



Central Division (Munich Section)
UPC_CFI_836/2024

Decision
of the Court of First Instance of the Unified Patent Court Central Division
(Munich Section)

delivered on 20 November 2025

GUIDING PRINCIPLES:

1. When assessing the inventive step from a legal perspective, it must always be borne in mind that an invention must not be assessed in the light of the invention, i.e. retrospectively. This also applies when general technical knowledge is taken into account. Even in such a case, it is generally necessary for the skilled person to have a reason to arrive at the claimed subject-matter based on the prior art.
2. If the plaintiff in the nullity action decides not to challenge one or more claims of the patent as granted, the court and the defendant are bound by the scope of the action.

KEYWORDS:

Inventive step. No retrospective assessment. General technical knowledge. Reason. Main claim. Auxiliary claims. Scope of the action for revocation. Claims not challenged.

HEADNOTES:

1. When assessing the inventive step from a legal perspective, it should always be borne in mind that it must be avoided that an invention is assessed with knowledge of the invention, i.e. retrospectively. This also applies when common general knowledge is relied upon. Also in such a case, it is usually necessary for the person skilled in the art to have an incentive to arrive at the claimed subject matter based on the state of the art.
2. If the claimant in revocation proceedings decides not to challenge one or more claims of the patent as granted, the court and the defendant are bound by this scope of the proceedings.

KEYWORDS:

Inventive step. No retrospective assessment. Common general knowledge. Incentive. Main Request. Auxiliary Requests. Scope of revocation action. Non-attacked claims.

CLAIMANT

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

Represented by: Jochen Bühling, KRIEGER MES Rechtsanwälte PartmbB.

DEFENDANT

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

Represented by: Ralf Albrecht, Paul & Albrecht Patentanwälte PartG mbB.

PATENT AT ISSUE

EP 4 019 790 PANEL

PANEL 1 of the Central Chamber (Munich Division). PARTICIPATING JUDGES

This decision was issued by Presiding Judge Voß, legally qualified judge Kupecz (judge-rapporteur) and technically qualified judge Schenk.

LANGUAGE OF THE PROCEEDINGS

German.

SUBJECT MATTER

Action for annulment.

ORAL HEARING

16 October 2025

BRIEF DESCRIPTION OF THE FACTS

1. On 20 December 2024, the claimant filed an action for revocation in relation to EP 4 019 790 B1 (hereinafter: patent at issue, Annex KM-NK 1) with the Central Chamber, Munich Division.
2. The patent at issue dates back to an application filed on 28 February 2018 and claims two German priorities from 23 March 2017 (DE 10 2017 106 335) and 29 March 2017 (DE 10 2017 106 705). The patent at issue arose from a divisional application to the earlier application No. EP18709973.4 (publication number EP 3 397 869). According to Annex KM-NK 9, the application in the version originally filed is hereinafter referred to as the "Original application". The publication and announcement of the reference to the grant of the patent at issue by the European Patent Office ("EPO") took place on 1 May 2024.
3. At the application of the patent proprietor, the EPO also granted the patent at issue as a patent with unitary effect. This notification is dated 13 May 2024. 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, Sweden and Slovenia.
4. The patent at issue, the language of the proceedings for which is German, is contested in the scope of claims 1 to 4 and 7 to 13 and, according to its title, relates to a nail for use in a nail setting device.
5. Claims 1 to 4 and 7 to 13 of the patent at issue read as follows:
 1. Nail for use in a nail setting device, which consists of a predominantly lignocellulosic material and has a nail shaft (1a), at the front end of which a nail tip (16) designed as a conical round tip is provided, and at the rear end of which a head area (1c) is formed, **characterised in that** the tip angle of the nail tip is $>40^\circ$.
 2. Nail according to claim 1, **characterised in that** the tip angle of the nail tip (1b) is in the range of 45° to 60° and preferably 45° or 60° .
 3. Nail according to claim 1 or 2, **characterised in that** the nail shaft (1a) is cut off at an angle of 90° to the shaft axis at its head region (1c) opposite the nail tip (1b).
 4. Nail according to claim 3, **characterised in that** the head region (1c) is thickened relative to the nail shaft (1a) and, in particular, widens continuously towards the free end of the nail (1).
 7. Nail according to one of the preceding claims, **characterised in that** longitudinal grooves (4) are formed in the outer circumferential surface of the nail shaft (1a), running parallel to each other in the

longitudinal direction of the nail shaft (1a), preferably parallel to the longitudinal axis of the nail shaft

8. Nail according to claim 7, **characterised in that** the longitudinal grooves (4) extend over the entire length of the nail shaft (1a) and/or are formed in the form of indentations with an approximately triangular cross-section.

9. Nail according to claim 7 or 8, **characterised in that** the longitudinal grooves (4) are evenly distributed along the circumference of the nail shaft (1a).

10. Nail according to one of the preceding claims, **characterised in that** the nail is made of wood and/or a wood-based material, in particular an organically bonded wood-based material, preferably a synthetic resin-bonded laminated wood or a synthetic resin-bonded fibre composite material containing lignocellulosic fibres from annual plants.

11. Nail according to claim 10, **characterised in that** the organically bonded wood-based material contains phenolic resin as synthetic resin.

12. Nail according to claim 10 or 11, **characterised in that** the organically bound wood-based material contains synthetic resin in an amount of at least 30% by weight, in particular at least 35% by weight, the synthetic resin content preferably being 40% by weight.

13. Nail according to one of the preceding claims, **characterised in that** it is made of a material with a density $> 0.65 \text{ g/cm}^3$, in particular a density $> 0.85 \text{ g/cm}^3$ and preferably a density $> 1.0 \text{ g/cm}^3$, wherein the density is in particular 1.3 g/cm^3 , and/or that the nail shaft (1a) has a round, oval or polygonal cross-section, wherein in particular the diameter or the smallest shaft thickness is 2 mm to 6 mm, in particular 3 mm to 6 mm and preferably 4 mm to 5 mm.

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

POINTS AT ISSUE AND APPLICATIONS OF THE PARTIES

7. The claimant argues that the subject matter of the patent at issue is not patentable to the extent challenged. It is prejudicial to novelty due to prior art and, moreover, would be obvious to a person skilled in the art. It is not based on an inventive step.

8. The claimant requests that

- EP 4 019 790 be declared invalid to the extent of granted claims 1-4 and 7-13.
- The defendant be ordered to bear the costs of the legal proceedings.

9. The defendant defends the patent in the form of a main request, the subject matter of which is new and involves an inventive step. In the alternative, the patent at issue is defended with auxiliary requests I to XI, in that order.
10. The defendant requests:
 - that the patent at issue be upheld as amended on the basis of the documents attached as Annex P&A 1 and that the action for annulment be dismissed in all other respects (main claim),
 - Alternatively, if the application under 1 cannot be granted, the patent at issue should be revoked to the extent specified in Annex P&A 2 (alternative application I), Annex P&A 3 (alternative application II), Annex P&A 4 (alternative application III), Annex P&A 5 (alternative application IV), Annex P&A 6 (auxiliary request V), Annex P&A 7 (auxiliary request VI), Annex P&A 8 (auxiliary request VII), Annex P&A 9 (auxiliary application VIII), as Annex P&A 10 (auxiliary application IX), as Annex P&A 11 (auxiliary application X) or as Annex P&A 12 (auxiliary application XI),
 - order the claimant to pay the costs of the proceedings to the extent that the action is dismissed.
11. The claimant is of the opinion that the patent is not legally valid even in the version of the main motion and the auxiliary motions. In the claimant's view, the main and auxiliary motions contain an inadmissible extension and a lack of clarity. Furthermore, the subject matter of the main motion and the auxiliary motions is not based on an inventive step.
12. In addition, reference is made to the further details in the file in the CMS.

KEY PROCEDURAL STEPS

13. In a document dated 16 July 2025, the defendant submitted new Annexes P&A 1 to P&A 12, which replace the previous Annexes P&A 1 to P&A 12. The newly submitted annexes correspond to the main application and auxiliary applications I to XI in that order. In the newly submitted applications, the last two claims were deleted in each case.
14. By order dated 13 August 2025, the court admitted the (later) application for amendment.
15. At the oral hearing, the defendant amended its application for amendment (the main and auxiliary applications) by deleting (only) the applications for adaptation of the descriptions. The claimant did not raise any objections to this.

REASONS FOR THE DECISION

16. The admissible action for revocation is partially successful on the merits. The patent at issue is to be revoked insofar as it goes beyond the subject matter asserted in the third auxiliary request.

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

17. Pursuant to Art. 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.
18. 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.
19. The action for annulment was brought against the proprietor of the patent at issue (Rule 42 of the RoP), so that there are no objections to its admissibility in this respect either.

II. The patent at issue and its interpretation

20. According to paragraph [0001], the patent at issue relates to a nail for use in a nail setting device, which consists predominantly of lignocellulosic material and has a nail shaft with a cone-shaped round tip at its front end and a head area at its rear end.
21. Paragraph [0002] of the patent at issue (hereinafter referred to only by the corresponding paragraph numbers) describes that nails have been known as fasteners for a long time. They are predominantly made of metal, e.g. steel, aluminium, copper, etc. Despite corrosion protection measures such as galvanising, steel nails tend to rust under unfavourable conditions, especially when the nailed material is exposed to acidic conditions. When exposed to the elements, tannin-rich woods, which are used outdoors, e.g. for facades and terraces, due to their durability, can develop undesirable dark to black discolouration at the nail points. This can be remedied by using stainless steel, but this is very costly. Another disadvantage is that recycling wood products containing steel nails is a complex process.
22. According to paragraph [0003], nails made of wood or lignified plant material such as bamboo are used as an alternative. For a long time, such wooden nails could only be used if the surface to be nailed had first been provided with a hole into which the nail was driven.

nail was driven into. However, recent developments have made it possible to drive nails made of wood or wood-like, predominantly lignocellulosic materials directly into wood using nailing devices such as pneumatic nailers without pre-drilling the wood material.

23. For example, the patent at issue refers in paragraphs [0003] and [0004] to WO 2016/1809001 A (Annex KM-NK 2) and US 159777 A (Annex KM-NK 3). WO 2016/1809001 A, a document submitted by the defendant, describes a nail tip that is conical in shape, with the ratio of the length of the nail tip to the smallest thickness of the nail shaft being between 1.5 and 3. The nails known from WO 2016/1809001 are known for use in a nail setting device and are made of wood or wood-based materials.
24. According to the patent at issue, US 159777 A teaches a nail consisting of a predominantly lignocellulosic material and having a nail shaft with a nail tip at its front end designed as a conical round tip.
25. As a disadvantage, the patent at issue states in paragraph [0005] that this nail tip design could lead to splitting of the components to be joined when the nails are driven in if these components are made of anisotropic materials such as wood. Another disadvantage is considered to be the fact that the production of the nail strips by pressing and/or milling is costly.
26. Based on this prior art, the patent at issue in paragraph [0006] describes its task as providing a nail that can also be driven into wood-based materials without the risk of splitting them.

Main claim

27. The defendant, the patent holder, is not defending the patent in the granted version, but primarily and exclusively in the form of a "main request" in the version dated 16 October 2025 (oral proceedings).
28. The main request contains a set of amended claims. The court understands this as an unconditional proposal within the meaning of R. 50.2 in conjunction with 30.1(c) and 30.2 RoP. Since no objections were raised by the claimant (in the court's view, rightly so) to the formal admissibility of the main request, the court will base its decision on the claims asserted by the defendant in the main request.
29. To solve the above-mentioned problem, the main application in patent claim 1 provides for a device whose features can be broken down as follows:
 - 1.1 Nail for use in a nailing device.
 - 1.2 The nail consists of a predominantly lignocellulosic material.

- 1.3 The nail has a nail shaft (1a).
 - 1.3.a A nail tip (16) shaped as a conical round tip is provided at the front end of the nail shaft.
 - 1.3.b A head region (1c) is formed at the rear end region of the nail shaft.
 - 1.4 The tip angle of the nail tip is $>60^\circ$.
30. The subordinate independent claim 3 according to the main request can be structured as follows:
- 1.1 Nail for use in a nailing device.
 - 1.2 The nail consists of a predominantly lignocellulosic material.
 - 1.3 The nail has a nail shaft (1a).
 - 1.3.a A nail tip (16) designed as a conical round tip is provided at the front end of the nail shaft.
 - 1.3.b A head region (1c) is formed at the rear end region of the nail shaft.
 - 1.4.a The tip angle of the nail tip is $>40^\circ$.
 - 1.5 Several longitudinal grooves (4) are formed in the outer circumferential surface of the nail shaft (1a), running parallel to each other in the longitudinal direction of the nail shaft (1a), preferably parallel to the longitudinal axis of the nail shaft.
31. The subordinate independent claim 6 according to the main request differs from claim 3 in that feature 1.6 is added after feature 1.4.a instead of feature 1.5.
- 1.6 The nail is made of an organically bonded wood material containing phenolic resin as synthetic resin.
32. Based on the dispute between the parties, some features of these claims require explanation.

Principles of interpretation

33. According to Art. 69 EPC in conjunction with the Protocol on its interpretation, the patent claim is not only the starting point but also 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 drawings must always be consulted as aids to the interpretation of the patent claim and not only to resolve 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, after examination of the description and drawings, appears to be the protection sought by the patent proprietor. 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 interpreting a patent claim apply equally to the assessment of infringement and the legal 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).
34. The skilled person 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 in the context of the patent claim as a whole, the skilled person will deduce the technical function of the feature individually and in its entirety. With regard to the terminology used in a patent specification, this may lead the skilled person to attribute a meaning to a term that differs from its general usage. The patent specification can define terms independently and thus constitutes its own lexicon (local division Munich, UPC_CFI_248/2024, decision of 22 August 2025, Central Chamber Munich, UPC_CFI_1/2023, decision of 16 July 2024; Central Chamber Paris, UPC_CFI_309/2023, decision of 5 November 2024).

The skilled person

35. The claimant considers a university graduate in mechanical engineering with several years of professional experience in the field of processing and joining components, including the development of corresponding connecting elements, to be the expert responsible for the subject matter of the invention. This applies in particular to the joining of components using nails. In addition, there is the knowledge of a professionally experienced university graduate in the field of materials science with experience in the field of corresponding non-metallic materials, in particular wood-based materials.
36. The defendant did not define the specialist separately and did not raise any objections to the definition given by the claimant. The court sees no reason to deviate from the definition that is undisputed between the parties.

Interpretation of the claims of the main application from the perspective of the expert

37. That said, claim 1 refers to a nail for use in a nail setting device according to feature 1. A nail setting device is not protected by claim 1. Within the meaning of feature 1.1, the nail is (merely) suitable for use in a nail setting device. However, this does not necessarily mean that the nail must be used in a nail setting device. In other words, the mention of the nail setting device in claim 1 is a statement of purpose. A statement of purpose contained in a claim regularly defines the protected subject matter in such a way that it must be objectively suitable for use for the function and purpose specified in the patent claim (see Munich local division, UPC_CFI_248/2024, decision of 22 August 2025). Accordingly, the nail must be designed in such a way that it can fulfil the function or purpose assigned to it (use in a nail setting device).
38. The nail, which consists predominantly of lignocellulosic material in accordance with feature 1.2, has a nail shaft 1a (feature 1.3). The nail shaft gives the nail a certain length and thickness. According to paragraph [0022], the nail shaft can in principle have any cross-section, with various designs being described in paragraph [0022] as being in accordance with the invention. It is therefore generally up to the expert to decide how the nail shaft is designed. For example, it can be oval or polygonal. However, according to paragraph [0022], the nail shaft preferably has a circular diameter. This is in accordance with the wording of the claim, according to which no further spatial or physical requirements are imposed on the nail shaft.
39. However, based on the context of the claim as a whole, the skilled person understands that the cross-section of the nail shaft must match the cross-section of the nail tip. According to feature 1.3a, a cone-shaped round tip is provided at the front end of the nail shaft. This design of the nail tip helps to prevent the materials to be joined from splitting when the nail is inserted. This would be contradicted if the cross-section of the nail shaft adjoining the nail tip differed from the cross-section of the nail tip in such a way that the difference in shape or cross-sectional size would lead to the splitting that is to be avoided. This is also confirmed for the specialist in Figures 1 and 2 (Figure 2b is shown below), both of which show a tip that is "connected" to the shaft. In this respect, the nail shaft should have an essentially circular diameter. However, this does not mean that the shaft should be completely smooth on its outer circumferential surface. In one embodiment, several longitudinal grooves are formed in the outer circumferential surface of the nail shaft, running parallel to each other in the longitudinal direction of the nail shaft and parallel to the longitudinal axis of the nail shaft (see paragraphs [0013]-[0014] and Figs. 3 and 4, Figure 4 is shown below, with the longitudinal grooves indicated by number 4).

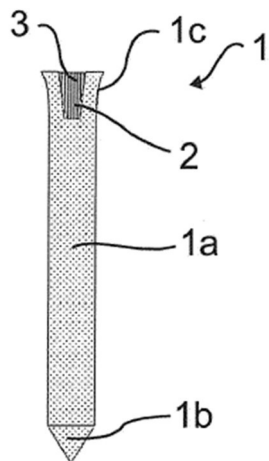


Fig. 2b

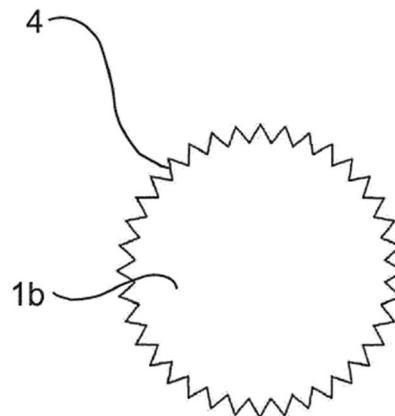


Fig. 4

40. According to feature 1.3.a, as already explained above, a nail tip designed as a conical round tip is provided at the front end of the nail shaft. The skilled person considers feature 1.3.a in conjunction with feature 1.4, which requires that the tip angle of the nail tip be $>60^\circ$. A conical round tip means, according to the wording, that the tip has the shape of a circular cone. Neither the description nor the overall context of the claim nor general technical knowledge suggest any other interpretation. A conical rounded tip is round, i.e. it does not have the shape of a pyramid. Feature 1.4 also requires that the tip angle of the nail tip be $>60^\circ$. Larger angles, such as 90° , are also possible. However, this does not mean that there is no upper limit to the size of the angle according to the claim. The claim also requires that the tip be cone-shaped. This means, at the very least, that the angle must be less than 180° , otherwise it would no longer be a cone and/or a tip.
41. Nails with tip angles within the specified ranges, and in particular greater than 50° , exert a significantly lower splitting effect on nailed components than nails with smaller tip angles, for example 20° (paras. [0007], [0008]).
42. In the opinion of the court, both parties rightly assumed that it was part of the general expertise of the specialist that the relationship between the tip angle and the ratio of the length of the nail tip to the diameter of the nail shaft is a simple mathematical relationship. The ratio of the length of the nail tip to the diameter of the nail shaft is always associated with a fixed measure for the tip angle. Each ratio is assigned a fixed value for the tip angle and vice versa. This applies regardless of the diameter of the nail shaft. This assignment always remains the same. As stated by the defendant (uncontested), a larger tip angle results in a smaller ratio

of the length of the nail tip to the diameter of the nail. The larger the tip angle, the smaller the length of the tip for a given diameter of the nail. This means that a tip angle of more than 40° corresponds to a ratio of the length of the nail tip to the diameter of less than approximately 1.4. For clarification, the defendant has included a table, the accuracy of which has been confirmed by the claimant with reference to Annexes KM-NK 18 and KM-NK 21, which shows the corresponding ratios of the length of the nail tip to the diameter of the nail for certain tip angles:

Spitzenwinkel	Verhältnis Länge/Durchmesser
18,92°	3
28,07°	2
36,87°	1,5
40°	1,37
53,13°	1
60°	0,87
90°	0,5

43. This understanding is confirmed by Figure 1 of the patent at issue with differently shaped nail tips (1b) in front view:

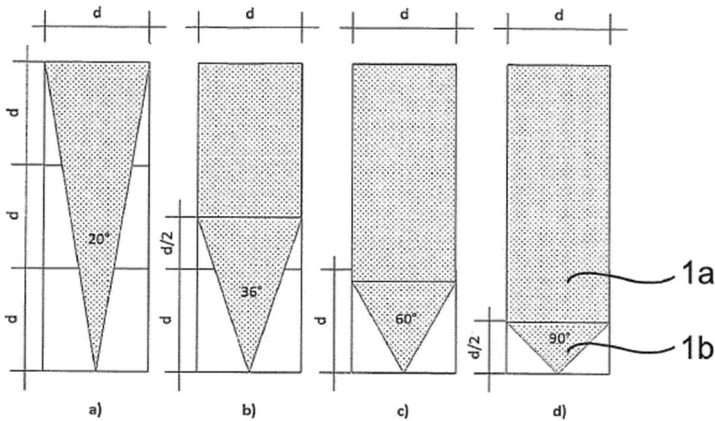


Fig. 1

44. According to feature 1.2, the nail consists of a predominantly lignocellulosic material. The patent at issue thus explicitly distinguishes itself from metal nails (e.g. made of steel, aluminium, copper, etc.), which, according to the description, have various disadvantages (para. [0002]). Although the description of the patent at issue does not contain a definition of the term "(predominantly) lignocellulosic material". However, it assumes that the nail may consist of wood and/or a wood-based material, in particular an organically bonded wood-based material, preferably a synthetic resin-bonded laminated wood or a synthetic resin-bonded fibre composite material containing lignocellulosic fibres from annual plants (para. [0015]) Thus, the claimant's argument that

the claim commonly refers to a wooden nail and that the claim is limited to wooden nails (see 3 Action for annulment). Although the claim covers wooden nails and the description (cf. para. [0018]) lists various examples of hard woods as suitable materials for the nails according to the invention, the claim must be interpreted more broadly. It covers (all) predominantly lignocellulosic materials that are suitable for use as nail material. The skilled person understands that the above-mentioned materials fall within its scope of protection (see also paragraphs [0019]-[0021]). On the other hand, an interpretation whereby the claim of the patent at issue only generally stipulates that the nail consists of a predominantly lignocellulosic material and does not impose any further requirements on the material is equally inaccurate, insofar as the claimant wishes to say that the skilled person would essentially "interpret away" feature 1.2. It is clear to the skilled person that nails made of a predominantly lignocellulosic material must have sufficient strength (or density) to function as nails for connecting components. The description contains examples of suitable materials and material properties (paragraphs [0015]-[0021]). It is therefore at the discretion of the skilled person to select the predominantly lignocellulosic nail material so that it is suitable for use as a nail.

45. Independent claim 3 of the main request requires, in accordance with additional feature 1.5, that several longitudinal grooves (4) running parallel to each other in the longitudinal direction of the nail shaft (1a), preferably parallel to the longitudinal axis of the nail shaft, are formed in the outer circumferential surface of the nail shaft (1a). According to the description, such longitudinal grooves ensure that the cylindrical shaft is not smooth but ribbed with an approximately star-shaped cross-section. This further increases the pull-out resistance of the nails (para. [0014]). The claim requires that the longitudinal grooves are formed parallel to each other in the longitudinal direction of the nail shaft, but does not necessarily require that the longitudinal grooves run parallel to the longitudinal axis of the nail shaft (cf. "preferably"). The longitudinal grooves may extend over the entire length of the nail shaft and be evenly distributed along the circumference of the nail shaft (para. [0013]), but the claim is not limited to this. Similarly, the claim does not specify any particular requirements regarding the shape of the longitudinal grooves – these can be freely chosen by the specialist, for example in the form of indentations with an approximately triangular cross-section.
46. Feature 1.4a of independent claim 3 of the main request requires that the tip angle of the nail tip be >40°. For the interpretation, reference is made to the explanations for feature 1.4, with the proviso that the angle is >40° instead of >60°.
47. Feature 1.6 of the subordinate independent claim 6 of the main request requires that the nail be made of an organically bonded wood-based material containing phenolic resin as synthetic resin. According to the description, the organically bound wood material should contain synthetic resin in an amount of at least 30% by weight, in particular at least 35% by weight, with the synthetic resin content preferably being 40% by weight (also para. [0016]). The precise composition and the physical properties

The chemical properties of suitable organically bound wood-based materials are left to the discretion of the specialist. Feature 1.6 leaves open the question of how much synthetic resin the wood-based material should contain by weight and what density this will achieve. Nevertheless, the skilled person understands that such materials should achieve sufficient nail density (see paragraphs [0017]-[0018]) so that the nail can be driven in (using a nail setting tool) to join components. Preferred wood materials with binder content are compressed veneer laminates, pressed laminated wood and plywood, e.g. made of medium to high density beech veneer with densities of 1.1 g/cm³ to 1.4 g/cm³, such as synthetic resin pressed wood according to DIN 7707 mentioned in the description (para. [0020]).

48. Feature 1.4a of independent claim 6 of the main request requires, as does feature 1.4a of claim 3, that the tip angle of the nail tip be $\geq 40^\circ$. For the interpretation, reference is made to the explanations for feature 1.4, with the proviso that the angle is $>40^\circ$ instead of $>60^\circ$.

III. Grounds for invalidity against the main request

49. The patent at issue is not legally valid in the version of the main request, insofar as it is contested.

Clarity and inadmissible extension

50. The objections raised by the claimant regarding lack of clarity and inadmissible extension are unsuccessful.
51. Claim 1 of the main application claims a range with a minimum value of $>60^\circ$ in feature 1.4. The claimant is of the opinion that this range is not clearly disclosed as belonging to the invention in the original application (Annex KM-NK 9). In addition, according to the claimant, there are ambiguities with regard to the missing upper limit. In particular, it is unclear whether there is actually no limit here or whether the other features of the claim (in particular the conical round tip) are intended to draw a limit and where this limit should then lie.
52. According to Art. 84 EPC, the patent claims must specify the subject matter for which protection is sought. They must be clear and concise and supported by the description. It is for the court to examine whether an amendment to the patent at issue introduces a lack of clarity (see Central Chamber Paris, UPC_CFI_309/2023, decision of 5 November 2024). With regard to the features of a patent claim that are included in the granted version, no review under Article 84 EPC is required (see Local Division Munich, UPC_CFI_248/2024, decision of 22 August 2025).
53. It can be left open whether, in the constellation of this case, in which the granted version already provided for a tip angle of $>40^\circ$ and the EPO examiner did not find any ambiguity in it

saw, and now that there is an amended claim with an almost identical feature, in which only the numerical value has been changed from 40 to 60, a review under Article 84 EPC is required at all, since in the opinion of the court there is no ambiguity here. As explained above, when correctly interpreted, the skilled person readily understands the claim to mean that a tip angle of more than 60° is the minimum size of the angle. The upper limit of the angle follows directly from the word "tip" and the claimed conical shape of the tip. It is <180°, as otherwise it would no longer be a tip or a cone. This is clear to the skilled person.

54. Article 138(1)(c) EPC provides that a European patent may be revoked if the subject-matter of the European patent extends beyond the content of the application as originally filed (Article 123(2) EPC). In order to determine whether there has been an inadmissible extension, it must be ascertained what a person skilled in the art, using their general knowledge and objectively, would immediately and unambiguously derive from the entire application as filed at the time of filing, whereby an implicitly disclosed subject matter, i.e. a subject matter that is clearly and unambiguously derived from what is expressly stated, must also be considered part of the content. If the patent is a divisional application, this requirement applies to each earlier application (Appeal Court UPC_CoA_762/2024 and UPC_CoA_773/2024, decision of 5 November 2025; Court of Appeal, UPC_CoA_382/2024, order of 14 February 2025).
55. On this basis, there is no inadmissible extension of claim 1 of the main request. The subject-matter of claim 1 of the main request, in particular feature 1.4, does not go beyond the content of the original application.
56. On page 2, lines 24 to 29 of the original application, it is disclosed that the task of the invention (reduced splitting effect) is solved by the tip angle of the nail tip being >40°. Preferably, the tip angle of the nail tip is in the range of 45° to 60°, with 45° or 60° being particularly suitable. However, larger angles, such as 90°, are also possible according to the original application. On page 3, lines 1-4, the application further discloses that nails with tip angles in the specified ranges, and in particular greater than 50°, exert a significantly lower splitting effect on nailed components than nails with smaller tip angles, for example 20°. From this disclosure, the skilled person deduces that larger tip angles have a lower splitting effect, whereby angles greater than 60° are disclosed to the skilled person immediately and unambiguously (at least implicitly) as a minimum value. The skilled person is taught that larger angles (i.e. >60°) are also possible, with 90° being mentioned (only) as an example.
57. For the sake of completeness, the court points out that the "upper limit" of <180° was immediately and unambiguously disclosed to the skilled person in the original application. This is because it is clear to the skilled person that the application refers to a nail with a

conical tip, see page 1, line 9, and claim 1 of the original application. From this, the skilled person immediately deduces that the angle must be $<180^\circ$.

58. The court can leave open the question of whether, in the context of examining an inadmissible extension, it is legally relevant whether, as claimed by the claimant, a disclosed area was "chosen completely arbitrarily" or disclosed as "belonging to the invention", since, in the court's view, the claimed area in the present case was neither disclosed arbitrarily nor as not belonging to the invention. It is clear from the original application that the technical effect achieved with the larger tip angles is a lower splitting effect and that this is precisely the task of the invention. There can therefore be no question of an arbitrary choice.

Inventive step of claim 1 of the main request

59. In its defence to the action for annulment and in its application for amendment of the patent, the defendant explained why, in its opinion, the new claim 1 of the main application is novel. The claimant did not address this point. In its reply to the statement of defence and defence to the application to amend the patent at issue, the claimant no longer appeals to a lack of novelty, but only to a lack of inventive step. Since there are no apparent objections to novelty, the court will assume that claim 1 of the main application is novel.
60. However, based on the claimant's submissions, no lack of inventive step can be established.
61. According to Art. 56 EPC, an invention is considered to involve an inventive step if it is not obvious to a person skilled in the art from the prior art. This is always a question of the individual case and requires examination taking into account all relevant facts and circumstances. A retrospective approach should be avoided in this regard.
62. Inventive step must be assessed from the perspective of a person skilled in the art on the basis of the entire state of the art, including the general knowledge of the person skilled in the art. It is assumed that the person skilled in the art had access to the entire publicly available state of the art at the relevant point in time. The decisive factor is whether the claimed subject matter is such that the skilled person would have found it on the basis of their knowledge and skills, for example through obvious modifications of what is already known (Central Chamber Munich, UPC_CFI_1/2023, decision of 16 July 2024; Central Chamber Munich, UPC_CFI_252/2023, decision of 17 October 2024).
63. In order to assess whether a claimed invention was obvious to a person skilled in the art, a starting point in the prior art must first be established. It must be justified why the person skilled in the art would consider a particular part of the prior art to be a realistic starting point. A starting point is realistic if

if its teaching would have been of interest to a person skilled in the art who, on the priority date of the patent in question, wanted to develop a product or process similar to that disclosed in the prior art and thus had a similar underlying problem to that of the claimed invention (see Court of Appeal, UPC-CoA_335/2023 App_576355/2023, Order of 26 February 2024, p. dd34 under "cc"; Central Chamber Munich, UPC_CFI_1/2023, Decision of 16 July 2024; Central Chamber Munich, UPC_CFI_252/2023, decision of 17 October 2024; Central Chamber Paris, UPC_CFI_307/2023, decision of 29 November 2024; Central Chamber Paris, UPC_CFI_338/2023 UPC_CFI_410/2023, decision of 26 December 2024; Local Division Düsseldorf, UPC_CFI_363/2023, decision of 10 October 2024; Local Division Düsseldorf, UPC_CFI_50/2024, decision of 10 April 2025; Local Division Hamburg, UPC_CFI_173/2024 and 424/2024, decision of 10 July 2025). There may be several realistic starting points. It is not necessary to

most promising starting point to determine (central chamber Munich, UPC_CFI_1/2023, decision of 16 July 2024; Central Chamber Munich, UPC_CFI_252/2023, decision of 17 October 2024; Central Chamber Paris, UPC_CFI_315/2024, decision of 5 November 2024; Central Chamber Paris, UPC_CFI_338/2023 UPC_CFI_410/2023, decision of 26 December 2024).

64. When comparing the claimed subject matter as interpreted with the prior art, the question arises as to whether it would have been obvious to a person skilled in the art to arrive at the claimed solution starting from a realistic starting point in the prior art in view of the underlying problem. If it was not obvious to arrive at this solution, the claimed subject matter meets the requirements of Article 56 EPC.
65. In general, a claimed solution is obvious if the skilled person would be motivated by the prior art, i.e. had an incentive or reason to consider the claimed solution and implement it as the next step in the further development of the prior art (Court of Appeal, UPC-CoA_335/2023 App_576355/2023, order of 26 February 2024, p. 34 et seq.; Central Chamber Munich, UPC_CFI_1/2023, decision of 16 July 2024; Central Chamber Munich, UPC_CFI_252/2023, decision of 17 October 2024; local division Düsseldorf, UPC_CFI_363/2023, Decision of 10 October 2024; local division Mannheim, UPC_CFI_365/2023, Decision of 2 April 2025; local division Düsseldorf, UPC_CFI_50/2024, decision of 10 April 2025. Different approach: Local division Munich Panel 1, UPC_CFI_501/2023, decision of 04.04.2025 Central Chamber Milan, in UPC_CFI_497/2024, decision of 23.10.2025). Depending on the facts and circumstances of the individual case, it may be permissible to combine disclosures of the prior art.
66. A technical effect or advantage achieved by the claimed subject matter in comparison with the prior art may be an indication of inventive step. A feature that has been arbitrarily selected from several possibilities cannot generally contribute to inventive step.

67. Based on these principles, it cannot be concluded that the technical teaching protected in claim 1 of the main request is obvious to a person skilled in the art from the prior art.

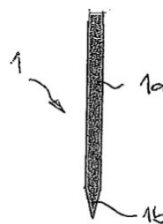
DE 10 2015 107 371 A1 (Annex KM-NK 12)

68. Both parties base their arguments regarding (lack of) inventive step on the defendant's own prior publication, DE 10 2015 107 371 A1 (Annex KM-NK 12; referred to by the defendant as citation E1, hereinafter: "DE 371") "as the closest prior art". Although, as explained above, the "most promising" starting point is irrelevant for the assessment of inventive step and, accordingly, there is in principle no room for determining the "closest prior art", the court assumes that the parties agree that DE 371 is in any case a realistic starting point. The court shares this opinion.
69. DE 371, published on 17 November 2016 and thus prior art, discloses nails made of lignified plant material for use in a nailing device. The task solved by DE 371 is to create a nail strip for a nail setting device that can be used to join components made of wood in particular without the risk of weather-induced discolouration and that allows the components to be recycled without shredding or laborious removal of the nails (para. [0009] of DE 371).
70. According to DE 371, it has surprisingly been shown that softwoods such as spruce, fir, pine and soft hardwoods such as poplar can be nailed with nails made of hardwoods, wood-based materials or materials structurally similar to wood-based materials made from lignified plant material using nailing devices without pre-drilling, without the nails breaking, bursting or bending (para. [0010], [0011] of DE 371). According to DE 371, suitable wood-based materials with binder components preferably include compressed laminated veneer lumber, pressed plywood and plywood, such as synthetic resin plywood in accordance with DIN 7707 (para. [0014] of DE 371).
71. According to DE 371, the nail tip can be polygonal or round (para. [0024] of DE 371). According to one embodiment of DE 371, the ratio of the length of the nail tip to the diameter or thickness of the nail shaft is between 1 and 3, in particular between 1.5 and 2.5, and preferably between 1.8 and 2.1. It is undisputed that a skilled person knows from their general technical knowledge that a ratio of 1 corresponds to a tip angle of 53.1° and a ratio of 3 corresponds to a tip angle of approximately 18.9° (see the explanation above).
72. Although DE 371 does not (at least not explicitly) deal with the task of providing a nail that can be driven into wood-based materials without the risk of splitting them, as is the case with the invention of the patent at issue (see above), the teaching of DE 371 was of interest to the skilled person because it discloses a similar product:

wooden nails for use in a nail setting device. The court therefore, in agreement with the parties, takes DE 371 as the starting point for assessing whether or not the subject matter claimed in claim 1 of the main request was obvious to a person skilled in the art.

73. Figure 1 of DE 371 shows a wooden nail corresponding to features 1.1 and 1.2 of claim 1 of the main application, which has a nail shaft with a cone-shaped round tip at its front end and a head area at its rear end. DE 371 thus discloses a nail with features 1.1, 1.2, 1.3, 1.3.a and 1.3.b. The defendant also shares this opinion (page 11, 3 a) statement of defence).

Figur 1



74. Feature 1.4 is not disclosed, as the tip angle of the nail tip is less than 60°. Paragraph [0025] of DE 371 states that the ratio of the length of the nail tip to the diameter should be between 1 and 3. A ratio of 1 corresponds to a tip angle of 53.1°. However, for a tip angle >60°, the ratio of the length of the nail tip to the diameter would have to be less than 0.87, as the skilled person knows from their general technical knowledge (see above).
75. The court does not agree with the claimant's view that there is a lack of inventive step simply because the skilled person cannot deduce from the patent at issue at any point on which inventive step this completely arbitrary range is based. As explained above, the range is not chosen completely arbitrarily. The patent specification clearly discloses the technical effect achieved with larger tip angles (lower gap effect, see paragraphs [0007]-[0008] of the patent at issue, as explained above). The claimant herself also assumes that it is readily understandable to a person skilled in the art that any angle between 180° and the value of 60° known from the prior art contributes to a significant reduction in the risk of splitting as the angle increases. This is not affected by the fact that, as argued by the claimant in the hearing, there is only a 7-degree difference between the prior art and (the minimum value) of the claimed range. This does not make the claimed range arbitrary.

and plays a role at most in the question of whether the claimed area was obvious or not (see below).

76. The question to be answered here is whether, based on DE 371, it was obvious to a person skilled in the art to arrive at an apex angle of $>60^\circ$. As can be seen from the above principles, a claimed solution is obvious if the skilled person would be motivated by the prior art, i.e. had an **incentive** or **reason** to consider the claimed solution and implement it as the next step in the further development of the prior art.

No suggestion in DE 371 itself

77. In any case, DE 371 itself does not provide the skilled person with any suggestion to increase the tip angle.
78. DE 371 discloses nails that can be successfully nailed using nailing devices without pre-drilling and without the nails breaking, bursting or bending (paragraph [0011] of DE 371). Although the tip angle of the nails can be directly derived from DE 371 (for the skilled person, it results from the ratio of the length of the nail tip to the diameter of the nail shaft, as already explained above), according to DE 371 does not have any specific technical effect or advantage. The significance of the tip angle is not addressed at all in DE 371. Based on the technical information in DE 371, a person skilled in the art will therefore assume that the tip angles disclosed therein lead to the desired result, namely the use of wooden nails without pre-drilling. In this sense, it is a complete technical teaching. The skilled person therefore finds no reason in DE 371 to adjust the tip angle.
79. Furthermore, DE 371 does not mention a splitting problem as solved by the claim of the patent at issue. According to the description of DE 371, the nails themselves do not break, burst, or bend when driven in (paragraph [0011] of DE 371). In the tests carried out according to DE 371 (para. [0037] of DE 371), where nails with a round tip and a pyramid tip were tested, nails were inserted into a pneumatic nailer and shot into spruce wood with the pneumatic nailer at a pressure of 6 bar (without pre-drilling). The nails were completely sunk into the wood. After cutting the nailed sample on a band saw, whereby the nail was cut along its longitudinal axis, it was found that the nail had retained its shape and had not splintered. The contact surface between the nail and the surrounding spruce wood was discoloured, which suggests thermal changes in the wood caused by frictional heat. There is no indication that the nails used in DE 371 caused any splitting problems. The skilled person will therefore assume that DE 371 also discloses a technical teaching that has already been completed in this regard. In any case, there is no indication or suggestion in DE 371 that a splitting problem occurs, let alone that this can be solved by setting the nail tip angle to $>60^\circ$.

No suggestion based on general technical knowledge

80. The claimant also thinks that it's just a simple technical measure using the general technical knowledge of the expert to get the right angle.
81. The claimant's argument is based on two premises: firstly, that the problem of splitting wood when driving in nails (for metal nails) is generally known, whereby experts know that blunt nail tips reduce the risk of splitting. Secondly, that the skilled person would readily apply the common requirements for the nail tip and tip angle of a known steel nail to the nails in question (wooden nails). Neither premise is valid.
82. When assessing the inventive step from a legal perspective, it must always be borne in mind that an invention must not be assessed in the light of the invention, i.e. retrospectively. This also applies when general technical knowledge is taken into account. Even in such a case, it is usually necessary for the skilled person to have a reason to arrive at the claimed subject matter based on the prior art.
83. General technical knowledge is knowledge that a person skilled in the art is expected to have in the field in question, or at least be aware of, so that they know they can look it up in a book if necessary. (Court of Appeal UPC_CoA_523/2024, order of 3 March 2025). Facts intended to prove that certain information was part of general technical knowledge on the priority or filing date must be presented and, where necessary, proven by the party invoking the general technical knowledge of the information (see Court of Appeal UPC_CoA_523/2024, order of 3 March 2025). In this case, this is the claimant. This is in line with the usual distribution of the burden of proof (see Rules 171 and 172 of the RoP). Sources that are typically suitable for proving general technical knowledge include, for example, standard textbooks or manuals in the relevant technical field (see Central Chamber Paris UPC_CFI_307/2023, decision of 29 November 2024).
84. Against this background, it cannot be concluded from the documents submitted by the claimant that it was part of the general technical knowledge of a skilled person to adjust the tip angle (of a conical round tip) in order to prevent wood materials from splitting (the first premise).
85. It is true that Vatter's 1948 craftsman's book (*KM-NK 17, hereinafter: "Vatter 1948"*) describes on pages 172 and 173 that the conical tip of a metal nail acts as a wedge when it penetrates the wood, whereby the material is displaced to the side by the walls of the wedge, resulting in the wood splitting. However, in 1948, Vatter taught how to convert the nail into a complete cylinder by cutting off the cone-shaped tip. This means that when the nail is hammered in, it mainly displaces the wood.

downwards so that the wood no longer splits. In 1948, Vatter did not teach how to make the tip angle blunter. Instead, Vatter taught how to omit the nail tip entirely in order to prevent splitting.

86. The DIN standards DIN 1052:2004-08 (KM-NK 14, PU 13, Chap. 12.5) in the 2004 and 2005, DIN EN 14592 in the July 2012 version (KM-NK 15, PU 14, Chap. 6.1.2) and DIN EN 10230-1 in the January 2000 version (KM-NK 16, PU 15, Chap. 6.1) (hereinafter collectively referred to as "DIN standards") refer to pin-shaped fasteners such as metal nails for use in timber structures. The court will assume in favour of the Claimant that the DIN standards correspond to general technical knowledge.
87. The defendant disputes that the DIN standards disclose a conical round tip (feature 1.3a). The defendant has substantiated its claim that a specialist would conclude from the curved line drawn on the first and third nails (see Figure 42 below) that this is a (side) view of a diamond-shaped or pyramid-shaped tip, as shown in the second and fourth figures from a view. On the other hand, the claimant, who bears the burden of proof, has not provided any evidence, even after extensive discussion in the oral proceedings.

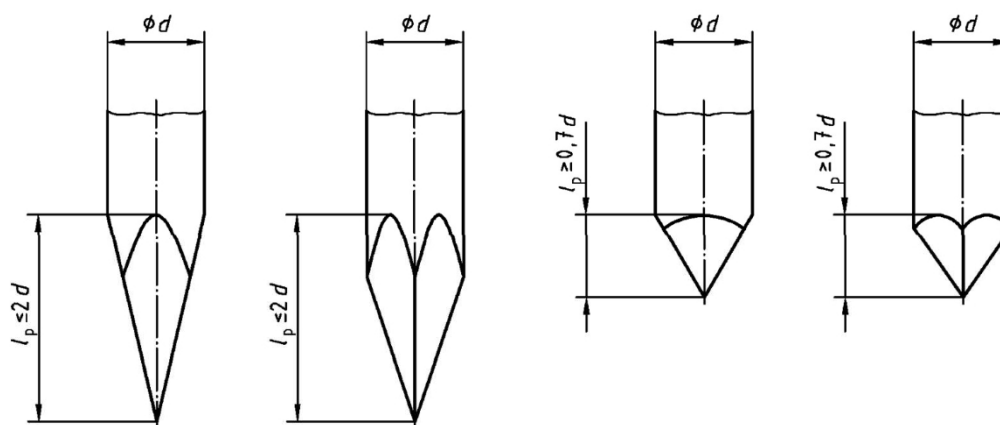


Bild 42 — Nagelspitzen (schematische Darstellung)

88. It is therefore at least doubtful whether the skilled person can derive feature 1.3a from the figures. But even if this were assumed in favour of the claimant, it is neither apparent nor explained that and why the skilled person, on the basis of the knowledge according to the DIN standards, which contain no references to splitting a wooden substrate, would have any reason to implement a conical round tip, let alone a conical round tip with a tip angle $>60^\circ$, as claimed.
89. (For the first time) in the oral proceedings, the claimant argued that a Chinese utility model (Annex KM-NK 13/13a, published on 29 November 2000) was representative of general technical knowledge. Exhibit KM-NK 13/13a refers (undisputedly) to steel nails. According to the certified (and undisputed) translation submitted, KM-NK 13/13a teaches the use of collated steel nails for fastening workpieces.

Use in a nail gun. Each steel nail has a nail tip with an angle of 40 to 60° (claim 1 of KM-NK 13/13a). The use of such angles is intended to prevent a gap from forming in the workpiece to be fastened.

90. Apart from the fact that this argument was put forward too late in the proceedings and should therefore not be taken into account, it is also factually incorrect. Without further explanation, which is lacking, the content of a Chinese utility model is not representative of the general technical knowledge of a person skilled in the art. As already explained above, such knowledge is often derived from manuals, for example, but not from utility model publications. For the sake of completeness: even if, contrary to the above, the knowledge according to utility model KM-NK 13/13a were to be used, this would not lead the skilled person to the claimed invention. Firstly, steel nails and not wooden nails are disclosed (see below), and secondly, only a tip angle of 40-60° can be seen, and KM-NK 13/13a gives no indication that larger angles can or should be used, as claimed. Finally, as the defendant correctly argued, the nails disclosed in KM-NK 13/13a do not have a conical round tip, but a pyramid-shaped tip. It is not apparent that the skilled person had any reason to implement a conical round tip instead of a pyramid-shaped tip.
91. Furthermore, based on the available evidence in the present case, it cannot be established that it was common technical knowledge to transfer knowledge of the nail tip angle of metal nails to wooden nails, let alone that the skilled person would arrive at the claimed tip angle of >60° based on DE 371. Thus, the Claimant's second premise also lacks a basis.
92. First of all, the claimant assumes an incorrect interpretation of the patent claim, in particular feature 1.2, according to which the nail consists of a predominantly lignocellulosic material. The claimant is of the opinion that the claim of the patent at issue only generally stipulates that the nail consists of a predominantly lignocellulosic material and does not impose any further requirements on the material. Insofar as the claimant thus asserts that the claim is so broadly worded that metal or "metal-like" nails also fall within its scope of protection, this is incorrect. As explained above, the claim is also not so broad with regard to the choice of material that a person skilled in the art would consider metal nails to be "close" to the claimed material. On the contrary, it is clear from the claim and the description that the choice of a lignocellulosic material is intended precisely to distinguish it from the prior art with regard to metal nails.
93. Against this background, the plaintiff has not substantiated the claim that the skilled person would transfer their expertise on metal nails to wooden nails, or at least not sufficiently with documents or other evidence, following the defendant's objection. This means that even if the skilled person had known that a (conical,

round) nail tip of known metal nails leads to splitting of wood when driven, and that blunter tip angles were a solution to the splitting problem of such metal nails – which could not be determined by the court, see above for the first premise – the expert would still not have deduced from this knowledge that the nail tip angle would have to be greater than $>60^\circ$ for nails made of a predominantly lignocellulosic material.

94. The defendant correctly argues – with reference to the material properties of hardness, strength and deformation properties (elasticity), see p. 12 of the statement of defence – that the material properties of wood and steel differ considerably. This is precisely the starting point of DE 371. According to DE 371, wooden nails have special properties compared to metal and plastic nails (para. [0016] of DE 371). Apart from visual properties ("natural appearance", cf. para. [0017] of DE 371), this also applies to the "interaction" between the relevant material properties of the nail and the (wooden) substrate. DE 371 mentions that, unlike metal and plastic nails, wooden nails are hygroscopic and can swell (para. [0019] of DE 371). It also states that wood is a poor heat conductor, which means that when the wooden nail is driven into the substrate, the two materials weld together (para. [0020] of DE 371), which – in combination with the swelling – results in high adhesion of the wooden nail in the (wooden) substrate. The adhesion is so high that there is no need for a nail head that protrudes beyond the shaft diameter, as is typical for metal nails. Although the claimant is correct in stating that these properties relate to the nail once it has been driven into the wood and are therefore not directly relevant to the driving of the nail, the expert concludes from this that wooden and metal nails are quite different in terms of their material properties. In addition, steel (as undisputedly stated by the defendant, cf. p. 12, statement of defence, under c) is an isotropic material with strengths in the range of several 100 N/mm². Isotropic materials are materials that have the same properties in all spatial directions. Wood-based materials, on the other hand, are anisotropic materials, i.e. with direction-dependent material properties and strength values that range between 0.5 and approximately 30 N/mm², depending on the respective direction. It is therefore not immediately obvious, at least not without further suggestion, to transfer knowledge about metal nails without restriction to nails made of a predominantly lignocellulosic material.
95. The KM-NK 3 attachment, US application 159777, does not change this. This document, dating from 1875, deals with wooden nails for attaching shoes to soles. It does not disclose a tip angle $>60^\circ$ and, furthermore, contains no information on the problem of splitting or the relevance of the tip angle. Wooden and metal nails are presented as alternatives. This is not sufficient to justify the conclusion that a person skilled in the art would ignore the differences in material properties between

wood and metal in terms of the splitting behaviour of nails and would arrive at the claimed solution.

96. Furthermore, the claimant's argument in the oral proceedings that the skilled person would in any case try to increase the tip angle and that there is only a difference of 7 degrees between the highest value from DE 371 and the claimed minimum value is not valid. This argument is based on a retrospective view. Without the prior art providing a reason to make the tip angle of wooden nails blunter than 60°, it is not apparent why the skilled person would increase the tip angle in order to arrive at the claimed nail.
97. Thus, the subject matter claimed in claim 1 of the main request does not result in an obvious manner from DE 371, even when taking into account the general technical knowledge of the skilled person.

Other prior art

98. The other prior art appealed by the claimant to challenge the inventive step of claim 1 of the main request does not convince the Court.
99. The skilled person finds no suggestion to increase the tip angle of the nails disclosed in DE 371 to >60° with a view to solving a splitting problem, neither in DE 371 itself nor in the rest of the prior art. None of the other citations considered by the claimant disclose nails with a conical round tip with a tip angle >60°. None of the other citations considered by the claimant disclose that it is customary to transfer a technical teaching concerning steel nails to a wooden nail. In particular, they do not disclose that it is customary to transfer a technical teaching concerning steel nails to wooden nails with regard to the splitting problem and the relevance of the tip geometry (in particular the tip angle) for this. It is not apparent how the skilled person would arrive at the claimed subject matter in an obvious manner based on the prior art.
100. This also applies if one proceeds from KM-NK 13/13a. As already explained above, the utility model relates to collated steel nails for use in a nail gun with a nail tip at an angle of 40 to 60°. Even if the utility model were taken as a realistic starting point, the skilled person would not, without *hindsight*, derive any suggestion from KM-NK 13/13a or from the rest of the prior art to use wooden nails instead of the steel nails disclosed therein. Furthermore, it is not apparent why the skilled person should increase the nail tip angles (to >60°) and use a conical round tip instead of a pyramidal tip. KM-NK 13/13a therefore also does not take away the inventive step from claim 1.

101. For the above reasons, the court concludes that it cannot be established that the subject matter of claim 1 of the main request is obvious to a person skilled in the art from the prior art.

Novelty of claim 3 of the main request

102. Independent claim 3 of the main request requires, according to additional feature 1.5, that several longitudinal grooves (4) running parallel to each other in the longitudinal direction of the nail shaft (1a), preferably parallel to the longitudinal axis of the nail shaft, are formed in the outer circumferential surface of the nail shaft (1a). According to feature 1.4a of claim 3, the tip angle of the nail tip is $>40^\circ$.
103. The claimant contested the novelty of claim 3 for the first time during the oral proceedings. It appealed to the fact that experiment 5 on page 7/15 of DE 371, in which a commercial beech wood dowel with a diameter of 6 mm and a length of 50 mm could be driven into spruce wood without splintering, anticipated all the features of claim 3 and thus destroyed its novelty. However, this attack was unsuccessful. On the one hand, it is late within the meaning of R. 44 in conjunction with R. 13 and R. 9.2 of the RoP, and on the other hand, it is also unfounded on the merits.
104. According to Art. 54(1) EPC, an invention is considered new if it does not belong to the state of the art. Only that which is immediately and unambiguously apparent to a person skilled in the art from the respective publication or prior use is considered to be anticipated by the prior art (Court of Appeal, UPC_CoA_182/2024, order of 25 September 2024; UPC_CoA_382/2024, order of 14 February 2025). Findings that a person skilled in the art only gains on the basis of further considerations or the use of additional literature or prior use are not prior art (local division The Hague, UPC_CFI_239/2024, decision of 22 November 2024; Local division Düsseldorf, UPC_CFI_16/2024, decision of 14 January 2025). The burden of proof and presentation for facts concerning the lack of validity of a patent lies with the plaintiff in nullity proceedings (Court of Appeal, UPC_CoA_335/2023 order of 26 February 2024).
105. Applying these principles, there is no clear disclosure of a tip angle of $>40^\circ$ (feature 1.4a) in combination with feature 1.5. In both experiment 5 and experiment 1, to which experiment 5 refers, the angle of the tip is left open. The description of DE 371 does not clearly indicate that the embodiment referred to in paragraph [0025] of DE 371 is the embodiment according to experiment 5. The skilled person therefore does not directly and unambiguously deduce from DE 371 that the ratio of the length of the nail tip to the diameter or thickness of the nail shaft disclosed in paragraph [0025] also applies to the nail according to test 5. Thus, the subject-matter of claim 3 is new compared to DE 371.

(No) inventive step of claim 3 of the main request

106. However, claim 3 of the main request proves to be non-inventive.
107. In the claimant's opinion, no inventive step is required to arrive at the subject matter of claim 3 (original claim 7). Reference is made, for example, to Annex KM-NK 19. The longitudinal corrugation to increase the pull-out strength is also part of general technical knowledge (with reference to Annex KM-NK 20).
108. Before the court proceeds to assess the inventive step, it should be noted that the court – like the parties – is of the opinion that the combination of features consisting, on the one hand, of the angle of the nail tip and, on the other hand, of the provision of longitudinal grooves in the nail shaft solves different problems. As claimed by the claimant, the task formulated in the patent at issue of reducing the splitting effect is influenced solely by the angle of the nail tip. In contrast, as the defendant argues, the provision of longitudinal grooves in the nail shaft serves to increase the pull-out strength of the nails. Furthermore, the court, like the claimant, is of the opinion that the two additional features do not have any synergistic effects on each other and that the inventive step of each feature must be assessed separately. In this respect, the court does not agree with the defendant's argument in the oral proceedings that reducing the splitting effect and the risk of splintering also increases the pull-out resistance. The pull-out resistance refers to nails that have already been driven in. The splitting effect, on the other hand, refers to the driving in of the nail (i.e. when setting, cf. para. [0005] of the patent at issue). The two problems are not related in this respect.
109. Both parties correctly assume that DE 371 is a realistic starting point for assessing the inventive step of claim 3. The purpose of DE 371 is to provide nails for use in a nailing device, which can be used to join components made primarily of wood and which consist of a predominantly lignocellulosic material. DE 371 would therefore be of interest to the skilled person, also with regard to the subject-matter of claim 3 of the main request. In addition, DE 371 addresses the problem of pull-out resistance (e.g. paragraph [0019] of DE 371), which further contributes to the skilled person's interest in DE 371.
110. Based on the disclosure of DE 371, taken as a whole, it was obvious to the skilled person to combine the disclosure of the tip angle in paragraph [0025] with the corrugated dowel from experiment 5. Experiment 5 already discloses that the corrugated dowel is used as a nail. The commercial corrugated dowel made of beech was sharpened to a round point for this purpose. Experiment 5 leaves open how the sharpening is carried out. In experiment 1, the sharpening was carried out with a pencil sharpener or, alternatively, with sandpaper. As already explained above, the size of the tip angle is left open. In the absence of specific information on the tip angle when sharpening the corrugated dowel, it was obvious from DE 371 to refer to the ratio between the length of the

The tip of the nail and the cross-section of the nail head in accordance with [0025] and thus select a suitable angle for the rounded tip.

111. The skilled person also knew from their general technical knowledge that a commercial "ribbed dowel" has several longitudinal grooves running parallel to each other in the longitudinal direction of the nail shaft, as required by feature 1.5. See, for example, Annex KM-NK20, page 19:

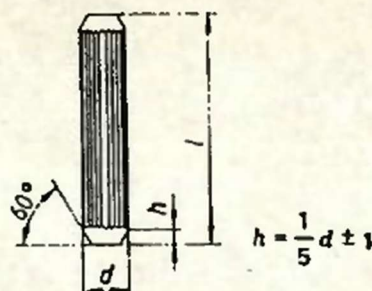
3.5. Holzdübel nach DIN 86150

Verwendung findet dieser Dübel vor allem in der Möbel- und Gestellproduktion und wird hier seit ca. 40 Jahren erfolgreich eingesetzt. Erst 1982 kam, seitens des VDMA und des zuständigen Normenausschusses Holz, die Normung von Holzdübeln in Gang.

Der längsgeriffelte, beidseitig mit 60° angefaste Buchenholzdübel mit gleichmäßiger Riffelung verfügt, bei diesem Anwendungsbereich, über ausreichende Festigkeit und Fugenschlüssigkeit.



Bild 20: Typischer Riffeldübel aus Buche, beidseitig angefast



112. The foregoing leads to the conclusion that the ground for invalidity asserted against claim 3 of the main request, namely lack of inventive step, is valid.

(No) novelty of claim 6 of the main request

113. Claim 6 of the main request cannot be upheld either because its subject matter is not novel, or at least not inventive.
114. Independent claim 6 of the main request requires, according to additional feature 1.6, that the nail be made of an organically bonded wood material and contain phenolic resin as synthetic resin. As is the case for claim 3 of the main request, feature 1.4a of independent claim 6 of the main request requires that the tip angle of the nail tip be >40°.
115. The parties rightly agree that DE 371 discloses a nail for use in a nail setting device, consisting of a predominantly lignocellulosic material, with a nail shaft at the front end of which a nail tip in the form of a conical round tip is provided, and wherein a head area is formed at the rear end area of the nail shaft, wherein the

The tip angle of the nail tip is $>40^\circ$ (18.9–53.1°, see further explanations on DE 371 above).
The defendant merely disputes that feature 1.6 is disclosed.

116. According to the claimant, the subject matter of claim 6 is completely prejudicial to novelty and is anticipated by the citation KM-NK 12 (DE 371). Paragraph [0014] of DE 371 describes suitable wood-based materials which are produced with the addition of binding agents. These are organically bonded wood-based materials according to claim 6 of the main request. The preferred wood-based materials with binder content are described as compressed laminated veneer lumber, pressed plywood and plywood of medium to high density, such as synthetic resin plywood in accordance with DIN 7707. Phenolic resin in accordance with claim 6 of the main application is such a synthetic resin. DIN 7707, referred to in citation NK 12, relates to synthetic resin pressed wood and solid insulating wood (Annex KM-NK 22). Footnote 2 attached to the term synthetic resin expressly names phenol-formaldehyde condensation resins (phenolic resins) as preferred synthetic resins. This means that all the features of claim 6 are also directly and unambiguously disclosed in DE 371. In the defendant's view, DE 371 does not anticipate the subject-matter of claim 6 in a manner prejudicial to novelty, because synthetic resin moulded wood does not necessarily mean that the organically bonded wood-based material contains phenolic resin as a synthetic resin. According to the footnote, DIN 7707, to which DE 371 refers, only phenol-formaldehyde condensation resins are preferred for use as synthetic resin.
117. According to the above-mentioned standard for novelty, the court is convinced in the present case that feature 1.6 also results directly and unambiguously from DE 371. DE 371 undisputedly discloses wood-based materials manufactured with the addition of binding agents (in other words, bonded wood-based materials). As an example of a suitable bonded wood-based material, DE 371 explicitly mentions synthetic resin pressed wood in accordance with DIN 7707 (para. [0014] of DE 371). As explained by the claimant, footnote 2 in DIN 7707 expressly names phenol-formaldehyde condensation resins (phenolic resins) as the preferred synthetic resins. The defendant's mere denial that feature 1.6 is disclosed is not sufficient in this context.
118. This is all the more true given that the patent at issue itself refers in paragraph [0020], using identical wording, to synthetic resin-bonded wood in accordance with DIN 7707 as an example of preferred wood-based materials containing binding agents. It is not apparent that this material would fall outside the scope of protection of claim 6. For the sake of completeness, the court points out that, due to the explicit reference in DE 371 to DIN 7707, there is no question of consulting another document – which is prohibited for the novelty test – but rather of the expert "reading along" DIN 7707 with regard to the term synthetic resin-bonded wood in DE 371. None of the parties raised any objections in this regard, and rightly so. Thus, the skilled person directly and unambiguously deduces from DE 371 that an organically bonded wood-based material with phenol-formaldehyde condensation resins (phenolic resin) is disclosed. Feature 1.6 is therefore also prejudicial to novelty.

119. Even if the defendant were to be agreed with in that no lack of novelty can be established because the term "phenolic resin" is not mentioned literally as such in either DE 371 or the DIN standard, this would ultimately not help the defendant to succeed. This is because there would then be no inventive step. The skilled person would find a direct incentive in DE 371 to use the synthetic resin disclosed in DIN 7707. The defendant's counterargument that the skilled person would not take the footnote into account because DIN 7707 refers to boards and ring plates and not to nails is already incorrect because the starting point in the prior art itself, DE 371, refers directly to DIN 7707 for the interpretation/explanation of the term "synthetic resin moulded wood" used. For this reason, it is also irrelevant that the DIN standard has been withdrawn. This is because DE 371 refers to the standard precisely for the interpretation of the term 'synthetic resin moulded wood'. It has neither been claimed nor proven that the standard was withdrawn because the interpretation of this term is incorrect, and even if this were the case, it could still be used as a "lexicon" or definition of the term in DE 371.
120. Based on the above, the court is convinced that the subject matter of claim 6 of the main application is not new, or at least not inventive.

Legal consequence (interim conclusion)

121. In the opinion of the court and as emphasised by the claimant, which the defendant did not address in detail, the main claim filed by the defendant by way of amendment to the patent at issue contains a closed set of claims. The defendant therefore primarily defends the patent at issue to a limited extent in accordance with the set of claims in the main claim. The defence of the patent at issue by means of the closed main claim has – in view of Art. 76UPC Agreement – means that the patent at issue can only be maintained on the basis of the main request, in which each of the subordinate claims of the main request is included in a grantable version (see Local Division Munich, UPC_CFI_248/2024, decision of 22 August 2025). This is not the case here. Claims 3 and 6 are not grantable and therefore the main application as a whole is not grantable. As a result, the auxiliary requests need to be assessed.

IV. Subordinate requests (in particular subordinate request III)

122. In the alternative, should the main request not be granted, the patent at issue will be defended in a further restricted form with auxiliary requests I to XI, in that order. The auxiliary requests, in the version of the oral proceedings of 16 October 2025, now only contain sets of amended claims. The court understands these applications to be conditional proposals within the meaning of R. 50.2 in conjunction with 30.1(c) RoP, whereby the condition that the main application cannot be granted has been met. Since no objections were raised against the formal admissibility of the subsequent auxiliary applications by the claimant (in accordance with

the court's view, rightly so), they are admissible. The court will assess the admissibility of the auxiliary motions below.

123. The court sees reason to move on to the assessment of the third auxiliary request (auxiliary request III, Annex P&A 4). Auxiliary request I contains, in claim 3, a claim that corresponds to claim 6 of the main request (and is therefore not allowable). In auxiliary request II, only claim 6 has been deleted from the main request. Auxiliary request II thus contains independent claims 1 and 3 as per the main request and dependent claims 2, 4 and 5. Since independent claim 3 as per the main request is not allowable, auxiliary request II is also not legally valid.
124. The third auxiliary request contains two claims. These two claims (claims 1 and 2) correspond to claims 1 and 2 of the main request. It follows from the above that the court has no concerns regarding the legal validity of claim 1 of the third auxiliary request. Claim 2 of the third auxiliary request, which is dependent on claim 1, merely specifies that the tip angle of the nail tip is 90°. No (separate) grounds for invalidity were raised by the claimant in this regard. The subject-matter of these claims is therefore not affected by the claimant's objections of invalidity. The claims are new and inventive, and their subject matter is neither unclear nor inadmissibly broadened.

V. Legal consequences

125. The action is to be upheld in part. The patent at issue is to be declared invalid in accordance with the operative part of the judgment insofar as it was challenged and insofar as it goes beyond the subject matter asserted in the third auxiliary request.
126. According to Art. 76(1) of the UPC Agreement, the court shall decide in accordance with the applications made by the parties and may not award more than has been requested. According to Art. 65(1) of the UPC Agreement, the court shall decide on the validity of a patent on the basis of an action for revocation or a counterclaim for revocation. Pursuant to Art. 65(3) of the UPC Agreement, if the grounds for invalidity relate only to part of the patent, the patent shall, without prejudice to Article 138(3) of the UPC Agreement, be limited by a corresponding amendment of the patent claims and declared partially invalid.
127. In the present case, the claimant has decided not to challenge claims 5 and 6 in the granted version in the context of the nullity action. The court and the defendant are bound by the scope of the action. Accordingly, the patent is partially declared invalid insofar as it extends beyond auxiliary request III, but with claims 5 and 6 remaining unchanged in their granted version.
128. The decision on costs is based on Art. 69(2) UPC Agreement in conjunction with R 118. 5 RoP. When allocating costs, it must be taken into account that the patent is declared invalid to a considerable extent

. Taking into account the circumstances of this case, the Court considers it appropriate to apportion the costs 70% to the defendant and 30% to the claimant.

129. 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. EP 4 019 790 B1 is partially annulled for the Member States of Austria, Belgium, Bulgaria, Germany, Denmark, Estonia, Finland, France, Italy, Lithuania, Luxembourg, Latvia, Malta, the Netherlands, Portugal, Sweden and Slovenia – with claims 5 and 6 unchanged in their granted form – is partially revoked insofar as it encompasses more than auxiliary request III:

ANSPRÜCHE

1. Nagel für den Einsatz in einem Nagelsetzgerät, der aus einem überwiegend lignocellulosischen Material besteht und einen Nagelschaft (1a) aufweist, an dessen vorderem Ende eine als kegelförmige Rundspitze ausgebildete Nagelspitze (16) vorgesehen ist, und an dessen hinterem Endbereich ein Kopfbereich (1c) ausgebildet ist, **dadurch gekennzeichnet**, dass der Spitzenwinkel der Nagelspitze $> 60^\circ$ ist.

2. Nagel nach Anspruch 1, **dadurch gekennzeichnet**, dass der Spitzenwinkel der Nagelspitze (1b) 90° beträgt.

- II. The remainder of the action is dismissed.
- III. The defendant shall bear 70% of the costs of the action. The claimant shall bear 30% of the costs of the action.
- IV. The value in dispute for the action is set at €500,000.00.

NAMES AND SIGNATURES

Presiding Judge Voß	Digitally signed by Ulrike Voß Date: 17 November 2025 10:56:31 UlrikeVoß
Legally qualified judge Kupecz	Digitally signed by András Ferenc Kupecz Date: 17 November 2025, 10:59:30 +01'00 András Ferenc Kupecz
Technically qualified judge Schenk	Digitally signed by Beate Schenk Date: 17 November 2025 08:17:03 Beate Schenk
For the Deputy Chancellor	Digitally signed by Natalie Gnaß Date: 17 November 2025 15:03:34 Natalie Gnaß

INFORMATION ON THE APPEAL

Any party whose applications have been rejected in whole or in part may appeal against this decision to the Court of Appeal within two months of its notification (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 upon application of the enforcing party, Rule 69 RegR.

This decision was announced in open court on 20 November 2025.