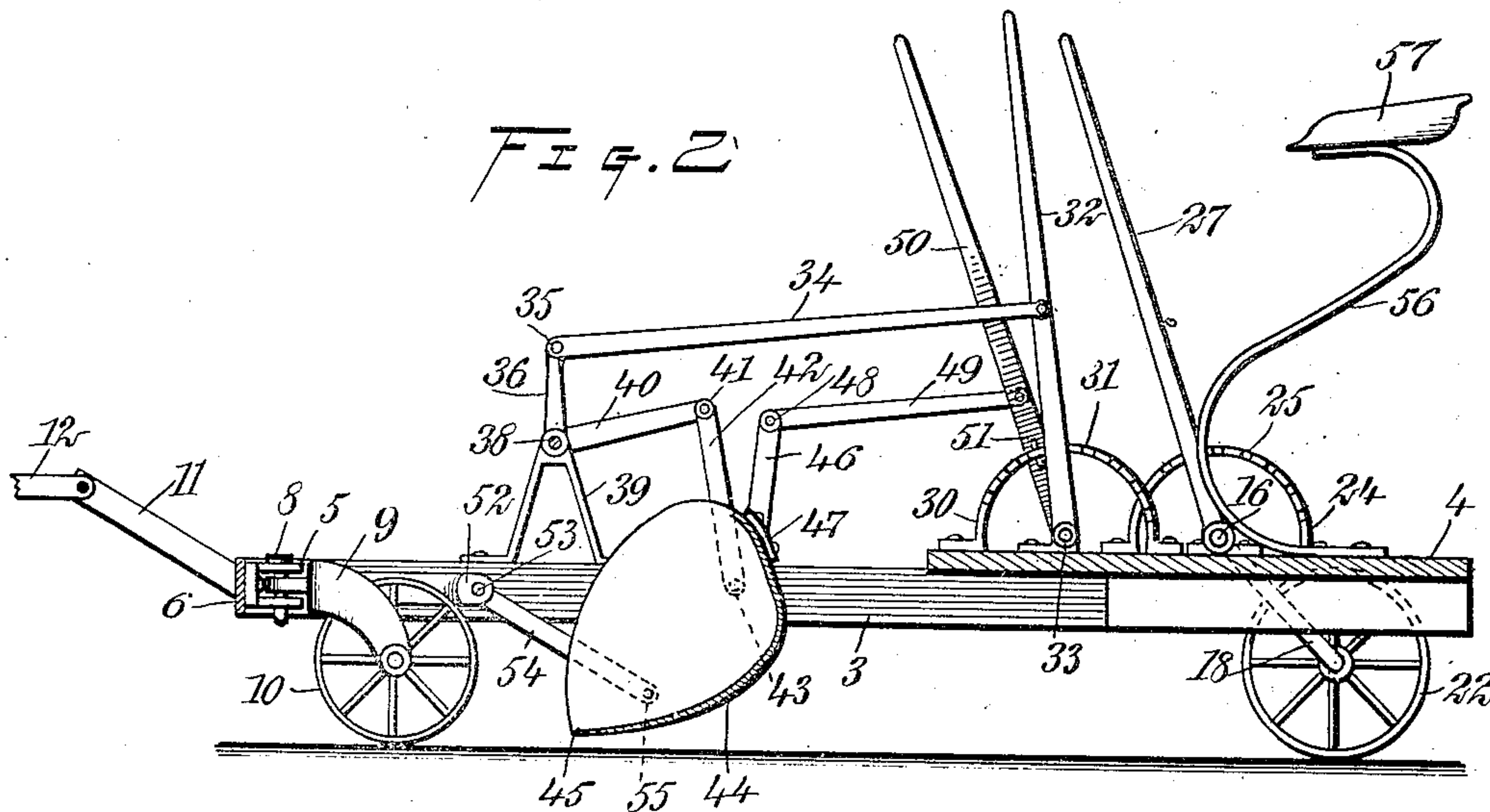
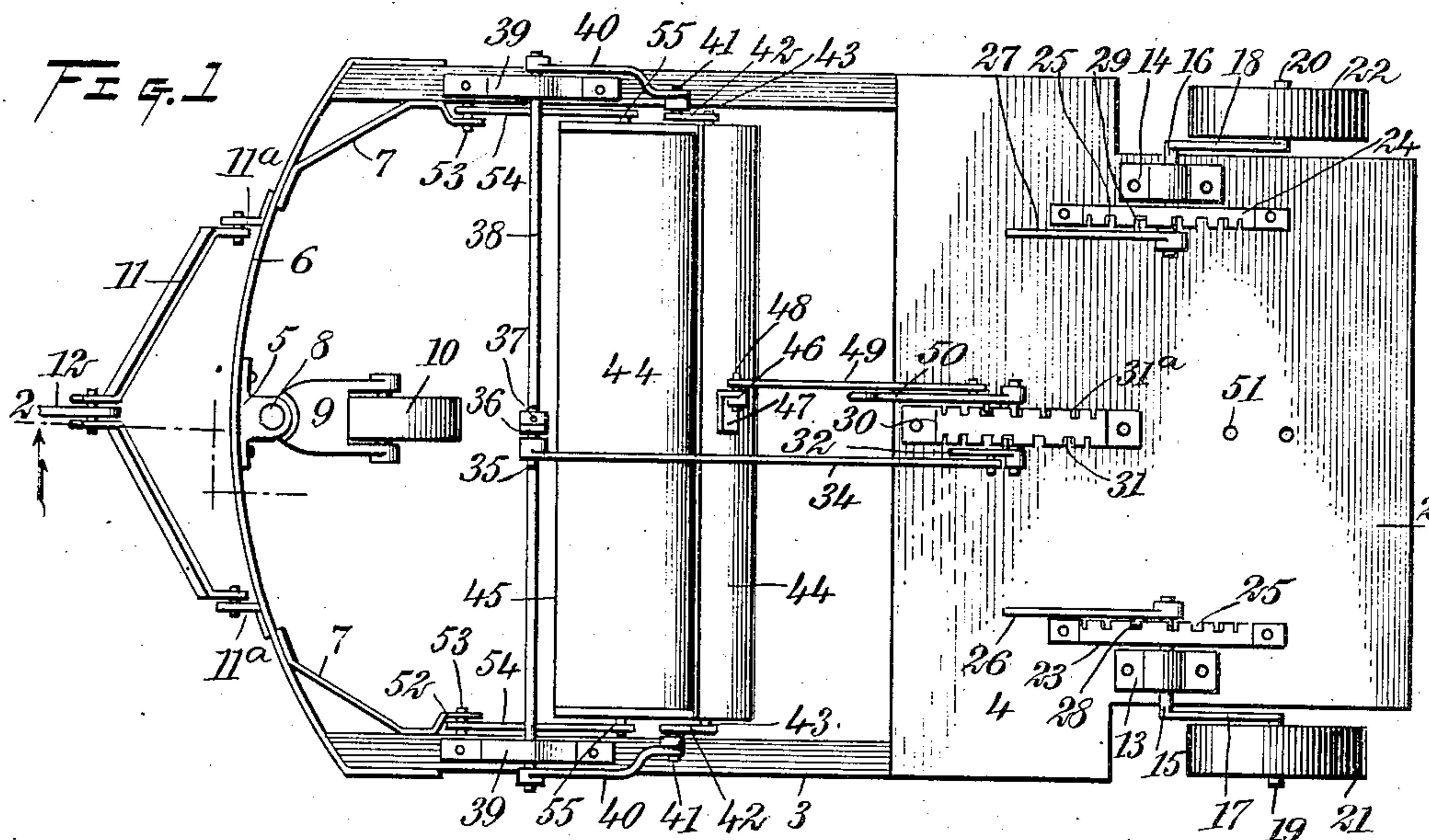


No. 829,829.

PATENTED AUG. 28, 1906.

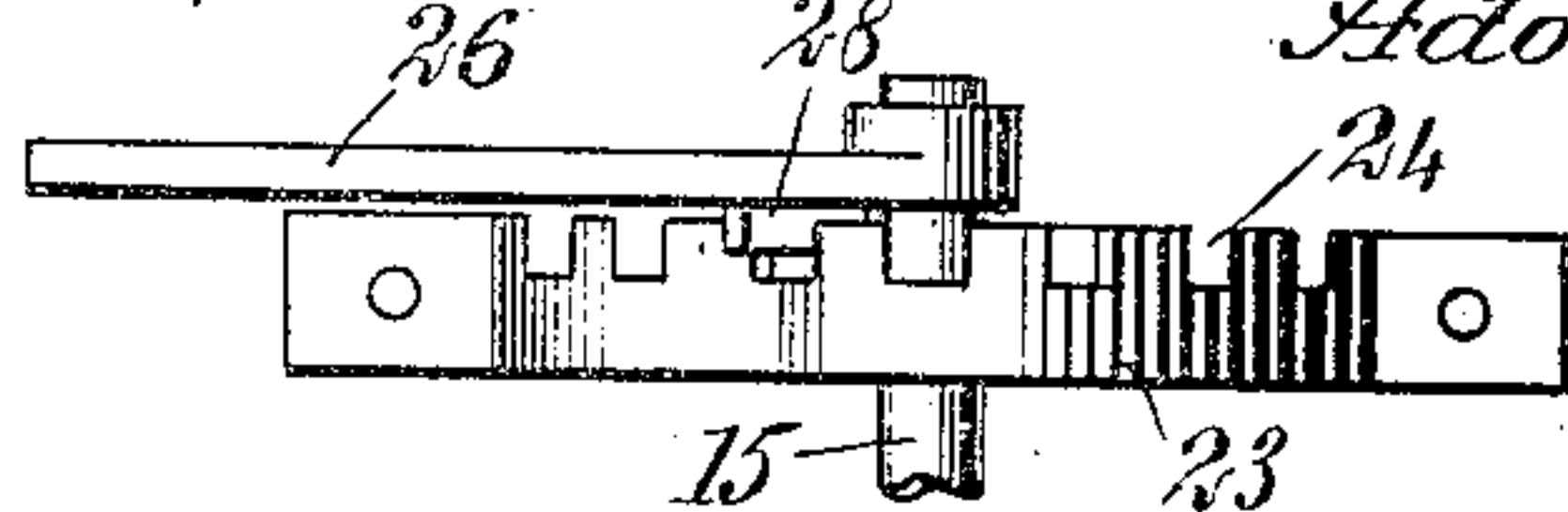
A. P. D'ARTENAY.
LAND GRADER AND SCRAPER.
APPLICATION FILED OCT. 9, 1905.



WITNESSES:

John J. Kittles
Walton Harrison

Fig. 3



INVENTOR

Adolph P. d'Artenay

BY

Mumme
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UNITED STATES PATENT OFFICE.

ADOLPH PHILLIP D'ARTENAY, OF DIXON, CALIFORNIA.

LAND GRADER AND SCRAPER.

No. 829,829.

Specification of Letters Patent.

Patented Aug. 28, 1906.

Application filed October 9, 1905. Serial No. 281,995.

To all whom it may concern:

Be it known that I, ADOLPH PHILLIP D'ARTENAY, a citizen of the United States, and a resident of Dixon, in the county of Solano and State of California, have invented a new and Improved Land Grader and Scraper, of which the following is a full, clear, and exact description.

My invention relates to land graders and scrapers, my more particular object being to provide such an instrument with a scoop which may be adjusted at will and placed in a large number of different positions, and thus made to perform a variety of different offices.

My invention further relates to means for raising and lowering the frame of the machine and for improving the general efficiency thereof by certain details of construction.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of a grader and scraper made in accordance with my invention. Fig. 2 is a vertical longitudinal section through the same upon the line 2 2 of Fig. 1 looking in the direction of the arrow; and Fig. 3 is an enlarged fragmentary plan view of the rack 23 and the lever 26, which is adjustable relatively thereto.

A frame 3 is provided with a horizontal platform 4. The front end of this frame is provided with an arcuate bar 6 and with braces 7, whereby the same is rendered comparatively strong. Mounted upon the bar 6 and projecting toward the center of the machine is a bearing 5, carrying a pin 8, upon which is pivotally mounted a caster 9, provided with a revoluble wheel 10. A whiffletree 11 is pivotally mounted upon brackets 11^a, the latter being rigidly connected with the bar 6. A draft-tongue 12 is connected with the whiffletree 11 for the purpose of drawing the machine in the same manner as a wagon. Mounted upon the platform 4 are bearings 13 14, through which pass stubshafts 15 16, provided with crank-arms 17 18, the latter carrying crank-pins 19 20. Revolvably mounted upon the crank-pins 19 20 are wheels 21 22, which support the rear end of the frame. Mounted upon the platform 4 are racks 23 24 of arcuate form and provided, respectively, with notches 25. Hand-levers 26 27 are disposed adjacent to the racks 23

24 and are provided with lugs 28 29 for entering the notches 25. By moving either of the levers 26 27 slightly away from its rack 23 or 24 and then turning the lever angularly and placing its lug within one of the notches 25 the levers, or either of them, may be held in any desired angular position. By moving the levers 26 27 the crank-arms 17 18 are turned to different angles, so that the rear end of the frame is raised or lowered relatively to the wheels 21 22. Generally the levers 26 27 are moved together, for the reason that it is desirable to raise or lower both sides of the rear of the vehicle at the same time. Another arcuate rack 30 is provided with notches 31 31^a. Disposed adjacent to the notches 31 is a hand-lever 32, which is pivoted at 33 upon the platform 4. From this hand-lever 32 a link 34 extends forward and is pivoted at 35 upon the upper end of an arm 36. The arm 36 is mounted upon a rocking shaft 38, being secured rigidly thereto by means of a set-screw 37. The rocking shaft 38 is mounted in bearings 39 and is provided with arms 40, projecting rearwardly therefrom and movable angularly in a vertical plane. Links 42 are connected by pivots 41 with said arms 40, and said links are connected by pivot-pins 43 with a comparatively wide scoop 44, provided with a sharp edge 45. Mounted rigidly upon the rear of the scoop 44 is an arm 46, secured in position by means of a bracket 47. This arm 46 is provided with a pivot-pin 48, which is engaged by a link 49, the latter extending from the arm to a hand-lever 50. The hand-lever last mentioned is pivoted upon the platform 4 in like manner as the lever 32.

The braces 7 are provided with ears 52 integral therewith and used to support pins 53, and extending rearwardly from these pins are links 54, which are connected by pins 55 with the scoop 44. A spring 56, of substantially S shape, is mounted upon the platform 4, and connected with the upper end of this spring is a seat 57. For the sake of clearness the spring 56 and the seat 57 are not shown in Fig. 1, the bolt-holes 51 indicating the point where the spring is fastened upon the platform 4.

My invention is used as follows: The operator sits upon the seat 57 within easy reach of the levers 26, 27, 32, and 50. In order to raise or lower the rear end of the frame, he manipulates the levers 26 27, as above described. In order to raise or lower the scoop

44 and also to change the angular position of the same. he manipulates the levers 32 and 50. The scoop 44 being pivoted upon the links 54, it is obvious that by means of the levers 32 5 50 the scoop can be given an infinite plurality of positions as regards both its altitude relatively to the ground and its angular position relatively to the frame. The scoop 44, extending, as it does, practically across the entire frame, is of considerable capacity, and 10 one person can handle the machine efficiently.

I do not limit myself to any particular use for my invention, but it is of special service in relation to grading and scraping and also for 15 removing portions of loose earth and debris and leveling land for irrigation. It may be employed for farmwork, railroad construction, street-grading, and in a variety of other relations too numerous to mention.

20 Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination with a wheeled vehicle, of a scoop having a cutting edge, links 25 pivoted to the vehicle, and the scoop near the cutting edge thereof, an arm rigidly connected with the rear of the scoop, a lever pivoted to the frame, a link connecting the lever and the arm, means for maintaining the lever in its adjusted position, a rock-shaft journaled 30 on the frame in front of the scoop and having a plurality of rearwardly-projecting arms and an upwardly-projecting arm, links pivoted to the scoop and connected to the rearwardly- 35 projecting arms, a lever pivoted to the frame, a link connecting the lever with the upwardly-projecting arm, and means for maintaining the lever in its adjusted position.

2. The combination with a wheeled vehicle, of a scoop having a cutting edge, links 40 pivoted to the vehicle and to the scoop near the cutting edge thereof, an arm rigidly connected to the rear of the scoop, means on the frame and engaging the arm for manipulating the rear end of the scoop, a rock-shaft 45 journaled on the vehicle, and provided with a plurality of arms, links connecting the arms to the scoop, and means for partially rotating the shaft whereby to manipulate the forward edge of the scoop. 50

3. The combination with a wheeled vehicle, of a scoop having a cutting edge, links connecting the scoop to the vehicle, and means for varying the vertical angle of the cutting edge and the vehicle while retaining the 55 scoop at a fixed height with respect thereto.

4. The combination with a wheeled vehicle, of a scoop having a cutting edge, links connecting the scoop and the vehicle, and means for varying the vertical angle of the 60 cutting edge and the vehicle, without changing the vertical relation of the parts.

5. The combination with a wheeled vehicle, of a scoop having a cutting edge and supported thereby, and means for varying the 65 vertical angle of the cutting edge and the vehicle, while at a fixed height with respect to each other.

In testimony whereof I have signed my name to this specification in the presence of 70 two subscribing witnesses.

ADOLPH PHILLIP D'ARTENAY.

Witnesses;

WM. JAS. WEYAND,
J. E. DEPUTY.