(No Model.) 2 Sheets—Sheet 1.

G. D. MATCHAM.

ROAD SCRAPER.

No. 284,647. Patented Sept. 11, 1883.

Fig. 1.

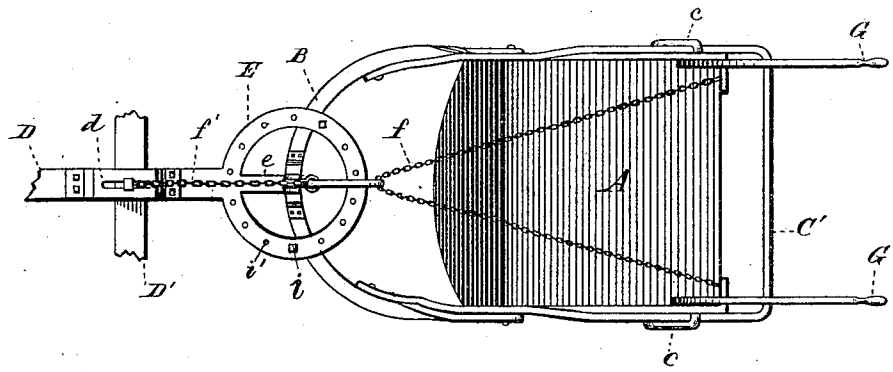


Fig. 2.

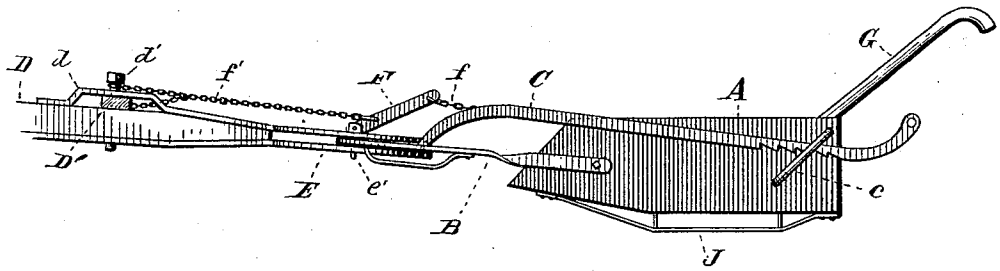


Fig. 3.

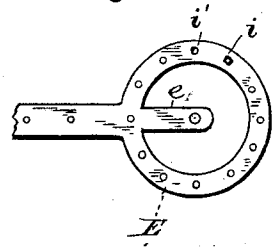


Fig. 4.

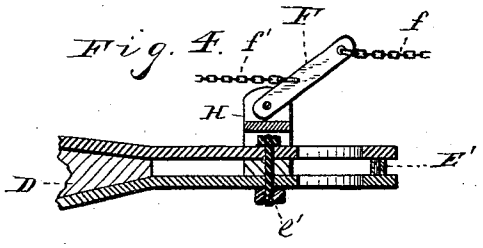
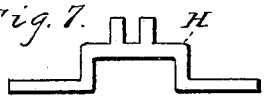


Fig. 7.



WITNESSES

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(No Model.) 2 Sheets—Sheet 2.

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ROAD SCRAPER.

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Fig. 5.

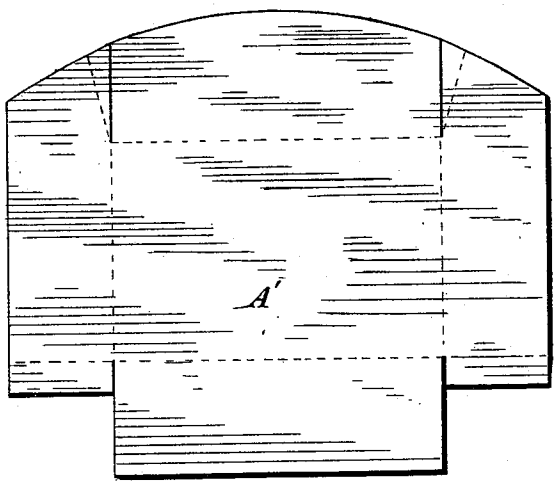
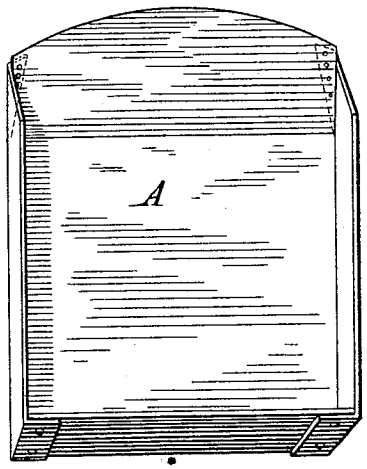


Fig. 6.



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UNITED STATES PATENT OFFICE.

GEORGE D. MATCHAM, OF PITTSFIELD, OHIO.

ROAD-SCRAPER.

SPECIFICATION forming part of Letters Patent No. 284,647, dated September 11, 1883.

Application filed May 3, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE D. MATCHAM, of Pittsfield, in the county of Lorain and State of Ohio, have invented certain new and useful Improvements in Road-Scrapers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in road-scrapers; and it consists in certain features of construction and in combination of parts that are hereinafter described, and pointed out in the claims.

The object of my invention is to improve and perfect a former invention for which I obtained Letters Patent No. 234,834, dated November 23, 1880, and reissued September 13, 1881.

In the drawings, Figure 1 is a plan view, and Fig. 2 is a side view, of a scraper embodying my invention. Fig. 3 is a plan view of a circle or ring and the attached straps. Fig. 4 is a side elevation, partly in section, of the rings and other parts of the device in detail. Fig. 5 is a plan view of a sheet of metal from which to form the body of a scraper, cut and in proper shape for bending. Fig. 6 is a view in perspective of the body of a scraper that has been made from a single sheet of metal such as is shown in Fig. 5. Fig. 7 is a side view or detail of an iron that is attached to the bail of the scraper.

A represents the body of a scraper, and A′ a sheet of metal cut into proper shape for bending and forming into such a body. The bail B is pivoted to the sides of the scraper.

C represents stay-bars pivoted to their respective sides of the bail B, and passing through the staples *c*, at which points they are provided, respectively, with racks for engaging the bottom of the staples, as shown, and connected behind the scraper by the bar C′, that also forms a handle.

D is the draft-pole or tongue, and D′ the double-tree that operates between the tongue and the hammer-strap *d*. Both the tongue and the hammer-strap are slotted, and the hammer-bolt *d′* passes through the double-tree and operates in these slots.

E represents a pair of rings provided with numerous holes, that register the one ring with the other, and are fastened to the tongue by means of straps extending forward from the rings and embracing the tongue. These rings are a short distance apart, so that the bail B may operate between them, and are held apart in front by the tongue and on the back side by the thimble E′, that is secured by a bolt passing through it and the rings. These rings are provided with the straps *e*, that in turn are provided with a hole that is in the center of its respective ring, and through which passes the bolt *e′*, that fastens the rings to the bail, and that forms a pivotal point for the rings and tongue, so that the tongue may be turned in either direction until the thimble E encounters the bail.

The tongue may be secured at any desired angle by placing pins *i* in the holes *i′* of the rings, so as to embrace the bail when the tongue is in the desired position; also, the pin may be set back in the holes, so as not to embrace the bail B closely, in which case the tongue can vibrate between certain points or angles that may be fixed as desired. This adjustment of parts, by which the tongue can be set at any desired angle, makes it easy to operate the scraper in places—such as against banks—where it was difficult or impracticable to operate the ordinary scrapers heretofore in use.

H is an iron that is attached to the top, side, and center of the bail, and has an offset that spans the nut on the bolt *e′*, and has two ears above, between which is pivoted the lever F. This lever is attached at the other end, by the chains *f*, to the back end of the scraper. To the central part of the lever is attached the chain or link *f″*, connecting it with the double-tree. By reason of the slot in the tongue and in the hammer-strap, in which the hammer-bolt operates, the draft, by means of the chain *f′*, comes entirely on the lever F, and by the lever is distributed in part to the chains *f* and the balance to the bail B.

If desired, the tongue may be removed, in which case the double-tree is still attached to the chain *f′*.

To the bottom and on each side of the scraper are attached the runners J. These runners are each made of a flat bar of iron attached

at each end directly to the bottom of the scraper, but separated from the scraper through the central part of the runner by one or more thimbles, through which bolts or rivets pass from the runner to the scraper. When the scraper is in a horizontal position, these runners raise it from the ground and protect it from wear. The forward part of these runners acts also as a fulcrum, by which the cutting-edge of the scraper may be pried out and disengaged from contact with the ground.

In operating the scraper the handles G are raised until the edge of the scraper is in position for engaging the earth or substance to be removed, in which position the racks on the stay-bars are allowed to engage their respective staples, which said engagement prevents the scraper from dumping. When it is desired to dump the scraper, by raising the handle C′ and breaking the aforesaid engagement of the racks with the staples by means of the draft of the chains *f* on the back of the scraper, the load will be instantly dumped.

A′, Fig. 5, represents a plate that has been cut in the proper shape, and slits cut in it, as required, and on which are seen dotted lines that mark the place where the sheet is to be bent. In Fig. 6 is seen the sheet after it has been bent into the proper form and the different parts properly secured to each other.

The body of a scraper made in this manner will be light, cheap, and durable.

What I claim is—

1. In a road-scraper, the combination, with the tongue having the plates E secured thereto, of the bail pivoted between said plates, and means for adjustably connecting the bail to the plates, and thereby retain the scraper at any desired angle to the line of draft, substantially as set forth.

2. In a road-scraper, the combination, with the tongue and the plates E, provided with straps *e* and perforations, of the scraper-bail pivoted to the straps *e*, and locking-pins for securing the scraper at any desired angle to the line of draft, substantially as set forth.

3. In a road-scraper, the combination, with the tongue, plates E, iron H, and lever F, of the bail B, pivoted between the plates E, and chains *f* and *f′*, substantially as set forth.

4. The combination, with the bail, of the bars C, pivoted at their forward ends to the bail, and provided with teeth or notches on their rear ends, a handle, C′, connecting the rear ends of said bars, and staples *e*, fastened to the scraper-body, substantially as set forth.

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

GEORGE D. MATCHAM.

Witnesses:
ALBERT E. LYNCH,
CHAS. H. DORER.