

Sept. 14, 1943.

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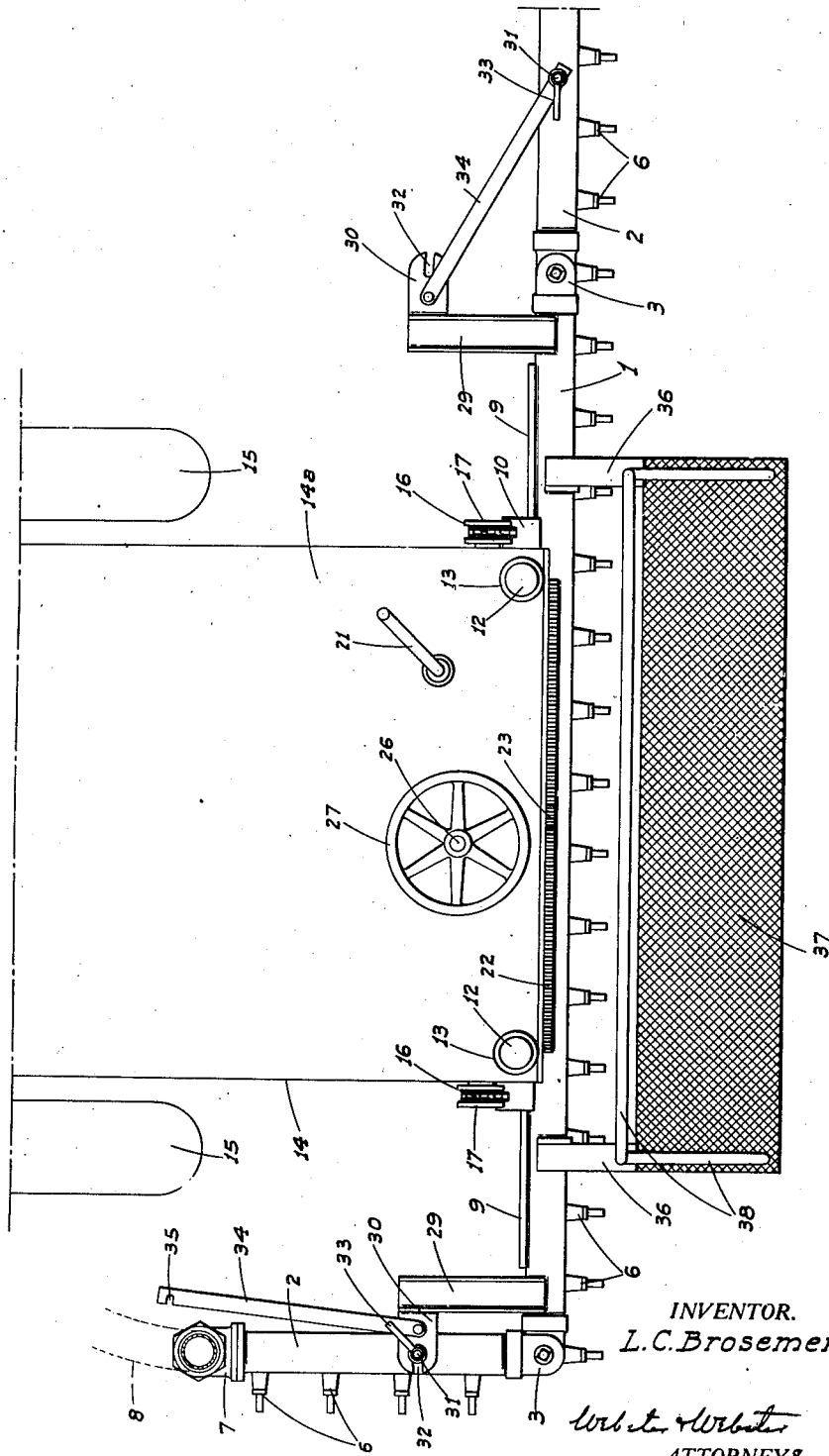
2,329,331

ROAD OILER

Filed Nov. 18, 1940

4 Sheets-Sheet 1

Fig. 1



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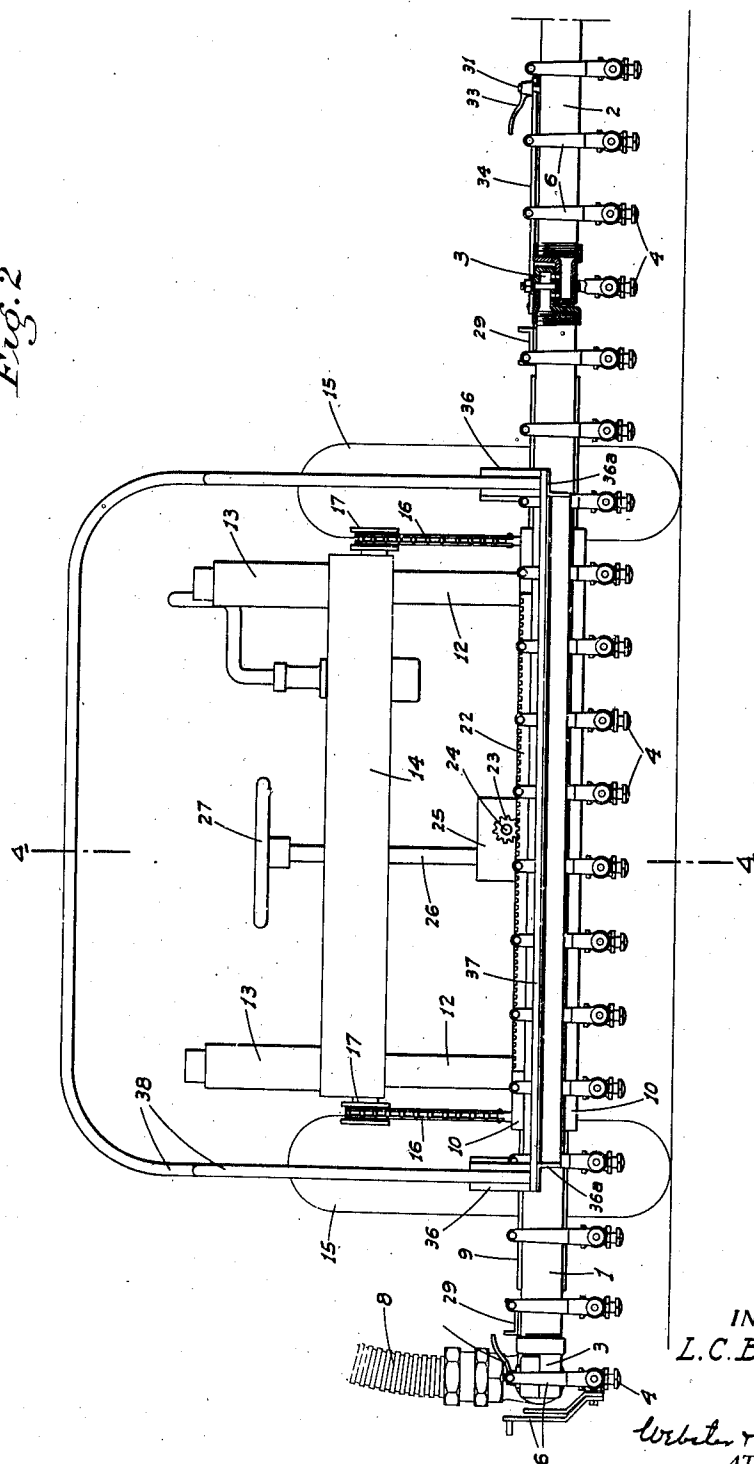
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Fig. 2



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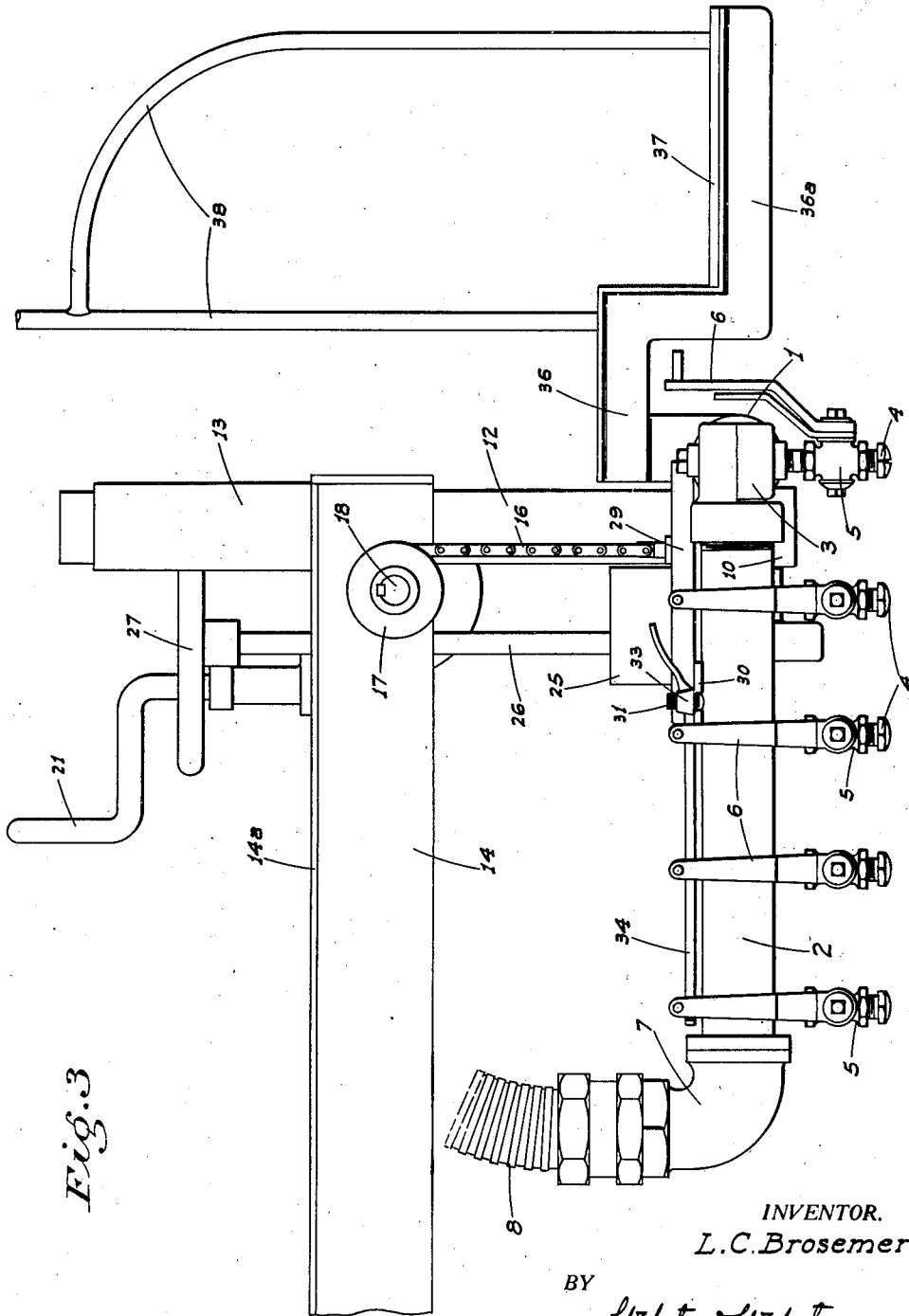


Fig. 3

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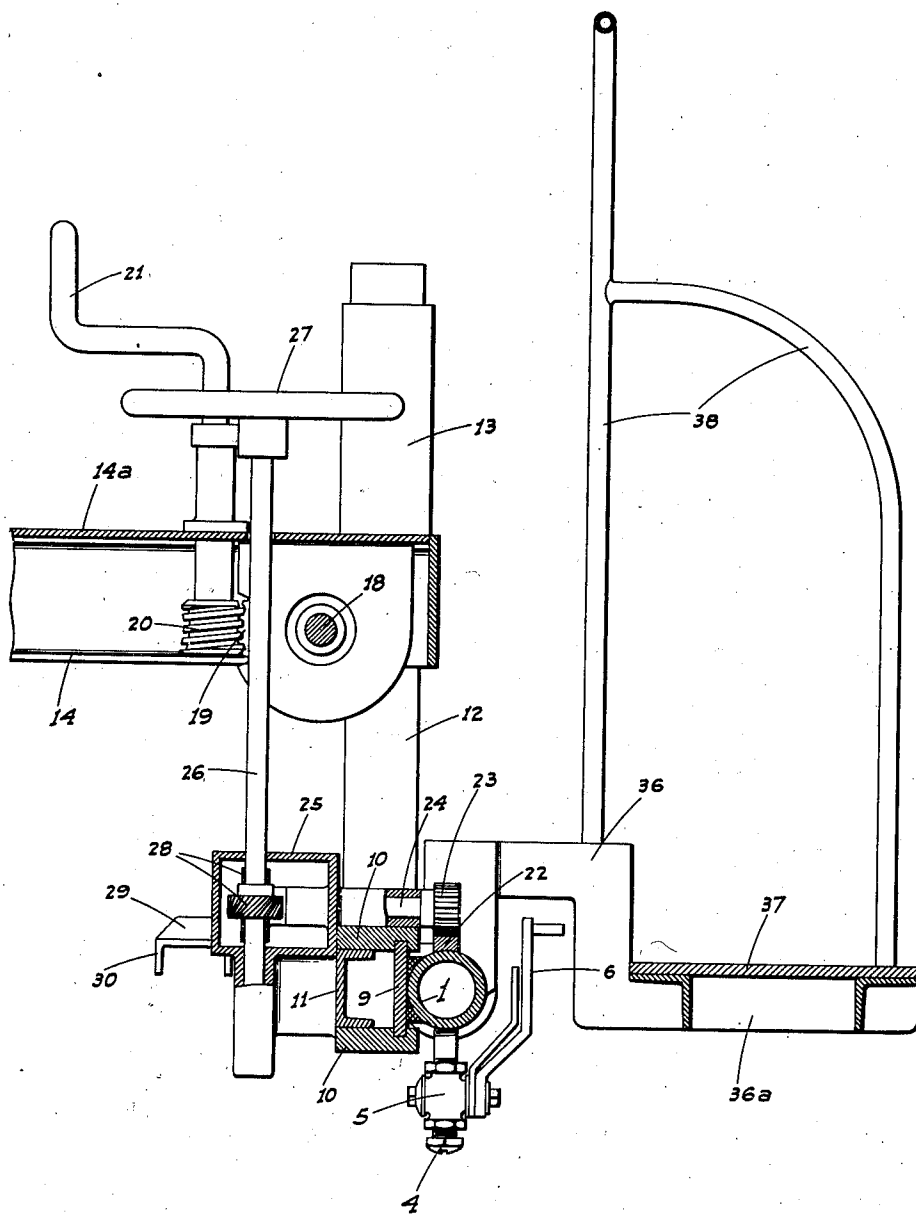
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Fig. 4



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ROAD OILER

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Application November 18, 1940, Serial No. 366,026

5 Claims. (Cl. 299-34)

This invention relates to a road oiler, and particularly to the construction and mounting of the spray bar which extends transversely of the supporting vehicle and the road, and from which the oil is distributed onto the latter.

The principal objects of my invention are to provide a spray bar unit so mounted that it may be adjusted laterally as well as vertically of the supporting vehicle; one having an operator's platform mounted on and adjustable with the unit; and one having horizontally foldable end portions.

By reason of the features above generally defined, shoulders or other laterally offset areas may be readily oiled without the vehicle also riding the shoulders; the operator is in position to see and control the oiling operation as it takes place; and the overall width of the spray bar may be quickly reduced for transportation and the like.

The device may be used for emulsion as well as hot oil spraying.

A further object of the invention is to produce a simple and inexpensive device and yet one which will be exceedingly effective for the purpose for which it is designed.

These objects I accomplish by means of such structure and relative arrangement of parts as will fully appear by a perusal of the following specification and claims.

In the drawings similar characters of reference indicate corresponding parts in the several views:

Figure 1 is a top plan of the assembly, with one end section of the spray bar folded and the other section extended.

Figure 2 is a rear end elevation of the assembly with the spray bar sections in the same positions as in Fig. 1.

Figure 3 is an enlarged side elevation looking at the side of the vehicle having the folded spray bar section.

Figure 4 is a transverse section on line 4-4 of Fig. 2.

Referring now more particularly to the characters of reference on the drawings, the spray bar comprises a central section of heavy pipe 1, shorter end sections 2 of the same size pipe, and swivel couplings 3 of a special type connecting the adjacent ends of the central and end sections. The couplings are of course arranged to allow of a flow of oil therethrough, and their axes are disposed vertically so that the end sections may swing in a horizontal plane.

A row of conventional spray units 4 including

control valves 5 depend from pipes 1 and 2, the valve having individual control levers 6 projecting upwardly from the valves behind the pipes and adapted to be moved by the feet of the operator when desired or all as usual by mechanical control means. Swivel elbows 7 are mounted on the outer end of pipes 2; a length of flexible hose 8 extending from each elbow to the usual oil circulating system (not shown).

A bar or rail 9, set on edge, is fixed rigid with and extends lengthwise of pipe 1 in front of the same, projecting both above and below the same sufficiently to engage in guide-grooves formed in horizontally set bars 10 fixed on and held in spaced relation by a beam 11 disposed in front of and extending parallel to pipe 1; bar 9 being considerably longer than bars 10 and beam 11.

Posts 12 are rigid with and upstand from the upper bar 10 near its ends, and are slidably guided in tubular members 13. These members are mounted on and at the rear corners of the platformed frame 14 of a supporting vehicle mounted on wheels 15. This frame may be that of a trailer as here indicated and carrying merely the oil circulating unit while receiving the oil from the draft tank truck ahead, or it may be that of the tank truck itself; this feature being immaterial to the invention here disclosed.

The spray bar unit is adjustably supported from frame 14 by means of flexible elements such as chains 16 secured on and projecting upwardly from the upper beam 10 laterally out from posts 12 and the sides of frame 14. These chains are secured on and extend about elements 17 forming drums which are mounted on a common shaft 18 extending transversely of and journaled on frame 14. Rotation of the shaft is controlled by a worm wheel 19 on the shaft engaged by a frame mounted worm 20. This worm is disposed with its axis vertical and is rigid with a crank handle 21 above the frame platform 14a. If desired, the elements 17 may be sprockets about which the chains pass, while elements 16 may be cables.

Rotation of the crank handle in one direction or the other thus effects raising and lowering of the spray bar relative to the frame and ground, as will be evident.

The spray bar is shifted laterally of its supporting structure, and independently of its raising and lowering, by the following means: Mounted on top of and extending lengthwise of pipe 1 is a rack 22. This is engaged intermediate its ends by a pinion 23. This pinion is mounted on a forwardly projecting stub shaft 24 journaled

in a housing 25 rigid with bars 10 and beam 11. A shaft 26 is journaled in said housing and extends upwardly through platform 14a and has a horizontal hand wheel 27 secured on its upper end. The hand wheel and crank handle are laterally offset so as not to interfere with each other. Shafts 26 and 24 are connected in driving relation within housing by gearing 28.

In order to hold the foldable pipe sections 2 either in extended or folded positions, the following arrangement is provided: Secured on and projecting forwardly from pipe 1 adjacent its ends are brackets 29 having lateral outwardly projecting saddle extensions 30 at their forward end adapted to engage over one-half of pipes 2 when the latter are folded back so as to be at right angles to pipe 1, as shown in Fig. 1. Each pipe 2 carries an upstanding stud 31 adapted to engage in a horizontal slot 32 in the corresponding saddle extension 30 when said pipe 2 is folded; a clamping handle nut 33 being threaded on said stud above the extension so that pipe 2 may be releasably clamped against movement from a folded position.

To hold each pipe 2 from folding when extended, a brace bar 34 is permanently pivoted at one end on the corresponding saddle extension 30 laterally in from slot 32 and at the other end is notched in one side as at 35 to engage stud 31 under nut 33 when pipe 2 is extended, as also shown in Fig. 1.

In order to support an operator from the spray bar unit, rearwardly extending brackets 36 are mounted on pipe 1 in widely spaced relation. As clearly shown in Figs. 3 and 4, the forward portion of these brackets is above and clear of valve levers 6, and the brackets then extend downwardly a certain distance ahead of their rear horizontal portion 36a on which the platform 37 is supported. In this manner, the level of the platform is below that of the upper end of levers 6 so that the latter are exposed above and in front of the feet of the operator, which may thus be used to manipulate the valves. A hand rail unit 38 is mounted in connection with the platform for the convenience of the operator.

From the foregoing description it will be readily seen that I have produced such a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of the device, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention, as defined by the appended claims.

Having thus described my invention, what I

claim as new and useful and desire to secure by Letters Patent is:

1. A road oiler comprising a spray bar having a plurality of spray units depending therefrom and which include individual control valves, individual control levers projecting upwardly from the valves rearwardly of the bar, means supporting the bar clear of the ground, an operator foot platform extending lengthwise along the bar disposed rearwardly of said bar and the levers below the level of the top of the latter to position said levers for foot operation and means mounting the platform in a fixed position with the bar.

2. A road oiler comprising a spray bar, a unit extending lengthwise of and behind the bar and on which the bar is mounted, a wheel mounted frame, posts upstanding from the unit, sleeves fixed on the frame in which the posts are slidable and means mounted on the frame and connected to the unit and suspending the same in vertically adjustable relation to the frame.

3. A road oiler comprising a spray bar, a unit extending lengthwise of and behind the bar and on which the bar is mounted, a wheel mounted frame, posts upstanding from the unit, sleeves fixed on the frame in which the posts are slidable, a rotatable shaft mounted on the frame above and parallel to the unit, drums on the shaft, flexible elements engaged with the drums and depending to connections with the unit and means to control the rotation of the shaft.

4. A road oiler comprising a spray bar, a wheel-mounted frame, a vertically movable unit supported from the frame for vertical movement and supporting the bar for lateral movement relative thereto, means mounted on the frame and connected to the unit for moving the same vertically and means mounted on the unit and applied to the bar to move the same laterally; said last named means including, with a rack extending along the spray bar, a pinion journaled on the unit and engaging the rack, an upstanding hand rotated shaft mounted in a fixed position on the unit and drive connections between the shaft and pinion.

5. A road oiler comprising a spray bar, said bar including a pipe having depending spray nozzles and a rail set on edge in front of and rigid with the pipe and a supporting unit for the spray bar including members above and below the rail ahead of the pipe and having guide grooves in which the top and bottom edges of the rail are engaged in slidable and non-canting relation; there being means to control the movement of the spray bar along the unit.

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