P. J. JEWETT.

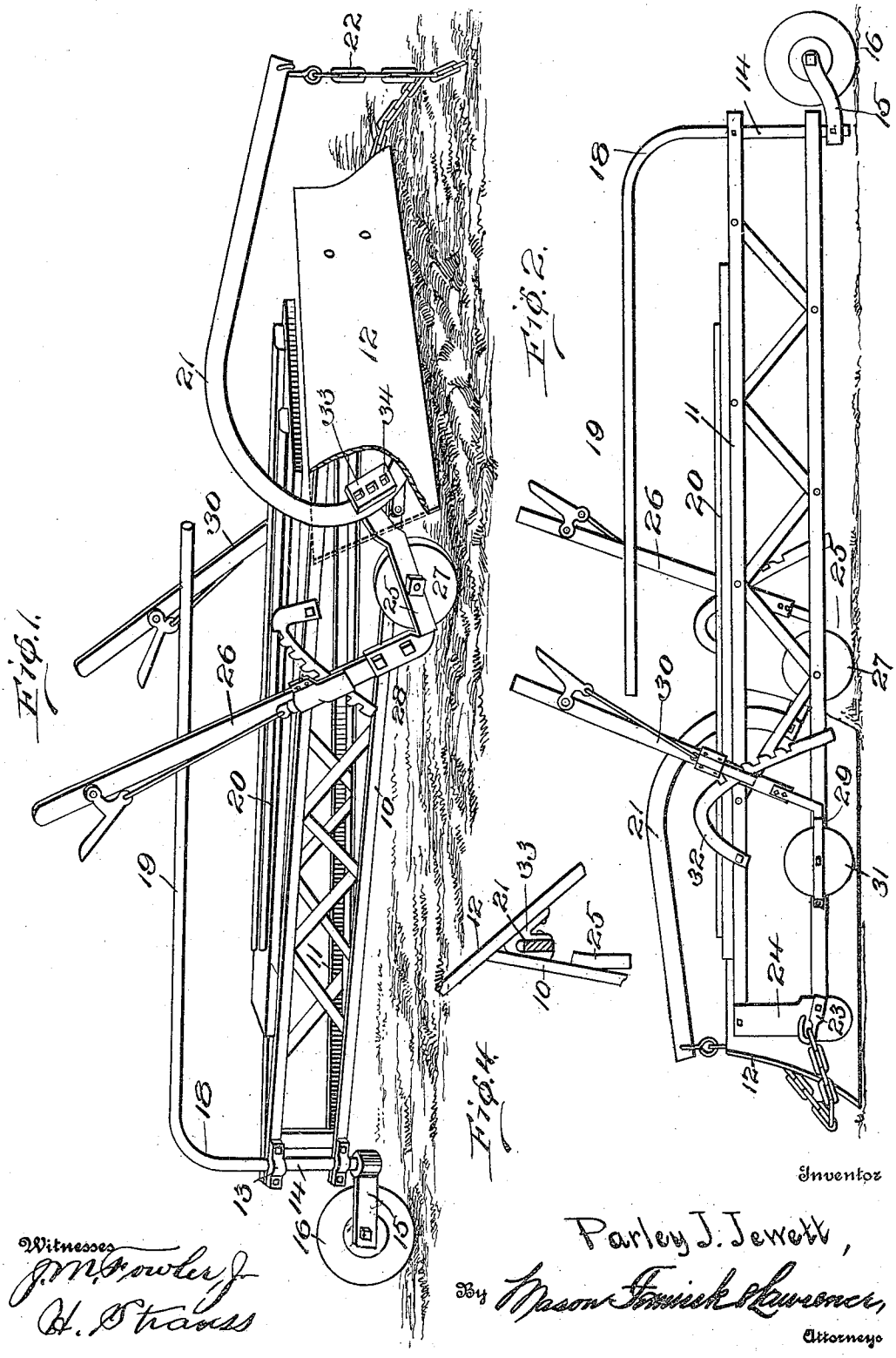
ROAD GRADING MACHINE.

APPLICATION FILED MAR. 1, 1909.

962,354.

Patented June 21, 1910.

3 SHEETS—SHEET 1.



Witnesses

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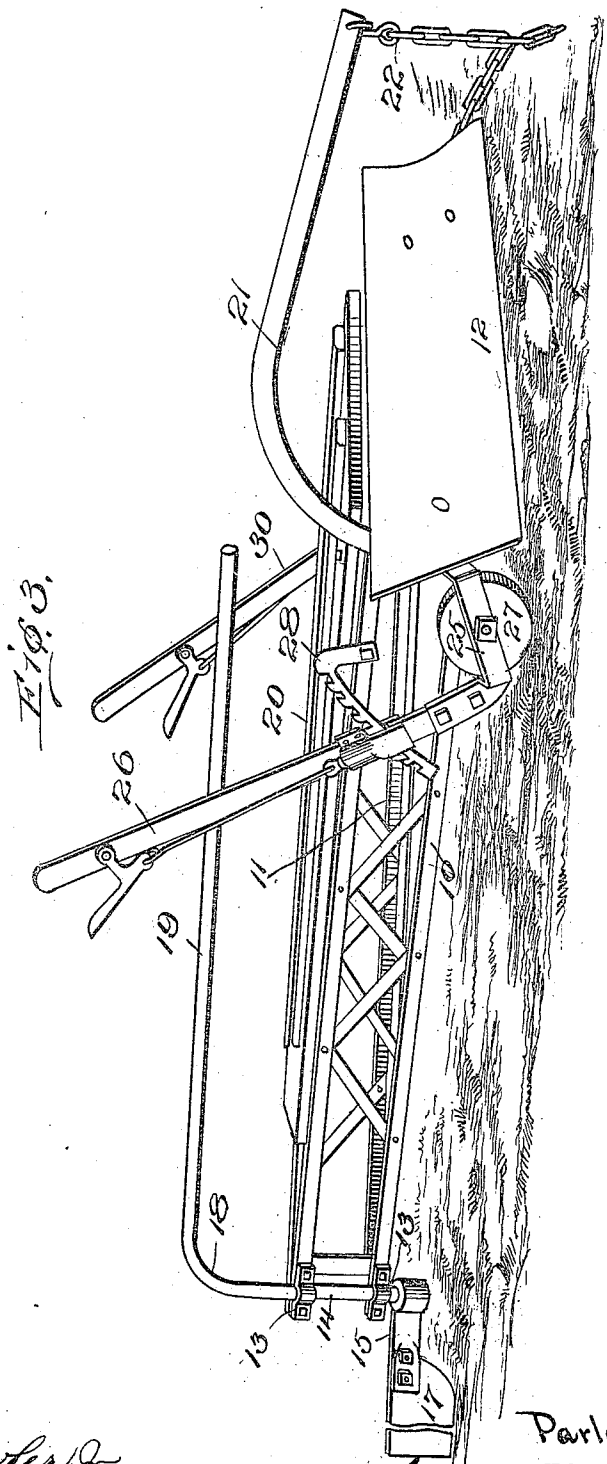

Fig. 3.

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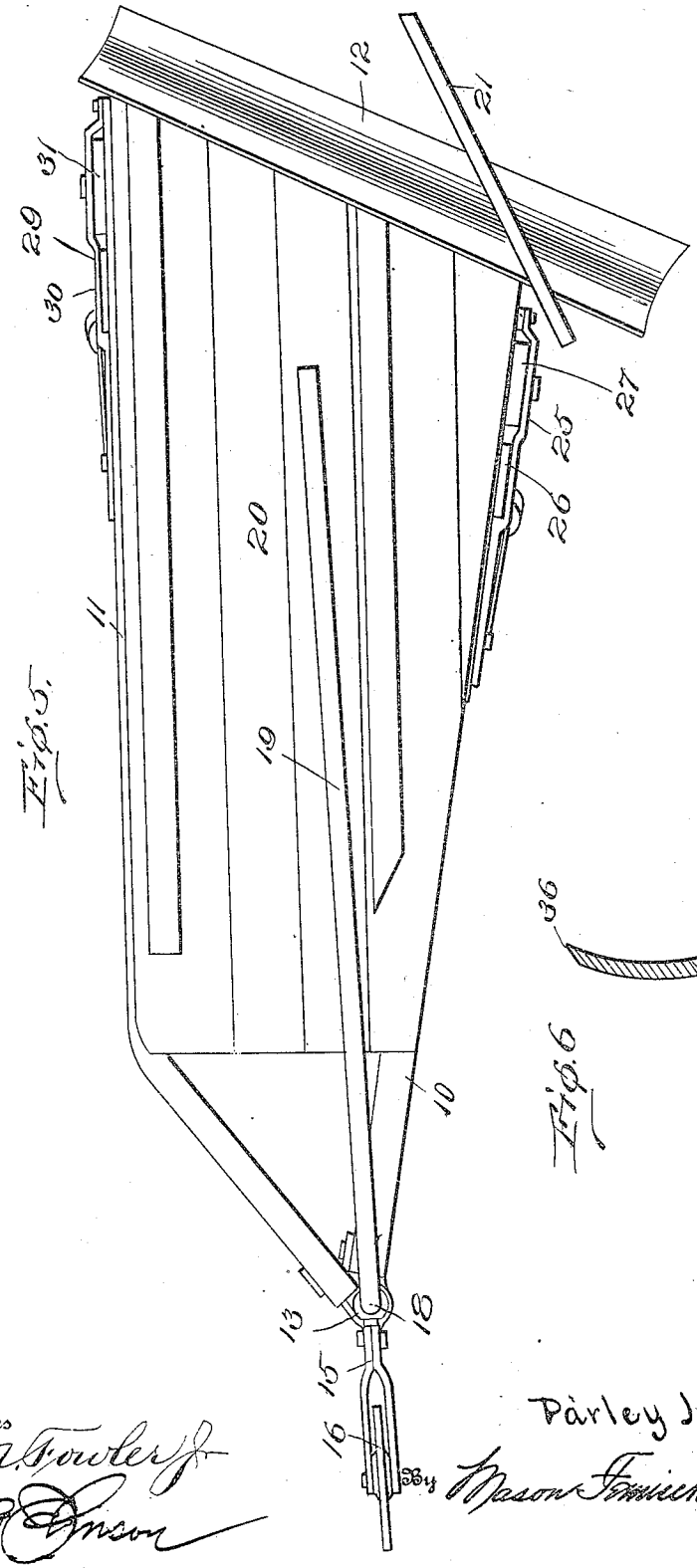

Fig. 5.

Fig. 6.

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UNITED STATES PATENT OFFICE.

PARLEY J. JEWETT, OF BUTLER, MISSOURI.

ROAD-GRADING MACHINE.

962,354. Specification of Letters Patent. Patented June 21, 1910.

Application filed March 1, 1909. Serial No. 480,688.

To all whom it may concern:

Be it known that I, PARLEY J. JEWETT, a citizen of the United States, residing at Butler, in the county of Bates and State of Missouri, have invented certain new and useful Improvements in Road-Grading Machines; 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 road grading machines and has for an object to provide an improved machine of the same general class as disclosed in Patent No. 895,271, dated August 4, 1908, and in reissue application 461,939, filed November 9, 1908.

An object of the present invention is to provide in a grader of the class noted improved means for controlling the operation of the device.

A further object of the invention is to provide in a structure of the class improved means for controlling the horizontal plane of cut of the mold board.

A further object of the invention is to provide in a device of the class improved means for controlling the line of movement of the device.

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 device in side elevation, a corner of the mold board being broken away to show the attaching means. Fig. 2 is a view in side elevation seen from the side opposite Fig. 1. Fig. 3 is a perspective view of the grader with a modified form of rudder. Fig. 4 is a detail view of the means for connecting the mold board, frame, beam and caster wheel. Fig. 5 is a top plan view of the improved grader. Fig. 6 is a transverse sectional view of the mold board showing both edges to be sharpened.

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

In the form of grader as shown in the drawings the construction is preferably of truss side pieces 10 and 11, meeting substantially at a point in the rear and diverging at the forward end, the side 11 being longer than the side 10 and with a cutter blade in the form of a mold board 12 extending obliquely across the front end and secured adjacent its opposite ends to the forward ends of the side framing 10 and 11. The mold board is, of course, curved as shown in the drawings, and similar substantially to the share or mold board of a plow, but differing in size and position.

The rear end of the frame-work at the convergence of the sides 10 and 11 is provided with bearing boxes 13, alined vertically and therein is journaled a rudder post 14 having at its lower end an arm 15 carrying a rolling rudder 16 as shown at Figs. 1 and 2, or a knife or stationary rudder 17 as shown at Fig. 3. The rudder post is bent as at 18 to produce a portion 19 extending substantially in a horizontal plane spaced above the frames 10 and 11.

Upon the frame-works 10 and 11 a platform 20 is secured adapted to support the driver or operator with the rudder lever 19 in position above the platform to be operated by the driver.

In the angle between the side frame piece 10 and the mold board 12 is secured a beam 21 curving as shown at Figs. 1, 2 and 3, upwardly and forwardly over the mold board 12 and provided with draft means as the chain 22 by which draft animals may be secured to the device, the opposite end of such chain being preferably secured by a hook 23 carried by a casting 24 rigidly secured to the side frame piece 11 and to the mold board 12. Within the angle between the mold board 12 and the side frame piece 10 a caster bracket 25 is also pivoted continuing upwardly as the lever 26 adjacent the platform 20 and carrying a caster 27 adapted for engagement with the ground. As the lever 26 is forced rearwardly the caster 27 is brought into engagement with the ground and the forward or pivoted end of the bracket lifted, lifting therewith the side frame piece and mold board. To maintain the lever 26 in position a segment 28 is provided with the usual pawl carried by the lever for engaging such segment. Upon the opposite side of the machine a bracket 29 is pivoted to the side frame piece 11 and provided with a similar lever 30 by which the side of the machine is raised by operating the lever, a caster wheel 31 being similarly provided on the bracket 29, and a segment 32 being provided for maintaining the lever in position.

At Fig. 4 means for securing together the side frame piece 10, the mold board 12 and also attaching the bracket 25 is shown consisting of a casting 33 having slots formed therein as shown at 34 in Fig. 1 and the mold board is provided with reamed openings as 35 shown at Fig. 6 within which are countersunk the heads of bolts extending through the openings 34 to secure the mold board in position. Preferably the mold board is provided at each side with a sharpened or cutting edge 36 so that when one side is dull it may be turned over and the other side put into use to prevent carrying the mold board as often to the shop for sharpening. As the mold board is worn away it may be lowered by use of the slots 34.

What I claim is:—

1. In a road grader, a frame, a mold board carried at the forward end of the frame, steering means carried at the rear of the frame, caster wheels carried at the sides of the frame, and means adapted to manipulate the caster wheels to raise the mold board.

2. In a device of the class described, a frame-work converging toward the rear end, a cutter blade carried transversely of the frame at the forward end, levers pivoted to the frame at opposite sides adjacent the forward end, and earth-engaging means carried by the levers whereby the forward end of the frame may be raised from the ground.

3. In a device of the class described, a frame-work converging toward the rear end, a cutter blade extending transversely of the forward end, elevating means carried by the frame-work at opposite sides and adjacent the forward end, and guiding means carried by the frame-work at the rear end.

4. In a device of the class described, a frame converging toward the rear end, a cutter carried at the forward end and disposed obliquely to the line of travel of the frame, frame elevating means carried at opposite sides of the frame adjacent the forward ends, earth-engaging guiding means carried at the rear of the frame, and means to control the guiding means extending above the frame and adjacent the elevating means.

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

PARLEY J. JEWETT.

Witnesses:
W. F. DUVALL,
J. B. DUVALL.