June 24, 1930. O. POLLOCK 1,767,393

ROAD DRAG

Filed Aug. 27, 1929

Fig. 1.

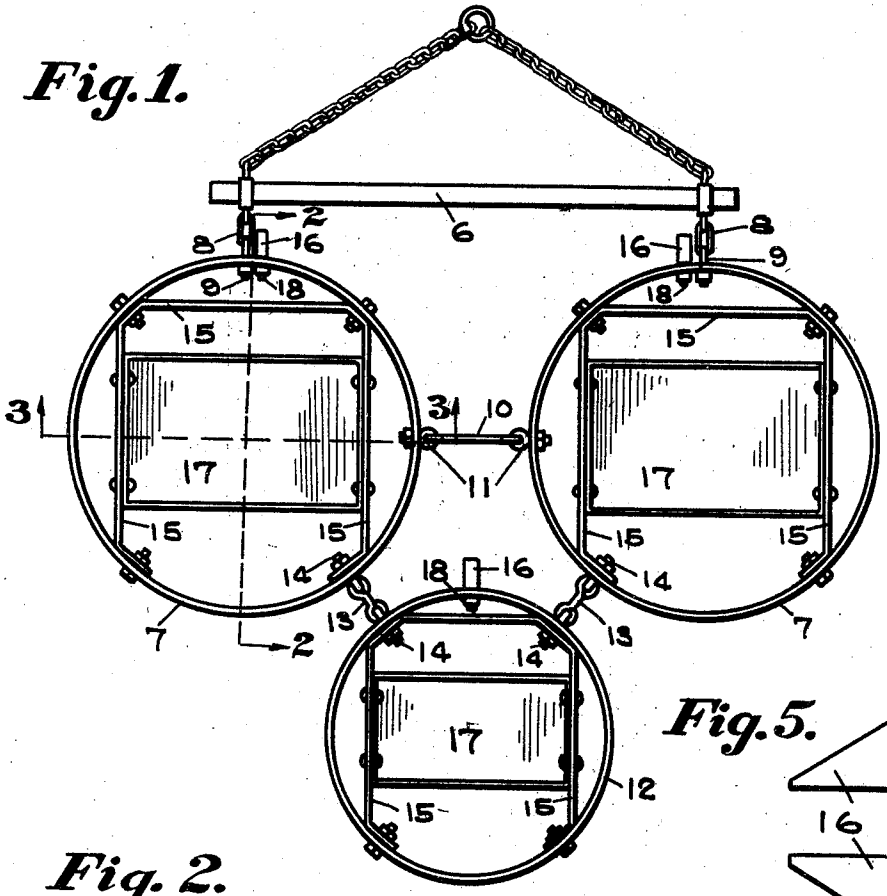


Fig. 5.

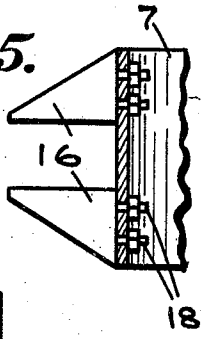


Fig. 2.

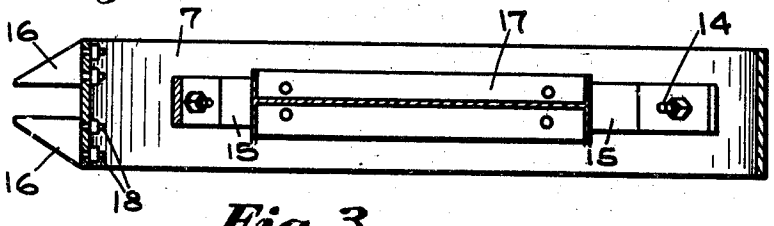


Fig. 3.

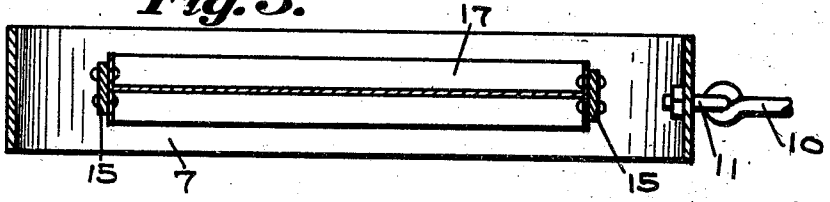
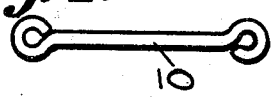


Fig. 4.



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Patented June 24, 1930 1,767,393

UNITED STATES PATENT OFFICE

OSCAR POLLOCK, OF FREMONT, NEBRASKA, ASSIGNOR OF TEN PER CENT TO JAMES M. MAHER, TEN PER CENT TO GLENN BEATY, TEN PER CENT TO SWAN ANDERSON, TEN PER CENT TO F. H. REHRHENKE, AND TEN PER CENT TO R. E. HAMMOND, OF FREMONT, NEBRASKA

ROAD DRAG

Application filed August 27, 1929. Serial No. 388,818.

This invention relates to a road drag or maintainer and has for its object, broadly, to provide ground-engaging blades of such form and arrangement that the projections, hummocks and rough parts of a highway may be cut and pockets or depressions filled with greater uniformity, and requiring less draft than usual.

One of the objects is to provide a drag of such construction that stresses directed thereto will be sustained uniformly so that a side draft may be avoided.

The invention includes a plurality of connected, upright, hollow cylinders or circular rims operating as circular blades so that when drawn forwardly will present a convexed front portion and a concaved rear portion, the front portion of each rim presenting a semicircular edge for breaking down and cutting elevations on a road bed and the rear part operating as a drag for leveling and pulverizing the ground.

Another object is to employ upright rims disposed in staggered relation suitably spaced apart in order that all of the surface of a highway will be uniformly treated.

It is an object of the invention to provide a road drag which will require a lesser power for operation than ordinary and which may be driven over obstructions without injury to any of its parts, and as a feature of durability may be inverted so that when one circular edge of each rim becomes unduly worn the opposite edge may be utilized. Also it is an object to provide a road drag which will consist of few and simple parts and of such arrangement that the parts may be conveniently assembled.

With the foregoing objects in view and others to be mentioned the invention presents a new and useful construction, combination and arrangement of parts as described herein and claimed, and as illustrated in the accompanying drawing, it being understood that changes may be made in size, proportion of parts and minor details, said changes being within the scope of the invention as claimed.

In the accompanying drawing Fig. 1 is a plan view of a road drag embodying my invention. Fig. 2 is a sectional view on line 2—2 of Fig. 1. Fig. 3 is a sectional view on line 3—3 of Fig. 1. Fig. 4 is a view showing a spacing-bar. Fig. 5 is a detail showing the use of shoes secured to the front part of a rim-section.

Referring now to the drawing for a more particular description, the invention is shown and described in connection with a draw-bar 6, and the road drag to be described may be drawn upon a road bed or other surface by any suitable means. I provide a pair of circular rim-sections 7 disposed with their axes at uniform distances from the draw bar and secured thereto by any suitable means, as by the links and eye-bolts indicated respectively at 8 and 9.

The circular rims 7 may be hollow, upright cylinders. They may have any suitable diameter and are spaced apart by means of a spacing-bar 10 provided at its ends with threaded eye-bolts 11.

Numeral 12 indicates a circular rim preferably of lesser diameter than those mentioned and, preferably, it is connected near its front to the pair of rims 7 by spacing-bars 13, each preferably being provided at its ends with threaded eye-bolts 14, and as thus described it will be seen that the parts may be readily assembled or dissembled for the reason that after the eye-bolts of the spacing-bars have been placed in position the nuts for the eye-bolts may be applied. Suitable apertures (not shown) are provided in the rims for receiving the eye-bolts, and the latter will be disposed midway between the opposed edges of said rims.

As thus described, the drag may be moved forwardly upon a road-bed, and any projections or hummocks will be cut and depressions filled by action of the rims, the front semicircular part of each rim presenting a convexed blade and the rear semicircular part of each rim presenting a concaved blade to completely cut down rough surfaces of the road-bed and tending to produce a uniform smooth surface. It will be noted that the space between the front pair of rims 7 not operated upon by said rims will be ground which will be operated upon by the

circular rim 12 during the forward movement of the road drag.

While I have shown only two circular rims 7 a greater number may be used if desired. Additional rims 12 also being used, the rear rim or rims being disposed in staggered relation to the front rims.

In order that the circular rims may be reinforced I provide frames 15 approximately rectangular in plan, said frames operating as brace-members for maintaining the circular form of the rims, and mounted upon the inner sides of the rims, these frames being mounted upon the inner sides of said rims midway between their opposed edges, and secured thereto by any suitable means.

In the use of the road drag the edges of the rims which engage the ground may eventually become unduly worn, and therefore it is of such construction that it may be inverted, this being a feature relating to durability, and whenever it becomes necessary to repair the rims, the parts may be conveniently dissembled as explained.

Each circular rim is provided at its front with shoes 16, these being for the purpose of preventing the circular rims from becoming caught upon certain obstructions, and when the road drag is driven over bridges, railway tracks or the like, the outwardly convergent shoes will permit this operation.

Numerals 17 indicate trays which are provided for the road drag, each being disposed midway between the opposed edges of a rim and secured to the frames 15. In instances when the surface of a highway is dry and hard, weights, such as rock or other heavy objects may be placed on the trays so that the ground will be suitably engaged by the circular rims, but if the ground is moist or soft such weights may not be needed.

Since the frames 15, trays 17 and bolts 11 and 14 are disposed midway between the opposed edges of the circular-rims they will not be obtrusive in operation and will permit the front and rear edges of the circular-rims to suitably engage the ground.

Numerals 18 indicate threaded prongs which are provided for the shoes to permit them to be suitably secured to the walls at the front of said rims; and the shoes are each preferably disposed with an exposed part in line with the adjacent edge of a rim so that the latter will make a suitable clearance when the road drag is driven over the obstructions mentioned.

I claim as my invention,—

1. In a road drag, a draw-bar, upright hollow cylinders disposed rearwardly of and connected with the draw-bar, frames approximately rectangular in plan disposed within and secured to the cylinders, and a plurality of trays each disposed inwardly of and secured to a frame.

2. In a road drag, a pair of upright hollow cylinders disposed side by side rearwardly of and connected with the draw-bar, a spacing-bar between and pivotally connected with said cylinders, a third upright hollow cylinder disposed rearwardly of the first named cylinders and flexibly connected therewith, rectangular frames within and secured to the cylinders, and rectangular trays inwardly of and secured to said frames.

3. In a road drag, a plurality of hollow cylinders connected one with another and adapted to be drawn forwardly with their circular edges engaging a road-bed, and shoes arranged in pairs, the shoes of a pair being secured to and projecting forwardly of the front of a cylinder at the opposed edges thereof.

4. In a road drag, a draw-bar, upright hollow cylinders connected with each other and adapted to be disposed with their circular edges on a highway and to be drawn by the draw-bar, rectangular frames in the cylinders each disposed midway between the opposed edges and secured to a cylinder, trays arranged within the cylinders and secured to the frames, and a plurality of shoes arranged in pairs, the shoes of each pair being secured to and projecting forwardly of the front wall at the opposed edges of each cylinder.

5. In a road drag, a plurality of hollow cylinders connected one with another and adapted to be drawn forwardly with their circular edges engaging a road bed, reinforcing frames approximately rectangular in plan disposed within and secured to the cylinders, and a plurality of shoes each secured to and projecting forwardly from the front part of a cylinder, each shoe having an inclined part terminating at an edge of a cylinder.

6. In a road drag, a pair of upright hollow cylinders, a bar between said cylinders for maintaining them in spaced relation, a third cylinder having a lesser diameter than either of the first named cylinders and disposed approximately equi-distant from and rearwardly of and secured flexibly to said first named cylinders, reinforcing frames rectangular in plan disposed within and secured to said cylinders, and shoes projecting forwardly and convergingly from and secured to the cylinders at their lower edges.

7. In a road drag, a pair of hollow connected cylinders approximately of uniform diameter, a third hollow cylinder connected with and having a lesser diameter than the first named cylinders, said cylinders being adapted to be drawn along with the circular edges at one of their ends engaging a road-bed and adapted to be inverted to permit the circular edges at their opposite ends to engage a road-bed, shoes arranged in pairs, the shoes of each pair being secured to the wall and projecting forwardly from a cylin-

der, the outer face of each shoe terminating at a circular edge of a cylinder, and a plurality of reinforcing frames approximately of rectangular form each being disposed within, midway between the opposed edges of and secured to a cylinder.

In testimony whereof, I have affixed my signature.

OSCAR POLLOCK.