

J. S. HAYNES.
ROAD GRADER AND LEVELER.
APPLICATION FILED MAR. 9, 1910.

965,628.

Patented July 26, 1910.

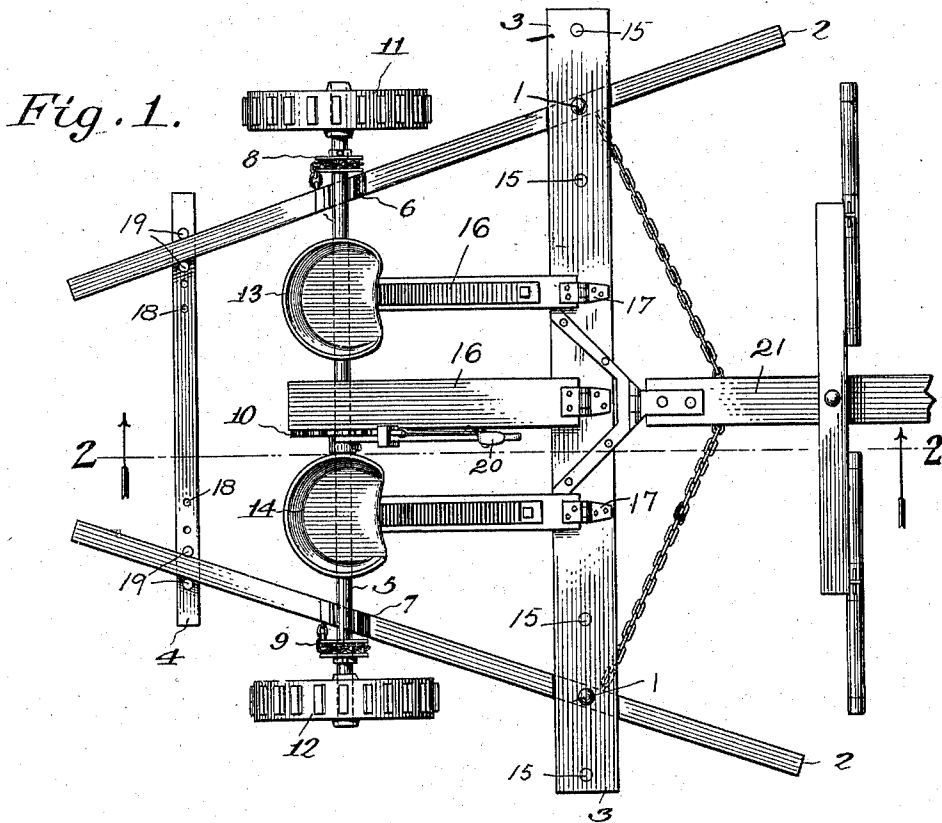
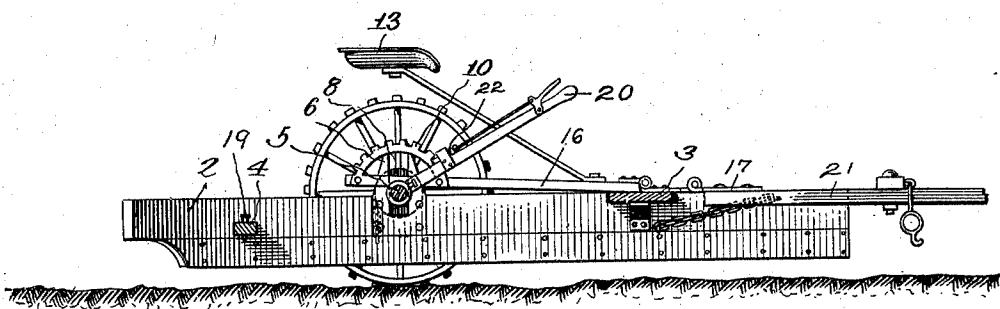


Fig. 2.



Witnesses:
John F. Hunt
Chas. W. Wilson

Inventor:
James S. Haynes

UNITED STATES PATENT OFFICE.

JAMES S. HAYNES, OF MARION, MICHIGAN.

ROAD GRADER AND LEVELER.

965,628.

Specification of Letters Patent.

Patented July 26, 1910.

Application filed March 9, 1910. Serial No. 548,301.

To all whom it may concern:

Be it known that I, JAMES S. HAYNES, a citizen of the United States, residing at Marion, county of Sanilac, and State of Michigan, have invented a Road Grader and Leveler, of which the following is a specification.

My invention relates to an improvement in road grading machines and levelers, and the object is to provide two grading boards which are mounted upon the axle of the grader, whereby the earth will be caused to be drawn or conducted to the center or middle of the road.

A further object is in the provision of means whereby the boards can be raised at one end so that the dirt can be conducted along the sides of the road without causing the earth to be conducted to the center or middle of the roads.

The invention consists in certain novel features of construction and combinations of parts which will be hereinafter fully described and pointed out in the claims.

In the accompanying drawings:—Figure 1 is a top plan view of the invention; and Fig. 2 is a longitudinal vertical sectional view on the line 2—2 of Fig. 1.

The grader boards 2 are connected at their forward ends by a cross-bar 3. Boards 1 are adapted to pass through the cross-bar and grader boards for connecting the same together. The cross-bar 3 is provided with a plurality of openings 15, which allows the adjustment of the grader boards for either drawing the boards together, or spreading them apart. Bars 16, 16, are mounted upon the axle 5, and are connected to the cross-bar 3 by means of hinges 17. Wheels 11 and 12 are mounted upon the axle 5, and are capable of rotating thereon. The grader bars 2 are provided with mortises, in which are received U-shaped sockets 7, which extend above the top of the grader boards, and in which is received the axle 5. A brace bar 4 connects the rear ends of the grader boards together, and said bar is provided with a plurality of openings 18, in which the pins 19 are adapted to be received for holding the rear ends of the grader boards in adjusted positions. Grooved wheels or drums 8 are connected

to the axle 5, and connected to the grader boards and drums 8 are chains 9.

A toothed segment 10 is connected to the central bar 16. A lever 20 is connected to the axle 5, and is provided with a pawl 22, which is adapted to engage the teeth of the segment, and upon the movement of the lever, the grader boards are caused to be raised or lowered by the chains winding or unwinding upon the drums 8. When it is desired to conduct the dirt from the ditches or sides of the road to the center part or middle of the roadway, the boards are allowed to rest their full length upon the roadway, but if only the edges or sides of the road are to be worked, then the rear ends of the grader boards will be raised sufficiently to allow the working of the road. A tongue 21 is connected to the cross-bar 3, whereby the grader can be drawn by draft animals.

The hinge connection between the bars 16 and the cross-bar 3, allows the forward ends of the grader boards to remain on the ground when the rear ends are lifted for grading the sides of the roadway.

Seats 13 and 14 are connected to the outer bars 16.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In a road grader and leveler, the combination with an axle, of wheels rotatably mounted thereon, grader boards, a cross-bar connecting the grader boards together, flexible means connecting the grader boards to the axle, and means for rotating the axle for raising the grader boards.

2. In a road grader and leveler, the combination with an axle having wheels rotatably mounted thereon, of grader boards, a cross-bar connecting the grader boards together, bars connected to the axle having a hinge connection with the cross-bar, flexible means connecting the grader boards to the axle, a segment mounted on one of the bars, and a lever connected to the axle having a pawl adapted to engage the teeth of the segment, whereby the rear ends of the grader boards can be raised and the forward ends of the boards held upon the ground for grading the roadway.

3. In a road grader and leveler, the combination with an axle having wheels rotatably mounted thereon, of grader boards, a cross-bar adjustably connecting the grader
5 boards together, a brace bar connecting the rear ends of the grader boards, bars connected to the axle and pivotally connected to the cross-bar, drums mounted on the

axle, chains connecting the grader boards and drums, and a lever connected to the 10 axle for raising the grader boards.

JAMES S. HAYNES.

Witnesses:

E. M. PAIGE,

RICHARD D. THOMPSON.