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PATENT SPECIFICATION

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COMPLETE SPECIFICATION.

Cigarette-lighter.



I, WILHELM KRETS, of 43, Izabella-u, Budapest, VI, Hungary, of Hungarian nationality, 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 lighters in which the friction wheel acting on the flint is operated by hand and is mounted on the guide tube serving as a housing for the flint.

It has previously been proposed to provide a lighter wherein the guide tube of the flint is displaceable longitudinally and carries a lug which tends to urge, by means of a spring, the said guide tube in such a direction that a wick cover is held down over a wick and released only when pressure is applied to the guide tube in a direction opposed to said spring, but in contradistinction to this I provide a lighter with friction wheel operated by hand and supported by the guide tube of the flint characterised in that the guide tube is displaceable against the action of the flint spring and is provided with a shoulder, which presses down the wick cover into the closing position under the action of the flint spring, the wick cover being released when the guide tube is pressed back against the said flint spring.

With a preferable embodiment of this invention the guide tube is directly mounted on the cover of the liquid fuel tank, whereby an extremely compact shape is obtained, smooth on all sides and having no projecting parts at all.

In the drawing attached two embodiments of the invention are shown.

Fig. 1 is a side view partly in vertical section and Fig. 2 a view from the above partly in horizontal section of one form of the lighter.

Figs. 3 and 4 show similar views of a second form but on a reduced scale. Fig. 5 shows a transverse section.

On top of the benzine tank 1 of the lighter the guide tube 2 for the flint is arranged displaceably in its longitudinal direction. This guide tube carries the friction wheel 3 and is provided with the shoulder 4. The wick cover 5 is fixed to

an arm 7 pivotable with regard to the axle 6, a spring 8 acting on this arm 7 in such a manner that it tends to tilt it into the position shown in the drawing by dotted lines. The rear end of the guide 2 engages in a fixed tube 9 in which the adjusting screw 10 is turnably fastened. Within the guide tube a nut 11 is carried on the adjusting screw, which nut is connected to the rear end of the flint spring 13 used for pressing the flint 12 against the friction wheel 3. The nut is formed in such a manner that it cannot turn within the guide tube 2. For instance the guide tube 2 and the nut 11 may be of rectangular section. It follows therefrom that when the adjusting screw 10 is turned by means of the disc 14, the nut 11 will be displaced within the guide tube and the flint spring 13 will more or less be loaded.

As the flint spring 13 rests rearwards against the fixed nut 11, it exercises on the guide tube 2 a pressure directed to the left on the flint and the friction wheel. This pressure is transmitted to the arm 7 of the wick cover 5 through the shoulder 4 of the guide tube whereby the wick cover is kept in its closing position. If, when starting to operate the lighter, a pressure directed to the right is exercised on the friction wheel 3 by means of the thumb, the guide tube 2 moving under the action of the pressure is displaced to the right against the action of the flint spring 13, whereby the shoulder 4 releases the arm 7 of the wick cover 5 which under the action of the spring 8 darts thereupon into the position shown in dotted lines. In order that the release of the arm should be carried out with a displacement as small as possible of the guide tube 2 and of the shoulder 4, the latter is provided with an opening 15, which after a very small displacement of the shoulder permits the arm 7 to turn round its axle 6. After the wick cover has been opened and the wick 16 exposed, the friction wheel 3 is turned by the finger pushing same to the right. Thereby a spark is generated which lights the wick 16.

In the device described the exchange of the flint is executed in the simplest manner possible without dismounting the

[Price 1/-]

flint spring, by drawing the spring as far back by means of the nut 11 as the opening 17 provided in the guide tube 2, whereupon the flint is inserted through
 5 such opening into the guide tube in front of the spring and the spring is again advanced by means of the adjusting screw 10 and the nut 11 until it presses the flint with a sufficient force against the friction
 10 wheel 2.

Figs. 3, 4 and 5 show an embodiment, which differs from the one described above in that the guide tube 2 is directly mounted on the benzine tank. In this
 15 case it is advantageous to make the guide tube, as shown in Fig. 5, mainly three-sided: i.e. without bottom for nearly its whole length and to use the top of the benzine tank to form the missing part of
 20 the bottom of the guide tube. An operating wheel 19, is placed on the axle 21 of the friction wheel 3, which wheel is sunk into a recess 20 formed by making the upper part of the benzine tank narrower. Besides the tube 9 mentioned
 25 as part of the embodiment described above is replaced by a fixed plate 9 supporting the adjusting screw 10. The other constituent parts are substantially designed as with the first embodiment and designated by the same reference figures.

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

1. Lighter with friction wheel operated by hand and supported by the guide tube of the flint characterized in that the guide
 40 tube is displaceable against the action of the flint spring and is provided with a shoulder, which presses down the wick cover into the closing position under the action of the flint spring, the wick-cover being released when the guide tube is pressed back against the said flint spring.

2. Lighter according to claim 1 characterized in that the guide tube of the flint loosely embraces the adjusting screw

of the flint spring and is displaceable with respect to that screw. 50

3. Lighter according to claims 1 and 2 characterized in that the flint spring rests against a nut which is carried on the
 55 adjusting screw of the flint spring said nut being unable to turn in the guide tube of the flint.

4. Lighter according to claims 1, 2 and 3 characterized in that the one end of the flint spring is rigidly fastened to the nut
 60 carried on the adjusting screw of this spring.

5. Lighter according to claim 1, 2, 3 and 4 characterized in that the adjusting screw of the flint spring is mounted rotatably but undisplaceably. 65

6. Lighter according to the claims 1, 2, 3, 4 and 5 characterized in that the shoulder pressing down the wick cover into the closing position is provided with an opening on the surface turned to the
 70 arm of the wick cover so as to release the arm of the wick cover after a slight displacement of the guide tube.

7. Lighter according to the claims 1, 2, 3, 4, 5 and 6 characterized in that the guide tube is directly mounted on the benzine tank. 75

8. Lighter according to claims 1 and 7 characterized in that the bottom of the guide tube is formed mainly by the top
 80 of the benzine tank.

9. Lighter as hereinbefore claimed and substantially as described with reference to Figs. 1 and 2 of the accompanying
 85 drawings.

10. Lighter as hereinbefore claimed and substantially as described with reference to Figs. 3, 4 and 5 of the accompanying
 90 drawings.

Dated the 3rd day of December, 1930.

For the Applicant,

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

