April 22, 1952 F. CAJUMI 2,593,978

IGNITION DEVICE

Filed March 10, 1950

Fig.1.

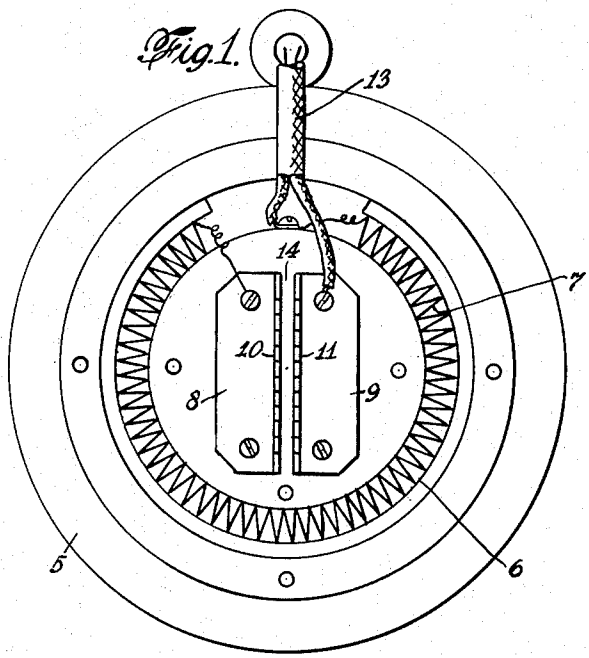


Fig.2.

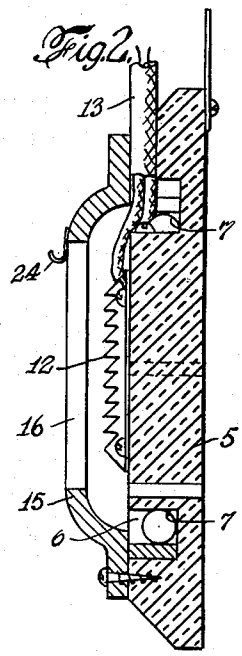


Fig.3.

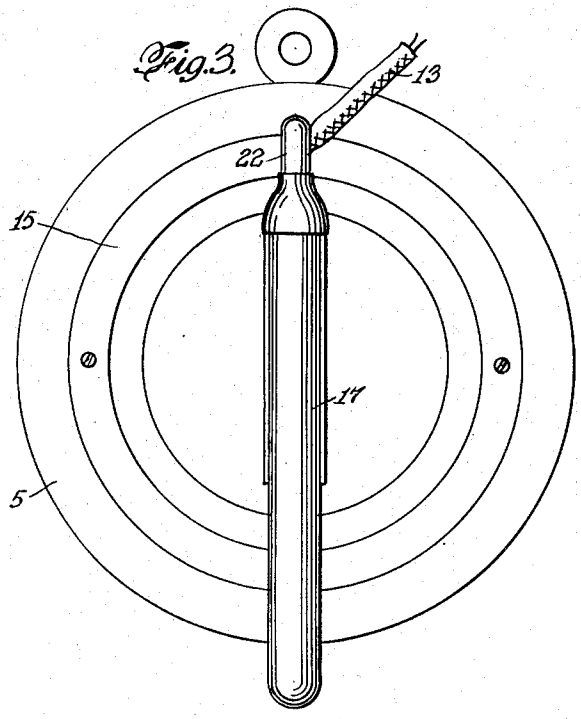
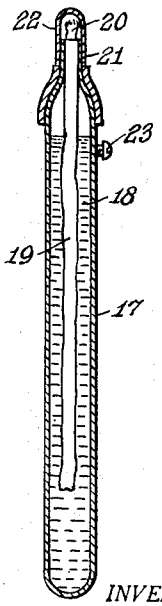


Fig.4.



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2,593,978

UNITED STATES PATENT OFFICE

2,593,978

IGNITION DEVICE

Franz Cajumi, Innsbruck, Austria, assignor of one-half to Louis Coleman, New York, N. Y.

Application March 10, 1950, Serial No. 148,785
In Austria January 12, 1946

1 Claim. (Cl. 175—91)

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This invention relates to igniters for household or other uses. Further the invention pertains to means for electrically producing ignition for lighting a gas stove or the like without the use of matches or other means. Generally the invention pertains to simple and inexpensive means for safely igniting a torch electrically.

An object of the invention is to provide a simple, safe and inexpensive electrical igniter unit that is easy and convenient to use. It is also an object to provide a device of this order which may be operated on the usual household 110 volt service. A further object is to provide a simple and inexpensive device which may be plugged in on the household electric service and which is inert normally but which is instantly usable when required to provide ignition.

Further objects and the advantages of the invention will be apparent as the specification is read in conjunction with the drawings which form a part of this application. Referring to the drawings:

Figure 1 is a front view of my device in a preferred form and in which the cover plate has been removed.

Figure 2 is a sectional, side elevation, with the cover plate in place.

Figure 3 is a complete front view assembly of a preferred embodiment of my invention.

Figure 4 is a torch suitable for use with my invention.

In the drawings, 5 is a base member which may be made of a plastic or other strong, suitable non-conducting or electric insulating material. Formed in the face of member 5 is a circular groove 6, in which is housed a resistance coil 7 which may be made of Nichrome or other suitable wire. Centrally positioned, spaced apart and secured to the face of the base 5, are two simliar elements 8 and 9 each having an upwardly extending projection 10 and 11 and each provided with teeth along their upper edge, as at 12. A two wire cable 13 is adapted to supply electric current to the unit, one of said wires being connected with the element 9 and the other wire being connected with one end of the resistance coil 7, the other end of the resistance coil being connected with the element 5. From this it will be seen that because of the gap 14 between the elements 8 and 9 no current will flow through the system. However, with the current on, when a suitable metallic element is drawn over the teeth on the pair of elements 8 and 9 current will be caused to flow as the gap 14 is closed causing sparks to be emitted, moving the said element over the teeth causing a shower of sparks, in a well known manner. For safety in handling and to protect the electrical parts a cover plate 15, having a narrow slot 16, is secured to the base member 5, the said narrow slot 16 acting as a protective guide for a spark producing means which may be drawn over the teeth 12, the said slot 16 preferably being such as to prevent accidental bodily contact with any part of the elements 8 and 9. For convenience in utilizing the device I preferably provide a small cylindrical torch 17 which is adapted to contain a suitable fuel 18 into which a wick 19 dips, the outer end 20 of the wick projecting from the neck portion 21, a suitable cap 22 serving to protect the wick and prevent evaporation of the fuel. A button 23 is adapted to engage a suitable hook element 24 on the face plate 15 and affords a convenient means for hanging the torch on the front of the unit, when not in use, and preferably in a position to normally cover the open slot 16 previously described.

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When it is desired to light a gas stove or other device the torch 17 is unhooked or otherwise removed from the face of the igniter and the cap 22 removed to expose the wick 20. The metal head of the torch is then rubbed along the teeth of the two elements 10 and 11 so that the sparks evolved will ignite the wick, whereupon the torch flame is available for whatever purpose it is required.

From the above it will be seen that I provide a simple, handy and inexpensive ignition means for all useful purposes. A relatively heavy current may be employed without danger of electrical damage because of the presence of the resistance element in the circuit. The electrical parts are substantially hooded by the cover plate so that the apparatus is safe to handle, the slot in the cover plate being narrow, only wide enough to permit the igniter rod or torch to enter and be moved over the relatively short distance occupied by the teeth on the contact elements.

Having illustrated and described a preferred embodiment of my invention I desire it to be understood that certain changes and modifications may be resorted to without departing from the spirit of the invention as claimed.

I claim as my invention:

An electric ignition device for igniting the wick of an elongated torch having the wick at one end thereof, said ignition device including a substantially circular wall plate of insulating material having a circular groove in one side thereof, a resistance coil disposed in the circular

groove and conforming to the circular form thereof and having the ends thereof spaced apart in the groove, a pair of elongated contact plates secured upon said one side of said wall plate upon the central area thereof and spaced apart in substantial parallelism with the inner adjacent edges bent upright and serrated to form serrated flanges, an electric conductor connected to one end of the resistance coil in the groove, another electric conductor connected to one of said contact plates, a connection between the other contact plate and the other end of said resistance coil, and a cover plate of circular form mounted upon the wall plate having an elongated narrow slot diametrically disposed and registering with the serrated flanges on said contact plates, said slot being sufficiently narrow to prevent bodily contact of the torch with the serrated flanges but allowing the point of the torch to be inserted and drawn along the serrations of the flanges to give rise to sparks and thereby ignite said torch,

said cover plate protecting the resistance coil throughout its length in said groove and having hook means at one end of the slot for suspending said torch.

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