

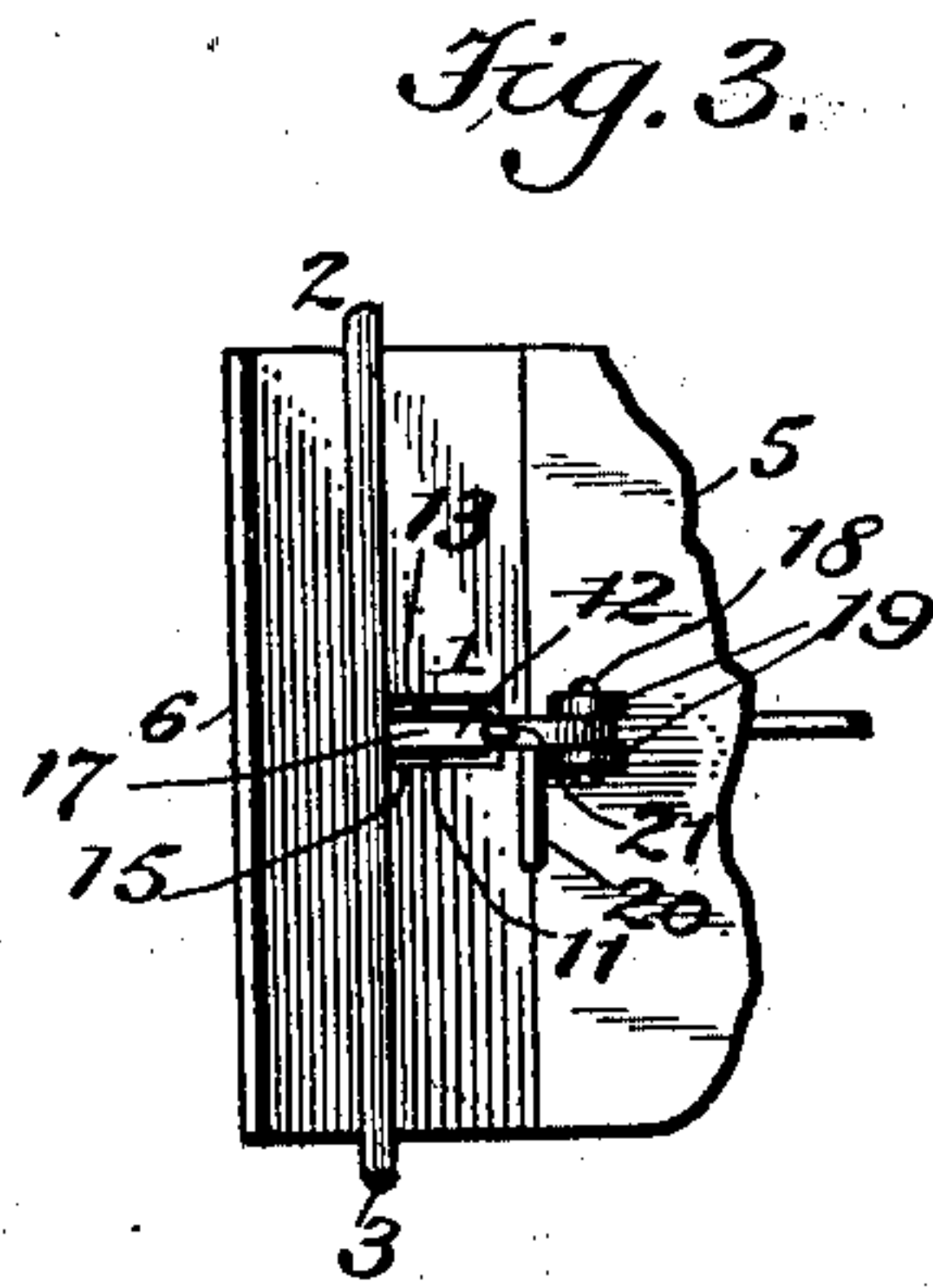
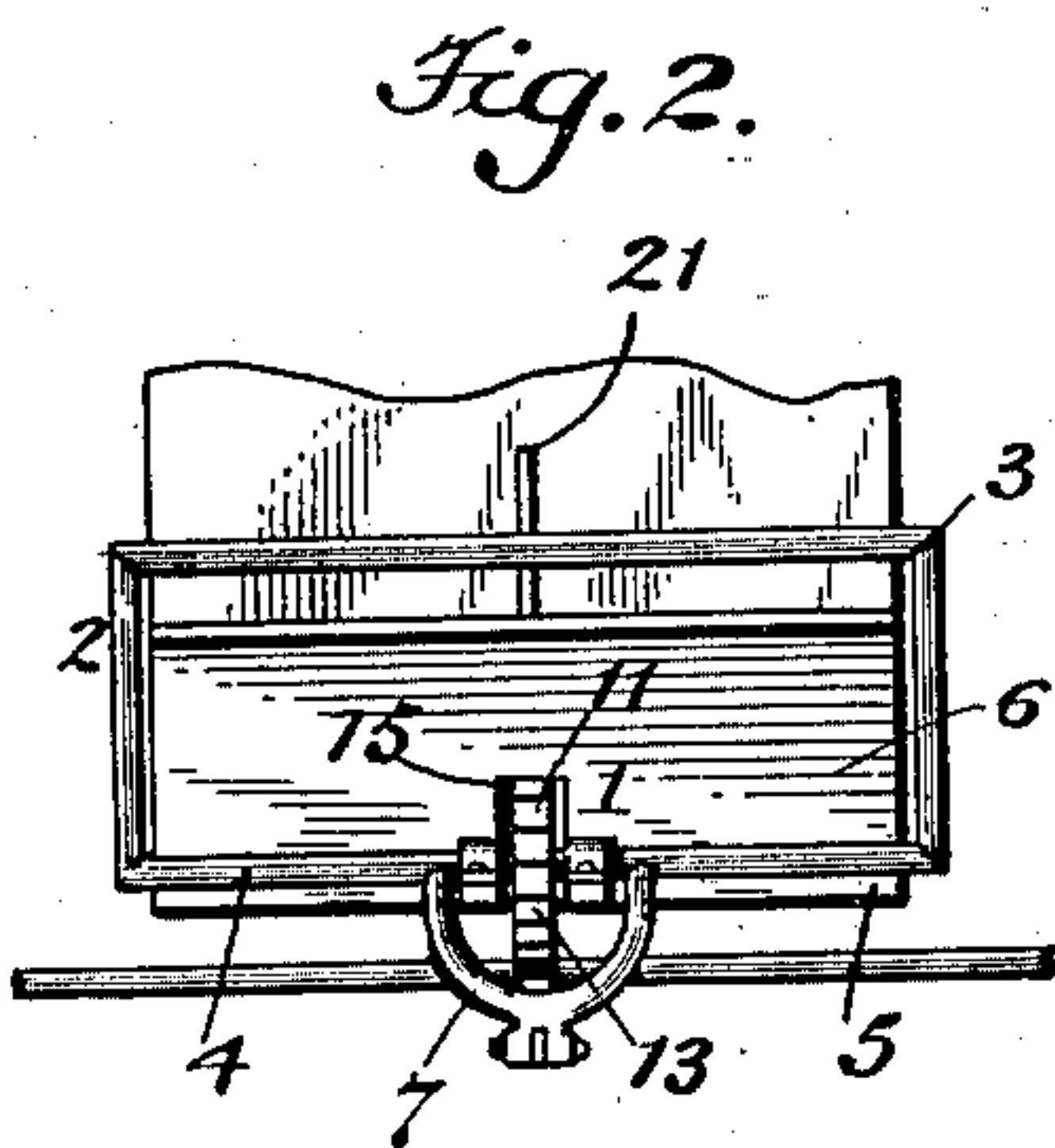
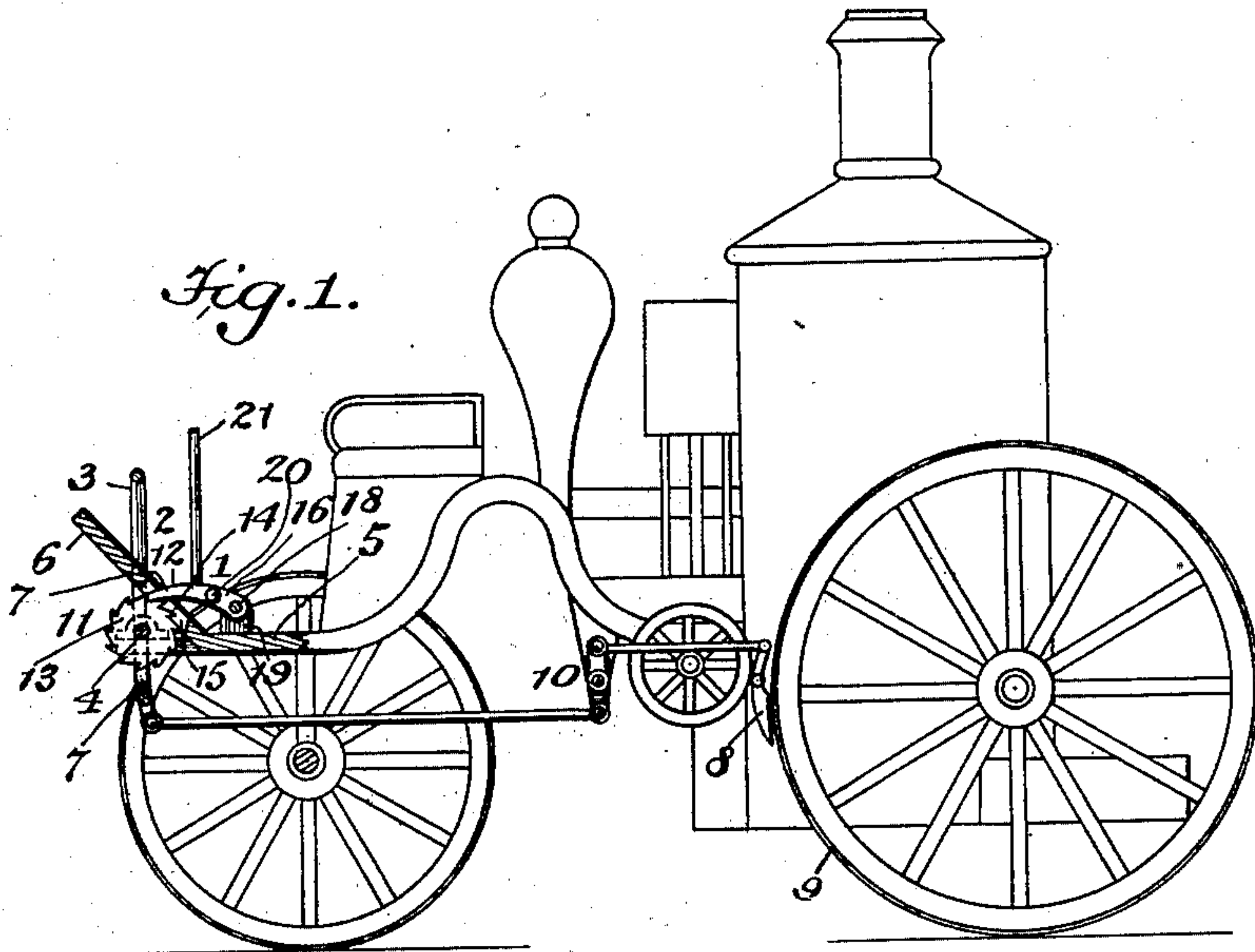
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Patented Apr. 2, 1901.

C. S. CORSON & C. SCHWIMBERSKY.
LOCKING AND RELEASING MEANS FOR VEHICLE BRAKES.

(Application filed Nov. 17, 1900.)

(No Model.)



WITNESSES:

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UNITED STATES PATENT OFFICE.

CHARLES S. CORSON AND CHARLES SCHWIMBERSKY, OF NEW YORK, N. Y.

LOCKING AND RELEASING MEANS FOR VEHICLE-BRAKES.

SPECIFICATION forming part of Letters Patent No. 670,983, dated April 2, 1901.

Application filed November 17, 1900. Serial No. 36,808. (No model.)

To all whom it may concern:

Be it known that we, CHARLES S. CORSON and CHARLES SCHWIMBERSKY, citizens of the United States, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Locking and Releasing Means for Vehicle-Brakes, of which the following is a specification.

This invention relates to locking and releasing means for vehicle-brakes; and it has for its object to provide simple and improved means of this class whereby vehicle-brakes may be effectively locked in operative position and with facility released from locked condition.

Our invention is particularly designed for use in connection with fire-engines and other heavy vehicles, but may, if desired, be adapted to vehicles of various types. Its particular utility when used with fire-engines consists in the advantage resulting from the obviation of the possibility of inadvertent movement of the fire-engine when the latter is in operation and connected with the hydrant.

Our invention is also of exceeding utility when applied to heavy road-vehicles, for it enables the brakes to be conveniently maintained in locked condition when the vehicle is descending or at rest upon heavy grades.

In the drawings, Figure 1 is a detail longitudinal sectional view of a fire-engine body, illustrating our improved locking and releasing means mounted thereon and in operative connection with the brakes. Fig. 2 is a front elevation of the same. Fig. 3 is a detail plan view of the preferred form of locking and releasing means constituting the subject-matter of this invention.

Corresponding parts in all the figures are denoted by the same reference characters.

Referring to the drawings, 1 designates our improved locking and releasing means which are operatively connected with the brake-operating means 2.

The brake-operating means illustrated consists, as is customary in fire-engines, of an upright foot-frame 3, which is fixed at its ends to a shaft 4, carried at the forward end portion of the footboard 5 and ranging transversely at the line of junction of the footboard and the dashboard 6. The shaft 5 is provided with a depending arm 7, which is operatively

connected, as at 10, with the brake-shoe, (represented at 8,) which is suitably supported in operative proximity to one of the vehicle-wheels 9.

In the preferred form of construction the locking and releasing means 1 are arranged at a point intermediate the ends of the shaft 4 and embody a member 11, mounted upon said shaft, and a member 12, mounted upon the footboard 5, in operative proximity to the member 11. The member 11 consists of a ratchet-disk 13, which is fixed to the shaft 4 and projects at its periphery, as at 14, with respect to an opening 15 in the lower portion of the dashboard 6. The member 12 consists of a pawl device 16, which is adapted to coact with the ratchet-disk 13 to prevent rotation of the shaft 4 in such direction as would permit the release of the brake-shoe from the wheel 9. The pawl device 16 consists of a body portion 17, which is pivoted, as at 18, between base-blocks 19, which are mounted upon the footboard 5 and arranged to swing longitudinally of the vehicle and to engage with its outer free end the toothed periphery 14 of the ratchet-disk. The operative engagement of the pawl device 16 with the ratchet-disk is permitted by the opening 15 in the dashboard. The body portion 17 of the pawl device is provided with a laterally-directed toe-piece 20 and with an upright handle 21, whereby the pawl device may conveniently be operated into or out of engagement with the member 11.

The operation and advantages of our improved locking and releasing means for vehicle-brakes will be readily understood. The brake-shoe 8 is applied by the driver of the engine or vehicle who with his foot bears forwardly and outwardly upon the foot-frame 2. When the brake is "set," the pawl device 16 automatically interlocks with the ratchet-disk as it rests normally in engagement with the periphery of the latter. When it is desired to release the brake-shoe 8 from its locked condition, the driver may apply his toe beneath the toe-piece 20 upon the pawl device and raise the body portion of the latter out of engagement with the ratchet-disk or, if preferred, the operating-handle 21 may be manipulated to the same end. It will be noted that either of the pawl-operating de-

vices—the toe-piece 20 or the operating-handle 21—may be dispensed with and the pawl device still be conveniently operated by the other.

5 The arrangement of the member 12 upon the footboard 5 and adjacent the dashboard 6 admits of convenient alternate operation by the driver of the brake-operating means and the locking and releasing means, and
10 both of these means may be operated by the feet of the driver, leaving his hands free for use in driving.

By means of our improved locking and releasing means brakes may be set and maintained for a continued length of time in set
15 condition when the vehicle is at a standstill or is descending steep grades, and the locking and releasing of the brake-shoe is accomplished with facility and without interference
20 with the other duties of the driver.

We do not desire to be understood as limiting ourselves to the details of construction and arrangement as herein described and illustrated, as it is manifest that variations and
25 modifications may be made in the features of construction and arrangement in the adaptation of the device to various conditions of use without departing from the spirit and scope

of our invention and improvements. We therefore reserve the right to all such variation and modification as properly falls within the scope of our invention and the terms of the following claim. 30

Having thus described our invention, we claim and desire to secure by Letters Patent— 35

The combination, with a vehicle provided with a brake-shoe, of a brake-operating foot-frame operatively connected with the brake-shoe and arranged adjacent the dashboard of the vehicle, and combined locking and releasing means operating in connection with the foot-frame for locking the brake-shoe in “set” or operative condition, said combined locking and releasing means comprising a member projecting with respect to the dashboard
40 of the vehicle whereby the foot-frame and said last-named member may be conveniently alternately operated. 45

In testimony whereof we have signed our names in the presence of the subscribing witnesses. 50

CHARLES S. CORSON.

CHARLES SCHWIMBERSKY.

Witnesses:

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