E. SCHATZ & B. WHITEHOUSE.

AUTOMATIC SAFETY DEVICE FOR AUTOMOBILES.

APPLICATION FILED FEB. 6, 1915.

1,184,029. Patented May 23, 1916.

Fig. 1.

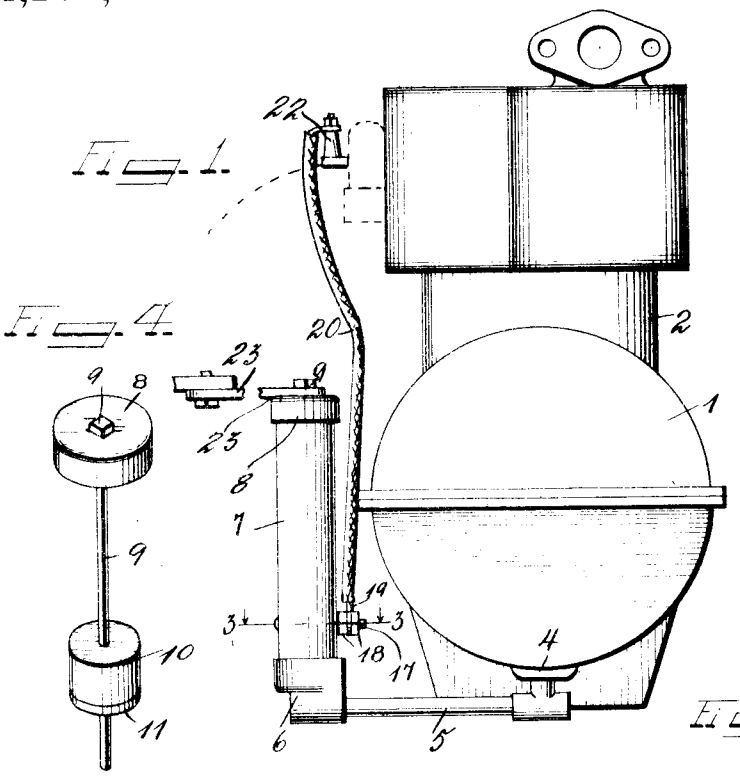


Fig. 4.

Fig. 3.

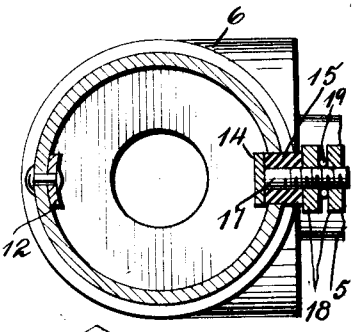


Fig. 2.

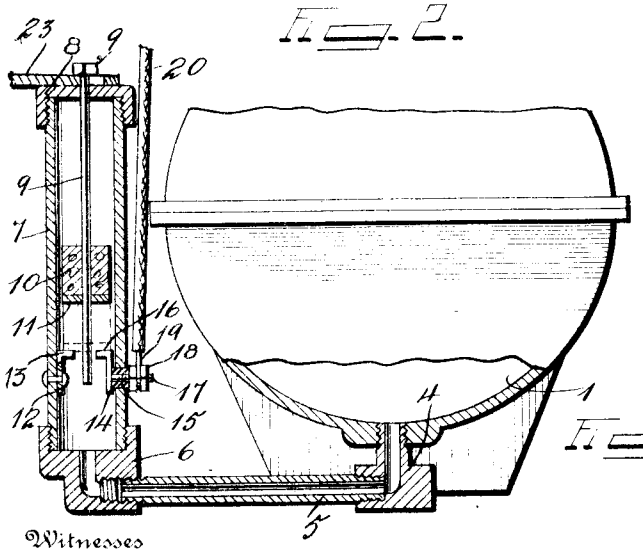
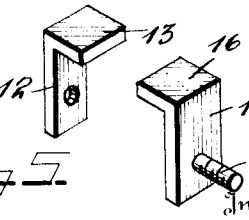


Fig. 5.



Witnesses

A. C. Popkins

Inventors

E. Schatz

B. Whitehouse.

By E. G. Grosman & Co.,

their Attorneys

UNITED STATES PATENT OFFICE.

ELMER SCHATZ AND BERT WHITEHOUSE, OF VINCENNES, INDIANA, ASSIGNORS OF ONE-THIRD TO ELISHA MORGAN, OF VINCENNES, INDIANA.

AUTOMATIC SAFETY DEVICE FOR AUTOMOBILES.

1,184,029. Specification of Letters Patent. Patented May 23, 1916.

Application filed February 6, 1915. Serial No. 6,536.

To all whom it may concern:

Be it known that we, ELMER SCHATZ and BERT WHITEHOUSE, citizens of the United States of America, residing at Vincennes, in the county of Knox and State of Indiana, have invented certain new and useful Improvements in Automatic Safety Devices for Automobiles, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to a signaling device for a lubricator of a crank of an explosive engine, and has for its object the production of a simple and efficient means for automatically cutting off the operation of the engine when the lubricant within the crank casing has fallen below a predetermined point.

Another object of this invention is the production of a means for short circuiting the current passing through the spark plug when the lubricant within the crank casing has fallen below a predetermined point.

With these and other objects in view this invention consists of certain novel combinations, constructions, and arrangements of parts as will be hereinafter fully described and claimed.

In the accompanying drawings:—Figure 1 is an end elevation of an engine showing the electrical connection between the gage and the spark plug. Fig. 2 is an enlarged vertical section through the gage showing a part of the crank casing broken away. Fig. 3 is a transverse sectional view taken on line 3—3, of Fig. 1. Fig. 4 is a perspective view of the float adapted to be mounted within the gage. Fig. 5 is a detail perspective view of the contact brackets carried within the gage.

By referring to the drawing it will be seen that 1 designates the crank casing which is of the usual construction, and this crank casing carries the cylinders 2, which cylinders are provided with the usual manifold and carry the spark plug. The crank casing 1 is provided with a threaded cap 4 at its lower end, which threaded cap is hollow and engage a right angularly extending pipe 5. This pipe 5 supports a nipple 6, which nipple in turn carries a metallic tube 7, the metallic tube being threaded into the upper end of the nipple 6. A cap 8 is threaded upon the upper end of the tube 7, and this cap carries a depending rod 9 upon which is slidably mounted a float 10. This float 10 carries a metallic disk 11 upon its lower edge in order to form a contact with the respective contact devices carried within the tube 7. The tube 7 carries a metallic bracket 12, which bracket 12 is provided with an overhanging end 13. A metallic bracket 14 is supported upon the tube 7 by means of an insulating collar 15, and this bracket 14 is also provided with an inwardly extending head 16. A bolt 17 is carried by the bracket 14 and a plurality of clamping nuts 18 are threaded thereon for the purpose of attaching the contact end 19 in engagement with the threaded bolt 17. The conducting wire 19 is provided with an insulating covering 20, and the upper end 21 of the conducting wire 19 is connected to the magneto contact post 22 as clearly illustrated in Fig. 1.

A conducting plate 23 is bolted or otherwise connected to the crank case or other suitable support for strengthening and holding the tube 7 rigid.

It should be understood that the conducting wire 19 is adapted to be connected to the magneto contact post, or to any point touched by the wire carrying the low tension electrical current from the magneto to the coil box before the current enters the coil box. The device is especially adapted to be applied to a Ford or other similar magnetos. The device can be attached to high tension magnetos by attaching the conducting wire 20 to the armature of the magneto.

The operation of the device is as follows:—The lubricant is placed in the bottom of the crank casing so as to keep the cranks thoroughly lubricated, and the lubricant will pass through the pipe 5 and up into the tube 7 and support the float 10 therein. After the lubricant has fallen below a predetermined point, which is determined by the position of the contact plates 12 and 14, the contact disk 11 will cause the short circuit to be made across the ends 13 and 16 of the contact plates 12 and 14, and in this manner discontinue the operation of the engine, thereby immediately advising the person running the automobile or engine that the lubricant has fallen below a predetermined point, whereupon the lubricant may be renewed or the circuit broken for relieving the short circuit by detaching

the conducting member 19 from the bolt 17, and thereby allow the engine to operate until the lubricant in the crank casing may be renewed. It should be understood that the bracket 12 is grounded upon the casing or tube 7, thereby permitting the short circuit to be closed therethrough as soon as the disk 11 comes in contact with the plates 12 and 14.

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

1. An engine of the class described comprising a crank casing, a cylinder carried thereby, a gage casing connected to said crank casing, a magneto binding post, a contact member insulated over said gage casing and supported thereby, means for forming an electrical connection between said contact member and said magneto binding post, a second contact member grounded upon said gage casing, and a float carried within said casing and adapted to cause a short circuit when said float falls in engagement with said contact members for discontinuing the operation of said engine.

2. A device of the class described comprising a crank casing, a cylinder, a magneto binding post coöperating with said cylinder, a gage casing, means for forming a communication between the lower end of said gage casing and said crank casing, a cap carried by said gage casing, a rod depending therefrom, a float slidably mounted upon said rod, a contact bracket carried by said casing, a second contact bracket carried by said casing and insulated therefrom, said first mentioned contact bracket being grounded upon said gage casing, and electrical means forming a communication between said last mentioned contact plate and said magneto binding post for permitting a short circuit to be closed therethrough when said float falls in engagement with said contact members.

3. A device of the class described comprising a crank casing, a cylinder carried thereby, a gage casing communicating with said crank casing, contact members formed within said gage casing, a magneto binding post carried by said cylinders, means for forming an electrical connection between one of said contact members carried by said gage casing and said magneto binding post, and a float positioned within said gage casing and adapted to close a short circuit through said contact members when said float falls below a predetermined point.

In testimony whereof we hereunto affix our signatures in presence of two witnesses.

ELMER SCHATZ.
BERT WHITEHOUSE.

Witnesses:
WILLIAM F. PELZER,
JAMES E. WARD.