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## EUROPEAN PATENT APPLICATION

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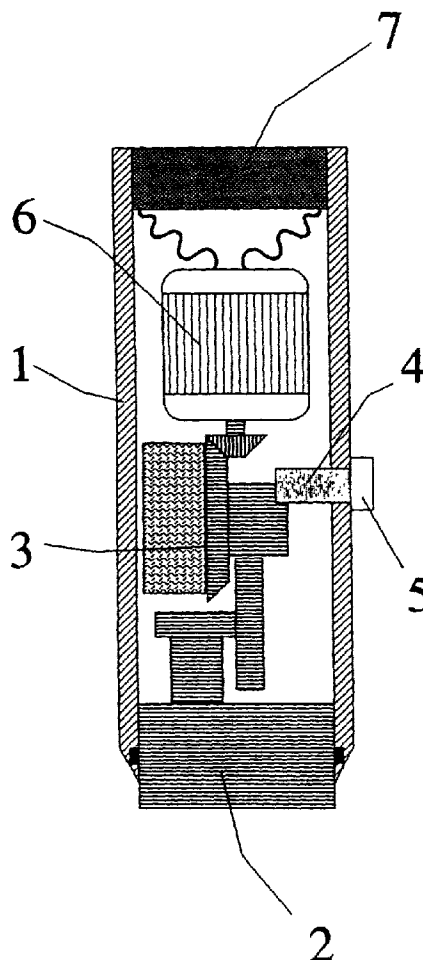
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(54) **Portable burner**

(57) "MANUAL BURNER" of the type used to light cigarettes, cigars and any kind of article prone to being lit with a flame. It comprises essentially a case -1-, inside which there is a wheel or roller -2-, via which a reduction gear fitted with a recovery spring -3- is driven; this can be locked by a bolt -4- worked from outside the case by a button -5- and the output shaft of this gear is connected to an electric generator -6- which powers an incandescent resistance -7- provided at the top of the case. Optionally, instead of the electric generator -6-, there can be a transmitter of heat by friction -8-, which heats the surface of a plate at the top -9-.

**Fig.1**



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## Description

The purpose of this invention as it is set out in the text of this descriptive report consists of a "Manual Burner" of the type used to light cigarettes, cigars and any kind of article prone to being lit with a flame.

Lighting cigars, cigarettes or the like to date has been accomplished using gas lighters, which comprise a deposit of liquid gas which acts as fuel for the flame, a flame ignition device, generally using a spark, and a gas-outlet regulator device.

This mechanism has been used over recent decades with a high level of acceptance amongst consumers, replacing old-fashioned wick lighters which incorporated a wick which would be lit by the direct action of the spark, and petrol lighters.

However, gas lighters have the drawback that their lifetime is limited by the fuel capacity in the deposit. It should be pointed out that refillable lighters have been designed to counter this limitation, but they have only gained a minimal share of the market because of the difficulty of this refilling process, in which a large proportion of the fuel tends to be wasted.

Furthermore, the flint of the gas lighter can wear out before all the gas is used up, thereby preventing the spark which causes the flame from being produced.

Another component prone to failure is the flame regulator, which causes a loss of control over the volume and power of the flame.

The new manual burner completely solves all these drawbacks, as its operation is not based on the combustion of hydrocarbons or other matters, but on the transformation of mechanical energy into calorific energy.

To achieve this, this invention comprises a basically cylindrical case, inside which there is a wheel or roller, via which a reduction gear is driven.

This reduction gear is associated with a recovery spring, thanks to which the gear recovers the turns made when it is turned from its rest position.

In order for this recovery to take place when the user so requires, the gear is also fitted with a locking system using a bolt, worked from the outside of the case by a button.

This gear has, at the top, an output shaft connected to an electric generator, such as a dynamo, which will transform the mechanical energy accumulated in the spring into electrical energy, which powers an incandescent resistance fitted to the top of the case.

Optionally, instead of the electric generator, a mechanism for transferring heat by friction can be used, which heats the surface of a plate which can incorporate an incandescent resistance.

Lastly, it should be noted that, by varying the size and output of its electronic components, it can be connected to a bulb instead of the incandescent resistance, carrying out the function of a bulb, and even developing enough energy, when spliced in series, to start up a

moving device.

The main benefit of this new manual burner is that it does not require maintenance, does not consume gas or flints and, lastly, it does not pollute, unlike gas lighters.

## DESCRIPTION OF THE SKETCHES

In order to illustrate what we have set out so far, this descriptive report is accompanied by a sheet of sketches, forming an integrated part of same, showing in a simplified, diagram form, an example of production, solely for the purpose of illustration and not restrictive of the practical possibilities of the invention.

In these sketches, Figure 1 is a section view of the new manual burner, in which the electric generator can be seen.

Figure 2 is a section view of the new burner, showing the heat transmitter which replaces the electric generator in the case of the manual burner.

## DESCRIPTION OF A PRACTICAL CASE

The new "Manual Burner" used for lighting cigars, cigarettes or any other kind of article which is burned, comprises a case -1-, inside which there is a wheel or roller -2-, via which a reduction gear fitted with a recovery spring -3- is driven; this can be locked by a bolt -4- worked from outside the case by a button -5-.

The output shaft of this gear is connected to an electric generator -6- which powers an incandescent resistance -7- provided at the top of the case.

Optionally, instead of the electric generator -6-, there can be a transmitter of heat by friction -8-, which heats the surface of a plate at the top -9-.

Having given the description referred to in the foregoing report, it must be stressed that the details of production of the idea set out may undergo minor alterations, always based on the fundamental principles of the idea, which are essentially those set out in the paragraphs of same.

Having established the concept expressed, there follows the note of claims, thereby summarizing the new aspects to be claimed:

## NOTE

In sum, the privilege of exclusive exploitation sought will be based on the following claims:

## Claims

1. "MANUAL BURNER", of the kind used for lighting cigars, cigarettes or any other kind of article which is burnt, characterized essentially by the fact that it comprises a case -1-, inside which there is a wheel or roller -2-, via which a reduction gear is driven, fitted with a recovery spring -3- which can be locked

by a bolt -4-, worked from outside the case by a button -5-, with the output shaft of the said gear connected to an electric generator -6- which powers an incandescent resistance -7- provided at the top of the case.

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2. **"MANUAL BURNER"**, as per the preceding claim, characterized by the fact that, instead of the electric generator -6-, there is optionally a transmitter of heat by friction -5-, which heats the surface of a plate at the top -9-.

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Fig.1

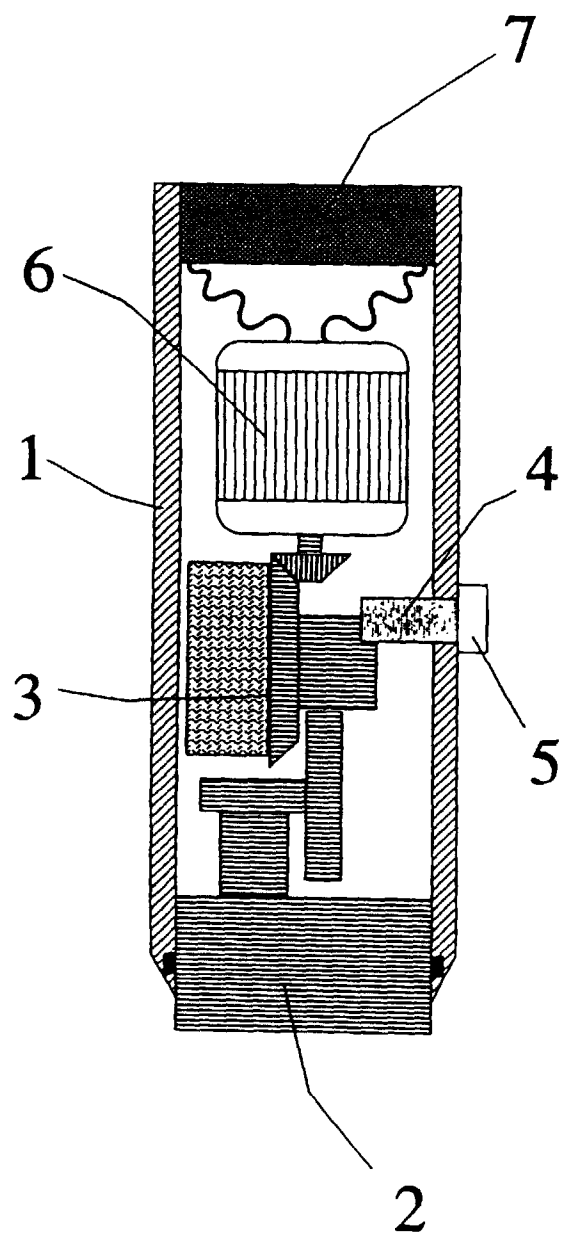
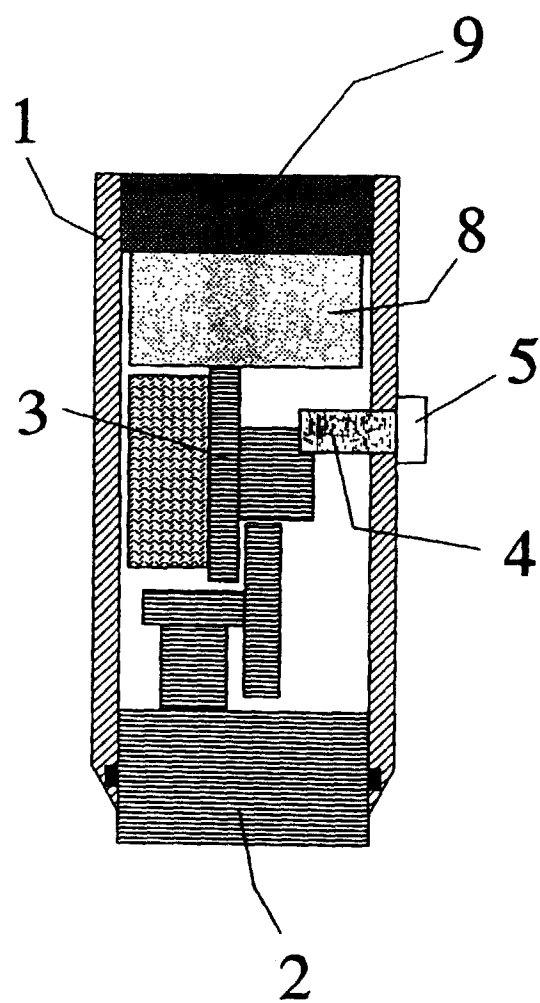


Fig.2





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# EUROPEAN SEARCH REPORT

Application Number  
EP 98 50 0108

| DOCUMENTS CONSIDERED TO BE RELEVANT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                               |                                                             |                                              |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|-------------------------------------------------------------|----------------------------------------------|
| Category                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim                                           | CLASSIFICATION OF THE APPLICATION (Int.Cl.6) |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | FR 2 646 700 A (FRANCO OLIVIER) 9 November 1990<br>* the whole document *     | 1                                                           | F23Q1/00<br>F23Q7/18                         |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | FR 914 327 A (BERNARD)<br>* the whole document *                              | 1                                                           |                                              |
| X                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | FR 1 294 081 A (REDIER) 19 October 1962<br>* the whole document *             | 1                                                           |                                              |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                               |                                                             | TECHNICAL FIELDS SEARCHED (Int.Cl.6)         |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                               |                                                             | F23Q<br>F21L                                 |
| The present search report has been drawn up for all claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                               |                                                             |                                              |
| Place of search<br><b>THE HAGUE</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                               | Date of completion of the search<br><b>1 September 1998</b> | Examiner<br><b>Vanheusden, J</b>             |
| <p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone<br/> Y : particularly relevant if combined with another document of the same category<br/> A : technological background<br/> O : non-written disclosure<br/> P : intermediate document</p> <p>T : theory or principle underlying the invention<br/> E : earlier patent document, but published on, or after the filing date<br/> D : document cited in the application<br/> L : document cited for other reasons</p> <p>&amp; : member of the same patent family, corresponding document</p> |                                                                               |                                                             |                                              |

EPC FORM 1503 03 82 (P04C01)