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M. D. PROUTY ET AL
 DEVICE FOR ILLUMINATING OIL GAUGES

Filed May 16, 1924

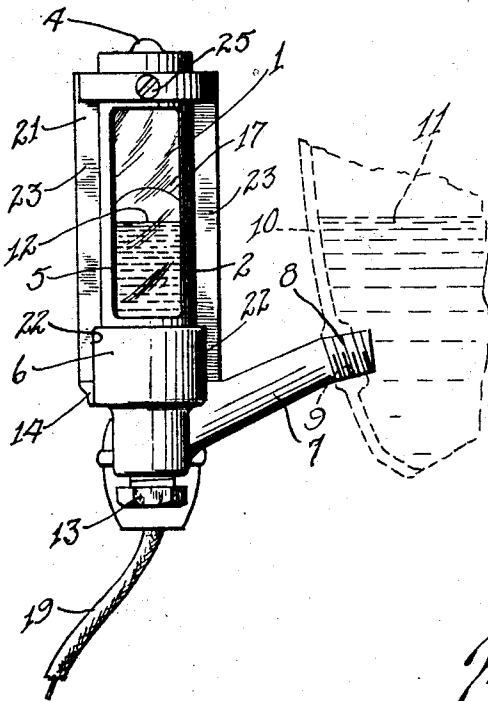


Fig. 1.

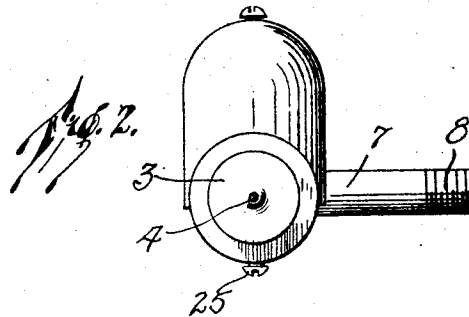


Fig. 2.

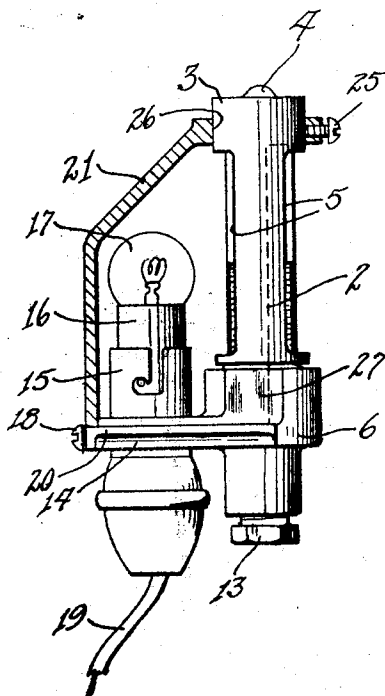


Fig. 3.

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UNITED STATES PATENT OFFICE.

MORTON D. PROUTY, ROLLIE CRAIG, CLIFFORD RAWLINGS, AND HARRY CARLSON,
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DEVICE FOR ILLUMINATING OIL GAUGES.

Application filed May 16, 1924. Serial No. 713,777.

To all whom it may concern:

Be it known that we, MORTON D. PROUTY, ROLLIE CRAIG, CLIFFORD RAWLINGS, and HARRY CARLSON, all citizens of the United States, and residents of Galva, Ida County, Iowa, have invented a new and useful Improvement in Devices for Illuminating Oil Gauges, of which the following is a full, clear, and exact description.

Our invention relates to improvements in device for illuminating oil gauges, and it consists in the combinations, constructions and arrangements herein described and claimed.

An object of our invention is to provide a device of the type described that is an improvement over that device set forth in our prior and copending application for patent on device for illuminating oil gauges, Serial No. 687,551, filed January 21, 1924, in which we disclosed a device having a frictionally mounted combined guard and reflector element. Our present device embodies positive means for fixing the combined guard and reflector element to the gauge and other improvements heretofore not provided for in the prior application.

A further object of our invention is to provide a device for illuminating oil gauges in which positive means is provided for preventing the unintentional removal of the combined guard and reflector element from the gauge. This structure consists in a peculiar configuration of the guard member in a single set screw associated therewith, which when tightened, secures the reflector element to the gauge.

A further object of our invention is to provide a device of the type described in which the combined protector and reflector element and the gauge base are so constructed as to permit the overlapping of portions of the elements, thereby virtually sealing that space occupied by the incandescent lamp so that the inner surface of the reflector element may remain bright and serve to reflect light through the gauge.

A further object of our invention is to provide a device of the type described which is exceedingly simple in construction, which is durable, and which is thoroughly practical commercially.

Other objects and advantages will appear in the following specification, and the novel features of the invention will be particularly pointed out in the appended claims.

Our invention is illustrated in the accompanying drawings, forming part of this application, in which—

Figure 1 is a front elevation of an embodiment of our invention,

Figure 2 is a top plan view of the mechanism illustrated in Figure 1, and

Figure 3 is a side elevation of the mechanism illustrated in Figure 1, a portion of the combined protector and reflector removed.

In carrying out our invention we make use of the ordinary type of gauge glass 1 which is fitted in an upright tubular member 2. The top wall 3 of the upright 2 is closed except for a vent opening 4, centrally located therethrough.

The upright 2 is in the shape of a cylindroid. A portion of the forward wall and of the rear wall of the cylindroid is removed as shown at 5, so as to permit light to be projected through the gauge glass 1 which is projected within the hollow cylindroid in the manner shown in Figure 3. The upright 2 is secured to a substantially horizontal base member 6 having a tubular neck 7 extending outwardly therefrom and provided with exteriorly disposed threads 8 on the outermost end thereof.

The gauge glass 5 is connected directly with the tubular-neck 7 so that when the threads 8 are engaged with a threaded vent opening 9 of an oil reservoir 10, the level 11 of oil in the reservoir 10 may be known by the level of the oil 12 within the gauge glass 1.

For the purpose of cleaning the gauge glass, a plug 13 is provided in the base member 1, which when removed permits the introduction of a brush or the like up through the gauge glass.

The removal of the plug 13 may also serve to draw the oil from the reservoir 10 down to a level determined by the mouth of the neck 7 at the reservoir.

The base member 6 has a rearwardly extending elongated portion 14 through which an incandescent lamp socket 15 is vertically projected. This socket 15 is of the bayonet type and is for the purpose of receiving an incandescent lamp base 16, forming a part of an incandescent lamp 17. The lamp 17 is disposed so that its filament is substantially opposite to the mid point of the gauge glass 1 and behind the rearmost cut-away portion 5 of the upright.

A set screw 18 is projected through the rearwardly extending portion 14 of the base 6 and is employed for adjustably holding the lamp socket 15 against movement relative to the base 6. Obviously the lamp 17 may be elevated relative to the portion 14 of the base 6 by loosening the set screw 18 and moving the entire socket through a vertical path to the position desired.

A lead wire 19 is provided for the socket 15 so that the socket may be provided with an electric current source so as to cause incandescence of the lamp. The portion 14 of the base member 6 has an outwardly extending flange 20 on the side wall thereof, upon which an aluminum cast combined protector and reflecting element 21 is seated. The innermost side of this member 21 at the lower peripheral edge is rabbeted as shown at 22, so as to bring the vertical edges 23 of the member 21 into close engagement with the outer walls of the upright 2, thus virtually sealing that space occupied by the lamp 17 at the rear of the upright and above the base member 6. From inspection of Figures 2 and 3 it will be noted that the uppermost portion of the combined protector and reflecting member is formed in the shape of an annulus as shown at 24, and a set screw 25 is projected through the forward portion of the annulus 24 and arranged to bear upon the upright 2, so as to lock the member 21 against unintentional removal from the base member 6 and the upright 2. A further purpose and function of the set screw 25 is to draw the member 21 into close engagement with the upright 2 as shown at 26 thereby precluding the entrance of extraneous substances to the space occupied by the lamp so that the brightness of the white metal interior wall of the element may be maintained.

In order to provide close seating of the member 21 relative to the base 6, the side walls of the base 6 as well as the rearwardly extending portion 14 are substantially flat as shown at 27.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. In operation, our improved illuminating device for oil gauges serves at all times at the will of the operator to provide a light from the incandescent lamp 17 at the rear of the gauge glass 1, so that the level of oil in the gauge glass may be clearly seen (see Fig. 1).

A switch may be interposed between the feed wire 19 and the source of current so as to provide light only when needed.

It will be apparent from the foregoing description of the construction of our improved device that little or no extraneous substances may enter that space occupied by the lamp 17, that would serve to darken or tarnish the white metal of the inner wall of the combined protector and reflecting ele-

ment, as well as to cause a deposit of opaque substance upon the lamp 17.

Let us assume now that it is wished to alter the position of the lamp 17 behind the gauge glass 1. This may be readily accomplished by the loosening of the set screw 18 and moving the entire socket 15 in a vertical path either up or down until the lamp 17 is in a satisfactory position. A further advantage in providing means for adjusting the socket 15 vertically is so that lamps having bulbs of different sizes may be used within the combined protector and reflector element, which is of predetermined dimensions.

A further advantage wrought by the structure set forth in the foregoing specification is that the combined protector and reflector element may be removed at any time from the lamp by loosening the set screw 25, whereupon the element may be cleaned and polished and the set screw replaced. When the element 21 is in place there is no possibility of its accidental dislodgement from the gauge due to the fact that the set screw 25 is positive in its engagement with the upright 22.

We claim:

1. A device of the type described comprising a gauge glass, an upright supporting said gauge glass, a base member extending rearwardly of said upright, an incandescent lamp supported on said base member at one side of said gauge glass, a combined protector and reflector element arranged to seat closely upon said base member and to encompass said lamp, said element being further formed to encompass said upright at the upper end thereof, whereby said element may not move out of engagement with respect to said upright, and a set screw projected through that portion of said element encompassing said upright for tightly securing the element to said upright.

2. A device of the type described comprising an upright for supporting a gauge glass, a base for supporting said upright and extending rearwardly thereof, an incandescent lamp adjustably supported upon said base at the rear of said gauge glass, a combined protector and reflecting element arranged to tightly seat upon said base member, to contact the side wall of said upright, and to entirely enclose said incandescent lamp, said element being further constructed so as to encompass the upper portion of said upright, and a set screw projected through that portion of said element encompassing the upright for the purpose of preventing dislodgement of the element from the upright.

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