

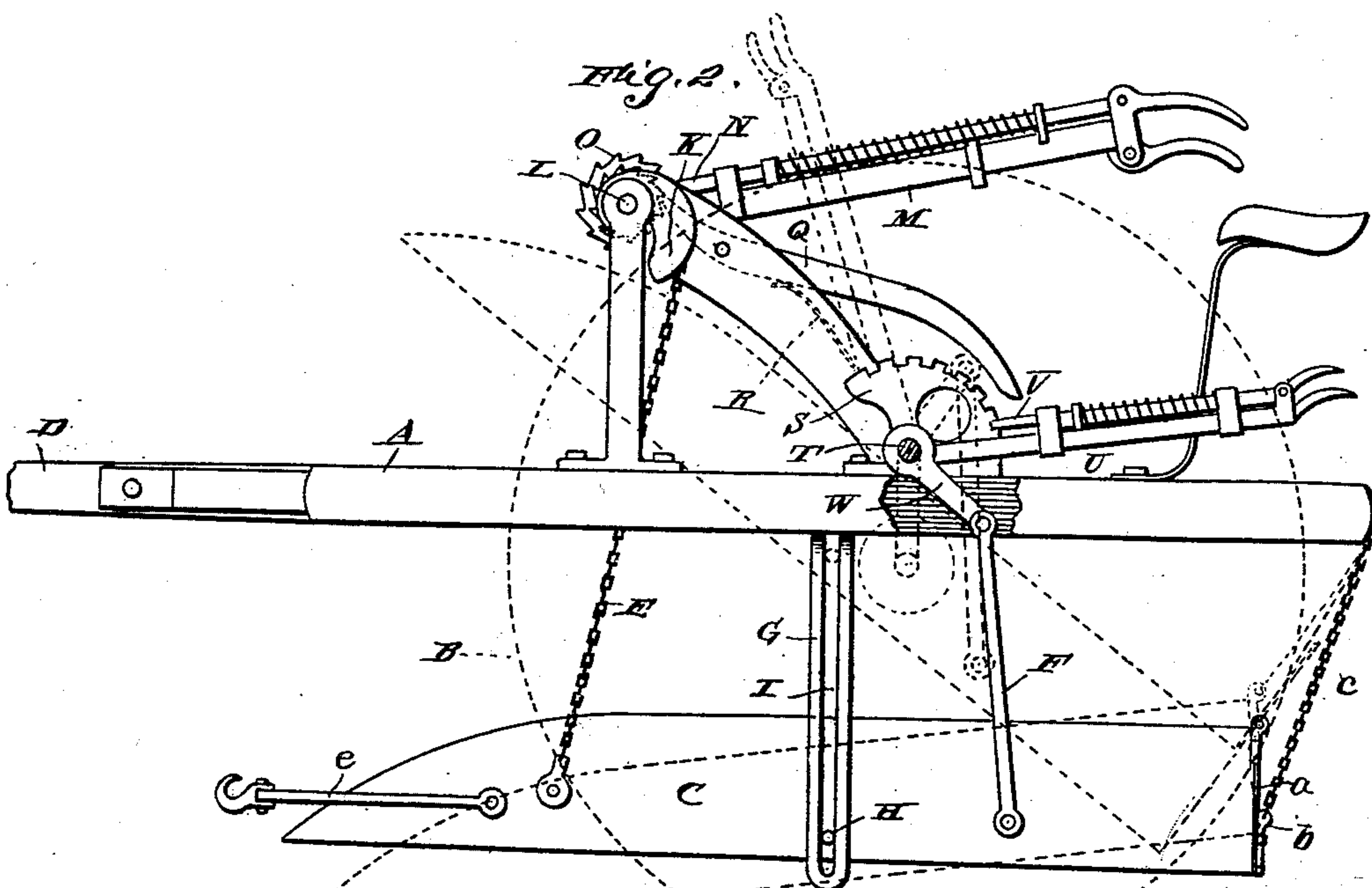
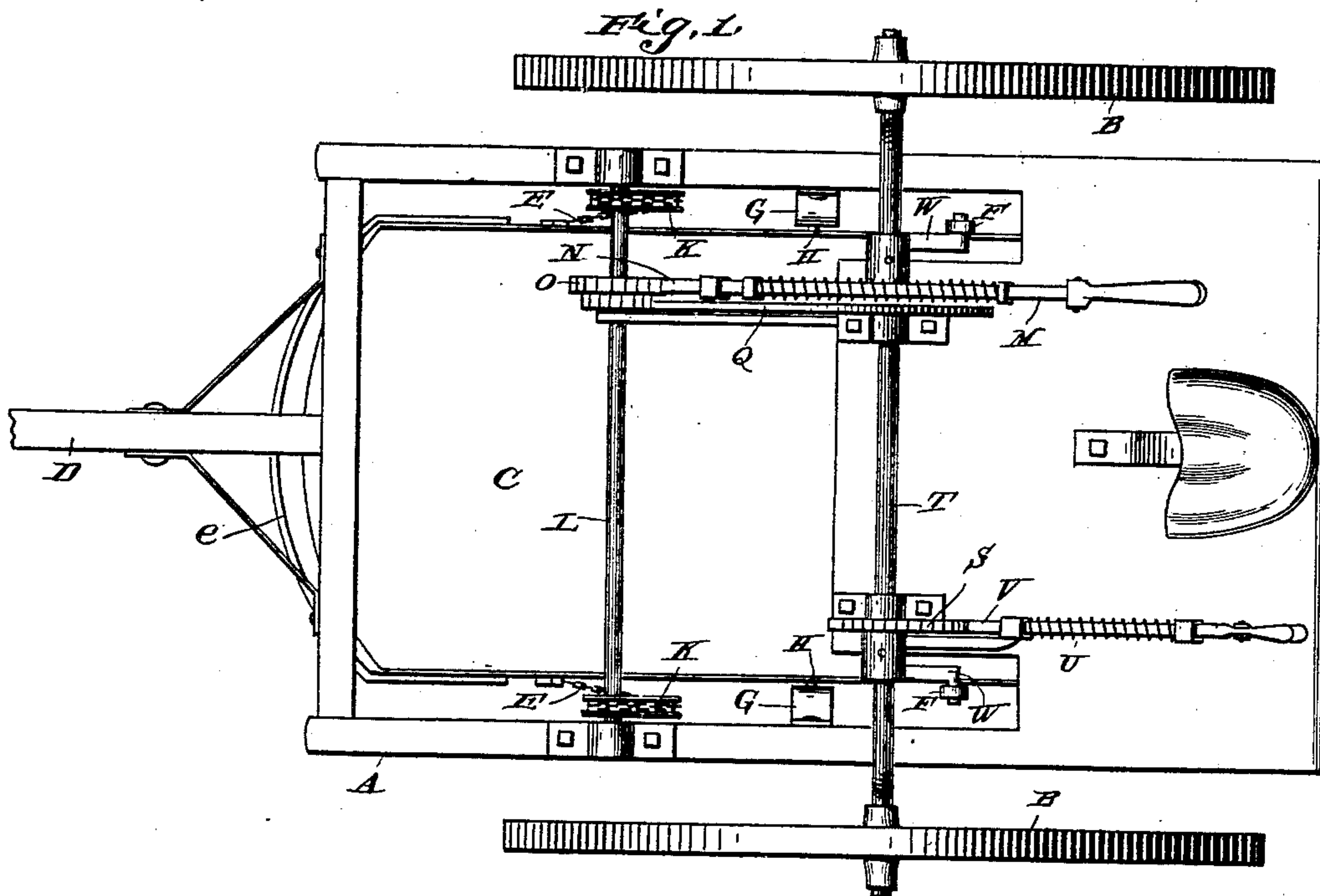
No. 677,448.

Patented July 2, 1901.

W. H. FORKER.
WHEELED EARTH SCRAPER.

(Application filed Apr. 2, 1901.)

(No Model.)



Witnesses:

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WHEELED EARTH-SCRAPER.

SPECIFICATION forming part of Letters Patent No. 677,448, dated July 2, 1901.

Application filed April 2, 1901. Serial No. 54,079. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. FORKER, a citizen of the United States, residing at Meadville, in the county of Crawford and State of Pennsylvania, have invented a new and useful Wheeled Earth-Scraper, of which the following is a specification.

My invention relates to improvements in wheeled scrapers whereon the driver rides and manipulates all the levers used both in filling and dumping without leaving his seat; and the object of my invention is to first drop the point of the scraper to about the level of the bearing-wheels and when filled to raise said point, so that the loaded scraper can be swung clear of the ground and carried to any distance and finally dumped from the rear of the scraper, instead of from the front, as is used, by inverting the scraper. I attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a top view. Fig. 2 is a side view showing the scraper in poise for carrying a load or for moving from place to place, the dotted lines showing, first, the position when being filled, and, second, the position when being emptied.

Similar letters refer to similar parts in both views.

The frame A, of which the tongue D is an extension, is mounted on two wheels B B. The scraper C is suspended in front by the chains E and in the rear by the rods F and is held from swinging by the sliding bars G, having a stud H on each side of the scraper through the slots I. The front of the scraper is raised and lowered by the chains E being wound or unwound around over the eccentric pulleys K, which are fixed to the shaft L and operated by the lever M, with its spring-pawl N working the ratchet-wheel O, which is also fixed to the same shaft. Fixed to the side of O is a smaller ratchet-wheel, with its pawl Q held in position by the spring R. The object of this smaller ratchet is to retain what is gained while M is depressed for another lift. I make the lifting-pulleys eccentric to give greater power to first lift the point of the scraper when embedded in the ground, and afterward it will require less and less power as it approaches the dumping position.

Firmly fixed to the top of the platform A is the notched wheel or section of a wheel S. The shaft T, which is central to the notched rim, makes a bearing for the lever U, with its bell-crank W and pawl V, by which the rear end of the scraper is raised or depressed or held in position at any point. (I have cut away a portion of the frame A to show the action of U, W, and F.)

The pawls N and V are both drawn back from their seats by compression of the hand when using the lifting-levers M and U, and when the front of the scraper is to be let down for a new load the lever M is forced down till Z strikes and depresses the retaining-pawl Q, when it will drop to the position seen in Fig. 2.

There is a tail-board a, hinged to the top of the sides of C, which is kept in place while c is being filled by a central bolt b, which catches in a hole in the floor of the scraper. To this bolt b a cord or chain unites it loosely to the end of the frame A; but when C is in position to discharge its load the cord c will draw the bolt and lift the tail-board, as seen in second position of dotted lines. The heavy tail e, by which the scraper is drawn, makes the front end much the heavier, and thus insures its dropping when released by the pawls N and Q. Before C is drawn up in front to the dumping-point the lever U must be thrown up, as seen by the dotted lines in Fig. 2. This is necessary in order to give a dumping position in front of the shaft T. It will be seen that the team draws directly on the scraper, thus relieving all the working parts from strain, as is the case when drawn from the frame.

Operation in short: The rear of C being at the proper height, the front is dropped to the proper depth to grasp a load, and when filled the lever by repeated liftings raises it free from the ground. Then when at the place to be dumped the rear is first raised by the lever U, when M is again used to raise to the full height, when the cord or chain c will have drawn the bolt and raised the tail-board. Then after unloading, N and Q being released from their ratchets, the front of C drops by its own gravity.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination of the main frame, the scraper flexibly and adjustably slung at front and rear beneath the same, fixed vertical guides depending from the frame and studs
5 on the sides of the scraper engaging the slots of said guides.

2. The combination of the main frame, having depending vertical guides, and transverse shafts mounted thereon, the scraper having
10 lateral studs and being slung beneath said frame by flexible connections at front and rear, and power devices on said shafts for op-

erating and adjusting said connections to raise and lower the scraper as set forth.

3. The combination in an earth-scraper of 15 the tail-board *a*, chain *c*, connected by one end to the rear end of the main frame and bolt *b*, by which the automatic opening and closing is effected, substantially as described.

WILLIAM H. FORKER.

Witnesses:

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