C. MAVES.

ROAD GRADING MACHINE.

APPLICATION FILED NOV. 6, 1911.

1,037,281.

Patented Sept. 3, 1912.

2 SHEETS—SHEET 1.

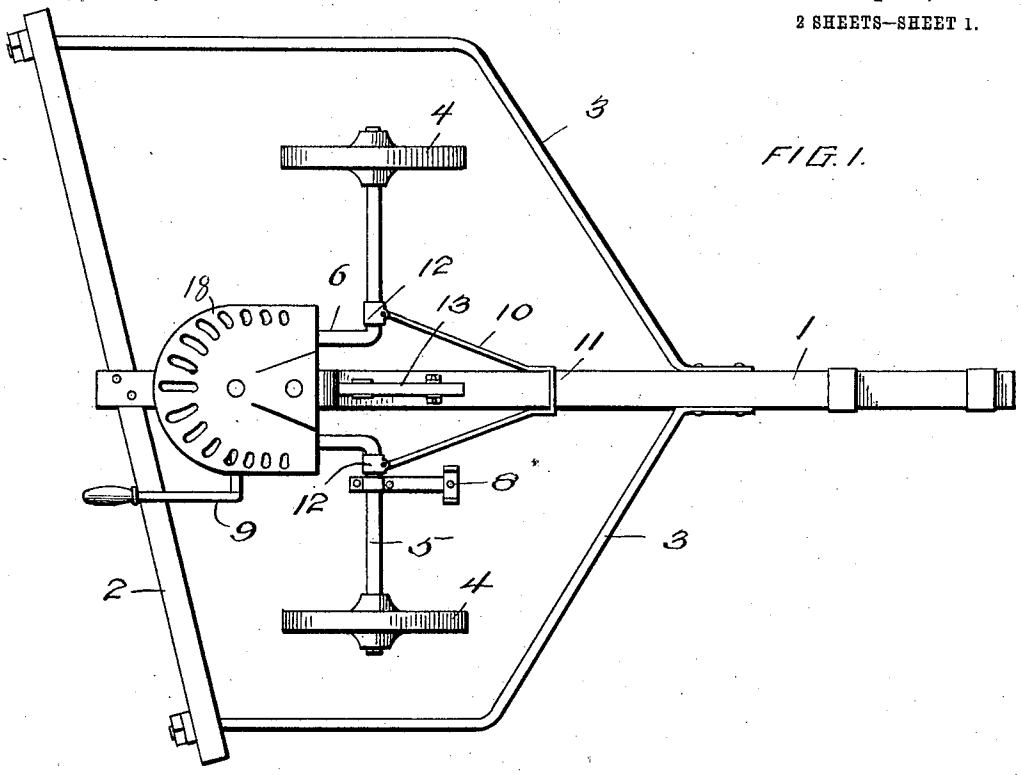

FIG. 1.

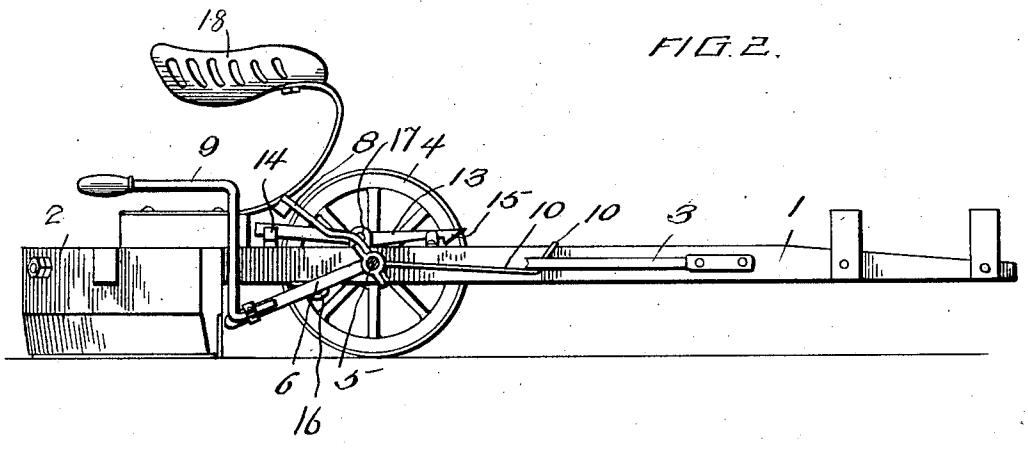

FIG. 2.

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2 SHEETS—SHEET 2.

FIG. 3.

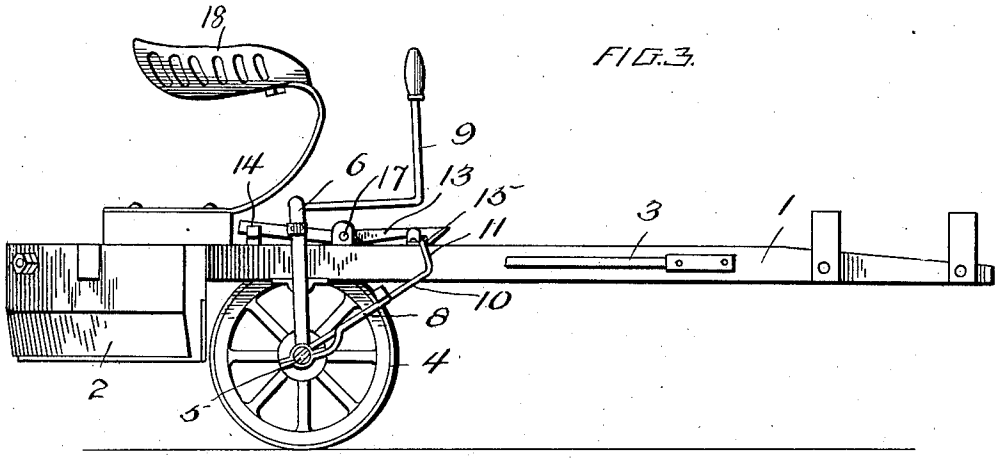
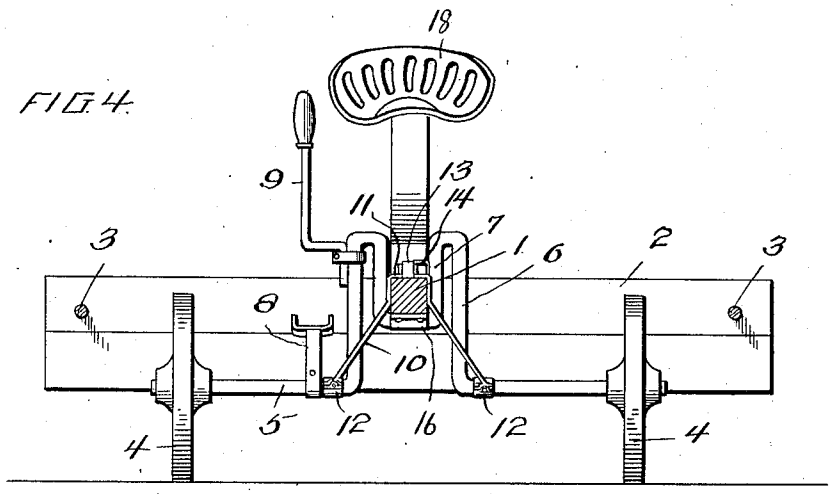


FIG. 4.



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ROAD-GRADING MACHINE.

1,037,281. Specification of Letters Patent. Patented Sept. 3, 1912.

Application filed November 6, 1911. Serial No. 658,900.

To all whom it may concern:

Be it known that I, CHRISTIAN MAVES, a citizen of the United States, residing at Davenport, in the county of Scott and State of Iowa, have invented certain new and useful Improvements in Road-Grading Machines; 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 pertains to make and use the same.

My invention has for its object to provide an improved road grading machine, and to this end it consists in the novel devices and combination of devices hereinafter described and defined in the claims.

The invention is illustrated in the following and accompanying drawings, in which like characters of reference indicate like parts throughout the several views.

Figure 1 is a plan view, Fig. 2 is a side view with one wheel and a part of the frame removed showing the scraper in working position, Fig. 3, the same with the scraper in elevated position, and Fig. 4 is a front elevation with the scraper in elevated position.

The pole of the machine is shown at 1, rigidly connected to the scraper 2 and securely held in position by the brackets 3, a pair of wheels 4 are suitably journaled on an axle 5, bent rectangularly midway of its length, to the general resemblance of the letter M and provided with a seat midway between the parallel projections 6, formed by the upbending of the axle 5 and situated at the base of the bend 7 of said axle. A foot lever 8 is rigidly attached to one of the straight projecting ends of the axle 5 at a point relatively near to the journal provided at the end thereof for the reception of the wheel and said lever is adapted to apply an impulse to said axle, concentrically with said wheel; a hand lever 9 is rigidly attached to the first rectangularly upbent portion of the axle and a brace 10 loosely secured to the axle at 12, passes above the pole 1, upon which it is slidably disposed as shown at 11. When at its rearmost position, the seat 11 of the brace 10, engages a notch 15 of the latch 13, pivoted to the pole at 17, from which latched position the brace may be released by pressure upon the end 14 of the latch. An ordinary seat 18 is mounted upon the pole 1 back of the wheels 4.

The operation of my improved device is as follows: When in working position, the parts are disposed as shown in Figs. 1 and 2, the scraper 2 being upon the ground and bearing the weight of the pole and the driver. The scraper is inclined horizontally to the roadway and soil loosened by action of the device is gradually delivered at the left of the driver occupying the seat as shown in the drawings. The wheels 4 in the positions shown in Figs. 1 and 2, have no part in supporting the scraper 2, which drags upon the ground, supporting the weight of the frame and the driver. When a slight obstruction, such as a rock or stump appears, the scraper 2 may be raised temporarily by pressure of the foot on the lever 8, by means of which pressure, the seat 16, in which is journaled a portion of the axle 5 eccentrically to the wheels 4, acts as a fulcrum to lift the scraper 2 off the ground or to so relax the pressure of the scraper upon the ground, that a slight obstruction can be readily passed over. When a greater obstruction is to be encountered, such as a bridge or a railroad crossing, the wheels 4 may be depressed by means of the hand lever 9 and the foot lever 8, after pressure upon the end 14 of the latch 13 the scraper may again be restored to its normal position upon the ground after such obstruction shall have been passed. In raising the scraper by means of the hand lever 9, this lever is displaced forwardly from the position shown in Fig. 2 and is caused to assume the position indicated in Fig. 3 the effect of this lever being similar to that of lever 8, except that greater leverage may be thereby exerted, because of its greater length and the rigid attachment to the projection 6 formed by the upbending of the axle 5. Because of its extensive sweep, a greater displacement of the wheels 4 and the axle 5 results and the wheels are by this means, brought to a position beneath and slightly to the rear of the driver's seat as shown in Fig. 3, when the pole 1 and the scraper 2 ride upon the wheels. The brace 10, sidably engaging the pole 1 in front of the axle 5, moves forwardly along pole 1, as the lever 9 is again brought to the position indicated in Fig. 2 and tends to give lateral stability to the device when the scraper is in elevated position.

Having thus fully described my invention, what I claim is—

1. In a road grading machine, the combination with a scraper blade of a pole

rigidly connected to said blade, crank axles pivoted to said pole and adjustable laterally therewith, wheels journaled on said crank axles, means for adjusting said axles in one fixed position, a brace slidably disposed on the pole and means for locking the brace to hold the wheels in their rearward adjustment and for supporting the scraper from contact with the ground.

2. In a road grading machine, a scraper blade, a beam rigidly connected to the upper central edge of said scraper, a bracket rigidly secured to the extremities of said blade and to the pole, an axle upbent to form an approximately M shaped seat for the pole, the upward projections of which tend to support the axle on the pole against vertical or lateral displacement, wheels journaled on the extremities of the axle and means for revolving the axle on said M shaped seat to bring the wheels in contact with the ground for the purpose of raising the scraper when not in use.

CHRISTIAN MAVES.

Witnesses:
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