J. R. KINNEY.

ROAD OILER.

APPLICATION FILED FEB. 14, 1920.

1,382,731.

Patented June 28, 1921.

2 SHEETS—SHEET 1.

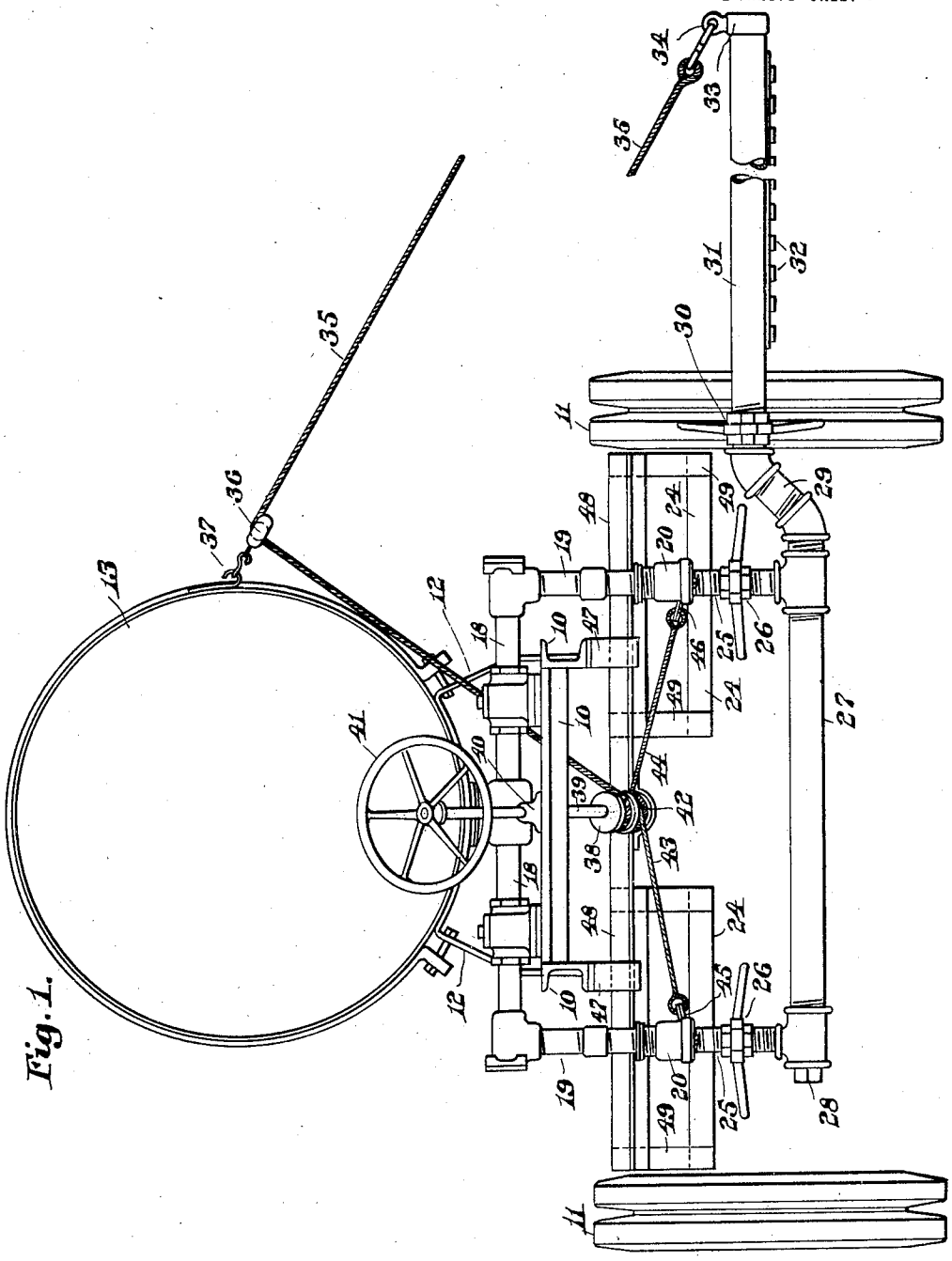


Fig. 1.

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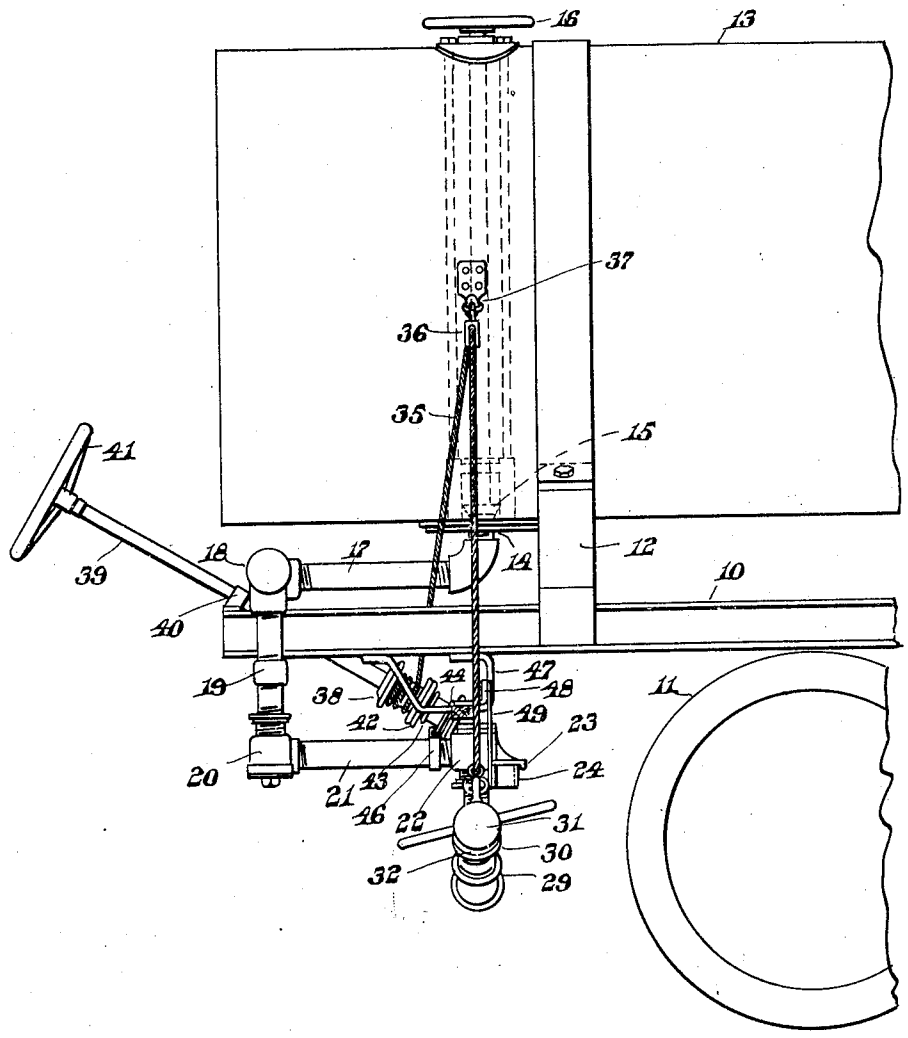
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2 SHEETS—SHEET 2.

Fig. 2.



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UNITED STATES PATENT OFFICE.

JUSTUS R. KINNEY, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE KINNEY MANUFACTURING COMPANY, OF BOSTON, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

ROAD-OILER.

1,382,731. Specification of Letters Patent. Patented June 28, 1921.

Application filed February 14, 1920. Serial No. 358,637.

To all whom it may concern:

Be it known that I, JUSTUS R. KINNEY, a citizen of the United States of America, and a resident of Boston, in the county of Suffolk and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Road-Oilers, of which the following is a specification.

This invention relates to road oilers and has for its object the provision of a machine of this character in which the oil will be distributed over the surface of the road at one side of that portion of the road over which the road oiler is traveling.

The invention consists in providing a detachable spray pipe at one end of a transverse delivery pipe of a road oiler and providing means whereby the outer end of the spray pipe will be maintained at the same level during any reciprocatory movement imparted endwise to said spray pipe.

The invention further consists in certain novel features of construction and arrangement of parts which will be understood readily by reference to the description of the drawings and to the claim to be hereinafter given.

For the purpose of illustrating the invention, one preferred form thereof is illustrated in the drawings, this form having been found to give satisfactory and reliable results although it is to be understood that the various instrumentalities of which the invention consists can be variously arranged and organized and the invention is not limited to the precise arrangement and organization of these instrumentalities as herein shown and described, except as required by the scope of the appended claim.

Of the drawings:

Figure 1 represents a rear view of a road oiler embodying the principles of the present invention, and

Fig. 2 represents a side elevation of the same.

Similar characters indicate like parts throughout the several figures of the drawings.

In the drawings, 10 is a framework mounted upon wheels 11 and having supports 12 thereon in which is positioned an oil tank 13.

The rear end of the tank 13 has a discharge pipe 14 extending therefrom. The discharge opening to said pipe 14 is adapted to be closed by the valve 15 controlled by the revoluble handle 16 as indicated in Fig. 2 of the drawings.

The pipe 14 has a horizontal pipe 17 connected thereto the opposite end of which communicates with a transverse pipe 18 the opposite ends of which have connected thereto, downwardly extending pipes 19.

The lower end of each pipe 19 has a connection 20 adapted to be oscillated about the vertical axes of said pipe 19.

This connection 20 has extending horizontally therefrom, a pipe 21, the front end of which has a connection 22 provided with a projecting flange 23 resting upon a curved, horizontal, supporting-bar 24.

The connection 22 has downwardly extending therefrom, a pipe 25 provided with a coupling union 26 therein.

The lower end of the pipe 25 is connected to a transverse delivery pipe 27 one end of which is closed as at 28, while the other end has projecting upwardly therefrom and at an angle thereto, a pipe 29 having a coupling union 30 at the upper end thereof.

By means of the coupling union 30, a spray pipe 31 may be connected to the open end of the delivery pipe 27.

This spray pipe 31 has in its under side a plurality of spraying nozzles 32 through which the oil from the tank 13 may be spread over the surface of the road.

The outer end of the spray pipe 31 has secured thereto, a strap 33 provided with an eye 34 to which one end of a cable 35 is connected.

This cable 35 passes over a sheave 36 mounted upon a hook 37 on the side of the tank 13.

The opposite end of the cable 35 is secured to a pulley 38 revoluble with the shaft 39 mounted in bearings 40 on the framework 10.

This shaft 39 is adapted to be rotated in either direction by means of the handwheel 41.

The shaft 39 is also provided with another pulley 42 to which the ends of cables 43 and 44 are secured.

The opposite ends of these cables 43 and 44 are connected to straps 45 and 46 mounted upon the free ends of the swinging pipes 21.

By turning the hand-wheel 41 in either direction, one of the cables 43 and 44 will be paid out while the other will be wound upon the pulley 42 thereby causing the pipes 21 to be swung about the axes of the vertical pipes 19.

This swinging movement of the pipes 21 will impart a reciprocatory movement to the delivery pipe 27 connected to the outer ends of said swinging pipes by the vertical pipes 25.

The spray pipe 31 being connected to the open end of the delivery pipe 27 will have the same reciprocatory movement imparted thereto.

During this swinging movement of the pipes 21, the cable 35 will be wound or unwound from the pulley 38, as the case may be, in order to retain the spray pipe 31 level during such reciprocatory movement.

The framework 10 has brackets 47 depending therefrom to the lower end of which is secured an angle bar 48 from which extend downwardly, hangers 49 to the lower end of which is secured the curved horizontal supporting-bar 24.

When the road oiler is moving to a place where the work is being done, the valve 15 is closed and the spray pipe 31 uncoupled from the open end of the delivery pipe 27.

As soon as the road oiler reaches the place where the surfacing of the road is to be accomplished, the spray pipe 31 is coupled to the open end of the delivery pipe 27 and the valve 15 is then opened.

The machine is then ready to operate.

The spray pipe 31 is raised to a higher level than the delivery pipe 27 so that it will be at the required distance from the surface of the road.

During the spraying of the road, the operator manipulates the handle 41 to cause the spray pipe to be reciprocated endwise.

When it is desired to spray old roads, the delivery pipe 27 and spray pipe 31 may be uncoupled by disconnecting the coupling unions 26 and a spray pipe of usual construction substituted for the transverse delivery pipe 27.

It is believed that the operation and many advantages of the invention will be understood without further description.

Having thus described my invention, I claim—

In a machine of the class described, a tank; a delivery pipe therefrom; a transverse pipe communicating therewith; a wheel-supported frame on which said tank is mounted; a spray pipe extending beyond the wheels and connected to an end of said transverse pipe; means including a revoluble shaft and cables connected thereto for reciprocating said transverse pipe and spray pipe; and means for retaining said spray pipe horizontal during said reciprocatory movement including a cable extending from the end of said spray pipe to said revoluble shaft and connected to both.

Signed by me at 746–7 Old South Bldg., Boston, Mass., this 11th day of February, 1920.

JUSTUS R. KINNEY.

Witnesses:
WALTER E. LOMBARD,
NATHAN C. LOMBARD.