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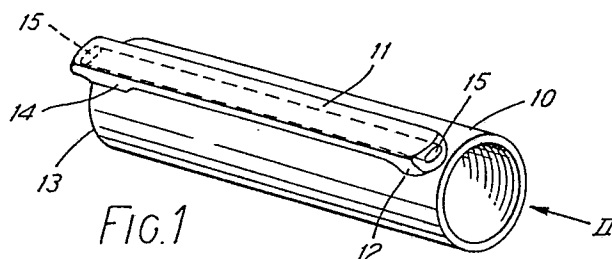
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(54) Caps for writing instruments.

(57) A pen cap configured so that there is provided an air passage along the length of the cap; the air passage being in the form of a channel (15) that is an integral part of the clip section (11) of the cap. If the cap is swallowed and it lodges in the throat, the air passage will prevent choking and asphyxiation.



Description

Caps for writing instruments

This invention relates to caps for writing instruments, such as ball point pens.

Caps are made in a wide variety of shapes, often injection moulded of plastics materials. It is unfortunately the case that caps are often swallowed, and in certain cases can lodge in the throat leading to complete blockage of the windpipe and death. This problem is more dangerous when the cap has a clip which is pointed and can pierce the lining of the throat.

The invention aims to provide a cap for a writing instrument which if swallowed cannot completely block the throat.

According to the invention, there is provided a cap for a writing instrument which is in the general form of an elongate casing closed at one end with a clip extending along the complete length of the cap, along its external wall, wherein the clip includes a channel along its entire length, the channel being open at each end.

If such a cap lodges in the throat, the channel will provide a continuing air passage to prevent choking.

In order that the invention shall be clearly understood several exemplary embodiments will now be described with reference to the accompanying drawings, in which:

Fig. 1 shows a perspective view of a cap for a writing instrument according to the invention;

Fig. 2 shows a view in direction of arrow II in Fig. 1;

Fig. 3 shows a similar view to Fig. 2 of an alternative form of the invention; and

Fig. 4 shows a similar view of a further alternative form of the invention.

Fig. 5 shows a perspective view of another alternative form of the invention.

A cap has an elongate cylindrical casing 10 with a clip 11 extending the full length. The clip has an enlargement 12 to assist grip at its free end, and is integral with the casing at its closed end 13 where it is joined by a root 14. The casing and clip are injection moulded plastic.

A bore 15 extends the full length of the clip and is open at both ends. In the event of the cap being swallowed, even if the whole windpipe is blocked by contraction of its walls around the cap, the bore 15 will still provide a sufficient air passage.

In the embodiment of Fig. 3, the root 14 is narrowed to ensure that air passages 17 exist below the clip, which are additional to the two bores 15 through the clip. The total cross-sectional area of the air passages is thus increased.

In Fig 4, the clip 11 has a channel 20 open towards the casing which performs a similar function of a protected air passage.

The bore(s), passage or channel along the clip may be arranged to emerge sideways at or near the root provided the air passage is maintained. It is preferred that the clip extends the full length of the casing, otherwise there is a danger of the windpipe contracting around the casing alone and thus

blocking the air passage(s) provided by the invention.

In the embodiment of Fig. 5, a channel 15 extends longitudinally through the root 14, relying on the space below the clip 11 to form a channel along the remainder of the length. The size of the channel can be increased by providing a groove 30 running through the enlargement 12.

Claims

1. A cap for a writing instrument which is in the general form of an elongate casing (13) closed at one end with a clip (11) extending along the external wall of the casing (13); characterised in that the clip (11) extends the full length of the casing (13) and defines an air channel (15) along its entire length, the channel (15) being open at each end of the casing (13).

2. A cap according to claim 1 wherein one end of the clip (11) is fixed to the casing (13) by a root member (14) which spaces the clip (11) from the casing (13) and wherein one or more bores extend through the root member (14).

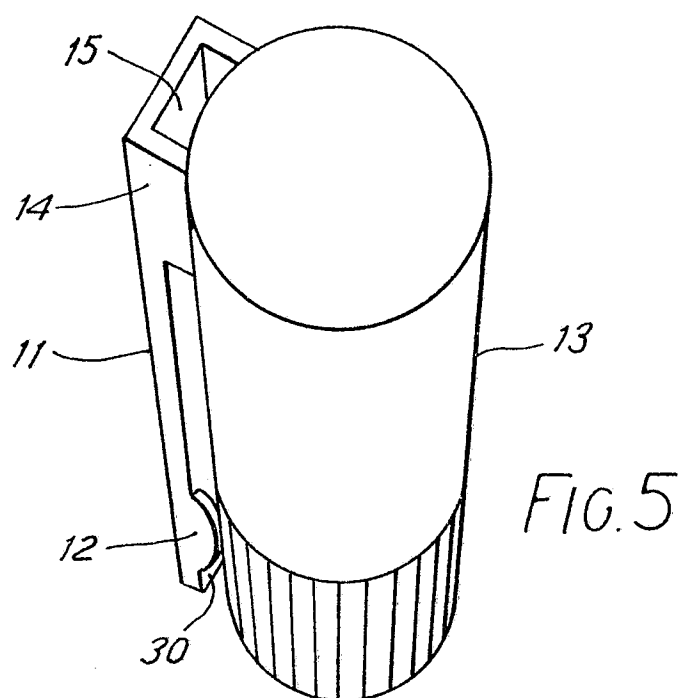
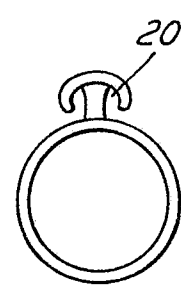
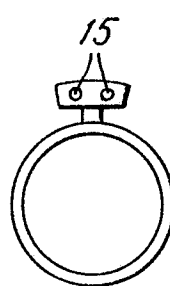
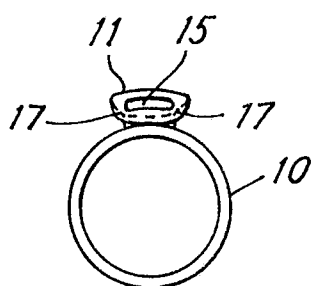
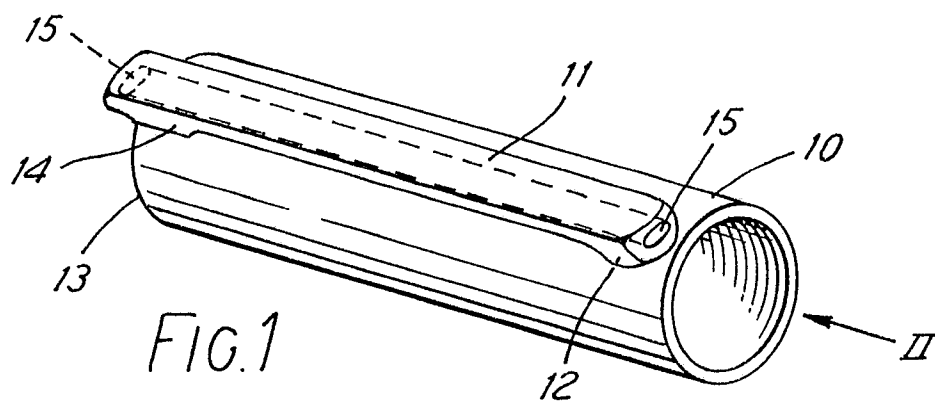
3. A cap according to claim 1 or 2 wherein the clip (11) has an enlarged portion (12) at its free end which extends from the clip (11) towards the casing (13), and wherein the enlarged portion (12) includes a groove forming part of said channel (15).

4. A cap according to any preceding claim wherein at least part of the channel is formed by the space between the clip (11) and the casing (13).

5. A cap according to any preceding claim wherein the clip (11) has edges turned downwards, towards the casing ((13), thereby forming an inverted channel section which defines the channel (15).

6. A cap according to claim 1 wherein the channel (15) is formed by one or more bores extending through the full length of the clip (11).

7. A cap according to claim 1 wherein one end of the clip (11) is fixed to the casing (13) by a root member (13) which spaces the clip (11) from the casing (13) and wherein the root member (14) is narrower than the clip (11), thereby forming two substantially parallel channel sections under one end of the clip (11).





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EUROPEAN SEARCH REPORT

Application Number

EP 88 31 1418

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.4)
Y	GB-A-2174374 (PLATIGNUM) * abstract *	1	B43K9/00 B43K25/00
Y	FR-A-2593746 (GRAPHOFLEX) * page 6, line 17 - line 26; figure 5 *	1	
A,P	DE-C-3728896 (STAEDTLER) * abstract *	1	
A	EP-A-0204252 (PILOT INK) * figure 8 *	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			B43K
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 08 MARCH 1989	Examiner LAMMINEUR P.C.G.
CATEGORY OF CITED DOCUMENTS			
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	