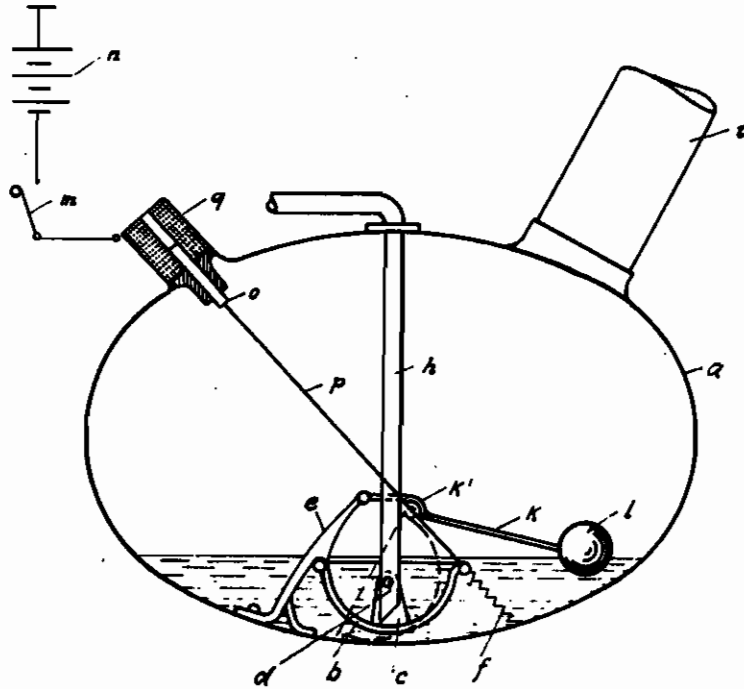


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DEVICE FOR RETAINING A RESERVE SUPPLY
OF FUEL IN FUEL TANKS, PARTICULARLY
OF MOTOR-CARS
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ALIEN PROPERTY CUSTODIAN

DEVICE FOR RETAINING A RESERVE SUPPLY OF FUEL IN FUEL TANKS, PARTICULARLY OF MOTOR-CARS

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It is extremely difficult to provide in fuel tanks accommodated at the rear of motor-cars an appropriated and reliable device rendering possible to separate from the main quantity of fuel a predetermined part as a fuel reserve, so as to have after the contents of the main fuel tank being consumed at least as much fuel as a supply as to be able to reach the nearest filling station. Hitherto all the mechanical devices have been found to demand too much attention and to be too expensive, what caused introducing electrical measuring devices the manner of action of which may be observed at the instrument board. However, those devices, too, did not bring advantages as to justify the relatively high initial costs. The most important thing to be required from such a mechanism, is an indication as exact as possible, an object which cannot always be attained, particularly, with electrical measuring devices.

All the drawbacks and inaccuracies existing in mechanically operated fuel reserve tanks or electrical measuring devices are eliminated by the simple and cheap device as described in the following:

According to the invention there is provided in the lowest place of the fuel tank a hemispherically or the like shaped receptacle or cup the top of which is open and into which the fuel drain pipe extends. This receptacle or cup is swingably mounted in the fuel tank. On the one side the upper edge of this cup resembling receptacle leans under the constant tension of a spring attached to the opposite side against a stop, whereby the open side is always horizontal.

As long as the fuel tank is filled with fuel beyond the upper edge of the cup, fuel may be withdrawn from the tank through the drain pipe. As soon, however, as the fuel level has descended to the upper edge of the small receptacle, and its contents, too, have been exhausted, fuel feed will cease and, by this, the driver will obligatorily be reminded of his having but a relatively small quantity of fuel still in the fuel tank and of the necessity of taking care of refilling the fuel tank. Yet, he will be able to continue his ride at will still during a predetermined space of time, as upon swinging away the cup the fuel drain pipe may withdraw from the

remainder of fuel in the tank the fuel which the engine requires for its drive. If the driver gets the fuel tank refilled, when the next opportunity offers itself the cup will, according to the invention by means of a float, be replaced into the initial position. This automatical taking back of the cup represents an important discharge for the driver as the reversal can never be forgotten.

In the accompanying drawing the invention has been represented schematically in a section through the fuel tank. In this drawing *a* is the fuel tank, *b* the swingable mounted cup which is suspended in some way or other, e. g., in two jacks *c*, and turns on the point *d*. The cup is pulled to the stop *e* by means of spring *f*. Stop *e* is elongated upwardly and serves with its upper extremity as a support for arm *k* of float *l* to turn in this bearing. Arm *k* comprises a cambering *k'* which is designed as to snatch under the edge of cup *b* whenever this latter is turned into the dotted position. The ascending or drain pipe *h* leads to the lowest place of the cup *b* so that upon tipping the latter the fuel supply may be exhausted from the main tank *a*. The gasoline filler neck is designated by *i*. On the fuel tank *a* there is provided an electromagnet *g* the core of which is connected by means of a rope or the like with the cup.

The manner of action of the device according to the invention may be described to be as follows:

The driver will be aware, by the running of the engine, of the fuel level sinking to the upper edge of cup *b* and of this latter being emptied. Upon operation of a switch *m* the electromagnet *g* pulls into itself owing to the current taken from the battery *n* the iron core *o*, whereby by way of the rope *p* connected with the latter the cup *b* is pulled into the dotted position. The cambering *k'* of the float arm *k* snatches under the edge of the cup *b* and holds the same in this position. While the tank being replenished the float will rise as well as the fuel level and release at a suitable height the edge of cup *b*, whereby the same will be withdrawn by means of spring *f* into its horizontal position.

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