

No. 836,898.

PATENTED NOV. 27, 1906.

O. F. SMITH.
CAR BRAKE.

APPLICATION FILED FEB. 16, 1906.

2 SHEETS—SHEET 1.

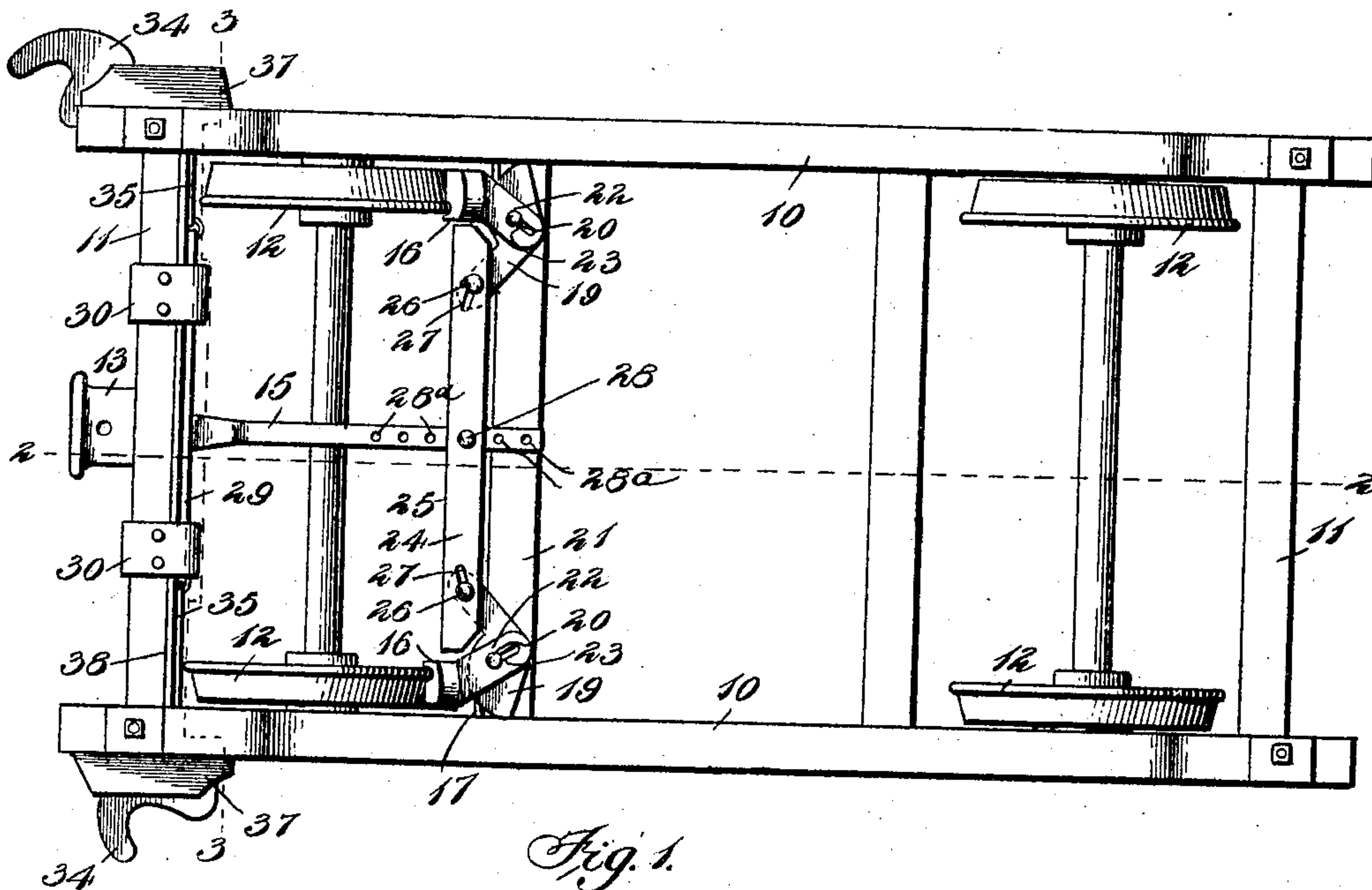
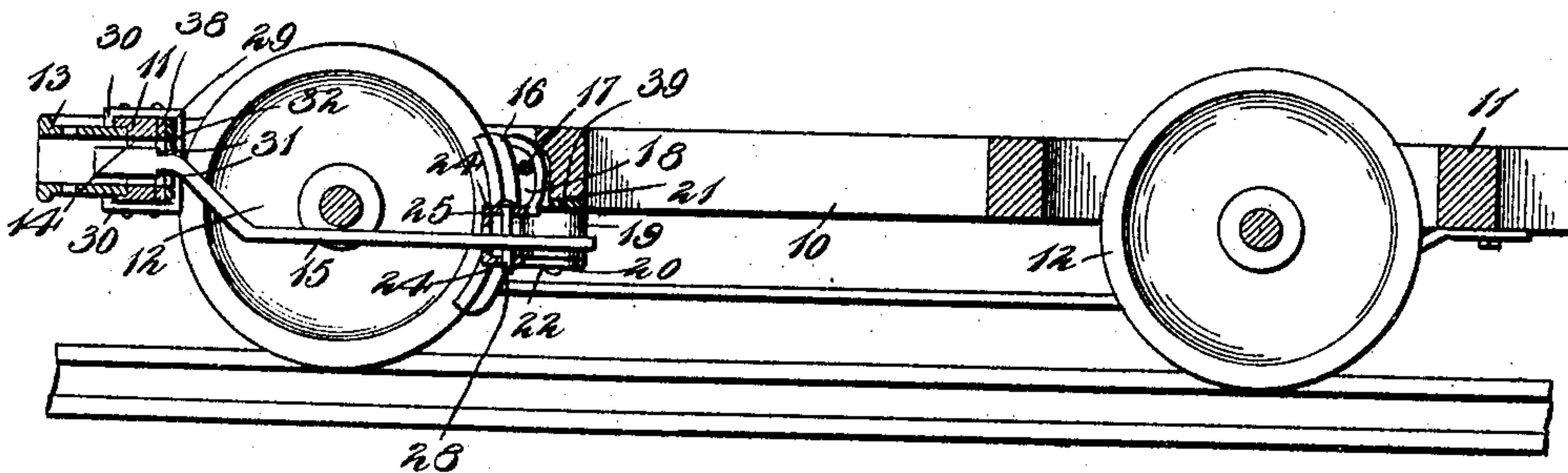


Fig. 1.

Fig. 2.



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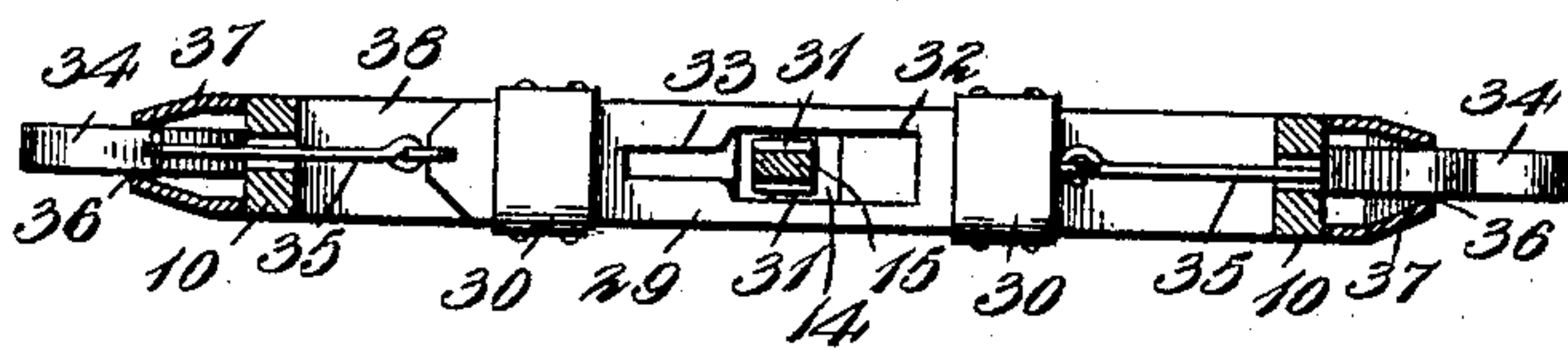
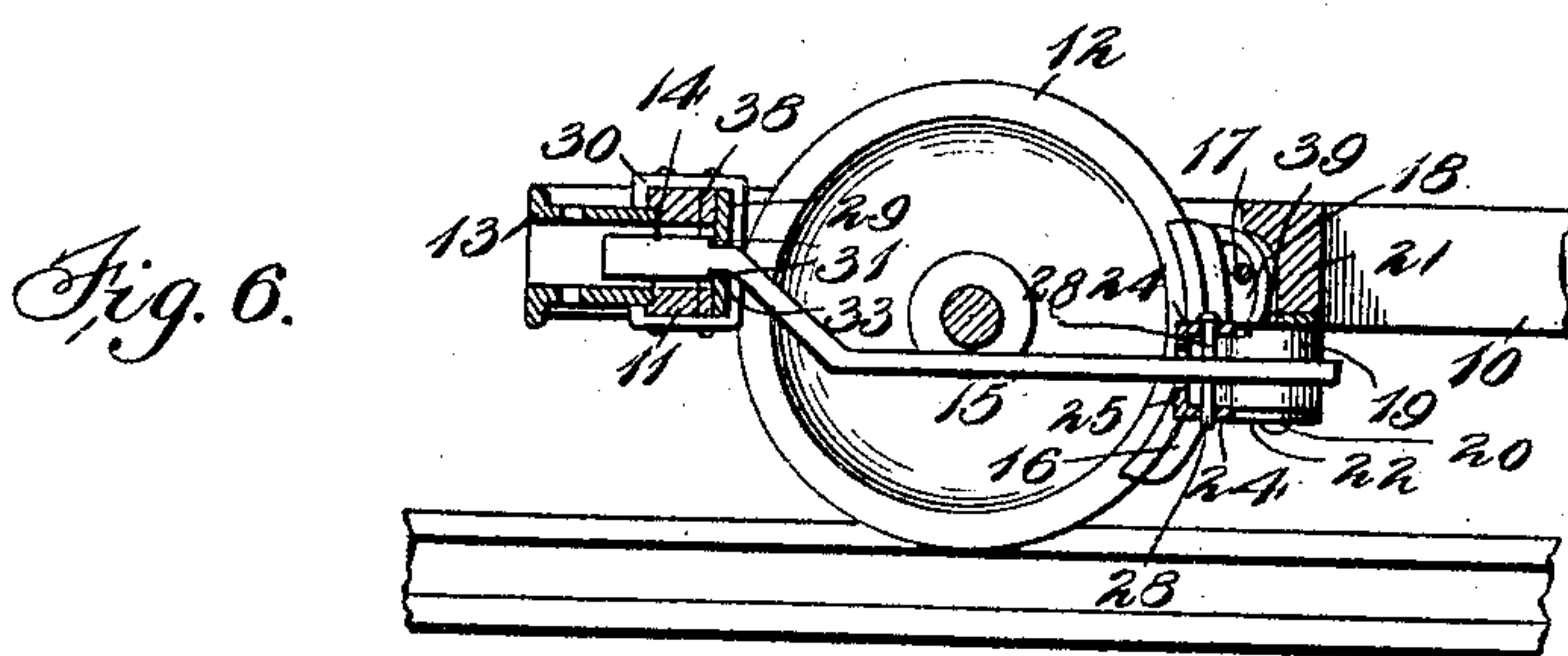
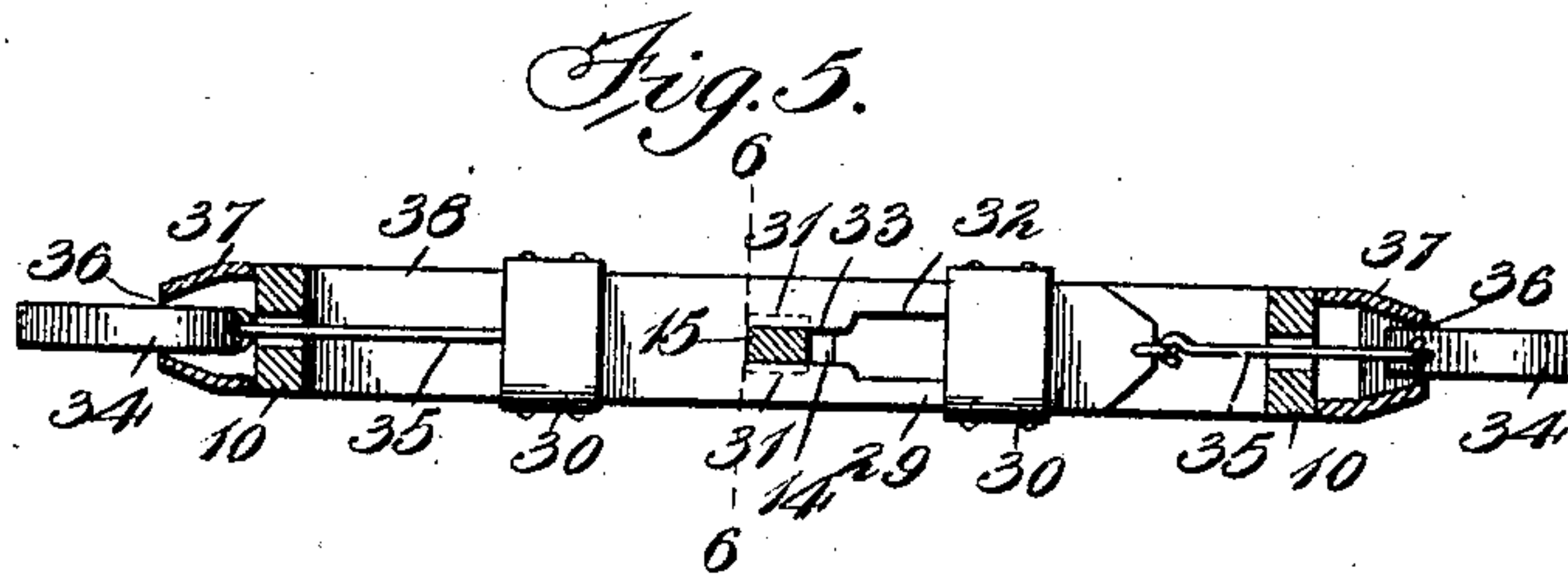


Fig. 3.



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UNITED STATES PATENT OFFICE.

OLLIE F. SMITH, OF VALLEY HEAD, ALABAMA.

CAR-BRAKE.

No. 836,898.

Specification of Letters Patent.

Patented Nov. 27, 1906.

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To all whom it may concern:

Be it known that I, OLLIE F. SMITH, a citizen of the United States, residing at Valley Head, in the county of Dekalb and State of Alabama, have invented new and useful Improvements in Car-Brakes, of which the following is a specification.

This invention is a car-brake, and more particularly one which is automatically applied by the momentum of the car, the brake-power being proportionate to the resistance offered by the car or engine ahead.

The invention comprises a push-rod connected to the brake-shoes and coöperating with the car or engine ahead to apply the brake when the speed of the train slacks. Means are also provided for rendering the brake inoperative to permit the car to be backed or shifted around, as in making up a train.

In the accompanying drawings, Figure 1 is an inverted plan view of a car-truck, showing the brake-gear. Fig. 2 is a longitudinal section on the line 2 2 of Fig. 1. Fig. 3 is a cross-section on the line 3 3 of Fig. 1. Fig. 4 is a side elevation. Fig. 5 is a view similar to Fig. 3, showing the push-rod locked; and Fig. 6 is a section on the line 6 6 of Fig. 5.

Referring specifically to the drawings, 10 denotes the side sills, 11 the end sills, and 12 the wheels, of an ordinary mining-car truck. The end sill carrying the draw-head 13 has a transverse opening 14 extending the rearward in line with the opening in the draw-head. A push-rod 15 for actuating the brake extends through this opening into the draw-head.

The brake-shoes 16 are hung on a rod 17, extending between the side sills 10 of the truck, the back of the shoes near their top ends being slotted, as at 18, through which slots the rod 17 extends. Any other suitable means may be employed for hanging the brake-shoes from the truck.

The brakes are actuated by cam-levers 19, which are fulcrumed, as at 20, on the cross-sill 21 of the truck to swing in a horizontal plane, the cam-surfaces of the levers engaging behind the brake-shoes. On the back of the brake-shoes are rearwardly-presented wings 22, which extend under the levers 19. Said wings are slotted, as at 23, through which slots the pivots 20 extend. The free ends of the cam-levers extend between top and bottom flanges 24, extending rearwardly from a cross-beam 25. The cam-levers are

connected to the flanges by pivot-pins 26, which work in slots 27 in the flanges. The rear end of the push-rod extends through an opening in the cross-beam 25 and is fastened by a pin 28, extending through the rod and the flanges 24. A number of pin-holes 28^a are made in the push-rod, so that the brake can be properly adjusted.

The front end of the push-rod, as already stated, extends through the opening 14 and into the draw-head, and when it is pushed rearwardly by the coupling-pin in the draw-head the brake will be applied by reason of the connection between the push-rod and the brake-shoes, as herein described.

To prevent the brakes from being applied when not desired, as when backing the car, the push-rod must be held fast. This is done by a transversely-sliding plate 29, which works behind the sill 11 in suitable supports 30. The slide is slotted, through which slot the push-rod extends, and behind the slide the push-rod is enlarged to form shoulders 31. One end of the slot, as at 32, is sufficiently wide to permit the push-rod to work freely therein, and at the other end the slot is narrowed or contracted, as at 33. When the slide is positioned so that the push-rod extends through the wide portion 32 of the slot, the push-rod can be actuated in the manner heretofore described to apply the brake; but when the slide is pulled over so that the push-rod extends through the narrow part 33 of the slot, as shown in Figs. 5 and 6, the shoulders 31 engage behind the slide, which arrests the rearward movement of the push-rod and renders the brake inoperative.

The slide 29 is operated by cam-levers 34, located on opposite sides of the car, said levers being connected by rods 35 to the slide. The levers work in opposite directions, so that one of them will pull the slide one way to lock the push-rod, as heretofore described, and the other lever will pull the slide in the opposite direction to release the push-rod. The cam-levers are preferred if the slide is to be automatically actuated, which can be done by placing a bumping-post alongside the track in the path of the levers. If the slide is to be manually operated, the cam-levers can be left off and handles attached to the outer ends of the rods 35.

The cam-levers work in slots 36, made in blocks 37, fastened to the sills 10. Between the sill 11 and the slide 29 is a wear-plate 38,

and the cross-sill 21 is also provided with a wear-plate 39.

I have shown the brake-gear applied to a mining-car, but it will be understood that it can be readily applied to other types of cars. Also only one pair of the wheels is shown provided with a brake, but if necessary the other pair of wheels can be similarly fitted.

I claim—

1. The combination in a brake-gear, of cam-levers fulcrumed on the truck-frame, and engaging behind the brake-shoes, an automatically-operated push-rod operatively connected to the cam-levers, and means for locking the push-rod to prevent application of the brake.

2. The combination in a brake-gear, of cam-levers fulcrumed on the truck-frame, and engaging behind the brake-shoes, a cross-beam to which the free ends of the aforesaid levers are pivotally connected, and a push-rod connected to the cross-beam.

3. The combination in a brake-gear, of a push-rod operatively connected to the brake-shoes, and having a shoulder, and a sliding plate having a slot through which the push-rod extends, and movable behind the aforesaid shoulder to hold the push-rod and prevent application of the brake.

4. The combination in a brake-gear, of a push-rod operatively connected to the brake-shoes, and having a shoulder, a slide extensible behind the shoulder to hold the push-rod and prevent application of the brake, and tappets for actuating the slide, extending from the sides of the car.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

OLLIE F. SMITH.

Witnesses:

C. T. ELLIS,

T. T. CULBERSON.