pressed against the peripheries of the wheels. Should the car be turned end for end, the same effect would be produced by the direct pull of the chain as the rod is forced back.

In case of accident to the power-brake the hand-brake may be used by means of the chain H.

The U-shaped supports subserve an important end in sustaining the rod C C′ against lateral thrust when the brakes are applied on a curved track.

The entire mechanism may be applied at a small cost to cars as already constructed, ample space being afforded between the bolster and swing-beam for the rods F F′, and between the lower cross-timber and the swing-beam for the rods C C′ and bars E.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In combination with the push-bar, the

U-shaped supports *b b'*, sliding upon rods secured beneath the car-body, and rods and chains connecting the brake mechanism of the trucks with the push-bar, substantially as described.

2. In combination with the sliding supports *b b'*, the two-part rod C C', lapped and bolted at *l l'*, the rods F F', and chain G, led over a pulley to the push bar, whereby movement of the latter in either direction applies the brakes, as set forth.

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