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PATENT SPECIFICATION

400,888

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Complete Accepted: Nov. 2, 1933.

COMPLETE SPECIFICATION.

Improvements in Friction Lighters.



We, HEINRICH MALTNER G.M.B.H. a Company incorporated under the laws of Germany, of Richtestrasse 15, Offenbach a/Main, Germany, 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 friction wheel or other friction lighter having an upward flinging or pivotally mounted extinguisher cap carrying arm, of the type in which the cap is adapted to seat on a spherical surface on the wick guide, and it has for its object to ensure that the extinguisher cap, even after considerable use, will be seated to maintain a gas-tight joint.

According to the present improvements, the wick guide is formed as a ball of hard or hardened material, partly let into a recess in the lid of the fuel container and having a wick tube which is passed through the ball and utilised to hold it in position. The seating at the base of the cap is cut or stepped back more than once for the formation of more than one sealing edge. By the afore-described construction, there will be no liability of damaging the spherical surface of the ball by the repeated and sudden blows of the cap, as would be the case if the spherical seating was made of soft material.

In order that the invention may be clearly understood and readily carried into effect, reference may be had to the accompanying drawings, on which:—

Figure 1 is a side elevation partly in longitudinal section.

Figure 2 is a fragmentary side elevation showing a modified extinguisher cap.

Figure 3 is a plan of the lighter when out of use, and

Figure 4 is a side elevation of the lighter when in use.

In one embodiment of this invention, on the fuel container *z*, which in the example shown in the drawing takes the fuel direct, that is, without any lining, the usual device for the production of a spark is provided. This consists of the friction wheel *b* disposed on the spindle

d, against which friction wheel *b* is pressed the flint *e* under the influence of a spring. The friction wheel is operated by the arm *a*. The arm *a*, with the extinguisher cap *k*, is disposed on the same spindle *d* and an upward flinging spring for the arm is mounted on the spindle *d*. A latch *f* serves to retain the said arm in the closed position. The wick *g*, protruding from the fuel container *z*, is held in the tube of mesh material *m*, which is originally cylindrical and which is passed through a narrower bore in a hardened bright polished steel ball *n*, whereby it is conically contracted. The ball is let into a recess in the container lid, in which it is held by folding back the ends of the mesh material. The extinguisher cap *k* has a dome-like lining *o* with a base turned to suit the spherical surface of the ball *n*. The turning is suitably stepped twice so that the dome rests on the ball in two zones *x* and *y*.

In order that the cap or dome should always adjust itself axially on the perpendicular main axis of the ball, the cap *k* hangs from a plate spring *p* (Fig. 1) in contact with its crown, or is carried by pins *r* engaging in longitudinal slots or holes *s* of greater diameter in the wall of the cap (Fig. 2).

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 friction wheel or other friction lighter, having an upward flinging or pivotally mounted extinguisher cap carrying arm and a spherical shaped seating between the wick guide and the extinguisher cap, characterised in that the wick guide is formed as a ball of hard or hardened material partly let into a recess in the lid of the fuel container and having a wick tube which is passed through the ball and utilised to hold it in position.

2. A lighter in accordance with claim 1, characterised in that the seating at the base of the cap is cut or stepped back more than once for the formation of more than one sealing edge.

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3. A friction lighter, substantially as
herein set forth and shown.
Dated this 26th day of September, 1933.

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Fig. 1.

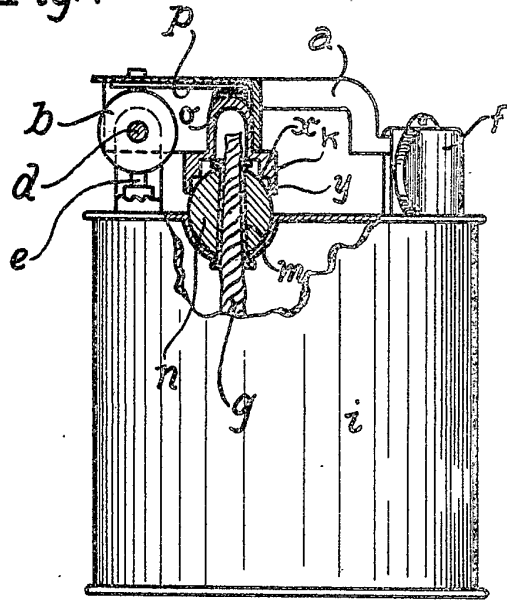


Fig. 2.

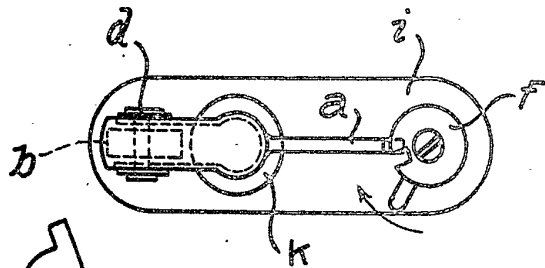
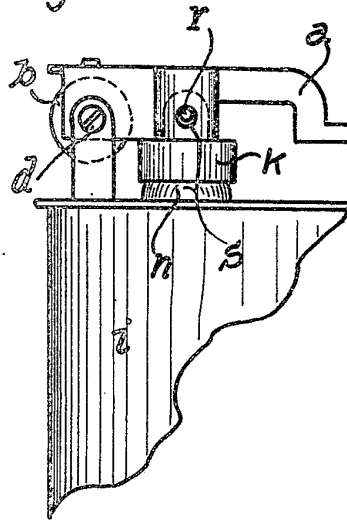


Fig. 3.

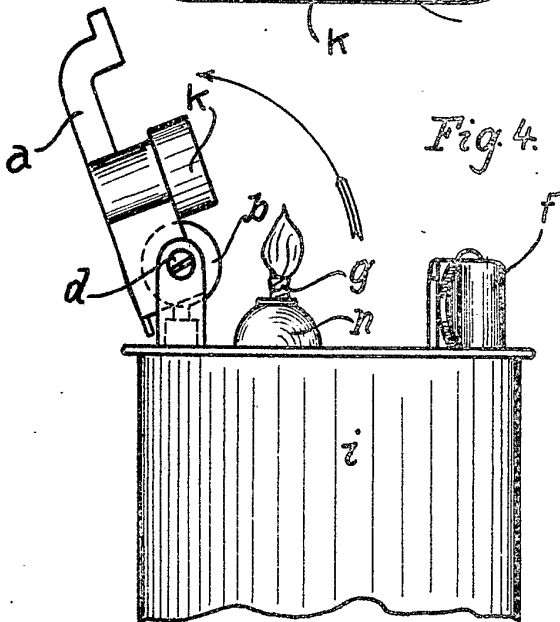


Fig. 4.

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