

RESERVE COPY PATENT SPECIFICATION

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PROVISIONAL SPECIFICATION

Improvements in or connected with Pyrophoric Lighters

We, LOEWENSTEIN & HECHT LIMITED, of 69, New Oxford Street, London, W.C.1, a British Company, and ROMOLO PETRONZIO, of the Company's address, British Subject, do hereby declare the nature of this invention to be as follows:—

5 This invention relates to pyrophoric lighters or frictional igniters, and has for its object to simplify and cheapen the cost of production of the body or main part of a lighter which may be used as an insert for a pocket lighter or for a table lighter.

10 According to this invention the body or main part of a pocket or table lighter consists of a fuel container open at the lower end and closed by a wall at the upper end, a longitudinal hole in the side wall for receiving the flint, spring and flint adjusting screw, a pair of ears or uprights on the upper wall above the flint tube for carrying the pivot of the friction wheel, and a wick tube in the top wall, all being constructed of metal in one operation by casting.

15 The invention can be carried into effect in various ways as to detail construction, and as one simple example the body or insert for a lighter consists of a fuel container, wick, tube, a pair of ears or uprights for the flint and a flint tube cast in one operation by die-casting. The fuel container is formed in any suitable shape in cross-section of tubular form, open at the lower end and closed at the upper end by a wall, one portion of the side wall being thickened or formed with a longi-

tudinal rib on the inside, and in the thickened or ribbed portion is formed a longitudinal hole open at both ends, in which the flint and usual spring can be inserted, the lower end being internally screw-threaded for receiving the usual flint adjusting screw.

20 On the top wall of the container, and on each side of the flint tube, are formed parallel ears or uprights, each having a cross hole in which can be secured the pivot pin carrying the friction wheel rotatably located between the ears and over the flint tube. In the top wall is also formed a hole having a short wall on the upper side forming the wick tube, the ears being so positioned that when the friction wheel is rotated the sparks from the flint are directed over the wick tube.

25 A wick is positioned in the wick tube extending into the container which is packed in the usual manner with cotton-wool or other absorbent material, and the body or container can be inserted in any suitable case with a lid or cover for pocket use, or in a stand or other article for table use.

30 By this invention it is possible to construct the container with the wick tube, flint tube and ears for the pivot of the friction wheel in one operation thus considerably cheapening the cost of production and reducing the amount of labour.

Dated this 23rd day of March, 1942.

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Agents for the Applicants.

COMPLETE SPECIFICATION

Improvements in or connected with Pyrophoric Lighters

We, LOEWENSTEIN & HECHT LIMITED, of 69, New Oxford Street, London, W.C.1, a British Company, and ROMOLO PETRONZIO, of the Company's address, British Subject, 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:—

80 This invention relates to pyrophoric

lighters or frictional igniters, and has for its object to simplify and cheapen the cost of production of the body or main part of a lighter which may be used as an insert for a pocket lighter or for a table lighter.

85 According to this invention the body or main part of a pocket or table lighter consists of a fuel container open at the lower end and closed by a wall at the

upper end, a longitudinal tube or hole formed with the wall of the container opening to the outside of the top wall for receiving the flint, spring, and flint adjusting screw, a pair of ears or uprights on the top wall above the flint tube opening for carrying the pivot of the friction wheel, and a wick tube in the top wall, all being constructed integrally of metal in one operation by casting.

The invention will be clearly understood from the following description aided by the accompanying drawings in which:—

Figure 1 is a sectional view of a pocket lighter showing one example of carrying the invention into effect,

Figure 2 is a view of the body or main part of the lighter,

Figure 3 is a plan of the body shown in Figure 2, and

Figure 4 is an underplan of same.

The invention can be carried into effect in various ways as to detail construction, and one simple example shown on the accompanying drawings, the body or insert for a lighter consists of a fuel container 1, wick tube 2, a pair of ears 3 or uprights for the friction wheel pivot, and a flint tube 4 cast in one operation by die-casting. The fuel container 1 is formed in any suitable shape in cross-section of tubular form, open at the lower end and closed at the upper end by a top wall 1a, one portion of the wall of the container being formed with a longitudinal tube 4 on the inside opening to the outside of the top wall 1a in which the flint 5, and usual spring 6 can be inserted, the lower end being internally screw-threaded for receiving the usual flint adjusting screw 7.

On the top wall 1a of the container, and on each side of the opening of the flint tube 4, are formed parallel ears 3 or uprights, each having a cross hole in which can be secured the pivot pin 8 carrying the friction wheel 9 rotatably located between the ears 3 and over the flint tube 4. The top wall 1a is also formed with a hole having a short wall on the upper side forming the wick tube 2, the ears 3 being so positioned that when the friction wheel 9 is rotated the sparks from the flint 5 are directed over the wick tube 2.

The wall of the container 1 is preferably formed of comparatively thin metal with longitudinal strengthening ribs 1b, and the wall may be formed with oppositely positioned Vee-shaped slits 1c whereby the lower end of the container 1 tends to open outwards to grip the inside of the holder with which the container is employed.

A wick 10 is positioned in the wick tube

2 extending into the container 1 which is packed in the usual manner with cotton-wool 11 or other absorbent material.

In the example shown in Figure 1 of the drawings, the container 1 is inserted in a tubular case 12 having an enlarged internal diameter portion 12a in which the container 1 can be located and frictionally held, the case being provided with a screw-on cover 13 for pocket use, and a filling of cotton-wool 14 or other absorbent material, or the container 1 can be located in a stand or other article for table use.

In a modification, the wall of the container 1 may be thickened or formed with a longitudinal rib on the inside, and in the thickened or ribbed portion is formed a longitudinal hole open at both ends in which the flint and spring can be inserted, the lower end being internally screw-threaded for receiving the flint adjusting screw.

In the drawings the container is shown as circular in cross-section but it will be understood that it can be of oval or other shape in cross-section.

By this invention it is possible to construct the container with the wick tube, flint tube, and ears for the pivot of the friction wheel in one operation thus considerably cheapening the cost of production, and reducing the amount of labour required to produce the articles.

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. Pyrophoric lighters or frictional igniters, wherein the body or main part consists of a fuel container open at the lower end and closed by a top wall at the upper end, a longitudinal tube or hole opening to the outside of the top wall formed with the wall of the container for receiving the flint, spring, and flint adjusting screw, a pair of ears or uprights on the top wall above the flint tube opening for carrying the pivot of the friction wheel, and a wick tube in the top wall, all being constructed integrally of metal in one operation by casting.

2. Pyrophoric lighters, wherein the body or main part consists of a fuel container of tubular form open at the lower end and closed at the upper end by a top wall, a longitudinal flint tube opening to the outside of the top wall formed inside and attached to the wall of the container, parallel ears formed in top wall over the opening of the flint tube, a hole in the top wall having a short wall on the upper side forming the wick tube, all being constructed integrally of metal in one opera-

tion by die-casting.

3. Pyrophoric lighters as claimed in Claims 1 or 2, wherein the wall of the container is formed of comparatively thin metal strengthened by longitudinal internal ribs.
4. Pyrophoric lighters as claimed in Claims 1, 2 or 3, wherein the wall of the container is formed with oppositely opposed longitudinal Vee-shaped slits.
5. Bodies or main parts for pyrophoric

lighters constructed substantially as described and as shown on Figures 2, 3 and 4, of the accompanying drawings.

6. Pyrophoric lighters constructed substantially as described and as shown in Figure 1 of the accompanying drawings.

Dated this 23rd day of March, 1943.

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

FIG. 1.

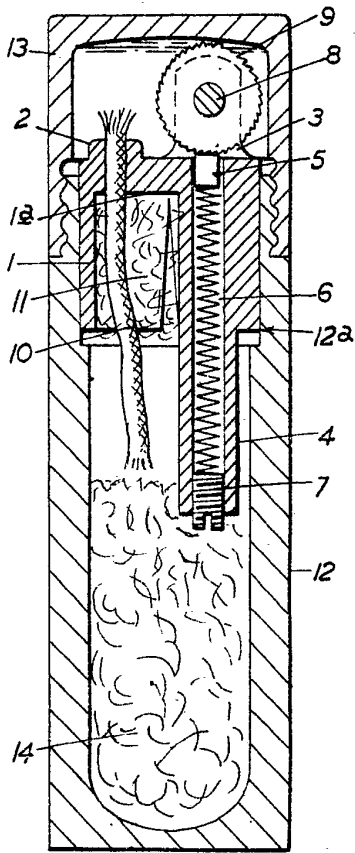


FIG. 2.

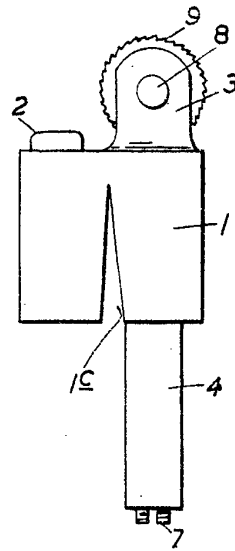


FIG. 3.

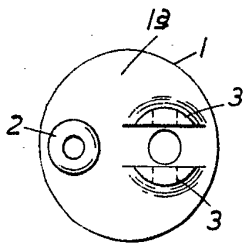


FIG. 4.

