April 5, 1932. W. T. ROSS ET AL 1,852,266

AUTOMATIC TIME LIGHTING SYSTEM FOR AUTOMOBILES

Filed March 5, 1929

Fig. 1

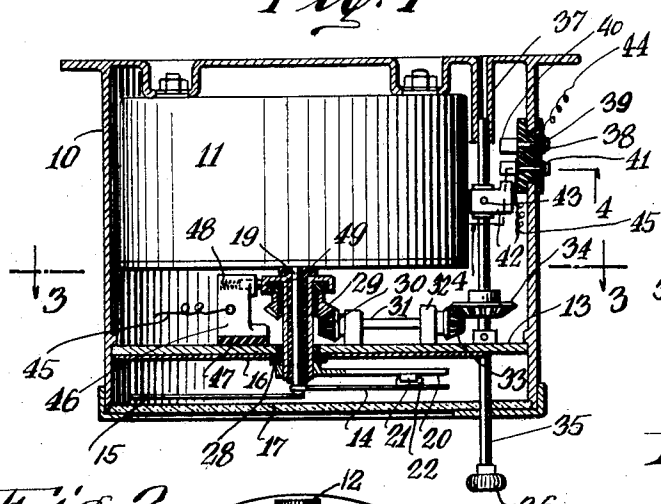


Fig. 4

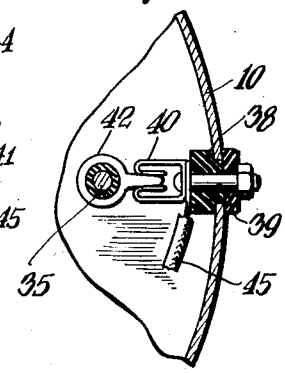


Fig. 5

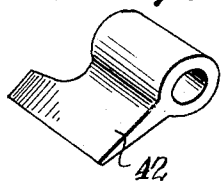


Fig. 2

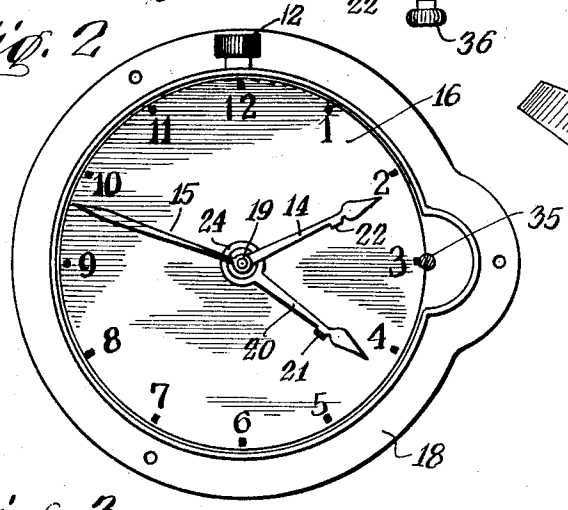


Fig. 6

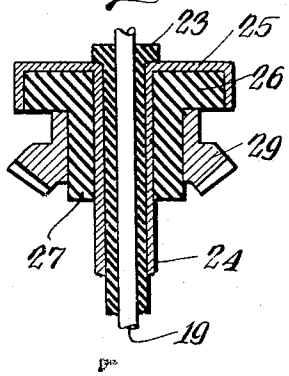
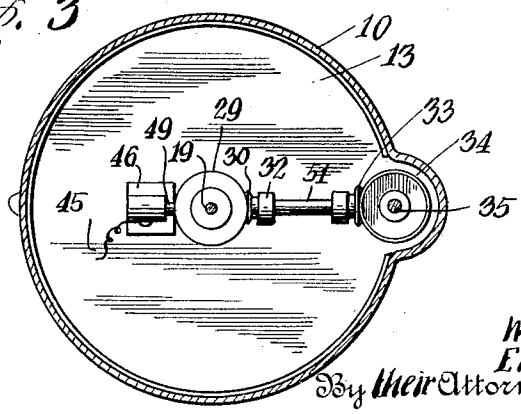


Fig. 3



Inventor
William T. Ross
Edward C. Ross
By their Attorney
Marvin Rein

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UNITED STATES PATENT OFFICE

WILLIAM T. ROSS AND EDWARD C. ROSS, OF BROOKLYN, NEW YORK

AUTOMATIC TIME LIGHTING SYSTEM FOR AUTOMOBILES

Application filed March 5, 1929. Serial No. 344,301.

This invention relates to improvements in lighting systems, particularly to a system for lighting the lights of an automobile at a predetermined hour.

It is well known that many automobiles are left unguarded on the street, the driver being occupied and forgetting the time at which automobile lights must be lit, thus endangering the safety of his own machine and that of others.

It is the principal object of our invention to avoid this and other dangers and disadvantages by equipping the automobile with a clock of a novel and improved construction allowing a closing of the automobile battery and light circuit at a certain predetermined hour.

Another object of our invention is the provision of a comparatively simple attachment to a clock equipped with a means for setting the circuit closing means so that the lamp circuit is automatically closed at a certain predetermined time.

A further object of our invention is the provision of an automatic circuit closing clock, the parts of which are properly insulated in order to avoid short circuits etc.

These and other objects and advantages of our invention will become more fully known as the description thereof proceeds, and will then be specifically defined in the appended claim.

In the accompanying drawings, forming a material part of this disclosure:

Fig. 1 is a sectional plan view of a clock equipped with a system for automatically lighting the lights of an automobile, constructed according to our invention.

Fig. 2 is a front elevation of the clock.

Fig. 3 is a section on line 3—3 of Figure 1.

Fig. 4 is a section on line 4—4 of Figure 1.

Fig. 5 illustrates in perspective view and on an enlarged scale a circuit closer.

Fig. 6 is a sectional detail view of the system of gears, Figure 1, on an enlarged scale.

The clock adapted to be attached to any suitable place of a car, as for instance the instrument board thereof, has the usual casing 10 containing the housing 11 for the spring adapted to be wound by means of the customary stem winder 12.

The casing is partitioned off by means of the partition wall 13 to form the face chamber containing the usual hour hand 14, minute hand 15 and hard rubber dial plate 16, and closed in front by the usual glass plate 17 held in place by the rim 18.

The stem 19 of the hands 14 and 15 carries also in a manner hereafter more fully to be described a time setting hand 20 carrying a contact 21 adapted to be engaged by a contact 22 on the hour hand.

The stem 19 is embedded in a piece of insulating material 23 holding a metal cylinder 24 with head 25 in place, the head of which embraces the headed part 26 of an insulating cylinder 27.

To the metal cylinder 24, the inner end of the time setting hand is secured, insulated from wall 13 by means of an insulating washer 28.

A bevel gear 29 engages cylinder 26 and meshes with a bevel gear 30 on a horizontal shaft 31 journalled in suitable bearings 32 and equipped at its outer end with a bevel gear 33 in turn meshing with a bevel gear 34 on a pin 35 extending at its front from housing 10 and carrying there an operating knob 36 while its inner end revolves in a suitable socket 37 of the casing 10, in which the spindle or pin 35 is longitudinally displaceable in order to disconnect bevel gear 34 from bevel gear 33, so as to allow a setting of the hand 21 without turning a contact wedge 42 closing the circuit or vice versa which is held against turning between contacts 40.

The side wall of casing 10 has embedded therein an insulating block 38 through which the contact posts 39 of contacts 40, 41, extend of a loop construction best illustrated in Figure 4.

A circuit closer 42 of a construction best illustrated in Figure 5 in form of a key is attached to pin 35 as at 43, and one of the contacts, 40, is connected by a cable 44 with the battery circuit, while the other contact 41, is connected by a cable 45 with a contact 46 insulated from wall 13 by a block 47 of insu-

lating material. This contact 46 has a bore or socket formed therewith in which a spring 48 is provided tending to press a pin 49 outwardly in engagement with metal sleeve 24.

The device operates as follows:

Assuming the automobile lights are to be lit at a few minutes after four, the time setting hand is set by the proper operation of pin 35 by means of its handle and the intermediary of the gear system to the position illustrated in Figure 2, closing the battery circuit by means of key 42. If now the contact 22 of the hour hand 14 which is grounded, engages at the time the contact 21 of said hand 20, a circuit will be closed over the battery in which the lamps of the automobile are located, and the lamps will be lit.

It will be understood that we have described and shown as an example only, one of the many forms in which our device may be constructed within the scope of the appended claim, without departure from our invention.

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is:

In a time switch for lighting the lamps of automobiles at a certain predetermined time, comprising a time setting hand, a contact carried thereby, an hour hand, a contact on said hour hand, a spindle, connections between said spindle and said time setting hand, a guide in which said spindle is movably guided to allow a disengagement of said connections between said spindle and said time setting hand for permitting a setting of the hand, a pair of spring flat metal loop contacts, and a key on said spindle adapted to connect said loop contacts upon the inward movement of said spindle to close the light circuit through the contact of said time setting hand and the contact of said hour hand.

In witness whereof we have signed our names to the specification.

WILLIAM T. ROSS.
EDWARD C. ROSS.