

G. W. Thomas.

Road Scraper.

N^o 17,003.

Patented Apr. 7, 1857.

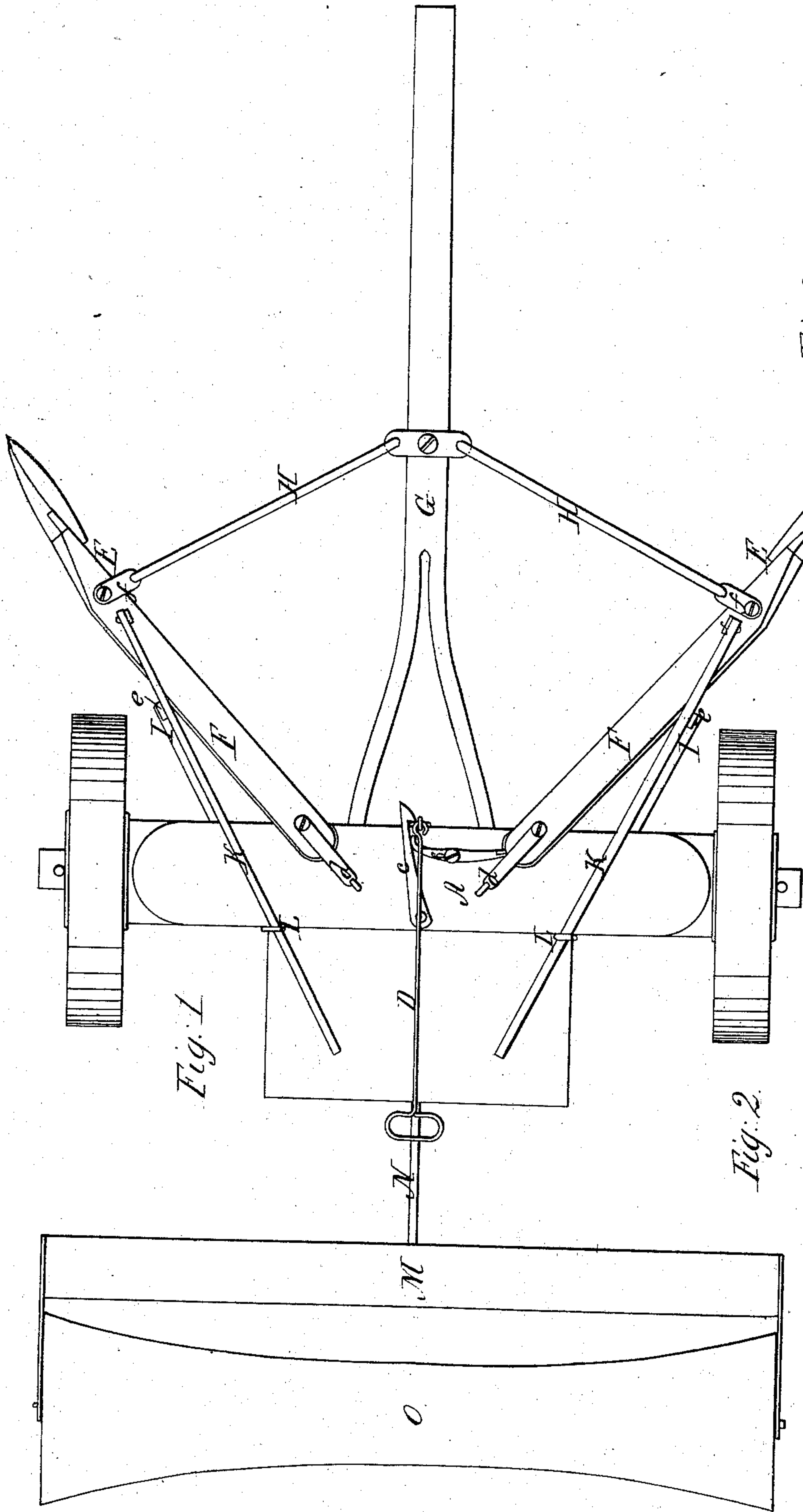
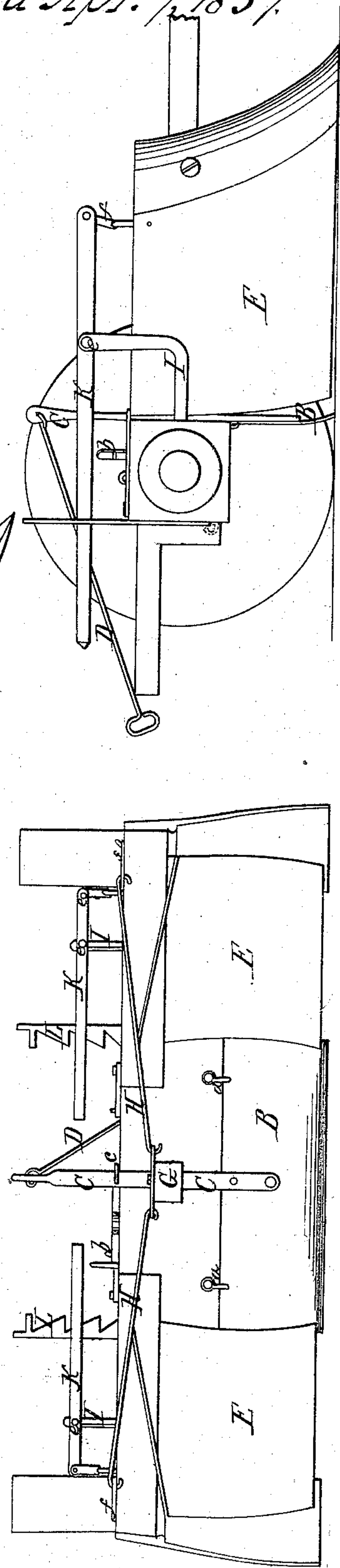


Fig. 3.



UNITED STATES PATENT OFFICE.

GEO. W. THOMAS, OF NORTH KINGSTON, RHODE ISLAND.

ROAD-SCRAPER.

Specification of Letters Patent No. 17,003, dated April 7, 1857.

To all whom it may concern:

Be it known that I, G. W. THOMAS, of Wickford, in the county of Washington and State of Rhode Island, have invented a new and useful Improvement in Road-Scrapers; and I 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, in which—

Figure 1, represents a plan of my road scraper; Fig. 2, a front elevation of the same and Fig. 3, a side elevation, with one wheel removed.

The nature of my improvement consists in so arranging adjustable side scrapers, that when used in connection with a front release scraper, they will give simultaneously with the operation of scraping, a curved or convex form to the road for the purpose of affording to it a natural drainage.

To enable others skilled in the art to make, construct and use my improved scrapers, I will proceed to describe its construction and operation.

To the axle (A,) and which serves as the main frame of the machine is secured the front scraper (B,) by means of hinged joints (a); upon the front of this scraper is secured a bar or rod (C,) to which is attached a hand rod (D) through which the driver is enabled to adjust the scraper, after it has been released for the purpose of depositing the dirt or mud in a rut or gulley or elsewhere, there being a catch or clutch (c) to retain the scraper in its working condition; when much dirt or mud has accumulated in front of this scraper, it is released, by means of the release lever (b), the latter disengaging the clutch (c) from the bar (C), which permits the scraper to turn on its hinge and override the matter collected. To the axle (A) are also secured two adjustable side scrapers (E) by means of hinged joints (d); these scrapers are set at an angle to the axle so as to throw the dirt inward instead of outward, and so hung by the joints as to form or give to the road an inclined surface, that is to say, to throw the dirt inward toward the center of the road, so as to raise it higher in the middle than at the sides. The inclination of these sides being regulated by means of le-

vers (K) which raise and lower the scrapers as required; the levers after they have been adjusted being retained in that position by means of ratchets (L) secured to the rear side of the axle; the fulcra (e) of the levers being formed by curved rods or standards secured to the front side of the axle.

On the upper side of the arms (F) to which the side scrapers are attached, are secured or mounted links (f) having a hole in them into which is passed the bent end of brace rods (H) in order to steady the scrapers, the front ends of these rods being pivoted on the tongue (G) of the machine. To the rear of the axle is attached the frame (M) of a concave or double conical roller (O) by means of a connecting rod (N) in any suitable manner.

In operating the scraper it will be perceived that the weight of the earth and rubbish will hold down the side scrapers to their work, while the lever (K) will prevent them from scraping deeper than is required by means of the rack (L). In the event of an obstacle such as a rock intervening, the scrapers are enabled to override it by means of their hinged joints. The side scrapers are so arranged as to throw the earth and rubbish inward toward the middle of the road so as to raise it higher than at the sides for the purpose of giving to it a convex form, thus affording a natural drainage to the road. But should too much dirt accumulate before the front scrapers then by turning the release lever (b) it will force the clutch (c) back and thus release the bar (C) of the front scraper and enable it to override the accumulated dirt; this done, the driver pulls the rod (D) toward him which brings the scraper again into position and then locks the clutch (c) over the bar thus putting it in order to proceed with the work.

When it is desired to increase or diminish the convexity of the road, the side scrapers are adjusted to the required height by means of the levers (K) and racks (L); the road as it is scraped being pressed by the heavy concave or double conical roller (O), thus imparting to it a smooth and firm finish, which materially increases its capacity to turn the water.

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

The adjustable side scrapers (E) in combination with the front release scrapers (B), when so arranged as to throw the dirt inwardly toward the center of the road and
5 in a crowning form for the purpose of giving a natural drainage to the road, as set forth.

In testimony whereof I hereunto subscribe my name.

GEORGE W. THOMAS.

In presence of—

ARTHUR C. WATKINS,
W. F. PAGETT.