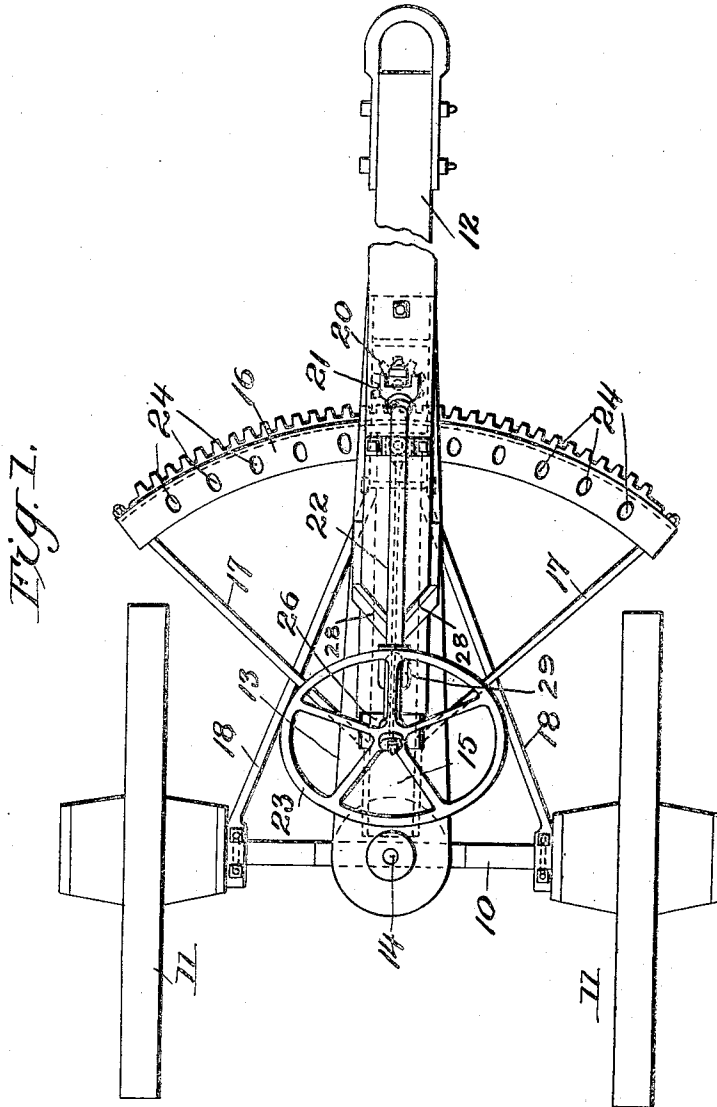


L. B. McALPINE.
HITCHING AND STEERING DEVICE.
APPLICATION FILED APR. 24, 1909.

941,939.

Patented Nov. 30, 1909.

2 SHEETS—SHEET 1.



Inventor

Witnesses

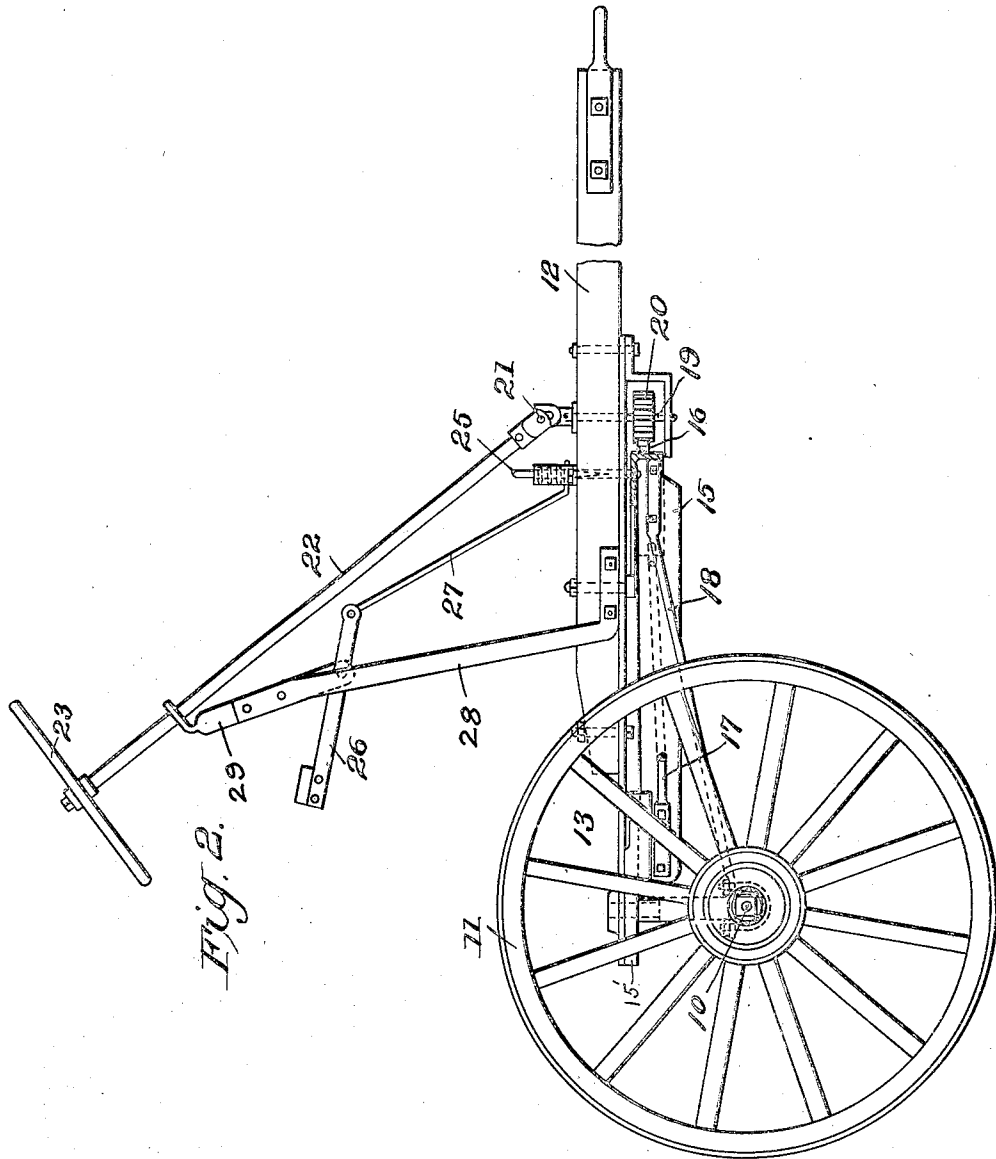
W. H. Trauss
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Witnesses
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UNITED STATES PATENT OFFICE.

LEMUEL B. McALPINE, OF MARATHON, NEW YORK, ASSIGNOR TO CLIMAX ROAD MACHINE CO., OF MARATHON, NEW YORK, A CORPORATION OF NEW YORK.

HITCHING AND STEERING DEVICE.

941,939.

Specification of Letters Patent.

Patented Nov. 30, 1909.

Application filed April 24, 1909. Serial No. 492,010.

To all whom it may concern:

Be it known that I, LEMUEL B. McALPINE, a citizen of the United States, residing at Marathon, in the county of Cortland and State of New York, have invented certain new and useful Improvements in Hitching and Steering Devices; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to hitches for vehicles, and while designed especially for applying the draft to road grading machines and the like, is not limited in its usefulness to such application.

A further object of the invention is to provide in connection with the front wheels of a vehicle a draft pole applied and pivoted to the axle and with a segment carried rigidly with the axle adjacent the pole and means carried by the pole for controlling the relative position of the pole to the segment.

With these and other objects in view the invention comprises certain novel constructions, combinations and arrangements of parts, as will be hereinafter fully described and claimed.

In the drawings:—Figure 1 is a view of the improved draft applied in top plan. Fig. 2 is a view of the draft appliance in side elevation.

Like characters of reference designate corresponding parts throughout the several views.

To the axle 10 of any desired vehicle supported upon the wheels 11 a tongue or pole 12 is pivoted by being rigidly secured to a plate 13 which extends back to the pivot or king bolt 14 at the middle of the axle, so that the pole 12 may move angularly about the king bolt 14 as a center. Beneath the pole 12 a strut 15 is rigidly secured to the disk 15' which in turn is rigidly secured to the axle extending forwardly and carrying a segment 16 which is further braced by the braces 17 running from the extremities of the segment 16 to the strut 15 and by braces 18 running from the axle adjacent its ends to the strut 15. Pivoted vertically through the tongue or pole 12 is a shaft 19 carrying a pinion 20 intergearing with the segment 16.

At its upper end the shaft 19 carries a universal joint 21 connecting such shaft with the steering shaft 22 which extends in an inclined position toward and above the axle 12 and is provided with a steering or hand wheel 23.

The segment 16 is also provided at spaced intervals with holes or openings 24 and a spring-pressed detent 25 extends downwardly through the pole 12 and plate 13 and into engagement with one of the holes or openings 24. The detent 25 is raised out of engaging position by means of foot or hand lever 26 pivoted to a link 27 which is in engagement with the detent 25 and when the lever 26 is manipulated the detent 25 is raised. When the detent 25 is raised to disengage it from the segment 16 the steering wheel 23 is manipulated to turn in either direction depending upon the exigencies of the case and when the desired angular position of the tongue and the axle has been secured the foot lever 26 is released and the detent springs back into engagement with one of the openings 24 to maintain the tongue in such angular position. Secured to pole 12 and extending upwardly in rear of the steering shaft 22 is a pair of supports 28 brought together at their top ends and secured upon each side of a brace 29 positioned to form a bearing for the steering rod 22.

It is well known that in various implements, as for instance, road machines, an angular adjustment of the pole relative to the front axle is necessary to maintain the implement on a side hill or in other position.

What I claim is:—

A device of the class described, a wheeled axle, a strut extending forwardly from the axle, and disposed perpendicular to the center thereof, inclined braces running from the axle adjacent its ends to the strut adjacent its forward end, a segment carried rigidly by the forward end of the strut, and disposed in front of the wheels, inclined braces running from the opposite ends of the segment rearwardly and connected rigidly with the strut, a pole pivoted centrally upon the axle and extending forwardly above the segment, a pinion vertically journaled in the pole and engaging the segment,

an inclined steering rod extending above the pole, a universal joint connecting the steering rod and the vertical shaft of the pinion, a brace positioned as a bearing for the steering rod, a spring-pressed detent carried by the pole in position for engagement with and to lock the pole relative to the segment, a lever pivoted upon the brace which carries

the steering rod, and a link connecting the lever and detent.

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

LEMUEL B. McALPINE. [L. s.]

Witnesses:

WILLIAM GEORGE RYAN,

ARTHUR E. MACALPINE.