

APPLICATION VOID.

This print shows the Specification as it became open to public inspection under Section 91 (4) (a) of the Patents and Designs Acts, 1907 to 1932.

## PATENT SPECIFICATION

### 494331

Convention Dates (Austria):  $\left\{ \begin{array}{ll} \text{Jan. 21, 1936.} & \text{No. 1790/37.} \\ \text{Oct. 14, 1936.} & \text{No. 1791/37.} \\ \text{Nov. 20, 1936.} & \text{No. 1792/37.} \end{array} \right.$

Application Date (in United Kingdom): Jan. 21, 1937.

Specification not Accepted



### COMPLETE SPECIFICATION

#### Improvements in Pyrophoric Lighters

We, MAX GOTTLIEB, of 19, Mittelstrasse, Weidling, Austria, and KEGHAM AMATOUNY, of Friedrichstrasse, Vienna, I, Austria, Austrian Citizens, do hereby

5 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:—

10 The present invention relates to improvements in pyrophoric lighters.

The object of the invention is a pyrophoric lighter suitable for all purposes but especially useful as a table and house-

15 hold lighter.

According to the invention there is arranged above the fuel reservoir a tube filled with an absorbent substance. This tube is large enough to enable a burner

20 socket to be mounted therein or applied thereto and be turned about. The burner socket is connected with or separated from the ignition device and according to the invention it can be taken off and replaced

25 again upon the fuel reservoir for the purpose of use. The burner socket has an absorbent wick which is drawn through an opening and prevented from withdrawal by extensions. The absorbent

30 wick forms a loop, a knot or the like. The space left free by the loop in the burner socket is entirely or partially filled up with non burning substance for example fibres of asbestos projecting somewhat

35 beyond the edge of the socket. The burner socket may have an open bottom according to the invention. Besides that the absorbent wick may extend into a projection of the fuel reservoir and be prevented

40 from falling into the fuel reservoir by means of extensions. The absorbent wick projecting from the fuel reservoir forms a loop, knot or the like and the free space is filled with wadding or other absorbent

material. For operating the ignition device there are provided actuating levers during the operation of which the burner socket can be grasped and removed from the fuel reservoir. For operating the

45 friction wheel there is provided a catch lever which during its movement turns the friction wheel under the action of a spring. The spring is arranged in a casing which surrounds the stone tube and in which the catch lever and the actuating

50 lever are provided.

In the accompanying drawings which illustrate examples of carrying out the invention, Fig. 1 shows a table lighter and Fig. 2 merely the burner socket.

55 Fig. 3 shows the burner socket and ignition device in its operative position. Fig. 4 shows a burner socket with a non-combustible wick connected with an absorbent wick. Figs. 5 and 6 show two modifications wherein the fuel reservoir is provided with a wick. Figs. 7 and 8 illustrate two views of further modifications.

Fig. 1 shows the fuel reservoir 1 and the tube 2 which is filled up with an absorbent wick 3 as far as necessary to leave free a sufficient quantity of hollow spaces to take up the burner tube 4. The last mentioned tube, illustrated separately in Fig. 2 consists of a socket closed at one end and forming a wick tube 5 containing an asbestos wick 6. The socket may also be provided advantageously with an absorbent wick of wadding or the like. Both ends of the socket are provided with a collar 7 to enable the burner tube 4 to be turned about. The burner tube 4 in its normal position (Fig. 1) is put in such manner into the tube 2 of the reservoir 1 that the wick 6 of the burner tube 4 lies upon the absorbent wick 3 of the reservoir.

In this position the wick receives its

[Price 1/-]

fuel from the absorbent wick 3 by contact. For the purpose of lighting the wick 6, the burner tube 4 is turned about into the position illustrated by Fig. 3. The wick tube 5 comes thereby with its open upper part into the region of the igniting device. The wick is ignited in known manner by the turning motion of the friction wheel 8. The burner tube 4 can now be removed from the reservoir and used in the manner of a match. Instead of the friction wheel there may be employed an electric or other igniting device. After its employment the burner tube 4 is brought again into its normal position as shown in Fig. 1. The fuel reservoir may be filled up by unscrewing the tube 2 and pouring in the fuel. There may be provided also a screw as shown in Fig. 6 to pour in the fuel. This screw is suitably provided with an air inlet opening to reduce the super pressure of the fuel reservoir.

According to Fig. 4 the burner socket 4 has a further function. The space separated by a disc or the like from the wick tube 5 is filled with wadding. Also an absorbent wick projects from the inner part of the burner socket and is brought in looped shape into the wick tube by an opening provided in said intermediate disc. The wick tube itself is filled up with non combustible fibre material, for example, with fibres of asbestos and also the loop of the wick is extended by fibre material so that the loop cannot be taken out from the wick tube. The fibre material projects somewhat beyond the edge of the burner socket 4. The socket is put into the fuel reservoir and soldered or screwed in on its lower part. It is filled with fuel in the same manner as shown in Figs. 1 to 3 by putting it into the tube 2 and thus saturating the asbestos material with fuel. According to Figs. 5 and 6 the burner tube is not removable. In this modification the under side opening of the burner is partially open and sits upon a projection of the fuel reservoir 1. There is also extending from the fuel reservoir into the projection 10 filled with non-combustible fibre material a loop like shaped absorbent wick 11, which is extended by fibre material and thus prevented from withdrawal. For operating the device according to Figs. 5 and 6 the ignition device needs only to be actuated to light the wick of the burner tube 4. The tube 4 which is constructed separately from the ignition device according to Fig. 5 or made in one piece therewith as in Fig. 6 can be removed from the fuel reservoir, if desired, and used like a match to light ovens, cooking stoves or for other house-

hold purposes. Super pressure is prevented because the fuel is not connected with the burner tube. According to Figs. 7 and 8 the arrangement may also be such that the burner tube can be grasped during the actuation of the friction wheel and removed in its lighted state with the same hand. Round the stone tube 16 there is provided a casing 11 containing a spring 15 which tends to press the casing upward, and with a catch lever 12 for the catch disc of the friction wheel 8. There are also provided actuating levers 14. The lighter is operated in the following manner. The actuating lever 14 is operated by the thumb and forefinger of the right hand which at the same time grips the burner tube 4. When the lever 14 is pressed down the casing 11 is moved against the action of the spring 15. The catch lever 12, the catch disc and the friction wheel are turned thereby so that sparks are caused and ignite the wick which projects from the burner tube 4. The burner tube can now be removed also by the thumb and forefinger and used like a match. The arrangement may also be thus that when the burner tube is removed from the fuel reservoir the friction wheel is actuated automatically and thus ignite the wick of the burner socket which is then used like a match.

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. In a pyrophoric lighter for liquid fuel the arrangement of an absorbent material receiving tube over the fuel reservoir, the opening of the tube being large enough to enable a burner socket to be set in or put upon the tube and be turned about.

2. In a pyrophoric lighter for liquid fuel having an absorbent material receiving tube over the fuel reservoir an opening large enough to enable a burner socket to be set in or put upon it and be turned about, the capability of the burner socket to be taken from the fuel reservoir or put upon it for using purposes together with or separately of the ignition device.

3. In a pyrophoric lighter for liquid fuel having over its fuel reservoir a tube filled with absorbent material with an opening to enable a socket to be set in or put upon it, to be turned about and taken away for purposes of use together with or separately of the ignition device, the provision of the burner socket with an absorbent wick brought in through an opening and prevented from withdrawal by means of extensions.

4. In a pyrophoric lighter for liquid

70

75

80

85

90

95

100

105

110

115

120

125

130

fuel with a burner socket containing an absorbent wick brought in through an opening and prevented from withdrawal by extensions forming the absorbent wick

5 with a loop, knot or the like.

5. In a pyrophoric lighter for liquid fuel according to claims 1 to 4 the feature that the space of the burner socket left free of the wick is filled entirely or

10 partially with non-combustible fibres for example fibres of asbestos projecting somewhat over the edge of the socket.

6. In a pyrophoric lighter for liquid fuel having in an absorbent material receiving tube over the fuel reservoir an opening large enough to enable a burner socket to be set in or put upon it, to be

15 turned about and taken from the fuel reservoir for using purposes together with or separate from the ignition device, the provision of the burner socket with an open bottom.

7. In a pyrophoric lighter for liquid fuel having in an absorbent material receiving tube over the reservoir an opening to enable a burner socket with an open bottom to be set in or put upon it, to be turned about or taken away for use

25 together with or separately of the ignition device, the provision of the fuel reservoir with a projection receiving an absorbent wick prevented by extensions from falling back into the fuel reservoir.

8. In a pyrophoric lighter according to claim 7 the absorbent wick projecting from the fuel reservoir being fashioned as a loop, knot or the like.

35 9. In a pyrophoric lighter for liquid fuel having in an absorbent material receiving tube over the fuel reservoir an opening to enable a burner socket with an

open end to be set in or put upon it, to be turned about or taken away for use together with or separately of the ignition device and having an absorbent wick

45 projecting from the fuel reservoir and hindered by projections i.e. by performance as a loop or knot from falling back into the fuel reservoir, the provision of the ignition device with levers for its

50 actuation during which the burner socket can be grasped and removed from the fuel reservoir.

10. In a pyrophoric lighter according to claim 9, the provision of a catch lever

55 which during its movement against a spring turns the friction wheel and thus actuates the same.

11. In a pyrophoric lighter for liquid fuel having in an absorbent material receiving tube over the fuel reservoir an opening to enable a burner socket with an open bottom to be set in or put upon it, to be turned about or taken away for use together with or separately of the ignition

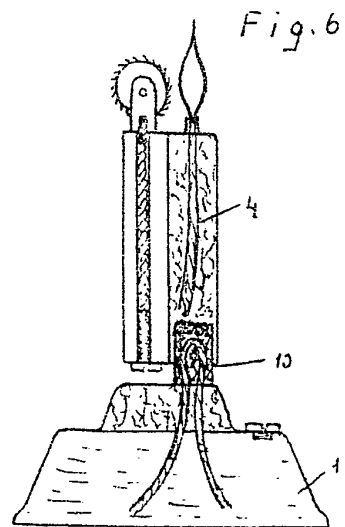
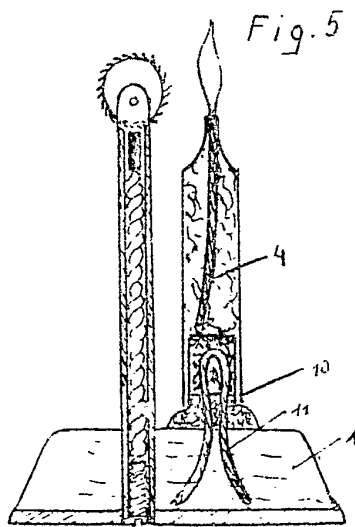
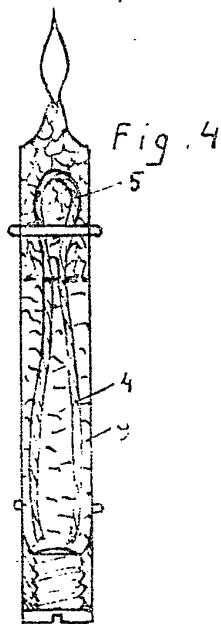
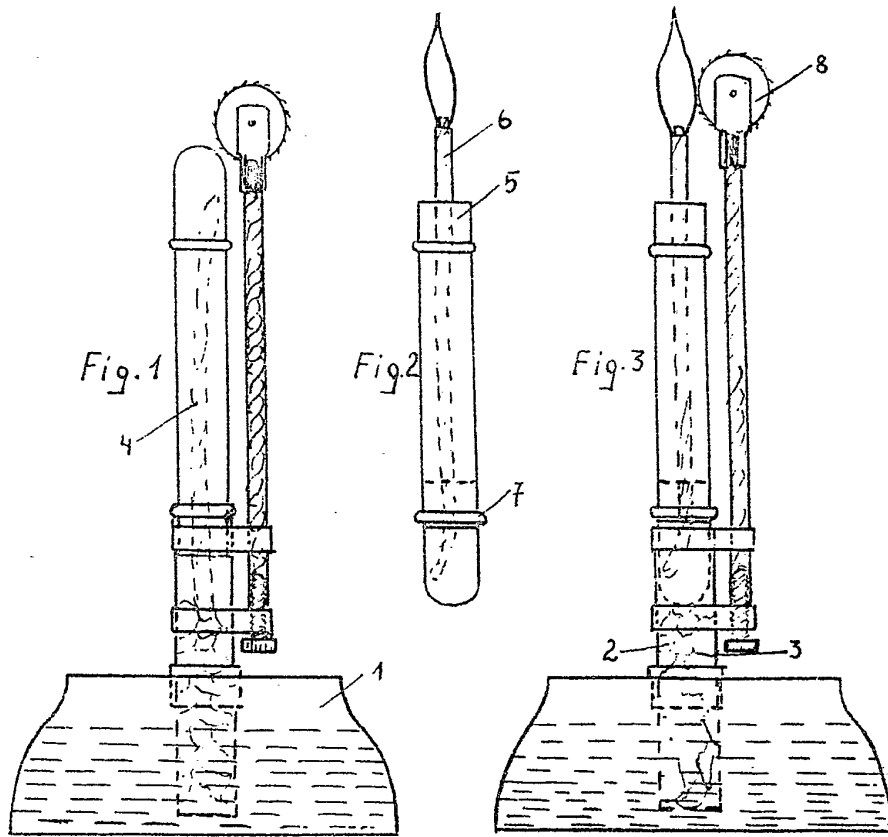
60 device and having an absorbent wick projecting from the fuel reservoir and prevented by extensions such as loops or knots from falling back into the fuel reservoir, the ignition device being provided with levers for its actuation during

70 which the burner socket can be grasped and removed from the fuel reservoir and with a catch lever turning and actuating by its movement against a spring force

75 the friction wheel the arrangement of the spring in a casing round the stone tube and the provision of the catch lever and actuating lever in said casing.

Dated this 21st day of January, 1937.

RICHARD C. ROGERS,  
Agent for the Applicants.



8



Fig. 6

10

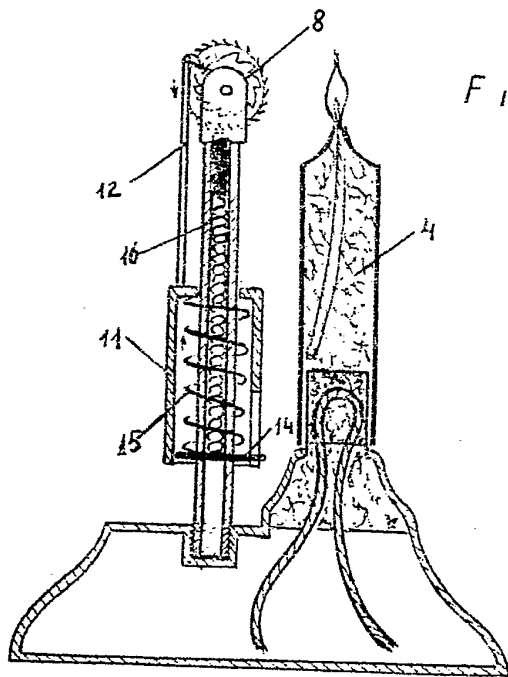
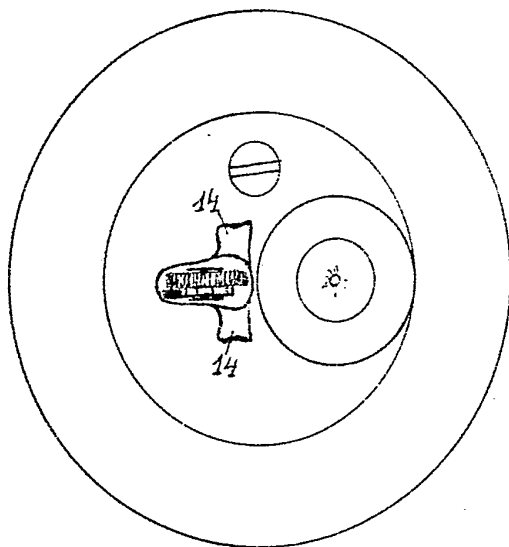


Fig. 7

Fig. 8



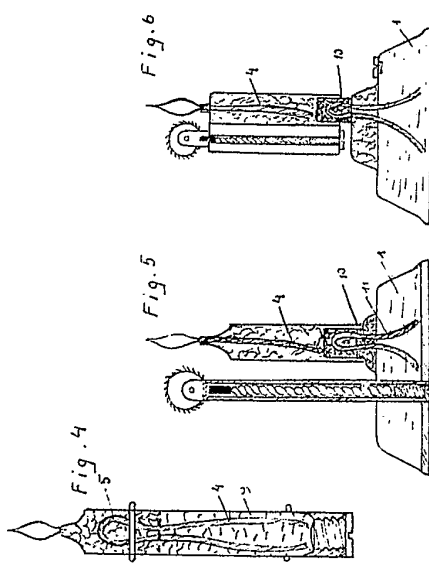
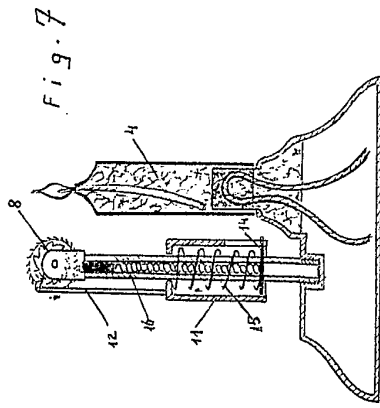
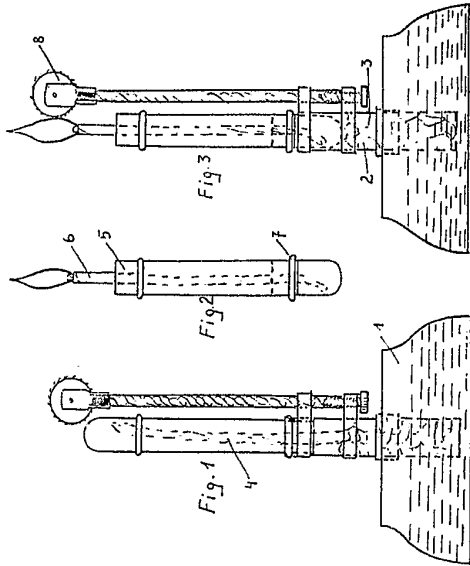


Fig. 8

