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D E C I S I O N
of 26 October 1999

Case Number: T 1116/97 - 3.2.4

Application Number: 92202361.9

Publication Number: 0526944

IPC: B65B 9/06

Language of the proceedings: EN

Title of invention:

Apparatus for applying adhesive onto a web of packaging material

Patentee:

SITMA S.p.A.

Opponent:

Buhrs Zaandam B.V.

Headword:

Packing/SITMA

Relevant legal provisions:

EPC Art. 54, 56, 100(c), 102(1), 111(1), 123

Keyword:

"Prior art according to Article 54(3) EPC (date of filing)"
"Remittal to the first instance"

Decisions cited:

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Catchword:

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Boards of Appeal

Chambres de recours

Case Number: T 1116/97 - 3.2.4

D E C I S I O N
of the Technical Board of Appeal 3.2.4
of 26 October 1999

Appellant: SITMA S.p.A.
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Respondent: Buhrs Zaandam B.V.
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Representative: Smulders, Theodorus A.H.J., Ir.
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 12 September 1997
revoking European patent No. 0 526 944 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: M. G. Hatherly
Members: P. Petti
R. E. Teschemacher

Summary of Facts and Submissions

- I. An opposition was filed against the European patent No. 526 944 which resulted from European patent application No. 92 202 361.9 filed on 30 July 1992 and claiming the priority date of 5 August 1991 from the Italian patent application MI91A/02204. The opposition was based on Articles 100(b) and (c) EPC.
- II. The opposition division's decision dispatched on 12 September 1997 revoked the patent, finding that:
- (i) document EP-A-480 882 (D4) was a European patent application falling under Article 54(3) EPC and that the subject-matter of Claim 1 as granted lacked novelty when compared with the content of D4 (for those Contracting States designated in both D4 and the patent in suit);
 - (ii) the subject-matter of Claim 1 as granted did not involve an inventive step over *inter alia* document D7 (EP-A-18 041) which was considered as disclosing the closest prior art;
 - (iii) the opponent's objections based on Article 100(c) EPC, that Claim 1 as granted no longer specified some features which were contained in Claim 1 of the application as originally filed, were not justified; and
 - (iv) in section 6 on page 7 of its decision, concerning an argument of lack of novelty of the subject-matter of Claim 1 as granted based on evidence (see section B.1.3 of the notice of

opposition) relating to the various discussions which allegedly took place before the priority date between the opponent (Buhrs Zaandam B.V.) and several third parties, that this evidence had not been substantiated in a sufficiently clear and reliable manner and therefore had not been taken into consideration for the decision.

III. On 11 November 1997 the appellant (proprietor) lodged an appeal against this decision and simultaneously paid the appeal fee. A statement setting out the grounds of appeal was received on 9 January 1998 with a main request based on Claim 1 as granted. With his letter of 24 September 1999 the appellant submitted Annexes A to D comprising amended independent claims and forming the basis for four auxiliary requests.

IV. Oral proceedings were held on 26 October 1999.

During these oral proceedings, objections were made to Claim 1 as granted with regard to Article 100(c) EPC. In order to overcome these objections, the appellant withdrew all the requests then on file and submitted a new main request and three new auxiliary requests.

The respondent (opponent) argued during the written phase of the appeal proceedings that the content of the discussions referred in the above section II(iv) was prejudicial to the novelty of the claimed subject-matter. During the oral proceedings the board observed that the opposition division had not taken this evidence into consideration for the decision and so the board envisaged remitting the case to the opposition division for further prosecution if this evidence were

to be considered as relevant for the decision.

- V. The appellant argued that the subject-matter of Claim 1 according to the main request involved an inventive step over the prior art known from document D7.

The respondent contested the appellant's arguments, referring not only to document D7 as the primary source of technical information but also to the following documents as secondary sources of technical information:

- D2: *"Klebstoff-Auftragsanlagen für das Jahr 2000"*, in *"Neue Verpackung"*, 4/83
- D5: *"Series 6000 Applicators. A new standard in high volume hot melt adhesive systems"*, Brochure of the firm NORDSON, No. 306-18-687, May 1990 (4 sheets)
- D6: *"A new concept in hot melt systems provides unmatched application flexibility/Nordson Series 3500 Applicators"*, Brochure of the firm NORDSON, No. 306-18-869, August 1989 (2 sheets)
- D'18: *"Packaging covenant"*, English translation of some passages of the agreement between the Kingdom of the Netherlands and the Dutch Association *"Verpakking en Milieu"* (Packaging and Environment) signed on 6 June 1991 (document D18)

The respondent also argued that the subject-matter of Claim 1 according to the main request lacked novelty

having regard to the packaging machine disclosed in document D4. However the board questioned whether those technical elements of the packaging machine disclosed in document D4 which were relevant for the subject-matter of Claim 1 of the main request were entitled to the priority date of 10 October 1990 claimed by D4.

VI. The appellant requested that the decision under appeal be set aside and that the patent be maintained on the basis of amended Claims 1 to 8 (main request) as filed during the oral proceedings on 26 October 1999. Auxiliarily, the appellant requested that the patent be maintained on the basis of either Claims 1 to 7 (first auxiliary request) or Claims 1 to 5 (second auxiliary request) or Claims 1 to 8 (third auxiliary request), all filed during the oral proceedings on 26 October 1990.

Claim 1 of the main request of the appellant reads as follows:

"1. An apparatus for applying a pattern of adhesive (25,30,41) onto the sealing areas of a continuous web (17) of packaging material in a packaging machine for editorial graphic products (13), the apparatus comprising a frame (11), a first conveyor (16) mounted on said frame for conveying said continuous paper web (17), an unwinding unit (19) for unwinding said web from a roll (18), and with the front end of which there are associated, externally, a second conveyor (14) for feeding products (13) one after one onto said web, and, internally, means for folding said web (17) into a tubular configuration with overlapping

longitudinal edges (20), an element (21) for transversely cutting individual sealed packages, a first adhesive application element (22,40) in the region between said roll (18) and said folding means for dispensing adhesive material in a direction transverse to said web (17) to provide the transverse seals of the package, said first element (22,40) being operated by sensor means (32) which senses the arrival of each product (13) fed by said second conveyor (14), at said front end there is also provided a second adhesive application element (34) for dispensing adhesive material onto the surface of at least one of said longitudinal edges (20) of said paper web (17) prior to being overlapped with the other longitudinal edge to provide the longitudinal seal of the package wherein sensor means (35) for controlling the unwinding of the web of packaging material and for timing the dispensing of adhesive material are associated with said second dispensing element (34) and wherein the element (21) for transversely cutting individual sealed packages is provided downstream of where the transversal seals and longitudinal seal are formed."

VII. The respondent requested that the appeal be dismissed.

The respondent also requested to be allowed to put forward new inventive step arguments based on the document US-A-3 593 485 that is referred to in the description of the patent in suit as disclosing an apparatus according to the preamble of Claim 1 as granted.

Reasons for the Decision

1. The appeal is admissible.
2. *The amendments concerning Claim 1 according to the main request*
 - 2.1 Claim 1 of the main request differs from Claim 1 as granted in that
 - (i) the wording "in a packaging machine for editorial graphic products (13)" has been added after the term "packaging material" (see the patent as granted, column 4, line 12);
 - (ii) the term "roll" has replaced the term "supply" (see the patent as granted, column 4, line 16);
 - (iii) the wording "and with the front end of which there are associated, externally" has been added after the words "from a supply (18)" (see the patent as granted, column 4, line 16);
 - (iv) the wording "and internally" has been added before the words "means for folding said web (17)" (see the patent as granted, column 4, line 18);
 - (v) the wording "in the region between said roll (18) and said folding means" has been added after the words "a first adhesive element (22, 40)" (see the patent as granted, column 4, lines 21 and

22);

- (vi) the wording "at said front end there is also provided" has been added before the words "a second adhesive element (22, 40)" (see the patent as granted, column 4, lines 27 and 28); and
- (vii) the feature that "the element (21) for transversely cutting individual sealed packages is provided downstream of where the transversal seals and longitudinal seal are formed" has been added after the wording "with said second dispensing element (34)" (see the patent as granted, column 3, line 36).

2.2 The respondent raised no objections under Articles 123(2) and (3) EPC to these amendments.

All the above amendments have a basis in Claims 1 and 2 of the application as originally filed and result in a further limitation of the claimed subject-matter. Therefore, the amendments do not contravene Articles 123(2) and (3) EPC.

2.3 As far as the amendments according to items (iii) and (vi) above are concerned, it has to be noted that the term "front end" refers to the front end of the first conveyor.

It is noted that the wording "the region between said roll (18) and said folding means" defines a region located downstream of the roll and upstream of where the folding of the longitudinal edges of web begins. This interpretation, which was agreed to by the

appellant during the oral proceedings on 26 October 1999, is consistent with the drawings of the patent as granted (see in particular Figure 2) which show a first adhesive dispensing element (22) arranged under the front end of the first conveyor.

3. *The objection of lack of novelty based upon document D4 (relating to Claim 1 of the main request)*

3.1 The opposition division found in section 3 on pages 4 and 5 of the decision under appeal that the subject-matter of Claim 1 as granted lacked novelty having regard to the content of document D4.

3.1.1 During the oral proceedings on 26 October 1999 the respondent maintained this objection with respect to the subject-matter of Claim 1 of the main request.

In these respects, reference was made to certain technical elements of the packaging machine disclosed in document D4, in particular to the fact that this packaging machine is described as being provided *inter alia* with a first adhesive application element (5) for forming the transverse seals, a second adhesive application element (7) for forming the longitudinal seal and a cutting element (11) for transversely cutting individual sealed packages arranged downstream of where the transverse seals and longitudinal seal are formed. According to the respondent, the packaging machine disclosed in document D4 - in view of these particular technical elements - deprived the subject-matter of Claim 1 of the main request of novelty.

3.2 Document D4 is a European patent application filed on

18 September 1991 and claiming a priority date of 10 October 1990 from the Italian patent application IT-48348-A/90. Thus its date of filing was prior to the date of filing of 30 July 1992 of the European patent application from which the patent in suit resulted.

As far as the relationship of this document D4 to the claimed subject-matter is concerned, the following has to be considered:

- (i) According to Article 54(3) EPC the content of a European patent application has to be considered as comprised in the state of art when assessing the novelty of the subject-matter claimed in the patent in suit, provided that the date of filing of this European patent application is prior to the date of filing of the patent in suit. In this respect, the priority date of document D4 shall count as the date of filing for the purposes of Article 54(3) EPC (Article 89 EPC), provided that the elements in document D4 which are relevant for Claim 1 of the main request are also included in the Italian patent application IT-48348-A/90 forming the basis for the document D4's claim to priority.
- (ii) The subject-matter of Claim 1 of the main request has a basis not only in the European patent application No. 92 202 361.9 as filed but also in the Italian patent application MI91A/02204 whose priority is claimed by the patent in suit. Therefore, Claim 1 of the main request is entitled to the priority date of 5 August 1991.

(iii) Since document D4 claims the priority date of 10 October 1990 but was filed on 18 September 1991, i.e. later than the priority date of 5 August 1991 claimed in the patent in suit, it has to be determined whether the technical elements referred in section 3.1.1 above are entitled to the priority date of 10 October 1990.

3.3 The Italian patent application IT-48348-A/90 filed on 10 October 1990, the priority of which is claimed in document D4, discloses a packaging machine provided with an adhesive application element (7) for forming the longitudinal seal and a cutting element (11) for cutting the packaging web before the longitudinal seal is formed. This Italian patent application does not disclose the technical elements referred to in section 3.1.1 above. Therefore, the priority date of 10 October 1990 is not justified for these elements and these elements were not part of the state of art according to Article 54(3) EPC.

3.4 The respondent did not contest the observations in sections 3.2 and 3.3 above but only argued that the burden of proof for establishing that document D4 was not entitled to the claimed priority date was upon the appellant. Since neither the appellant nor the opposition division had raised this issue in the opposition or appeal proceedings, it had to be assumed that document D4 was entitled to its claimed priority date.

The board cannot accept this argument for the following reasons:

In order to establish lack of novelty of subject-matter claimed in an opposed patent, the burden of proof is upon the opponent who has to provide evidence. Since lack of novelty is a ground for opposition referred to in Article 100 EPC, then according to Article 102(1) EPC the patent has to be revoked if the evidence submitted by the opponent deprives the claimed subject-matter of novelty, provided that this evidence concerns the state of the art, i.e. either everything made available to the public before the date of filing of the opposed patent (Article 54(2) EPC) or a European patent application whose date of filing is prior to the date of filing of the opposed patent (Article 54(3) EPC). In both cases the instances of the EPO, i.e. the opposition divisions or the boards of appeal have the power to examine whether the evidence concerns **the state of the art**, i.e. to examine for instance either whether a document cited in respect of Article 54(2) EPC was published before the date of filing of the patent in suit or whether the date of filing of a European patent application cited in respect of Article 54(3) EPC is prior to the date of filing of the patent in suit. The power to examine these issues results not only from Article 102 EPC, insofar as each of the above mentioned instances of the EPO may revoke a patent only if it is of the opinion that the grounds for opposition mentioned in Article 100 EPC prejudice the maintenance of the patent in suit, but also from Article 114(1) EPC concerning each instance of the EPO examining the facts of its own motion.

4. *The objection of lack of inventive step based upon document D7 (referring to Claim 1 according to the main request)*

- 4.1 The opposition division in the decision under appeal held that the subject-matter of Claim 1 as granted lacked inventive step having regard *inter alia* to document D7 which was considered as the closest prior art (i.e. the primary source of information) according to Article 54(2) EPC.

During the oral proceedings on 26 October 1999 the respondent maintained this objection with respect to Claim 1 according to the main request of the appellant and referred to document D7 as a primary source of information and to documents D'18, D2, D6 and D5 as secondary sources of information.

- 4.2 Document D7 (see particularly Figures 1 and 2) discloses an apparatus for sealing a continuous web of plastic material (3) in a packaging machine for editorial products (1), the apparatus comprising a frame, a first conveyor (37) mounted on said frame for conveying said continuous web of plastic material, and an unwinding unit for unwinding said web from a roll, wherein with the front end of said first conveyor there are associated, externally, a second conveyor (24) for feeding products one after one onto said web and, internally, means for folding said web into a tubular configuration with overlapping longitudinal edges. This apparatus also comprises an element (4, 5) for transversely sealing and cutting the folded web, this element providing the transverse seals of the package. Furthermore, this apparatus comprises a first sensor means (41 to 43) which senses the arrival of each product and a second sensor means for detecting the run of transparent windows provided on the web of plastic material, this second sensor means being also suitable

for controlling the unwinding of the web from the roll.

The drawings (Figures 1 and 2) of document D7 clearly show the element (4, 5) for transversely sealing and cutting the web but do not show any element for providing the longitudinal seal of the package. The passage in column 3, line 4 to 15 of document D7 (see particularly the wording "... whereafter is welded and, in addition, subjected to a double welded seam ... and to a cut therebetween ...") does not make it clear whether a longitudinal seal is formed.

4.2.1 The subject-matter of Claim 1 of the main request differs from this prior art apparatus at least in that (see particularly the parts in bold characters)

(a) the apparatus is suitable **for applying a pattern of adhesive** onto the sealing areas of a continuous **paper** web;

(b) the apparatus comprises **a first adhesive application element for dispensing adhesive material in a direction transverse to the web,**

(b1) this first adhesive application element is provided **in the region between the roll and the folding means;**

(c) the apparatus comprises **a second adhesive application element for dispensing adhesive material in a longitudinal direction,**

(c1) this second adhesive application element is

provided **at the front end of the first conveyor** for dispensing adhesive material **onto the surfaces of at least one of the longitudinal edges of the paper web prior to being overlapped with the other longitudinal edge to provide the longitudinal seal of the package;**

- (d) the sensor means for controlling the unwinding of the web are also **suitable for timing the dispensing of adhesive material** and are **associated with the second dispensing element;**
- (e) the element for transversely cutting individual sealed packages is provided **downstream of where the transverse seals and longitudinal seal are formed.**

4.2.2 Feature (a) above results in a machine for packaging editorial graphic products using quickly degradable packaging material.

Features (b) and (c) result in transverse seals and a longitudinal seal for the package using paper as packaging material.

Feature (b1) results in an adhesive applicator which is structurally simple and reduces the dripping of adhesive from the web.

4.2.3 The problem to be solved can be seen as being to provide an apparatus able to suitably seal paper around an editorial graphic product and to work in a reliable and efficient manner.

4.3 Having regard to the observations in section 4.1 above, it has to be determined whether the skilled person, starting from the prior art according to document D7, would arrive in an obvious way to the claimed solution taking the content of documents D'18, D2, D6 and D5 into account.

4.3.1 The respondent essentially argued on inventive step as follows:

The problem of reducing packaging waste was posed by the market insofar as there was a demand for packages having a reduced environmental impact and for packaging machines for producing these packages. In this context, the respondent asserted that document D'18 suggested the use of recycling packaging in order to reduce packaging waste to be dumped and delivered to the ecosystem and argued that the skilled person reading document D'18 would immediately realise that the use of paper was envisaged.

Therefore, it would be obvious to use a paper web and, since it is common general knowledge that paper cannot be sealed by heat but can be sealed with adhesive material, adhesive material would be used for forming the seals.

Adhesive applicators for dispensing adhesive material were well known, e.g. from document D2.

Document D6 refers to adhesive applicators having a "key-to-line" capability and, when read in combination with document D5 which defines the meaning of the expression "key-to-line", teaches that adhesive

applicators are controlled so as to dispense material "at an instantaneous output keyed to the parent machine's line speed" (see document D5, 3rd sheet, left-hand column).

Therefore, it would be obvious for the skilled person to use adhesive applicators in the apparatus according to document D7 in order to form the transverse seals and the longitudinal seal and to link the dispensing of adhesive material with the line speed of the apparatus, i.e. with the sensor controlling the unwinding of the web. When doing this, the skilled person would have no other possibility than to arrange the first adhesive applicator in the region between the roll and the folding means, the second applicator at the front end of the first conveyor, and the cutting element downstream of where all the seals are formed.

4.3.2 The board cannot accept this argumentation for the following reasons:

- (i) The solution according to Claim 1 of the main request is based on the idea of using a paper web in a packaging machine which was developed for using a thermoplastic film as packaging material.

It is pointed out that document D'18 does not suggest this idea, it does not refer to paper as a packaging material but only indicates the general aim of reducing packaging waste to be delivered to the environment and the particular aim of avoiding the use of PVC packaging. In any case, even if document D'18 were to give the skilled person the idea of using paper as

packaging material, it would not give him any hint of using a paper web in the packaging machine according to document D7.

- (ii) None of the documents cited in the appeal proceedings indicates how, i.e. where, the adhesive applicators have to be arranged. It is clear that the adhesive applicator for dispensing adhesive material in a direction transverse to the web can be arranged elsewhere than in the region between the roll and the folding means, e.g. at the same place as the folding means.

- (iii) It is also clear that the element for transversely cutting can be provided elsewhere than downstream of where the transverse seals and longitudinal seal are formed, e.g. downstream of the adhesive applicator for the longitudinal seal but upstream of the applicator for the transverse seals as described in the Italian patent application IT-48348-A/90 (see section 3.3 above).

4.3.3 The claimed solution according to the main request is the result of a series of steps made one after the other in the same direction. The skilled person starting from the prior art known from document D7 has firstly to arrive at the idea that the thermoplastic film employed in the packaging machine according to this document can be exchanged for a paper web, then he has to adapt this known machine to process the paper web. Since the known machine is unsuitable for wrapping the products with paper, this implies a series of modifications, such as the replacement of the welding

devices sealing the thermoplastic film with other devices suitable for sealing a paper web.

It has to be noted that in the machine according to document D7 the application of heat for forming the transverse seals and the cutting of the plastic web occur at the same location, while according to the claimed solution there are different locations for the application of the adhesive material and the cutting of the paper web. This implies that the skilled person also has to arrive at the idea of having different locations for the cutting element and the applicator dispensing the adhesive material for the transverse seals. Only if the skilled person did realise this could he arrange the adhesive applicator in the region between the roll of paper web and the folding means (see feature (b1)) in the above section 4.2.1). However, the skilled person would not find in the prior art either a suggestion to this feature or an indication of the advantages obtained on account of this feature (see section 4.2.1 above). Moreover, as already mentioned in section 4.3.2 (ii) above, the skilled person is not in a one-way-street situation leading him compulsorily to this solution.

- 4.4 Having regard to the above comments, the board finds that the skilled person would not arrive in an obvious way at the solution set out in Claim 1 of the main request on the basis of the above mentioned documents.

5. Having regard to the findings in sections 3 and 4 above and since the reasons for the revocation of the patent were lack of novelty in view of document D4 and lack of inventive step in view of document D7, the decision under appeal is to be set aside.

6. The opposition division did not take into consideration for its decision the evidence relating to the discussions referred to in the above section II(iv) and, in the decision under appeal, stated that this evidence was not substantiated in a sufficiently clear and reliable manner.

6.1 The respondent requested on page 9 of his letter of 15 July 1998 this evidence and the related arguments be considered by the board pursuant to Article 114(1) EPC and stated that "all the witnesses are prepared to confirm their statements during a hearing under oath."

This evidence comprises *inter alia* written declarations alleging that the idea of using paper instead of a thermoplastic foil in a packaging machine for editorial products comparable with the packaging machine according to document D7 was known before the date of priority of the patent in suit. The board considers that this evidence is *prima facie* more relevant than the prior art according to document D7.

6.2 It is noted that this evidence as well as the arguments relating to it were submitted with the notice of opposition and that the decision under appeal does not explain **why** the arguments relating to this evidence were not "substantiated in a sufficiently clear and reliable manner".

6.3 In the present case, in order to avoid depriving the parties of the opportunity of having this issue considered at two instances, the board - in the exercise of its discretion according to Article 111(1) EPC - is remitting the case to the first instance for further prosecution.

7. The respondent's request to put forward new arguments relating to inventive step based upon the document US-A-3 593 485 was made only during the oral proceedings on 26 October 1999.

Since the case is being remitted to the first instance, the board considers it expedient for these new arguments to be put to and considered by the first instance. This will enable the respondent to formulate his arguments in writing and give the appellant sufficient time to consider them and respond also in writing.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the first instance for further prosecution.

The Registrar:

The Chairman:

G. Magouliotis

M. Hatherly