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C. R. McCLELLAN ET AL
AUTOMOBILE SERVICE INDICATOR

1,651,033

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Fig. 1

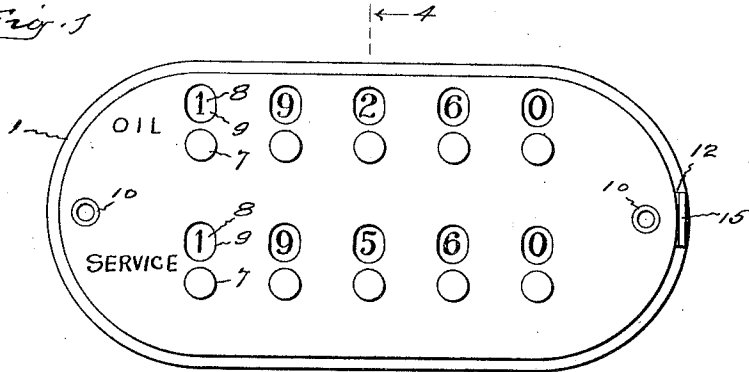


Fig. 2

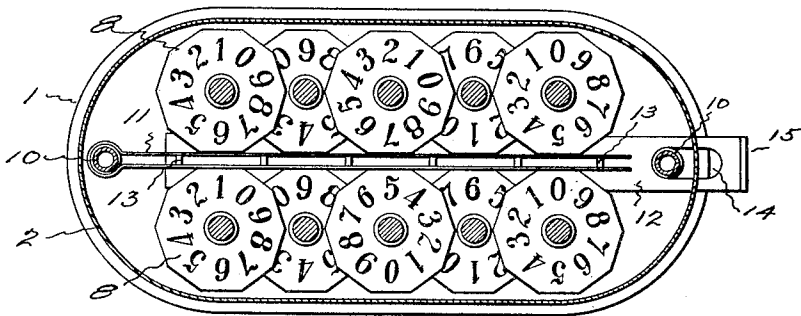


Fig. 3

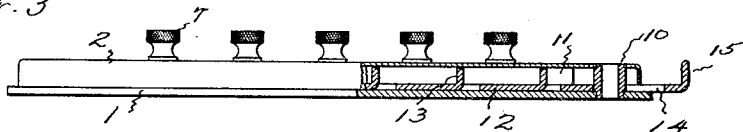
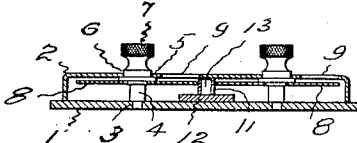


Fig. 4



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AUTOMOBILE SERVICE INDICATOR.

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This invention relates to a device which is designed to be fastened on the dash or instrument panel of an automobile, preferably adjacent to the speedometer, and to be utilized for indicating the time at which the oil should be renewed and the car serviced.

The object of the invention is to provide a simple, inexpensive and attractive device which can be easily fastened in position and conveniently set and locked by anyone, so as to direct attention to the fact that when the total odometer mileage reading reaches the number to which the indicator is set, it is time to oil or service the car.

This object is attained by enclosing a plurality of numbered disks, preferably arranged in two rows with five disks in each row, in a case that has windows which permit the numbers to be conveniently read, the disks being connected with knobs on the exterior of the case by which they may be turned, and being polygonal in outline and engaged on their edges by a spring in such manner that when turned the numbers will register correctly with the windows in the case, and after the desired setting has been obtained may be locked to prevent the reading from being accidentally or inadvertently altered.

In the accompanying drawings Fig. 1 shows a view of the front face of an indicator designed to be set to tell when the oil should be renewed and the car greased or serviced all over, the lock in this view being pushed in so as to prevent the disks from being moved. Fig. 2 is a view with the cover of the case removed and the lock plate drawn out to a position which permits the disks to be turned. Fig. 3 is an edge view with a portion cut away to expose the interior. Fig. 4 is a transverse section on the plane indicated by the dotted line 4-4 on Fig. 1.

The case of the indicator comprises a flat, oblong base plate 1 and a cover 2 having a similar outline. These parts may be stamped to shape from sheet metal, the base having holes 3 for the rear ends of the disk studs 4 and the cover having holes 5 that fit the shoulders 6 at the inner ends of the knobs 7 formed on the outer ends of the studs to which the disks 8 are fastened. The covers are also provided with windows 9. The base plate and cover are shown as fastened together at each end by means of tubular rivets

10, and the screws used for securing the indicator in place on the dash or panel of an automobile may be passed through these rivets.

There are two rows of disks with five disks in each row, and each of the disks is lettered with digits arranged consecutively from 1 to 0 in position to be read through the windows in the cover. Each disk has ten flats on its edge and is securely fastened to its headed stud that is rotatably held in position by the holes in the base plate and cover.

Extending between the rows of disks and engaging their edges are the arms of a U-shaped spring 11. This spring is bent around one of the rivets 10 used to fasten the cover and base and it is retained in place by contact with the edges of the disks and by the base and cover. The spring arms engage the flats on the edges of the disks of each row and when the disks are turned the spring arms yield and then snap back against the flats and hold the disks from accidentally turning out of the positions to which they are set, and also insure an accurate registering of the numbers in the windows in the cover.

A plate 12 is arranged to slide through the cover and under the adjacent edges of the rows of disks and the spring arms. This plate has lugs 13 which project up between the spring arms. When the plate is drawn out as illustrated in Fig. 2 the lugs stand out or project between the spring arms on each side of the centers of the disks so that the intermediate sections of the spring arms may yield and allow the disks to turn. When the lock plate is pushed in, as shown in Fig. 1, the lugs extend between the spring arms opposite the centers of the disks and thus prevent the spring arms from yielding and allowing the disks to turn. The lugs are desirably struck up from portions of the lock plate, and the plate is guided by the spring arms and is stopped at each limit of its movement by the slot 14 through which one of the fastening rivets 10 extends. The outer end 15 of the plate is turned up so that it may be grasped for drawing it out and pushing it in. When pushed in this up-turned end of the lock plate lies close against the cover.

This structure is very inexpensive to manufacture as the base plate, cover, lock plate and disks are stamped to shape and the studs

with the operating knobs are simple screw machine products.

In assembling the structure the lock plate is laid on the base, the ends of the studs with the disks attached are inserted in the holes in the base, the spring is dropped upon a tubular rivet with its arms extending between the edges of the rows of disks and each side of the lugs projecting from the lock plate, and then the cover is placed upon the base over the headed ends of the studs and fastened by the tubular rivets which provide the openings for the screws by which the device is to be fastened in place of use.

The invention claimed is:—

1. An automobile service indicator comprising a base, a cover having a plurality of windows applied to the base, a plurality of studs rotatably mounted in openings in the cover and base and provided with knobs on the front of the cover, polygonal numbered disks secured to and rotatable with said studs to expose the numbers through said windows in the cover, a leaf spring engaging the flat edges of all of said disks and retaining them in the positions to which they are turned, and a plate with lugs en-

gaging the spring movable to permit said spring to yield when the disks are turned and movable to prevent the spring from yielding and thus locking the disks from turning.

2. An automobile service indicator comprising a base, a cover having two rows of windows applied to the base, two rows of studs rotatably mounted in openings in the cover and base and provided with knobs on the front of the cover, polygonal numbered disks secured to and rotatable with said studs to expose the numbers through said windows in the cover, a U-shaped spring with its arms extending between the two rows of disks and having an arm engaging the flat edges of the disks of each row, and a lock plate with lugs movable between the arms of the spring, said lugs when the plate is pushed in engaging and preventing the spring arms from yielding and allowing the disks to be turned, and when the plate is drawn out allowing the spring arms to yield and the disks to be turned.

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