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**Datasheet for the decision  
of 15 April 2014**

**Case Number:** T 1530/11 - 3.2.07

**Application Number:** 04751439.3

**Publication Number:** 1620328

**IPC:** B65D83/16

**Language of the proceedings:** EN

**Title of invention:**

SPRAYER ACTUATOR

**Patent Proprietor:**

THE PROCTER & GAMBLE COMPANY

**Opponents:**

Reckitt Benckiser (UK) Limited  
S.C. Johnson & Son, Inc.

**Headword:**

**Relevant legal provisions:**

EPC Art. 56

**Keyword:**

Inventive step - no, all requests;  
distinguishing feature relates to an aesthetic appearance

**Decisions cited:**

**Catchword:**



**Beschwerdekammern  
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Chambres de recours**

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Case Number: T 1530/11 - 3.2.07

**D E C I S I O N  
of Technical Board of Appeal 3.2.07  
of 15 April 2014**

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**Decision under appeal:** **Interlocutory decision of the Opposition  
Division of the European Patent Office posted on  
6 May 2011 concerning maintenance of the  
European Patent No. 1620328 in amended form.**

**Composition of the Board:**

<b>Chairman</b>	H. Meinders
<b>Members:</b>	H.-P. Felgenhauer
	E. Kossonakou

## Summary of Facts and Submissions

- I. The appellant (opponent 01) filed an appeal against the decision of the opposition division maintaining European patent EP 1 620 328 in amended form.

The appellant requested the impugned decision to be set aside and the patent to be revoked.

The respondent (proprietor) requested the appeal to be dismissed (main request) and subsidiarily that the European patent be maintained in accordance with one of auxiliary requests 1 to 3 as resubmitted with its letter dated 10 April 2014.

Opponent 02, party as of right, has not made any submissions and did not attend the oral proceedings.

- II. The claims 1 according to the requests of the respondent read as follows:

Claim 1 according to the main request (as maintained according to the impugned decision)

"A sprayer (20) comprising:

i) a container (22) which has a base (32), sides (34), a lower portion (36), an upper portion (38) and a top (40); and

ii) an ergonomic sprayer actuator (24) comprising:

a housing (26) having an upper portion (44), a lower portion (42) fitted over the container, and a trigger (28) operatively associated with said sprayer housing (26) at the front of said sprayer; wherein the housing comprises: a narrowed waist portion (46) between said upper portion and said lower portion,

wherein the housing (26) is configured so that a user can wrap at least their thumb and forefinger around the narrowed waist portion (46); and

wherein the lower portion (42) of the actuator housing (26) overlaps the outside of the upper portion (38) of the container (22);

characterised in that the lower portion (42) of the actuator housing (26) is larger and extends downward further toward the base (32) of the container (22) in the back of the sprayer (20) than in the front of the sprayer".

Claim 1 according to auxiliary request 1

Claim 1 according auxiliary request 1 differs from claim 1 according to the main request in that it comprises as last feature the additional feature:  
"wherein the sprayer further comprises a nozzle (30) at the front of said sprayer actuator housing (26), wherein said nozzle (30) is oriented so that liquid sprayed from said nozzle (30) will be directed at an angle of at least 20° and less than 90°.

Claim 1 according to auxiliary request 2

Claim 1 according to auxiliary request 2 differs from claim 1 according to the main request in that it is directed to "An aerosol sprayer (20)" instead of "A sprayer (20).

Claim 1 according to auxiliary request 3

Claim 1 according to auxiliary request 3 differs from claim 1 according to the main request in that it

comprises the amendments of both auxiliary requests 1 and 2 as indicated above.

III. In the present decision the following documents referred to in the decision under appeal are taken into account:

D2                   US-A-5 366 121

D5                   US-A-3 189 232

D22                  EP-A-0 484 615

D86                  CH-A-612 363.

IV. Impugned decision

According to the impugned decision the argument of the appellant that the characterising feature of claim 1 as maintained (presently: main request) "is only an obvious selection of an aesthetical feature as the description of the patent is silent about how this feature would improve the ergonomics of the spray [sic]" can not be agreed with (reasons, nos. 12.4.1, 12.4.2).

On the contrary the characterising feature "has a function and a technical effect since it provides a feeling to the fingers of the user in the front of the sprayer with the transition from the lower portion of the housing to the upper portion of the container and it provides the desired support for the palm of the hand in the back of the housing of the sprayer" (reasons, no. 12.4.2).

Concerning the examination of inventive step starting with D22, which the opposition division considered as constituting the closest prior art, it was concluded that the problem to be solved can be regarded "as avoiding finger fatigue to the user" and that "(N)o hint is given in document D22 to modify the screw cap (3) in order to enhance the ergonomics of the sprayer (reasons, no. 12.4.3).

V. The submissions of the appellant can be summarised as follows:

Concerning the subject-matter of claim 1 of the main request the sprayer of D22 can be considered as representing the closest prior art.

The characterising feature of claim 1, distinguishing the sprayer of claim 1 over the one disclosed in D22, can not be considered as having a technical effect since it fails to define the form of the lower portion of the container housing quantitatively.

The change of the form, attributable to the characterising feature, is thus merely affecting the appearance of the actuator body.

Since it is obvious that the appearance of an actuator housing can i.a. be influenced by modifying its form, as can e.g. be derived from D2, the sprayer of claim 1 according to the main request does not involve an inventive step over the combined consideration of the sprayer of D22 and the form of its actuator housing with the modification of the form of an actuator body as suggested by D2.



The subject-matters of the claims 1 of auxiliary requests 1 to 3 do not comprise features in addition to those of claim 1 of the main request which can be considered as contributing to subject-matter involving inventive step.

VI. The submissions of the respondent can be summarised as follows:

Concerning the subject-matter of claim 1 of the main request the sprayer of D22 cannot be considered as representing the closest prior art since nowhere in this document is ergonomic design referred to, which according to the patent in in suit is a goal to be achieved.

The characterising feature of claim 1, according to which the form of the lower portion of the container housing is defined, results in a technical effect since the lower portion in some way influences the manner in which and the feeling with which the user can hold the sprayer in action. This counts despite the fact that no dimensions concerning this form are mentioned.

Even if the form defined by the characterising feature is considered as merely relating to the appearance of the actuator body, such a form is not suggested by the prior art.

The additional features of the claims 1 of auxiliary requests 1 to 3 contribute, in combination with the features of claim 1 of the main request, to subject-matter involving inventive step.

VII. In the annex to the summons for oral proceedings (in the following: the annex) the Board has given its

preliminary opinion, contrary to the conclusion according to the impugned decision, that i.a. the characterising feature of claim 1 appears not to be defined to such an extent that it has an effect concerning the manner in which the sprayer is held during its use (cf. point 7.1.3).

VIII. Oral proceedings before the Board, at the end of which the decision was announced, took place on 15 April 2014.

### **Reasons for the Decision**

#### *1. Procedural aspect*

Opponent 02 as a party as of right has, although having been properly summoned to the oral proceedings, not attended them.

The oral proceedings were conducted without this party (Rule 115(2) EPC; Article 15(3) RPBA).

#### **Claim 1 according to the main request**

#### *2. Subject-matter of claim 1 according to the main request*

*2.1* As indicated in the annex (point 7.1) and as discussed during the oral proceedings claim 1 according to the main request is directed to a sprayer comprising a container and an ergonomic sprayer actuator.

The **container** has a base, sides, a lower portion, an upper portion and a top.

The ergonomic **sprayer actuator** comprises a **housing** having an upper portion, a lower portion fitted over the container, and a trigger operatively associated with said sprayer housing at the front of said sprayer.

The **sprayer housing** comprises: a **narrowed waist portion between the upper portion and the lower portion**, wherein the housing is configured so that a user can wrap at least their thumb and forefinger around the narrowed waist portion.

The lower portion of the actuator housing overlaps the outside of the upper portion of the container.

The **sprayer is characterised** in that **the lower portion of the actuator housing is larger and extends downward further toward the base of the container in the back of the sprayer than in the front of the sprayer.**

2.2 The following features of claim 1 have been referred to by the respondent as contributing to the qualification of the sprayer actuator as "ergonomic" and - in combination - as support for the sprayer according to claim 1 involving inventive step:

- (a) the actuator housing having an upper portion and a lower portion fitted over the container,
- (b) the housing comprising a narrowed waist portion between the upper portion and the lower portion, wherein the housing is configured so that a user can wrap at least their thumb and forefinger around the narrowed waist portion,
- (c) the lower portion of the actuator housing being larger and extending downward further toward the

base of the container in the back of the sprayer than in the front of the sprayer.

2.3 While it was common ground that the narrowed waist portion according to feature (b) relates - possibly in combination with the connection of the actuator to the container according to feature (a) - to the ergonomic design of the sprayer, the appellant and the respondent were of different opinions concerning the effect of feature (c).

2.3.1 According to the respondent the connection of the actuator housing and the container according to feature (a) and the form of the actuator housing according to features (b) and (c) contribute to the ergonomic design of the sprayer since such a form "makes the sprayer ... easier to grip", "to be held more comfortably by a user without bending the user's wrist" and "reduces fatigue on the user's index finger in the case of prolonged spraying" (cf. the patent in suit, paragraphs [0012], [0015] and [0012]). In its view feature (c), the characterising feature of claim 1, contributes to the effects of the form of the actuator housing according to feature (b) with respect to the ergonomic design of the sprayer.

2.3.2 According to the appellant, feature (c) cannot, whether considered by itself or in combination with features (a) and (b), claim an effect relating to the ergonomic design of the sprayer. The reason is that the characterising feature (c) contains two relative expressions, namely that the lower portion of the actuator housing is larger and extends downward further toward the base of the container in the back of the sprayer than in the front of the sprayer. In its view, due to these relative expressions, the shape of the

lower portion of the actuator housing and consequently also its cooperation with the container remains largely undefined.

- 2.3.3 The Board considers, as already set out in the annex (cf. point 7.1.3), that due to the relative expressions relied upon the characterising feature (c) does not contribute to the definition of the form of the housing to such an extent that a technical effect can be attributed to it. It therefore considers the effect attributed to this feature in the impugned decision (cf. points IV (a) and (b) above) as not being supported by the definition of the lower portion of the actuator housing according to feature (c).

Moreover, the board considers the opinion expressed by the appellant to be correct in that the only effect which can possibly be attributed to feature (c) concerns an aesthetical aspect, namely the appearance of the lower portion of the actuator housing and - via this appearance - how a sprayer with such an actuator housing is perceived by a user and thus distinguished from other containers of similar shape.

### 3. *Closest prior art*

- 3.1 According to the appellant D22 can, in line with the impugned decision (reasons, point 12.4.3), be considered as the closest prior art in the examination of inventive step.
- 3.2 The respondent did not put into question that D22 can be considered as prior art but was of the opinion that this document is not suited to be considered as **closest** prior art since nowhere in this document the ergonomic design of a sprayer, which is argued to be the

fundamental aspect underlying the patent in suit, is referred to. Instead D13 should be considered as closest prior art, since in this document ergonomic aspects are mentioned (cf. D13, column 1, lines 25 - 67).

3.3 The Board finds the arguments of the appellant more convincing. The reason is that, as indicated during the oral proceedings, D22 (though not mentioning ergonomic design or the need therefor explicitly) discloses an actuator housing which, like the one according to claim 1 of the patent in suit (cf. feature (b)), has a narrowed waist portion and thus a form which, as stated in the patent in suit (cf. paragraph [0011]) "provides the sprayer actuator 24 with an ergonomic design".

3.4 Thus, in line with the impugned decision and as stated by the Board during the oral proceedings, D22 has been considered as closest prior art in the examination of inventive step.

4. *Feature distinguishing the sprayer of claim 1 over the one of D22, effect of the distinguishing feature, problem to be solved*

4.1 Considering the sprayer of D22 as closest prior art it was not contentious that, in line with the arguments of the appellant, the impugned decision (reasons, point 12.4.3) and as can be derived from the following, the characterising feature (c) of claim 1 is the distinguishing feature (see below).

4.1.1 Corresponding to the features of the pre-characterising portion of claim 1, D22 discloses a sprayer comprising:  
a container (column 1, lines 3 - 8) which -

necessarily - has a base, sides, a lower portion, an upper portion and a top); and a sprayer actuator comprising: a housing 1, 3 having an upper portion, a lower portion 3 fitted over the container, and a trigger 2 operatively associated with said sprayer housing at the front of said sprayer; wherein the housing comprises: a narrowed waist portion (the portion above screw cap 3) between said upper portion and said lower portion, wherein the housing is configured so that a user can wrap at least their thumb and forefinger around the narrowed waist portion; and

wherein the lower portion 3 of the actuator housing overlaps the outside of the upper portion of the container (cf. column 2, lines 22 - 30; figures 1 -3).

4.1.2 The **sprayer of claim 1 is thus distinguished from the one according to D22 by feature (c)**, that the lower portion of the actuator housing is larger and extends downward further toward the base of the container in the back of the sprayer than in the front of the sprayer.

According to D22 the lower portion of the actuator housing (screw cap 3) is, as can be derived from the figures, of equal length. Consequently, the lower portion does not comprise a region of a different extent towards the base of the container.

4.2 The **effect of the distinguishing feature (c)** cannot, as indicated above and contrary to the view expressed by the respondent, be seen as lying in a **contribution** to the ergonomic design of the sprayer, but only in one **relating to the aesthetic appearance of the sprayer**.

4.3 Based on such an effect the **problem** underlying the subject-matter of claim 1 of the patent in suit can only be seen in designing the sprayer such that it has a different appearance from the one disclosed in D22.

5. Obviousness

5.1 The person skilled in the art will, starting from the sprayer according to D22 in an attempt to solve the aforementioned problem, be incited by D2 which like D22 and claim 1 relates to sprayers, to modify the form of the actuator housing. The information given by D2 (cf. column 7, lines 21 - 36; figure 6 and 7) in this respect reads as follows: "By **extending the housing** (i.e. the actuator housing) **downward** over both the coupling and the upper portion of the container, and **by selecting the color and configuration of the housing to complement that of the fluid container, a visual matching of housing and container may be achieved.**" (comment and highlighting added).

Based on this information it is evident that the skilled person, in an attempt to solve the problem (point 4.3 above), is firstly held to take a modification of the actuator housing into consideration. Secondly the skilled person is directly proposed by D2 to modify the actuator housing by extending it downward and selecting an appropriate configuration.

5.2 Therefore, if the characterising feature (c) of claim 1 is considered to have the effect as referred to above (cf. point 4.2), then it is apparent that in the manner discussed above this effect will likewise be achieved for the sprayer according to D22, when modified as set out in D2.



Within this framework it has to be considered that it comes within regular design practice to modify the lower end of the screw cap 3 of D22 in the manner defined by feature (c), bearing in mind that this feature does not define the extent to which it leads to a change in form differing from that of the screw cap according to D22, in which the lower portion of the actuator housing does not end in a manner deviating from a plane rim.

- 5.3 The fact that, as argued by the respondent, according to D22 the lower part of the actuator housing is in the form of a screw cap, will not hinder the skilled person to deviate from this form in case the actuator body is to be given a different appearance for the reasons given above.
- 5.4 This view deviates from the provisional opinion expressed in the annex (cf. point 7.3.3). It is however evident that, as indicated by the Board during the oral proceedings, such a modification of a lower portion of the screw cap leading to a form corresponding to the one as defined by feature (c) can be executed without impact on the proper functioning of the screw cap of the actuator housing of D22, simply because feature (c) merely defines a particular form without imposing any requirement concerning the size of the thus defined form. This requires e.g. only that a form change corresponding to the one defined by feature (c) must be large enough to give a distinctive appearance allowing it to be recognised by a user, but small enough to not affect the functionality of the screw of the screw cap.
- 5.5 Consequently, the container according to claim 1 (main request) does not involve an inventive step (Article 56

EPC) over the one according to D22 considered as closest prior art in combination with the teaching given by D2 as indicated above.

**Claims 1 according to auxiliary requests 1 to 3**

6. The reasons given above concerning the sprayer of claim 1 according to the main request apply, as far as the same features are concerned, correspondingly concerning the sprayers according to the claims 1 of the auxiliary requests.

7. The claims 1 according to auxiliary requests 1 to 3 comprise - when compared to claim 1 of the main request - the following amendments.

7.1 Either the additional feature

(d) "wherein the sprayer further comprises a nozzle (30) at the front of said sprayer actuator housing (26), wherein said nozzle (30) is oriented so that liquid sprayed from said nozzle (30) will be directed at an angle of at least 20° and less than 90° (first and third auxiliary request)

and / or the term

(e) "An aerosol sprayer" instead of  
"A sprayer" (second and third auxiliary request).

7.2 *Effects of the additional features / obviousness*

7.2.1 **Feature (d) relates to the orientation of the nozzle.**

The Board considers the argument of the appellant to be correct that the orientation of a nozzle, like the one of the sprayer of D22, depends on the intended use for

the sprayer, i.e. in which direction material contained in the container is to be sprayed. This view finds support in D86, dealing with a sprayer to be used for a targeted spraying of material (cf. the title of D86, claim 1 and column 1, lines 51 - 55). Consequently, feature (d) which results in an orientation of the nozzle for such a targeted spraying has to be seen as being a requirement which comes, like the measure to satisfy it, within regular design practice, because it depends on mere considerations concerning the intended use of the container. Feature (d) thus cannot be considered as contributing either by itself or in combination with the remaining features of claim 1 to subject-matter involving inventive step.

7.2.2 This also holds true when considering that, as argued by the respondent, the orientation of the nozzle can be determined not only by taking account of the manner or direction in which material is to be sprayed, but also considering ergonomic factors, like e.g. the ease of handling of the container during use. The reason is that the person skilled in the art will, when it comes to the orientation of a nozzle, consider within the framework of regular design practice also such factors like the direction in which material is normally to be sprayed in use and the size and weight of the sprayer as well as the form of the narrowed waist portion by means of which the sprayer is to be held.

7.2.3 Reference to an aerosol sprayer according to **feature (e) leads to a limitation of claim 1 with respect to the type of sprayer**. It affects, as discussed during the oral proceedings, the interior structure of an actuator and the content of the corresponding container.

7.2.4 This limitation does, as argued by the appellant, not bear any impact with respect to the form of the sprayer actuator. This can be derived e.g. from a comparison of the sprayers of claim 1 of the main request and of auxiliary request 2 which differ only in that the second sprayer is referred to as "an aerosol sprayer".

Reference to an aerosol sprayer according to feature (e) can only be associated with the effect that the container is filled with a particular material and that the sprayer actuator is of a type suited for spraying of an aerosol. Since the reference to "an aerosol" is only generic, despite this reference no further modification of the sprayer is required. Since the use of sprayers of the kind concerned is well known as evidenced e.g. by D5 (cf. the title and the claims of D5), feature (e) - whether considered by itself or in combination with the remaining features of the claims 1 of auxiliary requests 2 or 3 - cannot be considered as leading to subject-matter involving inventive step.

7.2.5 Consequently the sprayers according to the claims 1 according to the first, the second and the third auxiliary request do not involve an inventive step (Article 56 EPC).

**Order**

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

1. The decision under appeal is set aside.
2. The European patent is revoked.

The Registrar:

The Chairman:



G. Nachtigall

H. Meinders

Decision electronically authenticated