April 20, 1926. 1,581,374

C. YOUNGS

OIL REGISTER FOR INTERNAL COMBUSTION ENGINES

Filed March 2, 1925

Fig. 1.

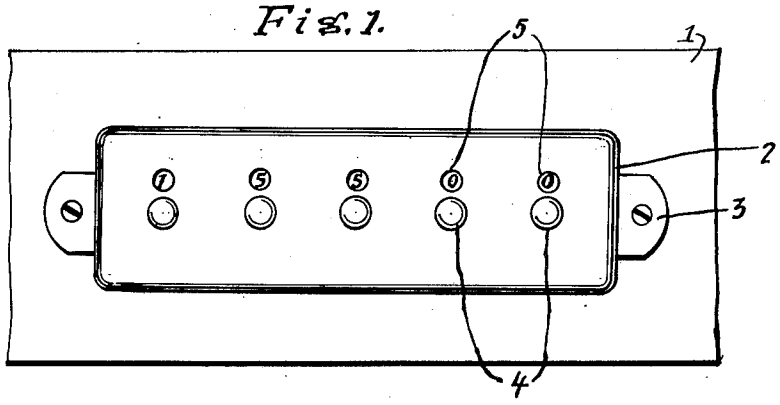


Fig. 2.

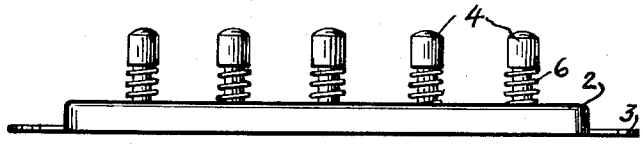


Fig. 3.

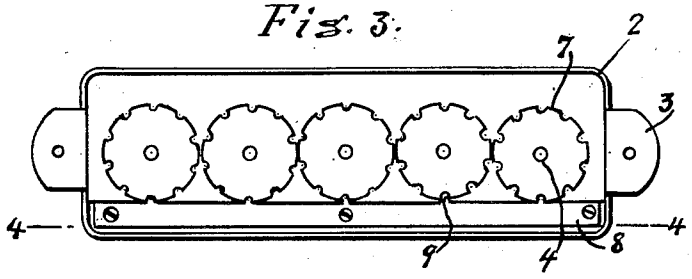


Fig. 4.

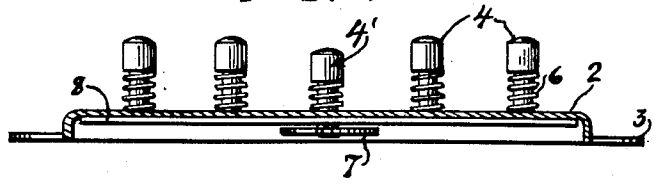


Fig. 5.



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UNITED STATES PATENT OFFICE.

CHESTER YOUNGS, OF GRAND RAPIDS, MICHIGAN.

OIL REGISTER FOR INTERNAL-COMBUSTION ENGINES.

Application filed March 2, 1925. Serial No. 12,634.

To all whom it may concern:

Be it known that I, CHESTER YOUNGS, a citizen of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Oil Registers for Internal-Combustion Engines, of which the following is a specification.

My invention relates to improvements in means for determining when oil should be renewed in internal combustion engines, and particularly in automobile engines, and its objects are: first, to provide a register that may be used in conjunction with the speedometer in the automobile to determine how many miles have been traveled since having renewed the oil supply in the crank case of the engine; second, to provide a means wherewith it may be readily noted when the renewal of oil should be made in crank case.

I attain these objects by the mechanism and arrangement of parts shown in the accompanying drawing, in which Fig. 1 is a front elevation of my register as it appears upon the front cross board of an automobile. Fig. 2 is a bottom plan of the same. Fig. 3 is a back elevation of the same showing the relative positions of its several parts. Fig. 4 is a sectional plan of the same taken as from the line 4—4 of Fig. 3 with the register case turned end for end, and with one of the registering dials depressed to show its position when disconnected from the locking bar for adjusting the dial as desired, and, Fig. 5 is a front elevation of one of the dials showing the indexes thereon, and with the actuating knob removed.

Similar reference characters indicate similar parts throughout the several views where said parts occur.

In the construction of this register I use the several discs 7 having the ten digits, 1, 2, 3, 4, 5, 6, 7, 8, 9, and 0, thereon as shown in Fig. 5. These discs are securely attached to the ends of the actuating stems 4, which are made to pass through the casing 2 and have springs 6 for forcing the stems outward from the surface of the casing, and the surface of the discs solidly against the inner surface of said casing, where they are held from rotating by the points 9, on the stop plate 8 passing into the notches in the periphery of the discs, as shown in Fig. 3, so that, normally, one of the several digits on each disc will be held in position to show plainly through one of the openings 5 in the case 2 of the register, and is there held securely by the locking plate 8 as hereinbefore stated.

The case 2 is provided with a wing 3 at each end by means of which it may be secured to the dash or cross bar 1 of the automobile, in near proximity to the speedometer.

When operating this register I find the most satisfactory results are attained as follows: We will say the speedometer registers 15,000 miles of travel when oil is placed in the crank case, and it is desired to renew it each five hundred miles of travel. In this case I set the dials at 15,500, five hundred miles higher than the speedometer indicates, and when the speedometer has reached the 15,500 mile mark, corresponding with my register, I again renew the oil in the crank case, and so on, each time when it is desirable to renew the oil being indicated by the registering on the speedometer corresponding with the registering on this register.

It will be noted that the locking plate 8 is securely mounted upon the inner surface of the case 2 and the discs are so placed that the points 9 on the plate 8 will engage the desired notch in the periphery of the disc. When it is desired to change the discs to exhibit a new set of numbers I press backwardly upon the desired stem, 4, as indicated at 4', until the disc 7 is positioned entirely out of contact with the points on the plate 8, as indicated in Fig. 4, when the disc may be revolved, by the stem 4, into the desired position relative to the digit on the disc 7 and the openings 5 in the case, when the stem 4 is relieved and the spring 6 forces it back into position to be properly engaged by the corresponding point 9 on the plate 8, as hereinbefore explained.

It is to be understood that means other than those herein stated, may be used to operate and lock the discs without departing from the spirit of my invention.

Having thus fully described my invention, what I claim as new in the art, is:

In a register for displaying any desired combination of numerals in a direct line, an enclosing case, a series of revoluble discs mounted in said case in a direct line, stems extending outwardly from said discs through openings in the face of the case with which to revolve each disc individually, the ten Arabic numerals placed in a circle near the edge of each disc, the face of the

case having a row of openings parallel with the row of openings through which the disc stems pass, springs for holding the discs in normal positions, each disc having a notch in its periphery opposite each numeral thereon, and a plate secured in the case and having points thereon in positions to be made to interlock with the desired notches in the peripheries of the discs to hold the discs temporarily in desired positions.

Signed at Grand Rapids, Michigan, February 19, 1925.

CHESTER YOUNGS.