

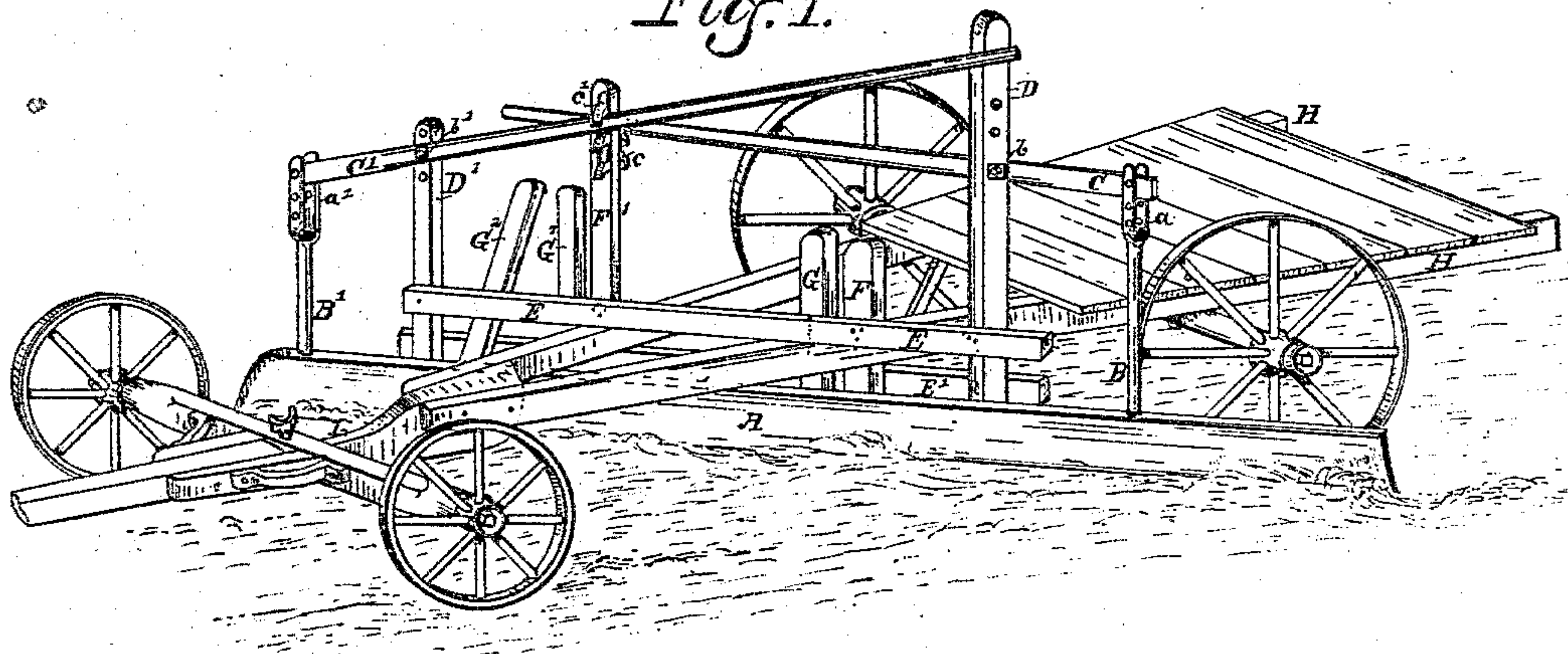
(No Model.)

P. RAAB.  
ROAD GRADER AND SCRAPER.

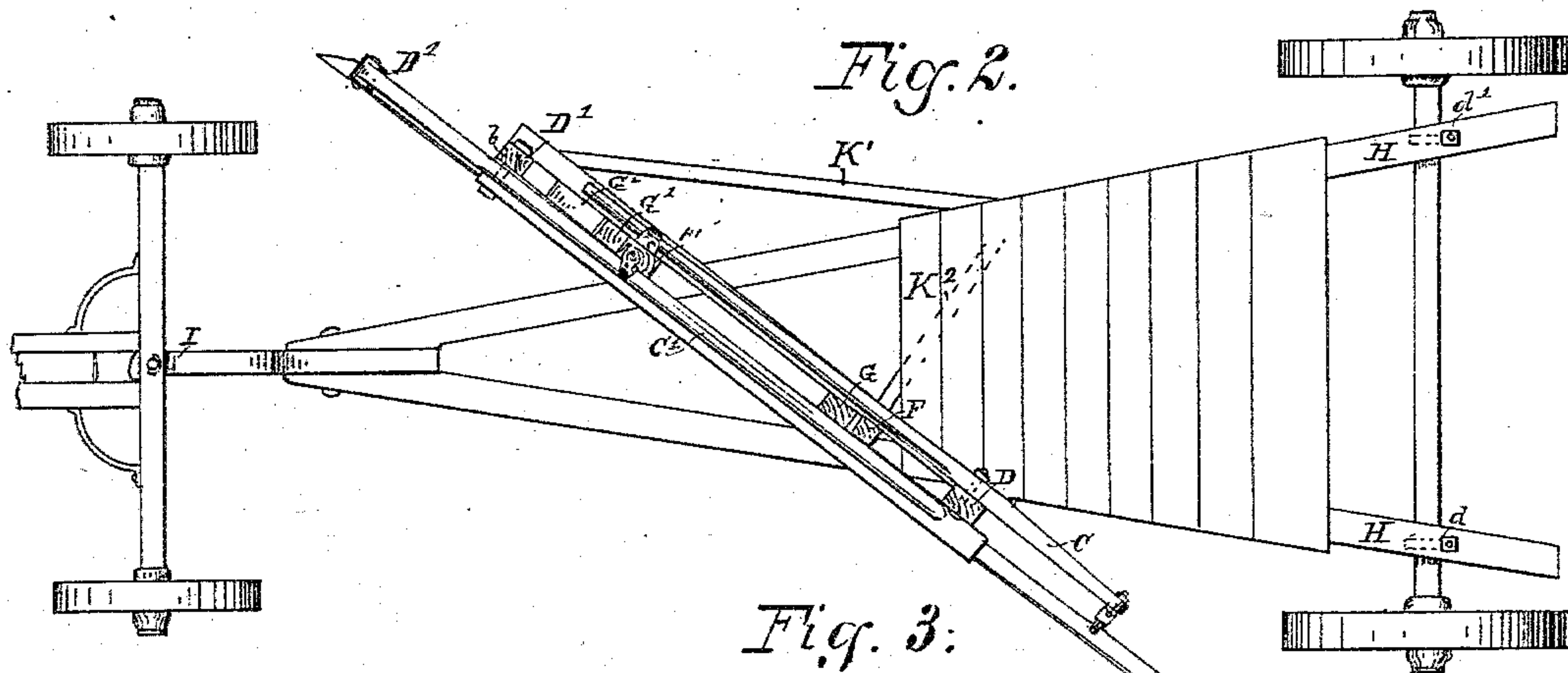
No. 288,261.

Patented Nov. 13, 1883.

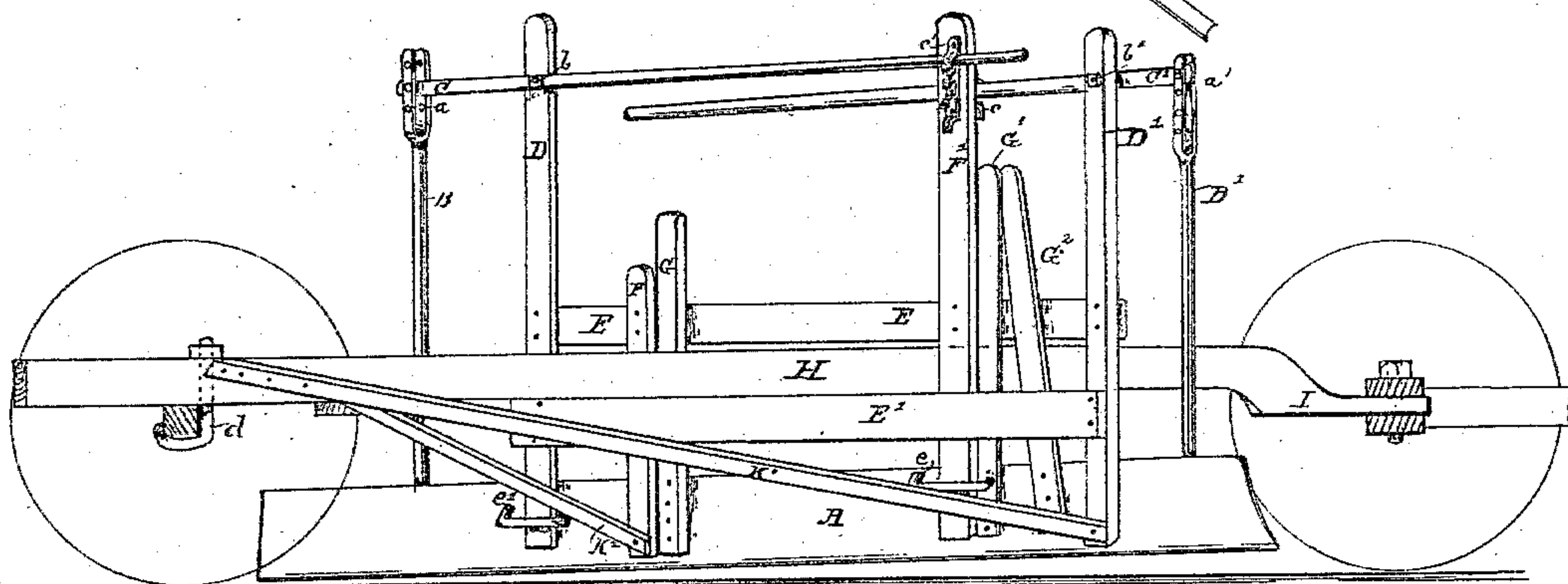
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



WITNESSES

Jacob W. Looper  
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INVENTOR

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# UNITED STATES PATENT OFFICE.

PETER RAAB, OF WARREN, MARION COUNTY, INDIANA.

## ROAD GRADER AND SCRAPER.

SPECIFICATION forming part of Letters Patent No. 288,261, dated November 13, 1883.

Application filed May 18, 1882. (No model.)

*To all whom it may concern:*

Be it known that I, PETER RAAB, of Warren township, Marion county, Indiana, have invented a new and useful Improvement in Road Graders and Scrapers, of which the following is a description, reference being had to the accompanying drawings, in the several figures of which like letters indicate like parts.

My invention has for its object the construction of a machine for scraping and grading highways and making open ditches, wherein the scraper is so attached to its supporting frame-work that it can readily be raised or lowered at either end, as desired, and, further, so that the scraper, together with its supporting-frame, can be readily attached to and used with ordinary wagon-gear.

In the drawings, Figure 1 is a perspective view of my machine. Fig. 2 is a top view, and Fig. 3 a side view with cross-section of the wagon-axles.

The frame-work in which the scraper and its levers and guides move is of triangular form, and the front end enters the forward gear of the wagon, as shown at I, and is securely held by the king-bolt. The wide rear end of this frame rests upon the rear axle, and is held in place by curved clamps or hooks *d*, one of which passes under the axle on each side, and the upper end passes through the rear bars, H H, of the frames, and is threaded to receive a nut, which holds it in place.

The scraper A is attached at either end by rods B B' to levers or handles C C', which are respectively pivoted at *b b'* to the upright standards D D', which are in turn connected on either side by cross-pieces E E'. The standard D' is also secured to the triangular bed-frame by the brace K'. The upper ends of the rods B B' are bifurcated, and provided with aligned openings. The levers C C' are adjustably secured between the bifurcated ends of said rods, as shown in Figs. 1 and 3. The holes in said bifurcated ends receive the pins that secure the levers C C'. Between the standards D D' are two other uprights—one short, F, and one longer, F', on the latter of which is a series of catches to hold the levers in place. These uprights F F' are fastened to the cross-pieces E E', and pass up between them, and a brace, K<sup>2</sup>, connects the piece F

with the triangular bed-frame. *e* and *e'* are staples, which serve to guide the movement of the scraper upon the uprights D and F' as it is raised and lowered, and the short uprights G G' G<sup>2</sup>, which are secured to the scraper, also serve as guides for the latter in its vertical adjustment and as straps to prevent it from shifting diagonally endwise while in operation. The rear portion of the bed-frame is floored over, to give the operator standing-room as he operates the machine; and the bed-frame is still further secured to the wagon by a bolt passing through the hounds of the wagon and a cross-piece beneath the floor. (Not shown.)

My machine operates as follows: Power being applied to the front end of the wagon, it moves forward, carrying the scraper, which is suspended diagonally across the track, as shown in Fig. 2. The operator raises or lowers the scraper at either end by means of the levers C C', and secures them in place by the catches *c c'* upon the upright F'. If an obstruction is met with, and the scraper is thrown up, the lever handles are pressed down and freed from the catches, while the adjustable frame-work allows free play and prevents breakage.

The operation is simple and easily understood, and after repeated trials I have found that my machine will accomplish more and better work than any one now in use. One of its chief advantages is that it can be used with any farm-wagon gear, and needs no separate wheels of its own. Four bolts will secure it firmly to the wagon-gear.

What I claim, and desire to secure by Letters Patent, is—

1. In a road scraper and grader, the standards D, D', and F', suitably secured by cross-bar to the running-gear of a vehicle, in combination with the scraper A, suspended by rods B B', jointed to levers C C', said levers being pivoted to the standards D D', and secured in the catches *c c'* on standard F', whereby the vertical displacement of the scraper disengages the lever-handles and permits the scraper to ride over the obstacle, substantially as specified.

2. In a road scraper and grader, the standards D, D', and F', suitably secured by cross-bar or bars to the running-gear of a vehicle,



in combination with the scraper A, provided with guide-staples *e e'*, said scraper being suspended by rods B B', jointed to lavers C C', said levers being pivoted to standards D D', substantially as described, and for the purposes set forth.

3. In a road scraper and grader, the standards D, D', and F', suitably secured by cross-bar to the running-gear of a vehicle, in combination with the scraper A, provided with guide-staples *e e'*, said scraper being suspended by rods B B', jointed to levers C C', said levers being pivoted to standards D D', and the handles thereof secured in the catches *e e'* on the standard F', substantially as described, and for the purposes set forth.

4. In a road scraper and grader, the standards D, D', and F', suitably secured by cross-

bar to the running-gear of a vehicle, in combination with the scraper A, provided with guide-staples *e e'*, and upright guides G G' G<sup>2</sup>, said scraper being suspended and operated in the manner and for the purposes specified.

5. In a road scraper and grader, the standards D, D', F, and F', secured by cross-bar to the running-gear of a vehicle, and the brace-rods K' K<sup>2</sup>, in combination with the scraper A, rods B B', and pivoted levers C C<sup>2</sup>, substantially as described, and for the purposes set forth.

In witness whereof I have hereunto set my hand at Indianapolis, this 13th day of May, 1882.

Witnesses:

C. P. JACOBS,  
WM. DETRICK.

PETER RAAB.