

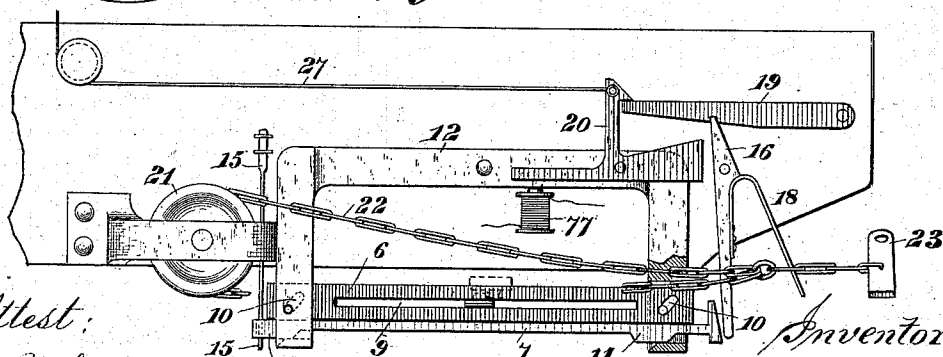
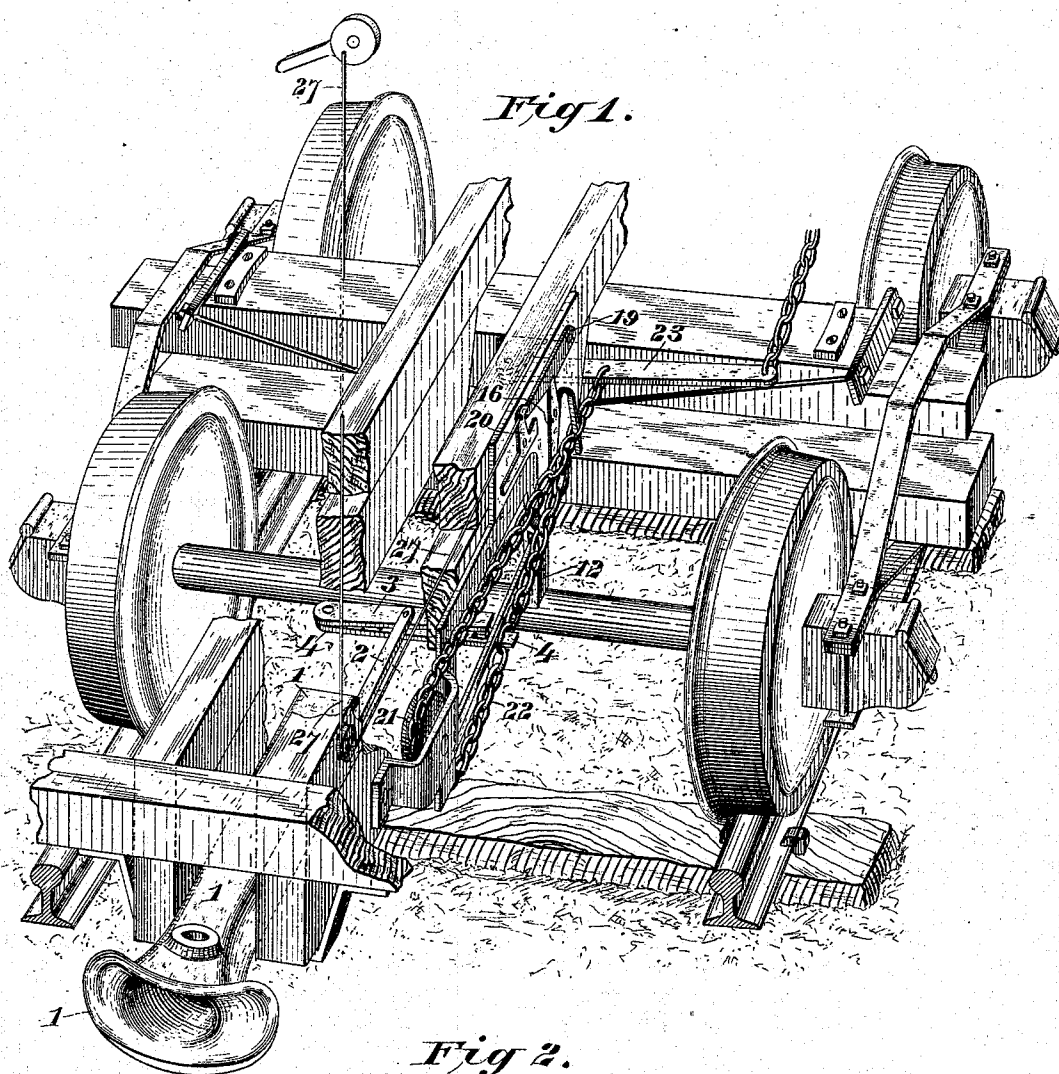
(No Model.)

D. TORREY.

CAR BRAKE.

No. 276,936.

Patented May 1, 1883.



Attest:
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UNITED STATES PATENT OFFICE.

DOLPHUS TORREY, OF NEW YORK, N. Y.

CAR-BRAKE.

SPECIFICATION forming part of Letters Patent No. 276,936, dated May 1, 1883.

Application filed February 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, DOLPHUS TORREY, a citizen of the United States, residing at New York, in the State of New York, have invented an Improvement in Railroad-Brake Apparatus, of which the following is a specification.

My invention relates to an improvement in brake apparatus of the class described in my applications for Letters Patent No. 65,510, filed the 29th June, 1882, and No. 65,855, filed the 3d July, 1882, and is to be understood in connection therewith. In those applications I have described the use of an adjusting-bar which controls the operating-lever, determining its plane of rotation. I have described how, by moving the adjusting-bar longitudinally, the motor and operating-levers are made to disengage and take reversed positions, and at the same time release the brakes. In those cases a stress is transmitted from the brake-beams to effect this purpose, or else it is effected by stress of the draw-bar acting through the means of lugs upon the levers, which lugs are sloped in excess of their angle of friction. I now present in this application another means of acting upon the adjusting-bar by draw-bar pressure to disengage the motor and operating levers and permit their reversal in position.

In the accompanying drawings, Figure 1 is a perspective view of one truck and part of the body-frame of a car with the invention applied. Fig. 2 is a vertical sectional elevation longitudinal to the car, showing the principal working parts.

To the draw-bar 1 is pivoted a pitman, 2, connected to the receiving or motor lever 3, which is thus vibrated in a horizontal plane as the draw-bar moves in and out. The motor-lever 3 engages with an operating-lever, 4, through oblique-faced lugs on their opposing faces, so that lever 4 will partake of the movement of the lever 3 so long as the movement of the former is confined to a plane parallel to that in which the motor-lever 3 is guided. To this end the plane of movement of the operating-lever is determined by a guide-bar, 6, having a long slot, 9, in which the lever works, and a lock-bar, 7, on which the guide-bar rests. The guide-bar and lock-bar are supported in a hanger-frame, 12, having pins occupying ob-

lique slots 10 in the guide-bar, so that the said bar will be depressed by a longitudinal movement in one direction and elevated when moved in the other direction. This vertical movement of the adjusting guide-bar 6 is permitted by lugs 11 on the lock-bar 7, resting on bearings in the hanger-frame 12, and having oblique or beveled ends, so that said lock-bar is automatically elevated when moved in one direction and allowed to descend when moved in the other direction. The bar is pressed endwise to its upper position by a spring, 15. The operating-lever 4 is connected to a looped brake-chain, 22, passing over a pulley, 21, so that the operating-lever is made to pull on the brakes in whichever way it is moved, pulling the equalizing-lever 23 forward. A pivoted lever, 16, is set so that its lower arm rests against the end of the lock-bar 7, its upper end being held within a notch or keeper in a pivoted latch, 19. The free end of the latch is held by a catch, 20, which is controlled by a magnet, 77, which, when charged, frees the end of the latch 19, so that it can rise. A pull-cord, 27, is employed to retract the catch 20 when the magnet is not in use. 18 is a spring attached to the lower arm of the lever 16, and the bent extension of which is in front of and adjoining the equalizing-lever 23. When the lever 23 is pulled forward by the action of the draw-bar it transmits, through the spring 18, a stress to the lever 16. If at this time the latch 19 be freed, the pressure of the end of the lever 16 against the sloped face of the notch or keeper in the latch 19 will compel the said latch to rise, and thereby free the lever 16, which, being free to turn on its pivot, allows the stress upon the spring 18 to be transmitted to the lock-bar 7 and will shift its position. This lock-bar, in moving, carries the adjusting-bar 6 with it, and thereby frees the engagement between the motor and operating-levers, letting the brakes off. With the release of the brakes the lever 23 returns to its position, freeing the spring 18, when the counter-spring 15 will reset the adjusting-bar, lock-bar, and lever 16. By these means it is necessary for the purpose of releasing the brakes and reversing the positions of the motor and operating levers to apply only the small force required to actuate the catch 20,

whereby there is given an opportunity for the stress received from the draw-bar to effect the desired transformations in the apparatus, releasing the brakes and reversing the adjustment.

I do not confine myself to the use of the form of spring 18, as, by mechanical skill simply, a coiled or other form of spring can be readily substituted. I use, when desirable, a branch chain to connect the chain 22 and the spring 18.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. A double-acting draw-bar brake with a reversing mechanism actuated by stress transmitted from the draw-bar through a chain-loop connection, substantially as and for the purposes set forth.

2. A double-acting draw-bar brake with a reversing mechanism operated by stress from the draw-bar or buffer through the medium of a spring, and a lever governed by a latch or tripping device.

3. In a brake mechanism having an adjust-

ing-bar set in a chord of the arc of and for controlling the plane of rotation of the operating-lever, the combination of the chain 22, spring 18, lever 16, latch 19, and catch 20, for the purposes set forth.

4. The combination, in an adjusting mechanism in which the actuating mechanism is connected with and is operated by the draw-bar, of a receiving mechanism comprising a locked lever, 16, subjected to stress through a spring, 18, and a working mechanism comprising an adjusting-bar, 6, substantially as and for the purposes set forth.

5. The combination of a catch, 20, a keeper or latch, 19, pivoted lever 16, and a spring, 18, comprising the receiving elements of an adjusting mechanism.

6. The combination of the catch 20 and the magnet 77 with the reversing apparatus of a car-brake, substantially as set forth.

DOLPHUS TORREY.

Witnesses:

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