

M. AMMEL.  
Road-Graders.

No. 204.699.

Patented June 11, 1878.

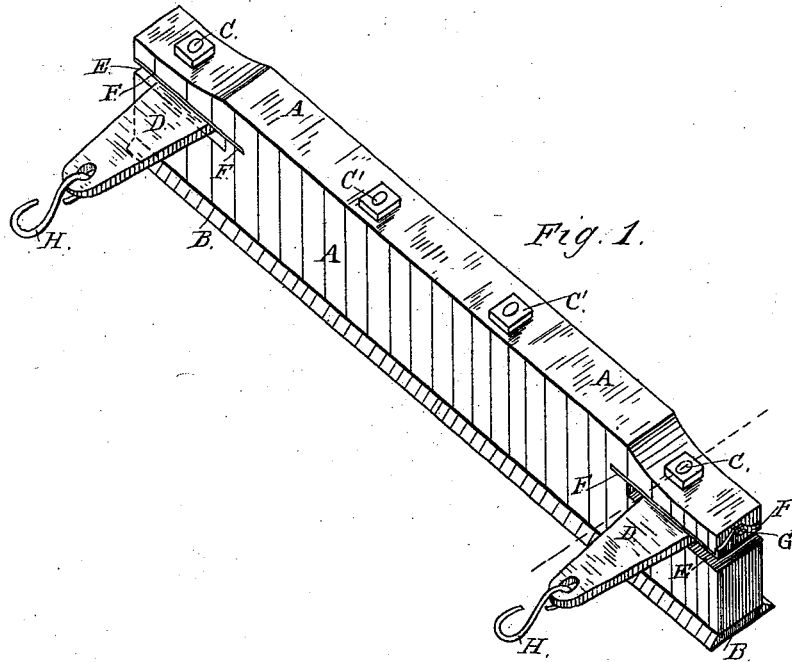


Fig. 1.

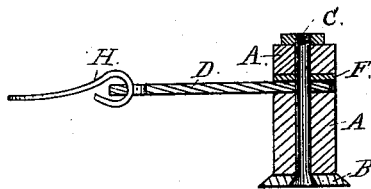


Fig. 2.

Attest:  
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# UNITED STATES PATENT OFFICE.

MARTIN AMMEL, OF BELLEVILLE, ILLINOIS.

## IMPROVEMENT IN ROAD-GRADERS.

Specification forming part of Letters Patent No. 204,699, dated June 11, 1878; application filed May 10, 1878.

*To all whom it may concern:*

Be it known that I, MARTIN AMMEL, of Belleville, in the county of St. Clair and State of Illinois, have invented a certain new and Improved Road-Grader, of which the following is a specification:

My road-grader is constructed with a stock, preferably of wood, with a flat sole of metal, and with draw-bars swinging on vertical bolts near the ends, said draw-bars being reversible, so as to adapt the machine to be drawn in either direction.

In the accompanying drawing, Figure 1 is a perspective view of my road-grader. Fig. 2 is a vertical transverse section on the line 2 2, Fig. 1.

A represents a stock, preferably of hard wood. B is a flat sole applied to the lower edge of the stock A, and secured by any necessary number of bolts, C C'. The sole B is constructed of either hard or soft metal, and with either square or beveled edges, as preferred.

In the present illustration I have shown it with edges beveled downward, so as to form a flat bottom. A sole thus formed of steel affords an effective and lasting cutting-edge.

D D are draw-bars extending horizontally from horizontal notches or cavities E E, prepared for them in the ends of the stock A, and secured by the end bolts C C', by which the sole is fastened to the stock. F F are friction-plates to sustain the vertical pressure and

wear of the draw-bars D D. The said friction-plates may be let into the stock at their inner ends, and secured at their outer ends by screws G or other adequate means. H H are hooks for the attachment of the teams.

The draw-bars D D are of adequate length to maintain the scraper in its proper vertical or nearly vertical position under the draft of the teams, and have the requisite bearing within the recesses E E for this purpose. The recesses extend to the ends of the stock, thus permitting the draw-bars to be swung round as required, so that the scraper may be drawn in the opposite direction from that in which it has been going by simply swinging around the teams.

My improved road-grader is exceedingly simple and durable, and very effective in operation. It entirely dispenses with platform, levers, caster-wheels, slides, and other complications common in the best scrapers heretofore in use.

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

The improved road-grader constructed with stock A, shoe B, and reversible draw-bars D D, substantially as herein shown and specified.

MARTIN AMMEL.

Witnesses:

H. M. GUNDLACH,  
H. E. SCHRADER.