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**Datasheet for the decision
of 19 August 2022**

Case Number: T 0051/20 - 3.2.08

Application Number: 11009210.3

Publication Number: 2458115

IPC: E05B19/02, E05B21/06

Language of the proceedings: EN

Title of invention:

Coding mechanism for cylinder lock with a rotatable key and key blank

Patent Proprietor:

Tokoz A.S.

Opponent:

Abloy Oy

Headword:

Relevant legal provisions:

EPC Art. 56, 100(a), 112(1)

Keyword:

Inventive step - (yes) - could-would approach
Referral to the Enlarged Board of Appeal - (no)

Decisions cited:

G 0003/98, G 0001/03, G 0001/05, G 0001/14, G 0003/14,
G 0001/16, G 0001/19

Catchword:



Beschwerdekammern

Boards of Appeal

Chambres de recours

Boards of Appeal of the
European Patent Office
Richard-Reitzner-Allee 8
85540 Haar
GERMANY
Tel. +49 (0)89 2399-0
Fax +49 (0)89 2399-4465

Case Number: T 0051/20 - 3.2.08

D E C I S I O N
of Technical Board of Appeal 3.2.08
of 19 August 2022

Appellant:

(Opponent)

Abloy Oy
Wahlforssinkatu 20
80100 Joensuu (FI)

Representative:

Berggren Oy
P.O. Box 16
Eteläinen Rautatiekatu 10A
00101 Helsinki (FI)

Respondent:

(Patent Proprietor)

Tokoz A.S.
Santiniho 20/26
59102 Zdar nad Sazavou (CZ)

Representative:

Musil, Dobroslav
Zábrdovicka 11
615 00 Brno (CZ)

Decision under appeal:

**Decision of the Opposition Division of the
European Patent Office posted on 11 November
2019 rejecting the opposition filed against
European patent No. 2458115 pursuant to Article
101(2) EPC.**

Composition of the Board:

Chairwoman

P. Acton

Members:

A. Björklund

Y. Podbielski

Summary of Facts and Submissions

I. The appeal was filed by the opponent (appellant) against the decision of the opposition division to reject the opposition filed against the patent in suit.

The opposition division decided that the subject-matter of the claims as granted was novel and involved an inventive step.

II. Oral proceedings were held before the Board on 19 August 2022.

III. The appellant (opponent) requested that the decision under appeal be set aside and the patent be revoked. They furthermore requested that the questions identified in their submissions dated 17 June 2022 be referred to the Enlarged Board of Appeal.

IV. The respondent (proprietor) requested that the appeal be dismissed and the patent be maintained as granted, or that the patent be maintained on the basis of the granted claims and an amended description.

V. Independent claims of the patent as granted.

Claim 1 (reference designations introduced by the Board), reads:

M1.1 "A coding mechanism for a cylinder lock with a rotatable key, said coding mechanism consisting of

- M1.2 - a guiding element (13) for aligning the shank (14) of the rotatable key (12) inside the cylinder lock and
- M1.3 - the rotatable key (12) itself,
- M1.4 wherein the guiding element (13) comprises two mutually parallel and spaced apart guide rails (15), which have their ends interconnected by an abutment bridge (16) and which are provided with guiding surfaces (18) extending along their entire lengths,
- M1.5 the shank (14) of the rotatable key (12) being provided with usual coding projections (21) adapted for interaction with usual catchers arranged inside the respective cylinder lock and
- M1.6 the intermediate portion of the cross-section of the shank (14) of the rotatable key (12) being provided with a pair of corresponding longitudinal notches (22, 23), the longitudinal notches (22, 23) having bottom portions (24, 25), characterized in that
- M1.7 the guiding surface (18) of at least one guide rail (15) and the corresponding bottom portion (24, 25) of the respective longitudinal notch (22, 23) formed in the shank (14) of the rotatable key (12) have their shapes adapted for generating a locking code of the cylinder lock,
- M1.8 the shank (14) of the rotatable key (12) having its entire cross-section continuously increasing from its intermediate portion towards at least one of its longitudinal edges (36, 37), so that at least one of the two pairs of the functional surfaces (38, 39

and 40, 41) of said shank having an open V-shape."

Claim 4 (reference designations introduced by the Board) reads:

- M4.1 "A key blank (43) for the rotatable key (12) of the coding mechanism according to claim 1, comprising
- M4.2 a shank (42) having its entire cross-section continuously increasing from its intermediate portion towards at least one of its longitudinal edges (36, 37), at least one of the two pairs of the functional surfaces (38, 39 and 40, 41) of said shank having an open V-shape characterized in that
- M4.3 the intermediate portion of the cross-section of the same is provided with two opposed longitudinal notches (22, 23), and the longitudinal notches (22, 23) have bottom portions (24, 25),
- M4.4 the bottom portion (24, 25) of at least one longitudinal notch (22, 23) formed in the shank (42) of the key blank (43) for the rotatable key (12) being provided with an additional notch (30, 31) co-operating, in use, with a corresponding longitudinal rib (19, 20) formed on a guiding surface (18) of a guide rail (15) inside the cylinder lock."

Claim 5 (reference designations introduced by the Board) reads:

- M5.1 "The key blank (43) for the rotatable key (12) of the coding mechanism according to claim 1, comprising
- M5.2 a shank (42) having its entire cross-section continuously increasing from its intermediate portion towards at least one of its longitudinal edges (36, 37), at least one of the two pairs of the functional surfaces (38, 39 and 40, 41) of said shank having an open V-shape characterized in that
- M5.3 the intermediate portion of the cross-section of the same is provided with two opposed longitudinal notches (22, 23), and the longitudinal notches (22, 23) have bottom portions (24, 25),
- M5.4 the bottom portion (24, 25) of at least one longitudinal notch (22, 23) formed in the shank (42) of the key blank (43) for the rotatable key (12) having a concave shape for an engagement with a matching convex guiding surface (18) of a guide rail (15) inside the cylinder lock."

VI. The following documents are relevant for the present decision.

- D2 EP 0 989 262 A2
- D3 GB 2 173 852 A
- D4 US 4,127,996
- D5 US 1,823,411
- D8' SILCA 207 catalog, June 2010 edition
- D9 US 15,031
- D10 US 4,742,703
- D12 US 4,320,638

D13 US 1,438,336
D15 Extracted pages from "raukamp schlüssel"
Catalog Ausgabe 99/C

VII. The arguments of the appellant, where relevant to the decision, can be summarised as follows:

Inventive step

The subject-matter of claim 1 differed from the lock in Figure 1 of D2 only in the cross section of the key as defined in feature M1.8, where at least one of the functional surfaces had an open V-shape. This feature did not allow the provision of more coding combinations than the prior art locks of the appellant which had keys with rectangular cross sections.

Feature M1.8 thus merely provided a different key profile. The skilled person was always looking for new key profiles as could be seen by the evolution of the appellant's locks in D4, D3 and finally D2. Selecting an open V-shape, which was commonly known from the prior art, did not require any complicated changes to the locks but was both easy and obvious to the skilled person. Furthermore, also claims 4 and 5 of the patent in suit indicated that cross-sections where at least one functional surface had an open V-shape were known, since this was defined in the pre-amble of these claims.

The subject-matter of claim 1 did therefore not involve an inventive step starting from D2.

For the same reasons, the subject-matter of claim 1 did not involve an inventive step when starting from the lock disclosed in D3, Figure 1 or the prior art lock

described in paragraph [0001] of the patent in suit. D3 referred to D4 and was concerned with the provision of a new key profile, underlining that this was a standard task for the skilled person.

This reasoning applied also to the key blanks defined in claims 4 and 5, which therefore also did not involve an inventive step.

Referral to the enlarged Board

A referral to the Enlarged Board was necessary to ensure a unified application of the law. It was important that the public knew what the prior art was, in which way it related to the invention, and what was the invention underlying the application as filed or amended.

- VIII. The arguments of the respondent, where relevant to the decision, can be summarised as follows:

Inventive step

The subject-matter of claim 1 differed from the lock of D2 in features M1.7 and M1.8.

Even if keys with cross sections having open V-shapes were known in the art, it would not be obvious to provide the lock of D2 with a key profile according to feature M1.8 since this would require changes to the entire lock.

The same reasoning applied also when starting from the lock of D3, which also did not disclose features M1.7 and M1.8. Paragraph [0001] did not even describe a

prior art lock, but indicated the invention of the patent.

The subject-matter of claim 1 thus involved an inventive step.

For the same reasons, the subject-matter of claims 4 and 5, which defined key blanks of for use with the lock of claim 1 involved an inventive activity. That the open V-shape of these key blanks was part of the pre-amble of these claims did not as such exclude that their subject-matter involved an inventive step.

Referral to the enlarged Board

There was no need for a referral since the skilled reader understood what was described as prior art and what was the basis of the invention.

Reasons for the Decision

1. Inventive step

The subject-matter of claim 1 involves an inventive step.

1.1 Claim 1 - Starting from D2

It is common ground that D2, Figure 1 discloses a coding mechanism for a cylinder lock according to features M1.1 to M1.6.

It is also common ground that D2 does not disclose feature M1.8.

1.1.1 According to the appellant, the cross section of the key defined in feature M1.8, according to which at least one of the two pairs of the functional surfaces of the key shank had an open V-shape, did not solve any technical problem, since it did not allow any additional coding surfaces compared to e.g. a lock where the key had a rectangular cross section. Hence the objective technical problem solved by this feature was the provision of a lock having a key with an alternative key profile.

Key profiles having a cross section with an open V-shape were well known in the art, e.g from D5, Figures 2 and 9; D8', pages 28, 33, 53, 87, 107, 131 and 165; D9, figures; D10, Figure 7; D12, Figures 14 and 16; D13, Figure 8; D15, Page 78. An open V-shaped cross section was also indicated as known in the state of the art in the patent, since it was present in the preamble of claims 4 and 5 of the patent.

Providing the key of the lock of D2 with a cross section according to feature M1.8 was therefore obvious to the skilled person.

1.1.2 It is undisputed that several prior art documents disclose keys having an open V-shape.

It seems correct that the skilled person could in principle provide the key of the lock of D2 with a cross section having an open V-shape. However, the appellant has not put forward any convincing reason as to why the skilled person would chose precisely that geometry when looking for a new key profile. The keys of the different embodiments of D2 have a cross section with a V-shape which tapers towards the longitudinal edge. Therefore, providing the key of D2 with an open

V-shape would go against the teaching of this document which discloses "closed" V-shapes. Thus even if the skilled person could have provided the key of the lock of D2 with a cross section according to feature M1.8, it would not be obvious for them to do so.

The subject-matter of claim 1 is thus not obvious starting from the lock of D2 and therefore involves an inventive step.

1.2 Claim 1 - Starting from D3

It is common ground that the subject-matter of claim 1 also differs from the lock disclosed in Figure 1 of D3 at least in feature M1.8.

It is correct that D3, by referring to D4 could give the skilled person a reason to change the shape of the key shank. However, the key shanks in the embodiments of D3 have a cross section which is rectangular or has a V-shape tapering towards the longitudinal edge and the key shanks of D4 have an essentially semi-circular cross section, none of which is an open V-shape. This is therefore rather a proof that while the skilled person could have modified the key of the lock of D2, they would have had no reason to modify it according to Feature 1.8.

Therefore, the subject-matter of claim 1 involves an inventive step also when starting from the lock of D3.

1.3 Claim 1 starting from paragraph [0001] of the patent

The appellant submitted that since paragraph [0001] is under the heading "Field of the invention" its content represented prior art. Paragraph [0001] of the patent

reads that "The invention relates to the coding mechanism for a cylinder lock according to claim 1.". Therefore this paragraph disclosed Features 1.1 to 1.7 of claim 1. Shaping the key according to feature 1.8 did not involve any inventive activity for the same reasons as when starting from D2.

Paragraph [0001] is indeed under the heading "Field of invention". This part of a patent document has the only object of providing the reader with a general information of what the invention is about. It does not relate to the prior art from which the applicant has started when developing their invention. The prior art is discussed in the following paragraphs under the heading "Background of the invention" which indeed describe several pieces of prior art with their relating problems.

Hence the fact that paragraph [0001] is under the heading "Field of invention" and refers to claim 1 does not lead to the conclusion that it describes a prior art lock having any specific features.

Since this passage does not describe a prior art lock, it can not be used as a starting point for the analysis of whether claim 1 involves an inventive step.

1.4 Claims 4 and 5 - Starting from D2 or D3

Claims 4 and 5 define key blanks for the key of the coding mechanism of claim 1.

Features M4.2 and M5.2 of claims 4 and 5 define a cross section of the key blanks having an open V-shape which corresponds to the cross section of the key of the coding mechanism defined in feature M1.8 of claim 1.

Features M4.2 and M5.2 are thus not disclosed in documents D2 or D3.

- 1.4.1 It is correct that features M4.2 and M5.2 are in the pre-amble of claims 4 and 5.

However, this does not in itself mean that the subject-matter of claims 4 and 5 lacks an inventive step. Whether a feature is assigned to the pre-amble or to the characterising part of a claim depends upon the prior art on which the two-part form of the claim is based. The two-part form of claims 4 and 5, however, is not based on D2 or D3.

- 1.4.2 What is decisive for the question of whether the subject-matter of claims 4 and 5 involves an inventive step is rather whether the combination of features of these claims is obvious to the skilled person in view of the prior art D2 and D3.

Since - as set out above - it would not have been obvious to the skilled person to provide the keys of the locks of D2 or D3 with a cross section having an open V-shape according to feature M1.8, it would not have been obvious to the skilled person to provide the key blanks for the locking cylinders D2 or D3 with such a cross section either.

The subject-matter of claims 4 and 5 thus involves an inventive step.

- 1.5 The ground for opposition under Article 100(a) in combination with Article 56 EPC does therefore not prejudice the maintenance of the patent

2. Request for referral

The appellant requested that the following questions be referred to the Enlarged Board of Appeal:

a) "If the expression "according to claim 1" is in a patent document description under the heading "Field of the invention", "Technical field" or a corresponding heading for specifying the technical field to which the invention relates, is it a correct and clear expression?"

b) "If the answer to question a) is yes, what is the prior art under said heading?"

2.1 The appellant argued in favour of a clear separation between those parts of the description of the patent which disclose the prior art, and others which disclose the invention: the sections called "field of the invention" and "background of the invention" disclosed the technical field to which the invention relates. That technical field thus had to contain the prior art only. The invention, by contrast, was disclosed in other sections such as the "Summary of the invention", "detailed description of the invention", "preferred embodiments of the invention" and the like. This separation was important so that the public knew what was prior art and what was the invention.

The appellant argued further that the Guidelines for Examination (F-II.4.2) introduced confusion by suggesting that if claims are amended, the "field of the invention" may need to be amended to correspond to the claims, and that it was possible to use statements such as "the invention is set out in the appended set of claims". According to the appellant, the reference to the claims under the heading "field of the

invention" - in the present case the reference to claim 1 in paragraph [0001] - made it unclear what the prior art was and what the invention was. Clarification on this issue was required so that a uniform application of the law would be ensured. A referral to the Enlarged Board of the questions set out above was thus necessary.

2.2 A referral to the Enlarged Board is made if the Board considers that a decision is required in order to ensure a uniform application of the law, or if a point of law of fundamental importance arises (Article 112(1) EPC). The referred questions must have more than a theoretical significance for the case before the Board. One of the criteria for the admissibility of a referral to the Enlarged Board is that the answers to the referred questions are necessary for the Board to be able to dispose of the appeal (see e.g. G 3/98, Reasons 1, G 1/03, Reasons 1, G 1/05 of 28 June 2007, Reasons 1; G 1/14, Reasons 1-2, G 3/14, Reasons 1, G 1/16, Reasons 5, G 1/19, Reasons 59-61, 66ff). This criterion is not fulfilled in the present case. The Board is in no doubt how to interpret paragraph [0001] of the patent which reads "The invention relates to the coding mechanism for a cylinder lock according to claim 1", and has set out its interpretation thereof in point 1.3 above. A referral is thus not necessary for the Board to be able to decide on the appeal. This in itself is a sufficient ground to refuse the request for a referral.

In addition, the appellant has not shown that there is a non-uniform application of the law by the Boards of Appeal. All the appellant has shown is a discrepancy between the Guidelines for Examination and their own understanding of the contents of the description of a

patent or patent application. This also does not qualify as a point of law of fundamental importance.

The requested referral to the Enlarged Board of Appeal is therefore refused.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:

The Chairwoman:



C. Moser

P. Acton

Decision electronically authenticated