

T. Y. BOYD.
 ROAD DRAG.
 APPLICATION FILED DEC. 11, 1913.

1,108,126.

Patented Aug. 25, 1914.

2 SHEETS-SHEET 1.

FIG. 1.

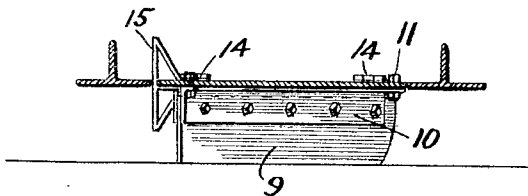
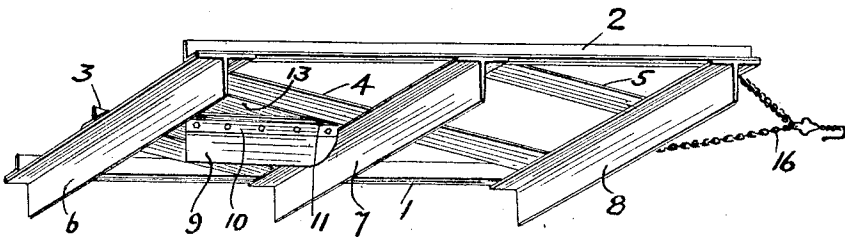


FIG. 3.

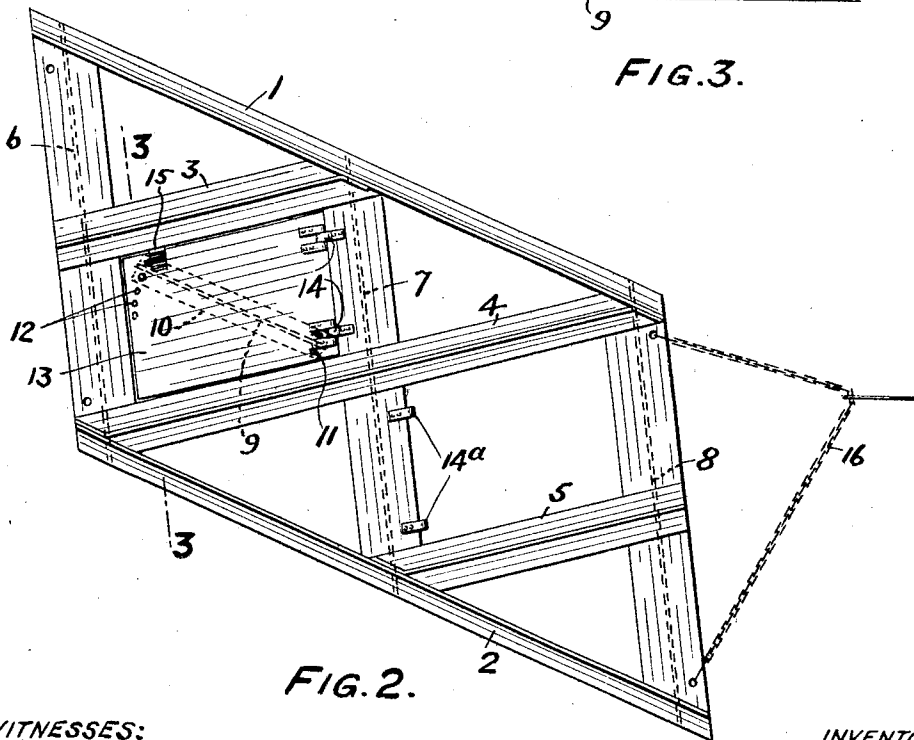


FIG. 2.

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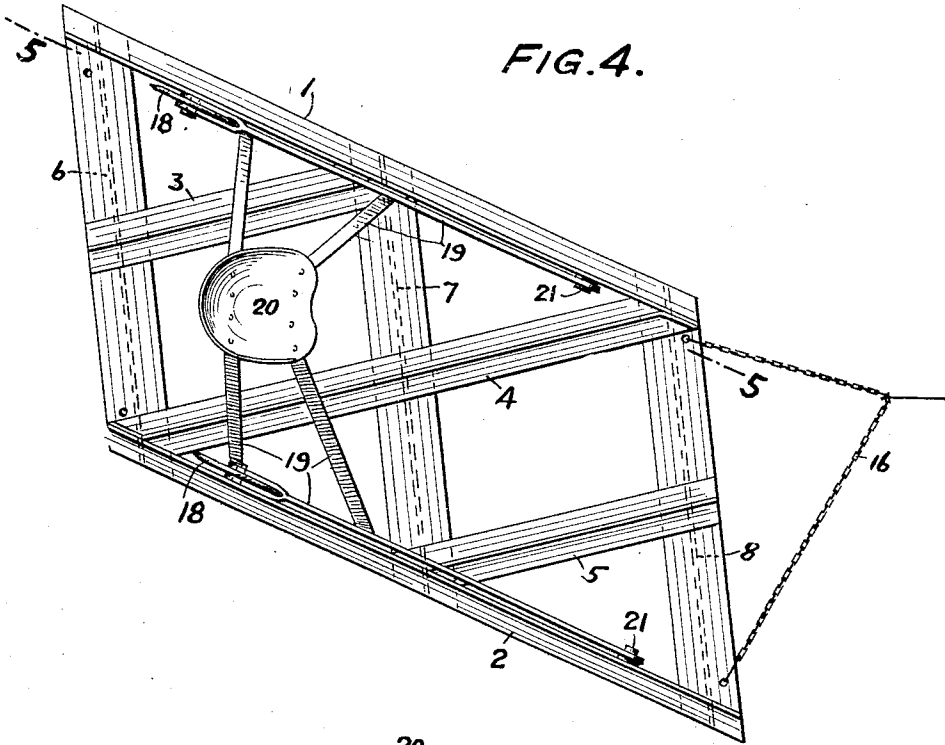


FIG. 4.

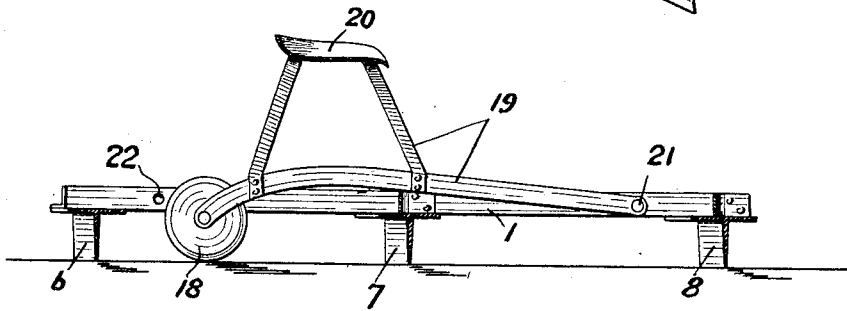


FIG. 5.

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THOMAS Y. BOYD, OF HONESDALE, PENNSYLVANIA.

ROAD-DRAG.

1,108,126.

Specification of Letters Patent.

Patented Aug. 25, 1914.

Application filed December 11, 1913. Serial No. 805,879.

To all whom it may concern:

Be it known that I, THOMAS Y. BOYD, a citizen of the United States, residing at Honesdale, Wayne county, Pennsylvania, have invented a certain new and useful Road-Drage, of which the following is a specification.

The principal objects of the present invention are to provide a simple, reliable and efficient road drag; to make the road drag reversible so that it can be drawn with either end front and thus automatically re-sharpen the scrapers; to provide for satisfactorily and efficiently guiding the drag while at the same time leaving a smooth surface which prevents the formation of ruts and gulleys by drain water; to provide for controlling the rudder or guide by the weight of the operator and therefore to a certain extent independently of the weight of the drag and of the unevenness of the surface of the road; and to provide for filling up or eliminating the rut or groove made by the rudder.

The invention will be claimed at the end hereof but will be first described in connection with the embodiments of it chosen for illustration in the accompanying drawings in which—

Figure 1, is a perspective view looking upward of a drag embodying features of the invention. Fig. 2, is a top or plan view of the same. Fig. 3, is a sectional view. Fig. 4, is a top or plan view illustrating a modification, and Fig. 5, is a sectional view on the line 5—5, of Fig. 4.

In the drawings the drag is shown as constructed principally of angle bars.

1 and 2, are the side bars, and 3, 4 and 5, are the cross bars and all of these bars constitute a strong frame. The bars 1 and 2, are parallel with each other, and the bars 3, 4 and 5, are parallel with each other, and these sets of parallel bars intersect at an inclination, as shown.

6, 7 and 8, are scrapers depending from the frame and consisting of angle shapes.

Referring to Figs. 1-3, the rudder or guide 9, is shown as removably clamped between a pair of plates 10, and the latter are pivoted at 11, to a floor section. The other end of the guide or rudder may be adjusted and clamped in respect to the pivot 11, by means of a bolt and the adjusting holes 12. This floor section 13, is pivoted to the scraper 7, by detachable hinge members 14,

and is provided with a stop 15, which abuts on one of the cross bars 3 or 5, and takes the thrust of the rudder. The drag gear 16, may be attached to either end of the drag and in this way the scraper edges can be kept sharp. If the drag gear 16, is attached to the cross bar 6, the floor section 13, is disconnected from the hinge members 14, and connected to the hinge members 14^a, thus the drag is reversible. The position of the rudder or guide 9, can be adjusted as desired by means of the pivot 11, and holes 12.

In use an operator may stand on the floor section 13, thus properly holding the rudder to its work and permitting it to ride properly in respect to inequalities in the road and more or less independently of the rising and falling movement of the drag. In any event and no matter which way the drag is operated a scraper always follows the rudder and smooths out the surface of the road, thus avoiding rudder gulleys or ruts which in the event of rain might become gutters and the source of serious washing away of the road. When a rudder or guide 9, is worn it may be readily detached from the plates 10, and renewed.

The construction and mode of operation of the modification shown in Figs. 4 and 5, is as has been described except as follows: The rudder consists of a pair of wheels 18, arranged at the end of a pivotal frame 19, that is connected with the side bars 1 and 2, and is provided with a seat 20. In this case the drag can be reversed by changing the point of pivotal attachment of the frame from the fastenings 21, to the fastenings 22. It will of course be understood that the purpose of the rudder or guide is to hold the drag up to its work and prevent it from unduly skidding, the purpose of the scrapers is to improve the condition of the surface of the road, and the purpose of the scraper that follows the rudder is to smooth out any mark or inequality that may have been made by the rudder.

It will be obvious that modifications may be made in details of construction and arrangement without departing from the spirit of the invention and hence the latter is not limited in those particulars or in any way further than the prior state of the art may require.

What I claim is:

1. A drag consisting of the combination

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of a frame, scrapers depending from the frame, and a rudder arranged crosswise of and interposed between two of the scrapers so as to be followed by one of them, substantially as described.

5 2. A drag consisting of the combination of a frame provided with two different attaching devices, scrapers depending from the frame, and a rudder carrier provided
10 with a rudder and adapted to be connected with the frame in either one of two positions in each of which the rudder is arranged between the scrapers.

15 3. A drag comprising the combination of a frame, scrapers depending from the frame, a floor section pivotally connected with the frame and provided with a stop adapted to

abut on the frame, and a rudder adjustably connected with the floor section, substantially as described.

4. A drag comprising the combination of a set of parallel side bars and a set of parallel cross bars arranged at an inclination and constituting a frame, scrapers depending from the frame, two different sets of hinge fittings carried by the intermediate cross bar, a rudder adapted to be connected with the intermediate cross bar in each of two different positions in both of which the rudder is arranged between scrapers.

THOMAS Y. BOYD.

Witnesses:

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