

Publication in the Official Journal ~~Yes~~ / No

File Number: T 755/89 - 3.2.4

Application No.: 83 102 269.4

Publication No.: 0 088 431

Title of invention: Process and means to optimize utilisation of drums of raising machines and the like

Classification: D06C 11/00

D E C I S I O N  
of 19 July 1991

Applicant: COSTRUZIONI MECCANICHE MICHELE LAMPERTI S.P.A.

Opponent: Gebrüder Sucker + Franz Müller GmbH & CO

Headword:

EPC Articles 56, 123(2) and (3)

Keyword: Inventive step (yes): recognition of a deficiency in devices of the state of the art and proposal of a solution

Headnote



Case Number : T 755/89 - 3.2.4

**D E C I S I O N**  
of the Technical Board of Appeal - 3.2.4  
of 19 July 1991

**Appellant :**  
(Proprietor of the patent) **COSTRUZIONI MECCANICHE MICHELE LAMPERTI S.P.A.**  
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**Representative :**  
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**Respondent :**  
(Opponent) **Gebrüder Sucker + Franz Müller GmbH & CO**  
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**Decision under appeal :** Decision of Opposition Division of the European Patent Office dispatched on 12 October 1989 revoking European patent No. 0 088 431 pursuant to Article 102(1) EPC.

**Composition of the Board :**

**Chairman :** C.A.J. Andries  
**Members :** M.H.M. Liscourt  
J.C.M. De Preter

## Summary of Facts and Submissions

- I. European patent No. 0 088 431 in respect of European patent application No. 83 102 269.4, which was filed on 8 March 1983, was granted on 25 November 1987 (cf. Bulletin 87/48) on the basis of two claims.
- II. A notice of opposition was filed in which the revocation of the patent was requested on the grounds that its subject-matter was not patentable within the terms of at least one of Articles 52 to 57 EPC. The opposition was supported by the following documents:
- (D1) DE-C-91 375
  - (D2) DE-C-116 706
  - (D3) DE-C-385 719
  - (D4) DE-B-1 137 713.
- III. By a decision dispatched on 12 October 1989 the Opposition Division revoked the European patent. The Opposition Division held that the subject-matter of the device of Claim 1 lacked novelty in the light of the disclosure in each of the documents D1 to D3.
- IV. An appeal was lodged against this decision on 30 November 1989, payment of the prescribed fee had occurred previously on 25 November 1989. The Statement of Grounds of Appeal was filed on 30 January 1990.
- V. The following document was filed by the Respondent during the proceedings:
- (D6) W. BERNARD "Appretur der Textilien" 2nd edition, 1967, SPRINGER - Verlag, Berlin; pages 142 to 161.

VI. During oral proceedings, held on 19 July 1991, the Appellant filed the following documents:

- Claims 1 and 2
- Description: pages 1 to 4.

The sole independent Claim 1 now reads as follows:

"Raising machine, of the type comprising a raising roller carrier drum (1), an intake roller (4) for the input of a piece of fabric (2) to be raised against the drum (1) and a takeoff roller (5) for the output of the piece (2) out of the drum (1), characterised by the fact of comprising at least two pairs of intake and takeoff rollers (4,5';4',5), in which the intake and takeoff rollers (4',5') of each pair are placed so that the planes passing through the drum axis and the respective intake and takeoff roller axes of each pair define an angle, so that the arc of the piece of fabric extending between the intake roller and the takeoff roller is pressed against the drum (1) with a pressure sufficient for the raising, and by the fact that the feeding speed of each intake and takeoff roller (4,4',5,5') of each roller pair is independently adjustable."

VII. At the end of the oral proceedings, the following requests were put forward.

For the Appellant:

That the decision of the Opposition Division be set aside.

That the patent be maintained on the basis of the following documents:

Claims 1 and 2 as well as pages 1 to 4 of the description as filed during the oral proceedings.

Drawings: sheets 1 to 3 as granted.

For the Respondent:

That the appeal be dismissed.

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**Reasons for the decision**

1. The appeal is admissible.
2. Amendments
  - 2.1 The differing features, between the raising machine according to present Claim 1, and the means according to Claim 2 as originally filed, all have a basis in the application as originally filed, so that no objections according to Article 123(2) EPC can be raised in this respect.

The Respondent only emphasised, that the feature defining the feeding speed of each intake and take off roller of each roller pair being independently adjustable, was not disclosed in the application as originally filed. This feature however is disclosed in that application on page 6, last line to page 7, line 2 (speed adjusted for each roller, adjusting the speed of rollers); Claim 5; page 3, lines 21 to 23 (driving at variable speed the additional rollers); page 8, last three lines to the end of page 9; and Figures 3 and 4.

2.2 Claim 2, corresponding to granted Claim 2, is supported by the machine shown in Figure 1 as originally filed.

2.3 The amendments in the description result from the amendments in Claim 1 and the correction of obvious errors.

2.4 Summarising, the Board is of the opinion that there are no objections under Article 123(2) EPC to the amended claims and description.

3. Claim 1 differs from granted Claim 1 as follows:

The words "of each pair" as well as the last passage of Claim 1, starting from "and by the fact ..." down to the end of the claim have been added.

As no feature has been deleted from the granted Claim 1 and as all the features which have been introduced are restrictive, the scope of Claim 1 has not been extended with respect to the granted Claim 1 and the conditions of Article 123(3) EPC have therefore not been contravened.

4. As regards novelty, none of the documents cited before and during the appeal proceedings discloses a raising machine wherein there are at least two pairs of intake and takeoff rollers, the speed of the rollers of each pair being independently adjustable. The machine which is the subject-matter of Claim 1 is therefore novel in the meaning of Article 54 EPC.

5. As regards inventive step, the following is observed:

5.1 In the machines according to the state of the art (eg. document D4), it has always been considered that the efficiency of such machines was proportional to the speed

of the drum, to the relative speed of the fabric towards the speed of the drum, and to the length of the contacting zone where the fabric is submitted to the raising effect of the drum and to the pressure urging the fabric on the drum.

5.2 The merit of the invention is that in trying to optimise the efficiency of such raising machines, it was found that because of the different parameters to which the fabric is submitted while being treated, said efficiency, instead of being directly proportional to the wrapping of the fabric around the drum, is only proportional for a certain angle and ceases to increase when said wrapping angle goes beyond a certain value, so that in most cases a part of the circumference of the drum is not useful although the fabric contacts said zone.

5.3 A further merit of the invention is to have found the solution consisting in disposing at least a further pair of intake and takeoff rollers so that the part of the drum which was not efficiently used in the machines according to the state of the art is also used without any substantial loss of efficiency for the assembly consisting in the first pair of intake and takeoff rollers cooperating with the drum as shown by the diagrams on Figures 5 and 6 of the impugned patent.

5.4 Each of documents D1 to D3 and D6 discloses a machine wherein only the same surface of a fabric is brought into contact several times with different parts of the circumferential surface of the same drum, without release of the fabric tensile force in the parts where there is no contact with the drum's surface. The different rolls, which are located near the drum (D1: Abstellwalzen a; D2: Leitwalzen 0; D6: page 149 - Führungswalzen) and which can be adjustable, only support the fabric. With such a

configuration it is possible to influence the raising effect (D6: page 149, first paragraph - "Rauheffekt beeinflussen"; page 155, first paragraph - "Intensivierung der Rauhung").

A person skilled in the art therefore is taught by these documents, that the raising effect can be modified by using different rollers located in such a manner that the fabric, which in document D4 is in contact with the drum nearly around the whole circumferential surface, is taken off and brought back into contact with that surface several times, whereby the same surface of that fabric is the only fabric-surface which is in contact with the drum. No indication is given of the fact that only part of the circumferential surface of the drum is already sufficient to obtain the same result, so that the rest of that surface can be used for a second raising operation of the same side of the fabric, for other fabrics or for the other side of the first fabric.

No hint can therefore be found in the state of the art towards the solution and the result obtained, i.e. an improved efficiency, which has not been challenged by but on the contrary recognised by the Respondent, was not foreseeable for the skilled person. The machine according to Claim 1, therefore, involves an inventive step within the meaning of Article 56 EPC.

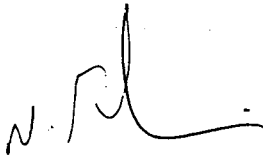
6. Hence, the patent can be maintained with Claim 1 as amended, together with dependent Claim 2, the modified description and the granted drawings.

**Order**

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

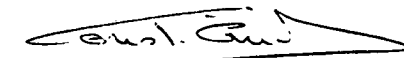
1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order, to maintain the patent with the documents as requested by the Appellant during the oral proceedings (cf. above section VII).

The Registrar:

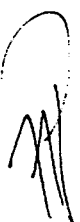


N. Maslin

The Chairman:



C. Andries



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