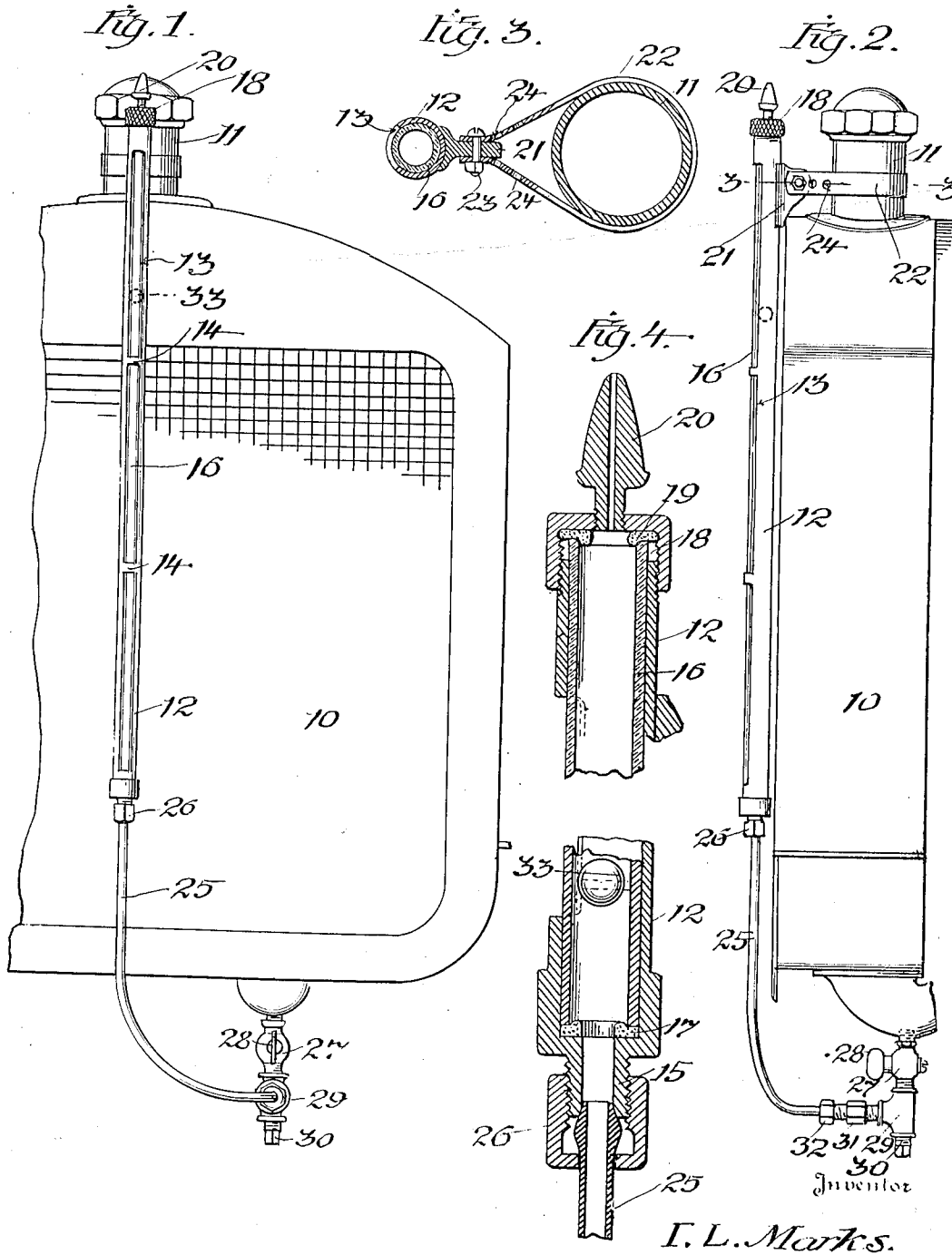


I. L. MARKS.
RADIATOR SIGHT GAGE.
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1,286,046.

Patented Nov. 26, 1918.



Inventor

I. L. Marks.

By

Lacey & Lacey,

Attorneys

UNITED STATES PATENT OFFICE.

ISAAC L. MARKS, OF SAN FRANCISCO, CALIFORNIA.

RADIATOR SIGHT-GAGE.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ISAAC L. MARKS, a citizen of the United States, residing at San Francisco, in the county of San Francisco and State of California, have invented certain new and useful Improvements in Radiator Sight-Gages, of which the following is a specification.

This invention relates to an improved sight gage for motor vehicle radiators and has as its primary object to provide a device of this character which may be easily and quickly applied to substantially any conventional type of motor vehicle.

The invention has as a further object to provide a device which may be connected with the drain outlet of the radiator and which will be supported in front of the radiator where the sight tube of the gage may be readily observed.

And the invention has as a still further object to provide a device of this character which will be entirely supported from the filler tube of the radiator.

Other and incidental objects will appear as the description proceeds, and in the drawings wherein I have illustrated the preferred embodiment of the invention, and wherein similar reference characters designate corresponding parts throughout the several views:

Figure 1 is a fragmentary front elevation showing my improved device applied to a conventional type of motor vehicle radiator,

Fig. 2 is a side elevation more particularly illustrating the manner in which the device is supported from the filler tube of the radiator,

Fig. 3 is a transverse sectional view taken on the line 3—3 of Fig. 2, particularly illustrating the attaching clip employed for connecting the device with the filler tube of the radiator, and

Fig. 4 is a fragmentary vertical sectional view on an enlarged scale showing the mounting of the sight tube within the casing of the gage.

In order that the construction, mounting and operation of my improved gage may be accurately understood I have, in the drawings, shown the device in connection with a conventional type of motor vehicle radiator

10 having a filler tube 11. In carrying out the invention my improved gage is formed with a tubular metal casing or jacket 12 which, upon the front side thereof is provided with a longitudinally extending sight opening 13 preferably bridged by suitable spaced webs 14. At its lower end the casing is reduced to provide a nipple 15 and removably fitted within the casing to communicate with this nipple is a preferably glass sight tube 16. As particularly brought out in Fig. 4 of the drawings, this sight tube snugly fits within the casing and seated within the lower end of this casing beneath the adjacent terminal of said tube is a suitable annular gasket 17. Screw threaded upon the upper end of the casing is a closure cap 18 therefor and seated within this cap is an annular gasket 19 similar to the gasket 17. As also particularly brought out in Fig. 4, the sight tube is of a length to project at its upper end slightly above the upper terminal of the casing. Consequently, the cap 18 may be adjusted upon the casing for tightly binding the sight tube between the gaskets 17 and 19. Watertight joints between the ends of the tube and the casing are thus provided while, at the same time, the sight tube will be firmly held in position. Screw threaded through the cap 18 axially thereof or otherwise connected with the said cap, is a vent plug 20 for the sight tube.

At its upper extremity the casing 12 is, upon the rear side thereof, formed with a laterally projecting attaching lug 21 and arranged to cooperate with this lug is a flexible attaching clip or strap 22 for the gage. This strap is preferably formed of suitable resilient sheet metal and is bent to embrace the filler tube 11 of the radiator with the ends of the strap confronting opposite sides of the lug 21 to be secured therewith by a bolt or other suitable fastening device 23 passing through the lug. The gage may thus be easily mounted upon the radiator to extend vertically in front thereof where it may be easily observed, and in this connection it should be pointed out that the weight of the gage will be entirely supported from said strap. In order to accommodate filler tubes of different diameters, the

extremities of the strap 22 are provided with a plurality of spaced openings 24 through any pair of which the bolt 23 may be inserted for connecting the strap to the lug 21.

Furthermore, this construction provides an arrangement whereby the gage may be adjustably spaced in front of the radiator.

Extending from the nipple 15 of the casing 12 is a flexible metal pipe 25 detachably connected with the said nipple by a union 26. This pipe is first carried downwardly from the casing axially thereof and is then directed laterally at its lower end toward the drain opening of the radiator. As is well known, the usual motor vehicle radiator is provided with a drain cock and in connecting my improved device with the radiator such drain cock is removed and a double ended drain cock 27 is screwed at its inner end into the drain opening in lieu of the former cock. The drain cock 27 is provided with a manually operable valve 28 and screwed onto the lower end of the said cock is a T connection 29 closed at its lower end by a removable drain plug 30. Extending from the side outlet of the T connection is a short pipe section 31 preferably screw threaded into the said outlet and detachably connecting the lower end of the pipe 25 with the outer end of the said pipe section is a union 32.

As will now be seen, the valve 28 of the drain cock 27 may be opened, when communication will be established between the radiator and the sight tube 16. Consequently, water from the radiator will, since the said tube is vented at its upper end by the plug 20, rise within the sight tube for indicating the water level within the radiator. In order that the level of the water in the sight tube may be easily observed, the casing 12 is preferably given an interior white coating so as to furnish a white background for the said tube and disposed within the said tube is an indicator float 33. This float is preferably formed of a small hollow glass ball and, in practice, may be painted red or given some other distinguishing color so that the float may be easily located within the sight tube and the level of the water in the radiator thus quickly determined. Should the sight tube become accidentally broken, the valve 28 of the drain cock 27 may be immediately closed so that the water from the radiator will not waste. Furthermore, this provides an arrangement whereby, in cold weather, the flow of water into the sight tube may be cut off. For draining the radiator, the drain plug 30 is removed when, upon opening of the valve 28 the water in the radiator will quickly flow out through the drain cock while at the same time the sight tube will be similarly emptied. However, should it be desired to empty this tube without draining

the radiator, the valve 28 may be closed when, upon removal of the plug 30, the sight tube will be immediately drained.

It will therefore be seen that I provide a particularly effective structure for the purpose set forth and a device which is characterized by such simplicity that it may be produced at minimum cost and thus delivered to the purchaser at a reasonable price. Furthermore, the device is of such nature that it may be readily applied to substantially any conventional type of motor vehicle radiator.

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

1. A sight gage for motor vehicle radiators including a casing, a vented sight tube mounted therein, means engaged with the casing for establishing operative communication between the tube and the radiator of a vehicle, and an attaching clip engaged with the casing and adapted to be flexed about a support for sustaining the gage in active position.

2. A sight gage for motor vehicle radiators including a casing, a vented sight tube mounted therein, means engaged with the casing for establishing operative communication between the tube and the radiator of a vehicle, and a flexible attaching clip adapted for adjustable connection with the casing and disposed to surround the filler tube of a radiator for supporting the gage in active position.

3. The combination with a motor vehicle radiator having a filler tube and drain opening, of a sight gage for the radiator including a casing, means engaged with the casing and connected to the said filler tube for supporting the casing in vertical position in front of the radiator, a sight tube disposed within the casing and vented at its upper end, and means engaging in the drain opening of the radiator and connected with the lower end of the casing for establishing communication between the sight tube and radiator.

4. A sight gage for motor vehicle radiators including a casing, a vented sight tube disposed within the casing and adapted to be operatively connected with a vehicle radiator, and means carried by the casing and adapted to surround the filler tube of a radiator for supporting the gage in active position.

5. A sight gage for motor vehicle radiators including a continuous casing contracted at one end to provide a shoulder and having a reduced nipple extending from its contracted portion, a sight tube fitted within the casing, a vented cap engaging the opposite end of the casing and closing the adjacent end of the tube, gaskets interposed between the ends of the tube, the shoulder and said cap, the cap being

adjustable upon the casing for clamping the tube between the said gaskets, and means engaged with said nipple for establishing communication between the tube and the radiator of a vehicle.

5 6. The combination with a motor vehicle radiator having a filler tube, of a sight gage

for the radiator including a sight tube operatively connected with the radiator, and means for supporting the sight tube in front 10 of the radiator from the said filler tube.

In testimony whereof I affix my signature.

ISAAC L. MARKS. [L. s.]