

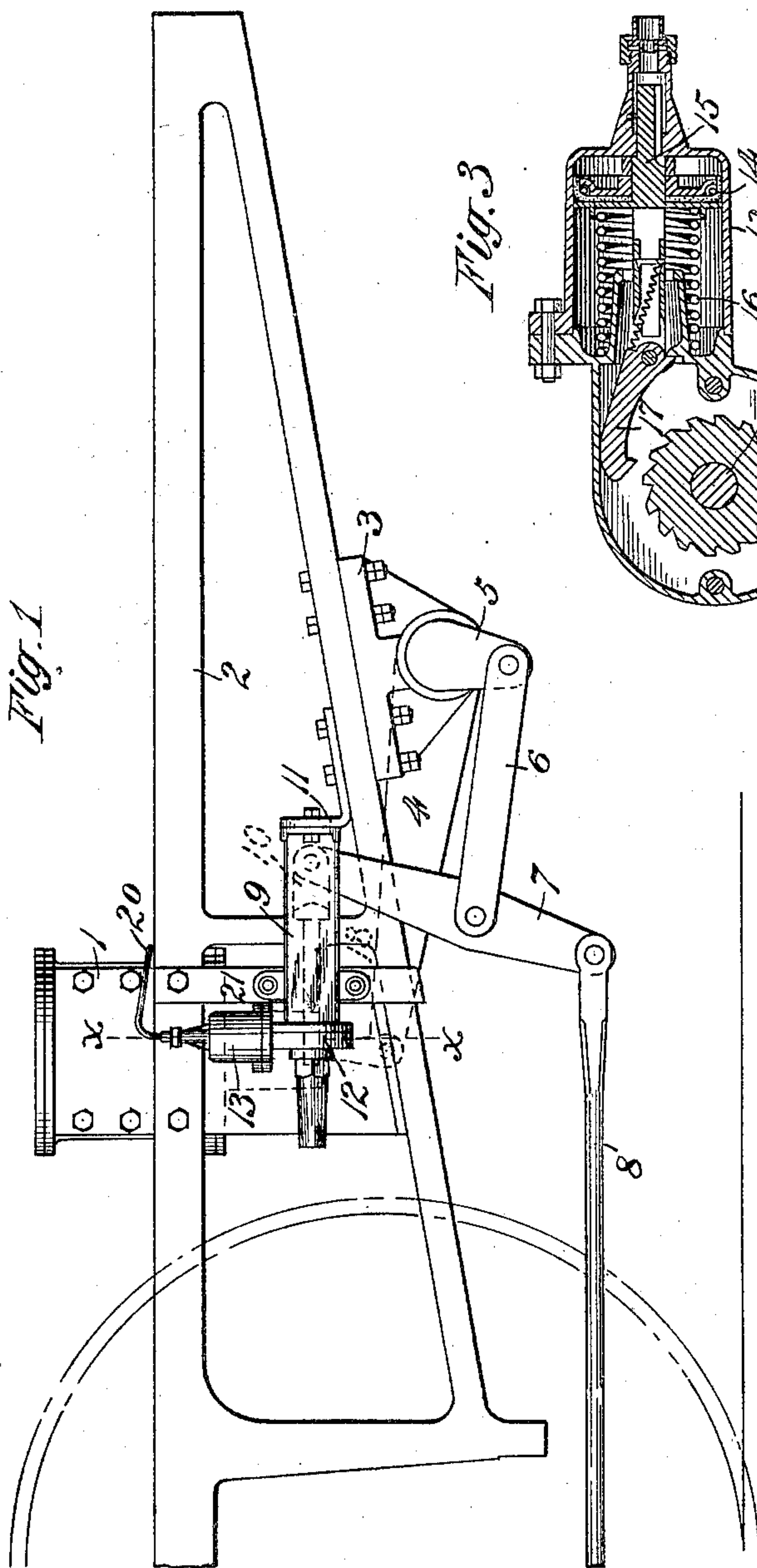
No. 696,524.

Patented Apr. 1, 1902.

H. A. WAHLERT.
SLACK ADJUSTER FOR RAILWAY BRAKES.

(Application filed Aug. 3, 1901.)

(No Model.)



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.

SLACK-ADJUSTER FOR RAILWAY-BRAKES.

SPECIFICATION forming part of Letters Patent No. 696,524, dated April 1, 1902.

Application filed August 3, 1901. Serial No. 70,756. (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 Slack-Adjusters for Railway-Brakes, of which improvement the following is a specification.

My invention relates to slack-adjusters for railway-brakes, and has for its object to provide an improved construction for applying a slack-adjusting mechanism to the brake-rigging of cars and locomotives.

My invention consists in the use of an adjusting-lever which is pivoted to the fulcrum-block of a take-up mechanism and is connected at two other separate points with different members of the brake-rigging, all as herein-after more fully set forth.

In the accompanying drawings, which show an embodiment of my invention applied to a locomotive-driver brake-rigging, Figure 1 is a side elevation, Fig. 2 a plan view, and Fig. 3 a transverse section, of the take-up motor, taken on the line *x x* of Fig. 1.

The brake-cylinder 1 is secured on the frame 2, which also carries the fulcrum-bracket 3 of the main operating-lever, having the long arm 4, operated by the brake-piston, and the short arm 5 for connection to the brake-rigging, all of which is the usual construction.

Instead of connecting the short arm 5 of the main operating-lever directly with the main pull-rod of the brake-rigging the said arm 5 is connected by links 6 with the adjusting-lever 7, which is pivoted at one end in the movable fulcrum-block 10 of the take-up mechanism and is connected at its opposite end to the main pull-rod 8 of the brake-rigging.

While any suitable form of take-up mechanism may be used to adjust the position of the movable fulcrum-block 10, I have shown one form of such mechanism, comprising a casing 9, secured to the frame by means of brackets 11 and 21 and forming a guide for the fulcrum-block 10, to which the adjusting-lever 7 is pivoted. An adjusting-screw 18 is secured to the fulcrum-block and passes through a ratchet-nut 19, which is operated by the take-up motor 13, comprising piston

14, stem 15, pawl 17, and spring 16, the ratchet-nut being inclosed by a cover 12, which may be secured to the casing 9.

The take-up motor is connected to the brake-cylinder by a pressure-pipe 20, which is tapped into the cylinder at the point of desired limit of brake-piston travel, so that when the piston traverses beyond this point, owing to the slack of the brake-rigging, air under pressure from the brake-cylinder passes to the take-up motor and moves the pawl 17 into engagement with the ratchet-nut 19. Then as the brakes are released the spring 16 returns the piston 14 and pawl 17 to the normal position, thus rotating the ratchet-nut 19 and moving the fulcrum-block 10 of the adjusting-lever 7. This movement turns the adjusting-lever slightly about its pivot on links 6 and adjusts the position of the pull-rod 8 to compensate for the wear of the brake-shoes.

While I have shown my invention applied to a locomotive brake-rigging, it is not limited to such construction, but may also be applied to the brake-rigging of passenger or freight cars. Other forms of take-up mechanism for adjusting the position of the fulcrum-block may be used, if desired, and I do not claim herein the specific form of take-up mechanism, as such construction constitutes the subject-matter of a copending application, Serial No. 70,753, filed by me of even date herewith.

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

1. In a brake-rigging, the combination with a main brake-operating lever having a fixed fulcrum, of an adjusting-lever having a movable fulcrum-block, a take-up mechanism for adjusting the position of the fulcrum-block, a pull-rod connected to the adjusting-lever, and a link connecting the main operating-lever with the adjusting-lever.

2. In a brake-rigging, the combination with an adjusting-lever pivoted to a movable fulcrum and a take-up mechanism for adjusting the position of said fulcrum, of a pull-rod connected to the adjusting-lever at one point, another member of the brake-rigging connected to the adjusting-lever at a different distance from its fulcrum, and a main brake-

lever having a fixed fulcrum for operating one of said members.

3. In a brake-rigging, the combination of
5 a brake-cylinder, a main brake-lever, an adjusting-lever having a fixed fulcrum, a movable fulcrum-block for the adjusting-lever, a pull-rod connected to one end of the adjusting-lever, a link connecting the main brake-lever with an intermediate point of the ad-

justing-lever, and a take-up mechanism for adjusting the position of the movable fulcrum-block.

In testimony whereof I have hereunto set my hand.

HENRY A. WAHLERT.

Witnesses:

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