

C. M. DOWELL.
OIL INDICATOR.
APPLICATION FILED FEB. 28, 1912.

1,043,680.

Patented Nov. 5, 1912.

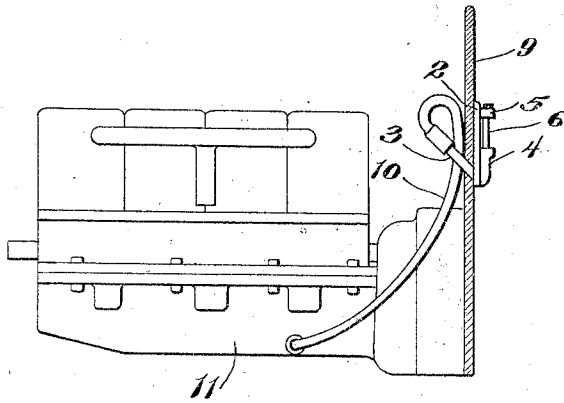


FIG. 1

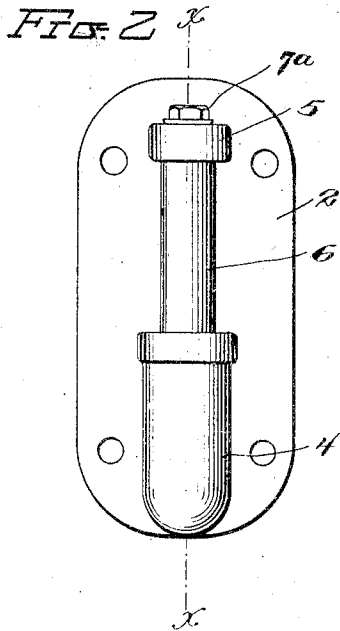


FIG. 2

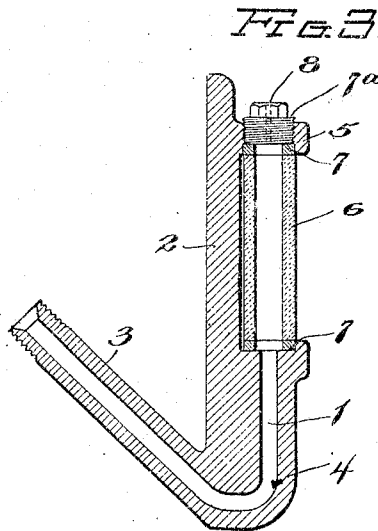


FIG. 3

Witnesses
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UNITED STATES PATENT OFFICE.

CHESTER M. DOWELL, OF HUNTINGBURG, INDIANA.

OIL-INDICATOR.

1,043,680.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHESTER M. DOWELL, a citizen of the United States, residing at Huntingburg, in the county of Dubois and State of Indiana, have invented new and useful Improvements in Oil-Indicators, of which the following is a specification.

The present invention provides a device for indicating the level of the oil in a tank, reservoir or compartment or for showing the height of gasoline or other hydrocarbon contained in a tank for supplying the liquid fuel to an engine of the internal combustion type, said device containing a liquid, which latter is controlled by atmospheric pressure.

The invention contemplates a body having a passage of approximately U form and constituting a trap, a sight tube fitted to one end of said U shaped passage and an air tube connected with the other end of the passage and with the tank, receptacle or compartment for containing the liquid whose level is to be determined.

The invention consists of the novel features, details of construction and combination of parts, which hereinafter will be more particularly set forth, illustrated in the accompanying drawing, and pointed out in the appended claim.

Referring to the drawing, forming a part of the specification, Figure 1 is a detail view, showing the application of the invention. Fig. 2 is a front view of the indicator. Fig. 3 is a section of the indicator on the line *x-x* of Fig. 2.

Corresponding and like parts are referred to in the following description, and indicated in all the views of the drawing, by the same reference characters.

The indicator consists of a body in which is formed a passage 1 of approximately U form. The body of the indicator comprises a plate 2 having openings to receive fastenings by means of which the device is attached to a suitable support. A tubular extension 3 projects from one side of the plate at an acute angle thereto. A hollow projection 4 is formed upon the opposite side of the plate and is arranged substantially parallel therewith. The openings formed in the tubular extension 3 and in the hollow projection 4 constitute the U shaped passage hereinbefore referred to and which constitutes the trap for containing a liquid to form the indicating means. A projection 5 is formed upon the same side of the plate 2 as the

hollow projection 4 and is spaced therefrom, said projections 4 and 5 being recessed in their inner or opposing sides to receive a sight tube 6. Washers 7 are located in the recesses of the projections 4 and 5 to insure a close joint between said parts and the ends of the sight tube 6. A plug 7^a is threaded into the projection 5 and exerts an endwise pressure upon the sight tube to retain the same in place and to press the washers 7 to such an extent as to maintain a close joint between the ends of the sight tube and the projections 4 and 5. A vent opening 8 is formed in the plug 7^a to admit of ingress and egress of air in the operation of the indicator. The liquid forming the indicating means is supplied to the U shaped passage 1 and is adapted to rise in the sight tube 6 proportionately to the pressure exerted upon one end thereof.

The indicator is secured to the support which in the present instance is shown as consisting of the dash 9 of an automobile, the indicator being arranged so that the sight tube faces the operator and having the extension 3 passing through an opening formed in the dash. A tube 10 connects the tubular extension 3 with the compartment 11 containing the liquid, the level of which is to be determined. The compartment 11 may be a tank, reservoir or other container for receiving the liquid. As illustrated the compartment 11 consists of the crank case of an automobile motor, said crank case containing the oil for lubricating the bearings, connecting rods and like parts usually oiled by the splash system. The tube 10 connects with the lowest part of the compartment 11. Upon supplying oil to the compartment 11 the lower end of the tube 10 connected therewith is sealed and as the level of the oil rises in the compartment, the air confined in the tube 10 between the liquid in the U shaped passage 1 and the oil contained in the compartment 11 is compressed, thereby exerting a pressure upon one end of the liquid contained in the U shaped passage and causing said liquid to move so that its opposite end will appear in the sight tube 6. As the oil is supplied to the compartment 11 and the level thereof rises the pressure exerted on the air confined in the tube 10 increases, thereby causing the liquid contained in the U shaped passage 1 to rise in the sight tube. When the engine is in operation and the oil is con-

sumed in the compartment 11 the pressure on the air confined in the tube 10 decreases, thereby permitting the liquid to descend in the sight tube, thereby indicating a lowering of the level of the oil in the compartment.

It will be understood from the foregoing, taken in connection with the drawings hereto attached that the invention provides means for positively indicating the level of the oil in the crank case, compartment or tank of an automobile engine so that the operator may be duly warned when the oil is at a low level. The device is of such construction as to admit of its being located in convenient position so as to be at all times under observation, it being observed that the indicator may be arranged at any point above the level of the compartment or other container holding the oil or liquid, the level of which is to be determined. In order that the amount of oil or other liquid held in the tank, container or receptacle may be approximately determined it is proposed to supply the plate 2 with a gage adjacent the sight tube 6 and this gage may be graduated to designate pints, quarts and gallons.

From the foregoing description, taken in connection with the accompanying drawing, the advantages of the construction and of the method of operation will be readily apparent to those skilled in the art to which

the invention appertains, and while I have described the principle of operation of the invention, together with the device which I now consider to be the best embodiment thereof, I desire to have it understood that the device shown is merely illustrative, and that such changes may be made when desired as are within the scope of the claim appended hereto.

Having thus described the invention what is claimed as new, is:—

An indicator of the character set forth comprising a plate, a tubular extension at one side of the plate arranged relatively at an acute angle thereto, a hollow projection upon the opposite side of said plate, the openings of the tubular extension and the hollow projection being in communication to form a passage of substantially U shape, said plate having a projection upon the same side with the hollow projection and spaced therefrom, a sight tube arranged between the said projections, and a plug threaded into the upper projection and adapted to confine the sight tube and formed with a vent opening.

In testimony whereof I affix my signature in presence of two witnesses.

CHESTER M. DOWELL.

Witnesses:

W. H. FISHER,
W. C. BRETZ.