

992,117.

R. DIX.
LAND LEVELER.
APPLICATION FILED DEC. 1, 1910.

Patented May 9, 1911

2 SHEETS—SHEET 1.

Fig. 1.

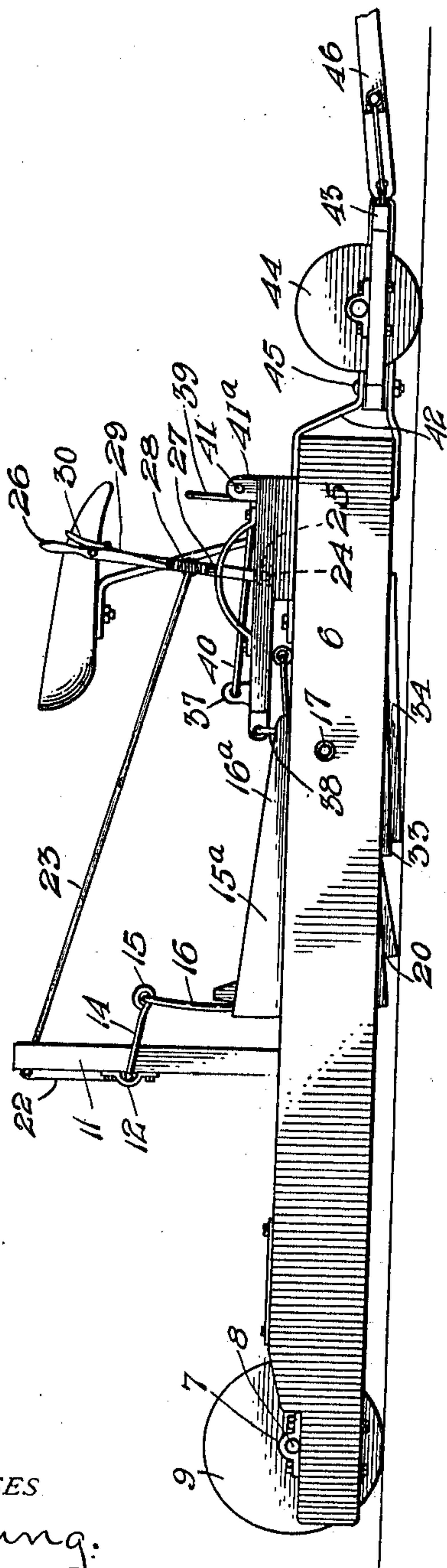
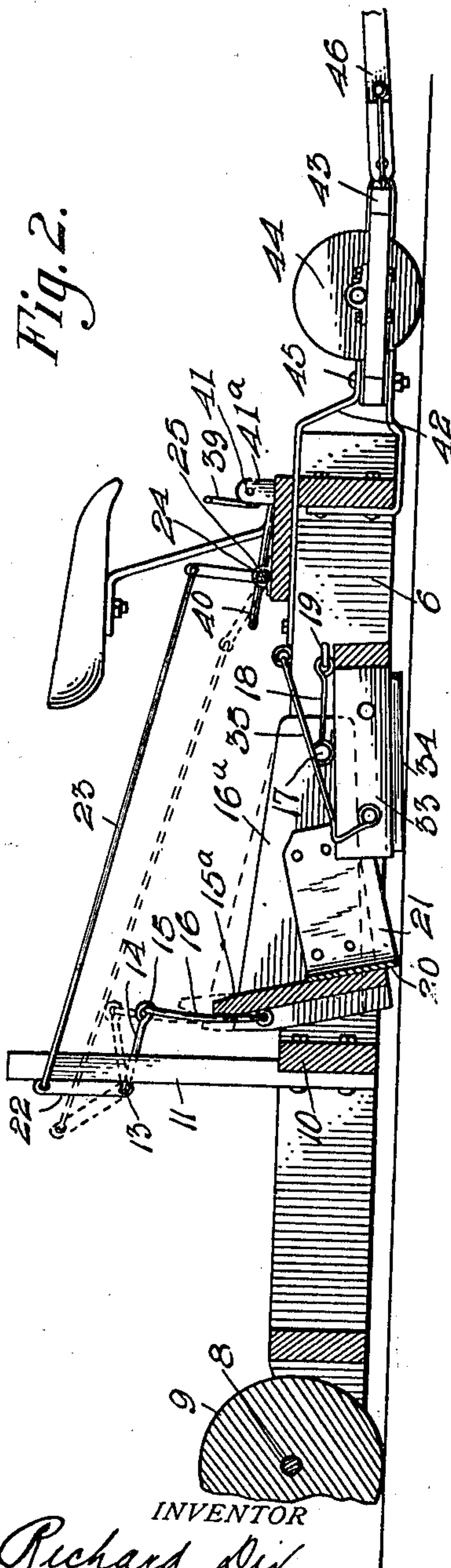


Fig. 2.



WITNESSES
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2 SHEETS—SHEET 2.

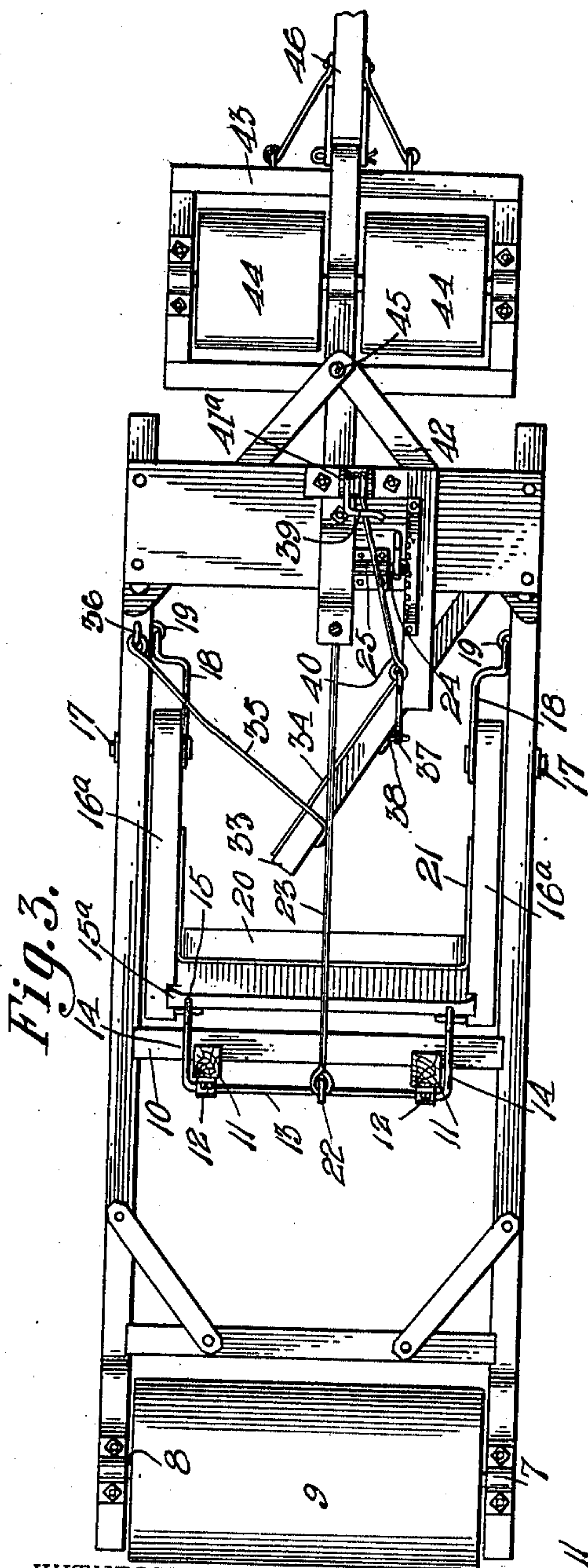


Fig. 3.

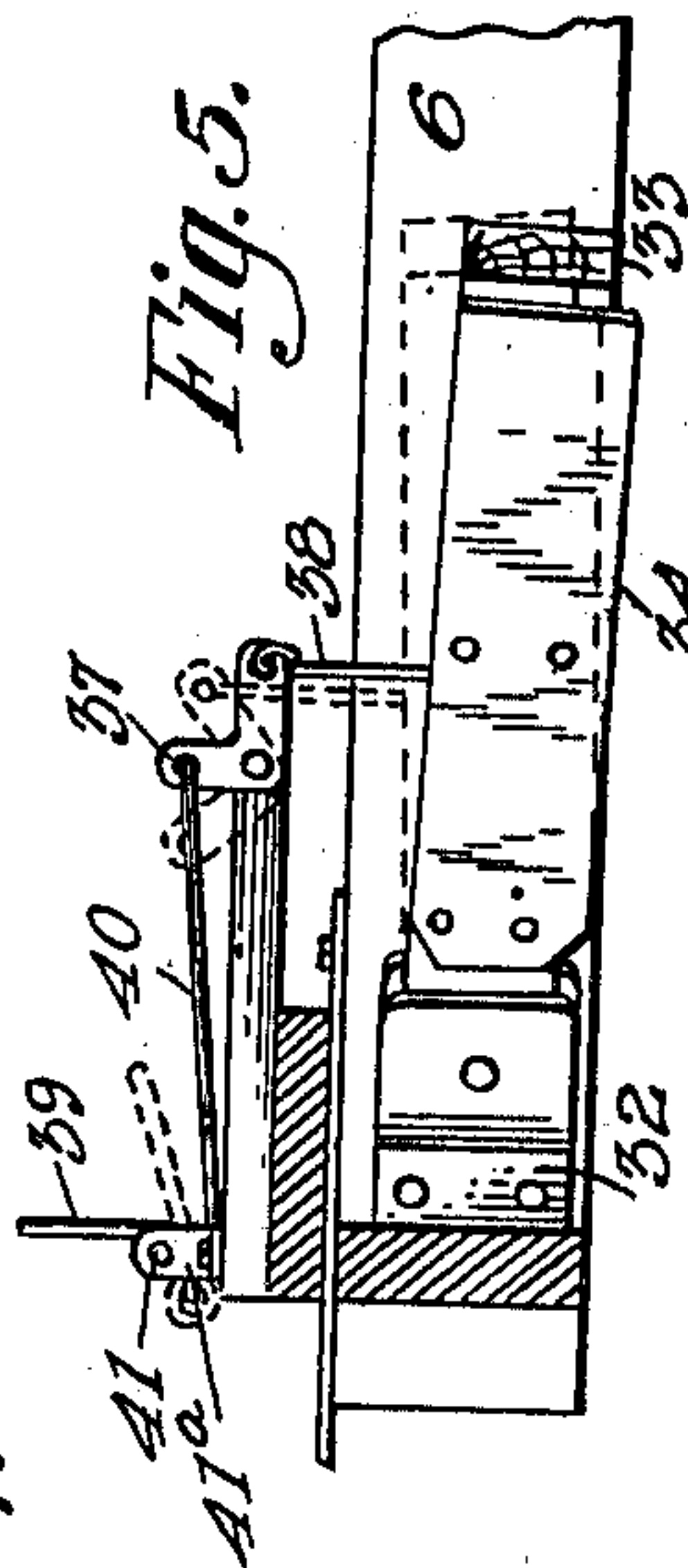


Fig. 5.

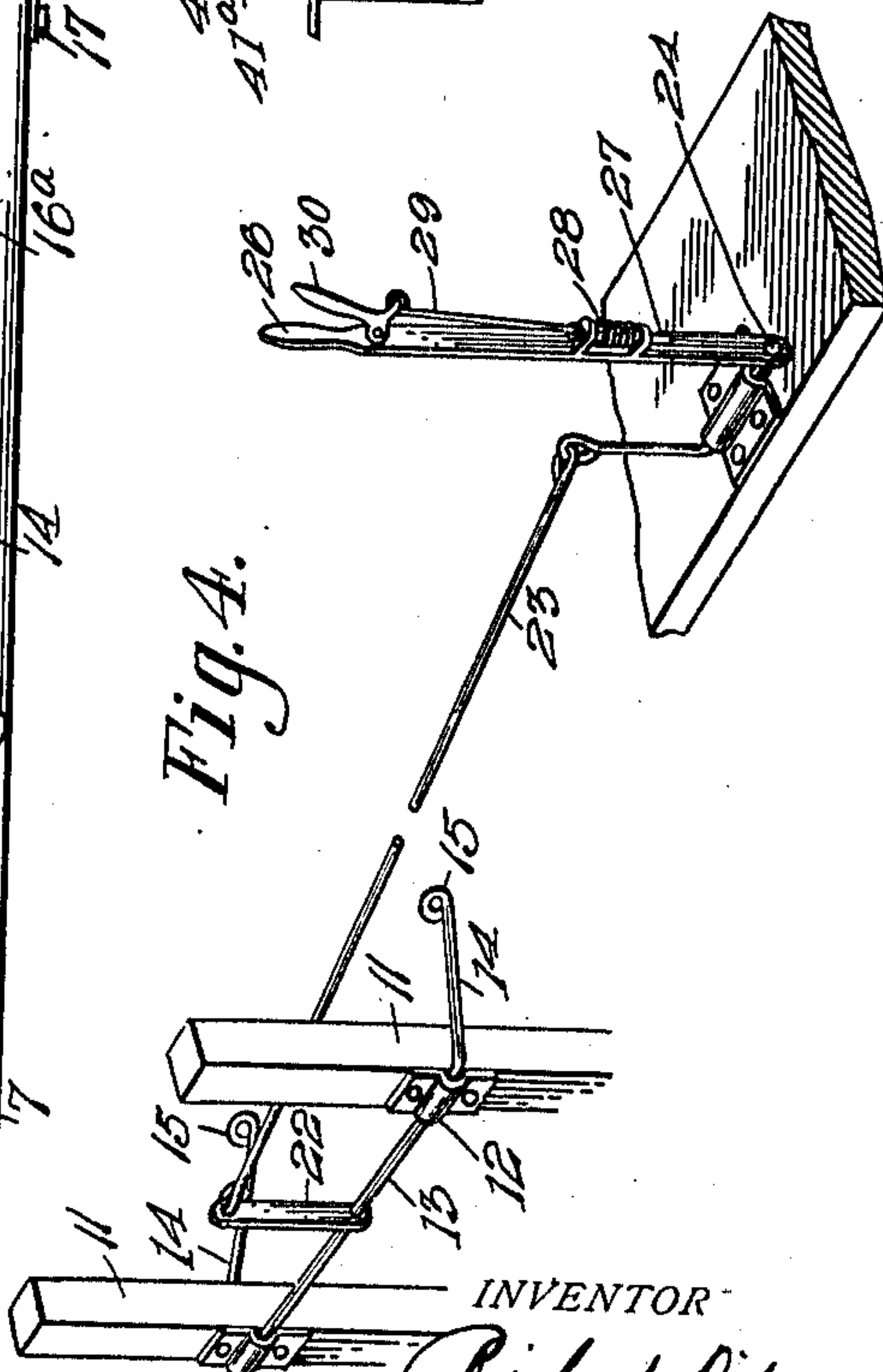


Fig. 4.

WITNESSES

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UNITED STATES PATENT OFFICE.

RICHARD DIX, OF CAREY, IDAHO.

LAND-LEVELER.

992,117.

Specification of Letters Patent.

Patented May 9, 1911.

Application filed December 1, 1910. Serial No. 595,107.

To all whom it may concern:

Be it known that I, RICHARD DIX, a citizen of the United States of America, and resident of Carey, in the county of Blaine and State of Idaho, have invented certain new and useful Improvements in Land-Levelers, of which the following is a specification.

This invention relates to road scrapers, land workers and the like and particularly to a combined scraper and roller having novel means for mounting the scrapers and for holding them in operative relation to a frame, coupled with means for manipulating or adjusting the scrapers vertically to hold them in different positions of adjustment.

A still further object of this invention is to provide a road scraper having a frame associated with twin rollers in front of the frame, the said rollers being connected to a tongue, and the said frame having a roller at the rear to roll the earth which has been previously treated by the scrapers.

With the foregoing and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this specification wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 illustrates a view in side elevation of the road scraper embodying the invention; Fig. 2 illustrates a longitudinal sectional view of the scraper proper with the front rollers in elevation; Fig. 3 illustrates a top plan view; Fig. 4 illustrates a perspective view of the adjusting mechanism for one of the scrapers; and Fig. 5 illustrates a detail view of the means for adjusting another scraper.

In these drawings 6 denotes a rectangular main frame having near its rear end a bearing 7 designed to receive the shaft 8 of the roller 9, which roller is of such length preferably as to extend approximately the full width of the frame so as to be free to rotate therein.

Intermediately the length of the frame there is secured a beam 10 to which is attached posts 11 for supporting the journal bearings 12 in which the shaft 13 is mounted, said shaft having its ends bent to form the

arms 14. The arms 14 terminate in eyes 15 to which links 16 are connected, the said links being pivotally attached to a scraper frame 15^a, the said scraper frame having wings 16^a which are pivoted on the studs 17 extending through the sides of the frame 6. As a means for bracing the studs 17, links 18 are connected to the inner forward portions of the said studs, the said links being anchored to the sides of the frame by means of the fastenings 19.

The scraper frame 15^a is provided with a scraper blade 20 having forwardly extending wings 21 which parallel the arms 16^a for portions of their lengths, the said arms 21 having a series of apertures therein, so that the said arms 21 may be attached to the arms 16^a, at different positions of adjustment for the purpose of causing the working edge of the blade to project below the lower edge of the scraper frame to a greater or less extent according to the requirements in practice.

As a means for partially rotating the shaft 13, I provide the said shaft with an arm 22, to the outer end of which I attach a rod or link 23 extending to a rock shaft 24 which rock shaft is journaled in bearings 25 on the frame, the said rock shaft being also provided with an operating handle 26. A detent 27 is carried by the handle 26, the said detent being pressed in one direction by the spring 28 and actuated in the opposite direction by the rod 29 extending from the lever 30 which is pivoted on the handle 26. The detent 27 is in operative relation to a quadrant 31 which is mounted on the main frame and the handle 26 is thereby held in different positions of adjustment so that under the influence of the said handle, the position of the scraper may be changed. The frame 6 is also provided on its inner surface on one side with a bracket 32 in which a diagonally disposed scraper bar 33 is pivoted, the said scraper bar being provided with a scraper blade 34 adjustably applied thereto for the purpose of changing the working edge of the blade with relation to the lower edge of the bar. The scraper bar 33 extends rearwardly diagonally of the frame 6, and in order to hold its outer end in position, I supply the same with a brace 35 which is connected thereto in any appropriate manner, the said brace extending to an anchoring member 36 on the upper edge of the frame, the said brace being loosely

connected to the anchoring member in order to permit the said brace to oscillate vertically with the scraper bar.

As a means for adjusting the scraper bar vertically, I mount a bell crank 37 on the main frame and connect one arm of the bell crank to the bar through the medium of a link 38 and I connect the opposite arm of the bell crank to a pedal 39 through the medium of a link 40, the said pedal being here shown as comprising a length of metal having its intermediate portion coiled around a pivot 41 mounted in the bracket 41^a. By reason of the manipulation of the pedal it will be seen that a bell crank may be moved from the full line position shown in Fig. 5 to the dotted line position shown in said figure and that the bar 33 will thereby be moved from the full line position shown in said figure to the dotted line position illustrated.

The front of the main frame is provided with straps or supporting irons 42 extending from the main frame of the scraper to a truck 43 on which is mounted the two rollers or broad tread wheels 44; and the truck 43 is connected to the irons 42 by means of a king bolt 45 which permits the free turning of the truck 43 with relation to the frame 6. The truck 43 has a tongue 46 or it may be supplied with other means of draft rigging. The operation of the scraper is as follows.

It is to be noted that wood or steel, iron or other metal may be used in the construction of the machine.

The construction, operation and advantages will, it is thought, be understood from the foregoing description, it being noted that various changes in the details and proportions may be resorted to without departing from the spirit of the invention.

I claim—

1. In a road scraper, a main frame, a roller mounted thereon near the rear thereof, a scraper frame having wings, studs in the main frame on which the wings are pivoted, a diagonal scraper blade having wings adjustably attached to the wings of the scraper frame, a scraper bar, a bracket on the frame to which the scraper bar is pivoted, a scraper blade adjustably connected to the scraper bar, means for adjusting the scraper frame, means for adjusting the scraper bar, and a roller pivotally connected to the front of the main frame.

2. In a road scraper, a main frame, a roller mounted thereon near the rear end thereof, a scraper frame having wings, studs in the main frame to which the wings are pivoted, a scraper bar having wings secured

to the wings of the scraper frame, means for moving the main scraper frame vertically, braces connected to the studs and anchored to the main frame, a diagonally disposed scraper bar pivotally connected to the main frame and extending rearwardly, means for holding the free end of the bar, a scraper blade secured to the bar, a truck pivotally connected to the front of the bar, and rollers mounted in the said truck, means for adjusting the scraper bar, and means for adjusting the scraper frame vertically.

3. In a road scraper, a main frame, a roller mounted thereon near the rear end thereof, a scraper frame having wings, studs in the main frame to which the wings are pivoted, a scraper bar having wings secured to the wings of the scraper frame, means for moving the scraper frame vertically, braces connected to the studs and anchored to the main frame, a diagonally disposed scraper bar pivotally connected to the main frame and extending rearwardly of the main frame, means for holding the free end of the bar, a scraper blade secured to the main frame, a truck pivotally connected to the front of the bar, twin rollers mounted in the said truck, means for adjusting the scraper bar, means for adjusting the scraper frame vertically, a pedal comprising a length of metal coiled centrally to receive a pivot, means for connecting the pedal to the bar whereby the said bar is adjusted, links connected to the scraper frame, a shaft having arms to which the links are connected, and means for partially rotating the shaft.

4. In a road scraper, a rectangular main frame having sides, a scraper frame having wings pivotally mounted between the side of the main frame, a scraper blade having wings parallel with the wings of the scraper frame for a portion of their lengths, the said wings having a series of apertures therein whereby the wings of the scraper blade may be attached to the wings of the scraper frame in different positions of adjustment for the purpose of causing the working edge of the blade to project below the lower edge of the scraper frame to a greater or less extent, means for adjusting the scraper frame vertically and draft means secured to the front end of the main frame.

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

RICHARD DIX.

Witnesses:

HERBERT REEVES,
EVERETT F. DIX.