(No Model.)

J. C. STEELE.

ROAD PLANER.

No. 573,243. Patented Dec. 15, 1896.

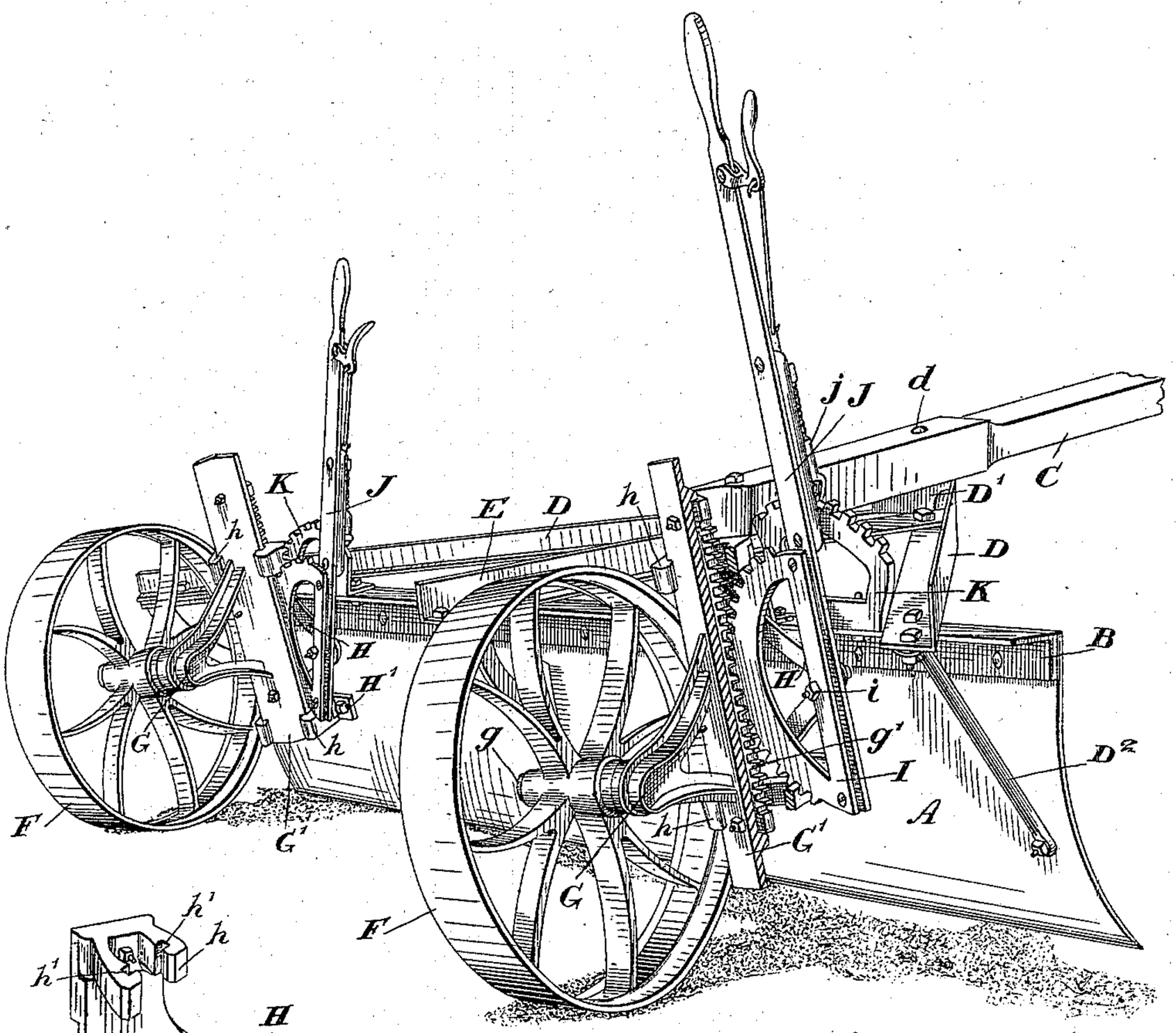

Fig. 1.

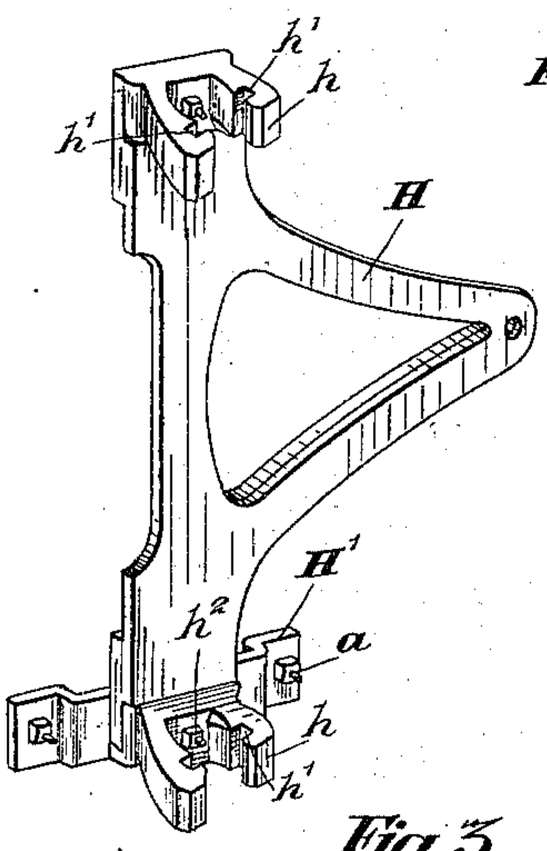

Fig. 3.

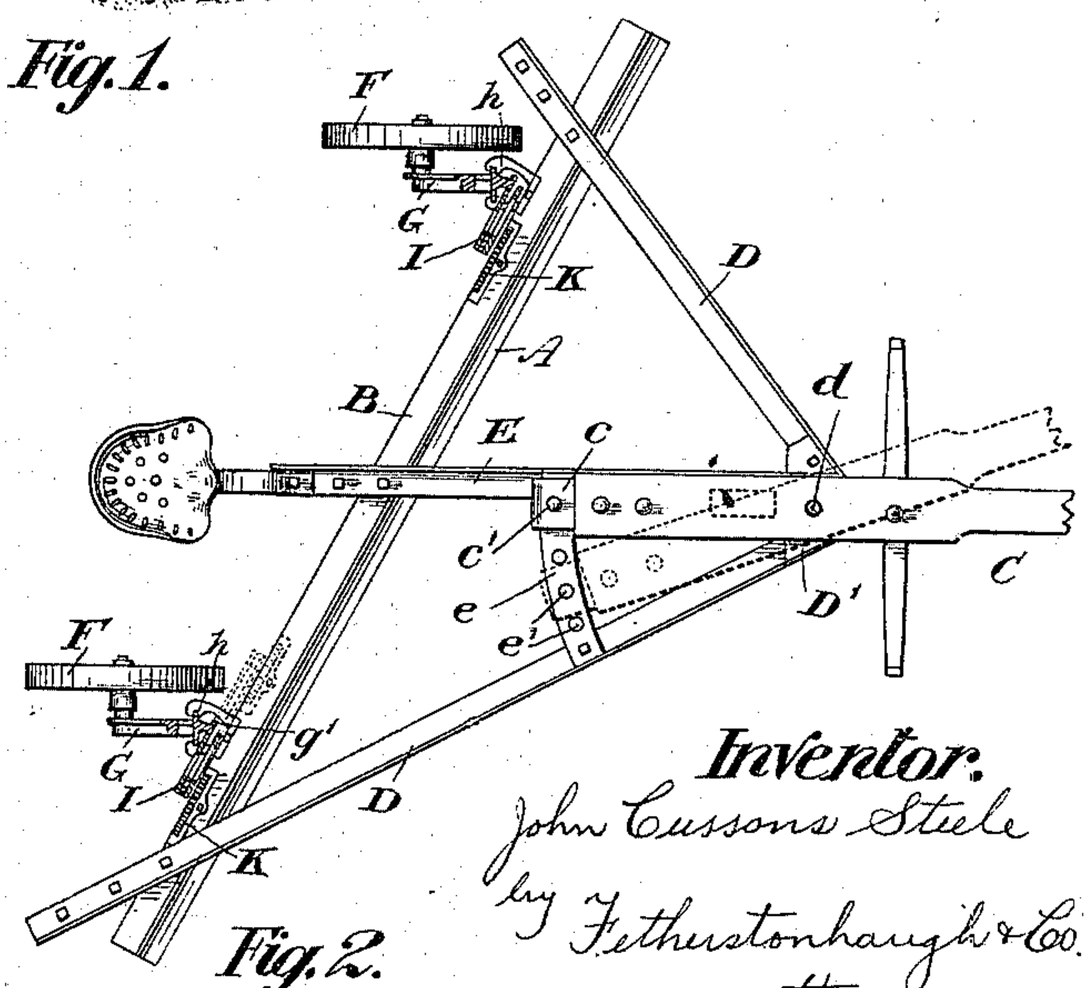

Fig. 2.

Witnesses.
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UNITED STATES PATENT OFFICE.

JOHN CUSSONS STEELE, OF VAUGHAN, CANADA, ASSIGNOR OF ONE-HALF TO ALEXANDER H. DIXON, OF TORONTO, CANADA.

ROAD-PLANER.

SPECIFICATION forming part of Letters Patent No. 573,243, dated December 15, 1896.

Application filed June 15, 1896. Serial No. 595,614. (No model.)

To all whom it may concern:

Be it known that I, JOHN CUSSONS STEELE, hotel-keeper, of the township of Vaughan, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Road-Planers, of which the following is a specification.

My invention relates to improvements in road-planers patented to me in Canada under No. 27,375 on the 9th day of August, 1887, and in the United States under No. 379,829 on the 20th day of March, 1888; and the object of the invention is to improve the construction of the planer, so that the plane-iron may be raised or lowered at each end conveniently and with facility by the driver of the machine and with a minimum amount of power; and it consists, essentially, in journaling the carrying-wheel at each side and rear of the machine in a bracket forming part of a rack, which is suitably held in guideways and adjusted vertically therein by means of a toothed quadrant, to which a lever is secured, the lever being provided with a spring-plunger designed to coact with a toothed quadrant secured to the top of the plane-iron, the parts being otherwise constructed as hereinafter more particularly explained.

Figure 1 is a perspective rear view of a road-planer constructed in accordance with my invention, portion of one of the racks being broken away to exhibit the construction. Fig. 2 is a plan. Fig. 3 is a detail of the guiding-bracket for the rack.

In the drawings like letters of reference indicate corresponding parts in each figure.

A is the plane-iron; B, the angle-iron on the top thereof, which is secured at the back of the plane-iron.

C is a tongue; D, the angle-braces, which are secured together at the front by the bracket D′ and at the rear are bolted to the angle-iron B.

D^2 are supplemental braces, which extend from the rear end of the angle-braces D to the plane-iron.

E is the center reach, which is secured at the front of the bracket D′ and at the rear to the angle-iron B. The tongue C is pivoted on the bolt *d* and extends rearwardly to the quadrantal plate *e*, which is provided with a series of holes *e′*. The rear of the tongue is provided with a plate *c*, which is secured to the tongue, and is provided with a bolt *c′*, which is designed to extend through the plate *c* and in one of the holes *e′* in the quadrantal plate *e*, as may be desired, this depending upon the direction of the draft which it is desired to give the plane-iron.

F are the supporting or carrying wheels for the planer. The wheels F are journaled on the studs *g*, attached to or forming part of the bracket G, which itself forms part of the rack-bar G′. The rack-bar G′ is formed with a double rack *g′ g′*, one at each side.

H is a supporting-bracket which is provided with the guiding-wings *h*, angularly formed and provided with opposite guiding-grooves *h′ h′* to receive the edges of the rack-bar G. There is a guiding-wing *h* at the top and bottom of each bracket H, such wings being securely bolted thereto, as indicated. Each supporting-bracket H is secured to the plane-iron A by a metal strap H′, connected at the bottom of the supporting-bracket by the bolt h^2, securing the wings *h* in position, and to the plane-iron by the bolts *a*.

I is a toothed quadrant, which has secured to it a lever J, such quadrant and lever being pivoted on the bolt *i*, extending through the central pivot of the quadrant and the bracket H.

K is a toothed quadrant securely bolted to the top of the angle-iron B. The lever J is provided with a spring-plunger *j*, which is operated in the usual manner for such spring-plungers, as indicated, and is designed to be raised and lowered from engagement with the teeth, so that the quadrant I may be turned and thereby vertically adjust the rack G in its guiding-wings *h*. It is of course necessary that the quadrant K is concentric to the bolt *i*.

It will be noticed that the more remote wheel is shown located to the outside of the rack-bar G′ instead of to the inside as the near wheel, thus showing that the brackets, the levers, racks, and quadrants are interchangeable to suit the convenience of the driver of the machine.

It will also be noticed that the levers are and may be arranged even more closely in

proximity to the driver's seat, which is shown in Fig. 2.

By means of such levers and quadrants it will be seen that the raising of the planer on each side may be accomplished more conveniently and easily and with a minimum amount of power as compared with the manner in which the planer is raised in my former machine.

What I claim as my invention is—

1. In combination in a road-planer, the plane-iron, the bracket H secured thereto, and extending parallel therewith, the supporting-wheels, the movable supports therefor and the laterally-extending guides for said supports projecting from said brackets, substantially as described.

2. In combination in a road-planer, the plane-iron, the bracket secured thereto parallel therewith, the revoluble quadrant with means for operating the same secured to said bracket parallel therewith, the stationary quadrant, means carried by said operating means engaging said stationary quadrant, the guides carried by said bracket, the rack engaging said revoluble quadrant movable in said guides, the laterally-extending bracket projecting from said rack, the wheel and the journal therefor projecting laterally from the said bracket, substantially as described.

3. In a road-planer, the combination with the plane-iron suitably formed, secured to a suitable frame, and placed at an angle therewith, of the carrying-wheels journaled in studs forming part of a bracket attached to or forming part of a vertical rack, a supporting-bracket, a strap for securing it to the plane-iron, recessed guiding-wings with oppositely-set grooves designed to receive the rack and means for raising the rack vertically within the guiding-wings as and for the purpose specified.

JOHN CUSSONS STEELE.

Witnesses:
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