

Internal distribution code:

- (A) [-] Publication in OJ
(B) [-] To Chairmen and Members
(C) [-] To Chairmen
(D) [X] No distribution

**Datasheet for the decision
of 20 February 2019**

Case Number: T 0526/17 - 3.3.05

Application Number: 04757078.3

Publication Number: 1646441

IPC: B01D50/00, B01D59/50,
B01D45/12, B01D46/18,
B01D46/20, B01D53/06,
B01D39/00, B01D41/00,
B01D45/00, B01D46/00

Language of the proceedings: EN

Title of invention:

AMBIENT AIR BACKFLUSHED FILTER VACUUM

Patent Proprietor:

Christy, Inc.

Opponent:

Black & Decker Inc.

Headword:

Vacuum cleaning machine/CHRISTY

Relevant legal provisions:

EPC Art. 56

Keyword:

Statement announcing non-attendance at oral proceedings
amounts to withdrawal of request for oral proceedings (yes)
Appeal decision - reformatio in peius - main request and first
auxiliary request admissible (no)
Inventive step - second and third auxiliary requests (no)

Decisions cited:

Catchword:



Beschwerdekammern
Boards of Appeal
Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 0526/17 - 3.3.05

D E C I S I O N
of Technical Board of Appeal 3.3.05
of 20 February 2019

Appellant: Black & Decker Inc.
(Opponent) 1207 Drummond Plaza
Newark, DE 19711 (US)

Representative: SBD IPAdmin
210 Bath Road
Slough, Berkshire SL1 3YD (GB)

Respondent: Christy, Inc.
(Patent Proprietor) 25523 West 51st Street
Sand Springs, OK 74063 (US)

Representative: Potter Clarkson
The Belgrave Centre
Talbot Street
Nottingham NG1 5GG (GB)

Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
22 December 2016 concerning maintenance of the
European Patent No. 1646441 in amended form.**

Composition of the Board:

Chairman E. Bendl
Members: A. Haderlein
O. Loizou

Summary of Facts and Submissions

- I. The appeal was filed by the appellant (opponent) against the interlocutory decision of the opposition division that, on the basis of the second auxiliary request, the patent in suit met the requirements of the EPC.
- II. In the impugned decision, the opposition division concluded *inter alia* that the subject-matter of claim 1 of the second auxiliary request complied with the requirement of inventive step set forth in Article 56 EPC in view of

D1: US 5 108 473 A

as the closest prior art.

The following document was also referred to in the decision under appeal:

D2: DE 101 01 219 A1.

- III. With its grounds of appeal, the appellant filed the following documents:

D17: US 4 726 825 A and

D18: US 4 841 595 A.

- IV. In its reply to the grounds of appeal, the respondent (proprietor) maintained the main request and the first and second auxiliary requests forming the basis of the decision under appeal and filed a third auxiliary request. It requested oral proceedings.

- V. The parties were summoned to oral proceedings.
- VI. In a communication pursuant to Article 15(1) RPBA, the board informed the parties of its preliminary opinion that none of the respondent's main and auxiliary requests was admissible and allowable.
- VII. In its letter dated 13 February 2019, the respondent informed the board that it would not be represented at the oral proceedings.
- VIII. The oral proceedings were cancelled.
- IX. The wording of claim 1 of the second auxiliary request underlying the impugned decision is as follows:
- "1. A vacuum cleaning machine comprising:
a canister (10) having side walls (18), a bottom (24) and an open top covered by a plate (19), the canister having an inlet port (14) extending through the side wall (18) and least two outlet ports (11, 12 or 13) in the plate (19);
a vacuum source (15);
at least two filters (21, 22 or 23) disposed inside of said canister (10), each in pneumatic communication through a corresponding one of each of said outlet ports (11, 12 or 13);
characterised in that the vacuum cleaning machine comprises at least two valves (31, 32 or 33) disposed outside of said canister (10),
each said valve (31, 32 or 33) having a continuously open port (31c, 32c, or 33c) in communication with a corresponding filter (21, 22 or 23) through a corresponding one of each of said outlet ports (11, 12 or 13), a vacuum port (31a, 32a or 33a), and an ambient air port (31b, 32b or 33b);

each said vacuum port (31a, 32a or 33a) being switchably connected to the vacuum source; each valve (31, 32 or 33) being in pneumatic communication between said vacuum source (15) and a corresponding one of each of said outlet ports (11, 12 or 13) thus permitting air to be drawn by said vacuum source (15) from said inlet port (14) simultaneously through corresponding ones of said filters (21, 22 or 23), and each said ambient air port (31b, 32b or 33b) being connected to ambient air (16); wherein said machine further comprises means (31d, 32d or 33d) for operating said valves (31, 32 or 33) to sequentially switch said filters (21, 22 or 23) from connection to said vacuum source (15) via said vacuum port (31a, 32a or 33a) to connection to ambient air (16) via said ambient air port (31b, 32b or 33b), said means (31d, 32d or 33d) operating said valves (31, 32 or 33) to permit ambient air (16) to be intermittently drawn by said vacuum source (15) into said canister (10) through corresponding ones of said valves (31, 32 or 33) and said filters (21, 22 or 23) which are connected to ambient air via corresponding ones of said valves (31, 32 or 33) and said filters (21, 22 or 23) which are connected to said vacuum source (15)."

X. The wording of claim 1 of the main request (patent as granted) and of claim 1 of the first auxiliary request differs from the wording of claim 1 of the second auxiliary request in that it does not include a number of the latter's features, such as "side walls, a bottom and an open top covered by a plate".

XI. In claim 1 of the third auxiliary request, the expression "at least two" used in claim 1 of the second

auxiliary request in relation to the filters, outlet ports and valves has been amended to "three".

XII. The arguments of the appellant, as far as relevant for the present decision, may be summarised as follows:

The subject-matter of the second auxiliary request did not involve an inventive step when starting from either D1 or D2 in view of D17 and D18.

XIII. The arguments of the respondent, as far as relevant for the present decision, may be summarised as follows:

The requirement of inventive step was met in particular for the second auxiliary request. It was not obvious to arrive at the subject-matter of its claim 1 when starting from D1. The subject-matter of claim 1 differed from D1 in that it comprised a canister having side walls, a bottom and an open top. Moreover, D1 disclosed only one outlet port, whereas claim 1 of the second auxiliary request required at least two outlet ports. Finally, claim 1 differed significantly from D1 in that the valves were not located within the air chamber. It was not obvious to arrive at the claimed subject-matter. In particular, nowhere in D1 was it stated that it would be advantageous to effectively cut up the housing of D1 in order to make a top portion detachable. In the invention as claimed, the possibility of leakage was reduced because the valves were situated in ambient air at atmospheric pressure.

XIV. Requests

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

The respondent requested that "the appeal [be] dismissed... and [the patent be] maintained in the form in which it was granted" (reply to the grounds of appeal, page 1, first paragraph). In the alternative it requested that the patent be maintained on the basis of one of the first or second auxiliary requests underlying the impugned decision or of the third auxiliary request filed with its reply to the grounds of appeal.

Reasons for the Decision

1. *Respondent's request for oral proceedings*

In its reply to the grounds of appeal, the respondent requested oral proceedings. It subsequently informed the board that "the Patentee and its representatives will not be attending" the scheduled oral proceedings (see letter dated 13 February 2019).

It is established case law that a statement announcing non-attendance at oral proceedings amounts to the withdrawal of the request for oral proceedings (Case Law of the Boards of Appeal, 8th ed., *CLBA*, III.C. 2.3.1). The board is thus in a position to decide on the appeal without holding oral proceedings.

2. *Admissibility of the respondent's main and first auxiliary requests*

In the present case the opponent is the sole appellant. As a result of the prohibition of *reformatio in peius*, the proprietor, in its capacity as the respondent, is therefore restricted primarily to defending the patent as held allowable by the opposition division, i.e. to

requesting that the appeal be dismissed (*CLBA, supra*, IV.E.3.1).

Claim 1 of the main request and of the first auxiliary request is broader than claim 1 of the second auxiliary request held allowable by the opposition division in that it lacks a number of features included in the latter claim, such as "side walls, a bottom and an open top covered by a plate". It therefore infringes the principle of prohibition of *reformatio in peius*. The main request and the first auxiliary request are therefore inadmissible.

3. *Second auxiliary request - inventive step*

3.1 The invention concerns a vacuum cleaning machine.

3.2 The appellant starts from D1 or from D2 as the closest prior art. Both documents refer to vacuum cleaners and the backflushing of the filters with ambient air.

D1 is structurally closer than D2 to the subject-matter of claim 1, because D1 discloses a plate beneath which the filters are located, the valves being located above the plate (see Fig. 1). In D2, by contrast, the valves are located on the same level as the filters (see Fig. 1), as correctly pointed out in the impugned decision (page 11, second full paragraph). D1 is therefore a more promising starting point than D2 for assessing inventive step.

Contrary to the respondent's opinion, D1 also discloses a plurality of outlet ports ("outlet holes 9", see col. 3, line 44). Moreover, claim 1 does not require that the valves be located outside the "air chamber", as submitted by the respondent, because it does not

refer to any such "air chamber" (see also 3.5.3 below). However, as rightly pointed out by the respondent, D1 does not disclose that the side walls, the bottom and the plate are in the form of a canister.

- 3.3 According to the patent, there were several objects of the invention, i.e. problems to be solved [see paragraph [0007]]. These problems included providing a backflushed filter vacuum which uses ambient air to backflush the filters.
- 3.4 According to claim 1 of the second auxiliary request, it is proposed to solve these problems by a vacuum cleaning machine having side walls, a bottom and a plate, having an inlet port extending through the side wall and outlet ports in the plate, characterised in that the side walls, the bottom and the plate are in the form of a canister.
- 3.5 It needs to be assessed whether the proposed solution successfully solves the problems posed.
- 3.5.1 On this point, it is common ground that at least the first problem recited in paragraph [0007] of the patent in suit is already solved in D1, i.e. in D1 too, the filters are backflushed with ambient air. The other objects recited in paragraph [0007] are either already achieved in D1, or not achieved over the whole breadth of claim 1 because the necessary features (e.g. independent control of cycle and backflush time) are only present in dependent claims (e.g. present claims 4 and 5).
- 3.5.2 According to the respondent, nowhere in D1 was it stated that it would be advantageous to effectively cut up the housing of D1 in order to make a top portion

detachable (reply to the grounds of appeal, page 10, 4th paragraph). The question that needs to be answered, however, is whether the distinguishing features actually result in an improvement or any other effect; in other words, whether the problem posed is successfully solved by the proposed solution.

It thus needs to be examined whether the claimed construction is indeed "advantageous" over that disclosed in D1, or at least results in some other effect that could form the basis for a reformulated problem.

- 3.5.3 According to the respondent, the claimed machine results in reduced leakage because the valves are situated in ambient air at atmospheric pressure.

The board observes that claim 1 does not exclude the possibility that the valves are contained in a negative pressure environment. Indeed, the configuration shown in Figs. 3 to 5 of the patent in suit is not fully reflected in claim 1. Rather, claim 1 does not require that the valves be outside a negative pressure environment, but only that they are disposed outside the canister. It follows that the valves can still be outside the canister but within a negative pressure environment such as one created by a cover including a vacuum source put on top of the canister. In this context the board does not agree with the opposition division's finding that the valves are "directly connected to the vacuum source" and that "they can therefore be surrounded by ambient air, not needing any further structure to have access to it" (see last paragraph on page 9 of the impugned decision). As can be seen in particular from Fig. 5 of the patent in suit, the valve 31 is connected to the vacuum source 15

via opening 54 (see page 5, lines 19 et seq. of the patent), i.e. not directly but indirectly via the space created between the plate 19 and the vacuum source (in the cover). This corresponds to the configuration disclosed in D1 where the vacuum side of the valve 11 is connected to the vacuum source 4 via the space created between the plate 8 and the vacuum source 4, i.e. the clean-air space 10.

- 3.5.4 Thus, the problems mentioned at 3.3 above are either already solved in D1, or are not solved over the whole breadth of claim 1 but only by features not included therein.

The problem thus needs to be reformulated and consists in the provision of an alternative vacuum cleaning machine.

- 3.6 In support of obviousness, the appellant refers to D17 and D18. These documents show that it was known to provide vacuum cleaner machines of modular construction, i.e. in which a canister including the air filter or the gas/liquid separating part is covered by a cover including the vacuum source (see Fig. 4 of D17 and Fig. 5 of D18).

Based on the less ambitious problem of providing an alternative vacuum cleaning machine, it was thus obvious to the skilled person to devise the machine known from D1 in a modular construction by providing the part of the housing above the plate 8 as a separate cover-like part, thus arriving at a configuration comprising a canister having the features specified in claim 1.

3.7 It follows that the subject-matter of claim 1 of the second auxiliary request does not involve an inventive step.

4. *Third auxiliary request*

4.1 Claim 1 of the third auxiliary request differs from claim 1 of the second auxiliary request in that the number of output ports, filters and valves is now restricted to three (see also reply to the grounds of appeal, page 12, lines 24 et seq.).

4.2 The respondent has not submitted evidence of any effect, nor is any effect otherwise apparent to the board, that would allow for the problem to be solved to be formulated in a way going beyond the provision of an alternative vacuum cleaning machine.

D1 teaches the use of a plurality of output ports, filters and valves (see column 3, lines 43 et seqq.). As the specific number of output ports, filters and valves are within the realm of normal design for the skilled person, no inventive step can be established.

Therefore, the subject-matter of claim 1 of the third auxiliary request does not comply with Article 56 EPC.

Order

For these reasons it is decided that:

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

The Registrar:

The Chairman:



C. Vodz

E. Bendl

Decision electronically authenticated