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Datasheet for the decision
of 13 April 2018

Case Number: T 1293/14 - 3.2.05
Application Number: 01906899.8
Publication Number: 1257489
IPC: B65H5/06
Language of the proceedings: EN

Title of invention:
Self aligning transport mechanism for media of variable media widths

Patent Proprietor:
MEI, Inc.

Opponent:
Eder, Christian

Relevant legal provisions:
EPC 1973 Art. 54, 56
EPC Art. 123(2)
RPBA Art. 12(2), 12(4)

Keyword:
Admissibility of main request - yes
Amendments - allowable (yes)
Inventive step - yes
Decision of Technical Board of Appeal 3.2.05 of 13 April 2018

Appellant: MEI, Inc.
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Decision under appeal: Decision of the opposition division of the European Patent Office posted on 8 May 2014 revoking European patent No. 1257489 pursuant to Article 101(2) and 101(3)(b) EPC.

Composition of the Board:
Chairman M. Poock
Members: H. Schram
D. Rogers
Summary of Facts and Submissions

I. The appellant (patent proprietor) lodged an appeal against the decision of the opposition division by which European patent No. 1 257 489 was revoked.

The opposition had been filed against the patent as a whole on the basis of Article 100(a) EPC (lack of novelty, Article 54 EPC, lack of inventive step, Article 56 EPC) and Article 100(c) EPC (inadmissible amendments, Article 123(2) EPC).

The opposition division held that the subject-matter of claims 1 and 6 of the main request (claims as granted) did not extend beyond the content of the application as filed, but that the subject-matter of said claims was not new, Article 54 EPC, see Reasons, points II.2.3 and II.3.3 (see also points 3 and 5 of the minutes). The opposition division was of the opinion that the subject-matters of at least one of the independent claims of each auxiliary requests 1 to 12 filed with letter dated 27 February 2012 did not meet the requirements of Article 84 EPC, see Reasons, point III. 1.3. A further auxiliary request ("request 3a") filed during the oral proceedings before the opposition division was not admitted.

II. Oral proceedings were held before the board of appeal on 13 April 2018.

III. The appellant requested that the decision under appeal be set aside and, as main request, that the patent be maintained upon the basis of auxiliary request 2, filed under cover of a letter dated 3 September 2014, or alternatively upon the basis of one of corrected
auxiliary requests 2a, 3, 4, 4a, 4b or 5, all filed
under cover of a letter dated 9 April 2018.

The respondent (opponent) requested that the appeal be
dismissed.

IV. Claims 1 and 2 of the main request read as follows:

"1. An apparatus comprising:
   a transport mechanism including two substantially
   parallel plates (1, 3) with side walls which constitute
   a passageway (12) through which a media (2) is drawn;
   and
   two rotors (4, 8) having circular surfaces (5, 7)
   shaped to drive a media (2) in an intermittent fashion,
   wherein the rotors (4, 8) are mounted respectively
   on rotating members (16, 17) which are arranged
   perpendicular to the side walls and spaced apart in a
   driving direction (B) of the media,
   wherein the members (16, 17) are designed to rotate
   in such a way that the phase angle between the circular
   arc surfaces (5, 7) of the rotors (4, 8) is fixed at 90
   degrees, so that said intermittent drive is achieved by
   intermittent contact of said surfaces with the media,
   wherein said rotors (4, 5) together with the side
   walls constitute a self-aligning transport mechanism
   (50),
   whereby if an inserted media has some degree of
   skew and offset relative to the passageway (12), then
   intermittent driving of the media by said rotors (4, 5)
   and dragging of the media against the passageway permit
   the inserted media (2) to align itself laterally as
   well as angularly with the passageway (12)."
"2. A method of aligning a media when driving the media along a passageway (12) having sidewalls, the method comprising

   driving the media intermittently as a result of intermittent contact between the media and the surfaces (5, 7) of two rotors (4, 8), wherein the rotors (4, 8) are mounted respectively on rotating members (16, 17) which are arranged perpendicular to the side walls and spaced apart in a driving direction (B) of the media, wherein the members (16, 17) rotate in such a way that the phase angle between the surfaces (5, 7) of the rotors (4, 8) is fixed at 90 degrees,

   whereby if an inserted media has some degree of skew and offset relative to the passageway then said intermittent driving of the media by said two rotors (4, 8) and dragging of the media against the passageway (12) permit the inserted media (2) to align itself laterally as well as angularly with the passageway (12)."

V. The following document is referred to in this decision:

EI EP 0 848 237.

VI. The arguments of the appellant, in writing and during the oral proceedings, can be summarized as follows:

Admittance of the main request

The main request was filed as auxiliary request 2 with the statement of the grounds of appeal and corresponded almost exactly to auxiliary request 2 as filed in reply to the summons in the first instance proceedings. For this reason alone the main request should be admitted. An additional reason was that auxiliary request 2 filed in the opposition proceedings was based on auxiliary
request 1 that was filed in response to the notice of opposition. The amendments to the independent claims of said auxiliary request already included the disputed features “two rotors having circular surfaces”, “rotating members perpendicular to the side walls” and “phase angle of 90 degrees”. It followed that the issues were known to the respondent and to the opposition division from the start of the opposition proceedings. Therefore, the main request should not be rejected based on Article 12(4) RBPA.

Allowability of the amendments, Article 123(2) EPC

Although the feature “rotating members (16, 17) which are arranged perpendicular to the side walls” was not disclosed expressis verbis in the application as filed, the person skilled in the art could readily infer this feature from the passage from page 2, line 28 to page 3, line 13, of the published version of the application as filed, ie WO 01/58790 (hereinafter "application as filed"). Since “no further lateral movement or rotation” occurred after the last rotating member 19, it followed that said rotating member was arranged perpendicular to the side walls. The skilled person would infer from this finding that this also applied to the preceding rollers 16 to 18. The feature “circular arc surfaces” was derived from the wording “circular arc contacts” on page 5, line 28, of the application as filed, whereby the words “contact” and “surface” were synonymous, cf. page 2, line 29, of the application as filed. It followed that the claims of the main request met the requirements of Article 123(2) EPC.

Inventive step
Document E1 represented the closest prior art. The skilled person would not arrange the rotating members perpendicular to the side walls since that would go against the central teaching of document E1. It followed that claims 1 and 2 of the main request involved an inventive step.

VII. The arguments of the respondent, in writing and during the oral proceedings, can be summarized as follows:

Admittance of the main request

The main request should not be admitted into the appeal proceedings. Firstly, its independent claims contravened the requirements of Articles 84 and 123(2) EPC. While the main request was based on auxiliary request 2 on which the decision under appeal was based, it was not identical. Claim 1 of the main request comprised subject-matter that needed to be discussed for the first time in appeal proceedings if said request were to be admitted, eg “circular arc surfaces” and “spaced apart in a driving direction (B) of the media”, which were taken from the description and which had to be examined for the first time in appeal. Admitting the main request in the appeal proceedings was therefore unacceptable for the respondent.

Allowability of the amendments, Article 123(2) EPC

The feature that the rotating members were arranged perpendicular to the side walls was only disclosed in the drawings (Figures 1, 2A, 3A, 3B and 3C). Advantages of this arrangement were nowhere described in the application. It was therefore not possible to isolate said feature from the other information contained in said drawings (the number of rotating members, the
number and shape of the rollers, etc.), since leaving out said other information would amount to an intermediate generalization.

Inventive step

Arranging the rotating members perpendicular to the side walls was well known in the prior art, since it avoided that the transported media at some point contacted a reference surface. This was disadvantageous, since, if said media had a low rigidity, there was a risk that it would bend along the reference wall, as described in column 1, lines 26 to 36, of document E1. It was thus obvious to the skilled person to arrange the rotating members perpendicular to the side walls.

Reasons for the Decision

MAIN REQUEST

1. Admittance of the main request

1.1 The appellant filed what is now its main request with its statement of grounds as “auxiliary request 2”.

Claims 1 and 2 of the main request correspond to a large extent to claims 1 of auxiliary requests 2 and 3, respectively, which were filed on 27 February 2014 in the opposition proceedings and were found to lack clarity in the decision under appeal cf point I above. In particular, the opposition division held that the expression “circular surfaces” present in claim 1 of auxiliary requests 2 and the expression “due to a combined effect of discrete rotations about two
different centers (21, 22)" in claims 1 of auxiliary requests 2 and 3 were not clear.

Claims 1 and 2 of the main request no longer contain the expressions objected to (the expression "circular surfaces" was replaced by the wording "circular arc surfaces" and the expression "due to ... centers (21, 22)" was deleted. These amendments were made by the appellant with a view to overcome the clarity objections raised by the opposition division in the oral proceedings held on 7 April 2014.

Apart from said amendments, claims 1 and 2 of the main request merely differ from claims 1 of auxiliary requests 2 and 3, respectively, in that the expression "and spaced apart in a driving direction (B) of the media" has been added in both claims after the expression "perpendicular to the side walls".

1.2 It follows that the main request relates to issues, which have substantially been decided by the first instance. The main request is therefore admitted into the appeal proceedings, Article 12(2) RPBA and Article 12(4) RPBA, last half-sentence.

2. Allowability of the amendments, Article 123(2) EPC

2.1 Claim 1 of the main request differs from claim 1 as granted in that the expression "at least one rotor (4) having a surface" has been replaced by the expression "two rotors (4, 8) having circular surfaces (5, 7)\(^\text{t}\), that the expression "wherein the rotors (4, 8) are mounted respectively on rotating members (16, 17) which are arranged perpendicular to the side walls and spaced apart in a driving direction (B) of the media, wherein the members (16, 17) rotate in such a way that the
phase angle between the circular arc surfaces (5, 7) of the rotors (4, 8) is fixed at 90 degrees” (hereinafter referred to as 90-degrees feature) has been added after the word “fashion”, that the expression “wherein said intermittent” has been replaced by the expression “so that said intermittent” and in that the expression “at least one rotor (4)” has been replaced by the expression “rotors (4, 5)”.

Claim 2 of the main request differs from claim 6 as granted in that the expression “at least one rotor (4)” has been replaced by the expression “two rotors (4, 8)” and that the 90-degrees feature without the wording “circular arc” has been added before the wording “whereby if”.

A basis for the feature “two rotors (4, 8) having circular arc surfaces (5, 7)” is the passage on page 2, lines 28 and 29, in combination with the passage on page 6, lines 28 and 29, of the published version of the application as filed (hereinafter referred to as “application as filed”), see also the apparatus shown in Figure 1.

It may be noticed that the circular arc surfaces 5, 7 of rotors 4 and 8, respectively, are shown in Figure 2A of the patent in suit, which is the cross-section A-A of Figure 1, perpendicular to the rotating shafts. It is this cross-section that defines the circular arc surfaces of each rotor, namely in the circumferential direction of the rotor.

A basis for the various expressions contained in the 90-degrees feature is the following. The expression “wherein the rotors (4, 8) are mounted respectively on rotating members (16, 17)” is disclosed on page 2,
lines 28 and 29, of the application as filed. That the
"rotating members (16, 17) ... are arranged
perpendicular to the side walls" follows from the
passage on page 3, lines 2 to 5, in combination with
the passage on page 3, lines 12 to 13 of the
application as filed. The latter reads "In contrast,
the five rollers (15) provide a relatively firm
clamping action to the media. No further lateral
movement or rotation occurs after this point". The five
rollers 15 cooperate with clamp wheels 11 mounted on
rotating member 19. If the rotating member 19 were not
arranged at a right angle with respect to the side
walls, the media would make a lateral movement, which
contradicts the statement on page 3, line 13. The
person skilled in the art will readily recognize from
Figure 1 that not only rotating member 19 must be
arranged perpendicular to the side walls, but that this
must also apply to rotating members 16 to 18. This
Figure clearly shows that rotating members 16, 17 are
"spaced apart in a driving direction (B) of the media".

A basis for the expression "wherein the members (16,
17) rotate in such a way that the phase angle between
the surfaces (5, 7) of the rotors (4, 8) is fixed at 90
degrees" is page 3, lines 5 to 7 of the application as
filed.

2.2 Claims 1 and 2 of the main request therefore meet the
requirements of Article 123(2) EPC.

3. Ground for opposition under Article 100(a) EPC 1973 in
combination with Article 56 EPC 1973

3.1 Document E1, which is cited in paragraph [0004] of the
patent in suit, represents the closest state of the
art.
This document discloses (see the preferred embodiment described on column 2, line 55, to column 9, line 40, and claim 1) an apparatus for aligning banknotes which includes support shaft 13a, 13b, 13c, 13d mounted at a predetermined angle θ to a given reference surface provided at one side portion of the passageway and along which banknotes are to be aligned, and a pair of transport rollers 20a, 21a eccentrically mounted on the at least one support shaft 13a and spaced from each other on the said shaft. The support shafts are spaced apart in the transport direction indicated by an arrow X in Figure 1 (see column 3, lines 6 and 7) and the transport rollers 20a, 21a have a circular surface in the cross-direction B-B, see Figures 1 and 3. Figure 3 shows that the phase angle between the rotation positions, where the degree of eccentricity is maximum, are offset from each other by 90 degrees, see also claim 4. These rotation positions correspond to the positions of the circular arc surfaces 5, 7 in Figure 2A of the patent in suit.

3.2 Unlike the apparatus known from document E1, where each shaft has a pair of transport rollers and is mounted at a predetermined angle less than 90 degrees with respect to a reference side wall, the apparatus claimed in claim 1 of the main request requires two rotating members 16, 17 ("shafts" in document E1) each having a single rotor 4, 8 ("transport roller" in document E1), which are arranged perpendicular to the side wall.

The subject-matter of claim 1 of the main request thus differs from the apparatus known from document E1 by the feature:
“two rotors (4, 8) having circular surfaces (5, 7) ..., wherein the rotors (4, 8) are mounted respectively on rotating members (16, 17) which are arranged perpendicular to the side walls”.

The person skilled in the art, starting from the apparatus known from document E1, has no incentive to provide only one rotor on each shaft and to arrange the shafts perpendicular to a reference side wall (even if such arrangement as such were known in the state of the art), since that would go against the teachings of said document, namely to mount the shafts 13a to 13d at a predetermined angle θ to a given reference surface with a view to align the banknote with respect to that surface.

3.3 It follows that a person skilled in the art starting from document E1 would not arrive at the invention claimed in claim 1 of the main request.

The subject-matter of claim 1 of the main request is therefore not obvious to the person skilled in the art and hence involves an inventive step. The same conclusion applies mutatis mutandis to independent claim 2 of the main request.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the department of first instance with the order to maintain the patent as amended in the following version:
Description:
Pages 2 to 4 of the patent specification.

Claims:
No. 1 and 2 of auxiliary request 2 filed under cover of a letter dated 3 September 2014.

Drawings:
Pages 7 to 13 of the patent specification.

The Registrar: 

S. Fabiani

The Chairman: 

M. Poock

Decision electronically authenticated