

PATENT SPECIFICATION



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PROVISIONAL SPECIFICATION.

Improvements in or relating to Pyrophoric Lighters.

We, VERNON DUNHILL, a British Subject, and ALFRED DUNHILL LIMITED, a British Company, both of 186, Campden Hill Road, Notting Hill Gate, London, W. 8., do hereby declare the nature of this invention to be as follows:—

This invention consists in improvements in or relating to pyrophoric lighters and has for its object to provide a combined lighter and vanity case.

The combination according to the present invention comprises a body portion which provides a fuel compartment and also one or more other compartments for containing toilet requisites. Preferably, there is a removable fuel container accommodated within the fuel compartment.

In a preferred example of a construction embodying the present invention, the appearance of the article is similar in general form to the well-known "Dunhill" lighter, that is to say, it comprises a container having a flat body portion, the two opposite side walls of which are rounded and are interconnected by relatively long rectangular faces. On one of the end walls is mounted, in a position parallel with that end wall, a tubular carrier for the "flint" and "flint wheel", the latter being arranged to rotate in a plane parallel with the end wall. In place of the usual wick-tube which is mechanically secured in the end wall adjacent the flint wheel, there is now provided a wick-tube which extends from a cylindrical fuel container insertable into the body portion of the casing from the opposite end wall.

The body portion is similar in general construction to that described in pending Application No. 14,444/28 (Serial No. 317,432) that is to say, it comprises three compartments and one of the end compartments is adapted to accommodate the cylindrical fuel container. Extending from the end wall adjacent the flint wheel is a cylindrical shield for the wick-tube on to which the usual cap, which is intended to cover over the wick-tube and the flint wheel, is adapted to seat. The cap is carried in known manner at the end of a pivoted arm

associated at its opposite end, that is, on the other side of the pivot, with a spring affording a snap action for the arm in its two extreme positions. 55

It is preferred to position the wick-tube on the fuel container so that it is parallel to the axis of the container but is eccentric in relation thereto. An aperture in the end wall through which the wick-tube projects is so disposed that the container can only be inserted in one particular angular position with respect to the end compartment in which it is received, and by this means rotation of the fuel container within the compartment is prevented. Its non-rotation may be further ensured by providing a non-circular flange (for example, a D-shaped flange) at the base of the container which fits a correspondingly-shaped recess in the end wall of the body portion, but this is not essential. Normally, a removable cap will be provided at this end of the fuel container to afford access to the interior thereof for filling purposes. The cap may, as usual in the "Dunhill" lighter, have a tubular case extending from its inner surface for containing spare "flints". 60 65 70 75 80

In the opposite end compartment there is provided a carrier for a lipstick or equivalent toilet requisite, and this carrier may be similar in construction to that described in the prior Specification above referred to. Similarly, the central compartment may also be provided with a hinged lid carrying a mirror on its inner face. The central compartment may be used for powder, and if more than one kind of powder is required, there may be two or more removable trays contained within the central compartment. 85 90 95

It is within the invention to construct the lighter in other forms. The invention is not limited to any particular construction and arrangement of the parts provided that it comprises the combination of a body portion providing a fuel compartment and one or more other compartments for containing toilet requisites. 100

It is obvious that the lipstick carrier may also be provided with a non-circular flange at its outer end to co-operate with 105

a non-circular recess in the end wall of the container, as described in the construction of vanity case according to the prior Specification No. 14,444/28 (Serial No. 317,432).

Dated this 15th day of June, 1928.  
BOULT, WADE & TENNANT,  
111/112, Hatton Garden, London,  
E.C. 1,  
Chartered Patent Agents.

## COMPLETE SPECIFICATION.

### Improvements in or relating to Pyrophoric Lighters.

We, VERNON DUNHILL, a British Subject, and ALFRED DUNHILL LIMITED, a British Company, both of 186, Campden Hill Road, 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 consists in improvements in or relating to an article of manufacture of the kind comprising a pyrophoric lighter in combination with one or more receptacles for other articles of use.

The invention comprises a container having three compartments arranged side-by-side, whereof one of the outer compartments affords accommodation for fuel and has a wick-tube therefor projecting from an end wall of the container, the other outer compartment has in it a receptacle that is removable endwise through an end wall of the container, and the middle compartment is adapted to contain powder and is closed by a lid, preferably a hinged lid, which bears a mirror on its inner surface and which, when closed, constitutes part of a side wall of the container.

In a modified form, the invention comprises a container having in it a plurality of compartments, a removable fuel receptacle in one of them, a wick-tube extending from the fuel receptacle to a position outside one wall of the container, and a pyrophoric ignition device supported on said wall adjacent the wick-tube.

In order that the invention may be more clearly understood, a preferred example will now be described with the aid of the accompanying drawings, in which—

Figure 1 is a perspective view of the article in a closed or shut condition;

Figure 2 is a plan on an enlarged scale, looking down from the top of Figure 1;

Figure 3 is, in the main, a section on the line 3—3, of Figure 2;

Figure 4 is a section on the line 4—4 of Figure 3;

Figure 5 is an under plan view of the parts shown in Figure 3, and

Figure 6 is a perspective view of a modified detail of a fitting to be contained

within the article.

Like reference numerals indicate like parts in the several Figures of the drawings.

In the example illustrated, the appearance of the article is similar in general form to the well-known "DUNHILL" lighter; that is to say, it comprises a container having a flat body portion, the two opposite side walls of which are rounded and are interconnected by relatively long rectangular faces. On one of the end walls 10 is mounted with its axis parallel to the plane of the end wall, a tubular carrier 11 for the flint and flint-wheel 12, the latter being arranged to rotate also in a plane parallel with the surface of the end wall. The term "flint" is intended to include any pyrophoric substance from which sparks are emitted when frictionally engaged with the roughened edge of a wheel, such as 12.

A wick-tube guide-sleeve 13 extends from the end wall, but instead of the wick passing directly through the tube 13, it now projects from an inner wick-tube 14 which extends from a cylindrical container 15 insertable into the body-portion of the container from the opposite end wall.

The container comprises three compartments, namely, one rectangular central compartment and two end cylindrical compartments, in one of which is situated the fuel-receptacle 15. The latter slidably enters an aperture in the end wall 16 of the container, and the end of the receptacle 15 adjacent the end wall 16 is closed by means of a screwed plug 17 which lies flush with the surface of the end wall 16 when in position.

The tubular carrier 11 is supported, as shown, by pillars 18, so that it is raised above the end wall 10. Another pillar 19 is also mounted on the end wall 10, and in it is pivoted one end of an arm 20 at the other end of which there is a cap 21, a portion of which overhangs and encloses the wheel 12 and another portion of which, with the aid of an internal tubular portion 22, fits on the guide-sleeve 13 and completely encloses the outer end of the wick-tube 14 and the exposed portion of the wick.

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A spring 23 bears against the end of the arm 20 where it projects beyond the pillar 19 and constitutes a snap spring for the arm whereby the latter is snapped

5 and held firmly in either one of its two extreme positions.

As illustrated, the wick-tube 14 is positioned eccentrically in the end of the fuel-receptacle 15. Similarly, the guide-sleeve 13 is mounted in the end wall 10

10 eccentrically with respect to the axis of the cylindrical chamber within which the fuel-receptacle is received. Thus the latter can only be inserted in one particular angular position with respect to

15 the end compartment. By this means, rotation of the fuel-container within the compartment is prevented, and the wick will always be maintained in the desired

20 relationship with the wheel 12.

The closure-plug 17 may be fitted, as usual in "DUNHILL" lighters, with a tubular socket into which a tubular cap 24 can be screwed, the cap 24 and the

25 socket serving as a receptacle for spare "flints", 25.

In the other end compartment 26 there is provided a carrier for cosmetic, lipstick or like preparation. The latter is held in a tubular socket 27 from which projects a pin 28 that enters a helical groove 29 formed in an outer tube 30. Secured between the socket 27 and the tube 30 is an inner tubular member 31

35 having in it a vertical slot 32 through which the pin extends to enter the helical groove 29. The tubular member 31 terminates at its lower end in a D-shaped plate 33 which forms a base for the carrier as a whole, and by which, when the carrier has been removed from the container, the member 31 can be rotated

40 relatively to the outer tubular portion 30. Rotation of the member 31 serves to propel this socket 27 lengthwise without rotating it relatively to the member 31.

The complete carrier is insertable endwise into the compartment 26 through an aperture in the end wall 16, the latter being cut away or recessed, as shown, to

50 accommodate the D-shaped end-plate 33.

The central compartment is provided with a hinged lid 34 bearing on its inner face a mirror 35. This central compartment is adapted to contain one or more

55 movable trays. In the example shown, there are two trays 36 and 37, and these may contain powder, or other toilet requisites, or other articles that the user may find desirable.

In place of the trays 36 and 37 there may be a Powder receptacle 38, illustrated in Figure 6, having the well-known

65 sifter device 39 by turning which the powder is brought on to the surface of

the sifter.

The invention is capable of various uses; for instance, instead of utilising the end compartment 26 to contain a cosmetic-carrier, it may serve as a receptacle for a cigarette tube which will be contained

70 within a removable tubular receptacle which will take the place of the cosmetic-carrier described. On the other hand, the insertable tubular carrier to be received

75 within the compartment 26 may comprise a container for cachous or the like, or cachous may be carried in a fitment exemplified by a tray, such as 36 or 37, within the central compartment. The

80 invention is not to be considered as limited in any way to the particular use to which the various compartments are put.

The lighter may be constructed in other forms, not necessarily of the pattern illustrated, and the invention is also not

85 limited to any particular construction and arrangement of parts.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to

90 be performed, we declare that what we claim is:—

1. An article of manufacture of the kind described comprising a container

95 having three compartments arranged side-by-side whereof one of the outer compartments affords accommodation for fuel and has a wick-tube projecting from an end

100 wall of the container, the other outer compartment has in it a receptacle that is removable endwise through an end wall of the container, and the middle compart-

105 ment is adapted to contain powder and is closed by a lid, preferably a hinged lid, which bears a mirror on its inner surface and which, when closed, constitutes part of a side wall of the container.

2. An article of manufacture of the kind described comprising a container

110 having in it a plurality of compartments, a removable fuel-receptacle in one of them, a wick-tube extending from the fuel-receptacle to a position outside one

115 wall of the container, and a pyrophoric ignition device supported on said wall adjacent the wick-tube.

3. An article of manufacture according to Claim 2 wherein one of the compartments opens through an end wall of the

120 container, and the fuel-receptacle is insertable endwise into the compartment through the opening.

4. An article of manufacture according to Claim 2 or Claim 3, wherein the compartment that receives the fuel-receptacle

125 is cylindrical, and the fuel-receptacle itself is of corresponding cross-section.

5. The subject-matter of any one of the

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- preceding Claims 2 to 4 in which the fuel-receptacle is provided with a wick-tube extending from an end thereof, the combined length of the container and wick-tube being sufficient to enable the latter to project through a hole in the end wall (for example, that opposite the aperture through which the fuel-receptacle is inserted) of the container.
- 5 6. The subject-matter of Claim 5 wherein the wick-tube extends parallel to the axis of the fuel-receptacle but is eccentrically disposed in one end thereof, and the hole in the end wall of the container through which the wick-tube projects is so disposed as to ensure that the container can only be inserted in one predetermined position angularly with respect to the compartment in which it is received.
- 10 7. The subject-matter of any one of the preceding Claims 2 to 6 wherein the outer end of the fuel-receptacle is formed with a circular flange (for example the flange of a closure-cap) and in the corresponding end wall of the container there is a recess to receive the circular flange so that the surface of the flange and the end wall of the container are flush with one another.
- 15 8. The subject-matter of any one of the preceding Claims 2 to 7, wherein a guide-sleeve is provided on that end wall through which the wick-tube projects for the reception of the wick-tube itself.
- 20 9. The subject-matter of any one of the preceding Claims, combined with a hinged arm (for example 20), having a cap to close over the end of the wick-tube and the pyrophoric-lighter.
- 25 10. The subject-matter of any one of the preceding Claims 2 to 9 wherein two of the compartments are spaced apart and are substantially parallel with one another, one of said compartments serving to receive the fuel-receptacle and the other having in it a removable tubular holder (for example 30) with an intermediate compartment or compartments located between the aforesaid two spaced compartments.
- 30 11. The subject-matter of Claim 10 wherein the intermediate compartment is closed by a hinged door (such as 34).
- 35 12. The subject-matter of Claim 11 wherein there is a mirror on the inner side of the hinged door.
- 40 13. The subject matter of Claim 1 wherein the compartment for accommodating fuel has within it a removable fuel and wick receptacle, whereof the wick projects from the removable receptacle through the end wall of the container.
- 45 14. An article of manufacture constructed and arranged substantially as described or as illustrated in the accompanying drawings.
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Dated this 1st day of March, 1929.

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

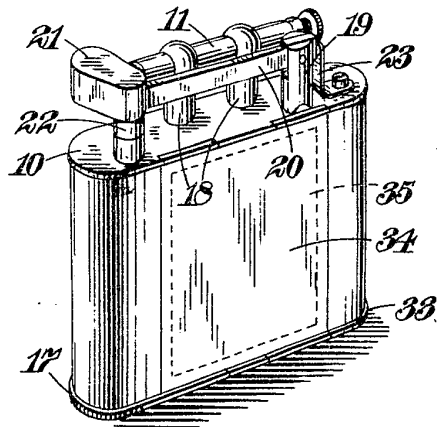


Fig. 1.

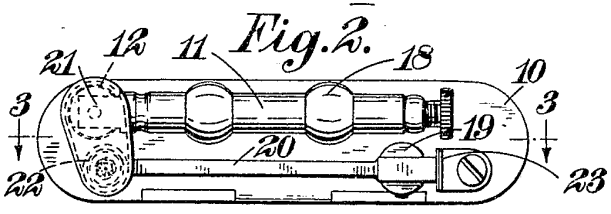


Fig. 2.

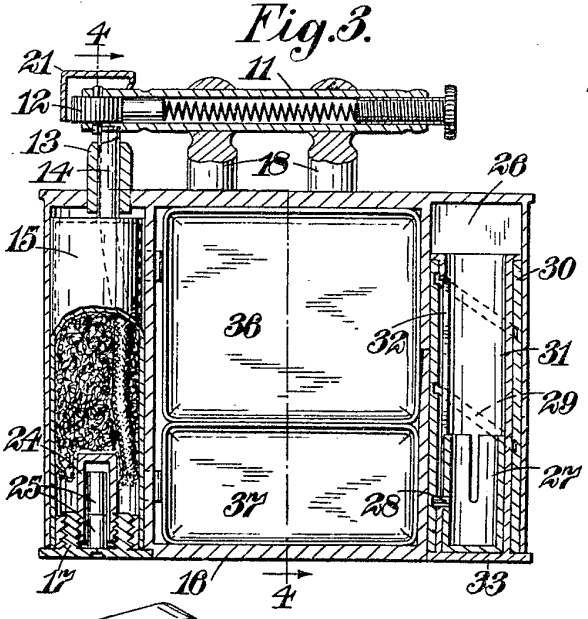


Fig. 3.

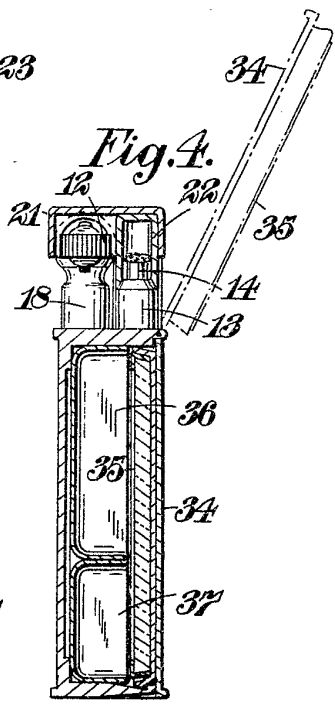


Fig. 4.

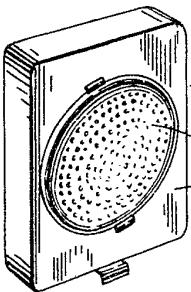


Fig. 6.

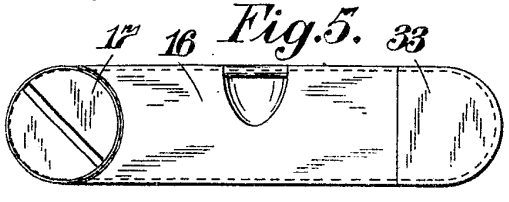


Fig. 5.