

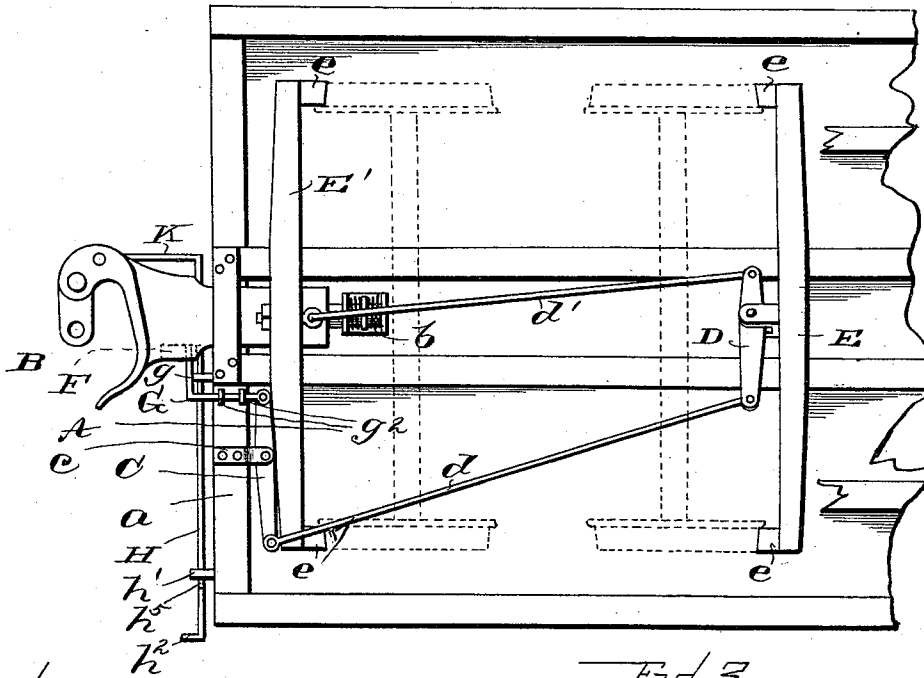
(No Model.)

J. F. ADAMS.
AUTOMATIC BRAKE.

No. 574,844.

Patented Jan. 5, 1897.

F201



Ed. 2.

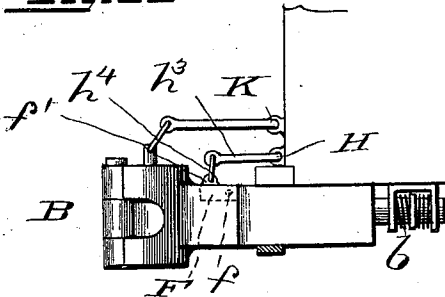
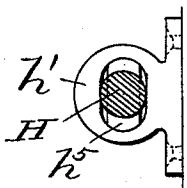


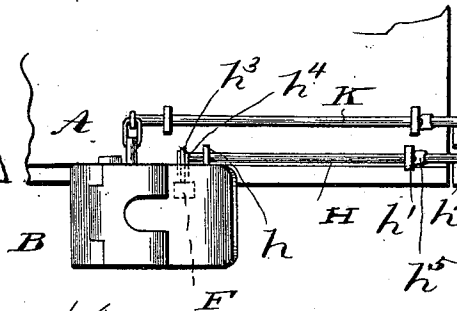
Fig-5-



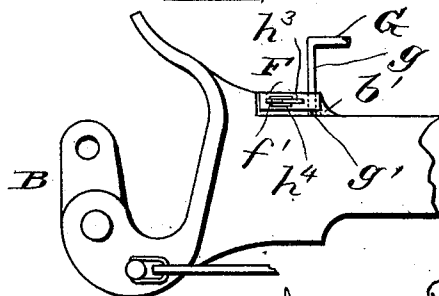
Witnesses

E. A. Paulsen
J. D. Kingberg

Ed 3



F2/4



Inventor_____

James F. Adams
By J. W. Whitaker & Co. ^{attos}

UNITED STATES PATENT OFFICE.

JAMES F. ADAMS, OF HUBERT, GEORGIA.

AUTOMATIC BRAKE.

SPECIFICATION forming part of Letters Patent No. 574,844, dated January 5, 1897.

Application filed September 21, 1896. Serial No. 606,539. (No model.)

To all whom it may concern:

Be it known that I, JAMES FRANKLIN ADAMS, a citizen of the United States, residing at Hubert, in the county of Bullock and State of Georgia, have invented certain new and useful Improvements in Automatic Brakes; and I do hereby 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.

My invention is an improvement in automatic brakes for railway-cars in which the brakes are actuated by the longitudinal movement of the draw-bar; and it consists in the novel features hereinafter described, reference being had to the accompanying drawings, which illustrate one form in which I have contemplated embodying my invention, and said invention is fully disclosed in the following description and claims.

Referring to the drawings, Figure 1 represents a bottom plan view of a car provided with improved brake mechanism, a portion only of the car being shown. Fig. 2 is a side view of a portion of the car, showing the draw-bar and connected mechanism. Fig. 3 is a front view of the car, showing the draw-bar and the mechanism for disconnecting the draw-bar from the brake-operating lever. Fig. 4 is a top plan view of the draw-bar and a portion of the brake-operating mechanism connected therewith. Fig. 5 is a detail view of one of the bearings for the rock-shaft employed to disconnect the brake mechanism and the draw-bar.

In the drawings, A represents the car-body, and B represents the draw-bar, in this case one of the Janney type, which is secured thereto in any desired or usual manner so as to have a longitudinal movement, said draw-bar being provided with the usual cushioning-spring *b*. On the front cross-beam *a* of the car-body or other convenient portion of the car I provide a pivoted brake-operating lever C, which is preferably mounted in a bracket *c*, secured by bolts or otherwise to the beam *a*. From the outer end of said lever a rod, link, or chain *d* extends to one end of a lever D, which is preferably pivoted to or upon the inner brake-beam E of the truck in a well-known manner. From the other end of the

lever D a similar rod, link, or chain *d'* extends to the outer brake-beam E', the connections being such that power exerted upon the lever C will, by means of the lever D and connections *d d'*, apply or release the brake-shoes *e* of both the brake-beams of the truck in a well-known manner.

The draw-bar B is provided on its upper side, adjacent to one of its lateral edges, with a rectangular recess *b'*, in which lies a block F, provided with a horizontal aperture *f*.

G represents a connecting-bar, having its rear end pivotally connected with the inner end of the lever C and having its outer end provided with a laterally-projecting horizontal pin *g*, which extends through the aperture *f* in the block F. The said block is secured to said pin *g* by means of a retaining-pin *g'*, which passes through an aperture in the pin *g*. The connecting-bar G is also mounted in guiding-bearings *g² g²*, secured to the beam *a* of the car-body to prevent it from moving laterally. When the block is in a horizontal position in the recess *b'*, it will be seen that if the draw-bar is pressed inwardly, as it would be by the jamming together of the cars in slowing up the train, the connecting-bar G will be forced backward, thereby operating the levers C and D and their connections with the brake-beam and automatically applying the brakes to the wheels of the truck. It will also be seen that when the train is started or the speed increased so as to cause the cars to separate slightly the draw-bar will be drawn outward and thereby release the brake mechanism.

It is sometimes desirable to disconnect the brake mechanism from the draw-bar, so as to allow the draw-bar to yield without applying the brake. To this end it is only necessary to raise the block F from a horizontal to a vertical position, the horizontal pin *g* of the connecting-bar G acting as a pivot, when the draw-bar will be free to move longitudinally without affecting the brake mechanism.

In the drawings I have shown a horizontal rock-shaft H extending from the side of the car along the end and supported in bearings *h h'*, secured to the car. This shaft is provided at its outer end with a hand-lever *h²* and at its inner end with a lifting-arm *h³*, which is connected by a link *h⁴* to an eye *f'*,

formed on the block F. One of the bearings *h'* is provided with an oval aperture through which the shaft passes, and the said shaft is provided with a flattened portion *h⁵*, adjacent
 5 to said bearing *h'*. When the rock-shaft is moved so as to raise the block F into vertical position, the rock-shaft will be moved longitudinally to force the flattened portion *h⁵*
 10 into the bearing *h'*, thus locking the rock-shaft in position in a well-known way. K represents a similar rock-shaft, which is connected with the Janney coupler in the usual manner for operating the same. It will thus
 15 be seen that the draw-head can be connected with and disconnected from the brake mechanism without necessitating the operator going between the cars.

What I claim, and desire to secure by Letters Patent, is—

20 1. In an automatic car-brake, the combination with the draw-bar provided with a depressed portion lying below other portions of the draw-bar, a block in said depressed portion, a brake-operating lever secured to the
 25 car, a connecting-bar secured to said lever

and to said block, the brake-beams operatively connected with said lever and means for moving said block to disconnect the draw-bar and said operating-lever, substantially as described.

30 2. In an automatic car-brake, the combination with the draw-bar provided with a recess on its upper side, a block loosely placed in said recess, a brake-operating lever secured to the car, the brake-beams operatively connected with said lever, a connecting-bar having one end connected with said lever and
 35 its other end provided with a laterally-extending pin having a pivotal connection with said block, and means for raising said block into a vertical position to disconnect the draw-bar from said brake-operating lever, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES F. ADAMS.

Witnesses:

HENRY N. OBEAR,
 L. P. WHITAKER.