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**Datasheet for the decision
of 22 September 2021**

Case Number: T 1567/15 - 3.4.01

Application Number: 05737287.2

Publication Number: 1876552

IPC: G06K19/06

Language of the proceedings: EN

Title of invention:

INFORMATION INPUT/OUTPUT METHOD USING DOT PATTERN

Patent Proprietor:

Yoshida, Kenji

Opponent:

Sonix Technology Co., Ltd.

Headword:

Yoshida / Dot pattern

Relevant legal provisions:

EPC Art. 100(a), 56
RPBA 2020 Art. 12(4)

Keyword:

Inventive step - (no)



Beschwerdekammern

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Case Number: T 1567/15 - 3.4.01

D E C I S I O N
of Technical Board of Appeal 3.4.01
of 22 September 2021

Appellant: Yoshida, Kenji
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Decision under appeal: **Decision of the Opposition Division of the
European Patent Office posted on 9 July 2015
revoking European patent No. 1876552 pursuant to
Article 101(3) (b) EPC.**

Composition of the Board:

Chairman P. Scriven
Members: T. Zinke
D. Rogers

Summary of Facts and Submissions

- I. An opposition was filed against European Patent EP-B-1 876 552, based on Article 100(a) EPC in combination with Articles 54 and 56 EPC, and on Articles 100(b) and (c) EPC.
- II. The Opposition Division revoked the patent for lack of novelty over document D4 (WO-2004/029871) (main request and auxiliary requests 1 to 5) and lack of inventive step (auxiliary request 6). The Opposition Division - in what it called an "obiter dictum" - further stated, regarding claim 1 of the patent, that even if *arguendo* "method steps F7 to F14 would not be known from the embodiment of D4, Fig.22, then instead lack of inventive step would result".
- III. The proprietor appealed the decision.
- IV. With the statement setting out the grounds of appeal, the proprietor requested that the decision be set aside and that the opposition be rejected (main request) or maintained based on one of auxiliary requests 1 to 6, which were the same as those before the Opposition Division.
- V. In its response to the proprietor's appeal, the opponent requested rejection of the appeal.
- VI. Both parties conditionally requested oral proceedings.

- VII. The proprietor submitted further arguments on 10 December 2018.
- VIII. The opponent submitted further arguments on 2 December 2019.
- IX. The Board arranged to hold oral proceedings, and set out its preliminary opinion in a communication under Article 15(1) RPBA 2020.
- X. In response, the proprietor's representatives announced that they would not attend the oral proceedings.
- XI. The oral proceedings took place by video link. As announced, the patent proprietor took no part.
- XII. Claim 1 of the proprietor's main request (the patent as granted) reads as follows (using the feature analysis introduced by the opponent with the notice of opposition, which has been used throughout the opposition and appeal proceedings):

*F1 An information input/ output method
using dot patterns,*

*F2 said method comprising steps of
generating a dot pattern (1) by arranging a
plurality of fine dots on a medium surface
based on a dot code generating algorithm in
accordance with a predetermined rule,*

*F3 the fine dots being used for
recognition of a variety of information,*

*F4 reading the dot pattern (1) as image
information by optical reader means,*

F5 converting the dot pattern (1) into a numerical value,

F6 and reading and outputting information that corresponds to the numerical information from storage means,

F6' characterized in that the dot pattern is generated by:

F7 defining a rectangular area of a square or a rectangle as a block;

F8 defining straight lines in a vertical direction and a horizontal direction configuring a frame of the block as reference grid lines (7);

F9 providing virtual reference grid points (6) at predetermined intervals on the reference grid lines (7) in the vertical direction and the horizontal direction;

F10 placing reference grid point dots (4) on the virtual reference grid points (6);

F11 providing grid lines (8a, 8b) by connecting the virtual reference grid points (6) to each other,

F12 the grid lines being straight lines parallel to the reference grid lines (7);

F13 defining a point of intersection of the grid lines as a virtual grid point (11); and

F14 arranging one or a plurality of information dots (3), each of which has a distance and a direction with reference to the virtual grid point (11).

- XIII. In independent claims 1 of auxiliary requests 1, 4, and 5 feature feature F7 is amended (and called F7') to read (emphasis by the Board):

... defining a rectangular area of a square or a rectangle of a medium surface as a block ...

- XIV. Independent claims 1 of auxiliary requests 2 and 3 are identical to claim 1 of the main request.

- XV. In independent claim 1 of auxiliary request 6, feature F7' was used and further feature F15 has been added by incorporating the additional features of granted claim 2:

... wherein, further, in the block, oblique grid lines(8c) connecting the virtual reference grid points (6) in an oblique direction are provided, a point of intersection of the oblique grid (8c) is defined as a further virtual grid point (11); and one or a plurality of information dots (3), each of which has a distance and a direction to the further virtual grid point, are placed.

Reasons for the Decision

Prior art documents

1. The prior art document D4' (WO-A-2004/029871) was published in Japanese before the priority date of the disputed patent. D4 (EP 1 548 635 A1) is a family member of D4' published later, and is state of the art under Article 54(3) EPC, but is in English. It is assumed that D4 is a correct translation of D4'. None of the parties has suggested otherwise. In the following references are made to D4.

The Proprietor's main request

2. The parties do not dispute, and nor does the Board that document D4 discloses the features of the preamble of claim 1 (F1-F6).
3. The Board concurs with the Opposition Division and the opponent that the embodiment of Figure 22 of D4 gives enough implicit or obvious information to at least allow the skilled person to arrive at features F7 to F14 without an inventive step (Article 56 EPC).
4. As disclosed in paragraphs [0101] and [0102] of D4, the dot pattern 1 depicted in Figure 22 is generated in accordance with a predetermined rule. According to D4, the position of information dots is compared to the known position of reference points ("center point in a lattice block" in the wording of D4 - see [0231] and Figure 103, which corresponds to the lower section of Figure 22 - in order to encode information with the dot pattern. The "center point in a lattice block"

corresponds to the "virtual grid points" of F13 and F14. Hence, features F13 and F14 are known from D4. Feature F13 is nothing more than a mental act or mathematical method that defines this "virtual grid point" that is also needed in D4 as a reference in order to use the relative position of the information dots to these "references".

5. Further, the lines depicted in Figure 22 of D4 do not have to exist on the printed material, but are shown only to explain the positions of the dots, as is disclosed in paragraph [0225] of D4 for the similar lattice depicted in Figure 105. So these lines correspond to the grid lines of features F12 and F13.
6. Features F7 to F10 only define a rectangular frame and the placement of dots on frame lines. This is implicitly disclosed in Figure 22 of D4, because it shows a rectangular frame (reference sign 1(6)) and dots ("lattice dots", reference signs 3a,3b) on the frame lines.
7. In the statement of grounds, the appellant argued that a pattern that is depicted in Figure 22 of D4 can not on its own disclose method steps F7 to F14, which define a method for generating patterns.
8. A distinction has to be made between method steps that are actually evident by the final product of D4 (i.e. the pattern of Figure 22), because they are obligatory (because there are no other known possibilities and the skilled person knows the obligatory step) or implicit (i.e. the claimed method would not be novel); method steps that are obvious given the final product (i.e. the claimed method would not be based on an inventive step); and method steps that are hidden, unexpected, or

novel (i.e. the claimed method could be based on an inventive step).

9. For instance, with a dot pattern resulting from the method claimed in the disputed patent, it seems not to be derivable from the dot pattern alone, in which sequence those dots were generated. However, a skilled person would have known that arbitrary sequences would work and that the choice of a particular sequence would not solve a technical problem. Any convenient sequence would do.

10. The arguments provided by the patent proprietor in the submission of 10 December 2018, in particular those discussing the technical effects of alleged differences as compared to Figure 22 of D4, seem to rely on a somewhat different interpretation of claim 1 (cf. in particular "Fig. 1 continued" on page 3, Figure 7 on page 12 and Figure 8 on page 13). The patent proprietor seems to argue that the claimed differences lie in
 - (a) placing dots on all virtual reference grid points on the frame; and

 - (b) using only intersections of straight grid lines connecting these dots on the frame as virtual grid points (as "references" for the information dots); and

 - (c) placing no dots on any virtual grid point (inside the frame) (cf. also the discussion in the statement of grounds, section B. I. 5. c), page 5).

These features, however, are not clearly defined in claim 1 of the main request, and thus, have no relevance for novelty and inventive step.

The Patent proprietor's auxiliary requests 1 to 5

11. With regard to auxiliary requests 1 to 5, the patent proprietor did not provide any arguments against the conclusion of the Opposition Division that the respective versions of claim 1 were not novel. The Board does not see any reason to deviate from the Opposition Division's decision in that regard. Due to the lack of any reasoning by the appellant, these auxiliary requests are not admitted into the proceedings (Article 12(4) RPBA).

The Patent proprietor's auxiliary request 6

12. Feature F7' does not change the scope of claim 1, since "of a medium surface" was already present in feature F2.
13. The Board concurs with the analysis provided by the Opposition Division in its decision (cf. reasons, sections 12.8) that the "further virtual grid point" as defined in feature F15 might be located at the same place as the virtual grid points defined by feature F13. Hence, a technical effect due to feature F15 is lacking, resulting in a lack of inventive step.
14. In the statement of grounds, the patent proprietor argued (section C. 1, pages 24 to 25) that feature F15 clearly defined "additional intersections", beyond the intersections defined in feature F13. However, as discussed above with regard to the main request, it is not clearly defined in feature F13 that only intersections of straight grid lines connecting the dots on the frame are used as virtual grid points. Positions of virtual oblique line intersections in a

larger grid (where only straight lines between dots on the frame are used) might be at the same positions as straight line intersections in a smaller grid (when straight virtual grid lines between virtual reference grid points without dots on the frame are also used).

15. Hence, auxiliary request 6 is not allowable due to lack of inventive step (Article 56 EPC).

Right to be heard (Article 113(1) EPC)

16. The reasons for the present decision are all mentioned in the Board's preliminary opinion in the communication under Article 15(1) RPBA 2020, to which the appellant made no substantive response. The Board sees no reason to change its opinion as set out in the communication.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairman:



D. Meyfarth

P. Scriven

Decision electronically authenticated