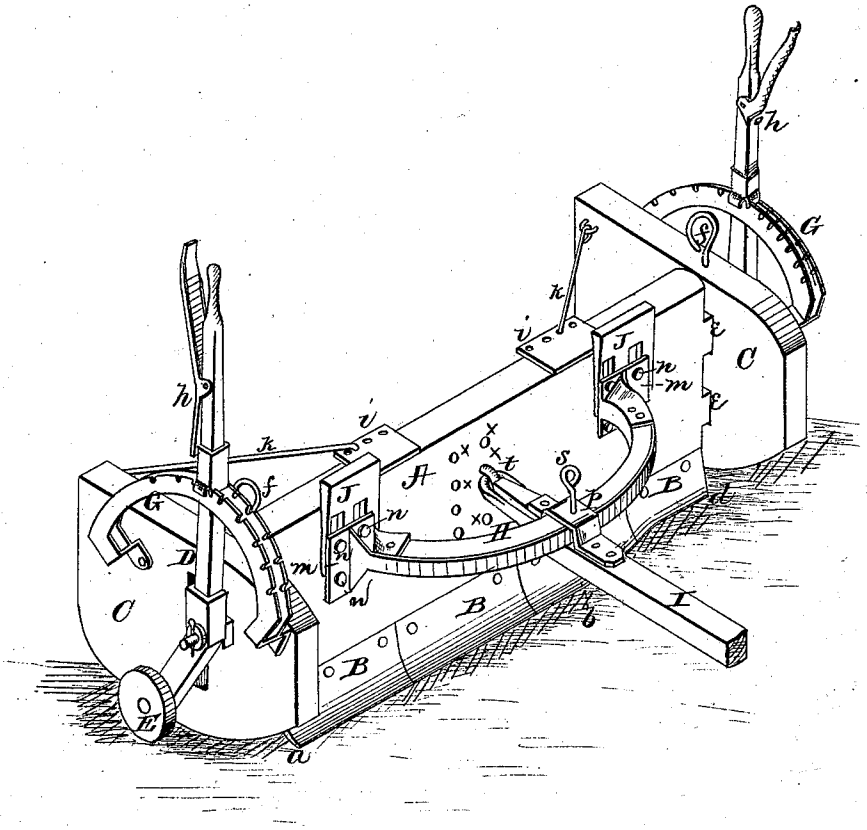
J. FLEMING.
Road-Scraper.

No. 198,880. Patented Jan. 1, 1878.



WITNESSES
F. L. Emrand
H. A. Toulmin.

INVENTOR
Jonathan Fleming
Munn & Mason
ATTORNEYS

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JONATHAN FLEMING, OF MONROEVILLE, INDIANA.

IMPROVEMENT IN ROAD-SCRAPERS.

Specification forming part of Letters Patent No. **198,880**, dated January 1, 1878; application filed October 30, 1877.

To all whom it may concern:

Be it known that I, JONATHAN FLEMING, of Monroeville, in the county of Allen, and in the State of Indiana, have invented certain new and useful Improvements in Road Scrapers and Levelers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing, 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 scraper and leveler, 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 drawing, in which the figure represents a perspective view of my machine.

A represents the vertical frame, of any suitable dimensions, to which the blade is attached. This blade is constructed of two or more sections, B B, and is made concave in form from *a* to *b*, for about two-thirds of the length from left to right, the remaining one-third, from *b* to *d*, being flat or straight. The concave portion of the blade is for cutting and scraping, while the flat section or sections are for the purpose of leveling the soil as it is thrown to the left by the concave portion of the blade. Both offices of cutting and leveling are performed at one and the same time, and, the blade being in sections, any section that may be broken or injured can be displaced and replaced at a much less expense than if the whole blade had to be replaced by reason of damage to any part of it.

Each end of the frame A forms tenons *e e*, to which is hinged a block, C, by means of a rod, *f*, passing through them, as shown, said block having mortises for the tenons to pass into.

To the outer side of the block or block-hinge C is pivoted an elbow or bent lever, D, the lower end of which has an outwardly-projecting spindle to receive a wheel, E. The upper end of the lever D passes up through a semicircular ratchet, G, and has a pawl, *h*, for holding it at any point desired in said ratchet. The rear end of each hinge-block C is provided with a hook, *k*, which is inserted in any one of a series of holes in a plate, *i*, secured on the top of the frame A.

By means of the levers D and their attachments, as described, the blade B may be raised or lowered, at pleasure, to cut deeper or more shallow. The whole machine can be raised sufficiently high so that it can be hauled over rough grounds or any character of bridges without endangering any part of the machine; and, by reason of the flexibility of the block-hinges C C, the operator can adjust the wheels so as to run in an exact angle or line with the tongue or power, preventing any strain on the machine; and also, by means of said block-hinges and attachments, he can raise or lower either end of the machine.

To the front of the frame A is attached a half-circle, H, for regulating the position of the tongue I. This half-circle is to be made of wood and iron, so as to render it more susceptible of firm bracing, thereby giving the machine additional strength and durability. It is attached to the frame by screws *n* passing through projecting plates *m* at its ends. Between these plates and the frame are inserted slotted wedges J J, which are movable, and are for the purpose of raising or lowering the tongue by changing the angle at which the semicircular tongue-adjuster is held to the frame, and thereby giving the blade more or less dip.

The upper screws *n* pass through the slots in the wedges J, so that by turning said screws the wedges can be moved up or down, as required, and then fastened by said screws to change the angle of the adjuster H, and thereby raise or lower the tongue, it being understood that the lower edges of the plates *m* are always in contact with the frame A.

The tongue I is provided with a loop, *p*, through which the semicircle H passes, and its rear end is fastened, by means of a staple, *t*, to the frame A, a pin, *s*, passing through the loop, semicircle, and tongue, as shown. In the frame A are two vertical rows of holes, *x*, for adjustment of the staple *t*.

The tongue can easily be moved to the right,

thereby moving the power toward the right end of the machine, in order to meet the resistance of the soil to the concave portion of the blade, and also keep up a perfect equilibrium in the movement of all parts of the machine.

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

1. In a road-scraper, a sectional blade, B, made concave from one end to about two-thirds of its length, as shown from *a* to *b*, and the remaining one-third straight, as shown from *b* to *d*, substantially as and for the purposes herein set forth.

2. In a road-scraper, the blocks or block-hinges C C, carrying the supporting-wheels, adjustable at any desired angle, and held by means of the hooks *k* and perforated plates *i*, substantially as and for the purposes herein set forth.

3. The combination, with the frame A, of the hinge-blocks C, levers D, with wheels E and pawls *h*, and the semicircular ratchets G, substantially as and for the purposes herein set forth.

4. The combination of the semicircle H with plates *m*, screws *n*, and slotted wedges J, substantially as and for the purposes herein set forth.

5. The combination of the frame A, having two vertical series of perforations, *x*, the adjustable semicircle H, tongue I, adjustable up and down and laterally in the perforations *x*, the loop *p*, pin *s*, and shaft *t*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 17th day of October, 1877.

JONATHAN FLEMING.

Witnesses:
W. J. KERR,
JOHN H. FLEMING.