

No. 696,525.

Patented Apr. 1, 1902.

H. A. WAHLERT.  
LOCOMOTIVE BRAKE.

(Application filed Aug. 3, 1901.)

(No Model.)

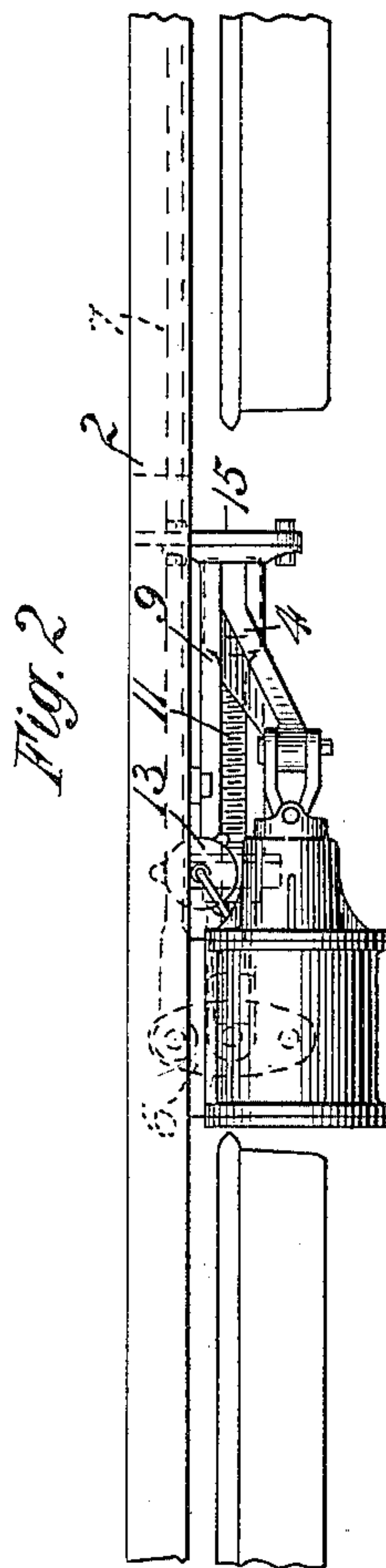
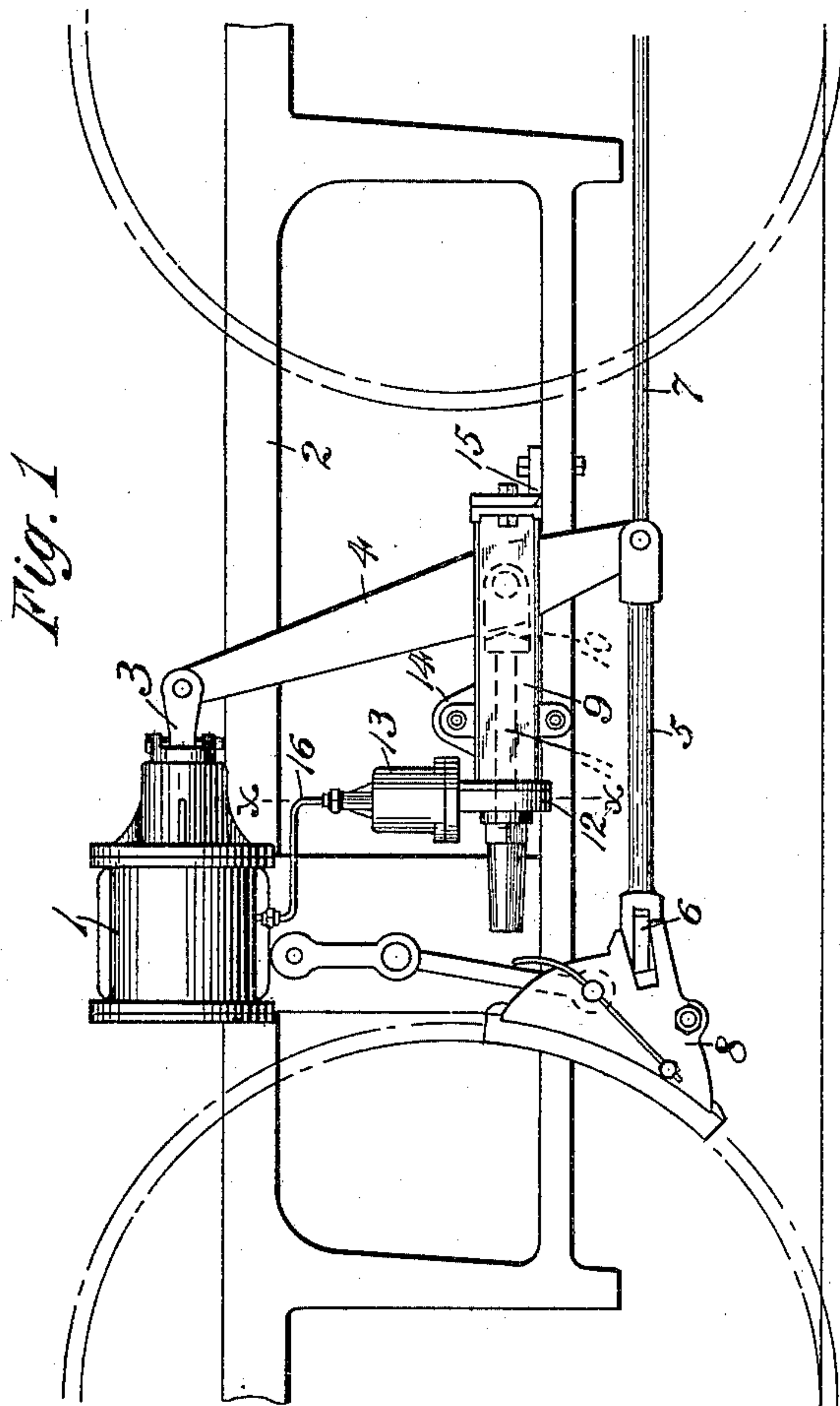
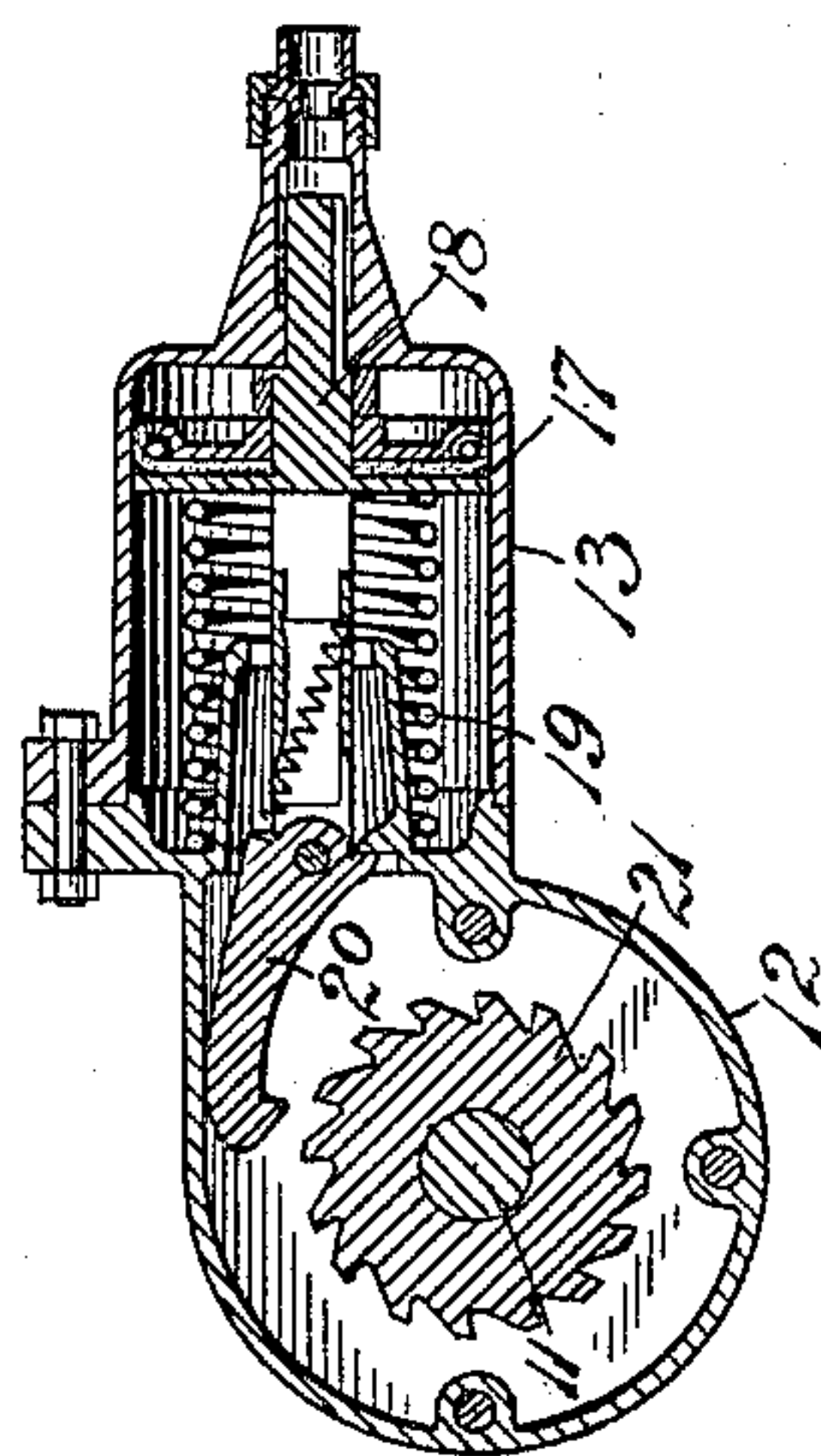


Fig. 3



WITNESSES:

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Att'y.



# UNITED STATES PATENT - OFFICE.

HENRY A. WAHLERT, OF ST. LOUIS, MISSOURI, ASSIGNOR TO THE AMERICAN BRAKE COMPANY, OF ST. LOUIS, MISSOURI, A CORPORATION OF MISSOURI.

## LOCOMOTIVE-BRAKE.

SPECIFICATION forming part of Letters Patent No. 696,525, dated April 1, 1902.

Application filed August 3, 1901. Serial No. 70,757. (No model.)

*To all whom it may concern:*

Be it known that I, HENRY A. WAHLERT, a citizen of the United States, residing in the city of St. Louis, State of Missouri, have invented or discovered a certain new and useful Improvement in Locomotive-Brakes, of which improvement the following is a specification.

My invention relates to brakes for locomotives, and has for its object to provide an arrangement by which the slack due to the wear of the driver brake-shoes will be automatically taken up.

My invention consists in a certain combination and arrangement of parts, all as hereinafter more fully set forth and claimed.

In the accompanying drawings, Figure 1 is a side elevation of my improved arrangement applied as an equalized driver-brake for locomotives. Fig. 2 is a plan view of the same; and Fig. 3 is a transverse section of the adjusting mechanism and take-up motor, taken on the line *x x* of Fig. 1.

The brake-cylinder 1 is mounted on the locomotive-frame 2 between the driving-wheels and has a piston-rod 3 for operating the main brake-lever 4, which is pivotally connected at its lower end with the push-rod 5 of the brake-rigging. At the opposite end of the push-rod is pivoted the equalizing-lever 6, connected at one end to the brake-block 8 and at the other end to the pull-rod 7, which leads to a similar equalizing-lever (not shown) for the brake-block of the next driving-wheel.

The main brake-lever 4 is pivoted in the fulcrum-block 10 of the slack-adjusting mechanism, which comprises a casing 9, forming a guide for the movable fulcrum-block and secured to the locomotive-frame by means of brackets 14 and 15. An adjusting-screw 11 is secured to the fulcrum-block 10 and passes through a ratchet-nut 21, which is operated by the take-up motor 13, having a piston 17, stem 18, a pawl 20, pivoted to the stem, and a spring 19 for returning the piston to its normal position. A cover 12, secured to the casing 9, is provided for the ratchet-nut 21.

The pressure-pipe 16 connects the take-up motor with the brake-cylinder at a point at

which it is desired to limit the travel of the brake-piston. When owing to the wear of the brake-shoes and the slack of the brake-rigging the brake-piston traverses beyond this point, the air from the brake-cylinder passes to the take-up motor and moves the piston 14, causing the pawl 20 to engage the ratchet-nut 21. Then when the brakes are released the spring 19 returns the piston 14 and pawl 20 to the normal position, thus rotating the ratchet-nut 21 and adjusting the position of the fulcrum-block 10 of the main brake-lever 4. This movement compensates for the wear of the brake-shoes and automatically takes up the slack of the brake-rigging.

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

1. In a locomotive brake-rigging, the combination with the main brake-lever pivotally connected at its upper end with the piston-rod of the brake-cylinder, and the push-rod connected to the lower end of said lever, of a movable fulcrum-block, to which the main lever is pivoted at an intermediate point, a guide for said fulcrum-block secured to the locomotive-frame, a ratchet-nut and screw for adjusting the position of the fulcrum-block, and a take-up motor connected to the brake-cylinder for operating the ratchet-nut.

2. In a locomotive brake-rigging, the combination of the main brake-lever pivoted at its upper end to the piston-rod of the brake-cylinder and at its lower end to the push-rod of the brake-rigging, a movable fulcrum-block pivoted to said lever at an intermediate point, a guide for said fulcrum-block secured to the locomotive-frame, and a take-up mechanism for automatically adjusting the position of the fulcrum-block when the brake-piston passes a certain point of its traverse.

In testimony whereof I have hereunto set my hand.

HENRY A. WAHLERT.

Witnesses:

JAS. B. MACDONALD,  
E. A. WRIGHT.