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REVOLVING ELECTRICAL CONTACT POINT

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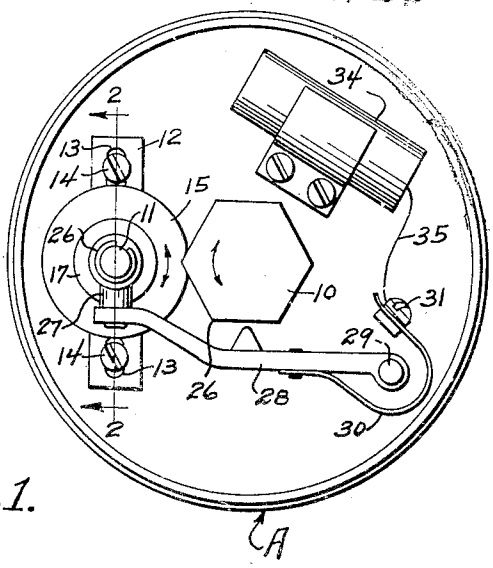


FIG. 1.

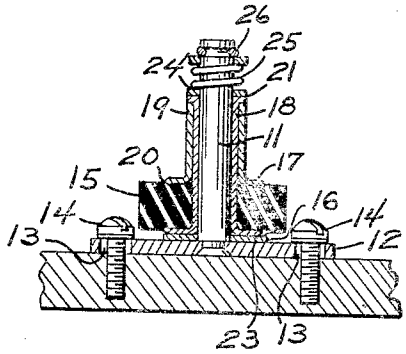


FIG. 2.

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REVOLVING ELECTRICAL CONTACT POINT

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2 Claims. (Cl. 200—30)

The invention relates to an ignition circuit controller, and more especially to a revolving electrical contact point for combined timers and distributors for motors employed in aircraft and land or water vehicles and electric on-off circuits.

The primary object of the invention is the provision of a device of this character, wherein carbon, soot, and other foreign matter formations are removed from the contacts in the working of a timer and distributor installed within a motor set-up, as for example, internal combustion engines, or the like, the contacts being self-cleaned, the rotation of one point keeping both points clean by friction.

Another object of the invention is the provision of a device of this character, wherein the rotatable tubular contact which engages a cam on the distributor shaft of a timer and distributor is unique and novel in construction, to assure perfect working at all times, thereby relieving repair costs, and assuring the operation of the motor in association therewith.

A further object of the invention is the provision of a device of this character, wherein the parts are readily and easily removed for replacement with dispatch, the contact being conveniently adjusted when the occasion requires.

A still further object of the invention is the provision of a device of this character, which is simple in construction, thoroughly reliable and efficient in operation, strong, durable, practical, assured for maximum use, and inexpensive to manufacture and install.

With these and other objects in view the invention consists in the features of construction, combination and arrangement of parts as will be hereinafter more fully described, illustrated in the accompanying drawing, which shows the preferred embodiment of the invention, and pointed out in the claims hereunto appended.

In the accompanying drawing:

Figure 1 is a plan view of the device constructed in accordance with the invention.

Figure 2 is a sectional view taken on the line 2—2 of Figure 1 looking in the direction of the arrows.

Similar reference characters indicate corresponding parts throughout the several views in the drawing.

Referring to the drawing in detail, A designates generally a portion of the cup-like housing for a timer and distributor, or an ignition circuit controller, or the like, and centrally located within this housing is the hexagonal shaped rotor 10, made from any suitable insulating material, and such rotor can be of any other formation, if desirable, to effect a cam, it being driven by a timer shaft, not shown, or the usual driver shaft employed in an engine in the ordinary manner.

Within the housing A concentric to the cam 10 is an upright pintle stud 11, which is fixed at one end into a base-piece 12, having near opposite ends elongated slots 13, receiving fasteners 14, which are secured home in the lowermost portion of the housing A, and these slots and fasteners allow adjustment of the base-piece 12.

Rotatably fitted on the pintle stud 11 is an elastic wheel or disk 15, which is fitted in a hub portion created from outturned rims 16 and 17, respectively, at the inner ends of telescopically interfitted held turning sleeves 18 and 19, respectively. The rims 16 and 17 are provided with biting edges 20, which engage in the wheel or disk 15 to hold these intact. The sleeve 18 has an outturned annular bead 21 at its upper end to overlie the upper end of the sleeve 19 for assembly purposes.

At opposite ends of the sleeve 18 are washers 23 and 24, respectively, which encircle the pintle stud 11, and the washer 24 is played upon by a coil spring 25 held in place by washer 24b and a split ring fastener 26, latched with the upper end of the spindle stud 11 and in this manner the wheel or disk 15 is removably and rotatably retained on the said stud 11.

The wheel or disk 15 is intermittently engaged by the gripping elements 26 of the cam 10, the periphery of the wheel or disk 15 yielding thereto, and in this manner the latter is rotated, the outer sleeve 19 being effective as a contact electrically with a point 27 on a laterally swinging lever-arm 28, pivoted at 29, the point 27 being preferably made from platinum or other suitable material. Acting against this lever-arm 28 is a tensioning spring 30, which is fitted to a terminal post 31, and this spring urges the striker projection 32 upon the said arm 28 in the path of the areas 26 for the electrical make and break action between the point 27 and the sleeve 19, the point being in engaging position in Figure 1 of the drawing.

Arranged in the housing A is a clip 33 for a condensor 34, the latter having the lead wire 35 connected to the terminal post 31.

The salient features of the invention reside in the wheel or disk 15, the sleeves 18 and 19, the mounting of these and the engagement of the cam 10 with this wheel or disk 15 for the rotation thereof.

It should be seen that the construction here-

inbefore set forth prevents carbon formation or foreign matter accumulations at the make and break points, for ignition circuit control in the ordinary well known manner through the use of this rotating contactor in engine equipment for land, air and water crafts or vehicles, or interrupted electrical systems.

From the foregoing it is thought that the construction and manner of operation of the device will be clearly understood, and therefore a more extended explanation has been omitted.

Changes, variations and modifications may be made in the invention as fall properly within the scope of the claims hereunto appended, without departing from the spirit of the said invention or sacrificing any of its advantages.

What is claimed is:

1. A device of the kind described, comprising a rotor forming a timing cam, a rotatable contact having an elastic wheel impinged by the cam for rotation thereby through frictional engagement with the wheel, and a make and break contact movably supported for engaging the rotatable contact and intermittently actuated by the cam.

2. A device of the kind described, comprising a rotor forming a timing cam, a rotatable contact having an elastic wheel impinged by the cam for rotation thereby through frictional engagement with the wheel, a make and break contact movably supported for engaging the rotatable contact and intermittently actuated by the cam, and tensioning means acting on the make and break contact for urging it in the path of the cam, the cam being formed with a plurality of gripping areas peripherally thereof for impinging the wheel.

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