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# Datasheet for the decision of 21 July 2009

**Case Number:** T 0586/06 - 3.4.03

**Application Number:** 02717049.7

**Publication Number:** 1322999

**IPC:** G03B 23/12

**Language of the proceedings:** EN

**Title of invention:**
Projector

**Patentee:**
Buroni, Paolo

**Opponent:**
F.A.L. S.r.l.

**Headword:**
-

**Relevant legal provisions:**
-

**Relevant legal provisions (EPC 1973):**
EPC Art. 56

**Keyword:**
"Inventive step (yes)"

**Decisions cited:**
T 0223/95, G 0010/91

**Catchword:**
-

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**Case Number:** T 0586/06 - 3.4.03

# D E C I S I O N
**of the Technical Board of Appeal 3.4.03**
**of 21 July 2009**

**Appellant:** (Patent Proprietor)
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**Decision under appeal:** **Decision of the Opposition Division of the European Patent Office posted 2 February 2006 revoking European patent No. 1322999 pursuant to Article 102(1) EPC.**

**Composition of the Board:**

**Chairman:** G. Eliasson
**Members:** E. Wolff
T. Bokor

## Summary of Facts and Submissions

I. This is an appeal by the appellant proprietor against the revocation of European patent No. 1322999 for lack of an inventive step.

II. The opposition division relied in its decision on the following prior art documents

B2/1 = commercial catalogue from F.A.L. S.r.l. of 1999 (PROMO 4 projector)

B4 = Exhibition catalogue from "SIB INTERNATIONAL - SIB 2000"

D4 = US-A 4 257 695

D5 = US-A 3 712 725

D6 = DE-A 421 372

III. The appellant proprietor requested in writing that the opposition be rejected, i.e., that patent be maintained as granted (main request) or, in the alternative, that the decision under appeal be set aside and the patent be granted on the basis of claims 1-16 filed during the oral proceedings before the opposition division (auxiliary request).

IV. The sole independent claim 1 of the patent as granted (main request) reads as follows:

"*1. A projector (1), comprising*

*a main body (2), housing light generating means and heat disposal means, and*

*a secondary body (3), removably associable to said main body (2), housing means (40) for holding and sliding a film (F) and an optical projection group (4),*

*characterised in that said secondary body houses means (30) for cooling said film (F) having a fan (12) having a flow outlet mouth positioned in the secondary body so as to be substantially centered with respect to the thickness of the film and located at the bottom of the film (F), so as to generate a cooling flow tangential to both the surfaces of said film (F).*"

V. The appellant informed the board by letter that he would not attend the appointed oral proceedings. The respondent opponent submitted no response whatsoever to the notice and grounds of appeal, and did not appear at the oral proceedings. Oral proceedings were accordingly held in the absence of the parties.

## Reasons for the decision

1. *Admissibility*

The appeal is admissible.

2. *Admissibility of document D4*

2.1 Document D4 was introduced into the proceedings by the opposition division.

2.2 The appellant proprietor objected to having this document admitted into the opposition proceedings, arguing that the grounds of opposition were restricted to the originally cited documents B1-B6, and that the opposition division was permitted to consider other grounds of opposition only in exceptional circumstances not pertaining in this case. Moreover, citing decision T 223/95 in support, the investigative approach was inconsistent with the character of post-grant opposition proceedings under the EPC.

2.3 The opposition division rejected the opponent's view inter alia on the basis that the introduction of document D4 did not constitute an extension of the grounds of opposition and that the introduction of this document appeared prima facie relevant to the case as required by G 10/91 and T 223/95, the relevant decisions referred to by the opposition division.

2.4 The board shares the view and conclusion of the opposition division. Document D4 is therefore admitted into the proceedings.

3. *Cited prior art*

3.1 Document B4/1 shows a high luminosity digital multivision projector, model Stark 1200, exhibited at the trade fair "SIB 2000" on 26 to 29 March 2000, before the priority date (8 March 2001) of the patent.

3.1.1 Documents B4/2 and B4/3 are, respectively, an enlargement of the middle picture at the bottom of page 2 of document B4/1, and a drawing of that enlargement, and show the front part of the projector swung open on hinges connecting it to the rear part of the projector. Document B4/3 is a drawing which merely helps in identifying the various components in the photographic representation of the projector in document B4/2. Documents B4/1-3 (but **not** parts B4/4 and B4/5 of document B4, for which no evidence of publication has been provided) shall hereinafter be referred to for the sake of convenience as document B4.

3.1.2 Referring to the reference numerals used in B4/2 and B4/3, the projector shown on the second page of document B4 comprises a main body (2), and a secondary body (3) hinged on and hence removably attached to said main body (2), and a lens assembly, i.e., an optical projection group. The person skilled in the art will, moreover, readily deduce from the drawing that the main body (2) houses light generating means and heat disposal means, while the secondary body houses the optical projection group and includes means for holding and sliding a film (F).

3.1.3 The apparatus of claim 1 as granted differs from that shown in document B4 in that the secondary body has means (30) for cooling said film (F) which include a fan (12) located at the bottom of the film (F) so as to generate a cooling flow tangential to both the surfaces of said film (F). In the apparatus shown in document B4, air for cooling the film appears to be provided from a fan located in the main body 1 and the cooling flow is

directed towards the film via a deflector (5) mounted in the secondary body.

3.1.4 The decision under appeal stated that the cooling flow of the apparatus of document B4 was tangential to both the surfaces of the film (see 16.1 of the reasons). The appellant proprietor argued that this statement was incorrect and that the apparatus shown in document B4 only had a cooling flow admitted in the secondary body housing the film. The board accepts this argument as there is nothing in document B4 indicating the generation of a cooling flow tangential to both surfaces of the film.

3.2 The further documents referred to in the decision of the opposition division - other than those discarded by the opposition division, on which no further arguments were presented by either party - are documents B2, D4, D5 and D6.

3.2.1 Document B2 was considered by the opposition division not to be germane to the novelty of the claimed invention. It could neither be seen in, nor presumed from, the illustrations that the specific prior art projector "PROMO 4" of document B2 referred to by the opponent had either means for sliding a film or a fan housed in the secondary body as required to claim 1 of the patent (paragraph 15.2 of the decision). The same applied to any of the other projectors illustrated the document. In the absence of any counterarguments by the respondent opponent, the board agrees with this finding.

3.2.2 Document D4 relates to a film gate constructed such that a cooling flow applied to both sides of the film

and right angles to its direction of motion benefits from the Coanda effect to keep the airflow close to the film surface. Except for stating that the cooling flow is created with the aid of an air pressure source nothing is said about by what means that air pressure is created and where the source of the air pressure is located.

3.2.3 Document D5 relates to an add-on film transport mechanism for a conventional low-power slide projector. It makes no mention of any cooling arrangements.

3.2.4 Document D6 discloses a high-power cinema projector that uses an arc lamp located in a main body. In order to reduce the amount of heat reaching the film, a forced airflow cooling chamber is placed between the main body and the film. The light from the arc lamp leaves the chamber through a window ("Bildfenster"), which prevents the forced airflow from reaching the film. Even if one were to assume - as did the opponent in his arguments before the opposition division - that because of the elevated temperature of the chamber and its window, there would be some airflow over the film, nothing points towards deliberately using a forced airflow passing over the film itself.

4. *Novelty*

4.1 In view of the differences to the prior art referred to in the preceding paragraphs, the board agrees with the conclusion of the opposition division (paragraph 15.5) that the claimed invention is new with respect to document B4 and any of the other cited documents.

5. *Inventive step*

5.1 Both the claimed apparatus and the projector of document B4 serve to provide high-power projection of images onto large-sized surfaces (patent, paragraph [0001]). Given the general similarity in construction of the prior art document B4 and the claimed invention as well as the fact that the apparatus of document B4 serves the same purpose as the claimed invention, the board agrees with the appellant proprietor that document B4 constitutes the closest prior art.

5.2 The claimed invention differs by virtue of the features recited in the characterising clause from the closest prior art document, B4. The objective problem solved by the invention vis-à-vis this nearest prior art is to improve the cooling of the projector at high light intensity while avoiding excessive weight and dimensions (c.f. paragraphs [0016 and [0018] of the patent and item 2.7 of the appellant's letter dated 21 January 2009). The solution lies in locating a fan in the secondary part of the housing so as to generate a cooling flow tangential to both the surfaces of said film.

5.3 None of the cited prior art documents suggest to the skilled person that the cooling fan located in document B4 in the main body of the projector should instead be located in the secondary body of the projector, and should be located there such as to provide an equal flow of air over both surfaces of the film.

It is noted that the opposition division came to the same conclusion that it would not be obvious to modify

the apparatus of document B4 such that it would have the features of claim 1 (16.3 of the reasons).

5.4 The opposition division considered the invention claimed in claim 1 of the main request before it as not involving an inventive step having regard to the teaching of document D4 in combination with any of the prior art projectors shown in either of documents D5 and D6.

5.4.1 The opposition division considered document D5 to differ from the claimed invention by the characterising features of the claim. However, despite acknowledging that there was no mention of any cooling arrangement in document D5, the opposition division took the view that the film strips passing through the adapter would need more cooling than the slides for which the projector was originally designed. This (assumed) need for more cooling would then lead the skilled person to consider the solution provided by document D4 of generating a cooling flow tangential to both surfaces of the film. Moreover, it would then be obvious for the skilled person to provide a fan as the "source of air pressure" and to mount that fan in the adapter itself, thereby making the claimed invention obvious.

The board agrees with the appellant proprietor that this chain of arguments is based to some considerable degree on hindsight. In particular, document D5 relates to an add-on film transport mechanism for a low-power slide projector, whereas document D4 relates to a film-cooling arrangement for high-power projectors. Therefore, it is unrealistic to assume that the skilled

person would even consider document D4 for improving the cooling of the film in the apparatus of document D5.

5.4.2 The argument made in the decision under appeal that the invention could have been arrived at equally by applying the teaching of document D4 to modify the "secondary body" of either the projector shown in document D6 (Fig. 1) or the projector "PROMO 4" shown in document B2/1 is also not persuasive. In document D6 there is no indication of a cooling flow over the film, nor is there any mention of the need to supplement the cooling arrangement of the cooling chamber with the further measure of cooling the film itself. The argument that the invention was obvious over document B2/1 is inconsistent with the conclusion (c.f. paragraph 3.2.1 above) that it could neither be seen in, nor presumed from, the illustrations that the prior art projector "PROMO 4" of document B2 had means for sliding a film or a fan housed in the secondary body as required by claim 1 of the patent.

5.5 For the foregoing reasons, the board concludes that the invention claimed in claim 1 of the main request involves an inventive step as required by Article 56 EPC.

## Order

## For these reasons it is decided that:

The decision under appeal is set aside.

The patent is maintained unamended.

Registrar: Chair:

S. Sánchez Chiquero G. Eliasson