

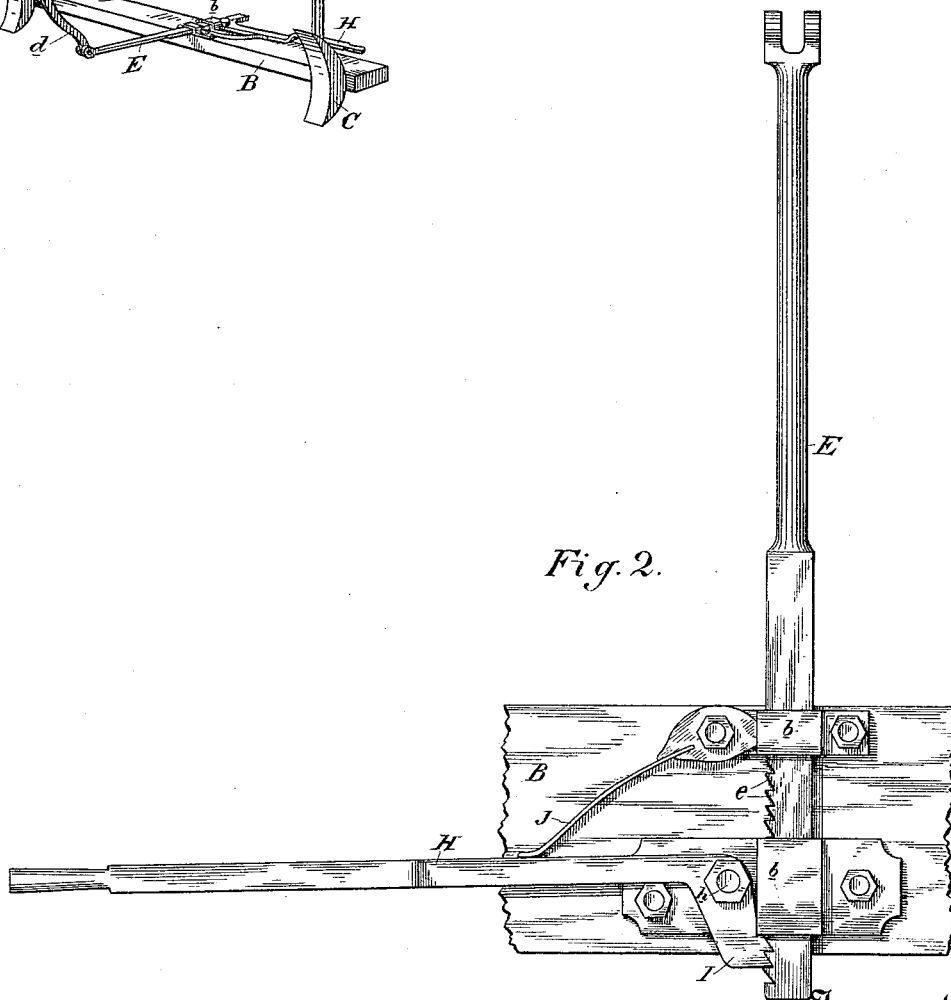
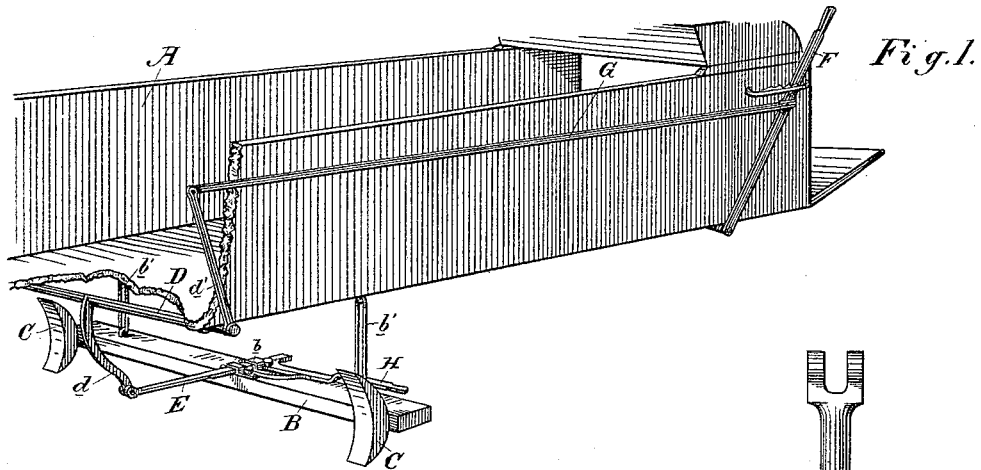
(No Model.)

J. M. WALSH & C. G. SMITH.

ADJUSTABLE CONNECTION FOR BRAKE BEAMS.

No. 346,333.

Patented July 27, 1886.



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# UNITED STATES PATENT OFFICE.

JAMES M. WALSH AND CHIPMAN G. SMITH, OF TAYLORSVILLE, CAL.

## ADJUSTABLE CONNECTION FOR BRAKE-BEAMS.

SPECIFICATION forming part of Letters Patent No. 346,333, dated July 27, 1886.

Application filed May 27, 1886. Serial No. 203,488. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES M. WALSH and CHIPMAN G. SMITH, both of Taylorsville, Plumas county, State of California, have invented an Improvement in Adjustable Connections for Brake-Beams; and we hereby declare the following to be a full, clear, and exact description of the same.

Our invention relates to the class of wagon-brakes, and particularly to a new and useful connection by which the brake-beam may be readily adjusted, in order to bring its shoes into proper relation with the wheels.

Our invention consists in the adjustable toothed or rack bar forming one of the system of brake-operating levers and rods, and the pivoted pawl-lever engaging and fixing the adjustment of the rack-bar, all of which we shall hereinafter more fully describe.

The object of our invention is to provide simple means for readily and effectively adjusting the brake-beam, to carry its shoes into proper relation with the wheels, so that they may be at all times operative. Usually the operation of adjusting the brake-beam is long and difficult. The operator has to get under the wagon and with a wrench adjust or relieve the various nuts and bolts in order to change the position of the beam. This difficulty is entirely obviated in our invention, as the work can be easily reached and quickly accomplished.

Referring to the accompanying drawings for a more complete explanation of our invention, Figure 1 is a perspective showing a portion of a wagon and its brake mechanism and the application thereto of our adjustable connection. Fig. 2 is a detail view of our adjustable connection.

A is the body or bed of the wagon, which may be supposed to be provided with the necessary running gear; and B is the brake beam or bar mounted in any usual manner. (Here shown as suspended from the body by the links *b'*.)

C are the shoes on the beam, which by the movement of said beam are brought into frictional contact with the wheels.

D is a rock-shaft mounted suitably under the body and provided with a center crank-arm, *d*, and an end crank-arm, *d'*, the former projecting downwardly and the latter upwardly beside the body or bed of the wagon. The center

crank is connected with the beam by the bar or rod E, and the end crank is connected with the operating-lever F in front by the rod G. It will be seen that by this arrangement of levers and rods the beam may be moved so as to cause its shoes to bind against the wheels. When the shoes become worn, or when for any reason the position of the beam is such that with the stated movement communicated through the levers and rods the shoes cannot be brought into sufficiently strong frictional contact with the wheels, the beam or, what amounts to the same thing, the connecting-rod has to be adjusted to remedy this. This, as we have heretofore said, is usually effected by the driver getting under the wagon and with a wrench releasing the various nuts and bolts by which the beam is connected with the system of operating levers and rods, and then changing the position of the beam or rod, as required. Our invention overcomes the necessity for this operation by making the connection with the beam of such a nature that it can be readily adjusted without having to get under the wagon and without having to release any nuts or bolts. To this end the rod or bar E is provided at its forward end which lies next to the beam with teeth *e*, thus making a rack of it. Upon the beam are fixed guide-sockets *b*, in which the rack end of the bar E fits, and is adapted to slide back and forth.

H is a lever, which is pivoted to the beam at the point *h*, and its outer end extends along the beam to within convenient reach of the operator, without his being under the necessity of getting under the wagon. The inner end of the lever H is made into a pawl, I, which engages the rack-bar E. The pawl is held normally to its engagement with the rack by means of the spring J which bears on the levers. It will be seen that as long as the pawl remains in engagement with the rack-bar, the connection with the beam is complete, and the brakes may be operated, as usual, from the front; but when the necessity arises from the adjustment of the beam the lever H is moved over to one side, so as to cause the disengagement of its pawl I with the rack-bar E, whereby said bar may be moved to the position required, in which position it is fixed by releasing the lever and allowing the engage-

ment of the pawl with the rack to again take place. It will thus be seen that the whole operation is easily and quickly performed and with very little labor.

5 Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. An adjustable connection for brake-beams, consisting of the rack-bar E, forming  
10 part of the power-transmitting mechanism by which the beam is operated, and the pivoted pawl-lever carried by the beam and engaging the rack-bar, whereby said bar may be adjusted as required, substantially as herein  
15 described.

2. An adjustable connection for brake-beams, consisting of the rack or toothed bar E, having its forward end guided by the beam and having a sliding connection therewith,  
20 and the spring-actuated lever H, pivoted on the beam and having its end formed into or provided with a pawl, I, engaging the rack or toothed bar, substantially as herein described.

3. In combination with the brake-beam B,  
25 having the guide-sockets b, the rack or toothed bar E, fitted and adapted to slide in said

sockets, said bar forming part of the power-transmitting mechanism by which the beam is operated, and the spring-actuated lever H, pivoted on the beam and having its end formed  
30 into or provided with a pawl, I, engaging the rack or toothed bar, substantially as herein described.

4. The brake-beam B, the rock-shaft D, having cranks *d d'*, the operating-lever F, and  
35 the rod G, connecting the operating-lever with the crank *d'*, in combination with the bar or rod E, having its rear end connected with the crank *d*, and its forward end formed into a rack, *e*, guided by and sliding on the beam  
40 B, and the spring-actuated lever H, pivoted on the beam and having its end formed into or provided with a pawl, I, engaging the rack end of the bar E, all arranged and adapted to operate substantially as herein described.  
45

In witness whereof we have hereunto set our hands.

JAMES M. WALSH.  
CHIPMAN G. SMITH.

Witnesses:

J. C. YOUNG,  
P. H. YOUNG.