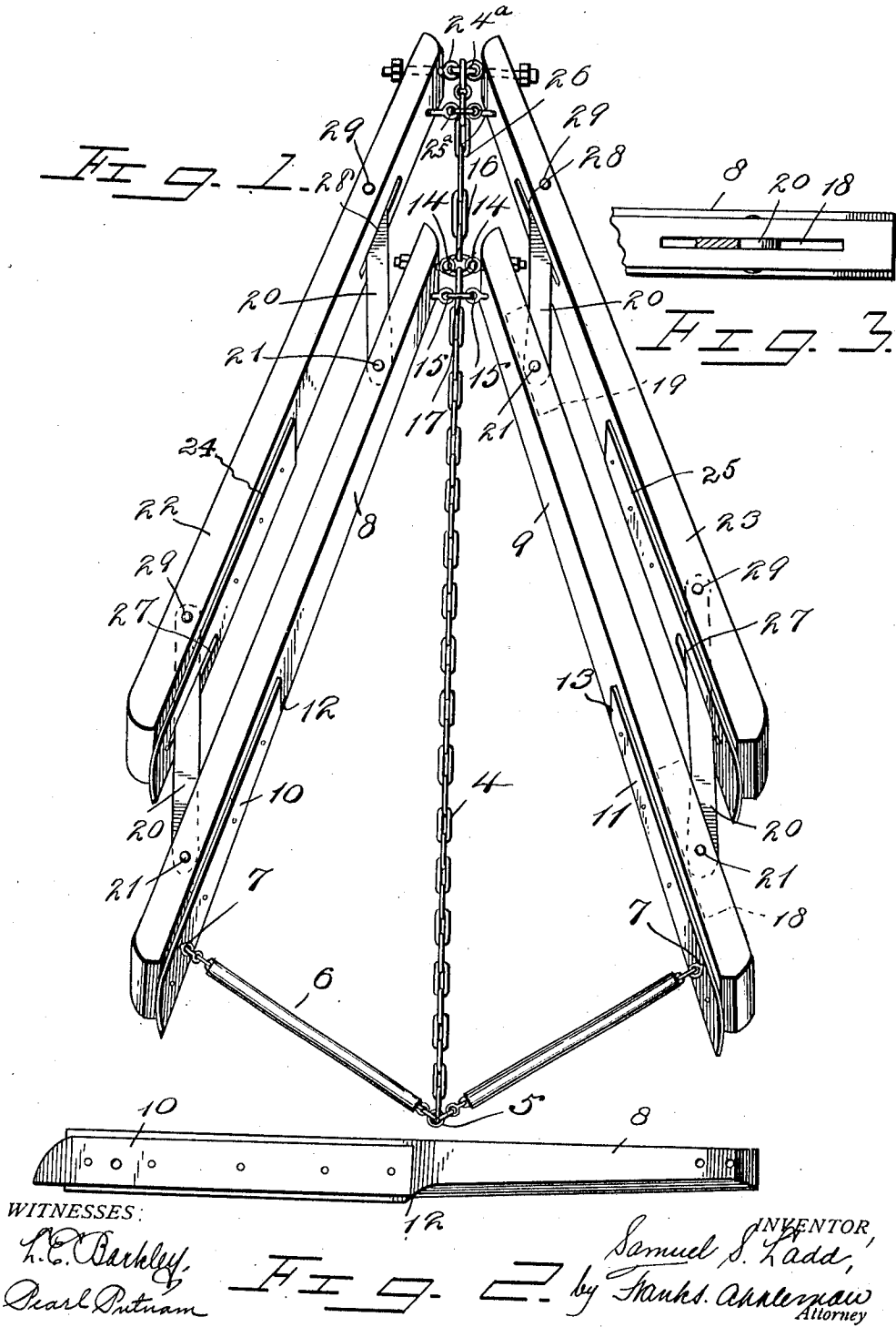


S. S. LADD.
ROAD GRADER.
APPLICATION FILED MAY 2, 1912.

1,035,451.

Patented Aug. 13, 1912.



WITNESSES:

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Fig. 2

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UNITED STATES PATENT OFFICE.

SAMUEL S. LADD, OF TALLAHATCHIE COUNTY, MISSISSIPPI.

ROAD-GRADER.

1,035,451.

Specification of Letters Patent.

Patented Aug. 13, 1912.

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To all whom it may concern:

Be it known that I, SAMUEL S. LADD, a citizen of the United States of America, and resident of the county of Tallahatchie and State of Mississippi, have invented certain new and useful Improvements in Road-Graders, of which the following is a specification.

This invention relates to road graders and particularly to a drag adapted to treat or scrape the surfaces or road beds, novel means being provided for guiding or directing material scraped or dislodged by the said scraper toward the center of the said road-bed for the purpose of forming the crest thereof as is usually done in the construction of roads.

A further object of this invention is to produce novel means for holding the sections of the road grader at different positions of adjustment and in the provision of novel means for releasing the same in order to permit the sections to collapse and lie parallel while being transported.

With the foregoing and other objects in view, the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail, reference will be had to the accompanying drawings forming part of this specification wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 illustrates a top plan view of the road grader embodying the invention; Fig. 2 illustrates a view in elevation of one of the beams; and Fig. 3 illustrates a detail view of a fragment of the other beam showing the connection of the link therewith.

In these drawings 4 denotes a draft chain with a ring or loop 5 at the front end thereof adapted as a hitch for draft rigging of any appropriate construction. Stay bars 6 are connected to the ring 5 and extend diagonally rearwardly and are connected to eye bolts 7 which are anchored in beams 8 and 9, set when in operative position in the manner shown in Fig. 1.

The inner surfaces of the beams 8 and 9 are concaved for the reception of the blades 10 and 11 respectively, which blades preferably extend slightly below the lower surfaces of the beams 8 and 9 for the pur-

pose of acting on the surface of a road and scraping material which is directed toward the center of the said roadway as stated. The inside corners of the beams are beveled as shown at 12 and 13 respectively forming camming surfaces which ride over the material directed toward the center of the road and the said beams tend to pack the said material, due to their weight as they travel over the said material. The rear ends of the beams have eye bolts 14, 14, and 15, 15, respectively connected by rings or eyes 16 and 17 whereby the beams are loosely joined together, so that one may be moved to a certain degree independently of the other. The draft chain 4 at its rear end is attached to the rings 16 and 17 so that the rear end is under the pull of the draft rigging. Each beam 8 and 9 has slots 18 and 19 respectively in its outer sides or surfaces in which the ends of the links 20 are pivotally held by the pins 21. Coacting with the beams 8 and 9 are auxiliary beams 22 and 23 provided with blades 24 and 25 respectively, the said beams 22 and 23 being provided with eye bolts 24^a, 24^a and 25^a, 25^a, respectively, to which a draft chain 26 is connected, the said draft chain in turn being attached to ring 16 to which the draft chain 4 is connected. The beams 22 and 23 have slots 27 and 28 respectively in which the ends of the links 20 are pivoted on the pins 29, the said links serving to hold the auxiliary beams in certain relation to the main beams, yet permitting the swinging movement of the beams so that they may be collapsed as heretofore stated. The beams 8 and 9 may be held apart at their forward ends or they may be brought closer together by the adjustment of the draft chain 4 it being understood that if the draft chain 4 is shortened between the eye bolts 14 and 15 and the ring 5, that the stay rods 6 will tend to hold the forward ends of the beams 8 and 9 farther apart and that the auxiliary beams will also be moved under the influence of the links which extend between the main and auxiliary beams. Likewise, if the chain 4 is of greater length than that shown in the drawing, the stay rods 6 will be permitted to move forwardly at their ends which are connected to the ring 5, thus allowing the forward ends of the beams 8 and 9 to approach each other. The road grader may, therefore, be made to operate on a greater or less area according to

the condition of the surface being treated and the requirements in practice.

The stay rods 6 are preferably constructed of pipes or tubular material cut into appropriate lengths, each of said pipes embracing a chain 30, the links of which are connected to the eye bolts 7 and the ring 5.

By reason of the flexible connections between the beams and the pivotal connections between the main and auxiliary beams, the parts may operate somewhat independently and yield sufficiently to pass over uneven surfaces of the road bed being treated without affecting the operation of other parts associated with the grader, and the adjustable features heretofore described will also be found to be advantageous for the purposes indicated.

I claim

20 In a road grader, beams having blades thereon, means for connecting the beams to-

gether at their rear ends, a draft chain attached to the said beam connections, stay rods connected together and to the forward ends of the said beams, auxiliary beams, 25 the first mentioned beams and the auxiliary beams having slots therein, links pivotally connected to the main and auxiliary beams, a draft chain connected to the rear ends of the auxiliary beam, the opposite end of said 30 draft chain being connected with the first mentioned draft chain at the point where the said first mentioned draft chain connects to the rear of the first mentioned beams. 35

In testimony whereof, I hereunto set my signature in the presence of two witnesses.

SAMUEL S. LADD.

Witnesses:

C. E. HARRIS,
R. L. CANNON.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."