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PATENT SPECIFICATION

Application Date: Nov, 3, 1939. No. 29338/39.

535,085

Complete Specification Left: Aug. 27, 1940.

Complete Specification Accepted: March 27, 1941.



PROVISIONAL SPECIFICATION

Improvements in and relating to Pyrophoric Lighters

We, ALFRED DUNHILL LIMITED, a British Company, of 30, Duke Street, Saint James's, London, S.W.1, ALFRED HENRY DUNHILL, a British subject, of the Company's address, and FREDERICK CHARLES WISE and WILLEY GREENWOOD, both British subjects, and trading as WISE & GREENWOOD, of 5, Hillgate Street, Notting Hill Gate, London, W.8. do hereby declare the nature of this invention to be as follows:

This invention relates to pyrophoric lighters and has for its object to provide an improved lighter which combines the advantages of the known form of lighter employing a wick supplied from a fuel casing and also of the type of lighter wherein a length of tinder is ignited without employing a fuel casing.

According to the invention the fuel casing of a lighter of the kind provided with a wick and an ignition device such as a flint or the like and a rotary abrasive wheel or the like, is formed with a recess cut off from the fuel supply and which is adapted to accommodate a striker member to which a length of tinder is attached. At a suitable point on the casing a pyrophoric surface is provided and the striker on the tinder is adapted to be moved over this surface to produce a spark which ignites the tinder. When not in use the tinder is held attached to the casing by the insertion of the striker thereon in the recess in the lighter casing.

Thus the lighter combines the two forms and its usefulness is much increased.

The striker may consist of a metal sleeve into which one end of the tinder strip is

pushed and a spring tongue may be partially cut from the sleeve and formed with a hooked end. This hook is out of contact with the strip when the striker is out of the recess and allows the tinder to be pushed through the sleeve towards the striker end as required but when inserted in the recess the spring tongue is pressed to bring the hooked end into contact with the strip to prevent the latter from being pulled out of the sleeve. The spring tongue also assists in holding the striker in the recess.

The striker end of the sleeve may be cut at an angle to assist in directing the sparks produced on to the end of the tinder contained within the sleeve.

Other forms of striker may be used and if desired the pyrophoric material may be applied to the striker and an abrasive striking surface applied to the lighter casing.

Further, instead of forming a recess in the lighter casing, the recess may be formed in a part attached to the casing or the recess may be replaced by a holding ring or rings attached to the lighter casing at suitable points as will be understood.

Any suitable kind of tinder may be used but the known loosely woven tubular textile strip has been found to give good results.

Dated this 3rd day of November, 1939.

ABEL & IMRAY,
30, Southampton Buildings,
London, W.C.2,
Agents for the Applicants.

COMPLETE SPECIFICATION

Improvements in and relating to Pyrophoric Lighters

We, ALFRED DUNHILL LIMITED, a British Company, of 30, Duke Street, Saint James's, London, S.W.1, ALFRED HENRY DUNHILL, a British subject, of the Company's address, and FREDERICK CHARLES WISE and WILLEY GREENWOOD, both British subjects, and trading as WISE & GREENWOOD, of 5, Hillgate Street, Notting Hill Gate, London, W.8.

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 pyrophoric lighters and has for its object to provide an improved lighter of the kind which combines a lighter employing an abrasive

[Price 1/-]

wheel for igniting a wick supplied with fuel from a casing and a striker member and striker plate for igniting a length of tinder.

5 According to the present invention a pyrophoric lighter of the kind referred to is provided with a striker member carrying tinder material which is detachably retained by a spring device in a recess or
10 pocket in the fuel casing or a part attached thereto.

The striker may consist of a metal sleeve into which one end of the tinder strip is pushed and the spring means may comprise a spring tongue partially cut from
15 the sleeve.

To enable the invention to be fully understood it will now be described with reference to the accompanying drawings, in which:—
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Fig. 1 is an elevation, partly in section, of a lighter according to one constructional embodiment of the invention with a striker member partially inserted, and

25 Fig. 2 is a side view of the striker member shewn in Fig. 1.

As shewn in the accompanying drawings the lighter comprises a casing 1 on which is mounted a flint tube 2 which
30 presents a flint adjacent to a rotary abrasive wheel 3 which is rotated by a milled wheel 4. The usual wick of absorbent material is provided adjacent to the wheel 3 but is not visible in the accompanying
35 drawings. A wick cover 5 on a pivoted arm 6 is also provided. The casing 1 which is normally filled with wadding or like absorbent material to serve as a fuel container is formed with an internal
40 pocket 7 which is isolated from the absorbent wadding by walls 8, 9. The pocket 7 is adapted to form an easy fit for a striker member consisting of a hollow cylindrical metal sleeve 10 in which a
45 length of loosely woven tinder material 11 is inserted. The wall at the end of the sleeve 10 is cut at an angle to provide a sloping face 12 to assist in directing sparks
50 on to the tinder material 11 when the end of the striker is rubbed over the face of the striker plate 13 of pyrophoric material which is mounted on the side of the lighter casing 1.

A spring tongue 14 is cut from the metal
55 of the sleeve and formed with a hooked end 15. The spring tongue 14 assists in holding the striker in the pocket 7 and the hooked end 15 grips the tinder 11 in the sleeve 10. The sleeve is formed with a
60 milled grip 16 and a rim portion 17 which

forms a close fit with the outer end portion of the pocket 7 when the sleeve 10 is fully inserted into the pocket.

Other forms of striker may be used and if desired the pyrophoric material may be
65 applied to the striker and an abrasive striking surface applied to the lighter casing.

Further, instead of forming a recess in the lighter casing, the recess may be
70 formed in a part attached to the casing.

Any suitable kind of tinder may be used but the known loosely woven tubular textile wick has been found to give good
75 results.

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:—
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1. A pyrophoric lighter of the kind referred to wherein a striker member carrying tinder material is detachably retained by a spring device in a recess or
85 pocket in the fuel casing or a part attached thereto.

2. A lighter according to claim 1 wherein the striker member comprises a metal sleeve into which one end of a strip or coil of tinder material is inserted.
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3. A lighter according to claim 2 wherein the sleeve is cut away adjacent to one end to provide an angular opening which is adapted to assist in directing the sparks produced towards the end of the
95 tinder in the sleeve.

4. A lighter according to claim 2 or claim 3 wherein the spring device comprises a spring tongue struck up from the material of the striker member and adapted
100 to engage with the wall of the recess or pocket.

5. A lighter according to claim 4 wherein the spring tongue is formed with a hooked end adapted to grip the tinder
105 material in the sleeve.

6. A lighter according to any one of the preceding claims wherein the pocket is arranged with its open end at the bottom
110 face of the casing.

7. A pyrophoric lighter constructed and arranged substantially as described with reference to the accompanying drawings.

Dated this 27th day of August, 1940.

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FIG. 1.

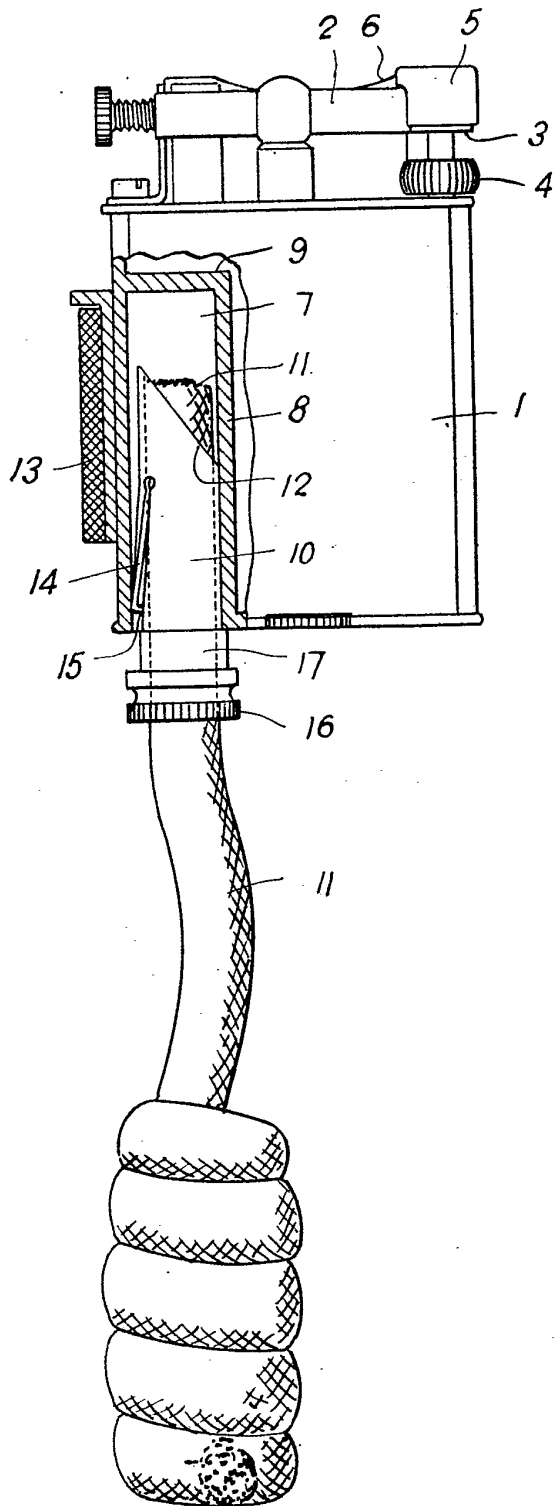
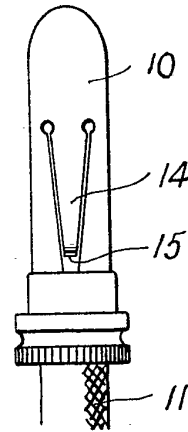


FIG. 2.



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