PATENT SPECIFICATION

288,855

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COMPLETE SPECIFICATION.

Improvements in Smokers' Petrol Lighters.

We, FREDERICK CHARLES WISE and WILLEY GREENWOOD, both of 5 and 7, Johnson Street, Notting Hill Gate, London, W. 8, British subjects, 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 a petrol friction lighter of the kind wherein, in order to obtain a large flame, the wick is brought up through a tube which is split or perforated so as to expose a considerable wick surface and which is normally covered by a hinged closing cap.

In lighters of this kind it is essential that the wick tube should be comparatively long in order to provide the flame with an ample supply of fuel. It is also essential that the closing cap should be as small as possible and form a tight closure so that the evaporation and escape of fuel when the lighter is closed, is reduced to a minimum. In dimensioning the closing cap, regard must be had to the fact that it moves in a circular path and must on that account have a larger clearance than if it remained in alignment with the axis of the wick tube.

The object of the present invention is to produce an arrangement whereby these requirements are met, and the invention consists in placing the split or perforated wick tube eccentrically on a frusto-conical base which forms, in known manner, a tight closure with the cap, the eccentricity of the tube being such as to provide a clearance for that side of the cap which, on moving out of the closed position, approaches the wick tube.

Fig. 1 of the accompanying drawings represents a sectional view of the wick tube and closing cap as applied to the top plate of a lighter, and

Fig. 2, a top view of the lighter with the closing cap in open position.

The fuel container *a* of a smoker's petrol lighter carries, in known manner, a flint tube *b* arranged on and parallel with the top plate *c*. The abrasive wheel *d* at the end of the tube *b* throws the sparks horizontally against a wick held by a tube *e*. The wick tube is split longitudinally or perforated so as to provide the flame with a large supply of fuel the complete combustion of which is ensured by admitting air through apertures made in a wind screen *f* whereby the wick tube is surrounded, the screen having also an aperture through which the sparks are admitted from the wheel *d*. Normally the wick tube is covered by a closing cap *g* which also carries a plate *h* and a hood *i*, the former for covering the screen *f* and the latter for covering the abrasive wheel *d*. The cap *g* is carried by an arm *k* which is pivoted at *l* to a pillar mounted on the top plate *c* of the container. A spring *m* bears against the tail end of the rod *k* and tends to hold the closing cap either in the closed position shown by full lines in Fig. 1 or in the open position, shown by dotted lines. In moving about the pivot *l* from one position to the other, the lower edge of the cap *g*, at the side nearest the pivot *l*, first approaches the wick tube and then recedes from the same. In order to allow the edge to clear the tube without making the cap very wide or the wick tube very short, the cap is arranged so as to be eccentric with the wick tube in its closed position. Fig. 1 shows the relative displacement of wick tube and cap and also the path *n* followed by the edge of the cap.

The tube *e* is mounted eccentrically on a frusto-conical base *o*, and the edge of the cap *g* is bevelled so as to make a snug fit with the conical surface o^1 of the base. This arrangement prevents the escape of petrol vapours.

We are aware that it is known in connection with petrol friction lighters to arrange a narrow closing cap eccentrically relative to a long wick end which projects through a conical base whereon the cap fits more or less snugly, and we make no claim to the eccentric arrangement and to the base except in connection with a lighter of the kind referred to.

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:—

In a petrol lighter of the kind referred to, mounting the split or perforated tube eccentrically on a frusto-conical base with which the closing cap is adapted to form a tight closure, substantially as and for the purpose set forth.

Dated this 16th day of June, 1927.

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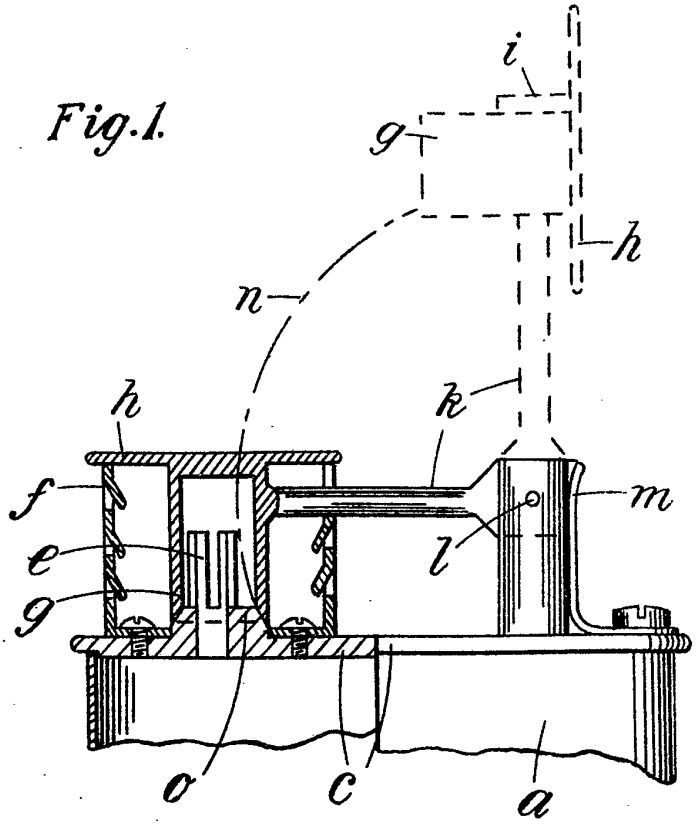
Fig. 1.



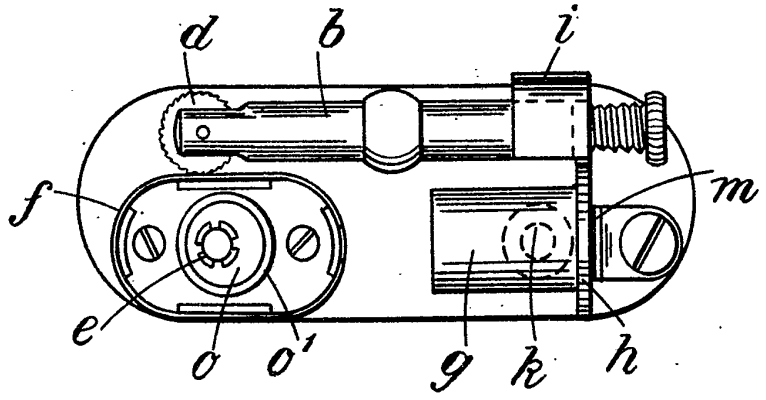


Fig. 2.

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