

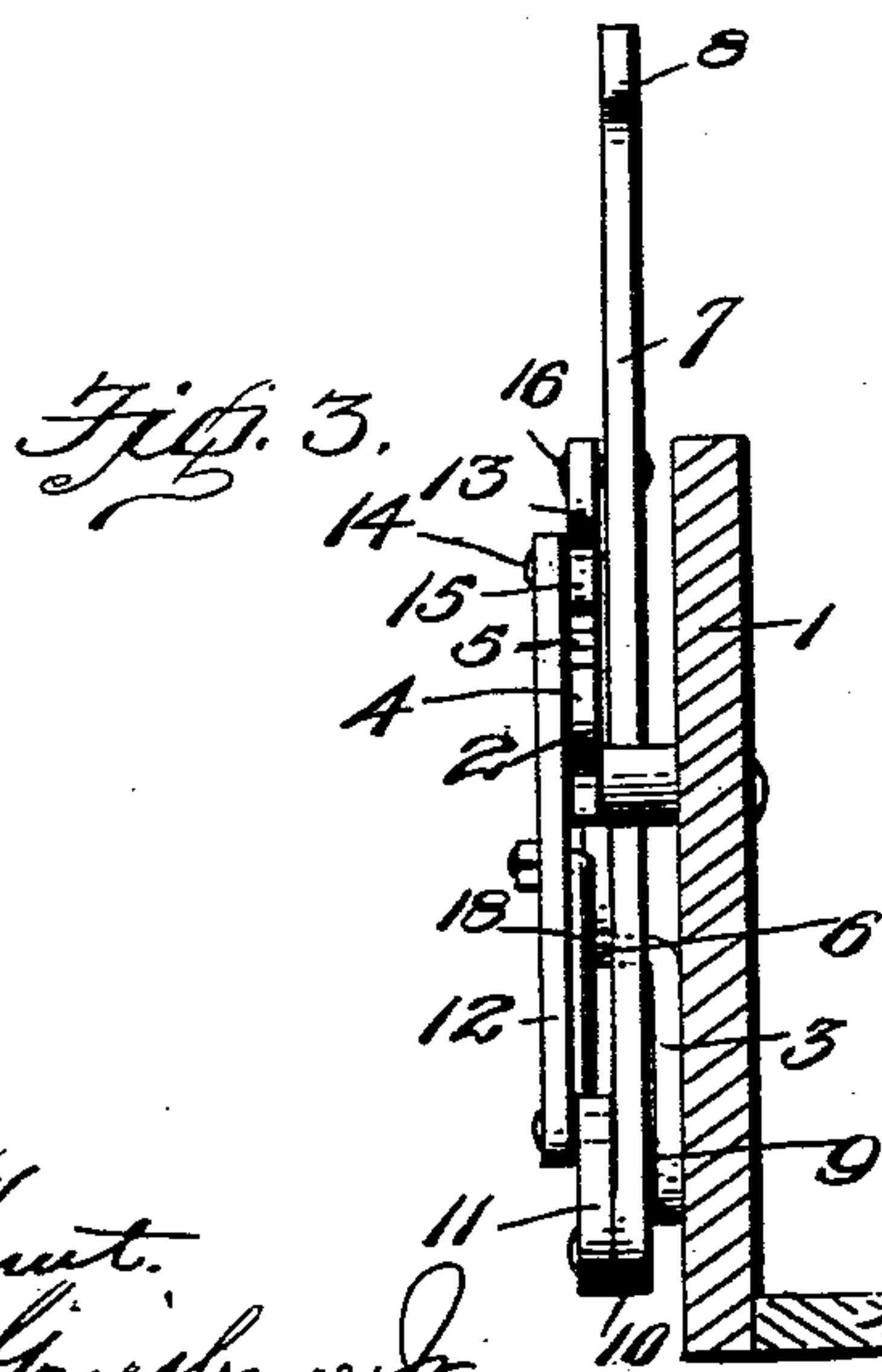
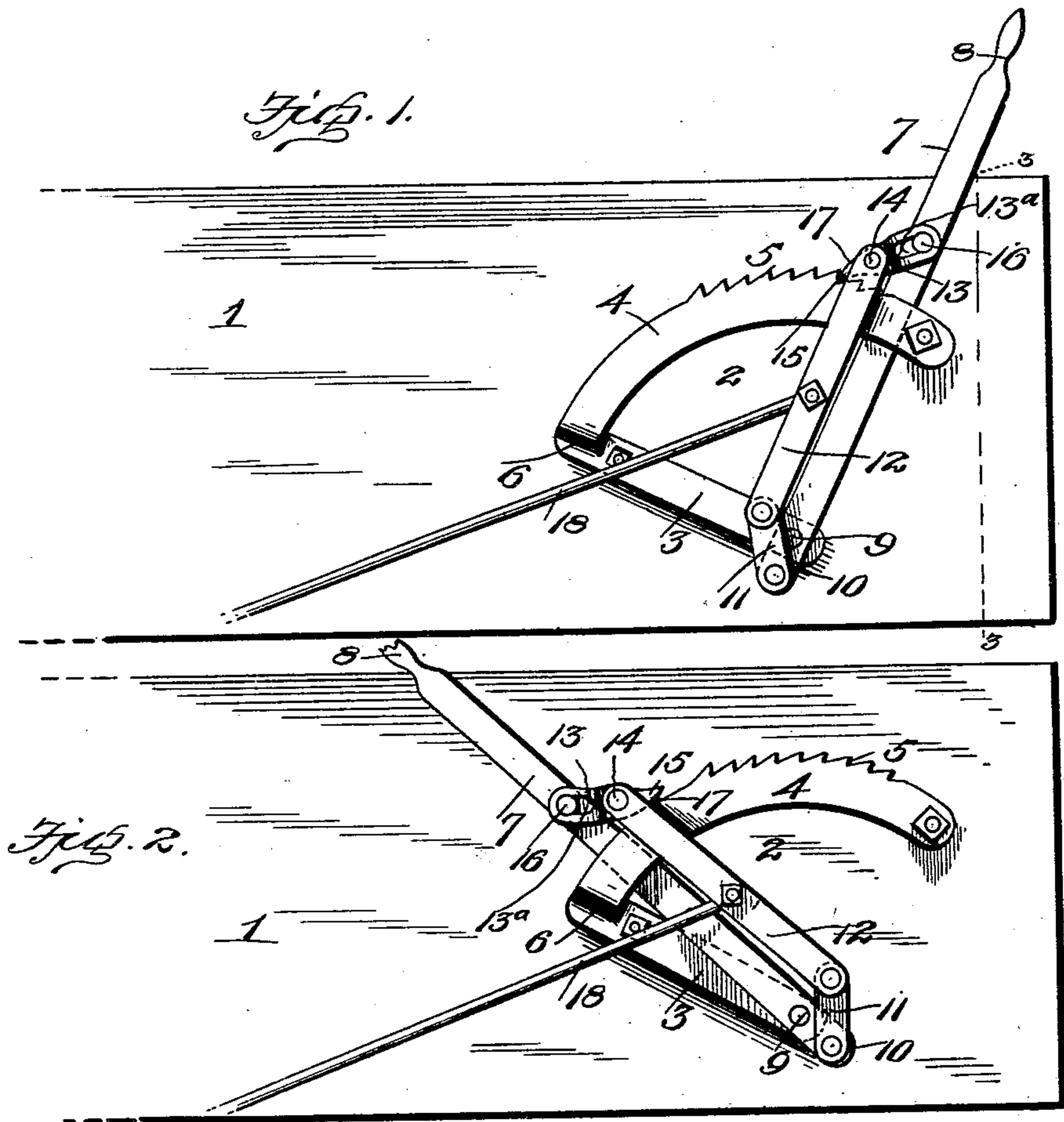
No. 664,804.

Patented Dec. 25, 1900.

J. R. YOUNG.  
VEHICLE BRAKE.

(Application filed Aug. 21, 1900.)

(No Model.)



Witnesses  
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# UNITED STATES PATENT OFFICE.

JASPER R. YOUNG, OF DEXTER, MISSOURI, ASSIGNOR OF ONE-HALF TO  
EDWARD WEBER, OF SAME PLACE.

## VEHICLE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 664,804, dated December 25, 1900.

Application filed August 21, 1900. Serial No. 27,583. (No model.)

*To all whom it may concern:*

Be it known that I, JASPER R. YOUNG, a citizen of the United States, residing at Dexter, in the county of Stoddard and State of Missouri, have invented certain new and useful Improvements in Vehicle-Brakes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to certain new and useful improvements in vehicle-brakes, and has for its object to provide a brake operating and locking mechanism which is simple in construction, efficient in operation, and adapted to be easily and conveniently manipulated.

With this and other minor objects in view the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be hereinafter more fully described, and particularly pointed out in the appended claims.

In the accompanying drawings, Figure 1 is a side elevational view of a portion of a side-board of a vehicle-body equipped with my invention, showing the brake-lever locked in the position it occupies in holding the brake-shoe applied. Fig. 2 is a similar view showing the brake-lever in its normal or released position. Fig. 3 is a vertical transverse section on line 3 3 of Fig. 1.

Referring now more particularly to the drawings, wherein like reference-numerals designate corresponding parts throughout the several views, the numeral 1 represents a portion of one of the side-boards of a vehicle-body upon which the improved brake-lever mechanism is mounted. This mechanism comprises a frame 2, consisting of a flat strip of metal having an attaching-arm 3, diagonally disposed and bolted or otherwise secured to the side-board, and an arc-shaped rack 4, provided in its upper edge with rack-teeth 5, said rack being joined to the arm by an integral offset portion 6, projecting outwardly to hold the rack properly spaced from the side-board, as shown. Upon the inner side of the rack is located an operating-lever 7, shaped at its upper end to form a handle 8 and connected near its lower end to the

arm 3 by a pivot pin or bolt 9. To the lower projecting end or short arm 10 of said lever is pivotally connected one end of a short link 11, which is in turn pivotally connected at its opposite end to the lower end of a longer link or draft-lever 12, arranged upon the opposite side of the rack from the operating-lever 7. A locking-pawl 13 is pivotally connected at or about its center to the upper end of this draft-lever 12 by means of a pivot pin or bolt 14, and its lower end is formed into a toe 15 to engage the rack-teeth 5. The upper end of the pawl is formed with a slot 13<sup>a</sup> to receive a headed pivot-pin 16 upon the upper end of the operating-lever 7. The toe of the pawl and the rack-teeth are so shaped and arranged that when the operating-lever is thrown forward or toward the free end of the arc-shaped ratchet-bar 4 the pawl will engage the ratchets and hold the lever against a reverse or backward movement, and the rear face 17 of the said toe portion of the pawl is curved or rounded to ride freely over the ratchet-teeth without engaging the same when the operating-lever is moved rearwardly to release and throw the toe of the pawl forward.

To the center of the draft link or lever 12 is pivotally connected the forward end of a draft-rod 18, which is adapted in practice to be connected at its rear end to the brake beam or shoe of the vehicle in the ordinary or any approved manner.

The operation of the brake mechanism is as follows: In applying the brake the operating-lever 7 is thrown forward, whereby the lower end of the draft link or lever 12 is forced rearwardly by the short link 11 and the toe 15 of the pawl 13 drawn back past the center by the upper end of said draft-lever. The continued forward movement of the operating-lever will then carry the draft-lever with it, and the draft-rod 18 will be drawn upon to move the brake-rod forwardly and apply the brake-shoe, and when the movement of the operating-lever is arrested the toe of the pawl will engage the nearest ratchet-tooth and lock the lever against retraction. To disengage the pawl to release the lever and brake-shoe, it is simply necessary to tap the front edge of the handle 8 sharply, where-



upon the toe of the pawl will be swung forwardly and upwardly and its curved rear face 17 will be brought in contact with the ratchet-teeth and the rearward pull will force the  
5 parts rearwardly to their normal positions and release the brake-shoe, the said curved face of the pawl riding freely over the ratchet-teeth in this movement. The slot 13<sup>a</sup> and pin  
10 16 constitute a flexible connection between the pawl and operating-lever to allow the pawl to move freely and easily in an arcuate path to accommodate the movements of the parts.

From the foregoing description, taken in  
15 connection with the accompanying drawings, the construction and mode of operation of the invention will be readily understood, and it will be seen that a simple and effective locking connection requiring no auxiliary  
20 means to lock or release it is provided.

While the preferred form of the invention is as herein disclosed, it will of course be understood that changes in the form, proportion, and minor details of construction may  
25 be made within the scope of the invention without departing from the spirit or sacrificing any of the advantages thereof.

Having thus fully described my invention, what I claim as new and useful, and desire to  
30 secure by Letters Patent of the United States, is—

1. In a vehicle-brake, the combination, with a frame having a segmental rack, of an op-

erating-lever pivoted near its lower end to said frame, a short link pivoted at one end to 35 the lower short arm of the lever, a draft link or lever pivotally connected at its lower end to the opposite end of the short link, and a locking-pawl having a pivotal connection with the upper end of the draft-lever, and a 40 slot-and-pin connection with the said operating-lever, substantially as set forth.

2. In a vehicle-brake, the combination of a frame having an arm diagonally disposed, and an arc-shaped rack joined to said arm by 45 an outstanding offset portion, an operating-lever located on one side of said rack and pivoted near its lower end to said arm, a short link pivotally connected at one end to the said lower end or short arm of the operating- 50 lever, a draft link or lever located on the opposite side of the rack and pivotally connected at its lower end to the opposite end of the short link, and a locking-pawl having a pivotal connection with the upper end of the 55 draft-lever, and a slot-and-pin connection with the said operating-lever, substantially as set forth.

In testimony whereof I have hereunto set my hand in presence of two subscribing wit- 60 nesses.

J. R. YOUNG.

Witnesses:

A. J. THROMER,  
J. W. YOUNG.