L. J. MRUK.

LUBRICATOR.

APPLICATION FILED JULY 9, 1919

1,336,853.

Patented Apr. 13, 1920.

FIG_1_

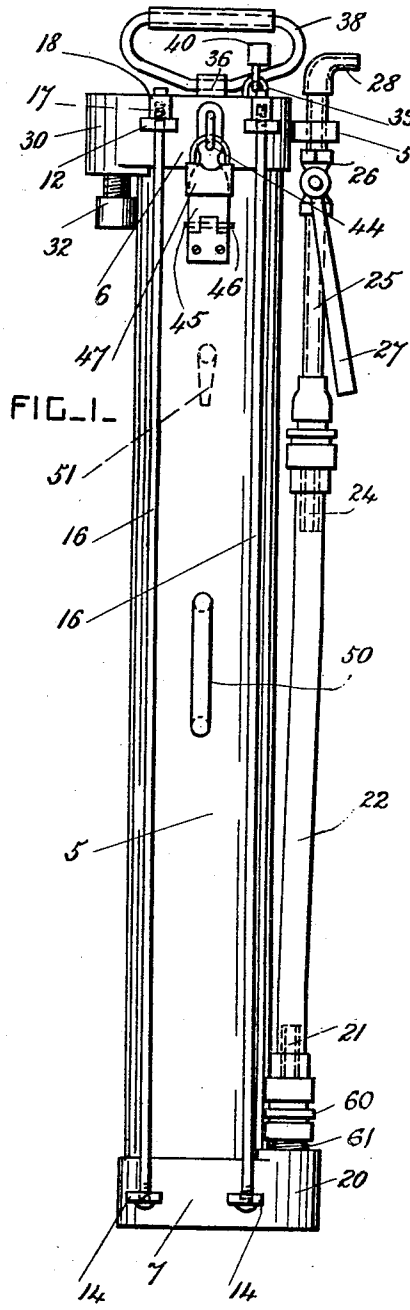


FIG_2_

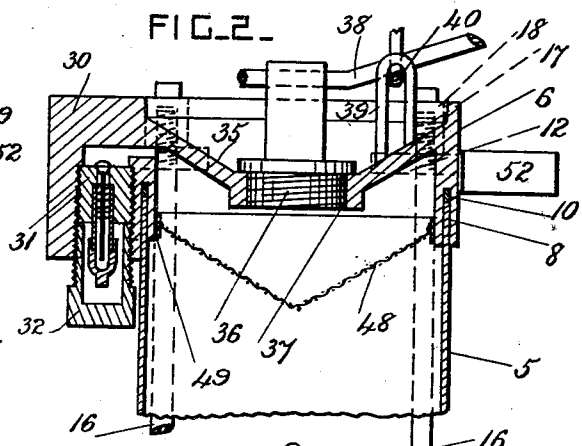


FIG 3_

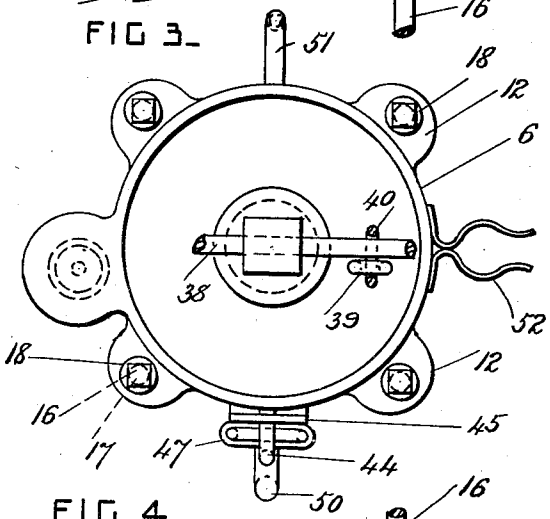
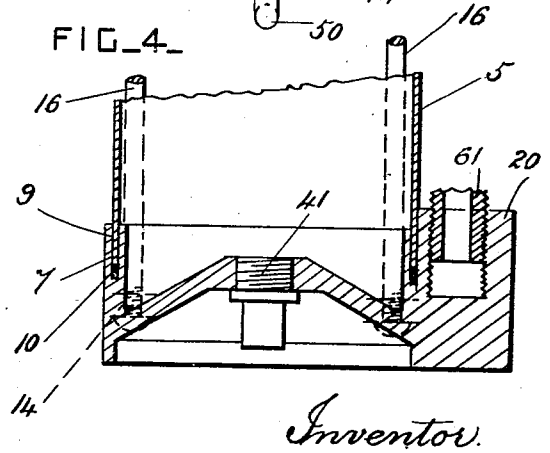


FIG_4_



Inventor.

Laudie J. Mruk

by Herbert W. Jenner.

Attorney

UNITED STATES PATENT OFFICE.

LAUDIE J. MRUK, OF BUTTE, MONTANA.

LUBRICATOR.

1,336,853. Specification of Letters Patent. Patented Apr. 13, 1920.

Application filed July 9, 1919. Serial No. 309,601.

To all whom it may concern:

Be it known that I, LAUDIE J. MRUK, a citizen of the United States, residing at Butte, in the county of Silver Bow and State of Montana, have invented certain new and useful Improvements in Lubricators, of which the following is a specification.

This invention relates to lubricators specially adapted for use in mines for oiling the axle bearings of the cars used for transporting coal or ore, but which may be used in any other places where applicable; and it consists in the novel construction and combination of the parts hereinafter fully described and claimed.

In the drawings, Figure 1 is a side view of a lubricator constructed according to this invention. Fig. 2 is a vertical section through the upper end portion of the lubricator, and is drawn to a larger scale. Fig. 3 is a plan view of the top of the lubricator. Fig. 4 is a vertical section through the lower end portion of the lubricator.

The body portion or shell 5 of the lubricator is formed of a piece of cylindrical metallic tubing of any desired length. A cap 6 is provided for closing the upper end of the shell 5, and a similar cap 7 is provided for closing its lower end. The top cap has an annular groove 8, and the lower cap has an annular groove 9, and the end portions of the shell are forced tightly into these grooves, without being screwed into them. Any suitable soft packing 10 can be placed in the bottoms of the grooves, if desired.

The top cap 6 has laterally projecting lugs 12, and the bottom cap 7 has similar lugs 14. Four lugs are preferably provided, and they are spaced at equal distances apart. Clamping rods 16 are arranged in holes in the lugs 12 and 14, and are secured to the lower lugs in any suitable manner.

These rods have screw threaded upper end portions 17, and 18 are long sleeve nuts screwed on the end portions 17 above the lugs of the top cap. When the nuts are screwed up, the caps are held in oil-tight connection with the shell.

The bottom cap 7 has a laterally projecting pipe connection 20, and 21 is a tubular stem screwed thereto by a suitable union. The union 60 has a screwthreaded stem 61 which is screwed into the upper side of the pipe connection 20, so that the lubricator can stand upright on its base. The two caps 6 and 7 are interchangeable, the pipe connection 20 of the bottom cap forming the pipe connection 30 of the top cap 6 when interchanged. An oil delivery pipe 22 is secured at one end to the stem 21, and has a similar stem 24 secured to its other end. The pipe 22 is formed of flexible material so that it can be moved about in any direction. A metallic delivery pipe 25 is connected to the stem 24 by a suitable union, and a plug valve 26 is arranged in the pipe 25 and is provided with a handle or lever 27 for operating it. An angle-shaped outlet nozzle 28 is secured to the free end portion of the pipe 25. Any other approved form of valve may be used for controlling the outlet of oil instead of the plug valve shown.

The top cap 6 is provided with a laterally projecting pipe connection 30, similar to the pipe connection 20, and an air inlet valve 31 is screwed into the pipe connection 30, and is normally covered by a removable protector or thimble 32. The air inlet valve is of any approved construction, and is similar to the valves used for inflating the pneumatic tires of the road wheels of motor cars.

The top 35 of the top cap 6 is shaped like a funnel, and it projects inwardly. A plug 36 is screwed into a hole 37 at the center or apex of the cap, and 38 is a handle which is pivoted to the plug 36. This handle serves as a carrying handle for moving the lubricator from place to place, and it also affords a means for operating the screwthreaded plug. A lug or staple 39 is formed on the top 35, and 40 is a pad-lock for securing the handle to the lug 39.

The bottom cap has a plug 41, similar to the plug 36, and the delivery pipe can be connected at this point, if desired.

In order to prevent the lubricator from being opened by unauthorized persons, a lug or staple 44 is arranged to project from one side of the top cap, and 45 is a latch which is pivoted to the shell by a pin 46, and which engages with the lug or staple 44. A pad-lock 47 is provided for engaging with the lug or staple so as to secure the latch in engagement with it.

The plug 36 of the top cap is preferably made large enough to permit thick grease, or melted tallow, to be poured into the lubricator, as well as oil, and the funnel-shaped

top 35 permits the lubricant to be poured in with facility. A strainer 48 is secured to the cap 6 under the oil inlet by a ring 49, so that it can be taken off and cleaned when it becomes obstructed.

The shell is filled with lubricant to the desired height, and air is forced under pressure into the air space of the shell above the oil. The lubricant is expelled by means of the compressed air when the valve 26 is opened, and the lubricator can be carried from car to car to lubricate their axle bearings. The shell of the lubricator also preferably has a handle 50 on one side for carrying it horizontally, and a hook 51 on one side for hanging it up when not in use. A spring clip 52 also projects from one side of the top cap, for the delivery pipe to engage with when the lubricator is being carried from place to place.

What I claim is:

A lubricator, comprising a tubular shell, interchangeable top and bottom caps removably secured to the ends of the shell and having integrally-formed pipe connections on one side, an air inlet valve connected to the lower side of the pipe connection of the top cap, and an outlet pipe for lubricant connected to the upper side of the pipe connection of the bottom cap and provided with a flexible section and a regulating valve.

In testimony whereof I have affixed my signature.

LAUDIE J. MRUK.