

(No Model.)

J. W. BRUBAKER.
WAGON BRAKE.

No. 526,611.

Patented Sept. 25, 1894.

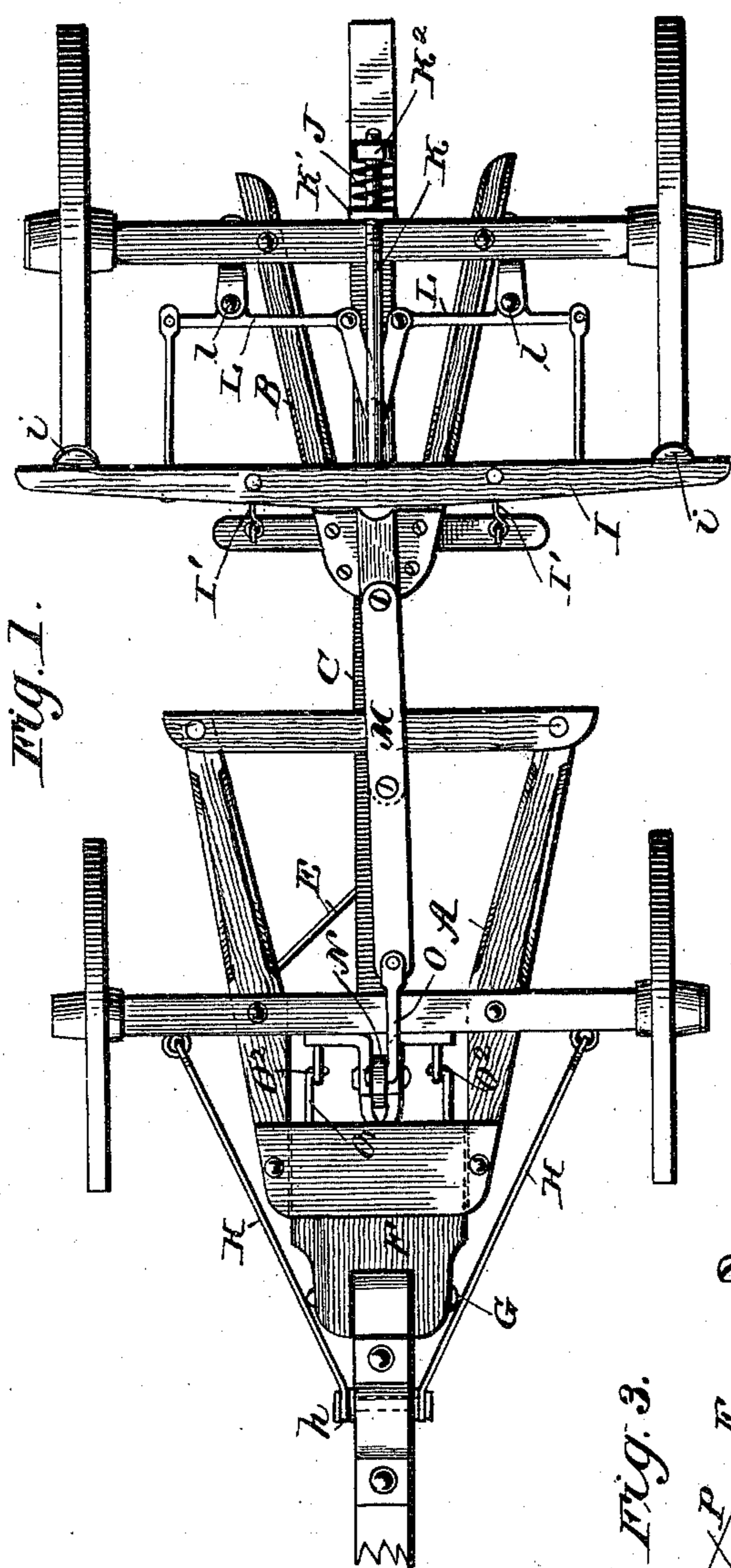


Fig. 1.

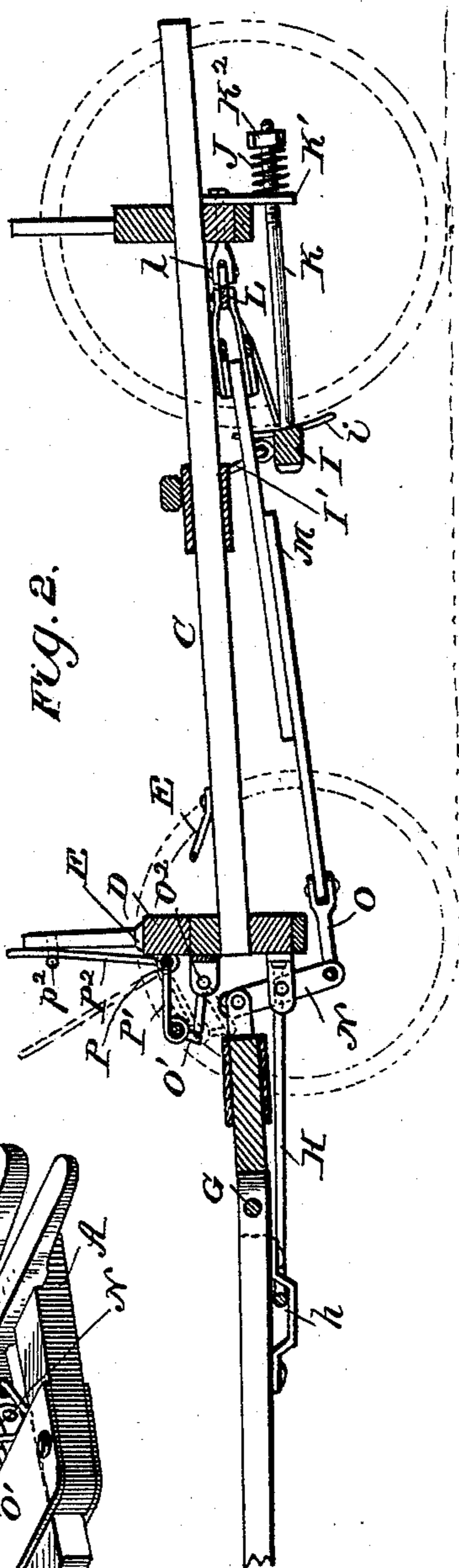


Fig. 2.

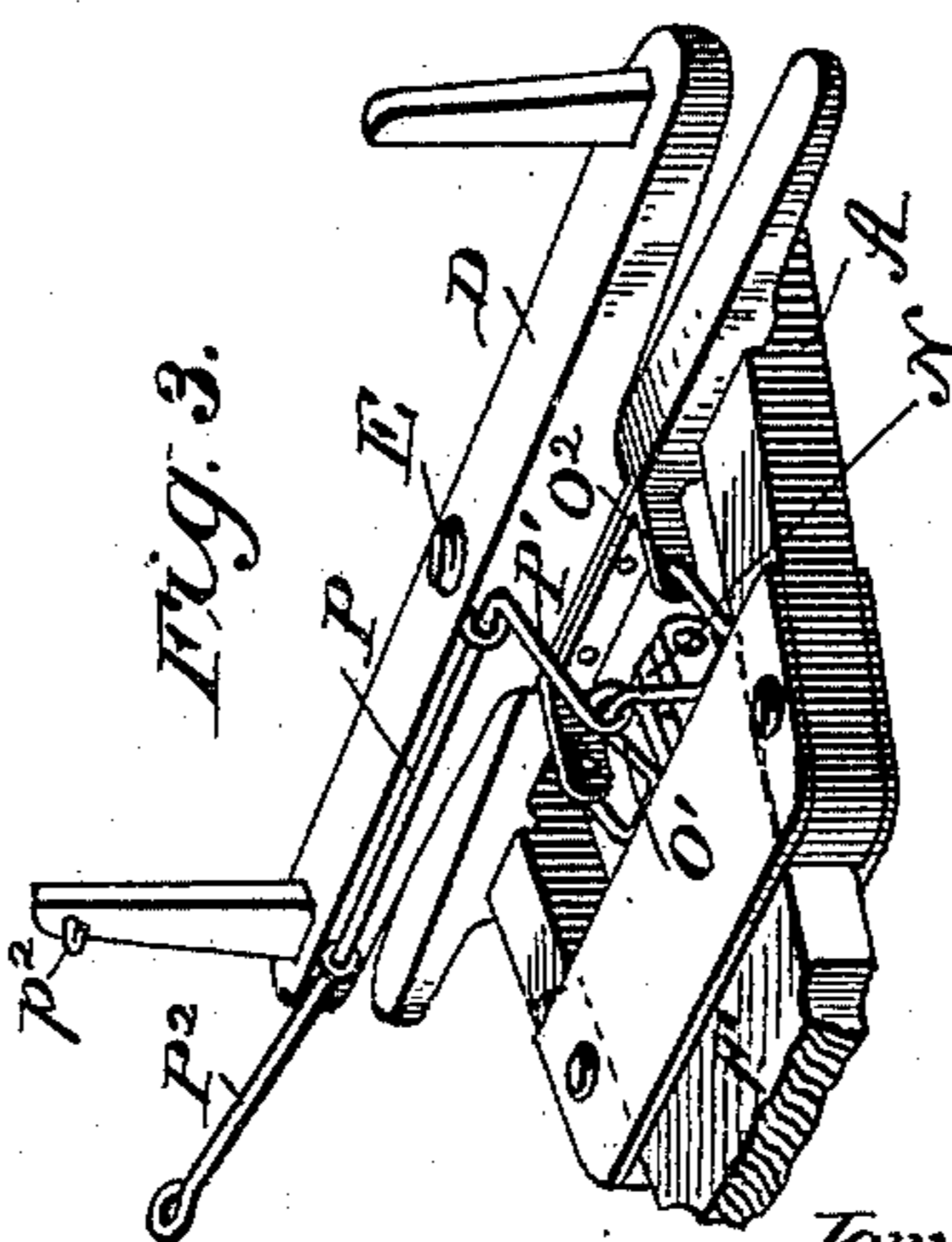


Fig. 3.

WITNESSES:
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JAMES W. BRUBAKER, OF TRACY, IOWA.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 526,611, dated September 25, 1894.

Application filed May 23, 1894. Serial No. 512,164. (No model.)

To all whom it may concern:

Be it known that I, JAMES W. BRUBAKER, of Tracy, in the county of Marion and State of Iowa, have invented a new and useful Improvement in Wagon-Brakes, of which the following is a specification.

My invention is an improvement in automatic brakes which are set by the weight of the load in descending a grade and the invention consists in the novel constructions, combinations and arrangements of parts as will be hereinafter described and pointed out in the claims.

In the drawings, Figure 1 is a bottom plan view of a running gear provided with my improvements. Fig. 2 is a vertical longitudinal section thereof and Fig. 3 is a detail view illustrating the stop device for use when it is desired to back the team.

In the construction shown the gear has front hounds A, rear hounds B, coupling C and front bolster D, which latter is held from turning preferably by a stay rod E which connects such bolster with the coupling. The pole is provided with a section or portion F which slides back and forth preferably in a guideway furnished by the forward end of the front hounds and this portion of the pole is connected with and operates the brake proper as presently more fully described. It is preferred to form the pole with a section pivoted to the sliding portion at G and stayed by rods H having a sliding connection at h with the front pivoted section of the pole. The brake bar I is supported by hanger rods I' and carries the shoes i engaging the rear wheels and which shoes may be of any suitable construction.

A spring J which may be a coil spring as shown or a leaf spring or other suitable form desired, is arranged to set the brake and operates thereon through a rod K secured to the brake bar and extended back through a guide K' and having on its rear end a nut K² securing the spring and serving as a means for adjusting the tension thereof. This spring serves to set the brake when the wagon is at a standstill or when the draft strain is relieved and the draft connections are such that in descending a grade the back pressure on the pole aids in applying the brake so that the heavier the load and consequently the greater

the back pressure the harder the brake is applied. The draft connection comprises levers L pivoted at l connected at their outer ends with the brake bar and at their inner ends to the connecting rod M. This rod M is made in sections and is connected at its front end with one end of a lever N the other end of which is connected to the pole. In connecting the lever with the connecting rod it is preferred to use a pitman O pivoted horizontally to the lever N and vertically to the connecting rod, the latter being to permit the convenient operation of the brake whether the wagon is going straight or turning.

In operation it will be seen the back pressure on the pole operates to draw the connecting rod forward and forcibly set the brakes.

To enable the wagon to be backed when desired without setting the brakes I provide the brake latch which comprises a bail or loop O' pivoted at O² and arranged to be lowered in rear of and prevent the backward movement of the pole or raised clear of said pole. To operate this loop I provide a shaft or lever P having an arm P' connected with the bail and a handle arm P² the latter being arranged to spring into engagement with a catch p² on one of the bolster standards to keep the brake latch clear of the pole when so desired. By this construction the latch may be quickly adjusted out of operative position and may be secured in such position. The latch may be also conveniently set to permit the backing of the wagon as desired.

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

1. The combination with the sliding pole, the brakes, a connecting rod, a lever pivoted between its ends and connected at one end with the sliding pole, and a pitman pivoted at one end to the said lever and at the other end to the connecting rod, the axes of said two pivots being at right angles to each other substantially as and for the purposes set forth.

2. The combination with the brake bar of the spring by which to normally set the brake, and the draft devices connected with said brake bar and adapted to act in opposition to said spring when the draft strain is on and in conjunction therewith when the draft strain is off substantially as set forth.

3. The combination with the brake proper the connecting rod and devices connecting the same with the brake proper of the sliding pole, the lever connected at one end with said pole and a pitman connected with the other end of the lever and with the connecting rod and pivoted to the latter substantially as set forth.

4. The combination with the brakes the sliding pole and connections whereby the rearward movement of the pole sets the brake, of the brake latch comprising a pivoted bail or loop a shaft journaled to the bolster and having a crank arm connected with the bail and a handle arm and a catch or detent for engagement by said handle arm substantially as set forth.

5. The combination with the brake bar the rod connected therewith, the brake operating spring on said rod, the levers pivoted between their ends and having one arm connected with the brake bar, the connecting rod connected with the other arms of said levers, the sliding pole, and the lever connected at one end with the pole and at its other end with the connecting rod substantially as set forth.

6. The combination substantially as described of the brake bar, the spring connected therewith and operating to set the brakes, the pair of pivoted levers connecting at one

end with the brake bar, the connecting rod connected with the other ends of the said levers the sliding pole a lever connected at one end with said pole, a pitman pivoted at one end to said lever and at its other end to the connecting rod said two pivots being at right angles to each other, and the brake latch all substantially as and for the purposes set forth.

7. The combination with the brake proper the sliding pole and connections by which the backward play of the pole sets the brake of the latch comprising a bail or loop and a lever having a crank connected therewith and a handle and a catch or detent for securing said handle all substantially as set forth.

8. A brake substantially as described comprising the brake bar, the pair of levers having their outer arms connected with the brake bar the connecting rod connected with the inner arms of said levers, the spring and its rod connected with the brake bar, the sliding pole, the lever interposed between the connecting rod and the pole, the latch bail and the lever by which to operate the same substantially as set forth.

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Witnesses:

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