

Oct. 21, 1930.

L. B. SAUER

1,778,836

DISTRIBUTOR

Original Filed April 25, 1924

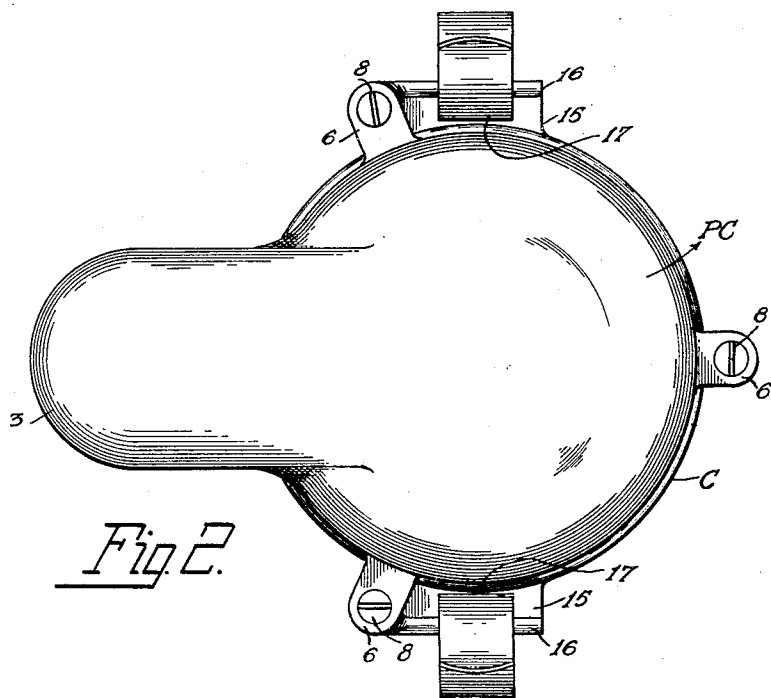


Fig. 2.

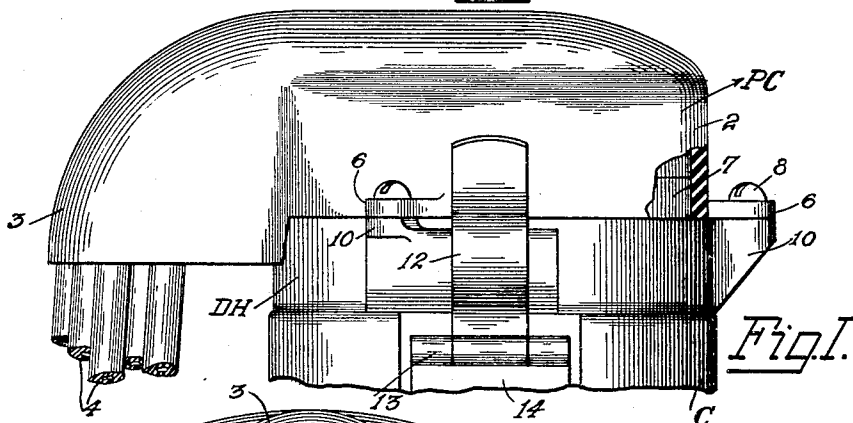


Fig. 1.

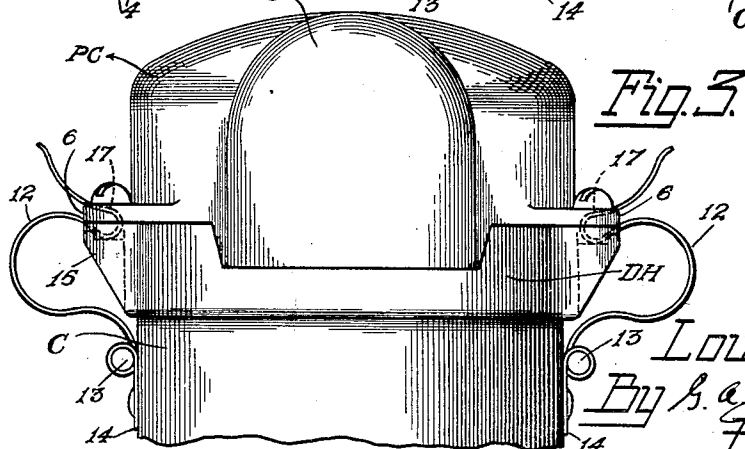


Fig. 3.

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UNITED STATES PATENT OFFICE

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DISTRIBUTOR

Original application filed April 25, 1924, Serial No. 708,876. Patent No. 1,717,854, dated June 18, 1929.
Divided and this application filed December 17, 1928. Serial No. 326,647.

My invention relates to current controllers, commonly called ignition distributors, for the electric ignition of internal combustion engines such, for example, as are used in automobiles.

A feature of my invention is the provision of a distributor head for operatively connecting external conductors to the distributor, in combination with the provision of a protector cap for engaging the distributor head to protect the connection of the external conductors with the said distributor head from the elements such as dust and water.

Another feature of my invention is the provision of separate means for securing the distributor head of my invention to the distributor casing, and the provision of separate means for securing the protector cap to the distributor head.

The above features, as well as others, will be pointed out more in detail in the ensuing specification and for a clearer understanding of the features of my invention, reference may be had to the accompanying drawing in which like reference characters in the several views denote like parts, and in which:

Fig. 1 is a side plan view of my invention showing the protector cap partly in section and secured on the distributor head, and also showing the means for securing the distributor head on the distributor casing;

Fig. 2 is a top plan view of Fig. 1; and

Fig. 3 is a left side view of Fig. 1.

This application is a division of my application for Letters Patent Serial No. 708,876, filed April 25, 1924 and issued June 18, 1929 as United States Letters Patent No. 1,717,854.

Referring now in detail to my invention as illustrated in the drawing, C is a cup-shaped enclosing casing for supporting and enclosing various parts of the ignition distributor, while DH is the distributor head and PC is the protector cap of my invention.

The protector cap PC is formed out of non-conducting material such as bakelite or the like, and comprises a substantially cap shaped member 2 which has an integrally formed outwardly extending portion 3 in the form of an inverted outlet. The conductors 4 as indicated in Fig. 1 are connected to the terminals

of the distributor head DH as is well understood and the protector cap PC, which covers the distributor head protects the distributor head and the terminal ends of the conductors connected to the terminals of the distributor from water, dust, grease and the like. The protector cap PC is also provided with integrally formed ears 6 for purposes as will presently be described. The protector cap PC is adapted to fit over and engage the outer face of the circumferential flange 7, integrally formed with the distributor head DH, and is secured upon the said distributor head DH, by means of suitable screws 8, which extend through suitable openings in the said ears 6 and have screw-threaded engagement with suitably tapped inserts secured in the members 10 integrally formed with the distributor head DH. Thus it will be seen that the distributor head DH and protector cap PC are secured together to form a single unit.

To secure the unit comprised of PC and DH in operative position upon the casing C spring members 12 are provided and are hinged on the members 13 secured in the members 14, which members 14 are suitably secured to the side of said casing C so that said spring members 12 are diametrically opposite each other. A pair of wing members 15 are provided which are integrally formed with the pair of members 10 of the distributor head DH, the said wing members 15 being provided with flanges 16. The loop portions 17 of the spring members 12 are adapted to be hooked over the flanges 16 and engage the wing members 15 whereby the flanges 16 retain the spring members 12 in engagement with the wing members 15. Due to spring pressure exerted by the spring members 12 upon the wing members 15, the protector cap PC and distributor head DH are secured on the distributor casing C as a unit. The protector cap PC may be removed by removing the screws 8, and the protector cap PC and distributor head DH may be removed as a unit from the casing C by lifting the loop portion 17 of the spring member 12 from the wing members 15.

Having described a preferred embodiment

of my invention I do not wish to be limited to the exact structure as shown and described, as changes and modifications may be readily suggest themselves, therefore, it is to be understood that I intend to cover all that which may come within the spirit and scope of the appended claims.

Having described my invention, what I claim is new and desire to secure by United States Letters Patent is—

1. A device of the class described including a casing, a distributor head, provided with integrally formed wing members, supported on said casing, ears integrally formed with said wing members, a protective cap, having ears integrally formed therewith, supported on said distributor head and secured thereto by screws passing through said ears of said cap and engaging tapped orifices in the said ears of said distributor head, and spring members secured to said casing and adapted to engage said wing members to hold said distributor head and the cap as a unit on said casing.

2. A device of the class described including a casing, a distributor head, provided with integrally formed wing members, supported on said casing, ears integrally formed with said wing members, a protector cap, having ears integrally formed therewith and supported on said distributor head with the respective ears of said cap and said distributor head in matched relation, securing means passing through said ears of said cap and engaging said ears of said distributor head to secure said cap to said distributor head, and spring members pivotally secured to said casing and adapted to engage said wing members to hold said distributor head and the said cap as a unit on said casing.

3. A device of the class described including a casing, a distributor head provided with integrally formed wing members supported on said casing, ears integrally formed with said wing members, a protector cap having ears integrally formed therewith and supported on said distributor head and secured thereto by means engaging said ears of said cap and said ears of said distributor head to form a unit structure therewith, spring members secured to said casing and adapted to engage said wing members to hold said distributor head and the cap secured thereto to said casing.

4. A device of the class described including a casing, a distributor head provided with integrally formed wing members supported on said casing, ears integrally formed with said wing members, a protective cap having ears integrally formed therewith supported on said distributor head and secured thereto by means passing through said ears of said cap and engaging orifices in said ears of said distributor head to form a unit structure therewith, spring members pivotally se-

cured to said casing and adapted to engage said wing members to hold said distributor head and the said cap as a unit to said casing, said unit structure being maintained upon the removal of said distributor head from said casing.

5. A device of the class described including a casing, a distributor head provided with integrally formed wing members supported on said casing, ears integrally formed with said wing members, a protector cap having ears integrally formed therewith supported on said distributor head with the respective ears of said cap and said distributor head in matched relation, screws passing through said ears of said cap and engaging tapped orifices in the said ears of said distributor head to form a unit structure therewith, spring members pivotally secured to said casing and adapted to engage said wing members of said distributor head to maintain said unit structure on said casing.

6. A device of the class described including a cup shaped member, a distributor head, provided with ears integrally formed therewith, adapted to fit upon and enclose the open end of said cup shaped member, a flange formed with said distributor head, a cover cap, having ears integrally formed therewith, adapted to circumvent said flange and rest upon said distributor head whereby the ears of said cover cap engage the ears of said distributor head, screws for engaging said ears to secure said cover cap to said distributor head to form a unit, a pair of wing members integrally formed with said distributor head and a pair of said ears, spring members supported on said cup shaped member and adapted to engage said wing members to hold said unit upon said cup shaped member, said cap and distributor head being maintained as a unit when the same is removed from said cup shaped member.

Signed by me at Chicago, in the county of Cook and State of Illinois, this 15th day of December, 1928.

LOUIS B. SAUER.