

PATENT SPECIFICATION



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COMPLETE SPECIFICATION

Wick Protector for Pyrophoric Lighters

We, HEINRICH MALTNER G.M.B.H., 15, Fichtestrasse, Offenbach-on-the-Main, Germany, a company incorporated under German Law, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to wick protectors for pyrophoric lighters of the type comprising a helically coiled wire surrounding the wick.

An objection to pyrophoric lighters is, that the burning end of the wick splits and the ends of the threads spread under the pressure exerted by the extinguishing cap pressed on to the wick holder and are clamped between the extinguisher cap and the surface of the wick holder. Thus between the wick holder and the extinguisher cap, a slight gap is formed which facilitates the evaporation of the volatile fuel, whereas in such lighters it is of primary importance to ensure an absolutely tight closure of the wick holder and consequently of the wick passage when the lighter is not in use.

The inconvenience mentioned makes itself more or less apparent, irrespectively of what material is employed for the thread structure, whether it is of organic or of inorganic origin.

According to the present invention, the wick protector for pyrophoric lighters consists of a wire helically surrounding the wick and is characterised in that the protector extends beyond the bore of the wick holder up to the burning end of the wick protecting the wick against dividing and therefore spreading of the wick threads at the burning end under the pressure exerted by the extinguishing cap. The wire coils are not wound around the lower portion of the wick which dips into the fuel or extends into the wadding or the like saturated with fuel. The invention can be applied to any pyrophoric lighter, provided with a wick and an extinguishing cap whether this is an independent article or a component of some other article, such as a cigarette case or whether it is constructed as a pocket-, table- or wall-

lighter and where the extinguisher cap is attached, that is whether it is on an upward flinging arm or on the lid.

Consequently, several different known types of pyrophoric lighters are illustrated in the accompanying drawings, each provided with the wick shown in elevation in Fig. 1 on an enlarged scale.

On the upper portion of the wick *a*, made of inorganic threads, for example asbestos fibres, or of organic threads, such as cotton, a wire *b* is helically wound. The winding is of such length that, as shown in Figs. 2 to 7, it extends beyond the bore of the wick holder up to the burning end of the wick. The lower portion of the wick, which dips into the fuel contained in the lighter or into the wadding or the like saturated with fuel, is free from wire windings so that the wick can thoroughly absorb the fuel.

The diameter of the wire coil preferably fits snugly in the bore of the wick holder so as to prevent evaporation of the fuel through the wick holder.

Even if the user of the lighter, for example when fitting a fresh wick, allows it to project too far from the wick holder, this would not necessarily frustrate the object of the invention, because the extinguisher cap pressed on to the wick holder would compress the resilient windings of the wire coil and thus automatically press the wick into the wick holder.

Having now particularly described and ascertained the nature of our said invention, and in what manner the same is to be performed, we declare that what we claim is:

1. A pyrophoric lighter having an extinguishing cap and a wick protector consisting of a wire helically surrounding the wick, characterised in that the protector extends beyond the bore of the wick holder up to the burning end of the wick protecting the wick against dividing and therefore spreading of the wick threads at the burning end under the pressure exerted by the extinguishing cap.

2. A pyrophoric lighter as claimed in claim 1, characterised in that the wire

coil extends along only a portion of the wick and leaves free the lower portion which dips into the fuel or extends into the wadding or the like saturated with fuel.

Dated this 12th day of January, 1938.

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[This Drawing is a reproduction of the Original on a reduced scale.]

