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D E C I S I O N
of 30 January 1996

Case Number: T 0255/94 - 3.2.4

Application Number: 88115962.8

Publication Number: 0310016

IPC: A01K 1/015

Language of the proceedings: EN

Title of invention:
Litter for small animals

Patentee:
SÜD-CHEMIE AG

Opponents:
SAMAIN Gustave
Effem GmbH
Michel Reverdy S.A.
Groenvoederdrogerij B.V. "Oldambt"

Headword:
-

Relevant legal provisions:
EPC Art. 56

Keyword:
"Inventive step (yes)"

Decisions cited:
T 0001/80, T 0002/83, T 0056/87, T 0005/81

Catchword:
-



Case Number: T 0255/94 - 3.2.4

D E C I S I O N
of the Technical Board of Appeal 3.2.4
of 30 January 1996

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Decision under appeal:

**Decision of the Opposition Division of the
European Patent Office posted 24 January 1994
revoking European patent No. 0 310 016 pursuant to
Article 102(1) EPC.**

Composition of the Board:

Chairman: C. A. J. Andries
Members: R. E. Gryc
M. Lewenton

Summary of facts and submissions

- I. The appellant (patent proprietor) lodged an appeal, received at the EPO on 23 March 1994, against the opposition division's decision despatched on 24 January 1994 revoking European patent No. 0 310 016.

The appeal fee was paid on 25 March 1994 and the statement of grounds of appeal was received at the EPO on 20 April 1994.

Oppositions were filed against the patent as a whole based on Article 100(a) and (b) EPC. The opposition division held that a ground for opposition mentioned in Article 100(a) EPC (lack of inventive step) prejudiced the maintenance of the patent having regard to the following documents:

- D1: FR-A-2 451 159 (considered as the closest state of the art)
D4: WO 85/04862 corresponding to EP-B-0 182 793 and
D10: EP-A-0 115 898.

During the appeal proceedings, the respondents (opponents) referred additionally to document D3: EP-B1-0-013 935.

- II. In the statement of grounds of appeal, the appellant primarily argued that the rate of absorption of the straw briquettes described in D1 is reduced compared with the rate of the material of the invention by the fact that the pressed surfaces of the straw briquettes, similar to the surface of natural straw, are covered by some sort of glass-like skin which needs some time to be dissolved by moisture. Moreover, he contended that the reduction of the absorption capacity of the prior art

material disclosed in D10 during the pelleting process is not a matter of the outer surface but of the solid material and that D4 can hardly be used to disclose the problem according to the invention because D4 does not concern a pressure-pelleting process but a process comprising a high-temperature treatment leading to a reduction of the inner surface of the material.

In reply the respondents (opponents) pointed out that in the patent in suit there is no reference to a glass-like skin on the pelleted material, that in D1 the grinding of the straw before pelleting should eliminate such a film and that it belongs to the general knowledge of the skilled person that to break the pellets increases the outer absorbing surface of the material and thus the rate of absorption, this teaching being described in particular in D3, D4 and D10.

III. In a reasoned provisional opinion sent with the summons to oral proceedings dated 27 December 1995, the board took the view that the subject-matter of the independent claims appeared to be new and to involve an inventive step having regard to the state of the art cited by the respondents.

In reply respondent 02 (opponent 02) drew attention to the fact that binding liquids like animal urine to litter materials has more to do with "adsorption" than "absorption", that the skilled person in the special technical field of litters is the specialist for adsorption materials including the mineral product described in D3 and D4 and that the fragmentation of the pelleted briquettes, which is the only step which differentiates the subject-matter of claims 1 and 2 from the disclosure of D1, follows from the general knowledge of the skilled person and the state of the art described in D3 and D4.

IV. Oral proceedings took place on 30 January 1996.

Although duly summoned, nobody attended the proceedings on behalf of respondents 01, 03 and 04 (opponents 01, 03 and 04). In accordance with the provisions of Rule 71(2) EPC the proceedings were continued without these respondents.

The appellant filed modified claims 1 and 2 as a subsidiary request and drew attention to the fact that, during the long period of time between the publication of D1 describing the closest prior art and the filing date of the patent in suit, the skilled person never arrived at the invention. The appellant also pointed out that D3 does not teach compacting an organic raw product according to the invention but, on the contrary, expanding a mineral mixture into a foam. Considering that D4 describes a further development of the process of D3, where the products are subsequently fired, the appellant was of the opinion that neither of these two documents would provide the skilled person with information or pointers which might lead him to the invention. The appellant argued further that the prior art of D10 has little to do with the subject-matter of claims 1 and 2 since it concerns a process starting from a raw product composed mainly of inorganic materials and dividing it into granules without compacting it.

Respondent 02 emphasised that the skilled person is the specialist in the technical field of absorption and adsorption materials who should know the disclosures of D3, D4 and D10. The respondent was also of the opinion that it belongs to the general knowledge of this specialist that the rate of absorption and the absorptive capacity of a product depend on the outer surfaces of said product, as confirmed in particular by the teaching of D4. The respondent contended also that,

for the skilled person, the small size of the granules described in the examples given in D3 would point to the breaking of the granules of the litter known from D1. Therefore, the respondent took the view that the fragmentation of the granules of D1 according to the subject-matter of claims 1 and 2 does not involve an inventive step within the meaning of Article 56 EPC.

V. At the end of the oral proceedings the appellant requested that the decision under appeal be set aside and:

- as a main request, that the patent be maintained unamended,
- as a subsidiary request, that the patent be maintained with modified claims 1 and 2 as filed during the oral proceedings.

The respondent (opponent 02) requested that the appeal be dismissed.

VI. Independent claims 1 and 2 as granted (main request) read as follows:

"1. Litter for small animals, of which at least a major fraction is in the form of ground and pressed straw, such straw material being in the form of irregular fragments of briquettes made from compacted ground straw.

2. A process for the manufacture of litter for small animals comprising the steps of grinding straw (11) to form straw powder (16) and compacting such powdered straw to form briquettes (18), which are then broken into fragments (19) with an irregular outer surface."

Reasons for the decision

1. The appeal is admissible.
2. *Main request*
- 2.1 Novelty

Having examined all the available prior-art documents, the board is satisfied that none of them discloses either litter for small animals or a process for the manufacture of such a litter comprising in combination all the features described respectively in claim 1 or in claim 2 as granted.

Since novelty was never disputed during the proceedings, there is no need for further detailed substantiation of this matter.

The subject-matter as set forth in claims 1 and 2 is thus to be considered novel within the meaning of Article 54 EPC.

- 2.2 The closest prior art

In agreement with the parties, the board considers that the prior art disclosed in D1 appears to be the state of the art closest to the invention, since the raw product used to manufacture the litter material is ground straw made into briquettes by compaction as in the invention.

The subject-matter of independent claims 1 and 2 differs from this closest prior art in that the briquettes are subsequently broken into irregular fragments.

2.3 The problem and its solution

2.3.1 When comparing the subject-matter of claims 1 and 2 with this closest state of the art, the problem to be solved as objectively determined (see decision T 1/80 - OJ EPO 1981, 206) appears to be to improve the absorbency of the known litter (see the patent specification, column 1, line 55, to column 2, line 3, and column 2, lines 42 to 52) and subsidiarily the acceptance of the material by the cats (see column 1, lines 27 to 30).

2.3.2 The board has no reason to doubt that the breaking into fragments of the litter according to D1 effectively solves the above-mentioned problem, all the more so as it has not been disputed by the respondents.

2.4 Inventive step (Article 56 EPC):

2.4.1 The questions to be answered as regards the inventive step in relation to the modification of the litter material of D1 are whether the state of the art seen in the light of the general common knowledge of the skilled person would provide him with enough information to enable him to arrive at the invention and whether, in the state of the art, he would find clues to applying this teaching to the litter material according to D1 in expectation of the improvement he was seeking (see decision T 2/83, OJ EPO 1984, 265).

2.4.2 When, in a technical field of mass products as in the present case, the facts show that the advantages provided by the claimed material have apparently not been detected (let alone used) during a long period of time after publication of the closest prior art document (ie D1), it cannot reasonably be upheld that solely in

view of the commonly known general principles relating to absorbency and/or adsorbency a skilled person would have used these principles to modify the product disclosed in said closest prior-art document.

2.4.3 When considering the cited prior art documents other than D1, the following should be remarked:

- D3 concerns the manufacture of granulates of a specific porous mineral material made from a wet mineral raw product (ie clay) as starting material, said material having absolutely nothing to do with the dry ground straw used as starting material according to the invention. Also, the explicit teaching of D3 that, to manufacture litters, the organic raw materials as starting materials are disadvantageous (see column 1, lines 10 to 13) cannot be ignored.

Moreover, it should be pointed out that in the process known from D3 the starting material is expanded into a foamed mixture whereas as claimed in claims 1 and 2 the ground straw is compacted. Furthermore, the resulting form in D3 should be stable and not swelling, whereas the claimed material allows even a doubling of the volume of the litter.

It is true that D3 describes a manufacturing process which comprises a fragmentation step as claimed in claim 2. However, since no indication can be found in this prior art document that the shaped clay members are broken in order to improve their absorbency (on the contrary, D3 teaches that absorbency depends on the specific pore radii - see the claim - and is independent of the particle size - see the different particle densities indicated

and Figure 2) and since the skilled person can reasonably think that the provision of such a crushing step follows not only from the bulky size of the hardened blocks of clay, which cannot be used just as they are, but also from the remaining internal humidity of the blocks which need to be dried before being used, arbitrarily isolating this "breaking step" from the context of D3 in order to derive therefrom a technical information which ~~is~~ not suggested by the integral teaching of this document is not justified (see decision T 56/87, OJ EPO 1990, 188).

Since, as demonstrated above, the context of D3 considered in its entirety appears to be completely different from the context of the invention, the board cannot see why the skilled person starting from the litter of D1 should even have consulted this prior document.

- Since the teaching of D4 starts in particular from the disclosure of D3 (see D4: page 2, line 1, and page 2, lines 22 and 23), the aforementioned reasoning related to D3 can also be applied to D4.

Since, additionally, D4 recommends firing the crushed, shaped clay member in a temperature range between 600° and 1000° (see D4: page 3, lines 22 and 23, and claim 5), the skilled person recognises immediately that the teaching of D4 in relation with such a temperature treatment is not applicable to the pellets of D1 made from powdered straw.

In particular, the skilled person cannot ignore the fact that the statement in D4 from page 5, line 25, to page 6, line 5, concerning "the poorer liquid absorption due to the hard fracture surfaces formed

and due to the reduction of the internal surface" refers to a high porous mineral material that has been treated at a kiln temperature higher than 1000°C and not to a completely different product as the compacted organic product claimed in claim 1 which would volatilise at such a temperature. The board wishes to emphasise that, when examining for inventive step, the state of the art must be assessed from the point of view of the person skilled in the art, ie an excessively abstract approach removed from his practical thinking must be avoided, such an approach being merely the result of a posteriori analysis (see decision T 5/81, OJ EPO 1982, 249). In the present case it cannot reasonably be upheld that the above-mentioned statement in D4 would provide the skilled person with the information that the absorption capacity of the organic material of D1 mainly depends on the fracture surfaces which could be obtained by breaking said granulates which are already smaller (diameter and length: 4 mm) than the minimum size (8 mm) required to make possible the fragmentation in fragments which may be directly used as a litter (see the patent in suit: column 2, lines 34 to 42).

- From D10 the skilled person would have learnt in particular that, when preparing a liquid-absorbing material starting from an organic raw material, "the rate of absorption and the absorptive capacity of the material are reduced during the pelleting process" (see D10: page 1, lines 20 to 22) and that "the pelleting process requires a relatively expensive pelleting mill which again makes the process more expensive" (see page 2, lines 1 and 2). If, at the filing date, the skilled person had appraised this information, which pleads explicitly

against pelleting, he would never have started from the pelleted briquettes of D1. Since he has done so despite the aforementioned indications not to do so, it is reasonable to believe that either he has disregarded the teaching of D10 or he has accepted the drawbacks mentioned. In both cases, having chosen to start from the litter of D1 and knowing that the breakage of the pellets would not change the compactness or porosity of the pelleted material, the skilled person would have no particular reason to try to nullify the effects of the expensive pelleting by breaking the pellets afterwards, rendering the whole process even more expensive. The logical way of thinking, taking into account the teaching of D10, would seem to be to decide previously not to pellet the product and to apply the teaching of D10, ie granulating by means of a screw.

2.4.4 For the aforementioned reasons the board considers that the subject-matter of claims 1 and 2 as granted does not follow plainly or logically from the prior art but implies an inventive step within the meaning of Article 56 EPC.

2.5 The patent can therefore be maintained unamended.

3. *Subsidiary request*

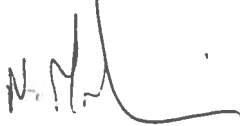
Since the board has acknowledged the main request as allowable, there is no need to consider the appellant's auxiliary request.

Order

For these reasons it is decided that:


1. The decision under appeal is set aside.
2. The patent is maintained unamended.

The Registrar:



N. Maslin

The Chairman:



C. Andries

R.G.
