Unified Patent Court
Einheitliches Patentgericht
Juridiction unifiée du brevet

Central Chamber (Munich Division)
UPC_CFI_714/2025

Decision

of the Court of First Instance of the Unified Patent

Court, Central Division (Munich Section)

issued on 21 July 2026

HEADNOTES:

1. A claim for a device defined by structural features is not, as a rule, limited to the device performing a specific function. For the purposes of assessing the novelty of such a claim, this means that if the prior art discloses a device which fulfils all the structural features of the claim and is at the same time suitable for the purpose specified in the claim, the claim lacks novelty, even if not all the technical effects of the claimed device described in the patent at issue but not claimed therein are realised in the same way in the prior art.

2. There is no obvious clerical error in the prior art if, from the perspective of a person skilled in the art, it does not seem far-fetched that a particular term is in fact intended in the sense in which it is formulated, and it is not immediately apparent to the person skilled in the art that a clerical error exists and that something other than what is formulated is intended.

KEYWORDS:

Device claim; obvious clerical error in the prior art; novelty. HEADNOTES:

1. A device claim defined by structural features is not, as a rule, limited to the device performing a specific function. For the purposes of assessing the novelty of such a claim, this means that if the prior art discloses a device which fulfils all the structural features of the claim and is at the same time suitable for the purpose specified in the claim, the claim lacks novelty, even if not all the technical effects of the claimed device described in the patent in question but not claimed are realised in the same way in the prior art.

2. There is no obvious typographical error in the prior art if, from the perspective of a person skilled in the art, it does not seem far-fetched that a particular term is in fact intended in the sense in which it is worded, and it is not immediately apparent to the person skilled in the art that there is a typographical error and that something other than what is stated is intended.

KEYWORDS:
Device claim; obvious clerical mistake in the prior art; novelty.

CLAIMANT

Raimund Beck Nageltechnik GmbH – Raimund-Beck-Straße 1 – 5270 – Mauerkirchen, Austria.

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DEFENDANT

BAUSSMANN Collated Fasteners GmbH – Eibachstraße 15 - 57413 – Finnentrop, Germany.

Represented by: Jochen Bühling, KRIEGER MES Attorneys-at-law PartmbB.

PATENT AT ISSUE

EP 4 283 140 B1

PANEL/CHAMBER

Panel 1 of the Central Chamber (Munich Division).

JUDGES

This decision was issued by the presiding judge and judge-rapporteur Kupecz, the legally qualified judge Adocker and the technically qualified judge Schenk.

LANGUAGE OF THE PROCEEDINGS

German.

SUBJECT MATTER OF THE

PROCEEDINGS Revocation action

ORAL HEARING

16 June 2026.

BRIEF SUMMARY OF THE FACTS

1. On 5 August 2025, the claimant brought an action for a declaration of invalidity of claims 1, 2, 5 and Claims 8 to 11 of patent EP 4 283 140 B1 (hereinafter: the patent at issue, Annex P&A 1) were filed with the Central Chamber, Munich Division.

2. The patent at issue is based on an application dated 15 March 2023 and claims the priority of the German patent application DE 10 2022 113 140 A1 dated 24 May 2022.

3. On the application of the patent proprietor, the EPO granted the patent at issue as a patent with unitary effect, with legal effect from 6 November 2024 (Annex P&A 2). Since that date, the patent at issue has had unitary effect in the Member States of Austria, Belgium, Bulgaria, Germany, Denmark, Estonia, Finland, France, Italy, Lithuania, Luxembourg, Latvia, Malta, the Netherlands, Portugal, Romania, Sweden and Slovenia.

4. The patent at issue, in which the language of the proceedings is German, relates, according to its title, to a fastening element made of wood and/or wood-based materials.

5. The contested claims 1, 2, 5 and 8 to 11 of the patent at issue read as follows:

1. A fastening element (10) made of wood and/or wood-based materials for joining at least two components consisting at least partly of wood, comprising a shank (11) and a tapered region (12) arranged at least partly on the shank, wherein the tapered region (12) is formed from at least one conically tapering segment ($_{141–145}$) and a further segment ($_{151–155}$) forming a tip and adjoining the conically tapering segment, wherein the circumferential side surfaces (16) of the tip are at an angle of 65 to 110°, preferably at an angle of 65 to 95°, to one another.

2. A fastening element according to claim 1, wherein the taper of the tapered segment ($_{151–155}$) is between 5 and 20° relative to the longitudinal centre axis (L) of the fastening element (10).

5. Fastening element according to one of the preceding claims, characterised in that the fastening element (10) comprises a head (K).

8. Fastening element (10) according to one of the preceding claims, characterised in that the shank (11), including the tapered end region (12), is formed from compacted wood and/or wood-based material.

9. A fastening element (10) according to one of the preceding claims, characterised in that the shank (11), including the tapered region (12), is formed from extruded, compacted wood-based material.

10. A fastening element (10) according to one of the preceding claims, characterised in that the density of the wood and/or wood-based material is greater than 1.1 g/cm^3.

11. Fastening element (10) according to one of the preceding claims, characterised in that the fastening element (10) is suitable for joining components that are not pre-drilled and consist at least partly of wood [Court's note: As in the original].

6. With regard to the wording of the remaining, uncontested claims, reference is made to the specification of the contested patent.

7. Opposition proceedings concerning the patent at issue are pending before the European Patent Office between the same parties. The Opposition Division has scheduled an oral hearing for 23 September 2026. Together with the summons to the oral hearing, the Opposition Division also communicated a preliminary opinion (Annex P&A 14), on which the parties have commented after being given the opportunity to do so.

ISSUES IN DISPUTE AND THE PARTIES' APPLICATIONS

8. The claimant asserts the grounds for nullity of inadmissible extension under Article 65 of the UPC Agreement
in conjunction with Article 138(1)(c) of the EPC, lack of novelty and lack of inventive step.

9. The claimant requests:

1. that European patent 4 283 140 be declared invalid to the extent of the granted claims 1 and 2, as well as 5 and 8 to 11;

2. that the defendant be ordered to bear the costs of the proceedings.

10. The defendant requests:

1. that the action for revocation be dismissed;

2. that the Claimant be ordered to bear the costs of the proceedings;

3. In the alternative to application 1: that European Patent 4 283 140 be upheld to the extent of auxiliary applications I to VII.

11. Reference is also made to the further submissions in the file in the CMS.

REASONS FOR THE DECISION

12. The admissible action for a declaration of invalidity is partially successful on the merits. The patent at issue, in so far as it has been challenged, is to be declared invalid in so far as it extends beyond the subject-matter claimed in the first alternative claim.

I. (International) jurisdiction and admissibility of the action for revocation

13. Pursuant to Article 32(1)(d) of the UPC Agreement, the UPC has exclusive jurisdiction over actions for the revocation of (European) patents with unitary effect. In view of this exclusive jurisdiction, the UPC – as a common court of several Member States (Article 71a of the Brussels Ia Regulation) – has, in principle, international jurisdiction over the present action for revocation on the basis of Article 71b(1) in conjunction with Article 24(4) of the Brussels Ia Regulation.

14. The Central Chamber (Munich Division) has jurisdiction on the basis of Article 33(4) of the UPC Agreement
in conjunction with Rule 17.3 of the RoP and Annex II to the UPC Agreement.

15. The action for revocation was brought against the proprietor of the patent at issue (Rule 42 of the RoP), so that, in this respect too, there are no objections as to its admissibility.

II. The patent at issue

16. According to [0001] of the description, the invention relates to a fastening element made of wood and/or wood-based materials for joining at least two components consisting at least partly of wood, comprising a shaft and a tapered portion arranged at least partly on the shaft. According to [0002], such prior art is known, for example, from DE 10 2015 107 371.4, which discloses a nail tip designed as a conical round tip. According to [0003], this tip geometry has the disadvantage that it deforms or even breaks off when driven into a wooden component, thereby preventing the wooden nail from being driven in in a straight line. However, this so-called ‘skidding’ of the wooden nail during the driving process into the wooden components to be joined reduces the driving speed, with the result that a lignin-based bonding of the nail with the wooden components to be joined does not occur reliably; instead, often only a friction-based connection (jamming) is achieved.

17. On this basis, the applicant has devised, in DE 10 2018 121 065, a tip geometry that does not exhibit the aforementioned disadvantages, in which the nail tip has an essentially ballistic shape, is shorter than 1.3 times the nail diameter, and is rounded at its free end. This tip geometry has the advantage that, during the driving process into the timber components to be joined, it does not deform or break off and is therefore driven in in a straight line [0004 of the description]. According to [0005]

, however, this tip geometry also increases the driving resistance, with the result that, during the driving process into the timber components, the driving speed is reduced to such an extent that a reliable lignin-based bond between the wooden fastener and the timber components does not occur.

18. According to [0006], DE 10 2017 100 753 describes a method for fastening a cellulose-based component to a component made of a different material. Specifically, it is disclosed therein that so-called gypsum fibreboards (Fermacell®) are fastened to a timber structure using a pneumatic nailer, with wooden nails whose tips are shaped as conical round points. Here too, tests have shown that, particularly in the gypsum fibreboards, a reliable lignin-based bond does not form, but only a friction-based connection (interlocking).

19. In addition, [0007] also refers to the publications EP 4 276 319 A1 and EP 4 027 026 A1, which form part of the prior art pursuant to Article 54(3) of the EPC, as well as to WO 2018/172031 A1. The last-cited document discloses a nail made of lignocellulosic material. The tip of the nail is conical in shape and the tip angle is 90°.

20. Based on the state of the art described above, according to [0008], the objective of the invention is to provide a new fastening element made of wood and/or wood-based materials for joining at least two components consisting at least partly of wood, which enables straight-line driving with relatively low driving resistance and high driving speed, so that a reliable lignin-based bond is formed between the fastener and the components to be joined.

21. According to [0009], the solution to the problem arises from the article having the features of claim 1. According to [0010], this inventive design of the tip of the new fastener, made of wood and/or wood-based materials, has the key advantage that the tip does not deform and therefore does not break off, thereby enabling straight-line driving, particularly into slow-growing woods (with high density), such as Nordic spruce, Nordic pine and Siberian larch. According to [0011], the tip geometry of the invention also significantly reduces the driving resistance, enabling the fastener to be driven in a straight line (with stable directionality) into a component consisting at least partly of wood, without ‘veering off course’. Furthermore, due to the low driving resistance, the driving speed remains relatively high until the end of the driving process, thereby reliably resulting in a lignin-based bonding of the wooden fastener to the components to be joined, which consist at least partly of wood.

22. As its principal claim, the defendant and patent proprietor defends the patent at issue in the form in which it was granted. The features of the contested claim 1 can be broken down as follows (this breakdown is based on the breakdown submitted by the Claimant in P&A3):

1	Befestigungselement (10)
1.1	aus Holz und/oder Holzwerkstoffen zum Verbinden von mindestens zwei, wenigstens teilweise aus Holz bestehenden Bauteilen,
1.2	bestehend aus einem Schaft (11) und einem wenigstens teilweise am Schaft angeordneten sich verjüngenden Bereich (12),
1.3	wobei der sich verjüngende Bereich (12) aus mindestens einem konisch zulaufenden Segment (14_1 - 14_5) und einem eine Spitze ausbildenden, an das konisch zulaufende Segment sich anschließenden weiteren Segment (15_1 - 15_5) gebildet wird,
1.4	wobei umlaufende Seitenflächen (16) der Spitze im Winkel von 65 bis 110 °, bevorzugt im Winkel von 65 bis 95°, zueinanderstehen.

23. In view of the dispute between the parties, some features require clarification as to their interpretation.

Principles of interpretation

24. Pursuant to Article 69 EPC, read in conjunction with the Protocol on its interpretation, the patent claim is not merely the starting point but the decisive basis for determining the scope of protection of a European patent. The interpretation of a patent claim does not depend solely on its exact wording in the linguistic sense. Rather, the description and the drawings must always be taken into account as aids to the interpretation of the patent claim and must not be used merely to remedy any ambiguities in the patent claim. However, this does not mean that the patent claim serves merely as a guideline and that its subject-matter also extends to what, following an examination of the description and the drawings, appears to be the patent proprietor's claim to protection. In applying these principles, appropriate protection for the patent proprietor should be combined with sufficient legal certainty for third parties. The patent claim must be interpreted from the perspective of a person skilled in the art. These principles for the interpretation of a patent claim apply equally to the assessment of infringement and the validity of a European patent (Court of Appeal, UPC_CoA_335/2023, Order of 26 February 2024; Court of Appeal, UPC_CoA_1/2024, Order of 13 May 2024; Court of Appeal, UPC_CoA_182/2024, Order of 25 September 2024).

25. A person skilled in the art always interprets a feature of a patent claim in the light of the claim as a whole (see Court of Appeal, UPC_CoA_768/2024, order of 30 April 2025). From the function of the individual feature within the context of the patent claim as a whole, the person skilled in the art will deduce the technical function of the feature, both individually and in its entirety. With regard to the terminology used in a patent specification, this may lead the person skilled in the art to attribute a meaning to a term that differs from its general linguistic usage. The patent specification may define terms independently and, in this respect, constitutes its own glossary (Munich local division, UPC_CFI_248/2024, decision of 22 August 2025; Munich Central Chamber, UPC_CFI_1/2023, decision of 16 July 2024; Paris Central Chamber, UPC_CFI_309/2023, decision of 5 November 2024).

The person skilled in the art

26. The parties have not defined the person skilled in the art in their pleadings. In the Court's view, a person skilled in the art with regard to the subject-matter of the invention is to be regarded as a university graduate in mechanical engineering who has several years' professional experience in the field of processing and joining components, including the development of corresponding fasteners. In addition, the person skilled in the art must possess the knowledge of a university graduate with professional experience in the field of materials science, including experience with relevant non-metallic materials, in particular wood-based materials.

Interpretation of individual features from the perspective of the person skilled in the art

27. According to **feature 1.1**, the fastening element is suitable for joining at least two components consisting, at least in part, of wood. Feature 1.1 leaves open the question of whether the components must be pre-drilled. It is only in claim 10 that it is specified that the components need not be pre-drilled. It can therefore be assumed that the fastening element according to feature 1.1 is suitable for joining pre-drilled or non-pre-drilled components.

28. A fastening element is usually understood to mean an element for fastening two components together. As it is intended to consist of wood or a wood-based material, this could, for example, be a nail or a dowel. Although the patent at issue describes only nails in relation to the prior art and in the examples of implementation, the claim is not limited to this. Rather, the fastening element is characterised by its structural design, consisting (according to feature 1.2) of a shaft, as well as a tapered portion with a tip, arranged partially on the shaft (feature 1.3).

29. Feature 1.1 further requires that the fastening element be made of wood and/or wood-based materials. The description of the patent at issue contains no definition of the term 'wood and/or wood-based material'. It is left to the person skilled in the art to select, on the basis of

their technical knowledge. It must therefore be assumed that feature 1.1 is to be interpreted broadly and that this feature does not impose any restriction to specific types of wood or wood-based materials.

30. According to **feature 1.2**, the fastening element comprises a shaft and a tapered region arranged at least partially on the shaft. The patent at issue defines the tapered region solely on the basis of the segments that form the region (see below). Typically, a person skilled in the art understands a tapered region to mean a three-dimensional body whose cross-section decreases along an axis. It remains open whether further regions, such as a head, are formed on the shaft (for example, at the other end of the shaft). It also remains open whether such further regions are tapered (conically) or not.

31. According to **feature 1.3**, the tapered section arranged on the shank is formed by at least one conically tapering segment and a further segment, which forms a tip and adjoins the conically tapering segment. Accordingly, features 1.2 and 1.3 define the precise sequence of the structural configuration of the fastening element in the axial direction, whereby a tapered region is ordered on the shank, consisting of at least one conically tapering segment 14 and a further segment 15 adjoining it, which forms the tip 16.

32. Feature 1.3 does not specify the exact geometric shape that the further segment must have. It merely requires that this further segment forms a tip. It follows from this that the further segment may have a shape differing from the conical shape of the tapered segment 14. In this context, the term ‘tip’ makes it clear that the end of the fastening element is referred to.

33. In this sequence of segments, it is not envisaged that any additional segments or areas are provided between the further segment forming the tip and the tapered element, as is also apparent from the wording of feature 1.3:
‘…the further segment adjoining the tapered segment’. ‘Adjoining’ excludes any elements or segments between the further segment forming the tip and the tapered element.

34. It follows from the addition ‘comprising at least one tapered segment’ that the tapering region of the fastening element may also comprise more than one tapered segment. Contrary to the view put forward by the defendant in its arguments regarding lack of novelty vis-à-vis D1 (paragraph 23 of the rejoinder), the person skilled in the art finds no basis in either the claim or the description for interpreting the claim to mean that – in the event that several tapered segments are present – these any further segments would have to taper further relative to the respective

preceding segment.

35. Claim 1 does not specify the length or the taper of the tapered segment. Since the taper of the tapered segment is defined only in claim 2 and the length in claim 4, it must be assumed that tapered segments with a very small cone angle are also covered. This is also demonstrated by the examples of embodiment shown in Figures 1 to 5 of the patent at issue, in which the required structure of the fastening element is illustrated with various tapered segments and subsequent further segments 14, 15, in which the length l and the cone angle α vary. These are followed by the conical tip with side surfaces and various angles β. Each embodiment is associated with a pair of angles α, β.

36. **Feature 1.4** requires that the circumferential side surfaces of the tip form an angle of between 65 and 110°, preferably between 65° and 95°, with respect to one another. The defendant has argued that a person skilled in the art would interpret feature 1.4 as defining a tapered tip and, in particular, as excluding ballistic tips. However, there is no basis in the wording of the claim for such a restrictive interpretation. The claim does not, in fact, require the tip to be ‘conical’. Whilst the examples given in the description all relate to a conical tip, the scope of protection of a patent claim is not, as a rule, limited to this.

37. It is true that the defendant correctly and uncontestedly points out that (in a geometric sense) a ballistic tip does not have a constant opening angle and that, in the case of a ballistic contour, an angle can only be determined at a specific point by drawing a tangent. However, it can be left open whether this means that ballistic tips as such are excluded from the claimed subject-matter. In any event, the patent distinguishes itself from the nail mentioned in the description, which is known from the prior art, where the nail tip has an essentially ballistic shape, is shorter than 1.3 times the nail diameter and is rounded at its free end (paragraphs [0004]–[0005]). As a general rule, where a patent distinguishes itself from the prior art in a specific manner, an interpretation that would run counter to that distinction must be avoided (LD Düsseldorf UPC_CFI_373/2023, decision of 31 October 2024, SodaStream v Aarke, 2nd headnote). Ballistic tips which are both rounded and shorter than 1.3 times the nail diameter, as disclosed in the prior art according to the description, are therefore excluded.

III. Grounds for invalidity against the main claim

38. The patent at issue – in so far as it is challenged – is not valid in the version set out in the main claim.

On the question of exceeding the scope of the original disclosure

Principles

39. An impermissible extension of the subject-matter occurs where the subject-matter of the granted claim goes beyond the content of the application as originally filed. To determine this, the court must therefore first establish what information a person skilled in the art, viewed objectively and with reference to the filing date, would immediately and unambiguously derive from the entirety of the application as filed, using their general technical knowledge. In this context, implicitly disclosed subject-matter must also be regarded as part of its content, i.e. that which follows clearly and unambiguously from what is expressly stated (UPC_CoA_762/2024, UPC_CoA_773/2024, decision of 5 November 2025, Viosys v expert).

Assessment on a case-by-case basis

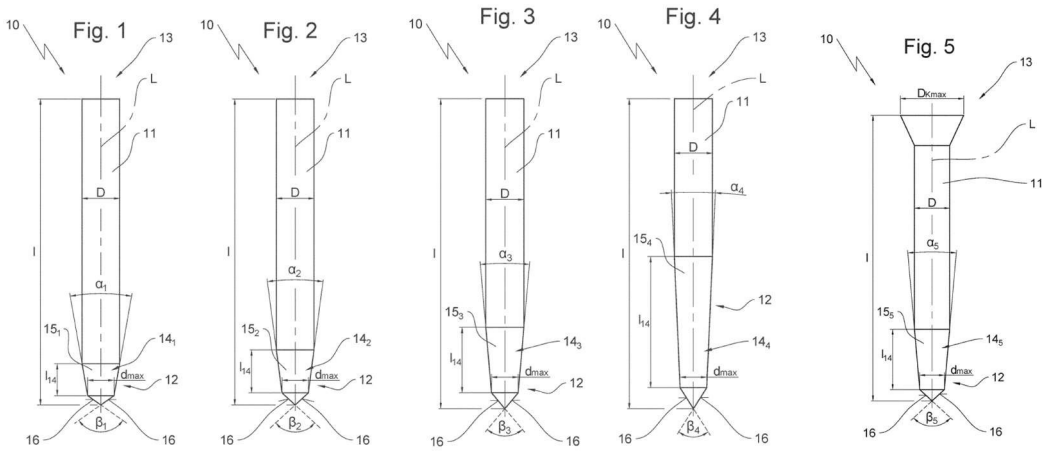
40. The claimant takes the view that the subject-matter of granted patent claim 1 goes beyond the content of the original application, because a general disclosure of the sub-feature (1.3) ‘adjacent to the tapered segment’ is not to be found in the original disclosure of the documents originally filed on 15 March 2023 (P&A 4). The isolated inclusion of the partial feature constitutes a generalisation in relation to the specific embodiments described in the patent at issue/application in the version originally filed.

41. Assessed against the above standard, the subject-matter of the patent at issue in the granted version is covered by the original disclosure and is therefore admissible. Contrary to the Claimant’s view, the subject-matter of patent claim 1 in the granted version does not go beyond the content of the original application dated 15 March 2023 (P&A 4), published as EP 4 283 140 A1.

42. Features 1 to 1.4 of patent claim 1 are supported by the original patent claim 1 (with the exception of sub-feature (1.3) ‘adjoining the conically tapering segment’).

43. With regard to feature 1.3, the decisive factor is whether this configuration is disclosed in the entirety of the documents originally filed, taking into account the originally filed Figures 1 to 5. Figures 1 to 5, shown side by side below by the court

shown side by side, illustrate the required structure of the fastening element with various tapered segments and further segments adjoining them:



44. An explicit disclosure of a tapered region, in which the further segment forming the tip adjoins the conically tapering segment, is evident from the original description on page 5, lines 8 to 11:

> Der sich verjüngende Bereich 12 der Ausführungsform gemäß Figur 1 weist zunächst ausgehend vom Schaft 11 ein konisch zulaufendes Segment 14_1 auf, wobei der Konuswinkel α_1 in Bezug zur Längsmittelachse L 20° bei einer Länge l_{14} beträgt.
> An das konisch zulaufende Segment 14_1 schließt sich ein weiteres, die Spitze ausbildendes Segment 15_1 an, welches zusammen mit dem konisch zulaufenden Segment 14_1 den sich verjüngenden Bereich 12 ausbildet. Umlaufende Seitenflächen 16 des weiteren Segments 15_1 stehen in einem Winkel β_1 von 110° zueinander.

45. Although this passage in the description refers to the embodiment shown in Figure 1, in all the embodiments shown in the figures the further segment forming the tip adjoins the tapered segment directly. In all the embodiments shown, the tapered segment 14 of the tapering region merges directly into the nail tip 15. The embodiments shown in Figures 1 to 5 differ from one another in the length l_{14} of the tapered segment with its cone angle α and the angle β at which the circumferential side surfaces of the tip are oriented towards one another. The person skilled in the art will deduce from this that – as the defendant correctly argues – no technical connection is disclosed between the ‘connection’ of the tip to the tapered segment and the further configuration of these elements. In other words, there is no inseparable functional

connection (‘inextricable link’) with the remaining features of the examples of embodiment (see UPC_CoA_382/2024, Order of 14 February 2025, Abbott v Sibio).

46. Against this background, the inclusion of the sub-feature does not constitute a generalisation with respect to one or the examples of embodiment.

47. Consequently, there is no exceeding of the disclosure in relation to the documents originally filed on 15 March 2023 (P&A 4). This conclusion is also consistent with the preliminary opinion of the EPO Opposition Division (Annex P&A 14, p. 2).

48. The features of the contested sub-claims 2, 5 and 8 to 11 are identical in wording to those original sub-claims 2, 5 and 8 to 11, so that these need not be examined further with regard to the question of exceeding the scope of the disclosure.

Regarding the claim to priority

49. Contrary to the Claimant’s view, the patent at issue validly claims priority from 24 May 2022 of the German patent application DE 10 2022 113 140 A1 (P&A 13), as there is identity of invention with the patent at issue. The priority application was identical to the application documents of the patent at issue. The Claimant has not raised any further objections beyond the arguments put forward in the context of the issue of inadmissible extension. Since the applicable standard of examination in this respect corresponds to the standard of disclosure under Article 123(2) EPC (unallowable extension) (see UPC_CoA_312/2025, inter alia, decision of 2 June 2026, Kodak v Fujifilm, para. 97), the priority is valid for the same reasons that there is no unallowable extension. In this respect, reference is made to the above.

50. Consequently, document D1 (EP 4 027 026 A1, Annex P&A 7) constitutes prior art within the meaning of Article 54(3) EPC, which is to be taken into account solely in relation to the question of novelty.

51. The other prior art documents relevant to this decision

D2: DE 10 2015 121 212 A1 (Annex P&A 8)
D3: DE 10 2017 106 705 A1 (Annex P&A 9)
D5: DE 10 2018 121 065 A1 (Annex P&A 11)

constitute prior art within the meaning of Articles 54(1) and 56 EPC and must therefore also be taken into account when assessing the question of inventive step.

Novelty:

52. The claimant argues that claim 1 of the patent at issue is not novel in relation to D1.

Principles

53. Under Article 54(1) EPC, an invention is considered new if it does not form part of the prior art. The decisive factor is whether the subject-matter of the patent in suit, with all its features, is directly and unambiguously disclosed in the prior art document. The assessment of novelty within the meaning of Article 54(1) EPC requires an examination of the entire content of the prior art document. However, the content of a prior art document must not be regarded as a reservoir from which individual features may be selected in order to assemble a specific embodiment. Rather, different passages of a document may only be combined with one another if a clear and unambiguous technical teaching to that effect is derived from the document. A feature may also be implicitly disclosed. This presupposes, however, that the person skilled in the art objectively regards this feature as necessarily contained in the explicitly disclosed teaching, i.e. that it is a clear and unambiguous consequence of what is expressly mentioned and must therefore be regarded as part of the content of the disclosure. Findings which the person skilled in the art only arrives at as a result of further consideration, on the other hand, cannot be regarded as a direct and unambiguous disclosure (see UPC_CoA_182/2024, Order of 25 September 2024, Mammut v Ortovox; UPC_CoA_312/2025 et al., decision of 2 June 2026, Kodak v Fujifilm).

54. These principles apply mutatis mutandis to the state of the art within the meaning of Article 54(3) EPC.

Examination on a case-by-case basis

55. On the basis of these principles, it follows, with regard to the subject-matter of patent claim 1 as granted, that it is not novel in relation to D1. D1 discloses all the features of the granted patent claim 1 directly and unambiguously.

Features 1, 1.1 and 1.2

56. D1 describes a nail for the secure fixing of façade panels to a substructure, which consists exclusively of a lignocellulosic material and comprises a nail shank 2 defining a nail axis, a nail point arranged at the front end 3, and a nail head 4 which is widened at the rear end of the nail shank (paras. [0001], [0006] D1). An embodiment of D1 is shown in Figure 5 reproduced below and in an enlarged detail in Figure 7:

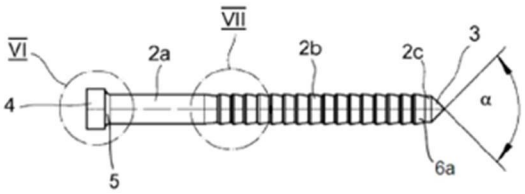


FIG. 5

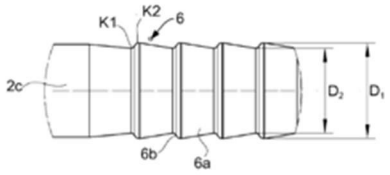


FIG. 7

57. The nail shaft 2 comprises an axial shaft section 2b adjoining the axially rear end section 2, on which anchoring structures 6 are formed, each of which comprises a structural section 6a tapering conically towards the nail tip 3 (Figure 5, claims 1 and 8 of D1). This discloses features 1, 1.1 and 1.2.

Features 1.3 and 1.4

58. Feature 1.3 is also disclosed. Contrary to the defendant's view, feature 1.3 does not preclude the possibility that more than one conically tapering segment may be formed in the tapering region; see the wording *'at least one conically tapering* segment' (see interpretation above). Furthermore, claim 1 of the granted patent does not preclude the possibility that further segments are ordered on the nail shaft prior to the tapered region.

59. Even though Figure 5 shows a cylindrical end section 2c between the nail tip 3 and the conically tapering structural end section 6a, paragraph [0021] of D1 expressly states that the axial shaft section on which the anchoring structures are formed may adjoin the nail tip directly. Admittedly, the disclosure in paragraph [0021] is not explicitly related to the embodiment shown in Figure 5. However, in the Board's view, it is disclosed in such general terms that a person skilled in the art would understand that the end section 2c is optional. In other words, there is no inextricable functional link between the end section 2c and the other features of the nail tip disclosed in D1. Feature 1.3 is therefore also disclosed.

60. Claim 5 of D1 states that the tip angle α of the nail tip 3 lies in the range from 60 to 120° and, in particular, is 90° ± 3°. This discloses the angular range of 65° to 110° required by feature 1.4.

61. At the oral hearing, the defendant further explained in detail that D1 did not destroy novelty, as D1 did not directly and unambiguously disclose an overall tapered region consisting of (at least) one conically tapering segment and a tip adjoining it. D1 either discloses several recurring anchoring structures which, taken together, do not form a tapered region, or a single anchoring structure must be isolated, whereby this

form of embodiment, in the defendant's view, is not disclosed in D1.

62. In this respect, in the Board's view, the defendant is proceeding on the basis of both an incorrect interpretation of the claimed fastening element and an incorrect understanding of the disclosure content of D1. Firstly, the claim does not require that, in the case of several conically tapering segments, each subsequent segment must taper further than the preceding segment. All that is required is a tapering region within the meaning of feature 1.3. Furthermore, the claim does not preclude an embodiment in which anchoring structures are located upstream of the tapering region, which in turn need not exhibit continuous tapering (see interpretation above). In other words, the patent claim merely defines the tapering end region of the fastening element as being formed from at least one conically tapering segment and a further segment adjoining it, which forms the tip. Claim 1 therefore does not require that all structures arranged upstream of the tip form part of the tapering region. For novelty, it is both sufficient and necessary that such an end region is directly and unambiguously disclosed in the prior art. This is the case with D1. Furthermore, D1 directly and unambiguously discloses a conically tapering segment (namely the final conically tapering structural segment) which adjoins the nail tip directly (see paragraph [0021], discussed above). The fact that this segment in D1 is also part of an anchoring structure does not preclude its direct and unambiguous disclosure as a structural segment.

Furthermore

63. The defendant further emphasised that the conical segment according to the invention, as set out in the patent at issue, serves to reduce the driving resistance. By contrast, the driving resistance is increased in the anchoring structures described in D1. It is clear to a person skilled in the art that the anchoring structures of D1 and the conical segment according to the solution of the invention are entirely different elements.

64. With this approach, the defendant fails to recognise that, in the present case, the novelty of a device claim must be assessed which, apart from the fastening element's suitability for connecting at least two components consisting at least partly of wood (this purpose could also limit the scope of the claim in this respect), is defined exclusively by structural features. Such a device claim is generally not limited to the device performing a specific function. For the assessment of the novelty of such a claim, this means that if the prior art discloses a device which fulfils all the structural features of the claim and is at the same time suitable for the purpose specified in the claim, the claim lacks novelty, even if not all the technical effects of the claimed device described in the patent at issue but not claimed therein are realised in the prior art

(see UPC_CFI_138/2025, UPC_CFI_522/2025, LD Paris, decision of 16 April 2026, Michelin v Goodyear, 2nd headnote; UPC_CFI_613/2024, Milan Regional Court, decision of 27 November 2025, Pari Pharma v Philips, para. 81). It has neither been demonstrated nor is it apparent that the nail disclosed in D1 would not be suitable for joining together two components consisting, at least in part, of wood. In the present case, this means that the (unclaimed) function of the tapered segment in D1 need not be disclosed, provided that the corresponding structural feature is disclosed – which is the case – and provided that the nail known from D1 is suitable for the claimed purpose, which is also the case.

65. Furthermore, the defendant's argument does not hold water. As the claimant correctly points out, the anchoring structures in D1 serve to increase pull-out strength. However, this says nothing about the driving resistance (i.e. the resistance encountered when driving the nail in), nor will the person skilled in the art interpret it in this sense. It is not apparent that, or why, the person skilled in the art would assume that the nail disclosed in D1 exhibits high driving resistance. Rather – in line with the invention and also with the defendant's arguments in this regard – it must be assumed that it is precisely such tapered segments, as disclosed in D1, that result in low driving resistance.

66. It follows from the foregoing that all the (structural) features of claim 1 of the patent as granted are directly and unambiguously disclosed in D1. This leads to the conclusion that D1 is detrimental to the novelty of claim 1 of the patent as granted. This conclusion is consistent with the preliminary opinion of the Opposition Division of the European Patent Office.

67. Consequently, the defendant's main claim to maintain the patent with the claims as granted is unfounded, and the patent as granted is not valid.

Legal consequence regarding the main claim:

68. Claim 1, as set out in the patent at issue as granted, is not valid due to lack of novelty. Of the sub-claims, the patent proprietor has defended only claim 2 independently (defence, point V). At the oral hearing, the patent proprietor confirmed that its applications are to be understood as a single set of applications, such that – should any application of the patent as granted be found invalid – the set of applications (insofar as challenged) is not grantable as a whole and the examination should proceed to auxiliary application I (in which the subject-matter of application 2 has been incorporated into application 1), followed by auxiliary request II, and so on, which in this respect differs from the situation in UPC_CoA_622/2025, decision of 27 May 2026, Hefei v Grundfos. In these circumstances, the Board does not consider it necessary to rule on the sub-claims first.

IV. Auxiliary Request I:

69. The subject-matter of auxiliary request I is found to be valid.

70. The application to amend the patent is admissible on the basis of Rule 50.2 in conjunction with Rule 30 of the RoP, as it was filed in good time, namely together with the statement of defence, , the requirements of Rule 30.1(b) and (c) are met, and the proposals (seven in total) are not to be regarded as an unreasonable number within the meaning of Rule 30.1(c). Nor has the Claimant raised any objections to the formal admissibility.

71. Auxiliary claim I comprises six patent claims, namely patent claim 1 and sub-claims 5 and 8 to 11. Patent claim 1 differs from patent claim 1 as granted in that feature 1.5 – corresponding to claim 2 as granted – is added after feature 1.4:

    1.5 and wherein the taper of the tapered segment (141–145) is between 5 and 20° relative to the longitudinal centre axis (L) of the fastening element (10).[1]

72. According to the Claimant, the subject-matter of auxiliary claim I is not valid on the grounds of inadmissible extension, lack of clarity, lack of novelty and lack of inventive step.

73. The issue of inadmissible extension requires no further discussion, as no arguments other than those against the main claim – which have already been rejected above – have been put forward.

Clarity (Art. 84 EPC) and interpretation

74. The claimant has argued that the subject-matter of claim 1 of auxiliary request I is unclear within the meaning of Article 84 EPC. Be that as it may, according to established case-law, the clarity of a claim is, in principle, to be examined only if and to the extent that any ambiguities arise from amendments made to the granted version. Article 84 EPC does not constitute a ground for invalidity, but rather concerns the question of whether an amendment is admissible as such. Accordingly, the Court does not examine objections on the grounds of lack of clarity in so far as these are based on alleged ambiguities that were already present in the granted claims used as the basis for the amendment (see UPC_CFI_480/2025, Milan Regional Court, decision of 10 April 2026, Fisher v Flexicare; UPC_CFI_613/2024, Milan Regional Court, decision of 27 November 2025, para. 121, Pari v Philips; UPC_CFI_355/2023, LD

[1] The patent proprietor has amended the reference numbers used in granted claim 2 for the tapered segment from (151–155) to (141–145), as these were manifestly incorrect. The Claimant has raised no objections in this regard, and the Court likewise has no reservations in this respect.

Düsseldorf, decision of 28 January 2025, Fujifilm v Kodak, see also EPO GBK G3/14).

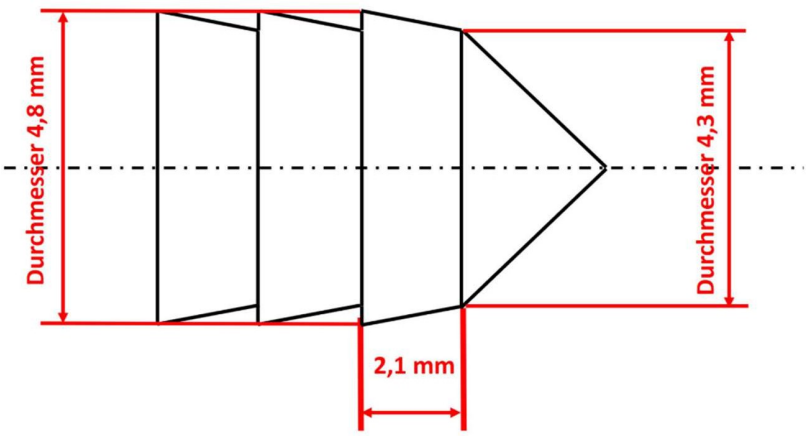
75. However, this does not relieve the court of its obligation to interpret the claim of the auxiliary request. In the Chamber's view, the person skilled in the art understands feature 1.5, in the light of the claim as a whole, as well as the description and the drawings, to mean that the conicity of the tapered segment is further specified by an angle range of 5 to 20°, defined in relation to the longitudinal centre axis. It is apparent to the person skilled in the art from the description that this refers to a cone angle (α, as stated in the description) which, whilst determined in relation to the longitudinal centre axis, describes the total angle between the two 'lateral surfaces' of the conical segment. This is also confirmed by the figures, in which the corresponding angle α is represented by an arrow between the lateral surfaces of the segment (see figures above).

Novelty of Claim 1 of Auxiliary Request I

76. Since, as explained in relation to the main claim, features 1 to 1.4 are anticipated by D1 to the detriment of novelty, it must be examined whether feature 1.5 establishes the novelty of claim 1 as worded in auxiliary claim I. Against the background of the interpretation of the claim and the principles of the novelty examination, as set out above, this is the case.

77. According to the claimant, Figure 7 of D1 (shown above) – which is not a purely schematic but a dimensioned representation – reveals, upon re-measuring the cone angle of the anchoring structures, an angle of 10° relative to the longitudinal centre axis. This falls within the claimed range of between 5 and 20° relative to the longitudinal centre axis, meaning that the fastening element according to claim 2 of the patent as granted (claim 1 of auxiliary claim I) is not novel in relation to D1.

78. The claimant has submitted the following sketch in this regard; according to the claimant, the exact dimensions are taken from paragraphs [0016], [0017] and [0020]:



Assessment

79. The parties agree that D1 does not explicitly disclose the conicity of the tapered segments (in D1, the conically tapering structural sections 6a). Nowhere in D1 is the cone angle of this element mentioned at all. It must therefore be examined whether the cone angle can be derived directly and unambiguously – albeit only implicitly – from the dimensions of the conically tapering structural sections 6a disclosed in D1.

80. In this regard, it should be noted that the Board concurs with the view of the Milan Central Chamber (as well as the preliminary opinion of the EPO Opposition Division) that the person skilled in the art does not, as a general rule, derive dimensions directly and unambiguously from schematic figures (see Pari Pharma v Philips, cited above, 2nd headnote and Annex P&A14, p. 4).

81. Although Figure 7 shows an embodiment with conically tapering structural sections 6a, in which a maximum structural diameter $_{D1}$ of 4.8 mm is disclosed (para. [0039], line 21) and – assuming, in favour of the Claimant, that the description of D1 at this point contains an obvious clerical error (see further below on this point), insofar as it refers to a minimum shaft diameter $_{D2}$ – a minimum structural diameter of 4.3 mm is disclosed (paragraph [0040], line 38). In any event, it should be noted that the length of the structural sections 6a is not specified and cannot be derived or calculated from the schematic figure (see the principle set out above). The parties are in agreement on this point, and the Court therefore assumes that, in order to calculate the cone angle, the person skilled in the art requires not only the diameters at the upper and lower ends but also the length of the cone.

82. The length of 2.1 mm marked by the claimant on the sketch is taken from the general part of the description, where paragraph [0020] specifies a preferred length of 2.1 mm for the total length of the anchoring structures with the conically tapering structural section. Irrespective of whether the disclosure of the 'total length of the anchoring structures' in paragraph [0020] is sufficiently clear (see below), this preferred length is in any event not directly related to the specific embodiment disclosed in Figure 7. In the absence of a clear technical teaching to combine these features, which is lacking here, Figure 7 therefore does not constitute a direct and unambiguous disclosure of an embodiment that anticipates the claimed subject-matter.

83. Neither the general part of the description (in particular paragraphs [0016], [0017] and [0020] cited by the claimant) nor the claims of D1 (in particular claims 8, 9, 10 and 12) directly and unambiguously disclose, in the Board's view, a fastening element which fulfils all the features of claim 1 of auxiliary request I.

84. According to paragraph [0016], the anchoring structures may have a maximum structural diameter

which is greater—in particular by at least 1.5 per cent and/or by a maximum of 3 per cent, and preferably by 2 to 2.2 per cent—than the shank diameter of the axially rear end section of the nail shank adjoining the transition region. In a particularly preferred embodiment of the invention, the maximum structural diameter is 4.8
mm. This configuration is particularly advantageous when the nail shaft has a diameter of 4.7 mm in its axial end section adjacent to the transition region. Viewed as a whole, D1 thus teaches the person skilled in the art that the maximum structural diameter depends primarily on the shaft diameter. According to D1, a maximum structural diameter of 4.8 mm is particularly suitable for a shaft diameter of 4.7 mm. It does not follow from this – at least not directly and unambiguously – that a maximum structural diameter of 4.8 mm is disclosed in a generalised manner.

85. The same applies to the minimum structure diameter. This, too, is disclosed in D1 as being dependent on the shaft diameter. The minimum structure diameter is to be smaller – in particular by at least 8% and/or at most 12%, and preferably by 8.3 to 8.7% – than the shaft diameter of the axially rear end section of the nail shaft. According to paragraph [0017] of D1, the minimum shaft diameter is preferably 4.3 mm. Contrary to the view put forward by the Claimant at the oral hearing, the Board considers that this is not an obvious clerical error which would lead the person skilled in the art to immediately
'minimum structural diameter'. Since the minimum structural diameter, just like the maximum structural diameter, is determined by the shaft diameter, it does not seem far-fetched from the perspective of a person skilled in the art that what is actually meant here in the general part of the description of D1 is a minimum shaft diameter. In any event, it is not immediately apparent to the person skilled in the art that there is a clerical error at this point and that 'structural diameter' is intended instead of 'shaft diameter'. The reference to the embodiment does not convince the Board. This is so simply because it is an embodiment which, whilst covered by the general disclosure of the description, is by its very nature more narrowly defined than the latter. Irrespective of this, even if it were assumed, for the Claimant's sake, that this is an obvious clerical error, the minimum structural diameter is still not disclosed in a general sense that can be combined with other parts of the description. This is because this value, too, is disclosed in D1 as being dependent on the shaft diameter.

86. Furthermore, the length of the tapered structural sections 6a is not unambiguously disclosed in D1. Although the description discloses, in paragraph [0020], preferred values for the total length of the anchoring structures comprising the tapered structural section and the transition section (referring to section 6b in Figure 7). However, the length of the tapered part itself is not disclosed – at least not directly and unambiguously. As already explained above, however, the parties have unanimously assumed that it is precisely this length that is decisive for the calculation of the

cone angle (as the Claimant also indicates in the sketch shown above).

87. The claims of D1 do not contain any disclosure that deviates from or goes beyond the general part of the description. The above considerations also apply *mutatis mutandis* to the claims. Nor did the Claimant explicitly appeal to this (see the rejoinder to the application for amendment of the patent, p. 3, point 2(d)).

88. It follows from the foregoing that D1 does not contain a direct and unambiguous disclosure of a fastening element with a conically tapering region, in which the conicity of the tapering segment is between 5 and 20° relative to the longitudinal centre axis of the fastening element, as required by claim 1 of auxiliary request I. Such a taper is disclosed in D1 neither explicitly nor implicitly. In order to arrive at a taper within the claimed range, the person skilled in the art would have to combine various (preferred) values at will, without D1 providing any unambiguous technical teaching regarding the relationship between these features, let alone the person skilled in the art objectively regarding a taper as claimed as necessarily contained in the expressly disclosed teaching.

89. In the absence of a direct and unambiguous disclosure of feature 1.5, claim 1 pursuant to auxiliary request I – and thus also the dependent claims relating thereto – must therefore be regarded as not rendered non-novel by D1.

Inventive step of auxiliary claim I

90. Since the novelty of claim 1 of auxiliary request I has been affirmed, a further requirement to be examined is whether it also involves an inventive step.

91. The claimant argues that this is not the case, based on document D5 in combination with D3 or D2, and based on document D2 in combination with D3.

92. In assessing whether the subject-matter of claim 1 of auxiliary request I involves an inventive step within the meaning of Article 56 EPC, the general principles developed by the UPC Court of Appeal must be applied (UPC_CoA_335/2023, Order of 26 February 2024, Nanostring/10X Genomics; UPC_CoA_464/2024, decision of 25 November 2025, Meril v Edwards, UPC_CoA_528/2024, decision of 25 November 2025, Amgen v Sanofi).

93. First, it must be determined what the subject-matter of the invention is, i.e. what the objective problem is. This must be assessed from the perspective of a person skilled in the art, drawing on their general technical knowledge as at the priority date (in this case). This is done by determining the contribution the invention makes to the state of the art, not by considering individual claim features in isolation, but by comparing the claim as a whole in the context of the description and drawings, taking into account

the inventive concept (the technical teaching) underlying the invention, which must be based on the technical effects which the person skilled in the art, on the basis of the patent, understands to be achieved by the claimed invention.

94. To avoid a retrospective approach, the objective problem must not contain any references to the claimed solution.

95. The claimed solution is obvious if, on the relevant date, the person skilled in the art, starting from a realistic starting point in the state of the art of the relevant technical field and with the aim of solving the objective technical problem, would have arrived at the claimed solution (and not merely could have arrived at it).

96. A starting point is realistic if its teaching would have been of interest to a person skilled in the art seeking to solve the objective problem on the relevant date. This may be the case, for example, if the relevant document in the state of the art already discloses several features similar to those of the claimed invention and/or addresses the same or a similar underlying problem as the claimed invention.

97. The person skilled in the art possesses neither 'inventive skill' nor imagination, and requires a hint or motivation ('impetus') which, starting from a realistic starting point, prompts them to take the next step towards the claimed invention. In principle, a claimed solution is to be regarded as non-inventive or obvious if, on the basis of such a hint or as a matter of routine, the person skilled in the art not only could have taken this next step, but would have taken it and thereby arrived at the claimed invention.

98. On the basis of these principles, it cannot be established that the technical teaching claimed in claim 1 of auxiliary request I is obvious to a person skilled in the art from the prior art.

The objective problem

99. Neither party has explicitly formulated the objective problem. At the oral hearing, the Board pointed out to the parties that, on the basis of paragraph [0008] of the description, the objective problem could be defined as follows: to provide a fastening element made of wood and/or wood-based materials for joining at least two components consisting at least partly of wood, which enables straight-line driving in with relatively low driving resistance and high driving speed, so that a lignin-based bonding is thereby achieved between the fastening element and the components to be joined

.

100. As none of the parties has commented on this and the parties proceeded on the basis of this problem during the oral hearing, the Board also bases its assessment of inventive step on this objective problem.

101. In the statement of claim, the claimant appealed to documents D2 and D5 as realistic starting points. In the statement of defence and at the oral hearing, it elaborated in greater detail exclusively on the line of attack based on D5. Accordingly, the Board will first examine inventive step on the basis of D5 below.

D5 as a starting point

102. Document D5 sets out to create a new fastener made of wood and/or wood-based materials, which enables straight-line driving in a significantly improved manner without causing damage to components outside the driving area. D5 thus partly addresses a similar problem, namely enabling the straight-line driving of a wooden fastener. However, D5 is primarily aimed at preventing damage and therefore does not address the problem of simultaneously achieving relatively low driving resistance at high driving speeds in order to enable lignin-based bonding between the fastener and the components to be joined. Nevertheless, D5 represents a realistic starting point. Due to the partly comparable technical problem and the various matching structural features, D5 is of interest to a person skilled in the art seeking a solution to the technical problem.

103. D5 discloses fasteners made of wood and/or wood-based materials for joining at least two wooden components, comprising a shank and a tapered region arranged at one end of the shank, characterised in that the outer contour of the tapered region corresponds circumferentially, in essence, to a ballistic curve (para. [0009]). According to D5, this is achieved because, even during driving, the fastener according to the invention retains its external shape in the tapered region essentially without damage, so that the circularly symmetrical body of the tapered region can penetrate the component in a straight line in an advantageous manner, with significantly less impact on the wooden matrix of the component (para. [0011] D5).

104. To facilitate the penetration of the fastener into the timber components and to increase directional stability during penetration, the fastener shown in Figure 6.1 features a transition region 17 with a reduced diameter. According to paragraph [0015] of D5, this relates to a so-called ‘step-down

tip’:

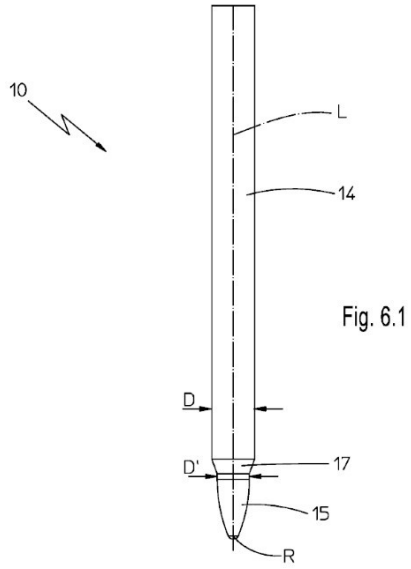


Fig. 6.1

105. The embodiment shown in Figures 6.1 and 6.2 is characterised, according to paragraph [0038], by an additional transition region 17 between the shank 14 and the tapered region 15, in that the diameter of the shank 14 gradually decreases to the initial diameter D’ of the tapered region 15. In a further embodiment of the invention, the tapered region is characterised in that the length of the tapered region is less than 1.3 times the shank diameter of the fastening element. This further increases the compactness of the tapered region (nail tip) and reduces the risk of deformation of the tapered region (paragraph [0014] of D5). Furthermore, D5 discloses that the free end of the tapered region is additionally rounded, thereby further enhancing the aforementioned advantages (paragraph [0013] of D5).

106. It is undisputed that D5 does not disclose feature 1.4 of claim 1 of auxiliary request 1. This is because D5 does not disclose a tip with circumferential side surfaces at an angle of 65° to 110°. Nor does D5 disclose that the taper of the conically tapering segment lies in the range of 5 to 20°, as required by claim 1 of auxiliary request I (feature 1.5). This has not been asserted by the Claimant either.

107. It must therefore be examined whether, with the aim of solving the objective technical problem, the person skilled in the art would arrive at the claimed technical teaching on the basis of D5. In the Board’s view, this requires a **motivation** in accordance with the principles set out above. The Claimant has neither demonstrated nor is it apparent that the person skilled in the art would routinely arrive at the claimed teaching starting from D5.

108. There is no apparent motivation for the person skilled in the art, starting from D5, to seek a solution to the problem

by seeking an improvement to the tapered region, in particular the conically tapering segment and the geometry of the tip of the fastening element, is not apparent.

109. D5 is primarily designed to enable straight-line driving without causing damage to components outside the driving area (see above). By contrast, the fastening element according to the invention combines straight-line driving with reduced driving resistance. However, as described as a disadvantage in the patent at issue (paragraph [0005] SPS) (and not contested as such by the Claimant), with a tip geometry according to D5, in which the nail tip has an essentially ballistic shape, preferably shorter than 1.3times the nail diameter and is preferably rounded at its free end, the driving resistance increases, with the result that, during the driving process into the timber components, the driving speed is reduced to such an extent that a reliable lignin-based bond between the wooden fastener and the timber components does not occur.

110. A person skilled in the art seeking a fastener with low driving resistance finds no reason in D5 to adapt the design of the tapered region such that the tip 1) has circumferential side surfaces at an angle of 65 to 110°, and 2) to order a conical segment adjoining it, the cone angle of which 3) lies in the range of 5 to 20°. D5 provides the person skilled in the art with no information whatsoever regarding the relationship between the tip angle and the driving resistance, let alone does it present the cone angle of a tapered segment as relevant in this regard.

111. It can therefore be left open whether the person skilled in the art would disregard D5 simply because ballistic tips as such are excluded from the claimed subject-matter, as argued by the defendant. Irrespective of this, the claimed fastening element differs in any event from D5 by virtue of a substantially different configuration, namely a tapered region comprising a conically tapering segment with a cone angle of 5 to 20° and an adjoining tip with an angle of 65 to 110°. This design results in the advantageous technical effects associated with the claimed fastening element – in particular, reduced driving resistance and lignin-based bonding – being achieved. On the basis of D5, this solution was not obvious to a person skilled in the art.

112. Furthermore, D5 provides a completely different solution to the problem of reducing driving resistance. Paragraphs [0018] and [0019] propose coating the fastener with a thermoactive adhesive. D5 further teaches that, when the fastener is driven in, friction generates heat which initially liquefies the adhesive and, after cooling, creates an additional adhesive bond between

the fastener and the wood matrix of the receiving component. D5 thus tends to lead the person skilled in the art away from the claimed solution, which consists of designing the end of the fastener in such a way that the driving resistance is reduced to such an extent that a lignin-based bond is formed between the fastener and the components to be joined.

D5 in combination with D3

113. Nor does the combination with D3 lead the person skilled in the art in an obvious manner to the claimed invention.

114. D3 relates to a nail consisting predominantly of a lignocellulosic material. Each wooden nail comprises a nail shank 1a and a conical round tip 1b, which is ordered as a tapered region on the shank 1a. To ensure that, when the nail is driven into the wood-based materials, the splitting effect on the nailed components is less than with nails having small point angles, the wooden nail in the embodiments shown in Figure 1d has a point angle of 90° and thus falls within the required range of 65° to 110° (para. [0028], [0029]).

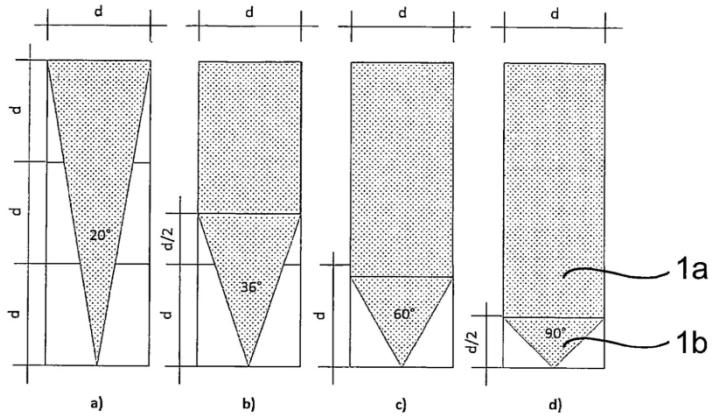


Fig. 1

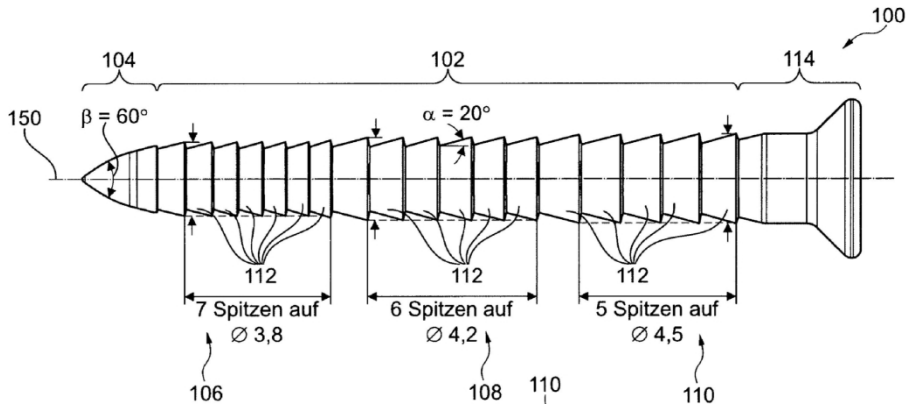
115. Citation D3 thus discloses fasteners made of wood and/or wood-based materials for joining at least two components consisting at least partly of wood, comprising a shank and a tapered region arranged at least partly on the shank, i.e. conical round points. However, this publication addresses a fundamentally different technical problem to that of the patent at issue, namely the reduction of splitting when driving into wood. The solution disclosed in D3 for this purpose lies in the selection of a specific angle for the nail tip. Even against this background, it is not apparent that the person skilled in the art would even consult this publication, starting from D5, to solve the objective problem. Furthermore, the person skilled in the art finds no guidance whatsoever in D3 on how to make the driving of the fastener more linear whilst maintaining relatively low driving resistance and, at the same time, keeping the driving speed high.

It is therefore not apparent what motivation the person skilled in the art, starting from D5, would have to consult D3 to solve the problem of making the driving of the fastener more linear whilst maintaining relatively low driving resistance, and thereby arrive at the invention in the next step.

116. Even if, contrary to the foregoing, the person skilled in the art were to draw on D3 and replace the tip of D5 with a conical round tip, this would still not provide any reason to implement the other features of the claim as well, in particular a subsequent tapered segment with a cone angle of 5 to 20°.

D5 in combination with D2

117. D2 describes a compact fastening element with high holding force. Figure 1 shows an embodiment of the fastening element in the form of a nail:

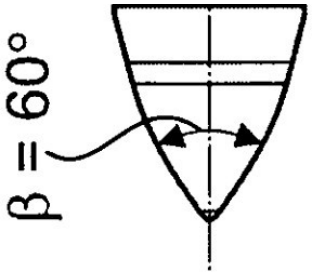


118. The nail is designed to be driven into a substrate using a tool, in order to join a timber substrate to a profile in the form of a solid timber substrate requiring no pre-drilling. The fastening element 100, made of steel, comprises an axially extending, essentially circular-cylindrical shank section 102. On the substrate side, or the front of the nail, the shank section 102 is followed by a ballistically shaped, for example ogival, tip 104. The opening angle β of the tip 104 is preferably in the range between 30° and 75°, in particular in the range of 60°, in order to facilitate particularly low-effort penetration of the fastening element 100 into the wood substrate without a pre-drilled hole.

119. Several groups 106, 108, 110 of anchoring structures 112 are provided or moulded onto a circumferential outer surface of the shank section 102, with each of the anchoring structures 112 tapering towards the tip 104. The anchoring structures
112 are designed as closed ring structures which, due to their conical taper towards the tip 104, form truncated cone-shaped structures. The fastening element 100 shown in Fig. 1 is a rotationally symmetrical body. The

anchor structures 112, as shown in Fig. 1, have a constant flank angle α of approximately 20° between the axial direction 150 of the shaft section 102 and the tapering outer surface (paras. [0010], [0043] to [0051]).

120. D2 discloses a ballistic tip with a tip angle of, for example, 75°:



121. Due to the described design of the fastening element compared to a conventional nail, the same holding force can be achieved with a shorter fastening element 100. Conversely, a higher holding force can be achieved with a fastening element of the same length. According to D2, particular advantages arise in this context when driving the fastening element into a solid timber substrate, as the described shape of the fastening element causes the timber fibres to be forced into the undercuts without, however, being destroyed. As a result, the displaced but still intact wood fibres contribute to a high holding force (paras. [0052], [0013]).

122. The material selected for the fastening element is to have a strength of at least 600 N/mm², and in particular at least 800 $^{N/mm^2}$(paragraph [0031] of D2). The person skilled in the art understands this strength to mean compressive strength, which relates to the nail being driven, hammered or shot into the timber component. Consequently, steel has been selected as the suitable material for the fastening element claimed in D2. A strength of approximately 600 $^{N/mm^2}$is suitable for many types of timber, whereas particularly hard timbers (such as oak or beech) may require a strength of at least 800 $^{N/mm^2}$.

123. Even if, for the sake of argument, it is assumed in favour of the Claimant that D2 shares several structural features with the fastening element claimed in claim 1 of auxiliary request I, this is not sufficient to conclude that the claimed subject-matter was obvious to a person skilled in the art. It is not apparent how the person skilled in the art, starting from D5, would find any leads in D2 to arrive at a solution to the objective problem, let alone the claimed solution. D2 relates to a nail made of a different material (steel) and focuses on anchoring structures. D2 does not teach the person skilled in the art how to reduce the driving resistance whilst ensuring straight driving. Furthermore, lignin-based welding is irrelevant in the case of steel nails.

124. Even if the person skilled in the art were to draw on D2 to solve the objective problem – which is already doubtful – it is not apparent why they should disregard the choice of material selected in D2, to which specific technical advantages are attributed, and merely implement the tip angle in D5. Even if the person skilled in the art were to proceed in this way, the claimant has not explained – nor is it apparent – how they would arrive at the claimed cone angle of the tapered segment. The claimant's unsubstantiated defence (Defence to the application for amendment, B.4), according to which the cone angle can be readily derived from the figures in D2, is insufficient for this purpose.

125. The Board therefore concludes that even a combination of D5 and D2 does not suggest the claimed subject-matter.

Interim conclusion

126. In summary: There is no apparent indication or motivation for the person skilled in the art which, taking D5 as a realistic starting point, would have prompted them to take the next step towards the claimed invention, neither in D5 itself nor in combination with D3 or D2.

D2 as a starting point

127. The Claimant has also appealed to D2 as a starting point in support of its argument that there is a lack of inventive step.

128. It follows from the above considerations regarding the teaching of D2 that, in the Board's view, D2 does not constitute a realistic starting point for assessing inventive step. Whilst D2 lies within the same general technical field as the invention (fasteners), it is too remote for the person skilled in the art in the present case. D2 relates to a steel nail for joining a wooden substrate to a profile and deals in particular with anchoring. The problem of driving resistance is not addressed in D2, and lignin-based welding plays no role whatsoever in steel nails. Consequently, D2 would not be of interest to a person skilled in the art seeking a solution to the objective technical problem.

129. Even if the person skilled in the art were nevertheless to take D2 as a starting point, this would not lead them in an obvious manner to the claimed invention. Against the background of the above considerations, there is no apparent indication or motivation for the person skilled in the art which, taking D2 as a starting point, would have prompted them to take the next step towards the claimed invention.

D2 in combination with D3

130. Nor does the person skilled in the art find any such impetus in D3. It is true that D3 teaches that it is advantageous to use wooden nails instead of metal nails, as metal nails can rust and recycling is costly (paragraph [0002] of D3). However, since the design and the choice of metal to increase strength when the fastening element penetrates the solid wood substrate without pre-drilling constitute a functioning, complete solution, the person skilled in the art proceeding from D2 has no incentive to dispense with metal as a material and use wood instead, particularly as D3 is silent on the strength of wooden nails.

131. For even if the person skilled in the art combines D2 with D3, they do indeed obtain a wooden nail with anchoring structures and an opening angle of, for example, 75°, but the person skilled in the art must, in a further step, find a wood-based material that possesses the required strength of 600 N/mm^2 to 800 N/mm^2 in order to join components made of distinctive hardwoods (such as oak or beech).

132. Consequently, claim 1 as set out in auxiliary claim I – as well as the claims dependent thereon – is not only novel but also involves an inventive step.

Legal conclusion regarding Auxiliary Claim I

133. Claim 1 as set out in Auxiliary Claim I is valid. Contrary to the Claimant's objections, there is no going beyond the original disclosure, nor is there any lack of clarity. Furthermore, novelty and inventive step are satisfied.

134. In light of the foregoing, there is no need to rule on the further auxiliary claims.

135. It should also be noted that the Board had already decided at the oral hearing not to admit the further auxiliary claims filed by document of 5 May 2026. These were filed at a very late stage of the proceedings without any detailed justification. The fact that they would not lead to a delay in the proceedings and/or, as argued by the defendant at the oral hearing, were intended to be a response to the preliminary opinion of the Opposition Division of the European Patent Office, does not justify this. The auxiliary claims could have been filed earlier (the objection to novelty based on D1 had already been raised in the statement of claim, and the preliminary opinion of the Opposition Division is dated 12 December 2025). Furthermore, the late filing unnecessarily complicated the Claimant's procedural position and the Court's preparations.

V. Legal consequences

136. The claim is to be upheld in part. The patent at issue is to be declared invalid, in accordance with the operative part of the judgment, in so far as it was challenged, to the extent that it goes beyond the subject-matter claimed in the first auxiliary claim.

137. Pursuant to Article 76(1) of the UPC Agreement, the court shall rule in accordance with the applications made by the parties and may not grant more than has been claimed. Pursuant to Article 65(1) of the UPC Agreement, the court shall rule on the validity of a patent on the basis of an action for revocation or a counterclaim for revocation. Pursuant to Article 65(3) of the UPC Agreement, where the grounds for invalidity relate only to part of the patent, the patent shall, without prejudice to Article 138(3) of the EPC, be limited by a corresponding amendment to the patent claims and declared partially invalid.

138. In the present case, the claimant has decided not to challenge claims 3, 4, 6 and 7 of the patent at issue, as granted, in the context of the action for revocation. The Court and the defendant are bound by the scope of the claim. Accordingly, the patent at issue is declared partially invalid in so far as it extends beyond auxiliary claim I, whilst claims 3, 4, 6 and 7 remain unchanged in their granted version.

139. The decision on costs is based on Article 69(2) of the UPC Agreement in conjunction with Rule 118.5 of the RoP. In allocating costs, account must be taken of the fact that the patent is declared invalid to a significant extent. Taking into account the circumstances of this case, the Court considers it appropriate to apportion 70 per cent of the costs to the defendant and 30 per cent to the Claimant.

140. The value in dispute was set at EUR 500,000 in accordance with Rule 104(j) of the RoP. This value in dispute corresponds to a ceiling for recoverable costs of EUR 56,000.

DECISION

I. The European patent with unitary effect EP 4 283 140 B1 is partially declared invalid, with claims 3, 4, 6 and 7 remaining unchanged in their granted form, in so far as it extends beyond auxiliary request I:

> 1. Befestigungselement (10) aus Holz und/oder Holzwerkstoffen zum Verbinden von mindestens zwei, wenigstens teilweise aus Holz bestehenden Bauteilen, bestehend aus einem Schaft (11) und einem wenigstens teilweise am Schaft angeordneten sich verjüngenden Bereich (12), wobei der sich verjüngende Bereich (12) aus mindestens einem konisch zulaufenden Segment (14_1 - 14_5) und einem eine Spitze ausbildenden, an das konisch zulaufende Segment sich anschließenden weiteren Segment (15_1 - 15_5) gebildet wird, wobei umlaufende Seitenflächen (16) der Spitze im Winkel von 65 bis 110° bevorzugt im Winkel von 65 bis 95°, zueinanderstehen und wobei die Konizität des konisch zulaufenden Segmentes (14, - 14_5) zwischen 5 und 20° zur Längsmittelachse (L) des Befestigungselementes (10) beträgt.
>
> 5. Befestigungselement nach einem der vorangehenden Ansprüche, dadurch gekennzeichnet, dass das Befestigungselement (10) einen Kopf (K) aufweist.
>
> 8. Befestigungselement (10) nach einem der vorangehenden Ansprüche, dadurch gekennzeichnet, dass der Schaft (11) einschließlich des sich verjüngenden Endbereiches (12) aus verdichtetem Holz und/oder Holzwerkstoff gebildet wird.
>
> 9. Befestigungselement (10) nach einem der vorhergehenden Ansprüche, dadurch gekennzeichnet, dass der Schaft (11) einschließlich des sich verjüngenden Bereiches (12) aus extrudiertem, verdichtetem Holzwerkstoff gebildet wird.
>
> 10. Befestigungselement (10) nach einem der vorangehenden Ansprüche, dadurch gekennzeichnet, dass die Dichte des Holzes und/oder Holzwerkstoffes größer ist als 1,1 g/ cm^3.
>
> 11. Befestigungselement (10) n a c h einem der vorhergehenden Ansprüche, dadurch gekennzeichnet, dass das Befestigungselement (10) zum Verbinden von nicht vorgelochten, wenigstens teilweise aus Holz bestehenden Bauteils verwendbar ist.

II. In all other respects, the action is dismissed.

III. The defendant shall bear 70 per cent of the costs of the proceedings. The claimant shall bear 30 per cent of the costs of the proceedings.

IV. The value in dispute for the action is set at €500,000.00.

NAMES AND SIGNATURES

András Kupecz, presiding judge	
Thomas Adocker Legally qualified judge	
Beate Schenk Technically qualified judge	
On behalf of the Deputy-Registrar	

INFORMATION ON APPEALS

Any party whose applications have been rejected in whole or in part may lodge an appeal against this decision with the Court of Appeal within two months of the decision being served (Art. 73(1) UPC Agreement, R. 220.1(a), 224.1(a) RoP).

INFORMATION ON ENFORCEMENT

A certified copy of the enforceable decision shall be issued by the Deputy-Registrar on the application of the party seeking enforcement, Rule 69 of the Rules of Procedure.

This decision was pronounced in open court on 21 July 2026.