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**DECISION**  
of 8 February 1994

**Case Number:** T 0540/93 - 3.2.4

**Application Number:** 88308160.6

**Publication Number:** 0309110

**IPC:** A01K 1/03

**Language of the proceedings:** EN

**Title of invention:**  
Improved pet doors

**Applicant:**  
Reilor Limited

**Opponent:**  
-

**Headword:**  
-

**Relevant legal norms:**  
EPC Art. 56

**Keyword:**  
"Inventive step" - problem and solution"  
"Closest prior art"

**Decisions cited:**  
T 0071/90

**Headnote/Catchword:**  
-



Case Number: T 0540/93 - 3.2.4

**DECISION**  
of the Technical Board of Appeal 3.2.4  
of 8 February 1994

**Appellant:** Reilor Limited  
Blackpool Road  
Preston  
Lancashire, PR2 2DN (GB)

**Representative:** Harvey, David Gareth  
Graham Watt & Co.  
Riverhead  
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**Decision under appeal:** Decision of the Examining Division of the  
European Patent Office dispatched on 20 January  
1993 refusing European patent application  
No. 88 308 160.6 pursuant to Article 97(1) EPC.

**Composition of the Board:**

**Chairman:** C.A.J. Andries  
**Members:** M.G. Hatherly  
J.P.B. Seitz

### Summary of Facts and Submissions

- I. European patent application number 88 308 160.6, filed on 2 September 1988 and published under the publication number 0 309 110, was refused by a decision of the first instance dispatched on 20 January 1993.
  
- II. The grounds for the decision were stated to be as set out in three previous communications of the Examining Division which included an objection of lack of inventive step of the subject-matter of Claim 1 over the prior art disclosure  
  
D1: US-A-4 224 899.
  
- III. An appeal was lodged against this decision on 8 March 1993, the appeal fee was paid on 4 March 1993 and the Statement of Grounds of Appeal received by facsimile on 18 May 1993.

With the Statement of Grounds the Appellant submitted a statutory declaration by the inventor Mr A.P. Reid and argued that the subject-matter of the versions of Claim 1 according to the main and three auxiliary requests was novel over the disclosure of document D1 for reasons additional to that already recognised by the Examining Division. Concerning inventive step the Appellant maintained that discernment of the paw trapping problem which is solved by the invention was not simple and that the skilled person would not have found a solution to the paw trapping problem in document D1 because the pet door described in that document is already of the type that is safe from paw trapping.

IV. After a telephone call from the Board the Appellant submitted new application documents.

The Appellant requests that the decision be set aside and the application be allowed (or remitted to the Examining Division for further consideration) on the basis of main or auxiliary requests as follows:

**Main request** on the basis of the following documents:

Claims:

Claims 1 to 4 filed with the letter dated 23 November 1993.

Description:

Pages 3, 3a, 4, 5, 9, 11 and 12 as filed with the letter dated 23 November 1993;

Page 1 as filed with the letter dated 11 February 1991; and

Pages 2, 6 to 8 and 10 as originally filed.

Drawings:

Sheet 1/2 as originally filed; and

Sheet 2/2 as filed with letter dated 23 November 1993.

**Auxiliary requests:**

based on versions of Claim 1 according to first, second and third auxiliary requests filed with the Statement of Grounds dated 18 May 1993, and amended as set out in the letter dated 23 November 1993.

V. Claim 1 of the main request reads as follows:

"A pet door (10',40') adapted for mounting at an opening in a wall, door or the like to provide a portal or aperture (12',42) whereby animals such as cats and dogs

may unaided enter directly into or exit directly from a room or building such as the pet owner's house comprising:

a mounting frame member (11',41) having a tunnel portion (22',41,49') defining the portal or aperture through which a pet passes directly into or out of the room or building, the tunnel portion having at least one permanently open end; and

a flap (14,43) swingably mounted at an upper portion of said tunnel portion for the opening and closing thereof, the flap (14,43) having a free edge portion (48) at the bottom edge of the flap (14,43); said tunnel portion (22',41,49') projecting laterally from said flap (14,43) in at least one direction of opening movement of the flap (14,43) and the tunnel portion, in defining said aperture forming a margin, ledge or shelf (31,49') adjacent the bottom edge (48) of the flap (14,43), characterised in that the margin, ledge or shelf (31,49') is stepped downwardly (at 30,30') to provide an enlarged clearance between the tunnel portion (22',41,49') and the bottom edge (48) of the flap (14,43) when the flap is displaced in the said at least one direction."

### Reasons for the Decision

1. The appeal complies with the requirements for admissibility.
2. *Amendments - Main request*
  - 2.1 Claim 1 of the main request is based on the original Claim 1 supplemented by information from original Claims 3 and 4, from page 1 of the original description and from the original drawings.

- 2.2 The present Claim 2 is based on the original Claim 5; the present Claim 3 corresponds to the original Claim 2; and the present Claim 4 is based on pages 10 and 12 of the original description.
- 2.3 The present description is merely an adaptation of the originally filed description to take account of the changes in Claim 1 of the main request and to acknowledge the prior art. A reference sign has been added on sheet 2/2 of the drawings.
- 2.4 Thus there are no objections under Article 123(2) EPC to the amended documents of the main request.

3. *Novelty - Main request*

- 3.1 Document D1, considered by the Examining Division to disclose the prior art closest to the present invention, concerns a pet shelter suitable for mounting in the wall of a house. The pet passes through an opening in one end wall to enter a hollow housing where the pet can remain or pass straight through to exit the pet shelter through an opening in the other end wall.

While the Examining Division argued in section 2 of its communication of 30 July 1990 that the pet shelter known from this document D1 could simply be installed in a door panel, in fact the length of its hollow housing in practice prevents mounting to a slidable or hinged door or window. The length of the hollow housing and the purpose of the pet shelter - to allow the pet to remain within the housing - means that this device is of a basically different type to conventional pet doors with which the present application is concerned, namely those designed for the pet to merely pass through and to be more flexible where fitting is concerned e.g. to a door.

While Figure 4 of the citation shows a wall 14 with a short hollow housing extending therefrom, this Figure is clearly a fragmentary cross-section and the citation contains neither a disclosure of such a short housing nor a suggestion that the shelter be cut so as to produce such a short housing.

- 3.2 Claim 1 of the main request specifies that the tunnel portion has at least one permanently open end.
- 3.2.1 Such a permanently open end can be seen in Figure 5 of the present application to be the left hand end of the tunnel portion 22' which is plainly open when the flap 14 is in its rest position as shown in solid lines, and, even when the flap is temporarily tilted to the left to the dotted line position by a passing pet, the end can still be said to be open, at least at the bottom.
- 3.2.2 One end wall of the pet shelter disclosed by document D1 consists of a flange-like member 14 (see Figures 1 and 4) with two openings 38, 40 for respective panels 42, 60 which can be fastened shut with U-shaped members 84. The other end wall 92 (see Figure 2) has an opening 92 with sliding panels 94; whether the pet can enter or leave the shelter at this end depends on whether the panels 94 overlap each other or are side by side.

It can be argued that the pet shelter disclosed by document D1 comprises a mounting frame member (flange-like member 14) and a tunnel portion (the hollow housing formed by two top and two side walls). However both the walls 14, 92 at the ends of the tunnel portion are closable, indeed in the case of flaps 42, 60 lockable, and so there is no permanently open end, in contrast to the claimed requirement of a tunnel portion having at least one permanently open end. While the

cited Figure 4 shows an open end at the right, this Figure is a fragmental view and the document does not in fact teach a construction without the end wall 92.

3.3 Moreover Claim 1 of the main request also specifies that the flap is mounted at the tunnel portion whereas in the cited pet shelter each flap 42, 60 is in the end wall (mounting frame member 14). Even though the front panel 14 has an opening, the front panel cannot be said to be part of the tunnel portion because the opening 38 is much smaller than the cross section of the hollow housing forming the tunnel portion.

3.4 After examination of the other cited documents, the Board is satisfied that also none of these discloses a pet door having all the features set out in Claim 1 of the main request. Novelty was moreover not disputed at the time of refusal of the application.

The subject-matter of Claim 1 of the main request is thus to be considered as novel within the meaning of Article 54 EPC.

4. *Closest prior art, problem and solution*

4.1 For the reasons given in section 3.1 above the Board considers that the pet shelter known from document D1 is of a basically different type to the type of pet door with which the present application is concerned. The Board therefore cannot accept that this pet shelter is the prior art closest to the present invention and sees as closest a pet door of the type disclosed by document GB-A-1 567 001 (see especially Figure 1 which is the same as Figure 6 of the present application). The pet door disclosed in document EP-A-0 076 026 (see especially Figure 1) is similar but not as clearly depicted as in Figure 1 of document GB-A-1 567 001. Such



pet doors do not have an aperture of merely short length but of a greater axial length resulting in a tunnel portion for example for masking a thick door or for housing a latch mechanism for the flap, the flap then being mounted in the tunnel portion with the bottom of the flap at the same level as the lower surface of the tunnel portion.

4.2 These pet doors suffer from the disadvantage shown in Figure 3 of the present application, namely that a pet, having once pushed its paw under the flap but then deciding not to continue passing through the door, may encounter difficulty or even injury when trying to retract its paw which becomes trapped and wedged between the flap and the tunnel portion.

4.3 The Board therefore sees the objective problem arising from the closest prior art as being to avoid paw injury if the pet changes its mind about proceeding through the pet door.

4.4 The pet door according to the invention solves this problem by stepping the margin, ledge or shelf adjacent the bottom edge of the flap downwardly to provide an enlarged clearance for the pet's paw between the tunnel portion and the bottom edge of the flap when the flap is displaced in at least one direction.

5. *Inventive step - Main request*

5.1 Recognition of the problem

5.1.1 Paragraph 1 of the Examining Division's communication of 20 January 1993 states that the problem of paw trapping can be recognized by simply observing the pet walking through the prior art pet door depicted in Fig. 6 of the present application.

The Appellant maintains however that the discernment of the problem was not so simple. The Appellant had failed to recognise the problem prior to marketing the pet door with a paw trapping potential even though it is a greatly experienced manufacturer and tests new pet doors before marketing. Moreover other designers produced pet doors with the same potential for paw trapping.

5.1.2 The Board accepts the Appellant's statement that, despite testing of the door having a paw trapping potential, the problem did not manifest itself until the door was marketed, otherwise it would have been modified in some way. Testing may well have been with cats who were used to passing through pet doors and thus were not put off when confronted by a new type of pet door which, one might suppose that as far as the cat could see, did not differ greatly from the ones with which it was familiar.

5.1.3 The situation changed when the pet door was marketed because then it was encountered both by experienced pets (e.g. because the owners were merely exchanging old pet doors for new ones) and by inexperienced pets (e.g. kittens and older cats which had never used a pet door before). Paw trapping accidents duly occurred to some of these inexperienced pets.

If a machine malfunctions repeatedly when a particular operation is being carried out, then the user can tell the manufacturer what happens and when it happens. In such a case the recognition of the problem plainly is obvious and, if the solution to the problem is obvious, then no inventive step lies in the sum of the recognition of the problem and its solution. Moreover in decision T 71/90 (see section 6.1.5 thereof) the Board concerned did not accept that there was an unsuspected problem with respect to the disadvantages presented by a

particular prior art apparatus and did not accept that this, with the solution thereto, represented an inventive contribution to the art. That Board held that the overcoming of recognised drawbacks and aiming at improvements was the normal task of the skilled person and that no inventive contribution could be seen in the perception of a problem which necessarily came to light during use.

5.1.4 The present situation is however somewhat different. Paw trapping incidents may well have occurred repeatedly but hardly with the same pet since it either would have learnt how to proceed through the door or would have avoided the door in the future. The succession of incidents would thus have concerned different doors and different pets at different places. In some cases the pet would have freed itself but of course could not report to the owner why the accident had happened, indeed the pet door might not even have been suspected to be the cause. It cannot be expected that the pet owner is present each time the pet enters or leaves the building because the purpose of a pet door is precisely to make such presence unnecessary. Other paw trapping incidents may well have been observed by owners but not have been reported to the manufacturer if no injury had been caused and the pet thereafter passed through the door without further mishap.

While the malfunctioning occurred repeatedly it could not be said to be repeatable since - until the cause of pet injury or the reason why a pet refused to use the door were determined - the conditions for testing were hard to reproduce, only some pets would trap their paws and even then each pet probably only once. This might not be the first time the pet used the door, a cat for example might change its mind about leaving the building if upon opening the pet door it saw bad weather or a dog

outside. The conditions for understanding why injuries occurred were disadvantageous - the pet could not assist by explaining what had happened and the owner was unlikely to be a technically trained person, in contrast to persons using equipment in factories.

5.1.5 The Board thus has substantial doubts as to whether the recognition of the paw injury problem was obvious and accordingly gives the benefit of the doubt to the Appellant on this point, so that the recognition of this particular problem contributes to the inventive step of the subject-matter of Claim 1.

## 5.2 Inventivity of the solution

Even after the skilled person has realized that paw injury occurs with some doors, he may not realise which feature it is which causes the problem (in fact the tunnel portion).

If he looks in the prior art documents to inform himself on the problem and its solution he will not encounter any remark or hint on which type of doors are not subject to the problem and why not, which type of doors are subject to the problem and which feature of this type is at fault, and how such problem might be solved in a tunnel-type pet door.

The Board sees an inventive step in the three stages leading to the invention, namely the investigation of the prior art pet doors, both those subject to the paw injury problem and those that are not; the recognition of their particular geometry which determines whether the problem occurs or not; and the application of these findings to a tunnel-type pet door.

The Board moreover considers that it is not at all certain that the skilled person would immediately provide a step-down in the tunnel portion to solve the problem. Solutions more likely to occur to the skilled person are to make the flap flexible, to provide a paw-sized cutout in the lower edge of the flap or to do away with a tunnel portion to revert to a frame of the same thickness as the flap.

The apparent similarity of the pet shelter of document D1 to the present invention is misleading. While the floor 104 of the hollow housing of document D1 is located below the opening 38 in the flange-like member 14, this is no more than the customary arrangement of mounting a conventional pet door at a distance above the bottom of the door in which the pet door is mounted. The Board does not consider that this would lead the skilled person to the claimed arrangement.

- 5.3 The pet door according to Claim 1 of the main request thus involves an inventive step within the meaning of Article 56 EPC.
6. The subject-matter of Claim 1 of the main request is thus patentable as required by Article 52 EPC. A patent may therefore be granted based on this allowable independent claim, dependent Claims 2 to 4 which concern preferred embodiments of the pet door according to Claim 1, and the amended description and drawings.
7. Consideration of the Appellant's auxiliary requests is therefore unnecessary.

**Order**

**For these reasons, it is decided that:**

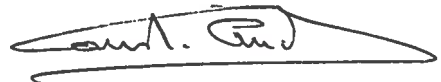
1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to grant a patent in the version according to the main request set out in section IV above.

The Registrar:



N. Maslin

The Chairman:



C. Andries