

(No Model.)

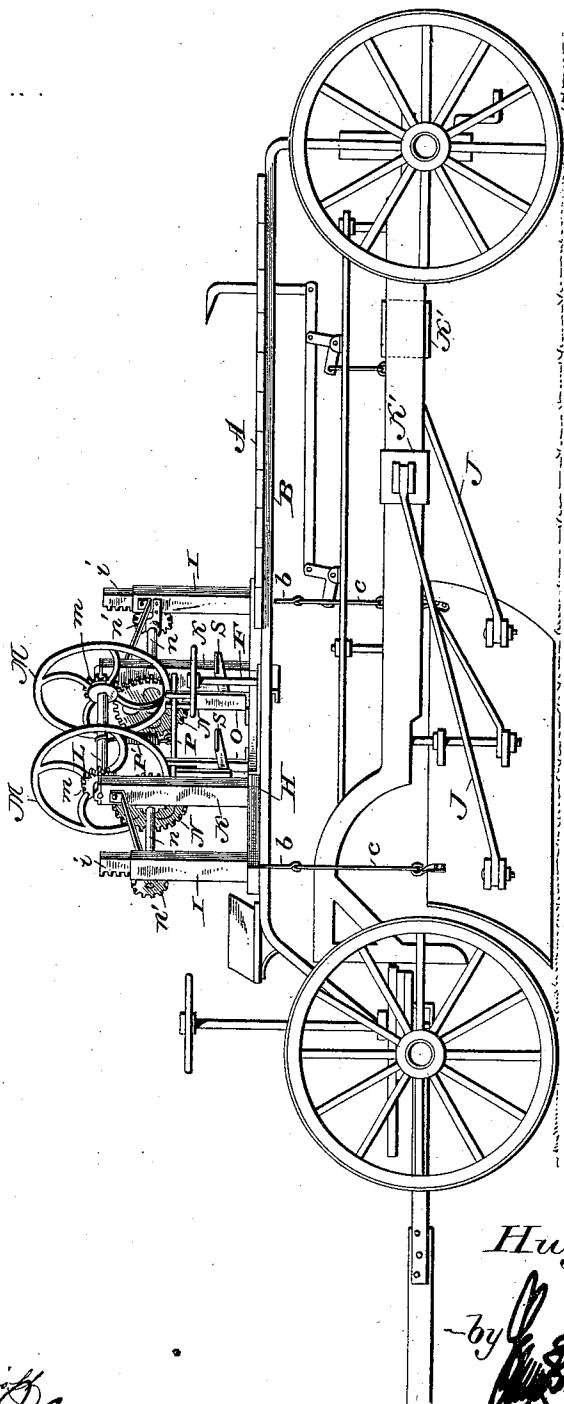
2 Sheets—Sheet 1.

H. O'HARE.
ROAD SCRAPER.

No. 466,291.

Patented Dec. 29, 1891.

Fig. 1.



Witnesses
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by *[Signature]*
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(No Model.)

2 Sheets—Sheet 2.

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Fig. 2.

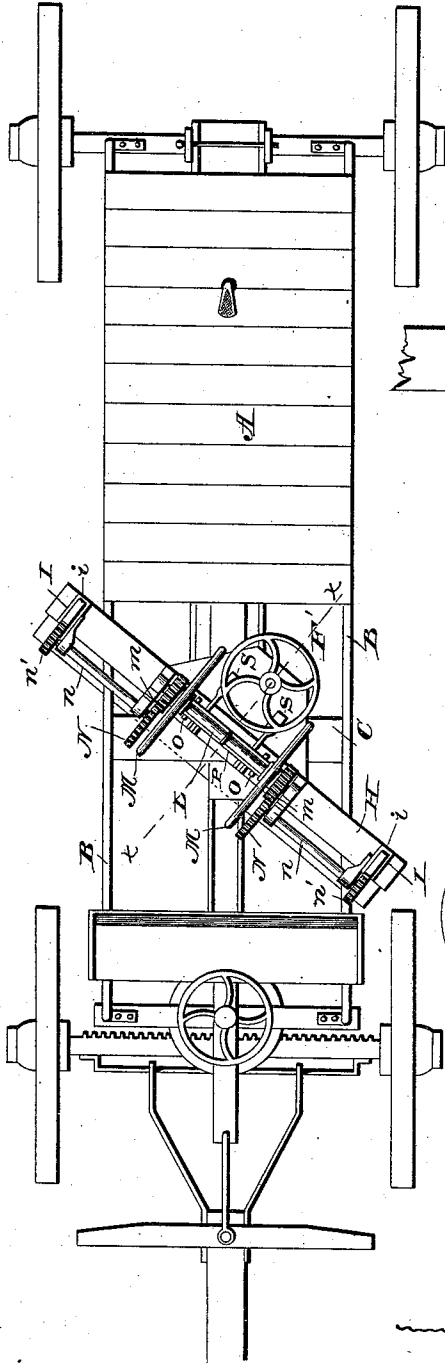


Fig. 4.

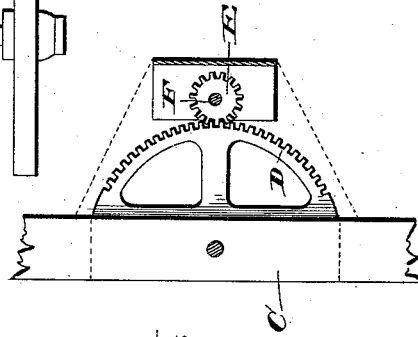
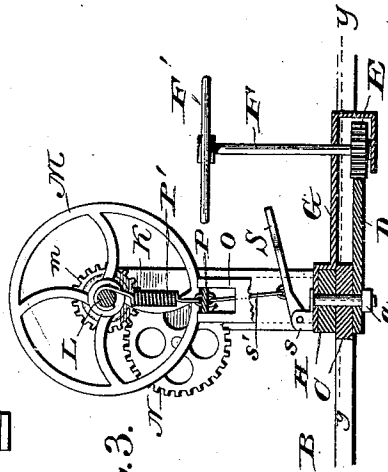
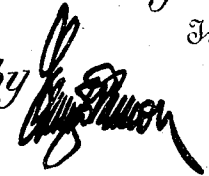


Fig. 3.



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UNITED STATES PATENT OFFICE.

HUGH O'HARE, OF MOUNT PLEASANT, IOWA, ASSIGNOR TO JOHN F. LEECH,
OF SAME PLACE.

ROAD-SCRAPER.

SPECIFICATION forming part of Letters Patent No. 466,291, dated December 29, 1891.

Application filed February 5, 1891. Serial No. 380,369. (No model.)

To all whom it may concern:

Be it known that I, HUGH O'HARE, a citizen of the United States of America, residing at Mount Pleasant, in the county of Henry and State of Iowa, 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

15 This invention relates to improvements in road-scrapers.

The object of the invention is to provide a simple and effective device for adjusting the scraper-blade; and it consists in the construction and combination of the parts, as will be hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a side view of a road-scraper constructed in accordance with my invention. Fig. 2 is a plan view. Fig. 3 is a sectional view through the line *x x* of Fig. 2. Fig. 4 is a sectional view through the line *y y* of Fig. 3.

25 The main frame of the road-scraper to which my improvements are applied is constructed substantially as shown and described in the patent issued to me August 26, 1890, No. 435,365, and in the present instance I provide an improved means for adjusting the scraper-blade both vertically and laterally.

To the beams B of the main frame is secured a floor or platform A, upon which the person having the direct control of the scraper-blade stands, and in front of this platform is rigidly secured a beam C, from which projects a segmental rack D, with which a pinion E on the lower end of the hand-operated shaft F engages, said shaft being maintained in a vertical position by bearings in the plate G, rigidly attached to and extending from the pivoted cross-beam H. This cross-beam extends beyond the beams B B and is provided at or near its outer ends with hollow uprights I I, the upper portion of the front wall of each being cut away, so that pinions *n'*, mounted

upon horizontal shafts, may engage with rack-bars *i*, located within said uprights. To the lower ends of the rack-bars *i* are secured rods *b b*, having eyes with which the links *c c* engage, said links connecting with the scraper-blade, which is centrally pivoted to the frame, as shown. The beam H also carries solid standards or uprights K K, to the upper ends of which is rigidly secured a shaft L, upon which are loosely mounted hand-wheels M, said hand-wheels carrying pinions *m*, these pinions meshing with gear-wheels N N, mounted on the shafts *n*, which carry the pinions *n'*, hereinbefore referred to. The beam H is also provided between the standards K K with uprights O, the upper ends of which are bifurcated for the reception of a cross-bar P, said cross-bar being connected to and drawn toward the fixed shaft L by a spring P', attached to said fixed shaft and to the center portion of the cross-bar P, thus holding said cross-bar in contact with the periphery of the hand-wheels M to serve as a brake therefor. Between the uprights O and standards K are secured bearings *s* for foot-levers S, said foot-levers having attached thereto links *s'*, which are attached to the brake-bar P, so that by depressing said levers the brake-bar can be lowered out of contact with the periphery of the hand-wheels.

The shaft F, carrying the pinion E, is provided with a hand-wheel F', which is preferably located immediately to the rear of the hand-wheels M and slightly below the same.

From the construction hereinbefore described it will be noted that when it is desired to raise the scraper-blade it can be done by turning both the hand-wheels M M, the operator placing his feet upon the foot-pedals S, so as to depress the brake-bar P. Should it be desired to raise or lower one end of the scraper, the hand-wheel nearest said end is turned, the corresponding foot-pedal S being depressed to take the brake-bar off of said hand-wheel while it remains upon the other one. The angle of the beam H and the scraper-frame can be adjusted with respect to the frame by the hand-wheel F', attached to the shaft F, the pinion on said shaft engaging with a segment D; but before such an adjustment is made the catch-plate should be re-

leased, so that the slides K', to which the connecting-rods J are attached, will be released and permitted to move, said slides being locked, as shown in my prior patent referred to. The brake-bar P, which contacts with the peripheries of the hand-wheels M, may have a projection formed thereon, which engages with notches in the wheels to more securely hold them locked when the brake-bar is in engagement therewith.

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

1. In a ditching-machine, the combination of a main frame having a cross-bar rigidly secured thereto, said cross-bar carrying a toothed segment, a frame pivotally connected to the main frame and provided with an adjustable scraper, said pivoted frame carrying a pinion which meshes with the teeth of the segment, together with vertical rack-bars depending from the pivoted frame and connected to the scraper, and means for raising and lowering said rack-bars and locking them in position, substantially as set forth.

2. In a road-scraper, the combination of a pivoted beam H, provided with hollow uprights I, central standards K, bifurcated standards O, together with rack-bars i, connected to the scraper by a link c, horizontal shafts carrying gear-wheels N and pinions n', hand-wheels loosely mounted on a shaft carried by the standards K, said hand-wheels having pinions m, a brake-bar P, located between the furcated portions of the uprights O, and a spring p' for holding the brake-bar against the periphery of the hand-wheels, and independent foot-levers connected to the ends of the brake-bars, substantially as set forth.

3. In a ditching-machine, the combination,

with the front and rear axles, of a supporting-frame connected to said axles and provided with a frame to which a scraper is adjustably secured, a toothed segment rigidly secured to the main frame, with which a pinion carried by the supplemental frame meshes, said supplemental frame being pivoted to the main frame and provided with a hand-wheel for turning the pinion, together with hollow standards carried by the pivoted frame and inclosing rack-bars, means for raising and lowering said rack-bars, the lower ends of the rack-bars having eyes with which links engage, the other ends of said links connecting with the scraper-blade, substantially as shown, and for the purpose set forth.

4. In a road-scraper construction, substantially as shown, a rigid frame mounted upon axles and supporting an adjustable frame which has a scraper pivoted thereto, said adjustable frame having hollow standards through which rack-bars are adapted to pass, the rack-bars carrying links which connect with the scraper-blades at the upper edge thereof, bearings attached to the hollow standards and to central standards, said bearings supporting horizontal shafts having gear-wheels which mesh with the rack-bars and with pinions carried by the hand-wheels loosely mounted on a shaft, a brake-bar adapted to bear against each of the hand-wheels and having a foot-lever for operating the same, and a spring for holding the brake-bar against the hand-wheels, substantially as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

HUGH O'HARE.

Witnesses:

H. A. GEESEKA,
JOHN W. PALEN.