

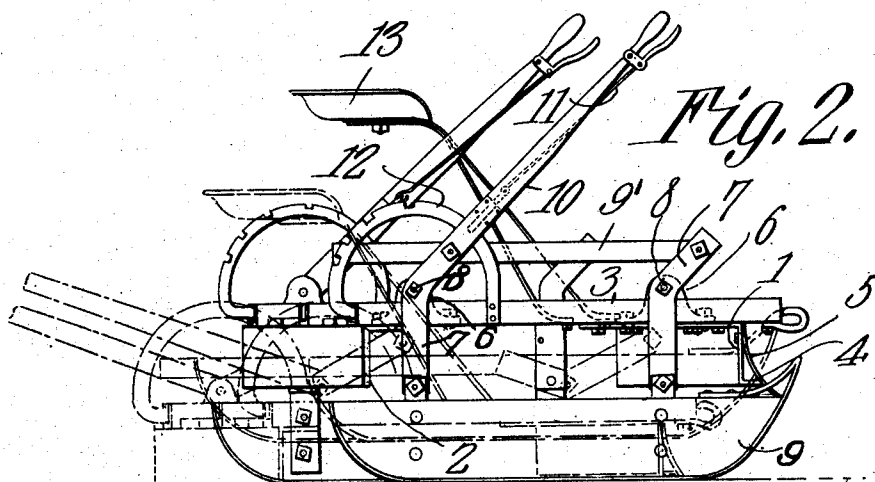
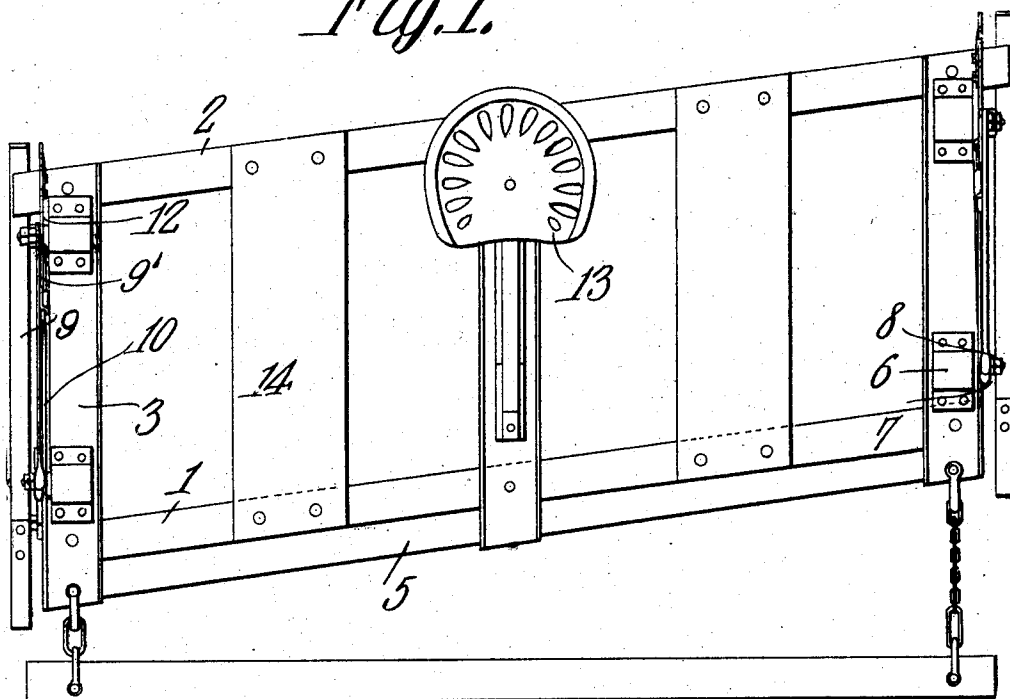
No. 878,643.

PATENTED FEB. 11, 1908.

E. LEE.  
ROAD GRADER.

APPLICATION FILED MAY 29, 1907.

*Fig. 1.*



WITNESSES:

*E. J. Stewart*  
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# UNITED STATES PATENT OFFICE.

ERNEST LEE, OF SPRINGFIELD, ILLINOIS.

## ROAD-GRADER.

No. 878,643.

Specification of Letters Patent.

Patented Feb. 11, 1908.

Application filed May 29, 1907. Serial No. 376,337.

*To all whom it may concern:*

Be it known that I, ERNEST LEE, a citizen of the United States, residing at Springfield, in the county of Sangamon and State of Illinois, have invented a new and useful Road-Grader; of which the following is a specification.

This invention has relation to road graders and it consists in the novel construction and arrangement of its parts as hereinafter shown and described.

The object of the invention is to provide a road grader of simple and durable construction and which is provided with a set of runners mounted upon bell crank levers and means for operating the levers whereby the runners may be brought in contact with the ground and the grader proper elevated above the surface of the ground, and by means of which the grader may be readily transported from point to point without operating upon the surface of the ground.

In the accompanying drawing:—Figure 1 is a top plan view of the grader, and Fig. 2 is an end elevation of the same, the heavy lines showing the positions of the parts when the runners are upon the ground and the dotted lines showing their positions when the runners are elevated above the ground.

The grader consists of the front beam 1 and the rear beam 2 which are held in parallel relation to each other by the cross bars 3. The lower edge of the beam 1 is provided with a forwardly extending flange 4 and the curved plate 5 is riveted or otherwise attached to the beam 1 and bears against the edge of the flange 4. The concavity of the plate 5 is forwardly disposed. The end bars 3 are provided with bearings 6 and the bell crank levers 7 are provided with pins 8 which are journaled in the said bearings. The runners 9 are pivotally attached to the lower ends of the bell crank levers 7 and lie beyond the ends of the beams 1 and 2. The rod 9' is pivotally connected to the bell crank levers 7. The upper portions of the rear levers 7 are extended into the handles 10, each of which is provided with a spring actuated pawl 11. A gear segment 12 is mounted upon the bar 3 adjacent the handle 10 and is adapted to be engaged by the spring pawl 11 thereof. The operator's seat 13 is mounted upon the intermediate cross-bar 3 and the platform-boards 14 are located at each side of the seat 13 and

are attached at their ends to the beams 1 and 2.

The lower edges of the plate 5 and the beam 2 are adapted to engage the surface of a road and operate upon the same for the purpose of leveling the same. As the lower edge of the plate 5 is forwardly disposed it has a tendency to cleave the earth while the earth engaging portion of the beam 2 is vertically disposed and scrapes the surface of the road. When it is desired to transport the grader from one point to another without operating upon the surface of the road the handles 10 are swung so that the bell crank levers 7 are turned and the runners 9 are forced down into contact with the ground and the beams 1 and 2 and their attachments are elevated. The outer cross-bars 3 are provided with the clevises 15 to which the draft animals may be attached and the said animals may be so directed as to draw the implement along the road at a right angle to the same or at an acute or an obtuse angle as desired.

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

1. In a grader, a beam having a forwardly extending flange at its lower edge, a concaved plate attached to the beam and bearing against said flange and having its concaved side forwardly disposed.

2. A grader comprising beams, spaced bars connecting the same together, a set of levers fulcrumed upon each bar, a runner pivotally connecting with the levers of each set and means for swinging the levers of each set simultaneously.

3. A grader comprising beams, spaced bars connecting the beams together, a set of levers fulcrumed upon each bar, a runner pivotally connecting with the levers of each set, a rod pivotally connecting with the levers of each set, one lever of each set having a handle end and means for confining each set of levers in an adjusted position.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ERNEST LEE.

Witnesses:

GEO. TAYLOR,  
E. L. CHAPIN.