

(No Model.)

J. D. S. REED.

ROAD SCRAPER.

No. 383,068.

Patented May 15, 1888.

Fig. 1.

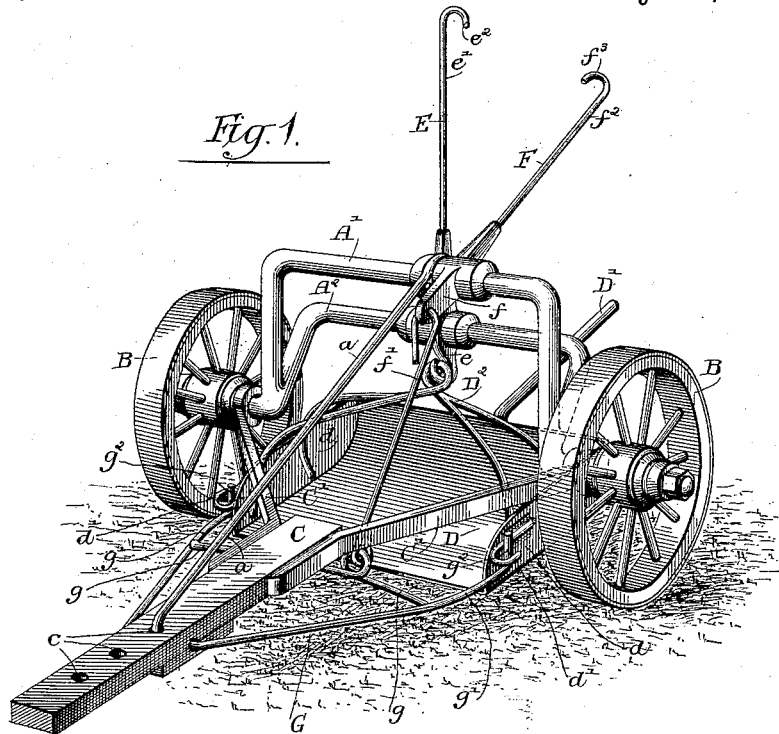
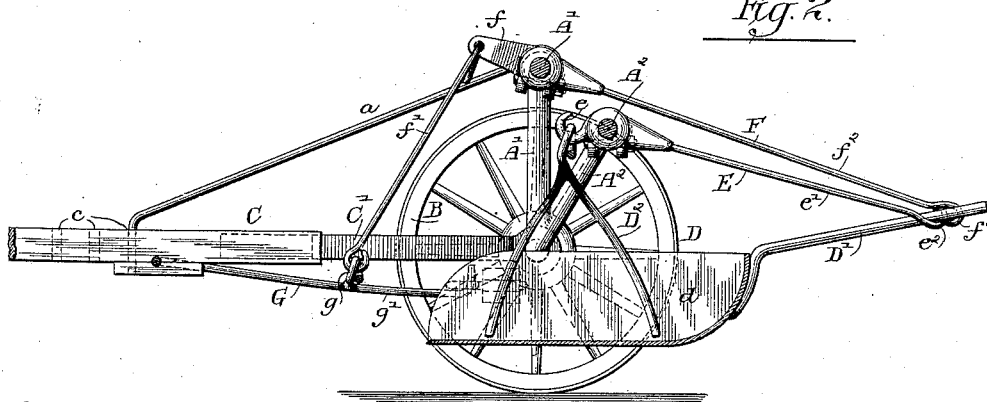


Fig. 2.



Witnesses:-

Louis W. Whitehead.

Wm. T. Henning.

Inventor:-

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UNITED STATES PATENT OFFICE.

JAMES D. S. REED, OF CHICAGO, ILLINOIS, ASSIGNOR OF ONE-HALF TO
WILLIAM G. F. REED, OF SAME PLACE.

ROAD-SCRAPER.

SPECIFICATION forming part of Letters Patent No. 383,068, dated May 15, 1888.

Application filed September 1, 1887. Serial No. 248,419. (No model.)

To all whom it may concern:

Be it known that I, JAMES D. S. REED, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful
5 Improvements in Road-Scrapers; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form
10 a part of this specification.

This invention relates to road-scrappers of the wheeled order, or those in which the scraper is mounted beneath a wheeled axle, and in which provision is made for raising the scraper
15 clear of the ground after it is loaded and while being transported to the dump.

The invention consists in the matters hereinafter set forth, and pointed out in the claims.

In the drawings, Figure 1 is a perspective view of the apparatus, and Fig. 2 is a vertical section taken close to and parallel with the draft-tongue, or at right angles to the axle.

A represents an arched axle provided with end spindles, upon which are mounted wheels
25 B B.

C is a tongue or pole, connected by rigid diverging braces C' C' with the axle A at points adjacent to the wheels.

D is a scraper provided with a rearwardly-projecting handle, D', by which it may be manipulated, so far as necessary, by the driver walking in the rear of the machine.

D² is a bail, by which the scraper is suspended from a lever fulcrumed on the axle.

35 The axle in this case is divided into two elevated transverse parts, A' A², which serve severally as fulcra for different levers by which the various desired movements are given to the scraper, as follows: E is a lever mounted on the lower and rearmost branch, A², of the axle, and at a central point thereof, to the short or forward arm, e', of which lever is hung the bail D². The longer arm, e'', of the lever E is in reach of the driver at the rear of the machine, and by seizing the same and bearing
45 down thereon he lifts the scraper with its load clear of the ground. Upon the higher and foremost branch, A', of the axle, at one side of the middle thereof, is similarly mounted a lever,
50 F, the short arm, f', of which is pivotally con-

nected with a link, f'', by which the front end of the scraper is lifted by force applied to the longer arm, f'', of the lever by the driver at the rear of the machine. The levers E and F are respectively provided with hooks e² and f³, or
55 other suitable means by which they may be engaged with the handle D' of the scraper. The link f' is here shown as being engaged with the front part of the scraper D, through the medium of a draft-bail, G, pivoted at its front
60 portion in the tongue C, so that the rear end or part of said draft-bail may rise and fall. Said draft-bail G is bifurcated and provided with a cross-bar, g, to which the link f' is pivotally connected, and at the rear of said cross-
65 bar g the arms or bifurcations g' of the draft-bail G extend back of and external to the front end of the scraper, where their ends are upturned to form hooks g².

The scraper D is provided on the outer sur-
70 face of its side walls, d, with hooks d', so that when the bail G shall have been lowered to rest and drag upon the ground, and the scraper D shall thereafter have been lowered, it will, before reaching the ground, drop between the
75 arm g' of the draft-bail, and the hooks d' on the scraper will engage with or fall in front of the upturned ends g² of said draft-bail arms. When the earth to be taken up is encountered by the front edge of the scraper, therefore, said scraper,
80 being hung by the bail D², will swing backward until the hooks d' encounter the upturned ends g² of the draft-bail arms g', when the latter will take the draft and haul the scraper forward as the machine advances. To one or
85 the other of the parts A' or A² of the axle is pivoted a link or rod, a, the front end of which is connected with the draft-pole C. As a separate improvement, the rod a is adjustable, so that the elevated part or parts of the axle may
90 be drawn forward or set backward within desired limits. To this end the lower and front end of the rod a is here shown as bent downwardly and as entering one of a series of holes, c c, in the pole C; but other familiar means for
95 such variable attachment of the rod a with the pole, or of adjusting the angle of the pole with the plane of the axle, may manifestly be substituted for this particular contrivance.

When the scraper is being drawn to the place rec

where it is to receive its load, it is held in the supported position shown in Fig. 2 by the lever E, engaged with the scraper-handle D', and may be further sustained by the lever F upholding, through the link or rod f', the draft-bail G in engagement with the scraper-hook d'. When the point is reached at which the scraper is to be put to work, the supporting-levers E and F are disengaged from the scraper-handle D', and in the advance of the machine the scraper is filled. The lever F will be used to lift the front end of the scraper out of the dirt, and the lever E to lift the scraper bodily clear of the ground, and when said levers are engaged with the scraper-handle, by springing the bent or hooked ends of said levers beneath said handle, or otherwise, the scraper is held with comparative rigidity in its elevated position and the machine is drawn to the place of dumping. To dump the scraper, the rear end, f'', of the lever F is first lifted, so as to lower the draft-bail G out of engagement with the scraper, after which the scraper-handle D' is lifted and the front end of the scraper is allowed to drop into engagement with the ground, by which engagement the scraper is tilted and discharged. In this operation of dumping the lever E may sometimes be advantageously retained in engagement with the scraper-handle and sometimes disconnected therefrom. After the scraper is unloaded it is righted, and the lever E, if previously disengaged from the scraper-handle, is re-engaged therewith to hold the empty scraper clear of the ground, after which the lever F is raised to engage the draft-bail with the front end of the scraper, ready for use when another load is to be taken up.

I claim as my invention—

1. The combination, with a wheeled frame, of a scraper provided with a lifting-bail and a

handle, and a lever pivoted to the vehicle frame or axle, from the front and short arm of which the scraper is suspended by its bail, and the long arm of which is engagable with the scraper-handle, substantially as described.

2. The combination, with a wheeled frame, a scraper, and a lifting-lever for lifting and suspending said scraper clear of the ground, of a draft-bail pivoted to the frame at its forward end and having a vertical movement at its rear end for engaging and disengaging the front end of the scraper, and a lever, as F, pivoted to the frame of the vehicle and having its shorter arm connected to the draft-bail for lifting the same into engagement with the scraper and raising the front end thereof, and its longer arm adapted to engage and be held in position by a projecting portion of the scraper, substantially as described.

3. The combination of a wheeled axle elevated at its middle portion, a draft-tongue pivoted on said axle, and an adjustable brace-rod connecting the elevated part of the axle with the front portion of the draft-tongue, substantially as described.

4. The combination of a wheeled frame embracing an axle having two horizontal elevated portions, one in front and above the other, of a scraper-lifting lever pivoted to the lower and rear portion of said axle, and a lever pivoted to the front and more elevated portion of the axle, for lifting the front end of the scraper, substantially as described.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

JAMES D. S. REED.

Witnesses:

M. E. DAYTON,
C. CLARENCE POOLE.