

(No Model.)

L. S. WHEELER.
WAGON BRAKE.

No. 574,694.

Patented Jan. 5, 1897.

Fig. 1,

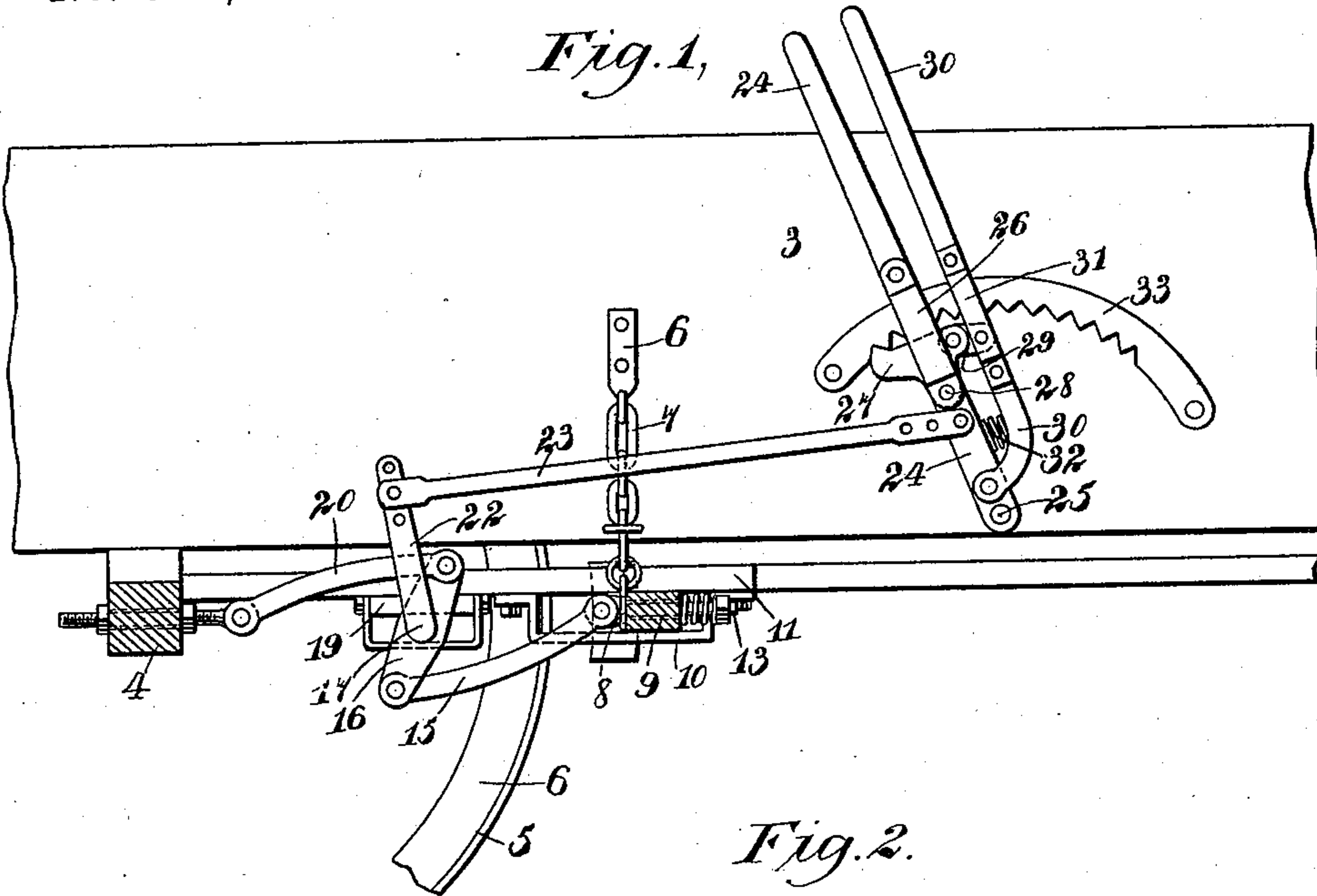
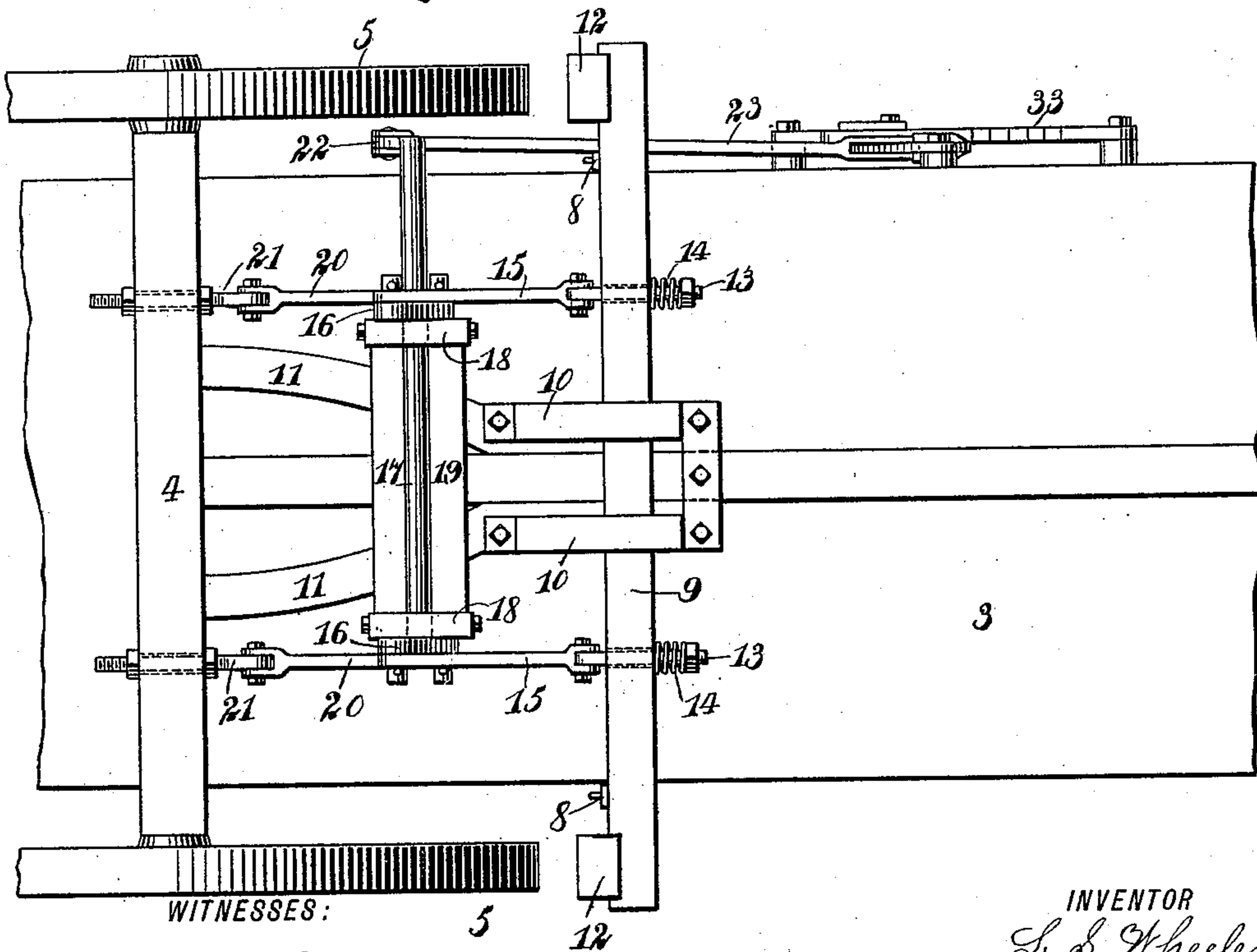


Fig. 2.



WITNESSES:

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LAURENS S. WHEELER, OF TYRO, KANSAS.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 574,694, dated January 5, 1897.

Application filed March 23, 1896. Serial No. 584,481. (No model.)

To all whom it may concern:

Be it known that I, LAURENS S. WHEELER, of Tyro, in the county of Montgomery and State of Kansas, have invented a new and Improved Wagon-Brake, of which the following is a full, clear, and exact description.

The object of this invention is to provide a superior hand-applied brake for vehicles. The invention relates to that general class in which the brake-beam is supported from and beneath the body portion and operated by mechanism carried partly beneath the body portion and partly at the side thereof.

The invention consists in certain peculiar features of construction and combinations of parts, which will be fully described hereinafter and defined in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in both the figures.

Figure 1 is a fragmentary side elevation of a wagon to which my improvements are applied, and Fig. 2 is a bottom plan of the same.

The wagon-body 3 is provided with the usual rear axle 4, having wheels 5, by which the wagon-body is partly supported. Secured to each side of the wagon-body is a plate 6, to each of which a chain 7 is connected, and the said chains 7 are in turn attached to plates 8, respectively, carried near each end of the brake-beam 9. The brake-beam 9 is slidable longitudinally of the wagon-body 3, and is held by guide-plates 10, said guide-plates being respectively fixed to the forward ends of the hounds 11 of the vehicle.

The brake-beam 9 is provided with the usual shoes 12, adapted to engage the peripheries of the rear wheels 5. Transversely movable in the brake-beam 9 are two rods 13, which are carried respectively at each side of the hounds 11 and have expansive spiral springs 14, by which they are made to have a yielding connection with the brake-beam. Pivotal-ly connected to each rod 13 is a link 15, and said links extend downwardly and rearwardly from the rods 13 and are respectively pivotally connected to the lower ends of the arms 16, fixed on a rolling shaft 17, extending transversely of the wagon-body and held by guide-plates 18, in turn fixed to a transverse

bed-plate 19, secured to the hounds 11 of the wagon.

The arms 16 are respectively located directly adjacent to each end of the plate 19 and have their upper ends respectively pivotally connected to links 20, which extend rearwardly and downwardly and are respectively connected to rods 21, secured to the rear axle 4.

The right-hand end of the rolling shaft 17 is provided with an upwardly-extending crank-arm 22, to which a rod 23 is pivotally connected, said rod extending forwardly and having pivotal connection with a lever 24, fulcrumed on a pin 25, carried by the body 3 of the wagon, the lever 24 extending upwardly above the upper edge of the wagon-body and parallel with the side thereof.

Fixedly carried by the lever 24 is a plate 26, between which plate 26 and the lever 24 a pawl 27 is pivotally mounted on a pin 28. The pawl 27 has a forwardly-extending portion pivotally connected with a link 29, in turn pivoted to a lever 30, through the medium of a plate 31, similar to the plate 26, the lever 30 being fulcrumed on the lever 24 and given a tendency away from said lever by means of an expansive spiral spring 32. This spring 32, acting through the medium of the lever 30, tends to throw the pawl 27 into engagement with the teeth of the curved ratchet-bar 33, said ratchet-bar being fixed on the right-hand side of the wagon-body 3. It will be seen that by moving the levers 24 and 30 toward each other the pawl 27 will be rocked, so that its rear end will move downwardly and disengage the teeth of the ratchet-bar 33, so as to permit the free movement of the lever 24 and consequent movement of the rod 23 to adjust the brake mechanism.

By means of this construction it is possible to more easily and quickly apply the brakes; and it will be seen that upon the rearward rocking of the lever 24 the rod 23 will move to forwardly roll the shaft 17 in the guides 18, causing the arms 16 to spread the links 15 and 20, so as to move the brake-beam 9 forwardly and release the brakes. Upon moving the lever 24 in an opposite direction the shaft 17 will be rolled rearwardly, so as to draw the links 15 and 20 toward each other

and move the beam 9 rearwardly to apply the brakes.

It will be understood that upon permitting the spring 32 to expand the lever 30 will be moved, so that the pawl 27 will be kept in engagement with the teeth of the ratchet-bar 33, while upon moving the levers 24 and 30 toward each other the pawl may be rocked, so as to disengage the ratchet-bar and permit the movement of the lever 24.

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

1. The combination of a fixed and curved ratchet-bar, a lever fulcrumed at one end, a second lever fulcrumed to the first lever at a point immediately adjacent to the fulcrum of said lever and the free end of the second lever extending to the free end of the first lever, a pawl pivoted to the first lever and capable of engaging the ratchet-bar, a link pivoted to the pawl and to the second lever, the link and pawl being arranged so that as the second lever moves from the first lever, the pawl will be forced to engage the ratchet-bar, and an expansive spring confined between and engaging the two levers, substantially as described.

2. The combination of a fixed and curved ratchet-bar, a lever fulcrumed at one end and located adjacent to the ratchet-bar, a pawl having three corners, one of which is positively pivoted to the lever and a second of which coöperates with the ratchet-bar, a sec-

ond lever having one end fulcrumed directly adjacent to the fulcrum of the first lever and having its free end extended to the free end of the first lever, a link pivotally connected to the remaining corner of the pawl and to the second lever, and an expansive spring located between and pressing apart the two levers, substantially as described.

3. The combination with a wagon-body, the rear axle and the wheels therefor, of a brake-beam suspended beneath the body, the brake-beam being located forward of the rear axle, a guide-plate supported beneath the body, a transverse rolling shaft held by the guide-plate, an arm fixed to the rolling shaft and extending oppositely from each side thereof, a link pivotally connected to each end of the arm and respectively pivoted to the rear axle and to the brake-beam, a crank-arm fixed to the rolling shaft, a rod pivoted to the crank-arm, a lever one end of which is fulcrumed to the body, a pawl pivoted to the lever, a curved ratchet-bar fixed on the body and co-operating with the pawl, a second lever having one end fulcrumed directly adjacent to the fulcrum of the first lever and on the first lever, a link pivotally connected to the pawl and to the second lever, and an expansive spring located between and pressing apart the two levers, substantially as described.

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Witnesses:

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