

PATENT SPECIFICATION

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PROVISIONAL SPECIFICATION.

Improvements in or relating to Pyrophoric Lighters.

I, GASTON BOBILLIER, a Swiss Citizen, of 85, Hatton Garden, London, E.C. 1, do hereby declare the nature of this invention to be as follows:—

5 This invention is for improvements in or relating to pyrophoric lighters of the type in which a watch is carried in a side wall of the case of the lighter.

10 According to the present invention, such a lighter is characterised in that the operating stem for the winding and setting of the watch, is pivotally connected to the case, to enable the watch to be swung outwardly from the case to allow of relative
15 movement between the case and the watch for the winding and preferably the setting thereof.

20 In order that the invention may be more clearly understood one example thereof will now be described.

25 A pyrophoric lighter of any make, is provided with a depression or recess in a side wall of the case containing the liquid fuel. This depression is formed inwardly from a side wall of the case and is of such dimensions as to receive the body of a watch snugly within it. A narrow slot
30 extends from the top of this depression to the top face of the case of the lighter.

35 The operating stem for the winding and setting of the watch is received between and pivoted to the arms of a forked pin, the axis of the pivot being transverse to the axis of the operating stem, and
40 parallel to the face of the watch. The forked pin is then inserted in the narrow slot above the depression, and is locked against movement therein when the axis of the pivot is parallel to the side wall of the casing.

45 The forked pin is of such dimensions that when it is pivotally mounted on the operating stem of the watch, the watch itself will be capable of being snugly received in the depression in the case. Normally the watch remains in this depression so that the face of the watch is substantially parallel with the slot of the case.

50 When it is desired to wind the watch or to set the hands thereof the watch is pulled out from the depression and owing to the pivotal connection between the stem

and the forked pin securely fastened to the case, the watch will swing outwardly. It will be seen that when the watch is free of the case it can be rotated about the axis of the stem which will enable it to be wound. The winding stem of the watch is preferably of the type which is pulled outwardly from the case of the watch in order to set the hands, and in order to engage the winding train it must again move inwardly. To set the watch it is merely necessary to pull the watch away from the case which will free the operating stem from the winding train. The rotation of the watch will thereafter enable the correct setting of the hands to be obtained.

After the winding and the setting operations have been finished the watch is once more swung back into its recess.

55 Preferably the watch is let into one side wall of the case and between the back of the watch, or the face of a depression in the wall of the case in which the watch is received, and in a closed wall of the case, there is a fuel space, for example, a space suitable for the accommodation of an
60 absorbent material to be impregnated with the liquid fuel.

65 The end wall from which the forked pin extends downwardly towards the depression is preferably that on which the co-operating portions of the pyrophoric ignition device is mounted.

70 By spacing the back of the watch or the back wall of the watch recess from the inner surface of the opposed wall a space is provided extending completely through the lighter case into which the absorbent material can be charged. Hitherto, when a watch has been combined with a lighter it has generally been the custom to so set the watch in the case that the latter is divided into two compartments and; consequently, only a small quantity of fuel or absorbent material therefor could be accommodated. By the present invention
75 this accommodation is greatly increased.

Dated this 22nd day of March, 1930.

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Chartered Patent Agents.

[Price 1/-]

COMPLETE SPECIFICATION.

Improvements in or relating to Pyrophoric Lighters.

I, GASTON BOBILLIER, a Swiss Citizen, of 85, Hatton Garden, London, E.C. 1, 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 is for improvements in or relating to pyrophoric lighters of the type in which a watch is carried in a side wall of the lighter.

According to the present invention, such a lighter is characterised in that the operating stem for the winding and setting of the watch, is pivotally connected to the case, to enable the watch to be swung outwardly from the case to allow of relative movement between the case and the watch for the winding and/or the setting thereof.

One example of a lighter according to the invention will now be described with reference to the accompanying drawing in which

Figure 1 is a front elevation of the lighter with the watch in position in the casing, and

Figure 2 is a vertical section along the line 2—2 of Figure 1 and showing the watch swung outwardly for winding.

A pyrophoric lighter 3 of any make, is provided with a depression or recess 4 in a side wall of the case containing the liquid fuel. This depression is formed inwardly from a side wall of the case and is of such dimensions as to receive the body of a watch 5 snugly within it. A narrow slot 6 extends from the top of this depression to the lower face of an end-wall 7 of the case of the lighter.

The operating stem 8 for the winding and setting of the watch is received between and pivoted to the arms of a forked pin 9, the axis of the pivot being transverse to the axis of the operating stem 8, and parallel to the face of the watch 5. The forked pin 9 is in threaded engagement with the end wall 7 and enters the narrow slot above the depression, and is locked against movement therein when the axis of the pivot is parallel to the side wall of the casing.

The forked pin 9 is of such dimensions that when it is pivotally mounted on the operating stem 8 of the watch 5, the watch itself will be capable of being snugly received in the depression 4 in the case. Normally the watch remains in this depression so that the face of the watch is

substantially parallel with the slot on the case.

When it is desired to wind the watch or to set the hands thereof the watch is pulled out from the depression and owing to the pivotal connection between the stem 8 and the forked pin 9 securely fastened to the case, the watch will swing outwardly. It will be seen that when the watch is free of the case as in Figure 2, it can be rotated about the axis of the stem 8 which will enable it to be wound. The winding stem of the watch is preferably of the type which is pulled outwardly from the case of the watch in order to set the hands, and in order to engage the winding train it must again move inwardly. To set the watch it is merely necessary to pull the watch away from the case 3 which will free the operating stem from the winding train. The rotation of the watch will thereafter enable the correct setting of the hands to be obtained.

After the winding and the setting operations have been finished the watch is once more swung back into its recess.

Preferably the watch is let into one side wall of the case and between the face 10 of the depression in the wall of the case in which the watch is received, and an opposed wall of the case, there is a fuel space, for example, a space suitable for the accommodation of an absorbent material to be impregnated with the liquid fuel. A portion of the side wall or walls of the depression is bellied out as at 15 towards the centre thereof to grip the side of the watch when in position.

By spacing the back wall of the watch recess from the inner surface of the opposed wall a space is provided extending completely through the lighter case into which the absorbent material can be charged. In this way the accommodation for the absorbent material is greatly increased.

The end wall from which the forked pin extends downwardly towards the depression is preferably that on which the co-operating portions 11 and 12 of the pyrophoric ignition device is mounted.

If desired, a small screw-driver 13 may be provided on the inner end of the plug 14 of the fuel receptacle for setting the screw which enters the casing through the lower end wall and which regulates the compression of the spring holding the flint against the roughened steel wheel.

- Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—
- 5 1. A pyrophoric lighter of the type described, characterised in that the operating stem for the winding and setting of the watch is pivotally connected to the case to enable the watch to be swung out-wardly to allow of relative movement between the case of the lighter and the watch for the winding and/or the setting thereof.
- 10 2. A pyrophoric lighter according to Claim 1, having a recess or depression formed inwardly from a side wall of the case and of such dimensions as to receive the body of the watch snugly within it (e.g. as a tight jamming fit, and having the operating stem pivoted on the case about an axis that is parallel to the face of the watch when the latter is received within the recess or depression and is located outside the latter.
- 25 3. A pyrophoric lighter according to Claim 1 or Claim 2, wherein the operating stem is situated between and pivoted to the arms of a forked pin extending downwardly through the top wall of the case.
- 30 4. A pyrophoric lighter according to Claim 2 or Claim 3 wherein between the depression in which the watch is received and an opposed wall of the case there is a fuel space (i.e. a space suitable for the accommodation of absorbent material for the fuel).
- 35 5. A pyrophoric lighter according to any one of the preceding claims 2 to 4 wherein a portion of the side wall or walls of the depression is bellied out towards the centre thereof to grip the side of the watch when in position.
- 40 6. The combination of a pyrophoric lighter and a watch pivotally mounted thereon substantially as described with reference to the accompanying drawings.
- 45 Dated this 22nd day of December, 1930.
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[This Drawing is a reproduction of the Original on a reduced scale.]

