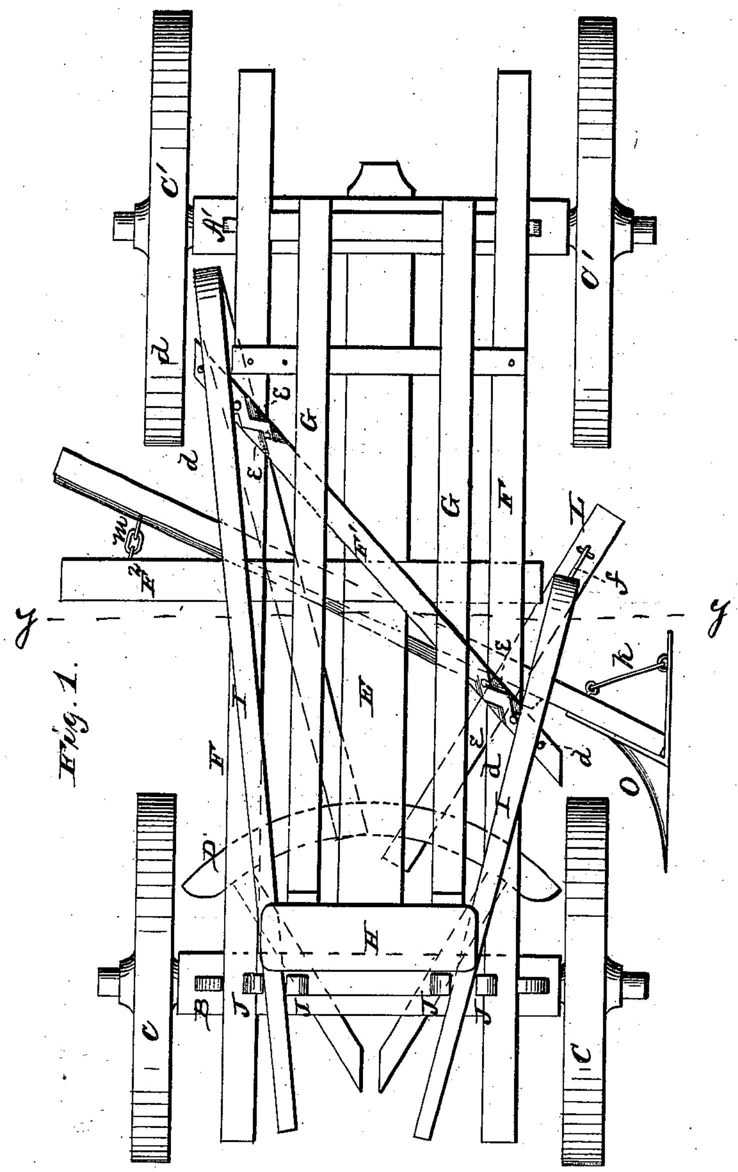
H. C. MOORE.
Road-Scraper.

No. 207,977. Patented Sept. 10, 1878.



WITNESSES
Franck L. Ourand
Wau K Yatt

INVENTOR
Henry C. Moore
By
Alexander & Mason
Attorneys

3 Sheets—Sheet 2.

H. C. MOORE.

Road-Scraper.

No. 207,977. Patented Sept. 10, 1878.

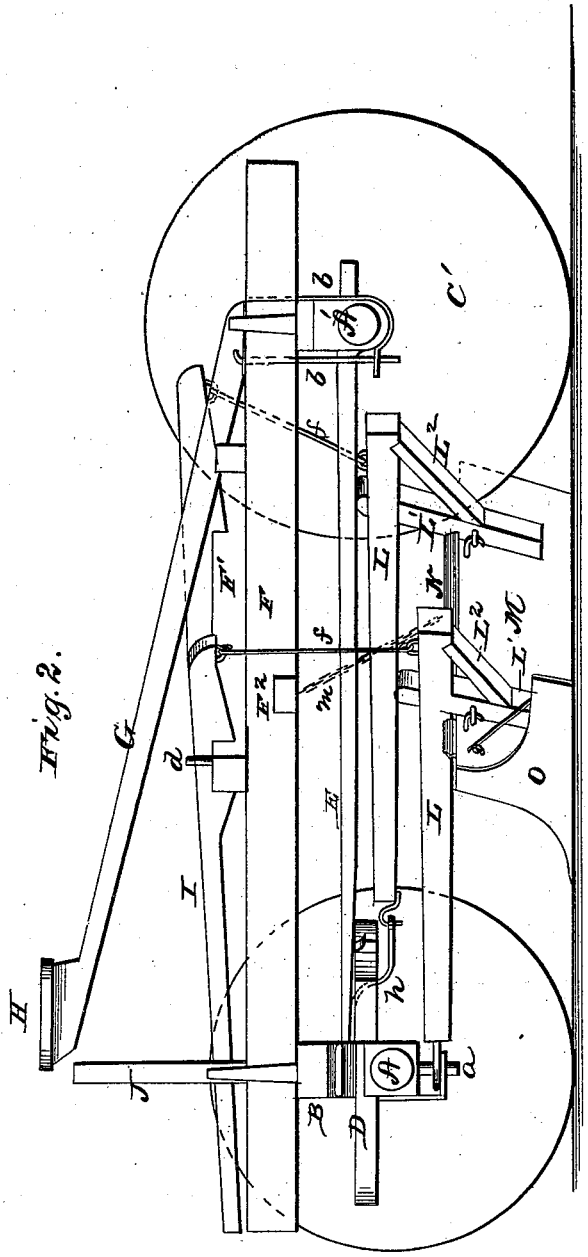


Fig. 2.

WITNESSES

F. L. Ourand

Wm. Galt

By

INVENTOR

Henry C. Moore

Alexander Dresser

Attorneys

3 Sheets—Sheet 3.

H. C. MOORE.

Road-Scraper.

No. 207,977. Patented Sept. 10, 1878.

Fig. 3.

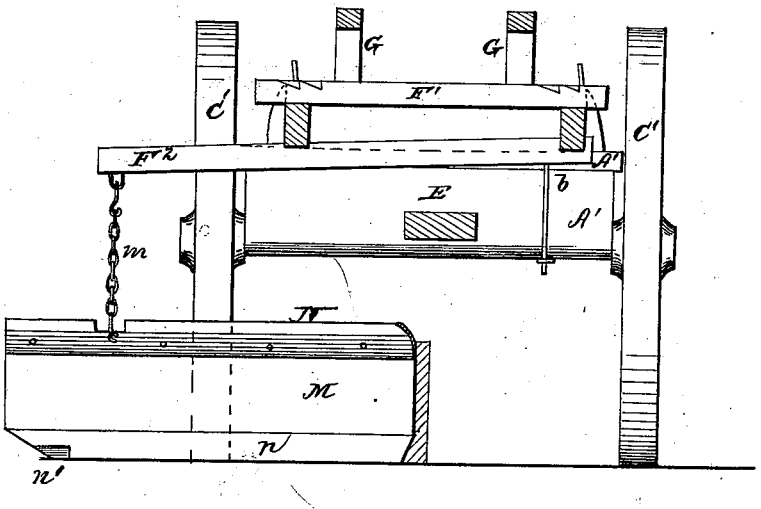


Fig. 4.

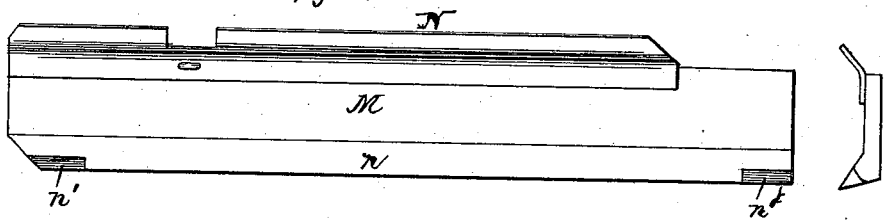
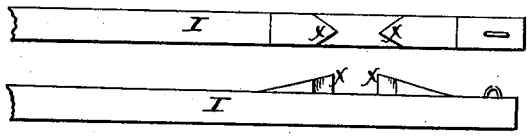


Fig. 5.



WITNESSES
Franck L. Durand
Frank Galt

By

INVENTOR
Henry C. Moore
Alexander & Mason
Attorneys

UNITED STATES PATENT OFFICE.

HENRY C. MOORE, OF TAMA CITY, IOWA.

IMPROVEMENT IN ROAD-SCRAPERS.

Specification forming part of Letters Patent No. **207,977**, dated September 10, 1878; application filed March 27, 1878.

To all whom it may concern:

Be it known that I, H. C. MOORE, of Tama City, in the county of Tama, and in the State of Iowa, have invented certain new and useful Improvements in Road Leveler and Scraper; and 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, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a road leveler and scraper, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a plan view, Fig. 2 a side elevation, of my machine. Fig. 3 is a transverse vertical section on the line *y y*, Fig. 1. Fig. 4 is a front and end view of the scraper; and Fig. 5 is a detailed view, showing the construction of the operating-levers.

A represents the front, with head-block B and wheels C C. D is the segment, *a* the king-bolt, E the reach, and A′ the rear axle, with wheels C′ C′, of an ordinary farm-wagon.

On the head-block B and rear axle A′ rests a horizontal frame, F, which is held firmly to the rear axle by a clip, *b*, substantially as shown, or in any other suitable or convenient manner.

To the rear portion of this frame are secured two spring-arms, G G, which extend forward and upward, as shown, and support at their front ends the seat H.

On top of the frame F is secured an oblique cross-bar, F′, which has, near each end in the upper surface, two sets of V-shaped notches, *e e*, extending from opposite sides, as shown in Fig 1.

I I represent two levers, which have their under sides notched near the rear ends, forming V-shaped lugs, *x x*, (see Fig. 5,) to fit in said notches. There being two sets of notches in the bar F′ for each lever, said levers can be moved out or in, as required, they being held in place on the bar by one or more pins, *d*, as shown. The object of these levers is twofold. Either one can be operated so as to raise either end of the scraper to give it a required inclination, or both can be operated to raise both ends of the lever.

To cause the plow at one end of the scraper to project near or far from the wheel of the carriage the pins *d* on the bar F can be moved into other holes, and the levers changed so as to rest in the other notches on the bar.

The front ends of the levers I pass between standards J J at the front end of the frame F, in such a position that the driver, seated on the seat H, can put his feet on them and press them downward when required.

The rear end of each lever is, by a rod, *f*, connected to the rear end of a beam, L. The front ends of these beams converge toward the center of the front axle, the forward beam being connected to the king-bolt *a*, and the other to a strap or arm, *h*, connected to the reach, as shown in Fig. 2.

Each beam L is provided with a bar, L^1, extending downward and inclining slightly forward, as shown. This bar is braced by a brace, L^2, and its front is beveled.

To the bars L^1 is connected the scraper-plank M by hooks and eyes, the bars being in rear of the plank, the beams L passing above the upper edge thereof through notches in an inclined plate, N, secured along the upper edge of said plank.

O represents a plow, attached to the end of the scraper-plank M by eyes, with the moldboard of the plow resting fair upon the face of the scraper-plank, and braced by wires *k k*, or otherwise, (as practical demonstration may show to be necessary,) from the back part of the scraper to the land-side of the plow.

It is designed that the scraper, when in use with the plow, shall be set to an angle to conform to the direction of the land-side; and it is also designed that the motive power shall be applied from the scraper to the plow; and, if necessary, jointed braces may be applied from the frame near the hind axle to the hind part of the scraper-bed at the end where the plow is attached. The rearward portion of the scraper-plank is connected by a chain, *m*, with a cross-bar, F^2, projecting from the side of the frame F. This cross-bar is drooping or

inclined outward and downward, and the guy-chain *m* is thus applied to the bottom of the frame, so as to incline side pressure to a horizontal line as near as possible to lessen the lifting tendency of that force upon the scraper.

The plate N, attached to the plank M, forms a crowning forward curve to the upper part of the scraper, for the purpose of causing the loose earth in front of the scraper to take on a rolling motion along the diagonal face of the scraper to the end of delivery; or the scraper-bed may be made of a steel-plate, bent with crowning forward curve. The scraper is formed or provided at its lower end with a cutter, *n*, and at the outside of this cutter, at the bottom edge of the plank, is a flat part, *n'*, to act as a shoe to prevent the cutter from digging into the earth too heavily.

By the loose attachment of the draft-arms to the scraper-bed and to the power, it gives perfect freedom of control, so that the scraper can be instantly changed to any angle to the face of the road.

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

1. The brace F^2, connected to the under part of the carriage and inclined downward at one end, and provided with guy-chain *m*, which connects with the scraper, as set forth.

2. The combination, with a carriage supported upon four wheels, of the scraper M, two beams, L L, each having an inclined bar, L^1, and brace L^2, the scraper being flexibly connected to the bars L^1, and the beams L connected to the king-bolt *a* and strap *h*, all substantially as and for the purposes herein set forth.

3. The combination of the adjustable levers I, having lugs *x*, the oblique bar F^1, with notches *e* and pins *d*, the rods *f*, and scraper-beams L, all substantially as and for the purposes herein set forth.

4. The scraper M, provided along its lower edge with the cutter *n*, having a flat part, *n'*, at each end, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 2d day of March, 1878.

HENRY C. MOORE.

Witnesses:
C. M. ALEXANDER,
J. M. MASON.