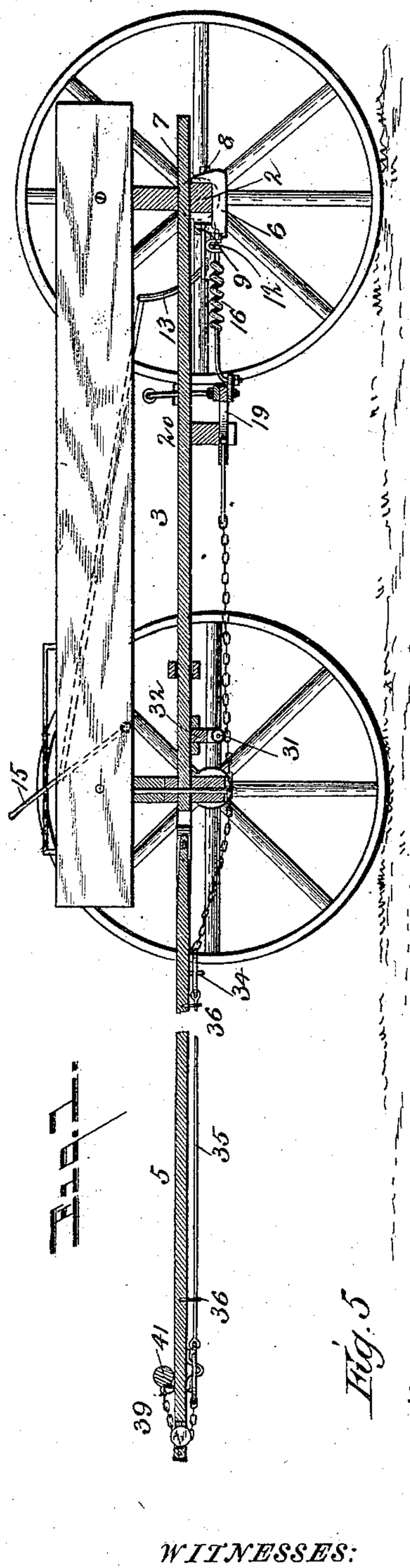
(No Model.) 2 Sheets—Sheet 1.

D. SHANNON.

WAGON BRAKE.

No. 533,377. Patented Jan. 29, 1895.



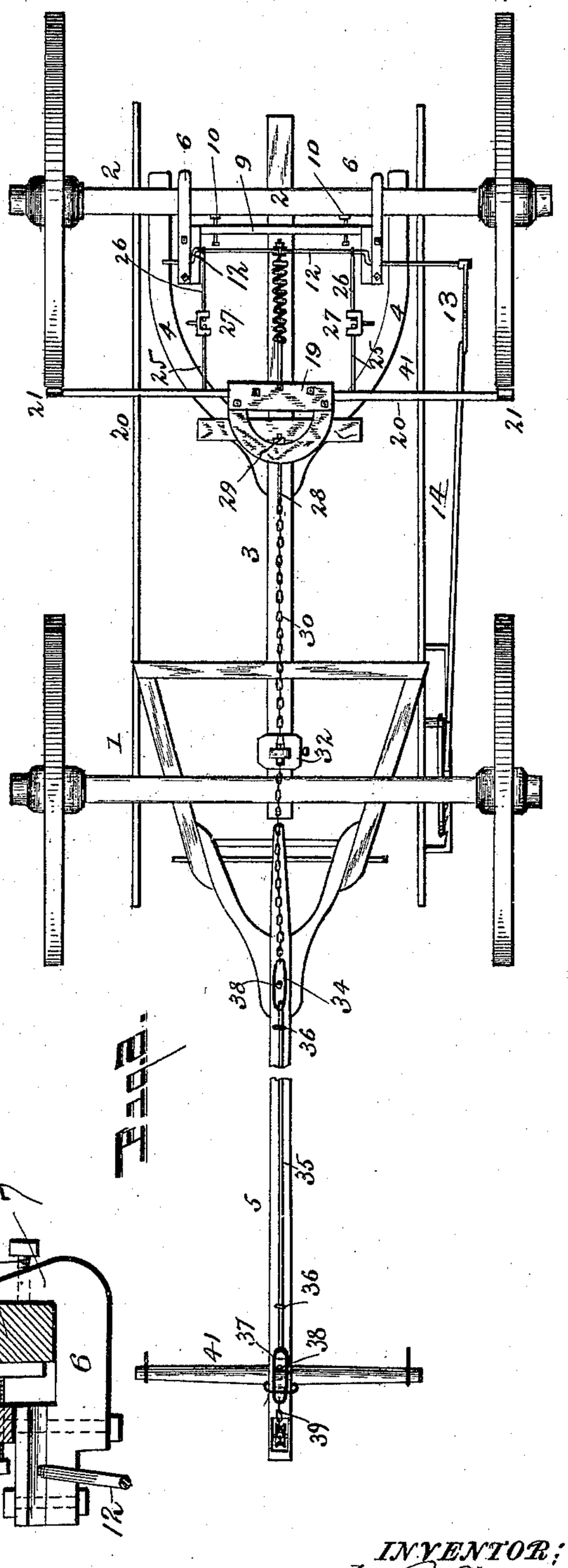


Fig. 1.

Fig. 2.

Fig. 3.

Fig. 5.

Fig. 4.

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(No Model.) 2 Sheets—Sheet 2.

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Fig. 2.

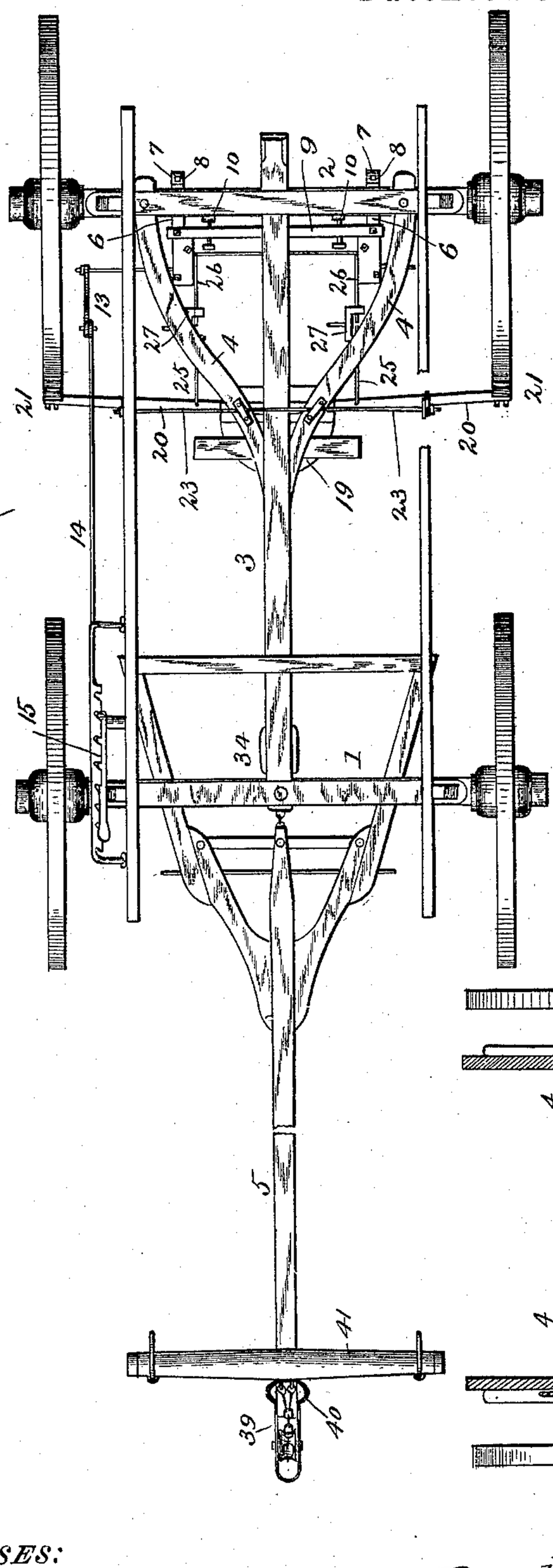
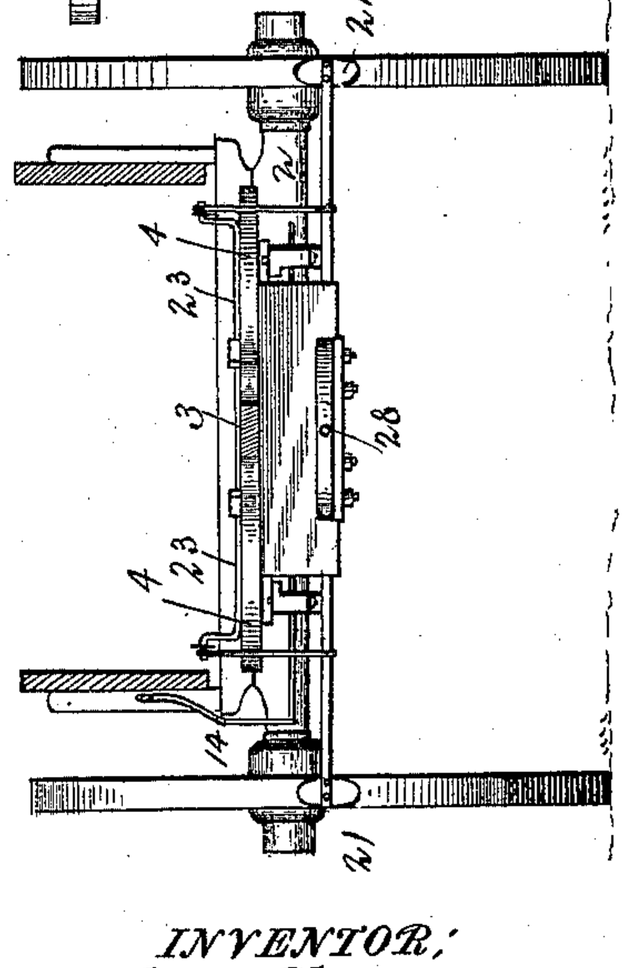


Fig. 3.



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UNITED STATES PATENT OFFICE.

DOUGLASS SHANNON, OF LA DELLE, SOUTH DAKOTA.

WAGON-BRAKE.

SPECIFICATION forming part of Letters Patent No. 533,377, dated January 29, 1895.

Application filed February 10, 1894. Serial No. 499,821. (No model.)

To all whom it may concern:

Be it known that I, DOUGLASS SHANNON, a citizen of the United States, and a resident of La Delle, in the county of Spink and State of South Dakota, have invented certain new and useful Improvements in Wagon-Brakes; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to improvements in combined hand and automatic brakes for wagons and other vehicles.

The object of the invention is to provide a novel brake mechanism by which the brakes may be applied either by hand or automatically by the draft animals holding back, as may be desired.

The invention consists in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings: Figure 1 is a longitudinal sectional view of the running gear of a wagon with my improvements applied thereto. Fig. 2 is an inverted plan view of the same, showing the parts in position for use as an automatic brake. Fig. 3 is a similar view of a portion of the mechanism showing the position of the hand operated crank shaft changed so as to convert the device into a hand brake. Fig. 4 is a transverse section taken on a plane intermediate the front and rear axles, looking toward the rear. Fig. 5 is a detail view illustrating one of the supports connected with the rear axle.

In the said drawings the reference numerals 1 and 2 designate the front and rear axles, respectively; 3, the reach; 4, the rear hounds, and 5 the tongue, which may be of any ordinary or suitable construction.

The numeral 6 designates two metal supports formed or provided with rearwardly extending hooks 7, which engage with the rear axle and are confined thereto by means of set screws 8. These supports are connected by a transverse bar 9, provided with screw rods 10, which pass through said bars and press tightly against the front side of the axle so as to clamp the latter between their ends and the hooks 7, so that the supports, which carry the main working parts of the mechanism are securely held in place.

The numeral 12, designates a transverse shaft having its ends bent at a right angle and then outwardly or horizontally and journaled in the supports 6. One of the ends of this shaft is extended outwardly and has secured to it an upwardly extending crank 13, which is connected with a forwardly extending rod 14, which in turn is connected with a pivoted hand lever 15, at the front of the wagon.

Secured to the crank shaft at or near its center is a coiled spring 16, the other end of which is secured to a segmental or semi-circular plate 19. Pivoted to this plate, near each end thereof are two brake bars or beams 20, consisting of laterally extending bars, the inner ends of which are pivoted to said plate, while their outer ends are provided with ordinary brake shoes 21, which engage with the periphery of the hind wheels. These bars or beams are suspended intermediate of their ends to a fixed transverse bar 23, (secured to the hounds,) by means of connecting rods 24.

The crank shaft 12 is connected with the brake beams by means of rods 25, 25, and 26, 26, each rod 25 being connected with a rod 26 by means of a screw swivel 27, by turning which the distance between the said shaft and bars may be varied to regulate or adjust the brake shoes with respect to the wheels.

Passing through an aperture in the plate 19, is a screw rod 28, provided with a hand nut 29, by which it may be horizontally adjusted. This rod is connected with a chain 30, passing over a pulley 31, journaled in a casting 32 secured to the under side of the reach just in rear of the front axle. The front end of this chain is connected with a link 34, secured to a rod 35, passing through eyes 36 on the under side of the tongue. The front end of the rod is provided with a similar link 37, and both these links engage with studs or pins 38, by which the movement of the rod is limited.

Secured to link 37, is one end of a chain 39 which passes around a pulley in the end of the tongue, and is secured to the neck yoke 41.

In operation the brake is converted from an automatic to a hand brake and vice versa, by

changing the position of the crank lever. In the position shown in Fig. 2, the said shaft is shifted or turned rearwardly so that the chain 30 is drawn taut. If now the draft animals hold back, as when going down hill, the rod 35, will be pulled forwardly through its connections with the neck yoke. The segment plate will also be correspondingly actuated, causing the brake bars to turn on their pivots and the brake shoes to be applied to the wheels.

When it is desired to convert the device into a hand brake, the shaft 12 is turned forwardly, by means of the hand lever and connections, causing the chain 30 to be slackened. The brakes will not now be set for animals holding back, as the movement of the rod 35, would simply take up the slack of the chain, without affecting the brake bars. In this case the swivels will have to be actuated so as to bring the brake shoes close to the wheels. By now shifting the shaft 12 rearwardly the brakes will by set.

Having thus described my invention, what I claim is—

1. In a vehicle brake, the combination with the horizontally movable plate, the brake bars pivoted thereto, the crank shaft, the coiled spring connected therewith and with said plate, and the rods and the swivels connecting said shaft and brake bars, of the chain connected with said plate, the rod connected therewith and with a chain passing around a pulley on the end of the tongue and the neck yoke with which said chain is connected, substantially as described.

2. In a vehicle brake the combination with the horizontally movable plate, the brake bars pivoted thereto, the crank shaft, the coiled spring connected therewith and with said plate and the rods and swivels connecting said shaft and brake bars, of the chain connected with said plate, the rod passing through eyes on the tongue, the chain passing around a pulley on the tongue and connected with the neck yoke, the links carried by said rod and connected with the chains and the studs or pins with which said links engage, substantially as described.

3. In a vehicle brake the combination with the supports having rearwardly extending hooks, and the transverse bar connecting said supports, of the screw clamps passing through said bar for clamping the supports to an axle, substantially as described.

In testimony that I claim the foregoing as my own I have hereunto affixed my signature in presence of two witnesses.

DOUGLASS SHANNON.

Witnesses:
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L. C. SAUNDERS.