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**D E C I S I O N**  
of 25 August 1997

**Case Number:** T 0305/96 - 3.2.3

**Application Number:** 89850312.3

**Publication Number:** 0362174

**IPC:** B05C 1/08, B05C 9/04

**Language of the proceedings:** EN

**Title of invention:**  
Coating device

**Patentee:**  
BTG Källe Inventing AB

**Opponent:**  
Valmet Paper Machinery Inc.

**Headword:**  
-

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

**Keyword:**  
"Inventive step - obvious combination of known features"

**Decisions cited:**  
-

**Catchword:**  
-



Case Number: T 0305/96 - 3.2.3

**D E C I S I O N**  
of the Technical Board of Appeal 3.2.3  
of 25 August 1997

**Appellant:**  
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**Representative:**  
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**Respondent:**  
(Opponent) Valmet Paper Industry Inc.  
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**Representative:**  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 5 February 1996  
revoking European patent No. 0 362 174 pursuant  
to Article 102(1) EPC.

**Composition of the Board:**

**Chairman:** C. T. Wilson  
**Members:** F. Brösamle  
L. C. Mancini

## Summary of Facts and Submissions

I. The appellant (proprietor) lodged an appeal on 1 April 1996 - paying the appeal fee on the same day and filing the statement of grounds of appeal on 24 May 1996 - against the decision of the opposition division of 5 February 1996 to revoke European patent No. 0 362 174.

The opposition division had expressed the view that the subject-matter of claim 1 underlying the decision lacked inventive step in view of

(A2) GB-A-2 085 328 and

(A5) US-A-2 606 520.

II: Following the board's communication pursuant to Article 110(2) EPC dated 18 February 1997 in which the board allowed the newly cited document (A9) DE-C-2 911 166 into the proceedings the appellant filed new claims 1 to 6, received on 13 June 1997 (Telefax of 9 June 1997).

III: Claim 1 thereof reads as follows:

"1. A coating device for one-sided or two-sided coating of a travelling paper web (15), comprising at least one backing roll (9) and application means (2) cooperating therewith to supply size or coating agent to the backing roll (9), and means (17;19) for smoothing of material supplied to the web (15) and, optionally, coating also the other side of the web (15), characterized in that the application means (2) comprise a selfsupporting coating roll (3), the mantle surface of which cooperating with the backing roll (11) is provided with a close wire winding (5) extending in

the form of a spiral around said mantle surface and providing volumetric or metered application on to the surface of backing roll (9) before its contact with the web (15), said coating roll (3) having a length-diameter ratio (L/Ø) of up to 25."

- IV. The appellant requests to set aside the impugned decision and to maintain the patent on the basis of above mentioned claims 1 to 6, received on 13 June 1997.
- V. The respondent (opponent) requests to dismiss the appeal (by implication).
- VI. The essential arguments of the parties can be summarized as follows:
- (a) appellant
- new claim 1 is restricted in two ways, namely to coating a travelling **paper** web (disclosed on originally filed page 1) and to the provision of a close wire winding around the mantle surface of the coating roll disclosed in originally filed claim 2;
  - in contrast to claim 1 document (A9) is based on a textile web and relates therefore to a different technical area;
  - a close wire winding for providing dosage cannot be found in (A9) whereby this is also true for the length-diameter ratio;
  - the claimed invention produces important advantages, namely simple and cheap provision of a new roll surface, no wear on the underlying

surface of the coating roll, low cost for the provision of a new surface and obtaining automatically the desired spiral-shape whereby it is quite easy to change the dosage capacity and to apply a new wire in a normal work shop;

- claim 1 now meets the requirements of Articles 52(1) and 56 EPC.

(b) respondent

- (A1), namely DE-A-3 417 487 cited in EP-B1-0 362 171, see column 1, lines 22 to 29, discloses applicator rolls supported in a certain way over their entire length;
- (A2) not describing any special support for the applicator rolls a skilled person assumes that these application rolls are supported on their ends - suitably by the length-diameter ratio 25; it is therefore clear that the roll is a "self-supporting roll";
- (A9) does not only refer to the application of liquids on **textile** webs, but generally to webs; reference is also made to the international patent classification which is the same for (A9) and for the patent in suit so that no essential difference can be seen in this respect;
- (A9) should be allowed to the appeal proceedings since it discloses a **self-supporting** coating roll and since additional bearing means are not existent; the known roll is provided with a spiral

around its mantle surface for application on to the surface of a backing roll before its contact with the web; reference is made particularly to Figure 7 and to column 2, lines 37 to 51 of (A9);

- in view of the foregoing the appeal should be dismissed.

### Reasons for the Decision

1. The appeal is admissible.
2. *Amendments*
  - 2.1 New claim 1 is restricted to a travelling **paper** web disclosed in page 1, line 5 and page 8, line 4 as originally filed.
  - 2.2 This claim contains all features of granted claim 1; it specifies a close wire winding, (see originally filed claim 2) and its spiral form around the mantle surface of the coating roll, (see Figure 2 and page 5 last paragraph as originally filed), which wire winding thus provides "circumferentially extending, mutually parallel grooves or rifles (11)" as claimed in the characterizing clause of granted claim 1.
  - 2.3 New claim 1 therefore meets the requirements of Article 123(2) EPC.
  - 2.4 New claim 1 is narrower than granted claim 1 since the coating device is restricted to a **paper** web and to a close wire winding extending in the form of a spiral around the mantle surface of the coating roll so that the requirements of Article 123(3) EPC are also met.

2.5 Dependent claims 2 to 6 are also not open to an objection under Article 123(2) and (3) EPC.

3. *Novelty*

Since (A9) as the nearest prior art document to be considered does not literally mention a "paper" web and a length-diameter ratio ( $L/\emptyset$ ) of up to 25 the coating device according to new claim 1 must be considered novel within the meaning of Article 54 EPC.

4. *Inventive step*

Whilst the subject-matter of claim 1 is formally novel, the requirements of Article 56 EPC are not met for the following reasons:

4.1 Claim 1 is based on a coating device and in particular on a coating device "for a travelling paper web". The functional term "coating device for ..." has to be seen as optional i.e. as "suitable for ...". It is obvious that the **kind** of travelling web makes no difference for the coating device as such since it can be used both for a textile or a paper web. This is in full agreement with the background of (A9) which is not at all restricted to textile webs but also deals with any travelling web, see column 1, lines 34/35.

The information of claim 1 "travelling **paper** web" under these circumstances can therefore not be seen as a non-obvious contribution to the prior art reflected by (A9).

4.2 As can be seen especially from Figure 7 of (A9) the coating roll "5" is provided with lateral roll necks so that a skilled person - in the absence of any specific additional support means - would interpret the known

coating roll "5" as a self-supporting coating roll within the meaning of claim 1. The feature of claim 1 that the length-diameter ratio of this coating roll is of up to 25 is related to the property "selfsupporting" and is therefore comprised within the knowledge of a skilled person in the art.

(A2) in contrast to (A9) discloses a non-self-supporting applicator roll "8", see support elements "13, 23" in Figures 1, 2 and 3 of (A2). In the absence of specific support elements in (A9) it appears clearly justified to conclude that the known coating roll is **selfsupporting**.

- 4.3 What remains in new claim 1 to be considered is the feature that the coating roll is provided "with a close wire winding (5) extending in the form of a spiral around said mantle surface (of the coating roll)", see characterizing clause of claim 1.
- 4.4 The respondent has pointed to column 2, lines 37 to 51, and to Figure 7 of (A9) in this context. It can immediately be seen from the cited text that the grooves or rifles needed for a volumetric or metered application on to the surface of the backing roll can either be achieved by threading the outer surface of the coating roll, (see Figure 7 of (A9)), or can be achieved by winding a wire around the mantle surface of the coating roll as disclosed in the text according to column 2, lines 38/39, of (A9) mentioned by the respondent.
- 4.5 It is obvious that only a **close** wire winding as illustrated in Figures 1A/1B of EP-B1-0 362 174 in combination with the situation in prior art applicators is useful for coating purposes since otherwise the wire

windings under load would shift laterally leading to non-conforming application results. Even if not literally disclosed or disclosed in a drawing a skilled person would derive from (A9) that in the case of wire windings these have to be carried out as "close" wire windings.

- 4.6 Since grooves/rifles are dealt with as technical equivalents in (A9) no inventive contribution can be seen in choosing the one or the other alternative in combination with a coating device since **per se** from DE-A-3 417 487, mentioned in EP-B1-0 362 174, an applicator roll with close wire windings was well-known to the skilled person. The feature "close wire windings in spiral form" derived from granted claims 2 and 4 has therefore to be seen as an obvious feature in the context of a coating device with a coating and a backing roll and cannot render the claimed coating device of claim 1 non-obvious.
- 4.7 **All** advantageous effects achieved by the application of close wire windings in spiral form, see appellant's letter of 9 June 1997, page 3, are known to a skilled person considering (A9) so that there is no surprising effect linked to this structural feature.
- 4.8 Summarizing the above considerations claim 1 does not meet the requirements of Article 56 EPC and consequently is not valid. Under these circumstances the impugned decision cannot be set aside.
5. The respondent, see statement of opposition of 3 January 1994 (Telefax), page "3/4", has maintained throughout the opposition proceedings the obviousness of granted claims 2 and 4, citing **inter alia** (A2) and a

Swedish patent, and has cited (A9) in this context in the appeal proceedings so that the appellant cannot argue that he was taken by surprise in combination with the board's assessment of the feature "close wire windings in form of a spiral".

**Order**

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

The appeal is dismissed.

The Registrar:



N. Maslin

The Chairman:



C. T. Wilson