

19



Europäisches Patentamt
European Patent Office
Office européen des brevets



11 Publication number:

0 553 591 A1

12

EUROPEAN PATENT APPLICATION

21 Application number: **92500154.7**

51 Int. Cl.⁵: **A24F 27/20**

22 Date of filing: **23.11.92**

30 Priority: **29.01.92 ES 9200267 U**

43 Date of publication of application:
04.08.93 Bulletin 93/31

84 Designated Contracting States:
AT BE CH DE DK FR GB GR IT LI LU NL PT SE

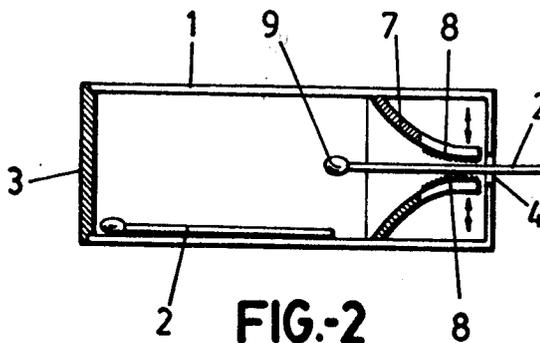
71 Applicant: **Delaveau, Kenneth Patrick**
Estanque de la Cruz, Urb. Botanico, 17
E-35100 San Bartolome de Tirajana, Las
Palmas de Gran Canaria(ES)

72 Inventor: **Delaveau, Kenneth Patrick**
Estanque de la Cruz, Urb. Botanico, 17
E-35100 San Bartolome de Tirajana, Las
Palmas de Gran Canaria(ES)

74 Representative: **Cobas Barrios, Luis**
c/o Tecnieurop, S.L., Salustiano Olozaga, 6
E-28001 Madrid (ES)

54 **Improved matchbox.**

57 Matchbox (1) which includes a lighting system for which same has, on one of its sides or faces, an exit slot (4), next to which are found, on the inside, two flexible flaps (7) which converge towards mentioned slot (4), thus defining a passage which permits the exit of the arm or stem (2) of the matches but not the head (9) of the match, in such a manner that when the stem (2) is pulled from the outside, the head (9) of the match scrapes mentioned flaps (7), mentioned flaps (7) have, on their sides facing each other, scrapers (8) which initiate the ignition of the match (9).



EP 0 553 591 A1

SUBJECT OF THE INVENTION

This invention concerns a matchbox which, independently of being used as a container element in accordance with its conventional use, has been specially conceived as an advertising article in the company gifts market, a matchbox whose characteristics are centred on the inclusion of an automatic lighting system.

BACKGROUND TO THE INVENTION

As is well known, whether or not one is dealing with a box in the true sense in which the matches are to be found separate from each other inside or one is dealing with a book of matches in which the matches are to be removed by tearing them along their base, matchboxes all have the common denominator of including a striking surface, in such a way that once the user has extracted or separated a match he supports one finger on its head and strikes it on the surface in order to cause it to light.

Independently of the greater or lesser degree of slowness implied by removing or separating each match, this manoeuvre implies a risk of accident, since the match itself sometimes sticks to the user's finger at the moment of being lit, and causing a burn.

DESCRIPTION OF THE INVENTION

The matchbox proposed by the invention has been improved in order to solve the two aspects of the problem mentioned above, on the one hand allowing the quick extraction of each match and on the other its automatic lighting, without any need for the user to touch the head of the match with his fingers, nor even close to it, achieving as a complementary effect an aesthetic element and a surprise effect that makes this box highly attractive for the possible consumer.

For this, and to be more specific, the matchbox that is proposed is structured starting from a container, preferably of transparent plastic so that its contents can be seen, with a filling top in one of its bases and a slot for extracting the matches in the opposite base, the slot normally being kept closed with the aid of a swivelling lid. The matchbox has the special feature that inside the container and close to that slot are two flexible flaps that create a passage sufficiently wide for the arm of the matches to pass but not wide enough for the head of the match. Around their free ends closer to each other, each flap also includes internal scrapers against which the head of the match is rubbed when it is being manually extracted, in such a way that, due to that friction, the ignition of the match takes place automatically at the moment that it reaches the

outside of the container and during the actual operation of extracting it.

DESCRIPTION OF THE DIAGRAMS

In order to complement the description that is being made and with the aim of aiding a better understanding of the characteristics of the invention, included with this descriptive report and forming an integral part of it is a set of diagrams in which, in a manner that is to be regarded as illustrative only and not restrictive, the following are shown:

Figure 1 - This shows a perspective view of the matchbox created in accordance with the improvements that are the subject of this invention, the matchbox appearing in its closed position.

Figure 2 - This shows a side elevation view in cross-section of the same box.

Figure 3 - Finally and also in a perspective view, this shows an example of the use of this box, in which a solid line represents the initial phase of extracting a match and a broken line represents the final phase corresponding to the match being lit.

PREFERRED MANNER OF CARRYING OUT THE INVENTION

Looking at these figures it can be seen that the proposed matchbox is created starting from a body (1), preferably of plastic, which can have a parallelepiped shape as shown in the figures or any other shape provided that its length is sufficient with respect to the length of the matches (2) that are to be housed inside it. This body (1), preferably of transparent plastic, is provided at one of its ends with a filling top (3) for the container defined by the body and includes in its opposite base a slot (4) through which the matches (2) can emerge to the outside, as can be seen in figures 2 and 3. Included in this upper base of the body (1) is a lid (5) capable of closing the slot (4) where the matches exit and which, in the example chosen for carrying out the invention, has the shape of a "U" and is linked by its side arms to the body (1) with the aid of linking stubs (6).

As a complement to the structure described and forming an essential part of the invention, inside the container defined by the body (1) and suitably orientated towards the slot (4) are two flexible flaps (7) which converge towards the slot and which, close to their free ends corresponding to the slot, include scrapers (8) on their opposed faces, in such a way that these scrapers (8) allow the free passage of the arm or tab of the match (2) but nevertheless, for the head (9) of the match to pass, those flaps need to be deformed in the sense

of being separated, so that they rub against the head (9) and cause it to light automatically during the final phase of extracting the match, as shown by the broken line in figure 3.

It can be deduced from what has been stated above that, as shown in the figures, the matches (2) must be introduced inside the container defined by the body (1) in such a way that their heads (9) are opposite to the exit slot (4) so that their exit starts by simple gravity without doing anything more than having the slot (4) face downwards, the extraction being completed by means of a final phase of manual pulling. As is also clear from the described structuring and functionality, the dimensions of the container defined by the body (1) in the transverse direction, and independently of the box's capacity, must be such that they do not allow any accidental reversal of the original position of the matches during normal movement of the box.

It is not considered necessary to enlarge on this description in order for any expert in the subject to be able to understand the scope of the invention and of the advantages deriving from it.

The materials, shape, size and arrangement of the element may be varied provided that this does not imply any alteration in the essential nature of the invention.

The terms in which this report has been drawn up must always be taken in their widest sense and not be regarded as restrictive.

Claims

1. Improved matchbox, essentially characterized by being created starting from a body, preferably of plastic, shaping a container for the matches, at one of its ends provided with a filling top and at its opposite end with a slot for the unitary exit of the matches, aided by a practicable closing lid, with the special feature that the said body creating the container includes inside it and close to the said exit slot two flexible flaps that converge towards the slot, close to which they create a narrow passage that allows the free exit of the arm or stem of the matches by simple gravity when the box is orientated with its exit slot pointing downwards, but whose positioning prevents the head of the match from passing which, when the match is manually pulled, forces the elastic deformation of the flexible flaps which, in the area where they are closest to each other include scrapers on the opposed faces, against which the head is rubbed as it exits, causing it to light automatically.

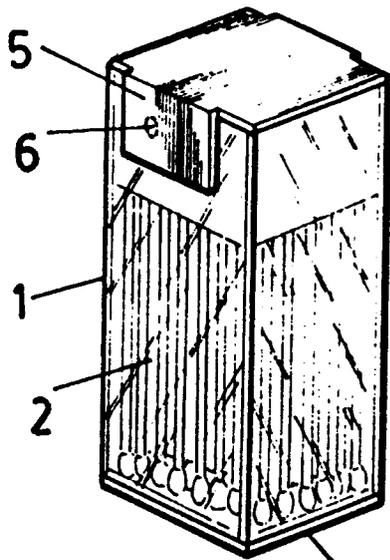


FIG-1

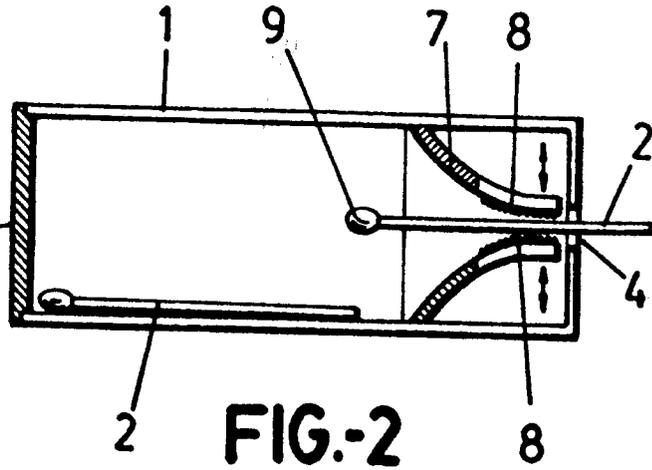


FIG-2

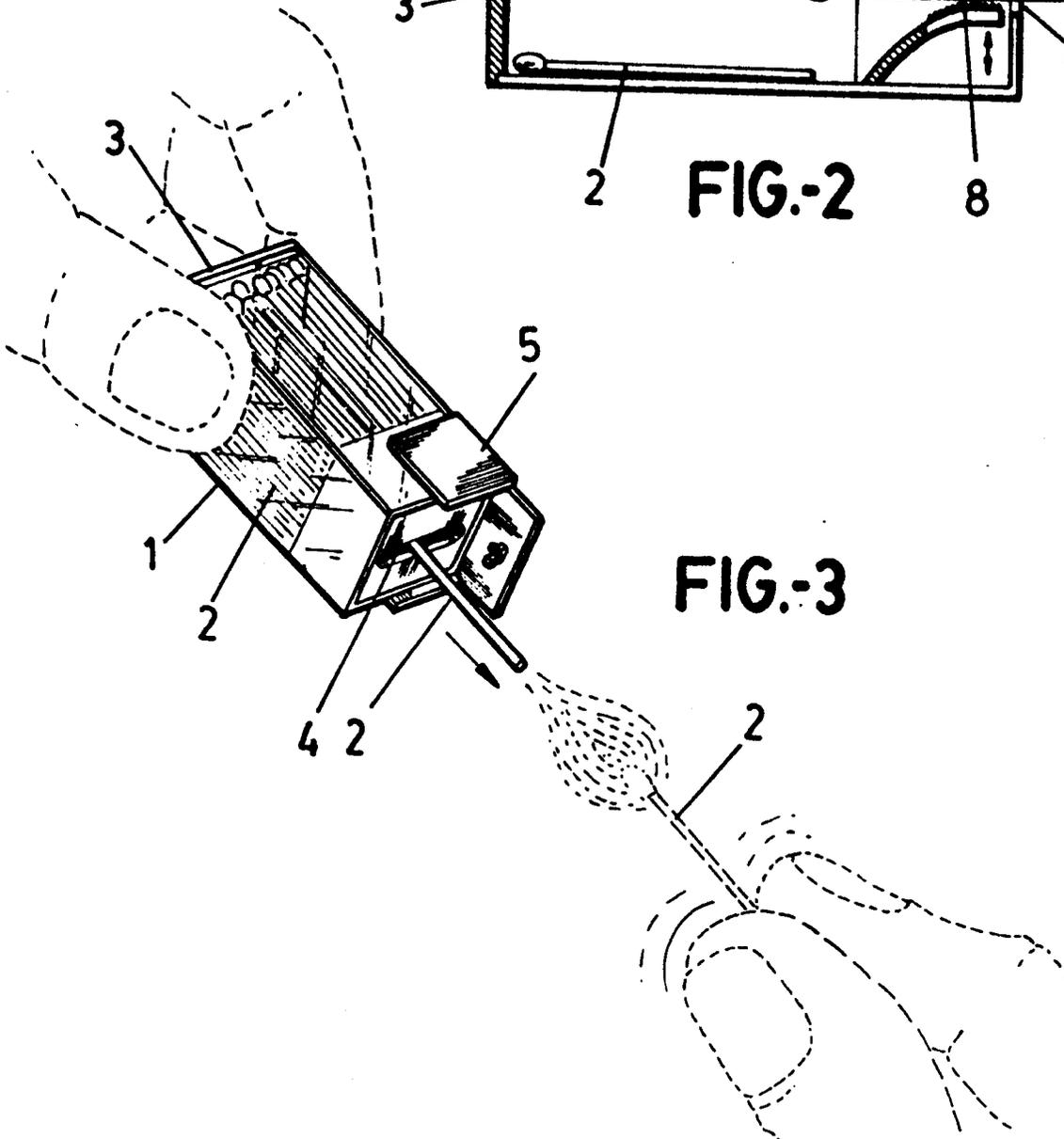


FIG-3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 92 50 0154

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.5)
X	FR-A-724 610 (ROCCA) * the whole document * ---	1	A24F27/20
A	DE-U-8 610 034 (FLECK) * the whole document * ---	1	
A	DE-C-588 242 (ZEYEN) * the whole document * ---	1	
A	DE-U-8 614 554 (DWERTMANN) * the whole document * ---	1	
A	EP-A-0 086 758 (CAMOS) * the whole document * ---	1	
A	DE-C-458 055 (ETWANIK) * the whole document * -----	1	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			A24F
Place of search	Date of completion of the search	Examiner	
THE HAGUE	06 MAY 1993	RIEGEL R.E.	
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention	
X : particularly relevant if taken alone		E : earlier patent document, but published on, or after the filing date	
Y : particularly relevant if combined with another document of the same category		D : document cited in the application	
A : technological background		L : document cited for other reasons	
O : non-written disclosure		
P : intermediate document		& : member of the same patent family, corresponding document	

EPO FORM 1503 03.82 (P0401)