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File No.: T 613/91 - 3.2.3
Application No.: 84 201 348.4
Publication No.: 0 135 972
Classification: E04B 2/08
Title of invention: Wall

D E C I S I O N
of 5 October 1993

Applicant: -
Proprietor of the patent: Kalkzandsteenfabriek Roelfsema B.V.
Opponent: Verein Süddentscher Kalksandstein - Werke e.V.

Headword:

EPC: Art. 56, 107

Keyword: "Appellant adversely affected by decision to reject the
opposition; formal requirements of an appeal" - "Inventive step
(denied, obvious combination of documents)"

Headnote
Catchwords



Case Number: T 613/91 - 3.2.3

D E C I S I O N
of the Technical Board of Appeal 3.2.3
of 5 October 1993

Appellant: Verein Süddeutscher Kalksandstein - Werke e.V.
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Respondent: Kalkzandsteenfabriek
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office dated 13 June 1991
rejecting the opposition filed against European
patent No. 0 135 972 pursuant to Article 102(2)
EPC.

Composition of the Board:

Chairman: C.T. Wilson
Members: F. Brösamle
W. Moser

Summary of Facts and Submissions

I. With the decision of 13 June 1991 the Opposition Division rejected the Opposition against European patent No. 0 135 972 since it was felt that the Grounds of Opposition did not prejudice the maintenance of the patent as granted. The Opposition was based *inter alia* on the following documents:

(E0) GB-A-1 322 297

(E1) DE-A-2 551 507 and

(E2) SE-A- 221 810 (including English translation).

II. With the letter of 9 August 1991, received on 10 August 1991, the Appellant (Opponent) lodged an appeal against the decision of the Opposition Division, paying the fee at the same time. The Statement of Grounds of Appeal was received on 21 September 1991; the Appellant introduced a further document, namely

(E5) SE-A-227 202

which is allegedly closer to the claimed invention than document (E0). The combination of documents (E5) and (E0) is alleged to render obvious the subject-matter of Claim 1 so that the patent should be revoked.

III. The Respondent (Proprietor) contended that the Appeal was not in accordance with Rules 64(a) and 26, (2)(c) as well as Article 107 EPC, since it lacks formal correctness (Appellant's complete address) and a statement as to why the Appellant is adversely affected by the impugned decision.

In his opinion even a combination of the prior art documents could not render obvious the claimed invention.

IV. In the Oral Proceedings before the Board held on 5 October 1993 the Respondent filed new Claims 1 to 4 being based on granted Claims 1 to 5.

V. Claim 1 reads as follows:

"1. Wall consisting of a number of building blocks (2) which are laid in successive courses next to and on one another and which are provided, at least at their horizontal contact faces with connection means, which connection means are formed by a longitudinal groove (3) in the bottom horizontal face of each block and by two recesses (4) each having a vertical centre line disposed in the vertical central plane of the groove (3) and leading out into the top horizontal face of each blocks as well as by connecting elements which fit into the longitudinal grooves (3) and in the recesses of subjacent courses of blocks, the horizontal faces, apart from the said groove (3) and recesses (4) respectively being completely flat, each groove (3) having an outwardly opening trapezium shaped cross section in a plane perpendicular to the axis of the groove, each recess being a bore (4), the connecting elements (5) being pins, each pin having a tapering end that fits between the tapering side walls of a respective groove whilst the opposite end of each pin fits within a respective said bore, said blocks in addition to the connecting means being joined together by mortar (6)."

VI. In the Oral Proceedings the Respondent basically maintained his requests namely to declare the Appeal as inadmissible, since in the Statement of Grounds of Appeal no explicit reference was made to the impugned decision so that the requirements of Article 107 EPC

would not be fulfilled. Should the Board nevertheless declare the Appeal admissible, then the Respondent requested to set aside the impugned decision and to grant a patent on the basis of Claims 1 to 4 filed during the Oral Proceedings before the Board.

Present Claim 1 was defended essentially by the following arguments:

- the building blocks are big building blocks which are laid down mechanically, for instance by a crane,
- the two pins arranged in the upper horizontal plane of the building blocks act only as centering means when a block is brought into position;
- the function of connecting adjacent and superimposed building blocks is achieved by the presence of mortar (and not just by the pins);
- the horizontal, essentially plane surfaces of the building blocks safeguard that the building blocks are arranged exactly vertically;
- the presence of a longitudinal groove in the bottom horizontal face of each block allows the blocks to be adjusted into a correct final position thereby overcoming the necessity of narrow production tolerances of known blocks,
- the use of tapered pins allows the blocks to be pivoted during laying them on previously laid rows of blocks;

- conical bores of the prior art would be expensive to produce and close tolerances would not be achievable with such bores when the blocks are big;
- the use of the elements "groove-pins-holes" for assembling building blocks was novel and non-obvious in respect of the prior art;
- should prior art documents, such as documents (E1), (E2) and (E4) be combined by a skilled person it would not be clear which features would result from such a combination of documents.

VII. The Appellant maintained his request to revoke the patent even in its amended form, whereby his arguments essentially were the following:

(a) admissibility of the Appeal:

- the Opponent is negatively affected simply by the fact that the Opposition Division rejected the Opposition;
- the Statement of Grounds of Appeal at least contains a global reasoning enabling the Board to recognise why the Appellant is not convinced that the Opposition had to be rejected by the Opposition Division;
- any formal deficiencies of the Appeal such as lack of the concise address of the Appellant cannot be a reason for declaring it inadmissible.

(b) Claim 1:

- the most relevant prior art is seen in the documents (E1) and (E2);
- *vis-à-vis* these documents a problem to be solved by the present invention cannot be seen;
- to replace a recess by a bore and to foresee pins with tapering ends cannot be seen as an inventive endeavour of a skilled person;
- the effects specifically claimed by the Respondent such as centering by pins and connecting the blocks by mortar are known from document (E1), see Figure 2.
- Claim 1 does not specify the weight, the size and the configuration of the holes (through holes or blind holes) of the building blocks; it furthermore leaves it open whether the recess and the holes of the blocks lie symmetrically to the outer faces of the blocks and whether the orientation of them is vertical;
- document (E1) in combination with the knowledge of a skilled person renders obvious the subject-matter of Claim 1 at least if the teaching of document (E2) is also considered;
- Claim 1 lacks therefore inventive step so that the patent has to be revoked.

VIII. At the end of the Oral Proceedings the Chairman of the Board announced the Board's decision.

Reasons for the decision

1. The Appeal is admissible for the following reasons:

1.1 From the Appellant's letter of 9 August 1991 ("Beschwerde") the name and the location of the Appellant can be seen. It is true that the correct address, namely additional indication of the street of the location of the Appellant, is missing, however, this cannot be seen as a severe violation of Rules 64(a) and 26, (2) (c) EPC as highlighted by the Respondent, (see decision J 2/87, published in OJ EPO, 1988, 330 which makes it clear that even in a case where formal deficiencies existed, see remarks IV (i) and 2., the Appeal was declared as admissible). From the Opposition proceedings it was derivable where exactly the Appellant is located so that all parties and the Board could easily get the missing formal information as to the correct address of the Appellant.

1.2 In the decision T 1/88 - 3.3.1 from 26 January 1989 (not published) a similar case had to be decided. According to "Entscheidungsgründe" remarks 1.1 to 1.3 it was accepted that the Boards had to assess the declarations and statements which are subject to interpretation on an objective basis, see remark 1.1. Following these principles it is beyond doubt for the Board that not only the formal requirements of the Appellant's address were known to the Board from the impugned decision, see page 1 remark 2 ("Bunsen Strasse 17") but also that the Appellant was adversely affected by that decision simply by the fact that his request to revoke the patent was not followed by the Opposition Division.

1.3 In the present case it must be accepted that the Appellant has presented in his Statement of Grounds of Appeal a complete argumentation why the Opposition

Division should have revoked the patent in suit, for instance by discussing the question of which is the nearest prior art document and by discussing the question of inventive step. Despite the fact that the Appellant did not in detail discuss the impugned decision *per se* it has to be accepted that the Appellant has brought forward a line of argument enabling the Board to decide about the impugned decision and more generally about the validity of the patent.

1.4 The Board therefore holds that the Appeal is admissible.

2. *Novelty*

2.1 The discussion of Claim 1 during the Oral Proceedings before the Board showed that novelty of its subject-matter was no longer contested, and since the Board also takes this view, it is not necessary to discuss this issue further.

3. *Inventive step*

3.1 It is doubtful which one of the documents (E1) and (E2) reflects the nearest prior art document. Since present Claim 1 - obviously for reasons of clarity - is drafted in a one-part form the independent Claim itself does not reflect the starting point of the invention.

3.2 In the Oral Proceedings before the Board the emphasis was put on document (E1) as being the closest prior art.

From this document, blocks for a wall are known, whose horizontal contact faces are provided with connection means comprising recesses "5" each having a vertical center line disposed in the vertical central plane of recesses in the adjacent block "1a" and leading out into the top horizontal face of said block "1b" as well as

connecting elements "2" which fit into the recesses of said blocks "1a, 1b", the horizontal faces apart from said recesses in said blocks "1a, 1b" being completely flat, the recess "5" of block "1a" having an outwardly opening cross section in a plane perpendicular to the axis of the flats, each recess of said blocks "1b" is a bore, the connecting elements being pins "2", each having a tapering end that fits between the tapering side walls of a respective recess of an adjacent block "1a" whilst the opposite end of each pin "2" fits within a respective bore of blocks "1b", said blocks "1a, 1b" in addition to the connecting means "2,5" being joined together by mortar "18", see Figure 1 and 2 of document (E1) in particular; the rounded end portion of the pins is seen as being "tapered"; this rounded end portion **is capable of centering** a superimposed block having for instance an opening recess (hole or groove) on its bottom face so that the known pin "2" achieves the same technical effect as the claimed "tapered pin" and the rounded end has to be seen as a "tapered end"; both holes "5,5" in adjacent blocks "1a, 1b" are seen as "recesses" and the word "Kleber" is seen as mortar.

3.3 What is not known from document (E1) is that;

- (a) the recess on one side of each block is formed by a longitudinal groove "3" and
- (b) the groove "3" has an outwardly opening trapezium cross section.

3.4 It is pointed out in this respect that Claim 1 does not prescribe the size of the block, nor the material thereof nor that the bores are blind bores, so that there exists in fact no more distinguishing features

between Claim 1 and the building block according to document (E1) than the features set out above as (a) and (b).

3.5 For assessing the question of whether or not the subject-matter of Claim 1 is to be seen as an inventive contribution to the art, the "problem-solution-approach" has to be applied.

3.6 The wall blocks disclosed in document (E1) may be seen to offer the possibility of achieving:

- (a) a centering effect of the blocks by pins "2"
(rounded end portion thereof according to Figure 2)
- (b) a connecting effect completely independently from the pins by the application of an adhesive/mortar "18"

without, however, allowing greater production tolerances in shaping the recesses (holes) of the blocks for adjusting the superimposed blocks of a wall, since the known blocks with the cooperating elements "hole-pin-hole" only offer a limited - if any - possibility to adjust the blocks when assembled as a wall.

3.7 The problem to be solved by the present invention has therefore to be seen to overcome the above mentioned restrictions of the nearest prior art building block and to allow greater production tolerances of the blocks including their connection means.

3.8 This problem has to be seen as the objectively remaining technical problem of the invention when starting from the document (E1) and when assessing the question of inventive step of the subject-matter of present Claim 1.

- 3.9 The solution of the above technical problem is laid down in present Claim 1, whereby the known connection system "hole-pin-hole" is replaced by a connection system "groove-pin-hole".
- 3.10 The advantage of this solution to the objective problem to be solved by the invention is the possibility to offer a greater play between adjacent building blocks due to the presence of the longitudinal groove in which the pin can be positioned in whatever longitudinal position. This arrangement allows therefore not only a (known) centering effect by the presence of pins foreseen in holes, but also a longitudinal adjustment motion to bring the blocks into the wished final position. The (known) possibility for connecting adjustment blocks only by mortar is, however, maintained by the teaching of present Claim 1.
- 3.11 The Board is of the opinion that the subject-matter of Claim 1 does not involve an inventive step within the meaning of Article 56 EPC.
Any skilled person in the mechanical field is aware of the possibilities to enhance two or more parts to be assembled with greater freedom of adjustments, be it by forming the hole with a larger diameter than the corresponding pin, or be it by the provision of a "longitudinal hole" i.e. a longitudinal groove as in present Claim 1 so that without any further document the teaching of Claim 1 is rendered obvious by simple considerations of a skilled person.
- 3.12 The Appellant has pointed in this context to the cable channel "21, 22" according to Figure 8/9 of document (E1). For the Board there remains some doubt as to whether a skilled person could derive therefrom a teaching for replacing a hole by a channel, i.e. groove,

in combination with connection means and the Board is reluctant to derive from the knowledge of a cable channel a hint to the claimed invention, namely to replace a hole by a longitudinal groove.

3.13 For the Board document (E2) - originating from exactly the same technical field as the invention - is, however, a source of information for a skilled person confronted with the solution of the objective problem, since this document offers a connection means for building blocks with a system of "groove - connecting disc - groove" which clearly overcomes the restrictions of a system "hole-pin-hole" in respect of adjustability of the blocks and indirectly of the possibility to tackle with larger production tolerances.

3.14 In document (E2) the longitudinal grooves are described as having a "Y" or "V" - form, which teaching is more or less identical with features (a) and (b) according to above remark 3.3 in that the grooves "11" are longitudinal, are foreseen (at least) on the bottom face of each block and have an opening form to the horizontal bottom face of each block which form has to be seen either as trapezoidal - i.e. with a bottom side of a substantial extension - or which form is at least equivalent to the trapezoidal form claimed in that the tapered (see Figure III of document (E2)) end of the connecting disc cooperates with the tapered longitudinal groove. A significant difference between the teachings of document (E2) and that of Claim 1 in respect of the longitudinal groove can therefore not be seen.

3.15 Considering the above detailed background a skilled person would turn to document (E2) for getting information on how the objective problem of the present invention can be solved. That means that documents (E1)

and (E2) can be combined even if no mortar is used in the wall according to document (E2). The principle of

- (a) centering with specific tapered elements and
- (b) connecting with mortar

is already known from document (E1) and there can be seen no reason why a skilled person should give up this principle when combining the teachings of document (E1) and (E2).

3.16 Summarising the above considerations, present Claim 1 is not based on an inventive step since its teaching is comprised by the activity of a skilled person, at least when one further document is considered with the starting document to solve the objective problem. Claim 1 is thus not valid and the amended patent could not be maintained.

3.17 The remaining arguments of the Respondent are not sufficiently convincing to allow of any other conclusion:

(i) The connection between blocks is achieved in document (E2) purely mechanically so that prima facie close tolerances of the grooves and discs are necessary. This argument cannot be maintained, however, against a groove of "Y" - or "V" - form and a disc with tapered ends also disclosed in document (E2). Even a disc instead of a claimed pin allows an assembled block to pivot in order to allow a limited angular adjustment of the blocks.

(ii) Whether or not it is mentioned in document (E1) that the rounded ends of the pins act as centering means for the blocks is irrelevant, since this function is obvious for a skilled person seeing the overall geometrical arrangement of document (E1).

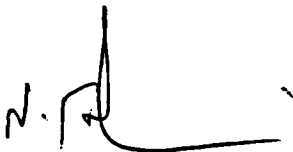
(iii) It may be that long conical holes cause tolerance problems when pressing a block. Since Claim 1 nowhere specifies, however, any size of a block, this argument is also irrelevant. According to present Claim 4 (based on granted Claim 5) the Respondent himself claims cooperating grooves which embrace **the complete height of the building block** so that no substantial difference can be seen between document (E1) and present Claim 1, particularly when seen in the light of present Claim 4.

Order

For these reasons, it is decided that:

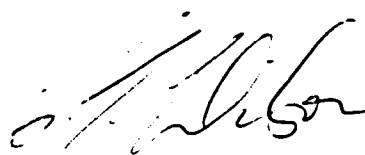
1. The request to declare the Appeal to be inadmissible is rejected.
2. The decision under appeal is set aside.
3. The patent is revoked.

The Registrar:



N. Maslin

The Chairman:



C.T. Wilson