G. E. MINEAH.

ADJUSTABLE MOTOR DRAFT ATTACHMENT.

APPLICATION FILED JUNE 17, 1908.

905,553. Patented Dec. 1, 1908.

2 SHEETS—SHEET 1.

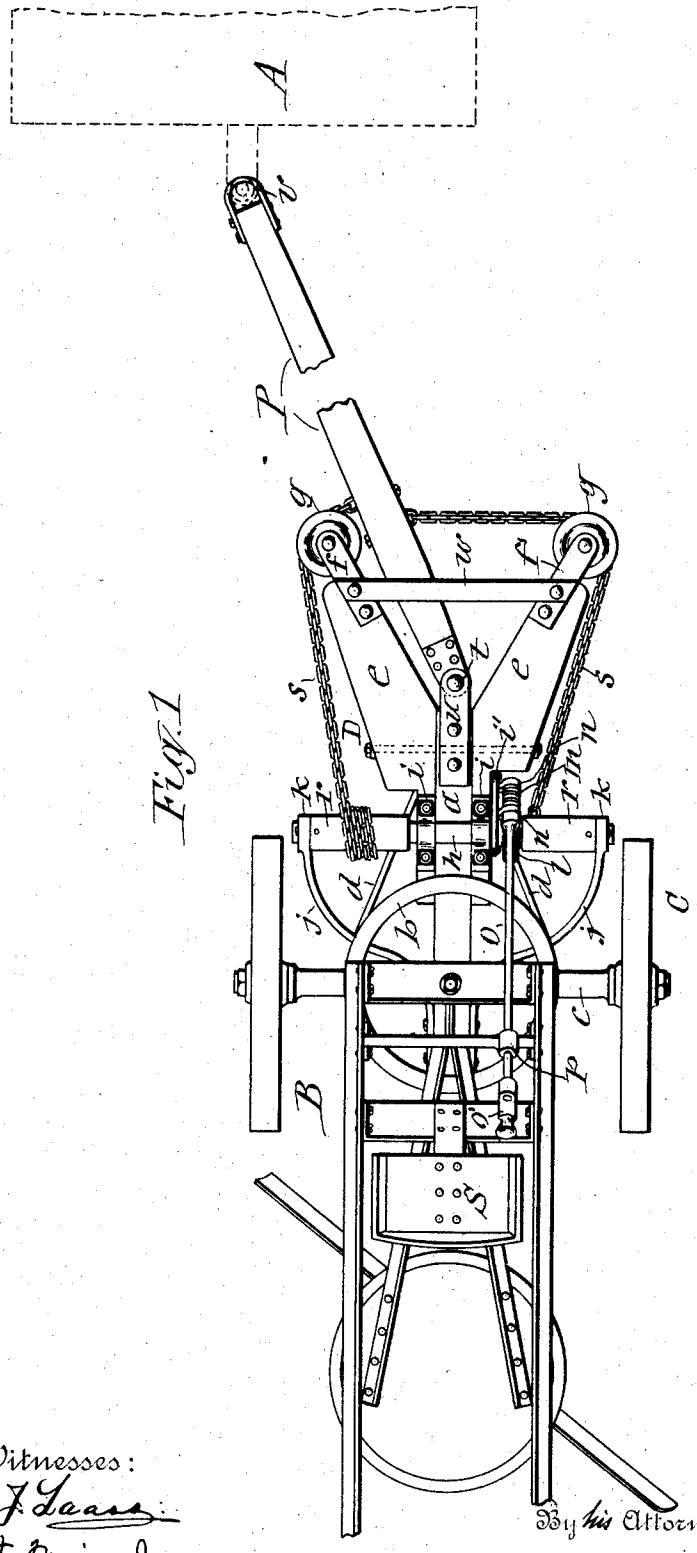


Fig. 1.

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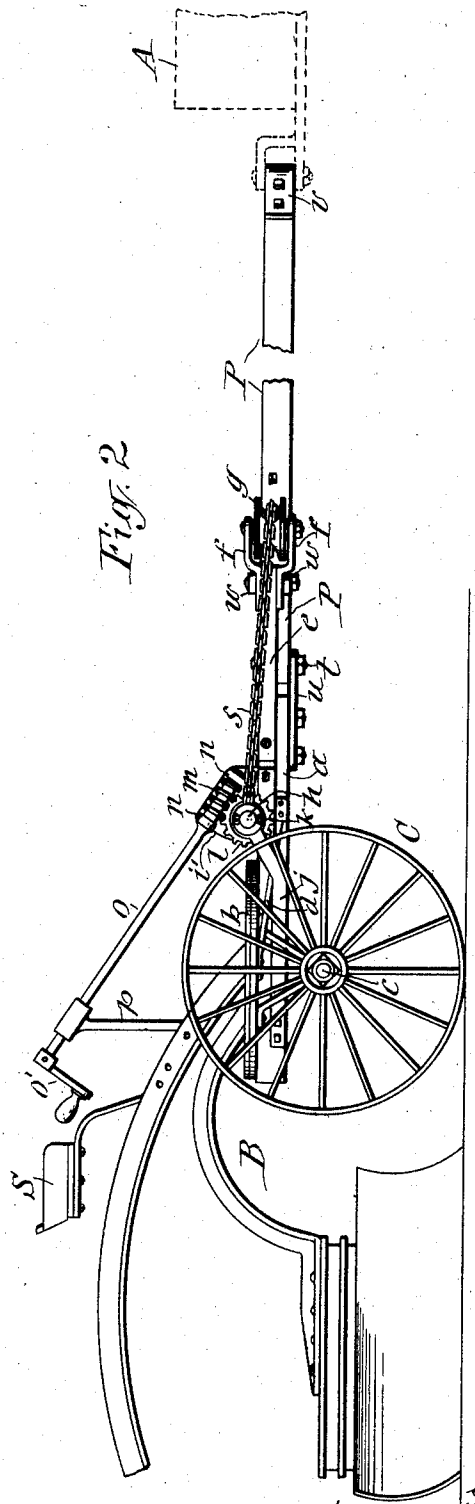
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2 SHEETS—SHEET 2.

Fig. 2



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UNITED STATES PATENT OFFICE.

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ADJUSTABLE MOTOR DRAFT ATTACHMENT.

No. 905,553. Specification of Letters Patent. Patented Dec. 1, 1908.

Application filed June 17, 1908. Serial No. 438,899.

To all whom it may concern:

Be it known that I, GEORGE EDWIN MINEAH, a citizen of the United States, and resident of Freeville, in the county of Tompkins, in the State of New York, have invented new and useful Improvements in Adjustable Motor Draft Attachments, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

This invention is designed for connecting a road engine or other suitable motor to a road grader or scraper.

The object of the invention is to provide a strong, and efficient draft attachment which shall be adjustable to allow the engine or motor to travel on the central or best part of the road while drawing the road grader or scraper along on one side of the road-bed for ditching the road or for scraping the side of the road-bed. And to that end the invention consists in the novel construction of the motor draft attachment hereinafter described and summed up in the annexed claims.

In the accompanying drawings, forming part of this application, Figure 1 is a plan view of a motor draft attachment embodying my invention; and, Fig. 2 is a side view of the same.

—A— represents in dotted lines the rear end of a road engine or motor which may be of any suitable construction adapted to propel a road scraper or grader.

—B— designates the front end portion of one of the numerous different styles of road scrapers, the detail construction of which is immaterial to my invention.

The essential feature of my invention resides in the means for connecting the road scraper to a road engine or motor in a manner which allows the engine or motor to travel in the center or on the best portion of the road while propelling the road scraper at one side of the road bed. And for this purpose the invention consists in the novel construction and combination of the component parts of the adjustable motor draft attachment, which is as follows, to wit: The forward portion of the scraper frame —B— is secured to the steering frame —D— (shown in Fig. 2) mounted on the axle —*c*— of the carrying-wheels C. The frame —D— is composed of a central longitudinal beam —*a*—, which is employed in place of the ordinary tongue of the machine and is fastened to the underside of the fifth wheel —*b*— and rigidly sustained at right angles to the axle —*c*— by means of the usual braces —*d*—*d*—.

To the sides of the central beam —*a*— are firmly attached two forwardly diverging arms —*e*—*e*—, connected to each other at their front ends by means of transverse bars —*w*—. The arms have fastened to their front ends, plates, —*f*—*f*—, which sustain between them the sheaves —*g*— pivoted to the plates. Said sheaves are grooved circumferentially for the purpose hereinafter explained.

—*h*— represents a shaft which is mounted on the beam —*a*— and sustained at right angles thereon by means of brackets —*i*— fastened to the tops of the rear ends of the arms —*e*—*e*— and formed with journal bearings receiving the shaft —*h*— through them. The shaft —*h*— is further sustained by means of braces —*j*— fastened to the rear end of the beam —*a*— and formed at their front ends with rings —*k*— embracing the ends of the shaft.

—*l*— denotes a worm gear which is rigidly secured to the shaft —*h*— and engages a worm —*m*— pivotally connected at —*n*—*n*— to the adjacent bracket —i^1— attached to the beam —*a*—. The worm has fastened to it a shaft —*o*— which is inclined rearwardly and is provided at its free end with a crank —o^1— which is disposed conveniently accessible by a person occupying the seat —S— of the road scraper. The free end of the shaft —*o*— is supported on a brace —*p*— attached to the frame of the scraper.

To the shaft —*h*— are suitably fastened two sleeves —*r*—*r*— upon which are wound in opposite directions the rear ends of chains —*s*—*s*— which traverse the grooved sheaves —*g*—*g*— and are fastened at their front ends to the draft-pole —P— which is pivoted at its rear end as shown at —*t*— to metal straps —*u*— bolted to the front end of the center beam —*a*—.

The forward end of the draft-pole —P— has rigidly attached to it a clevis —*v*— or other suitable device for coupling said draft-pole to the rear end of the road engine or motor indicated by dotted lines at —A—.

What I claim as my invention is:

1. The combination, with a road scraper, its steering frame and road engine of a draft-pole pivotally connected at its rear end to the said steering frame, and provided on its front end with means for coupling it to the road

engine for drawing the road scraper in its operating position along a line at one side of the line of travel of the road engine.

2. The combination, with a road scraper, its steering frame and road engine of a draft-pole pivotally connected at its rear end to the said steering frame and provided on its front end with means for coupling it to the road engine, and means for adjustably sustaining said draft-pole at an angle in relation to the line of travel of the road engine.

3. The combination, with a road scraper, its steering frame and road engine, of a draft pole pivotally connected at its rear end to the steering frame and provided on its front end with means for coupling it to the road engine, and means secured to the steering frame for adjustably sustaining said draft pole at an angle in relation to the line of travel of the road engine.

4. The combination, with a road-scraper, of a steering-frame secured to the scraper-frame, a draft-pole pivotally connected at its rear end to said steering-frame and provided on its front end with means for coupling it to a road engine, sheaves pivoted to the said steering-frame at opposite sides of the draft-pole, chains traversing said sheaves and attached at their front ends to the draft-pole, and means secured to the steering-frame for operating the said chains.

5. The combination, with a road-scraper, of a steering-frame secured to the scraper-frame, a draft-pole pivotally connected at its rear end to said steering-frame and provided at its front end with means for coupling it to frame at opposite sides of the draft-pole, a a road engine, sheaves pivoted to the steering-revoluble shaft mounted transversely on the steering-frame, chains traversing the sheaves and attached at their front ends to the draft-pole, and wound at their rear ends in opposite directions on the aforesaid shaft, and means for turning said shaft.

6. The combination, with a road scraper, of a steering-frame secured to the scraper-frame and formed with forwardly diverging arms, a draft-pole pivoted at its rear end to the steering-frame between the aforesaid arms and provided on its front end with means for coupling it to a road engine, sheaves pivoted to the front ends of the aforesaid arms, a revoluble shaft mounted transversely on the steering frame, braces attached to said steering-frame and formed with rings embracing the ends of the revoluble shaft, sleeves fastened to said shaft, means for turning the shaft, and chains traversing the sheaves and attached at their front ends to the draft-pole and wound at their rear ends in opposite directions on the aforesaid sleeves.

7. The combination, with a road scraper, of a steering-frame secured to the scraper-frame and composed of a longitudinal center beam and forwardly diverging arms attached to said center beam, plates attached to the front ends of the arms, sheaves pivoted to said plates, a draft-pole pivoted at its rear end to the front end of the center beam and provided on its front end with means for coupling it to a road engine, a revoluble shaft mounted transversely on the said steering-frame, braces attached to the steering-frame and formed with rings embracing the ends of the shaft, sleeves fastened to said shaft, chains traversing the sheaves and attached at their front ends to the draft-pole and wound at their rear ends in opposite directions on the sleeves, a worm-gear attached to the aforesaid shaft, a bracket attached to the steering-frame, a worm pivoted on said bracket and engaging the worm-gear, a shaft extending from the worm, and a crank attached to said shaft.

GEORGE EDWIN MINEAH. [L. S.]

In presence of—
LEROY G. VANDERMARK,
A. K. COGEWELL.