

W. PATTERSON.
ROAD SCRAPER.

No. 47,977.

Patented May 30, 1865.

Fig. 1.

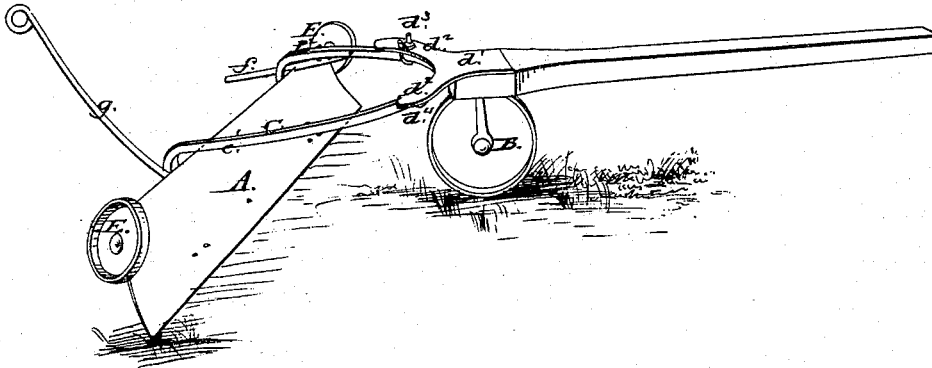
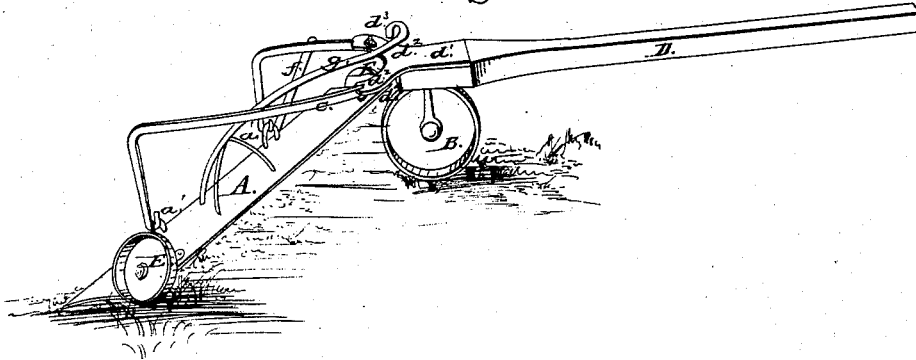


Fig. 2.



Witnesses:

Bray Mouson

Eliash D. Moyer

Inventor:

William Patterson

UNITED STATES PATENT OFFICE.

WM. PATTERSON, OF SALEM, NEW JERSEY.

IMPROVED ROAD-SCRAPER.

Specification forming part of Letters Patent No. 47,977, dated May 30, 1865.

To all whom it may concern:

Be it known that I, WILLIAM PATTERSON, of Salem, in the county of Salem and State of New Jersey, have invented a new and useful Improvement in the Road-Scraper; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of the said improved scraper in the position required for scraping; and Fig. 2, a like view of the same in the position required to discharge the accumulated dirt, or to slide easily over the surface of the ground without scraping.

Like letters of reference indicate the same parts when in both figures.

The object of my improvement is to afford a light draft and effective scraper for leveling and grading roadways, that will not require to be lifted at either end to discharge the dirt, nor press downward increasingly upon the draft-animals in working the implement, both of which objections lie against the road-scrapers heretofore used.

My invention consists, substantially as hereinafter described and specified, in making the scraper proper concave on its face side, and arranging it in its bearings so that it can be readily caused to tilt over, discharge its accumulated dirt, and slide smoothly over it; in the arrangement of one or more wheels just in advance of the said scraper proper and back of the tongue, so that the same will support the weight of the rear end of the latter and its connections, and prevent any downward pressure on the draft-animals in using the implement; in making the bar which connects the tongue and the scraper proper together in the form of a curve, so that the line of draft of the implement may be readily varied in relation to the face of the said scraper proper; and in the arrangement of a small carrying-wheel or runner at each end of the scraper proper, so that the same will support the upper edge of the said scraper above the surface of the ground or street after it (the scraper proper) has been tilted over, thus causing a lighter draft when not scraping.

In the drawings, A is the scraper proper, B the weight-supporting wheel in advance of the scraper A, C the curved adjustable bar which connects the scraper A and the tongue D together, and E E the carrying-wheels for supporting the upper edge of the scraper A when the latter is in its tilted position.

The scraper proper, A, is made of plate or boiler iron, has both its upper and lower edges straight, and is curved between them, so as to be slightly concave on its front or face side, for the purpose of giving it somewhat of a cutting or shearing property at its lower edge, without causing its general inclination backward to be too great to retain its proper complement of dirt in using the implement.

The weight-supporting wheel B is arranged to rotate in the line of draft and directly behind the rear end of the tongue D, and beneath the forward part of the curved bar C, which connects A and D together, supporting the said parts at a sufficient height to allow a free movement of the scraper A in tilting forward.

On the rear part of the tongue D, or just above the wheel B, a flat plate of iron, *d'*, having curved arms *d' d'*, is rigidly fixed, and to the under side of this plate *d'* the curved connecting-bar C is united adjustably by means of staples *d' d'*, one of which, *d'*, has a screw-nut for tightening it, and thus fixing the curved bar C at any position in its connection with the plate *d'* which may be required.

The curved bar C is of iron, and has one of its arms, *c'*, longer than the other, *c''*, for the purpose of holding the scraper proper, A, always in an oblique position to the tongue D or line of draft, and both of the said arms are bent downward, so as to reach behind the scraper A, and are also attached to the back of the latter by means of loops and staples *a' a'*, or hinged joints, so that the scraper A will be permitted to tilt freely forward from the upright position shown in Fig. 1 to the nearly-horizontal position shown in Fig. 2, as occasion may require, and so that it will rest against the downward-bent portions of the arms *c' c''* when in its upright position, as seen in Fig. 1, and for the purpose of retaining it in this upright position when scraping a notched

adjustable lever, *f*, is pivoted to the arm *c*² so that it will catch on the upper edge of A, and keep the latter from falling forward until the driver lifts the lever upward.

Attached rigidly to the back of A is a hand-lever, *g*, whereby the driver is enabled to govern the implement in scraping, and to restore the scraper proper, A, to its upright position from its tilted or horizontal one, as occasion may require.

The carrying-wheels E E are adjustably placed at each end of A, near its upper edge, so as to be clear of the ground in scraping, but so, also, as to support the said upper edge of A sufficiently above the ground to prevent its contact therewith when the scraper A has been tilted forward for the purpose of simple transportation or movement of the implement from place to place without scraping.

It will be readily seen that in the operation of this road-scraper it will be of easy draft, and also effective for the purpose, that it will not require to be lifted at either end to discharge its accumulated dirt, and that it cannot press downward upon the draft-animals in using it.

I would further remark that the tongue D may be easily jointed at any suitable point in advance of the wheel B, if desired.

Having thus fully described my improvement, what I claim as new therein of my in-

vention, and desire to secure by Letters Patent, is—

1. A road-scraper having its scraper proper, A, made in the curved form and arranged obliquely to the line of draft, as described and set forth, the said scraper A being supported in its upright position by means of arms *c*¹ *c*², bent downward behind, and hinged or looped to the back of the said scraper A, as described, so as to allow the latter to tilt forward from its upright position before the arms when required, as and for the purposes described.

2. The arrangement of the adjustable notched lever *f*, in combination with the curved bar C and scraper A, as and for the purpose specified.

3. The curved connecting-bar C, when arranged in combination with the tongue D and scraper A, so as to be adjustable at its connection with the said tongue, substantially as described, for the purpose specified.

4. The arrangement of the carrying-wheels E E or their equivalents, in combination with the scraper proper, A, substantially in the manner described, for the purpose specified.

WILLIAM PATTERSON.

Witnesses:

BENJ. MORISON,
ELIAS D. MOYER.