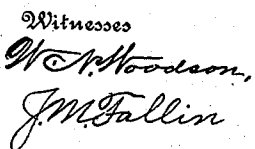


937,432.

Patented Oct. 19, 1909.



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W.F. Gaines

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*H.A.H. Roney,* Attorneys.

# UNITED STATES PATENT OFFICE.

WISTER F. GAINES, OF CROSS CUT, TEXAS.

## DRAFT APPLIANCE.

937,432.

Specification of Letters Patent.

Patented Oct. 19, 1909.

Application filed June 2, 1909. Serial No. 499,826.

*To all whom it may concern:*

Be it known that I, WISTER F. GAINES, citizen of the United States, residing at Cross Cut, in the county of Brown and State of Texas, have invented certain new and useful Improvements in Draft Appliances, of which the following is a specification.

This invention relates to draft apparatus and more particularly to a side draft for wagons and similar vehicles.

The object of the invention is to provide a side draft device capable of being readily attached to or removed from a wagon or other vehicle and by means of which a third horse may be hitched to the vehicle when hauling heavy loads.

A further object of the invention is to provide a side draft attachment including a pull rod having one end thereof operatively connected with the rear axle of the wagon and its opposite end extended through a guide bracket and provided with a swingle-tree for attachment to a draft animal.

A still further object of the invention is generally to improve this class of devices so as to increase their utility, durability and efficiency.

For a full understanding of the invention reference is to be had to the following description and accompanying drawings, in which:—

Figure 1 is a top plan view of a wagon provided with a side draft attachment constructed in accordance with my invention. Fig. 2 is a detail perspective view of the side draft attachment. Fig. 3 is a perspective view of one of the standards or stakes of the wagon body showing the manner of mounting the supporting bracket thereon.

Corresponding and like parts are referred to in the following description and indicated in all the views of the drawings by the same reference characters.

The improved side draft apparatus forming the subject matter of the present invention is principally designed for attachment to farm wagons and similar vehicles and by way of illustration is shown in connection with a wagon of ordinary construction in which 5 and 6 indicate the front and rear axles connected by the reach 7, and 8 the stakes or standards.

The device comprises a pull rod 9 having its opposite ends bent to produce terminal eyes 10, one of which engages the hooked

end 11 of a spiral spring 12, the opposite hook 13 of the spiral spring being detachably connected with the adjacent link of a chain or other flexible medium indicated at 14. The chain 14 embraces the rear axle 6 at the adjacent traction wheel 15 and is maintained in position thereon by means of the thimble on said axle, as shown.

The pull rod 9 is extended through a guide loop 17 in a depending arm or bracket 18 while the adjacent eye 10 of the pull rod receives a lap link 19 carried by a swingle-tree 20. The depending arm or bracket 18 is preferably formed of a single piece of spring metal, the fixed end of which is provided with a terminal crank arm 21 adapted to enter a correspondingly shaped opening extending transversely through the adjacent standard 8, the arm or bracket 18 being locked against tilting movement by means of an eye bolt 22 interposed between the upper end of the standard and the adjacent strap iron 23 of the standard, as best shown in Fig. 2 of the drawing.

Attention is here called to the fact that the upper end of the spring arm or bracket 18 is curved outwardly and downwardly over the front traction wheel 15 so as to permit free rotation of the latter without danger of the bracket or pull rod coming in contact therewith and thus interfering with the free movement of the draft animal. It will also be noted that the spring 12 serves to prevent the jar of the wagon from affecting the horse's shoulder, as the draft animal pulls against the tension of the spring. By lengthening or shortening the chain 14 or causing the hooked end 13 of the spring 12 to engage different links of said chain, the draft or pull rod may be used in connection with wagons or similar vehicles of different makes or sizes. Thus it will be seen that by inserting the crank arm 21 in the opening in the adjacent standard and subsequently positioning the eye bolt 22 between the upper end of the standard and the strap iron the attachment may be readily placed in operative position with respect to the side of the wagon so as to allow the attachment of an additional draft animal when hauling exceptionally heavy loads. In this connection it will be noted that inasmuch as approximately one-half of the weight of the load is sustained by the rear end of the wagon, it necessarily follows that a direct

connection between the pull rod and rear axle of the wagon will materially assist in hauling the same.

From the foregoing description, it will be seen that there is provided a comparatively simple and inexpensive device admirably adapted for the attainment of the ends in view.

Having thus described the invention what is claimed as new is:—

1. The combination with a vehicle, of a pull rod having one end thereof operatively connected with the rear axle of the vehicle and its other end extended across the outer face of the adjacent forward vehicle wheel and provided with means for attachment to a draft animal.

2. The combination with a vehicle of a guiding member secured to the vehicle and having its free end overhanging the rim of the adjacent forward vehicle wheel, and a pull rod having one end thereof operatively connected to the rear axle of a vehicle and its opposite end slidably mounted on the free end of the guide member and provided with means for attachment to a draft animal.

3. The combination with a vehicle, of a guiding bracket secured thereto and having its free end overhanging the adjacent forward vehicle wheel and provided with a terminal eye, a pull rod slidably mounted in the eye of the bracket and provided with means for attachment to a draft animal, and a flexible connection between the opposite end of the pull rod and the rear axle of the vehicle.

4. The combination with a vehicle, of an overhanging bracket detachably secured to the vehicle at one side thereof and provided with an eye disposed in spaced relation to the outer face of the adjacent forward vehicle wheel, a pull rod slidably mounted in said eye, a flexible element secured to the rear axle of the vehicle, a spring interposed between the flexible element and one end of the pull rod, and means carried at the opposite end of the pull rod for attachment to a draft animal.

5. The combination with a vehicle of a bracket secured to the vehicle and having one end thereof extending laterally and downwardly over the adjacent traction

wheel and provided with an eye, a pull rod slidably mounted in said eye, a chain embracing the rear axle of the vehicle, a spring having one end thereof operatively connected with the chain and its other end engaging the pull rod and a swingletree detachably secured to the forward end of the pull rod.

6. The combination with a vehicle including a standard, a guiding bracket secured to the standard, a rod slidably mounted for longitudinal movement in the bracket, a flexible element secured at the rear axle of the vehicle, a spring interposed between the flexible element and adjacent end of the pull rod and operatively connected with both, and means carried by the opposite end of the pull rod for attachment to a draft animal.

7. The combination with a vehicle including a standard, a bracket detachably secured to the standard and having its free end overhanging the adjacent traction wheel of the vehicle and provided with a terminal loop, a rod slidably mounted in said loop and provided with oppositely disposed eyes, a chain embracing the rear axle, a spring forming a flexible connection between one of the eyes of the rod and said chain, and a draft device detachably secured to the other eye of the pull rod.

8. The combination with a vehicle including a standard having a strap iron secured thereto and spaced from the top of the standard to form a pocket, of a bracket having one end thereof provided with a terminal crank-arm seated in an opening in the standard and its opposite end bent laterally and downwardly to form an overhanging arm terminating in a guide loop, a rod slidably mounted for longitudinal movement in the guide loop, a flexible element carried by the rear axle of the vehicle, a spring interposed between the pull rod and said element, a draft device operatively connected with one end of the pull rod, and a fastening member engaging the bracket and extending through the pocket in the standard.

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

WISTER F. GAINES. [L. s.]

Witnesses:

J. W. GODDARD,

J. P. SMITH.