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T 223/86 - 3.2.1

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Bezeichnung der Erfindung:Carrying gripper for looms Title of invention:

Titre de l'invention :

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17

ENTSCHEIDUNG / DECISION vom/of/dul2 April 1988

Anmelder / Applicant / Demandeur:

VAMATEX S.p.A.

Patentinhaber / Proprietor of the patent /

Titulaire du brevet :

Einsprechender / Opponent / Opposant:

Stichwort / Headword / Référence : Loom inserting-gripper/Vamatex

EPO/EPC/CBE Article 56 EPC

Kennwort/Keyword/Motclé: "Inventive step - Problem and solution"

Leitsatz / Headnote / Sommaire

Europäisches Patentamt

Beschwerdekammern

**European Patent** Office

**Boards of Appeal** 

Office européen des brevets Chambres de recours

Case Number: T 223/86 - 3.2.1



DECISION of the Technical Board of Appeal 3.2.1 of 12 April 1988

Appellant:

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Representative :

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Decision under appeal:

Decision of Examining Division 122 of the European Patent Office dated 7 March 1986 refusing European patent application No. 82 103 945.0 pursuant to Article 97(1) EPC

Composition of the Board:

P.E.M. Delbecque C.T. Wilson O.P. Bossung Chairman:

Members :

# Summary of Facts and Submissions

- I. European patent application No. 82 103 945.0, filed on 6 May 1982 and published under No. 65 233, was refused by decision of the Examining Division dated 7 March 1986. The decision was based on the Claim 1, filed at the interview of 19 June 1985 with the clarifying amendments agreed upon at that interview, on Claim 2, filed 7 September 1984, and the original description and figures.
- II. The reason given for the refusal was lack of inventive step in view of the GB-A-2 018 307, which describes a weft-inserting gripper according to the preamble of Claim 1 and of the DE-A-2 757 754 describing a weft-receiving gripper with a retention element having an axis arranged longitudinally of the gripper body.
- III. On 3 May 1986, the appellant lodged an appeal against this decision and paid the appeal fee on the same day. The statement of grounds was received on 9 July 1986.

The appellant requested reconsideration of the decision to refuse the application on the basis of the documents mentioned under I.

Although acknowledging that the designer of the weft receiving grippers and of the weft inserting grippers is the same person, the appellant puts the accent on the functional difference between those two grippers which made it non-obvious to transpose features from one to the other.

. . . / . . .

He further emphasised the importance of the form of the engaging surfaces in the construction according to the application on the one hand and into the construction according to the DE-A-2 757 754 on the other hand.

IV. In response to a communication from the Board, the appellant filed on 1 December 1987 a new description (pages 1 to 5) and new Claims 1 and 2. On 5 April 1988, the appellant filed his approval of amendments to this new description and to Claim 1, proposed in a further communication from the Board dated 12 February 1988.

#### Claim 1 reads as follows:

"A weft inserting gripper for shuttleless looms, of the type consisting of an elongated base member (1) with its front end (3) profiled, having a retention element constituted by a metal pointed head (7) pivoted on the base member about an axis (8), said metal pointed head (7) being arranged to engage with a flat surface of a flat seat (6) of said base member (1) in order to clamp the weft yarn (f) against it under the action of a spring (11), characterised in that the pivotal axis (8) is arranged parallel to said member (1) and disposed longitudinally thereto, said spring (11) acting through an arm disposed on the side of said axis (8) opposite to the pointed head (7) and on the same side of the axis (8) from which the weft yarn (f) is supplied, said head (7) extending downwardly and laterally outwardly to the side opposite the weft yarn supply."

#### Reasons for the Decision

1. The appeal is admissible.

2. In the Board's view, no objection may be raised to the preamble of Claim 1 as these features are, in combination, part of the most pertinent state of the art such as described in GB-A-2 018 307.

In GB-A-2 018 307 is indeed described a weft inserting gripper for shuttleless looms of the type consisting of an elongated base member with its front end profiled, having a retention element constituted by a metal pointed head pivoted on the base member about an axis, said metal pointed head being arranged to engage with a flat seat of said base member in order to clamp the weft yarn against it under the action of a spring.

Rule 29(1)(a) EPC is, therefore, complied with.

- 3. The features stated in the characterising part of Claim 1 differ from the closest prior art referred to above. The subject-matter of Claim 1 is, therefore, to be considered as novel in the light of the known prior art.
- 4. It remains to be examined whether the subject-matter of Claim 1 involves an inventive step, in view, especially, of the document DE-A-2 757 754, in combination with what is known from GB-A-2 018 307.
- retention of the yarn. Two sliding movements of the yarn between the retention element and the flat seat are possible, firstly in the direction of its feeding to the fabric (should the cutting be delayed too long), secondly, in the opposite direction (as a result of inertial or accidental stresses in the yarn). This last situation might result in the yarn sliding completely away from the gripper, which is clearly to be avoided.

- 4.2 The problem is solved according to the present invention by arranging the weft yarn retention element in such a way as to facilitate sliding of the yarn in the direction of its feeding to the fabric, while making it instead more difficult for the yarn to slide in the opposite direction. This is achieved according to the characterising part of Claim 1 by arranging the pivotal axis of the retention element parallel to the elongated base member and longitudinally thereto, the spring acting through an arm disposed on the side of said pivotal axis opposite to the pointed head and on the same side of that axis from which the weft yarn is supplied, said head extending downwardly and laterally outwardly to the side opposite the weft yarn supply.
- A.3 DE-A-2 757 754 deals with a weft-receiving gripper for shuttleless looms of the type consisting of an elongated base member having a retention element constituted by a rectangular metal bar (5), (page 6, line 14) having a profiled end (6), (page 2, line 15). The profiled end of the bar has a cylindrical prolongation, pivotally supported in bearings inside the hooked end of the fixed base member. The rectangular retention member has at its other extremity a pivotally supported tail. Under the action of a spring, the elongated retention member pivots so that in a normal situation the profiled end contacts the hook in order to clamp the yarn between the hook and the retention member.

It is to be remarked that the gripper according to DE-A- 2 757 754 is described and claimed as a receiving gripper, whereas the gripper of the present application is described and claimed as an inserting gripper.

Whilst the Board, together with the appellant, can agree with the Examining Division that the designer of the weft receiving gripper is the same person as the designer of the weft inserting gripper, the Board agrees also with the appellant that the two kinds of grippers have completely different functions. The actual problem posed in the present application would not arise with receiving grippers, since those grippers do not have to deal <u>interalia</u> with the situation of possible sliding of the yarn in two opposite directions. There is no reason, therefore, to expect the man skilled in the art to take into consideration the known structures of the receiving grippers when searching for a solution to the present problem.

Furthermore, even knowing of the existence of DE-A-2 757 754, there would be no reason to take over the idea of the longitudinally disposed pivotal axis, since there is no indication in this document that this characteristic per se would solve the posed problem.

The Board would refer in this respect to Decision T 39/82 of the Technical Board 3.2.2 (OJ 11/82, page 419) in which it was pointed out that inventive step cannot be denied solely on the grounds that the characterising features of Claim 1 are known in the same specialist field:-

"7.3 From the foregoing considerations of what suggestions for the teaching of the characterising portion of Claim 1 were to be gleaned from the prior art, especially from German patent specification 915 657, it is evident that, contrary to the view taken in the contested decision, inventive step cannot be denied solely on the grounds that the measure forming this teaching was known before the priority date through a publication in the same special

field as the subject-matter of the application. To arrive at a proper assessment of inventive step, it was also necessary to examine whether the prior art gave the skilled person an indication for applying this measure in the present case. Such an indication does not have to be given expressis verbis. It can reside in the fact that the purpose of the known measure in the known case is the same as in the case to be decided. It therefore had to be investigated what problems are solved in the known case and in the case in suit. Since this investigation revealed that the problems differ fundamentally from one another, that result had to be taken as proof that from the publication describing the measure it was as little obvious to the skilled person as from the remaining state of the art to use this measure in the different context provided for in the application. It was therefore without significance that, as in the opinion of the contested decision, no special difficulties had to be overcome in the use of this measure."

It follows, therefore, that the question whether the shape of the interengaging surfaces of the retention elements in the DE-A document, and the manner in which they cooperate to wedge together, ("Einkeileffekt", "Selbstklemmwirkung"), do in fact correspond to the construction defined in the characterising part of Claim 1 and would in fact allow this gripper to act in the same way the inventive gripper acts, need not be considered since it is irrelevant. Even if it were to correspond exactly, in the absence of any indication that this construction would solve the present problem this disclosure cannot be relied upon to deny inventive step in the present case.

As the construction according to the other known prior art documents dealing with inserting grippers do not point in the direction of the proposal according to the application, those documents, which have not been taken into consideration by the Examining Division, can be left out of consideration here also.

- 5. The Board's view, therefore, is that the subject-matter of Claim 1 would not be obvious from either citation taken singly or together relied on in the decision of the Examining Division. Hence, Article 56 EPC is fulfilled and Claim 1 is allowable having regard to Article 52(1) EPC.
- 6. The dependent Claim 2, having as subject-matter a special embodiment of the invention as claimed in the independent Claim 1, is also allowable since its acceptance is contingent on the allowability of Claim 1.

## Order

## It is decided that:

- 1. The decision of the Examining Division dated 7 March 1986 is set aside.
- 2. The application is remitted to the first instance with the order to grant a European patent on the basis of the following documents:
  - Claim 1 filed on 1 December 1987 with the clarifying amendments proposed in the communication dated 12 February 1988
  - Claim 2 filed on 1 December 1987

- pages 1 to 5 of description as filed on 1 December 1987 with the clarifying amendments proposed in the communication dated 12 February 1988
- original drawings.

The Registrar:

The Chairman:

S. Fabiani

P.E.M. Delbecque