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Datasheet for the decision of 5 March 2026

Case Number: T 1299/23 - 3.4.03

Application Number: 18161405.8

Publication Number: 3376185

IPC: G01G19/393

Language of the proceedings: EN

Title of invention:
COMBINATION WEIGHING DEVICE

Patent Proprietor:
Ishida Co., Ltd.

Opponent:
Marel A/S

Relevant legal provisions:
EPC Art. 100(a), 52(1), 54(1), 54(2), 111(1)
RPBA 2020 Art. 13(1), 13(2), 11

Keyword:
Late submissions - evidence D21 to D23 admitted (no)
Novelty - main request, auxiliary requests 1 to 6 (no)
Late-filed auxiliary request 7 - admitted (no)
Remittal - (yes)

Decisions cited:
T 1033/10, T 2619/11, T 1127/16, T 0607/17, T 1707/17, T 0415/20

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Case Number: T 1299/23 - 3.4.03

D E C I S I O N
of Technical Board of Appeal 3.4.03
of 5 March 2026

Appellant: (Opponent)	Marel A/S P.O. Pedersens Vej 18 8200 Aarhus N (DK)
Representative:	Inspicos P/S Strandvejen 60 2900 Hellerup (DK)
Respondent: (Patent Proprietor)	Ishida Co., Ltd. 44, Sanno-cho Shogoin Sakyo-ku Kyoto-shi Kyoto 606-8392 (JP)
Representative:	Gill Jennings & Every LLP The Broadgate Tower 20 Primrose Street London EC2A 2ES (GB)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 19 May 2023 rejecting the opposition filed against European patent No. 3376185 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	T. Häusser
Members:	M. Ley
	G. Decker

Summary of Facts and Submissions

I. The appeal is against the decision of the opposition division to reject the opposition against European patent EP-B-3 376 185 pursuant to Article 101(2) EPC.

II. The impugned decision cited *inter alia* the following documents:

D1	JP 2016-61690
D1a	machine translation of D1
D9	SSC Spiral Conveyors, WAMGROUP, September 2012
D11	WO 2006/092148 A1
D12	"plate", Merriam-Webster online dictionary
D13	"plate", Oxford English Dictionary
D15/D15a	Translation of Japanese characters used in D1

III. The appellant (opponent) requests that the decision under appeal be set aside and that the patent be revoked.

It requests remittal of the case to the opposition division if the board considered documents D1 to D15a, including D10a, non-prejudicial to the maintenance of the opposed patent according to the main request or any of the respondent's auxiliary requests.

IV. The respondent (patent proprietor) requests as a main request that the appeal be dismissed, i.e. that the patent be maintained as granted.

Alternatively, it requests that the case be remitted to

the opposition division for further prosecution on the basis of all auxiliary requests, or at least of auxiliary request 5 or at least of auxiliary requests 7 to 9.

Alternatively, it requests that the decision under appeal be set aside and that the patent be maintained in amended form on the basis of the claims according to one of auxiliary requests 1 to 9, auxiliary requests 1 to 6, 8 and 9 filed as auxiliary requests 1 to 8 with the reply to the statement of grounds of appeal and auxiliary request 7 filed with the letter dated 30 September 2025.

The respondent submitted with a letter dated 24 February 2026 the following documents:

D21 International Standard ISO 6929:2013, "Steel Products – Vocabulary"
D22 British Standard EN 12258-1:2012, "Aluminium and aluminium alloys – Terms and definitions", Section 2., "Aluminium materials and products"
D23 International Standard ISO 197/3:1983, "Copper and copper alloys — Terms and definitions"

V. Claim 1 **as granted** has the following wording (feature labelling according to the impugned decision):

a) *A combination weighing device (1) comprising:*
b) *a weighing unit (6) which weighs a weighing target;*
c) *a trough (41) which extends toward the weighing unit (6);*
d) *a screw (100, 100A) which is rotated inside the trough (41) so that the weighing target fed into the*

trough (41) is conveyed toward the weighing unit (6); and
e) *a rotational driving unit (105) which rotates the screw,*
f) *characterized in that the screw (100, 100A) is a non-axial member that is formed as a spiral plate-shaped member (101, 101A) extending in a weighing target conveying direction.*

Claim 1 of **auxiliary request 1** corresponds to claim 1 as granted with the additional feature g) after feature f):

g) *and comprising a gap between a bottom surface of the trough (41) and the screw (100, 100A).*

Claim 1 of **auxiliary request 2** corresponds to claim 1 of auxiliary request 1 with the additional feature h) after feature e):

h) *wherein the screw (100, 100A) is formed as a cantilever structure in which an upstream end portion in the weighing target conveying direction is connected to the rotational driving unit (105) and is supported by the upstream end portion connected to the rotational driving unit,*

Claim 1 of **auxiliary request 3** corresponds to claim 1 of auxiliary request 2 with the additional feature i) after feature g):

i) *wherein the gap is widened toward a downstream side in the weighing target conveying direction.*

Claim 1 of **auxiliary request 4** corresponds to claim 1 as granted with the additional feature j) after feature f):

j) *wherein the screw (100, 100A) does not include a core for suppressing the staying of the weighing target.*

Claim 1 of **auxiliary request 5** corresponds to claim 1 as granted with the additional feature k) after feature f):

k) *wherein the screw (100, 100A) does not have a shaft member other than the plate-shaped member (101, 101A).*

Claim 1 of **auxiliary request 6** includes features a) to e), h), f), k), g) and i), in this order.

Claim 1 of **auxiliary request 7** corresponds to claim 1 as granted with amended feature f):

f)$_{AR7}$ *characterized in that the screw (100, 100A) is a non-axial member that is formed as a spiral plate-shaped member (101, 101A) extending in a weighing target conveying direction that eliminates a space formed around the spiral axis when viewed in a spiral axis direction.*

Claim 1 of **auxiliary request 8** corresponds to claim 1 as granted with the additional feature l) after feature f):

l) *wherein the screw (100A) has a shape in which the plate-shaped member (101A) is twisted around a rotation axis of the screw such that a space extending in the weighing target conveying direction is not formed*

around the axis of the screw.

The wording of claim 1 of **auxiliary request 9** is not relevant for the present decision.

VI. The parties' arguments can be summarized as follows:

(a) The **appellant** argued that documents D21 to D23 should not be taken into account in the appeal proceedings and that document D1 disclosed the subject-matter of claim 1 as granted and of claim 1 of auxiliary requests 1 to 6. Late-filed auxiliary request 7 should not be taken into account in the appeal proceedings. There were no objections against a remittal to the opposition division for further prosecution on the basis of auxiliary request 8.

(b) The **respondent** argued that documents D21 to D23 should be taken into account in the appeal proceedings. D1 did not disclose feature f) so that the subject-matter of claim 1 as granted and of claim 1 of auxiliary requests 1 to 6 was novel over D1. Auxiliary request 7 should be admitted into the appeal proceedings as a reply to the board's preliminary opinion.

Reasons for the Decision

1. The present invention relates to a combination weighing device. A combination weighing device which conveys a weighing target fed into a trough to a weighing unit by rotating a screw disposed inside the trough is known in the prior art, see paragraph [0002] of the opposed patent. In this conventional device, the screw includes

a rod which is formed in a spiral shape and a pillar core which is disposed inside the rod, see paragraph [0003] of the opposed patent.

According to paragraph [0005] of the opposed patent, when such screw is cleaned, it is necessary to separate the core and the rod in order to clean a gap between the outer peripheral surface of the core and the rod, which results in a poor "cleaning performance".

The invention defined in claim 1 as granted describes a combination weighing device capable of highly accurately conveying a predetermined amount of a weighing target by a screw and improving a screw cleaning performance, see paragraphs [0006] and [0007] of the opposed patent. In particular, the screw according to claim 1 is a non-axial member that is formed as a "spiral plate-shaped member" extending in a weighing target conveying direction.

2. Admittance of respondent's documents D21 to D23

2.1 The respondent requests to take into account documents D21 to D23.

The respondent pointed out that the appellant had argued in its statement setting out the grounds of appeal that the term "plate-shaped" at most meant "non-circular", so that the cross-sectional configuration of the spiral decreased the space around the spiral axis relative to the space that would have existed if the cross section of the spiral member had been circular. Sections 4.7, 4.10, 4.11 and 5.10 of the statement setting out the grounds of appeal, which were indicated by the appellant, concerned a different question.

On the other hand, the respondent itself argued in its reply to the statement setting out the grounds of appeal (see the last sentence of the section 2.2.1) that the term "plate-shaped" referred to "a sheet with a thickness much less than its dimensions in other directions".

In its preliminary opinion, the board had provisionally indicated that it intended to adopt an interpretation that was not put forward by either party, and that lay somewhere between the positions put forward by the parties, namely that a spiral plate-shaped member was a "flat" sheet that had been formed into a spiral, i.e. that said flat sheet had a "rectangular cross-section" but that the "wording plate-shaped encompasses all elongate rectangular cross-sections" (see section 7.1.4 of the board's communication under Article 15(1) RPBA).

This new interpretation by the board amounted to a new allegation of fact vis-à-vis the skilled person's understanding of the dividing line between a plate and a rod. Namely, that the skilled person would consider anything with an elongate rectangular cross-section to be a plate, as compared with a non-elongate rectangular, i.e. square, or other cross-sectional shape, such as circular, which it would not consider a plate under the proposed interpretation.

Thus, there were exceptional circumstances within the meaning of Article 13(2) RPBA.

In reply to the board's preliminary opinion, documents D21 to D23 were submitted to demonstrate that this interpretation was not consistent with typical engineering terminology and the concerned common general knowledge of the skilled person. These

documents explained the distinction between flat products (e.g. plates) and long products (e.g. rods). It was only the proposal of a clear demarcation between plate and non-plate that rested solely on the elongate nature of a rectangle that the relevance of the present evidence had become clear to the respondent. Moreover, documents D21 to D23 were challenging to find and to evaluate for the respondent. They were submitted at the earliest possible moment.

The respondent also cited the *Case Law of the Boards of Appeal* (CLBoA), 11th Edition, V.A.4.5.5, according to which the filing of international standards shortly before the oral proceedings was admissible.

The respondent also noted that D21 to D23 spoke against the board's interpretation and in favour of the one that the respondent had put forward. The impact of their admission would therefore be to endorse an interpretation already on file and as adopted in the decision under review. They would not change the underlying argument that a plate was more than an elongated rectangle.

2.2 The appellant requests not to take into account "extremely" late-filed documents D21 to D23 as they would not change the board's preliminary conclusion. They were not relevant as they concerned specific standards for specific metals valid in different countries and not combination weighing devices, while the opposed patent did not disclose any specific material for the spiral member.

The appellant also argued that its claim construction in the statement setting out the grounds of appeal was not limited to merely exclude circular cross-sections,

see points 4.7, 4.10, 4.11 and 5.10, where it had pointed out that the aspect ratio between width and height of the plate was not known and that D12 and D13 defined a plate in ambiguous terms.

Documents D21 to D23 should have been filed as a reply to the statement setting out the grounds of appeal. There were no exceptional circumstances that would justify their submission approximately one week prior to the oral proceedings.

2.3 Board's assessment

2.3.1 The board notes that there was a disagreement among the parties about the interpretation of the term "plate-shaped" already during the opposition proceedings, see e.g. point 5 of the minutes of the oral proceedings or point 20.1 of the Reasons of the decision under appeal.

In its communication pursuant to Article 15(1) RPBA, the board did not agree with the appellant's broader interpretation, see the fourth and fifth paragraphs of item 7.1.4. It tended to agree with the respondent, see the sixth paragraph of said item, while taking into account the appellant's point that the opposed patent does not impose any upper or lower limits on the aspect ratio between the width and height of the cross section of the spiral member.

In other words, in its communication, the board did not introduce a completely new interpretation of the term "plate-shaped", but rather provided its preliminary view taking into account the arguments of both parties.

It is at least questionable if this constitutes

exceptional circumstances that would justify the late submission of documents D21 to D23.

2.3.2 For the sake of argument, the board assumes that there were exceptional circumstances due to the board's preliminary opinion.

In applying Article 13(2) RPBA, the board may rely on the criteria set out in Article 13(1) RPBA (see CA/3/19, page 12, point 60 and the explanatory notes to Article 13(2) RPBA on page 43, second paragraph; see also CLBoA, section V.A.4.5.1 a), last paragraph). These criteria include the current state of the proceedings and the need for procedural economy.

The state of the proceedings and the need for procedural economy taken together imply a requirement on a party to present appropriate requests as soon as possible if such requests are to be admitted and considered (T 1033/10, Catchword and Reasons, point 5.5). While T 1033/10 was issued when Article 13(1) RPBA 2007 was in force, the present board sees no reason to deviate from this interpretation of these criteria in applying Article 13 RPBA.

According to the catchword of T 1707/17, Article 13(2) RPBA requires the party not only to explain why the case involves exceptional circumstances, but also to explain why its amendment, in terms of both content and timing, represents a justified response to these circumstances. In particular, where a party seeks to amend its case at a very late stage in the proceedings, the cogent reasons referred to in Article 13(2) RPBA should include reasons why it was not possible to file such an amendment earlier.

In the present case, the communication under Article 15(1) RPBA was issued on 27 June 2025 and included a statement requesting possible submissions to be made at least one month before the date set for oral proceedings. The respondent did not submit documents D21 to D23 with its reply of 30 September 2025, but waited until 24 February 2026, i.e. shortly prior to the oral proceedings before the board on 5 March 2026, without providing any explanation as to the late timing of the filing of D21 to D23.

The respondent's explanation given only during the oral proceedings that the late filing was due to difficulties to find and evaluate D21 to D23 does not convince the board as it does not establish a causal link between the exceptional circumstances (i.e. the board's preliminary opinion) and the timing of the very late filing of D21 to D23 (shortly prior to the oral proceedings).

In addition, it should have been possible to identify, evaluate and submit D21 to D23 at the latest one month prior to the oral proceedings, in particular, because they allegedly only contain common general knowledge confirming the respondent's interpretation of "plate-shaped".

2.3.3 As to the section of the CLBoA indicated by the respondent, the board assumes that point V.A.4.5.5 e) (including decision T 415/20) was meant, as it is the only decision mentioned in this section dealing with the late filing of international standards.

In T 415/20, two ISO standards were submitted two days prior to the oral proceedings in reply to an argument of the appellant raised only two weeks before said oral

proceedings. Thus, their submission resulted from the development of the case on appeal and took place at the earliest possible point in time.

This is different from the present case, because the board's communication was issued more than eight months prior to the oral proceedings. There is no passage in T 415/20 indicating that late-filed documents have always to be taken into account when they are international standards, contrary to the respondent's view.

2.3.4 Finally, as pointed out by the appellant, documents D21 to D23 concern specific materials and give definitions valid in certain geographic regions. They do not give any definition in relation to spiral members, let alone combination weighing devices. They do not *prima facie* provide any clear definition of what might be meant by "plate-shape" in the context of a "non-axial member that is formed as a spiral plate-shaped member" used in a combination weighing device.

2.3.5 In view of these considerations, the board decided not to take into account documents D21 to D23 in the appeal proceedings (Article 13(2) RPBA).

3. Main request - novelty

3.1 The opposition division held that the term "plate-shaped" defined a structure that is regarded by the skilled person as "thin", see point 20.1.3 of the Reasons of the impugned decision. The skilled person would not regard the cross-sectional shape of the screw member shown in Figure 9B and described in paragraphs [0079] and [0080] of D1 as "thin". D1 did not disclose

a spiral "plate-shaped" member.

3.2 Appellant's position

3.2.1 Interpretation of "plate-shaped"

In accordance with the CLBoA, 11th edition 2025, II.A. 6.1, claims should essentially be read and interpreted on their own merits, and the wording of the claims should typically be given its broadest technically sensible meaning by a skilled reader.

For the appellant, the term "plate-shaped" did not by itself imply any upper or lower limits on the aspect ratio between the width and height of the cross section of the spiral member. At most, the term "plate-shaped" provided a distinction over a circular rod.

The specific meaning "thin" was relative, undefined and inconsistent with the description of the opposed patent. This interpretation of the term "plate-shaped" relied upon by the opposition division was narrower than the broadest technically sensible meaning which the skilled reader would derive from the opposed patent. The upper limit for the width-heigh ratio of the plate-shaped member was, however, undefined and not derivable from the opposed patent. Reference was also made to T 1127/16.

The description of the opposed patent did not define the term "plate-shaped" in structural terms. Paragraphs [0008] and [0038] mentioned an effect of a non-axial plate-shaped spiral member, namely to decrease or eliminate a space formed around the spiral axis, compared to where the screw member was a spiral rod with a circular cross-section, as shown in Figure 2 of

D11; the Japanese family member of D11 being discussed in paragraphs [0002] and [0003] of the opposed patent.

The relative term "thin" would not limit the spiral plate-shaped member over any member in the prior art defined by a cross-sectional configuration with a height larger than its width, or otherwise fulfilling the functionality of reducing the space formed around the spiral axis of the screw.

The dictionary entries in documents D12 and D13 for the term "plate" only used relative and ambiguous terms (D12: "thin"; D13: "flat").

Therefore, neither claim 1 itself, nor the description of the opposed patent, provided any definition of the term "plate-shaped", and no justification for excluding a member with a rectangular cross-section as that of Figure 9B of D1 from the term "plate-shaped" existed. The common general knowledge of the skilled person and the ordinary meaning of the term "plate-shaped" also did not provide an unequivocally clear definition of the term "plate" or "plate-shaped" in the present context.

Hence, for the appellant, the term "spiral plate-shaped member" at most meant non-circular so that the cross-sectional configuration of the spiral decreased the space around the spiral axis relative to the space that would have existed if the cross section of the spiral member had been circular.

3.2.2 Disclosure of D1

D1 disclosed features a) to e), see points 5.1 to 5.6 of the statement setting out the grounds of appeal.

D1 indisputably disclosed that the screw was a non-axial member that was formed as a spiral member extending in a weighing target conveying direction, see Figures 5, 6 and 10 of D1.

The screw of D1 (D1a, [0077], "the linear member may have a shape other than a perfect circular shape"; [0080], Figure 9B, "rectangular cross section") had a width-height ratio significantly smaller than one and it reduced the space around the spiral axis relative to the space in the situation of a spiral rod according to the prior art. Figure 9B of D1 disclosed a significant difference between the height and the width of the rectangular cross-section.

As shown in Figure 9B of D1, the cross section of the screw member included a convex portion 231aa protruding from the virtual perfect circle K2. The rectangular cross-section configuration of the spiral thus decreased the space around the spiral axis relative to the space that would have existed if the cross section spiral member had been circular.

Even using the opposition division's interpretation, the cross section of figure 9B was "thin" and thus "plate-shaped". The fact that a technical effect of the protrusion was not mentioned in D1 was not relevant for the assessment of novelty.

D1 thus disclosed the subject-matter of claim 1 as granted.

3.3 Respondent's position

3.3.1 Interpretation of "plate-shaped"

It was well established that the skilled person would try, with synthetical propensity, to arrive at an interpretation of the claim which was technically sensible and took into account the whole disclosure of the patent, and that the patent must be construed by a mind willing to understand, not a mind desirous of misunderstanding (CLBoA, section II.A.6.1, T 1127/16). The terms in the claim must also be given their normal meaning in the relevant art (CLBoA, section II.A. 6.3.3). The claims were directed to a technical audience rather than a philologist or logician, see T 2619/11.

The respondent argued that it was immediately evident that the interpretation proposed by the appellant, i.e. that "the term spiral plate-shaped member at most meant non-circular", was not in keeping with the principles established in the case law. For example, a triangular bar would not be "plate-shaped" within the normal meaning of the term illustrated by D12 and D13 ("a flat sheet or lamina", "a smooth flat thin piece of metal"). A spiral plate-shaped member was a flat sheet that had been formed into a spiral.

The appellant also incorrectly assumed that anything that decreased or eliminated a space formed around the spiral axis compared to a spiral rod had to be considered a spiral plate-shaped member.

A skilled person would not understand from the wording of feature f) that all elongate rectangular cross-sections were encompassed. For example, a

rectangular bar having cross-sectional dimensions of 30 mm by 31 mm was not "plate-shaped". Hence, a rectangular bar with only a tiny deviation from square was not "plate-shaped".

The term "plate" was not unclear as the skilled person recognised a clear difference between a rod or bar and a plate. The skilled person would know a plate when they saw one, and they would know that not every rod that was non-circular in cross-section was plate-shaped, just like they would know that a rectangular bar having only a tiny deviation from square was not plate-shaped. This could be gathered from the claim wording alone, but was not contradicted by the description. The skilled person would know that a plate would normally be understood to be a sheet with a thickness much less than its dimensions in other directions.

3.3.2 Disclosure of D1

D1 disclosed a linear screw member with a cross-section that included a "convex portion" to better transmit the conveying force. The projection in D1 was provided to improve the ability of the spiral member to grip and convey thin, soft and slippery products. It was not intended to provide any appreciable effect on reducing the size of the space inside the screw.

In Figure 9A of D1, said protrusions were provided by the corners of a square-shaped rod.

Figure 9B and paragraph [0080] disclosed a linear member having a rectangular cross-section, while "linear" meant a one-dimensional line in accordance with D15 and D15a. No dimensions could be derived from

Figure 9B (see CLBoA, section I.C.4.6). Figure 9B thus provided a generic disclosure of a rectangular cross-section and not the specific plate-shaped spiral member as claimed.

Since D1 was generic in respect of its disclosure of a linear member with a rectangular cross-section, and so encompassed any level of deviation from square, this would not be considered by the skilled person to be directly and unambiguously "plate-shaped" as it would normally be understood from claim 1 of the opposed patent.

The present case did not correspond to a case where one possible interpretation of claim 1 would be anticipated by document D1 and another possible interpretation would provide novelty. The skilled person would not consider the shape of Figure 9B to be "plate-shaped". In the respondent's view the spiral screw of Figure 9B remained a spiral rod and was not a spiral plate. In other words, D1 did not disclose feature f) even if the term "plate-shape" was not clear.

3.4 Board's assessment

3.4.1 It is undisputed that document D1 discloses features (a) to (e). There is disagreement between the parties on what should be understood by the term "plate-shaped" in feature f) and whether this feature is disclosed in document D1.

3.4.2 The board is not convinced that a "plate-shaped" member is merely "thin" as held by the opposition division. If this were true it seems that all non-axial spiral members 31 of D1 could be considered "thin", e.g. compared to the respective troughs, so that feature f)

would be considered disclosed in D1.

3.4.3 Neither the opposed patent as a whole nor dictionary extracts D12 and D13 provide a clear definition of what is meant by "plated-shaped" in the context of non-axial spiral members of a screw.

3.4.4 The term "plate-shaped" does not merely exclude only circular cross-sections, as argued by the appellant, because the skilled person would probably not refer to a spiral member with a triangular cross-section as "plate-shaped".

The board does not concur with the appellant that a plate-shaped spiral member would necessarily decrease or eliminate a space formed around the spiral axis, compared to a screw member made by a spiral rod with a circular cross-section as e.g. shown in Figure 2 of D11. Whether this effect is indeed achieved does not only depend on the cross-section of the spiral member but also on the particular geometry and size of the whole screw. For example, said space depends on the diameter of the cross-section of the spiral member. Hence, it cannot reasonably be said that anything that decreased or eliminated a space formed around the spiral axis must be considered a spiral plate-shaped member, either.

3.4.5 The board agrees with the respondent that a spiral plate-shaped member is a "flat" sheet that has been formed into a spiral, i.e. that said flat sheet has a rectangular cross-section. The thickness or height of a plate or "flat sheet" is smaller than its width so that a square cross-section is excluded.

However, as pointed out by the appellant, the opposed

patent does not impose any upper or lower limits on the aspect ratio between the width and height of the cross section of the spiral member. Such aspect ratio cannot be derived from the common general knowledge of the skilled person, either. There is no clear definition in the context of screws with spiral members as to when a rectangular element is "plate-shaped" and when it is not. The board thus has doubts that the skilled person would recognise a "plate-shaped" member when seeing a spiral member, as argued by the respondent.

For the board, the wording "plate-shaped" encompasses in the present context all elongate rectangular cross-sections, which is the broadest technically sensible meaning understood by a skilled reader.

3.4.6 D1 discloses a screw member 31 (Figures 5 and 6) in a trough 21 (Figures 2 and 3). A screw member 31 includes a linear member 31a having a cross-section.

Using the translation provided by the respondent, it can be said that element 31 is a "thread-like thin continuous line" that has "space and length, but not width and thickness". Insofar, the board considers that the term "linear member 31a" is an accurate translation of the Japanese text.

In Figure 5, the linear member is obtained by spirally forming a wire rod having a circular cross-section (D1a, [0051]). A "convex portion forming portion 31b" formed by a wire rod having a rectangular cross section is fixed (e.g. by welding) to a part of the surface of the linear member 31a, see Figures 6 to 8, D1a, [0052] to [0054], so as to form a "convex portion 31ba".

Paragraph [0077] of D1a states that the linear

member 31 can also be provided without the convex portion 31ba and then has a cross section different from a circle.

Examples are given in Figures 9A to 9D. Figure 9B clearly discloses a linear member with a rectangular cross-section, see paragraph D1a, [0080]. As pointed out by the appellant, the skilled person understands from Figure 9B that there is a significant or notable difference between the height and the width of the cross-section of the spiral member 31, although no precise aspect-ratio is derivable from the figures. According to the board's interpretation, this is a plate-shaped member so that feature f) is disclosed in D1.

Thus, the subject-matter of claim 1 lacks novelty over D1 so that the ground for opposition under Article 100(a) in combination with Articles 52(1), 54(1) and (2) EPC prejudices the maintenance of the opposed patent as granted.

4. Remittal to the opposition division for further prosecution on the basis of auxiliary requests 1 to 6 or at least auxiliary request 5

4.1 The respondent requested that the case be remitted to the opposition division for consideration of the auxiliary requests. The board's interpretation of the term "plate-shaped" fundamentally changed the assessment of both novelty and inventive step, "with ramifications substantially changing application of the problem-solution test for the auxiliary requests". Reference was made to CLBoA, section V.A.9.3.2 d) and T 607/17.

4.2 As pointed out in point 2.3.1 above, the board did not introduce in its communication a completely new interpretation of the term "plate-shaped", but rather provided its preliminary view taking into account the arguments of both parties. The board does not interpret the wording of claim 1 fundamentally differently than the respondent, contrary to the situation in T 607/17.

The board notes that both the appellant (see statement setting out the grounds of appeal, point 8., and its letter dated 25 June 2024, point 7.) and the respondent (see its reply to the statement setting out the grounds of appeal, points 3. to 10., and its letter dated 20 August 2024, point 3.) dealt with auxiliary requests 1 to 6.

Hence, the board is in a position to assess whether or not the objection raised against claim 1 is granted, i.e. the lack of novelty over D1, is overcome by any of the auxiliary requests 1 to 6. This also includes auxiliary request 5.

Therefore, the board, exercising its discretion under Article 111(1) EPC, decided during the oral proceedings not to remit the case to the opposition division for further prosecution on the basis of auxiliary requests 1 to 6.

5. Auxiliary requests 1 to 6 - novelty

5.1 Auxiliary requests 1 and 2

5.1.1 The respondent argued that a gap between a screw and a trough was not implicit, as exemplified in D9, page 1, line 3.

During the oral proceedings, the respondent argued that according to paragraphs [0014] and [0045] of D1a, the "gap" in D1 was an optional feature and there was no disclosure of an embodiment with the features of both Figures 3 and 9B of D1. There was no disclosure of a spiral member of Figure 9B used in the arrangement of Figure 3.

5.1.2 The board is of the view that a gap between the bottom surface of the trough and the screw is disclosed in D1 (D1a, [0014], [0045], [0069], [0070], Figure 3). Moreover, the board has no doubts that Figures 9A to 9D show possible configurations of the linear member 31 used in Figures 1 to 4. In other words, the arrangement shown in Figure 3 with a gap and with the cross-section of Figure 9B is unambiguously disclosed in D1.

Moreover, Figures 2, 3, 5 and 6 and [0048] of D1 disclose the cantilevered structure (screw 31, holder 32, shaft portion 33).

Hence, the subject-matter of claim 1 according to auxiliary requests 1 and 2 is not novel over D1 (Articles 52(1), 54(1) and (2) EPC).

5.2 Auxiliary request 3

5.2.1 The respondent argued that it could not be derived from D1 that the screw was *not* inclined so that no widening gap was disclosed. The figures were merely schematic. Paragraph [0040] of D1a only mentioned that the trough was "inclined so that its outer edge is lower". This did not imply a gap between the trough and the screw. For example, the screw might be inclined in the same way as the trough.

5.2.2 The board notes that the additional feature is indeed disclosed in Figure 3 of D1, see also D1a, paragraph [0040]. The diameter of the linear member 31 is not changed, see Figures 3 and 6, contrary to what the respondent argued. There is no indication for the skilled person, e.g. in Figures 3, 5 or 6 of D1, that the screw might be inclined. The skilled person would understand from Figure 3 that a widening gap is shown.

Hence, the subject-matter of claim 1 according to auxiliary request 3 is not novel over D1 (Articles 52(1), 54(1) and (2) EPC).

5.3 Auxiliary requests 4 and 5

5.3.1 The respondent did not contest that the screw in D1 does not include a core, see Figures 2, 3, 5, 6 and 10 of D1. Hence, the subject-matter of claim 1 according to auxiliary request 4 is not novel over D1 (Articles 52(1), 54(1) and (2) EPC).

5.3.2 The respondent argued that claim 1 of auxiliary request 5 required that the screw did not include a shaft member other than the plate-shaped member. This meant that there was only one screw member, i.e. no second screw and no core, the screw being the entire assembly rotating within the trough. This further distinguished the claimed subject-matter over D1, which disclosed that each screw had two shaft members in the form of screw members (see Figures 5, 6 and 10).

In other words, according to the respondent, the spiral member of claim 1 of auxiliary request 5 was a shaft and the screw had only this one shaft, and no other shafts or spiral members.

Claim 1 explicitly required that the screw "is a non-axial member that is formed as a spiral plate-shaped member" and that "the screw does not have a shaft member other than the plate-shaped member". The combination of a clear statement of what the screw is and confirmation that there is no other shaft member clearly limits the claim to one screw.

5.3.3 The board does not accept the respondent's reading of feature (k), because the skilled person would not label the spiral member a "shaft member". Moreover, the respondent's interpretation would exclude all specific embodiments shown in Figures 1 to 7B of the opposed patent. As shown e.g. in Figures 4 and 7A, the screw 100 according to the opposed patent has a screw shaft 103, see e.g. paragraphs [0032] to [0035] of the opposed patent, i.e. another "shaft member", contrary to the respondent's interpretation of the wording of feature (k). Figure 4 also shows that parts of the screw can be outside the trough, so that the screw is more than the assembly rotating within the trough.

As pointed out by the appellant, the penultimate sentence of original paragraph [0007] of the application as filed, forming the basis for the feature now incorporated into claim 1, indicates that the added wording is just an alternative way of defining the screw as non-axial, i.e. not having a shaft member, see also the penultimate sentence of paragraph [0037] of the application.

This is, however, disclosed in D1, see e.g. Figures 5 and 6, as the screw in D1 does not have "a shaft member other than the plate-shaped member", because it is non-axial. The second spiral member shown in Figures 3 and 6 is not a shaft and is not excluded by the wording

of claim 1, as pointed out by the appellant.

Hence, the subject-matter of claim 1 according to auxiliary request 5 is not novel over D1 (Articles 52(1), 54(1) and (2) EPC).

5.4 Auxiliary request 6

Claim 1 of auxiliary request 6 combines the claimed features of auxiliary requests 3 and 5. The subject-matter of claim 1 of auxiliary request 6 is therefore not novel over D1, either (Articles 52(1), 54(1) and (2) EPC).

6. Auxiliary request 7 - admittance

6.1 The respondent argued that auxiliary request 7 should be considered in the appeal proceedings.

In its statement setting out the grounds of appeal, the appellant objected that then auxiliary request 7 lacked an inventive step (see items 8.26 to 8.30). In item 8.31, the appellant objected that then auxiliary request 8 was unclear and lacked support in the description under Article 84 EPC, and that the embodiment of Figures 7A and 7B was inconsistent with the claim wording.

According to the respondent, the board in its preliminary opinion extended the comments made by the appellant in respect of then auxiliary request 8 also to then auxiliary request 7, suggesting that the claim wording of both auxiliary requests was inconsistent with the embodiments of Figures 7A and 7B on which they were based. In view of the board's comments particularly on then auxiliary request 7, which

extended beyond the comments made by the appellant on this request, it appeared that other objections beyond inventive step were contemplated at least for then auxiliary request 7.

Admittance of auxiliary request 7 based on paragraph [0007] was justified, as the suggestion that at least previous auxiliary request 7 was inconsistent with the embodiment of Figures 7A and 7B appeared to have been raised for the first time by the board in its preliminary opinion.

The amendment also straightforwardly attempted to address the new issue while still being directed to substantially similar claim wording, and so was not a complete change of direction by the respondent, but rather a justified refinement of the existing auxiliary requests based on new potential objections. The respondent stated that feature $f)_{AR7}$ had the same technical meaning as features f) and l) of the previous auxiliary request 7 (now auxiliary request 8).

For example, feature $f)_{AR7}$ meant that, when looking at the screw along the spiral axis, it was not possible to see a space along the length of the screw, as it was the case for Figures 7A and 7B. Comparing Figure 7B with Figure 5A of the opposed patent, for example, in the latter it would be possible to see through the screw along the length of the screw, e.g. to the end plate 102, whereas in Figure 7B it was not possible to see through the screw along the length of the screw.

6.2 According to the appellant, late-filed auxiliary request 7 should not be taken into account in the appeal proceedings.

The board's comments on the previous auxiliary request 7 did not extend beyond the comments made by the appellant on this request. The board's comments in section 9.5 of the communication appeared indeed to reflect, in substance, what was set forth in sections 8.24 to 8.31 of the statement setting out the grounds of appeal. The board's communication was not an invitation to file amended requests (CLBoA, section V.A.4.5.4 a)).

Moreover, the wording of feature $f)_{AR7}$ was neither clear, nor was it supported by the description. It was completely unclear what the wording was intended to cover, as the notion of "a space formed around the spiral axis when viewed in a spiral axis direction" made neither semantic nor technical sense.
As such, auxiliary request 7 violated the provisions of Article 84 EPC and introduced new complex issues, contrary to the need for procedural economy.

6.3 In section 9.5 of the board's communication under Article 15(1) RPBA entitled "Auxiliary requests 7 and 8", the board merely indicated that the interpretation of the added features might be discussed, and briefly summarised the appellant's main objections raised in points 8.24 to 8.31 of the statement setting out the grounds of appeal. No new objections were raised for the first time by the board.

It is thus at least questionable whether the board's preliminary view constitute exceptional circumstances that would justify the late submission of auxiliary request 7.

Furthermore, the board does not concur with the respondent that the wording of claim 1 directly implies

that the screw has a shape in which the plate-shaped member is twisted around a rotation axis of the screw. Moreover, claim 1 does not correspond to any granted claim and is open to an examination with respect to its clarity.

As pointed out by the appellant, the wording "that eliminates a space formed around the spiral axis" of claim 1 does not allow the skilled person to clearly understand where said "space" is positioned. Feature $f)_{AR7}$ does not imply that the space including the spiral axis (reference sign "c" in Figures 5A, 5B, 7A, 7B) and extending closely around said axis is necessarily meant. For example, as shown in Figure 5A of the opposed patent, the screw 101 also "eliminates" space which is positioned at a certain distance from, but still "around" the spiral axis.

Hence, claim 1 is *prima facie* not clear (Article 84 EPC) and therefore gives rise to new objections.

In view of these considerations, the board decided not to take into account auxiliary request 7 in the appeal proceedings (Article 13(2) and (1) RPBA).

7. Remittal to the opposition division for further prosecution on the basis of auxiliary request 8

As confirmed by the respondent during the oral proceedings, claim 1 of auxiliary request 8 is directed to the examples shown in Figures 7A and 7B of the opposed patent, Figures 1 to 6 not showing embodiments of the claimed screw.

Any decision at appeal on these requests would be going far beyond the scope of the original decision and would

not be in keeping with the primary object of the appeal procedure to review the decision under appeal in a judicial manner (Article 12(2) RPBA).

In view of this, the board accepts at this stage the respondent's request for a remittal of the case to the opposition division for further prosecution (Article 111(1) EPC). During the oral proceedings before the board, the appellant did not object to the remittal.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The case is remitted to the opposition division for further prosecution.

The Registrar: The Chairman:

S. Sánchez Chiquero T. Häusser

Decision electronically authenticated