May 20, 1941. B. C. HARRISS 2,242,394

RING-LIGHTER

Filed Sept. 23, 1938

Fig. 1.

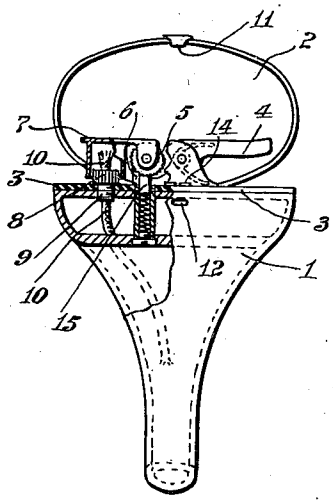



Fig. 2.

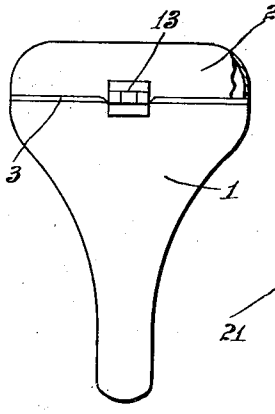



Fig. 3.

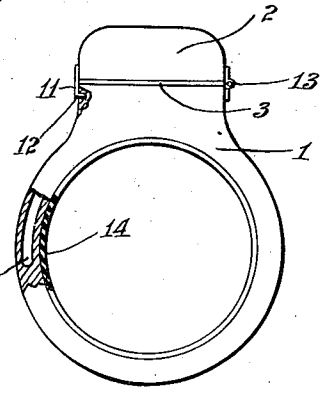



Fig. 4.

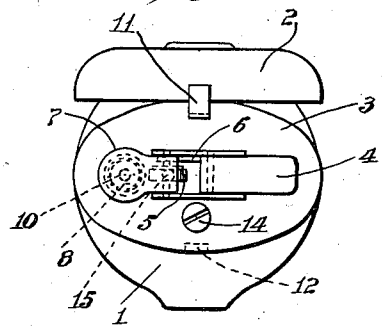



Fig. 5.

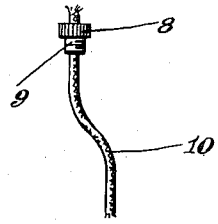
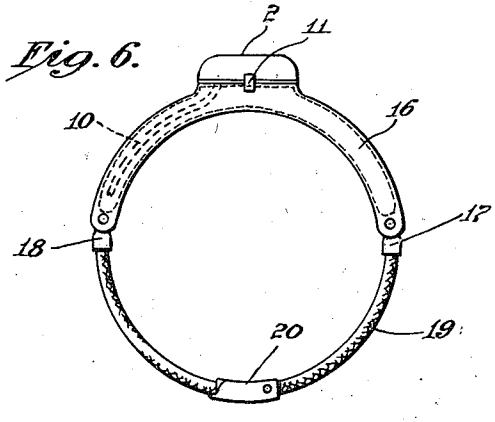



Fig. 6.




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# UNITED STATES PATENT OFFICE

2,242,394

## RING-LIGHTER

Belle C. Harriss, New York, N. Y.

Application September 23, 1938, Serial No. 231,323

2 Claims. (Cl. 67—4.1)

My present invention relates to a new and novel cigarette lighter of the fluid and wick type, combined with a finger ring or bracelet.

One object of my invention is to provide a cigarette lighter combined in a novel manner with a finger ring. Another object is to provide a novel combined cigarette lighter and bracelet.

Further objects are to provide a novel method of carrying fuel for the lighter and of heat insulating the ring to prevent burning the finger wearing the lighter.

Cigarette lighters have been made in a wide variety of forms in the past. As far as I know a cigarette lighter has never been combined with a finger ring or bracelet. The advantages of such combinations are evident and hence it seems that difficulty in carrying sufficient fuel in such a lighter and the possibility of burning the finger have in the past prevented such combinations being made. I have found that by making the ring or bracelet hollow and inserting the lighter wick into the hollow space thus formed that sufficient fuel for practical purposes may be carried.

In order to prevent burning the finger I prefer to place a sheet of asbestos under the flame carrying part of the lighter although I have found that lining the ring with heat insulating material or making the body of the ring or bracelet of a material having poor heat conducting properties may also be practiced. These and other features and advantages of my present invention will be more fully set forth in the detailed description of the various figures of the drawing.

In the drawing:

Fig. 1 shows a lighter embodying one form of my invention.

Fig. 2 shows the lighter of Fig. 1 with the cover closed.

Fig. 3 shows an additional feature of my invention.

Fig. 4 shows a top view of Fig. 1.

Fig. 5 shows a detail of a portion of my novel lighter.

Fig. 6 shows another form of my invention embodying a bracelet.

In Fig. 1 is shown a lighter embodying a preferred form of my present invention. At 1 is shown a hollow ring having an enlarged bezel portion to receive the lighter mechanism. This hollow ring 1 is adapted to hold inflammable fluid which is to be burned by means of a suitable wick 10 immersed in it. The ring 1 may be constructed of suitable metal or other material. I have found that a metal having a low heat conductivity such as German silver, an alloy of copper, zinc and nickel, having a heat conductivity of 0.07 as against 1.00 for copper is especially suitable. Non-metallic materials such as Ebonite, having a heat conductivity of from 0.00014 to 0.00042 is also suitable for ring shell 1. It will be evident that many synthetic, low heat conductivity materials, which are not attacked by the lighter fluid are suitable for the composition of ring shell 1.

Fig. 1 also shows the lighter mechanism consisting of the flint striking wheel 5 operated by levers 4 and 6, the wick cover 7, and wick 10 passing thru wick holder 8—9. Flint wheel 5 is rotated against the flint 15 when lever 4 is pressed throwing sparks onto wick 10 where it projects thru holder 8 thereby igniting it. Between this lighter mechanism and the ring shell 1 I prefer to insert a strip of asbestos 3 or other heat insulating material in order to heat insulate the lighter flame from the ring shell 1. Asbestos is particularly suitable to function as heat insulation since it has the low heat conductivity of about 0.0004 and is also non-inflammable. In order to protect the lighter mechanism and to improve its appearance I use a cover 2 provided with a hinge and a snap 11 adapted to hold the cover, closed by engagement in slot 12.

In Fig. 2, I have shown a view of my ring cigarette lighter with cover 2 closed. This view also shows the cover hinge 13.

In Fig. 3 is shown a view of my lighter with cover 2 closed showing hinge 13 and snap fastener 11. This view also shows the opening thru ring shell 1 into which the finger is inserted. Here is shown a lining 14 of low heat conductivity material such as Ebonite to protect the finger from the heat of the flame. My ring cigarette lighter may be constructed with or without this additional heat insulator 14 depending to some extent upon the material of which ring shell 1 is constructed as the higher the heat conductivity of shell 1 the more necessary is the added protection of lining 14. This view also shows a form of fluid chamber extending only partly around the ring ending as shown at 21.

Fig. 4 shows a top view of my cigarette lighter ring with the cover removed. The top of the lighter mechanism may be seen. Also shown is a filler plug 14 which because of its small size is fitted with a slot so that a screw driver may be used to extract it. Suitable inflammable fluid is injected thru the opening into the fluid chamber which may be filled with cotton batting or other similar material in order to retain the in-

flammable fluid or a non-fluid material may be used in the form of a gel in which case the cotton may be omitted.

In Fig. 5 is shown a detail of a form of wick holder 8—9. Wick 10 is inserted thru holder 8—9. The top part of the wick holder 8 is knurled, so that the lower threaded portion 9 may be easily turned into threads in the top of shell 1. This threaded wick holder may be extracted and the hollow shell 1 filled with fluid thru the opening thus produced. Wick 10 is of woven asbestos or similar suitable slow-burning absorbent material.

Fig. 6 shows my bracelet lighter. In this bracelet lighter a semi-circular hollow chamber 16 carries the lighter mechanism under cover 2. Clasp 11 and wick 10 are shown. The bracelet is completed by means of an elastic band 19 hinged to chamber 16 by means of hinges 17 and 18. Elastic band 19 is fastened together by means of clasp 20.

While I have shown and described only a few embodiments of my invention various other modifications are possible within the spirit and scope of the invention as set forth in the appended claims.

I claim:

1. A cigarette lighter, comprising a ring portion for engaging about a finger of the wearer and a bezel portion having an enlarged, substantially flat top, the upper part of the ring portion merging with the bezel portion, said ring portion being hollow and forming a fuel reservoir, a pyrophoric lighter mounted on the top of said bezel portion and having an elongated wick extending downwardly into said hollow ring portion, and a cap pivoted to the upper part of said bezel portion to cover said pyrophoric lighter.

2. A cigarette lighter, comprising a ring portion for engaging about the finger of the wearer, and a bezel portion having an enlarged, substantially flat top, the upper part of the ring portion merging with the bezel portion, both of said portions being hollow and forming a fuel reservoir, a pyrophoric lighter mounted on the top of said bezel portion and including an abrader wheel, a flint and a flint-holding tube, said lighter having an elongated wick extending through the top of said bezel portion downwardly into said hollow ring portion, said tube extending downwardly through the top of said bezel portion and terminating at the top of the inner circumference of said ring portion.

BELLE C. HARRISS.