

UNITED STATES PATENT OFFICE.

EDWARD H. MORE, OF MORESVILLE, NEW YORK.

IMPROVED GRADING AND ROAD-SCRAPING MACHINE.

Specification forming part of Letters Patent No. 43,422, dated July 5, 1864.

To all whom it may concern:

Be it known that I, EDWARD H. MORE, of Moresville, in the county of Delaware and State of New York, have invented a new and Improved Grading and Road-Scraping Machine; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a plan or top view of my invention, with the parts adjusted in a working position; Fig. 2, a side sectional view of the same, taken in the line *xx*, Fig. 1; Fig. 3, a detached inner side view of one of the wings or scrapers of the same; Fig. 4, a diminished plan or top view of the same, showing its operation.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to a new and improved machine for grading or scraping roads; and it consists in constructing and arranging the parts in such a manner that a greater or less pressure may be brought to bear on the scrapers as circumstances may require, and the scrapers also be capable of being adjusted, when not desired for use, out of a working position, so that the machine may be readily drawn from place to place, one of the scrapers being also so constructed that it may be adjusted to work over sloping or inclined ground.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents a V-shaped platform, which constitutes the body or frame of the machine, and which is mounted on three wheels, *a a b*, two of the wheels, *a a*, being at the front of A, one at each side, and the other, *b*, near its back end.

B is a draft-pole connected to the front end of A, and C is a pole which extends beyond the rear A, and by which the operator guides the machine when the latter is performing its work.

D D' are two wings or scrapers, placed one at each side of the platform A at a suitable distance from it, and connected to it by arms *c*, which are fitted loosely on rods *d* at the sides of A, so that the wings or scrapers may be turned upward and rest on the body A

when they are not designed to be used. The wings or scrapers are each braced by a chain, E, from the draft pole B, and one of the wings or scrapers, D, is formed of a plank shod at its lower part with metal, and having its upper edge slightly inclined downward towards its back edge. The other wing or scraper, D', is composed of two parts, *e e'*, connected by a joint, *f*, the front part, *e*, having a bar, F, attached to it which extends the whole length of D' at its outer side, the bar F having a plate, G, attached to it which may be fitted in any of a series of notches in an upright bar, H attached to the back part, *e'*, of D', the latter, like D, being shod with metal at its lower end.

By adjusting the bar F higher or lower the front part, *e*, of the scraper may be placed in a more or less inclined position, so that it may work in the hollow or ditch at the sides of the road. (See Fig. 3, in which the part *e* of the scraper D' is shown, somewhat inclined downward, in red.)

The device is first drawn along at one side of the road, and the earth scraped up in a ridge or windrow by the scrapers D D'. The device is then drawn along at the opposite side of the road and another ridge or windrow formed, and these—the windrows—are gathered into one at the center of the road when the device is drawn over the center of the latter, (See Fig. 4, in which the several windrows of earth are shown, and also the several positions of the device.)

The wings or scrapers have a flaring position, each one being parallel, or nearly so, with the side of the platform A, to which it is connected, a space being allowed between the back ends of the scrapers to admit of the escape of the dirt.

On the platform A there are placed two arms, F F', the front ends of the latter being secured to the former by pivot-bolts *f*. These arms pass through guides *g* on the platform, and the arms are sufficiently long to be turned upon the tops of the scrapers D D' when desired. When the arms F' are not on the scrapers, the latter press on the earth with a weight due to their own gravity only; but when a greater pressure is required the arms F' are turned or moved so as to bear on the upper edges of the scrapers and transmit the weight of the platform A with its attached parts to the scrapers, the arms F' being moved for-

ward according to the amount of increased pressure required.

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

1. The two scrapers D D', connected to the platform A, substantially as shown, in connection with the arms F' F', all arranged substantially as and for the purpose herein set forth.

2. The adjustable wing or scraper D', constructed of two parts, *e e'*, connected by a joint, *f*, and used with the bar F, or its equivalent, substantially as and for the purpose specified.

EDWARD H. MORE.

Witnesses:

CHARLES MOFFATT,
JOHN T. GRANT,
JOHN FERRIS.