**Patents Act 1977** **Opinion Number** **08/22**

# OPINION UNDER SECTION 74A

| | |
|---|---|
| Patent | EP 2766540 |
| Proprietor(s) | Three G Metal Fabrications Limited |
| Exclusive Licensee | |
| Requester | Franks & Co Limited |
| Observer(s) | |
| Date Opinion issued | 19 May 2022 |

## The request

1. The comptroller has been requested to issue an opinion regarding the validity of EP 2766540 ("the patent"). The request is extensive and is summarised in Section 8 on page 40 of 44 in the request as a list of questions a) to o) upon which an opinion is requested.

2. Observations have been filed on behalf of the proprietor and observations in reply received from the requester.

## Preliminary matters – further observations

3. Subsequent to the observations in reply from the requester a series of letters was received, filed on behalf of the proprietor and from the requester.

4. Rule 96 of the Patent Rules 2007 provides for observations and observations in reply in respect of opinion requests. The rule makes no provision for additional rounds of observations.

5. I will come to my opinion based upon the request, the observations and the observations in reply.

## Preliminary matters – the request

6. In official letters dated 28 February 2022 the Office stated:

> *Please note that the opinion will not consider whether the claims lack an inventive step based on DE 9314364 and common general knowledge. This issue has been considered by the EPO in view of their previous references to*

*this document. It does not therefore pose a new question on which this Office will issue an opinion. Certain other questions referred to at Section 8 of the request "Summary of Request" will only be considered to the extent necessary to deal with the substantive issues regarding the validity of the patent.*

7. Consequently the questions in the request that I will consider are those that relate to validity and that do not relate to DE 9314364 U1 and common general knowledge. These are questions k) and l), below.

> *k) Whether Claim 1 and Claim 14 of EP 2766540 B1 contains an inventive step having regard to a combination of US 5,203,428 A and WO 2010/142797;*
>
> *l) Whether Claim 1 and Claim 14 of EP 2766540 B1 contains an inventive step having regard to a combination of US 5,203,428 A and EP 0622504 A1;*

8. Question i) seeks an opinion "*That EP 2766540 B1 is not valid over DE 9314364 U1 in view of US 5,203,428 A;". However,* it is clear from paragraph 7.3.4.9 in the request that in question i) document US 5203428 A is offered as evidence of common general knowledge. As such I will not consider this question.

9. I note that in the observations filed on behalf of the proprietor it is argued that questions a), g), h) and m) in the request should be disregarded. However, as explained in the official letters dated 28 February 2022 none of these are questions that I will consider.

## The patent

10. The application for the patent was filed as an international patent application on 15 October 2012. Priority was claimed from three earlier applications, with an earliest date of 13 October 2011. The patent was granted as EP 2766540 B1 on 14 October 2020 and remains in force. The title of the patent is "*Modular platform and method of assembling the same*" and according to the opening paragraph of the description "*This invention relates to modular platforms, and to a method of erecting a platform. The invention relates in particular, but not exclusively, to platforms suitable for use as scaffolding on a construction site.*"

11. Several modular platforms are shown in the application, the first of which is described in paragraph 59 and shown in figures 1, 4 and 5:

> *[0059] Referring to the figures, a modular platform 10 is shown, comprising a deck surface 12 for supporting workmen, building equipment, materials and the like, to allow the workmen to safely at a level raised from the ground. The deck surface 12 comprises a plurality of deck elements 14 (see figures 3 and 4), each having a load-bearing member (shown generally at 18) and at least one support beam 16. In the examples shown, the deck elements 14 and load-bearing members 18 have a generally square top-down profile, and are each supported by four support beams 16, one disposed along each edge of the load-bearing member 18. Alternatively, one or more of the load-bearing members 18 may have*

*a generally rectangular top-down profile, or that of any regular shape, shapes, or combination of shapes, suitable to fit alongside one another in a modular system. The load-bearing member 18 provides a surface in the form of a grid, rows of bars, or a solid surface. In the example shown in Figure 4, each load-bearing member 18 comprises a grid of support bars. The load bearing members 18 may be formed of steel, a reinforced plastics material, or any other suitable rigid material.*

FIGURE 1

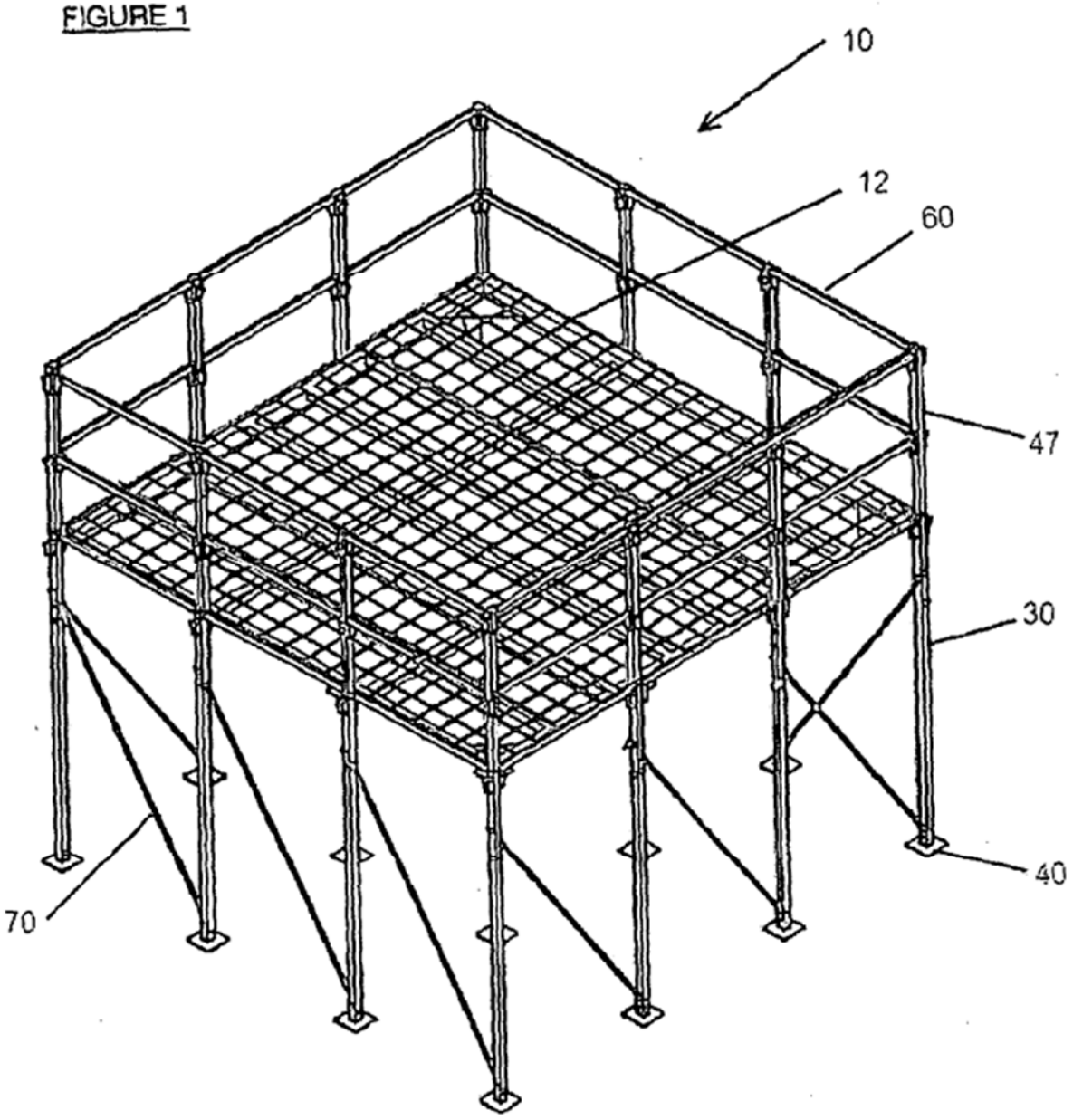


FIGURE 4

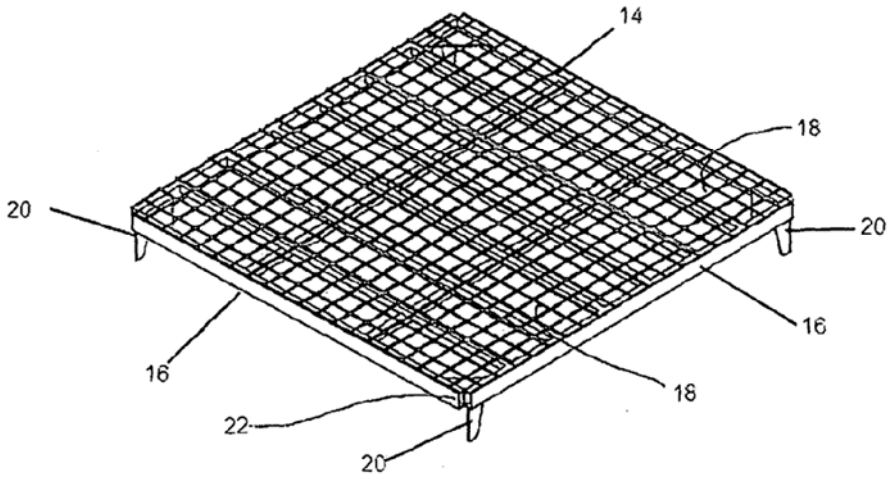
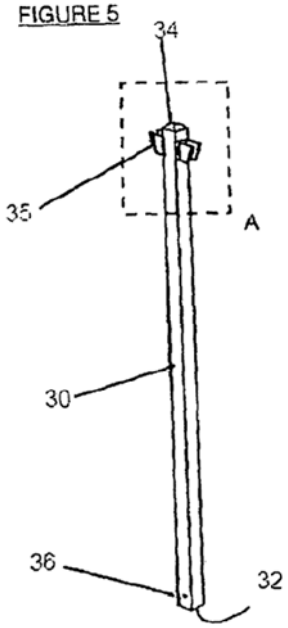


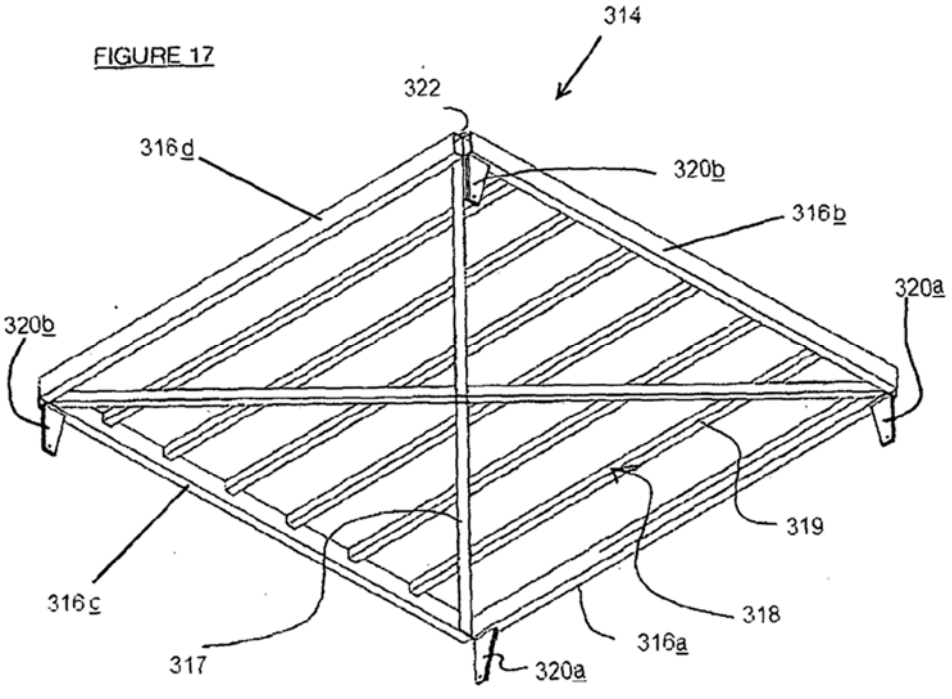

FIGURE 5




12. The characterising feature in the final clause of claim 1 (see below) is shown in figure 17 and described in paragraph 101:

*[0101] As will be appreciated, according to some embodiments, that the engaging members 320a, 320b include at least one engaging member 320a which extends through a plane (e.g. parallel to a longitudinal axis of the first support beam 316a) which is generally perpendicular to a plane of extension (e.g. parallel to a longitudinal axis of the second support beam 316d) of another of the engaging members 320b. This may provide a cross-bracing effect to improve, in some embodiments, load bearing characteristics and/or rigidity.*

FIGURE 17



## Claim construction

13. Before considering the documents put forward in the request I will need to construe the claims of the patent following the well known authority on claim construction which is *Kirin-Amgen and others v Hoechst Marion Roussel Limited and others* [2005] RPC 9. This requires that I put a purposive construction on the claims, interpret it in the light of the description and drawings as instructed by Section 125(1) and take account of the Protocol to Article 69 of the EPC. Simply put, I must decide what a person skilled in the art would have understood the patentee to have used the language of the claim to mean.

14. Section 125(1) of the Act states that:

> *For the purposes of this Act an invention for a patent for which an application has been made or for which a patent has been granted shall, unless the context otherwise requires, be taken to be that specified in a claim of the specification of the application or patent, as the case may be, as interpreted by the description and any drawings contained in that specification, and the extent of the protection conferred by a patent or application for a patent shall be determined accordingly.*

15. And the Protocol on the Interpretation of Article 69 of the EPC (which corresponds to section 125(1) ) states that:

> *Article 69 should not be interpreted in the sense that the extent of the protection conferred by a European patent is to be understood as that defined by the strict, literal meaning of the wording used in the claims, the description and drawings being employed only for the purpose of resolving an ambiguity found in the claims. Neither should it be interpreted in the sense that the claims serve only as a guideline and that the actual protection conferred may extend to what, from a consideration of the description and drawings by a person skilled in the art, the patentee has contemplated. On the contrary, it is to be interpreted as defining a position between these extremes which combines a fair protection for the patentee with a reasonable degree of certainty for third parties.*

16. There are 15 claims, of which claims 1 to 13 are directed to a platform assembly and claims 14 and 15 are directed to a method of assembling a platform according to the preceding claims. Claim 1 is the only independent claim and reads as follows:

*1. A platform (10) comprising:*
*a deck element (14) having a load-bearing member (18) secured to at least one support beam (16) of the deck element (14), and four first connection arrangements, wherein a single first connection arrangement is disposed adjacent each corner of the load-bearing member (18) and extends in a first direction from the deck element (14); and*
*a plurality of deck support members (30) each having a second connection arrangement;*
*wherein:*
*the deck element (14) is moveable with respect to the plurality of deck support members (30) to connect the deck element (14) to the plurality*

*of deck support members (30),*
*each of the first connection arrangements is configured to engage a respective one of the second connection arrangements, each first connection arrangement being an engaging member (20), and each respective second connection arrangement being a receiving formation (35), such that movement of the engaging member (20) in a first engaging direction causes the engaging member (20) to engage the receiving formation (35), to restrict movement of the deck element (14) relative to the respective deck support member (30) in at least one plane,*
*a single deck support member (30) is configured to support up to four adjoining corners of deck elements (14), the platform (10) being characterised in that, the engaging members (20) include at least one engaging member (20) which extends through a plane which is generally perpendicular to a plane of extension of another of the engaging members (20).*

17. In section 6 the request explores various points of interpretation of claim features and the observations and observations in reply further discuss the points. Several of those points merit discussion before I reach my opinion.

18. Claim 1 requires "*a single first connection arrangement*" that "*is disposed adjacent each corner of the load-bearing member (18)*" and "*extends in a first direction from the deck element (14)*". Later in the claim we are told that "*each of the first connection arrangements is configured to engage a respective one of the second connection arrangements*", that "*each first connection arrangement being an engaging member (20)*", that *"movement of the engaging member (20) in a first engaging direction causes the engaging member (20) to engage the receiving formation (35)*" and finally "*the engaging members (20) include at least one engaging member (20) which extends through a plane which is generally perpendicular to a plane of extension of another of the engaging members (20).*".

19. It seems to me that from "*single first*" and "*being an engaging member*" it is clear that the connection arrangement at each corner of the load bearing member is in the form of a single member.

20. The later requirements of claim 1 teach that the single member extends in a direction, specifically a first direction, and also in a plane. In the embodiments the engaging members extend downward from the deck element. However, it is clear from paragraph 61 that this is preferable and not essential.

21. Claim 1 also discusses movement of the engaging member in a first engaging direction which "*causes the engaging member (20) to engage the receiving formation (35),*". Paragraph 63 makes it clear that this direction is preferably downwards, i.e. downwards movement is not essential.

## Prior art

22. The request refers to a number of prior art patent documents. Of those only three documents are relevant to questions k) and l), namely US 5203428 A, WO

2010/142797 and EP 0622504 A1. All three documents were published well before the earliest date of the patent.

23. According to the opening paragraph of its description the invention in US 5203428 A relates to "*a modular platform that is extremely adaptable and can be assembled in a variety of sizes and configurations, while at the same time having high structural integrity, span strength, and torsional rigidity*". A truss frame 10 is shown in figure 1 which "*comprises four top rails 12, with rails 12 being joined end to end so that rails 12 define a closed loop. In the particular embodiment shown rails 12 are disposed so as to form the shape of a square.*".

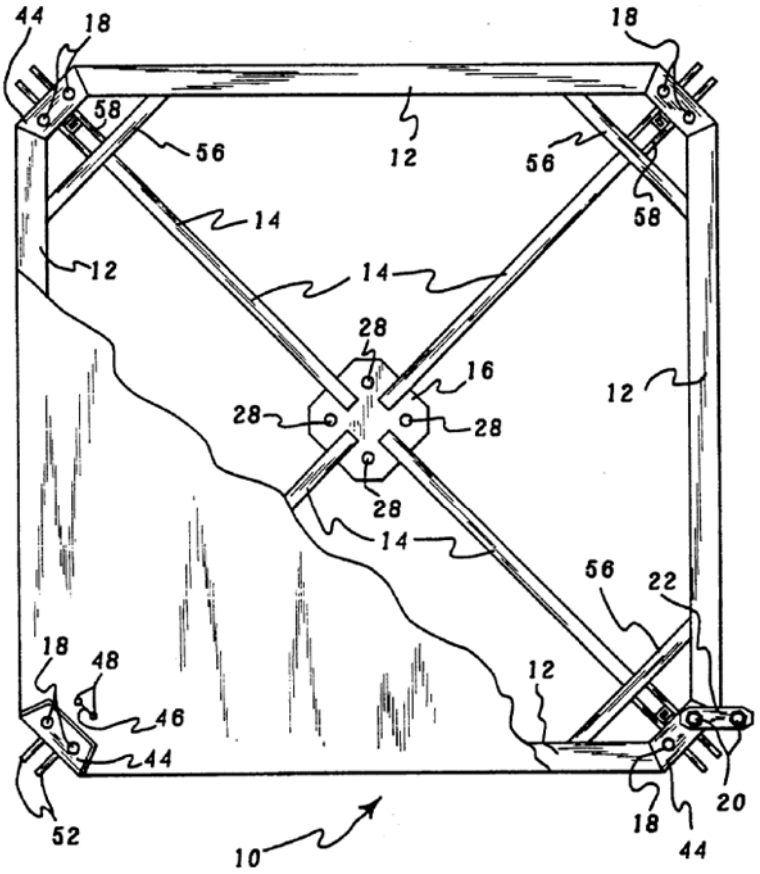



Fig. 1

24. Decking 42 is mounted to top rails 12 and may be secured by gluing or screwing to the rails 12. In addition "*Truss frame 10 may also comprise means by which external apparatus may be attached directly to at least one of top rails 12 of truss frame 10. In the embodiment illustrated in FIGS. 1 and 2, this function is provided by accessory tabs 52 having tab openings 54 defined therein. External apparatus may be attached to tabs 52 by means of a bolt or fastening pin inserted through tab openings 54. Tabs 52 and associated tab openings 54 are located at each corner of the square formed by top rails 12, thereby providing four separate attachment points for each truss frame 10. With direct attachment to the truss frame provided in this manner, truss frame 10 can be suspended from above by a suspension cable attached to at least one of accessory tabs 52, or it can be supported from below by a support*

*column similarly attached to truss frame 10.*". Nothing more is described or illustrated regarding support columns or their attachment to tabs 52.

25. According to the abstract WO 2010/142797 shows "*a latticework modular scaffolding system comprising upright tubes (3), horizontal and diagonal bars (1, 2), and associated system components, wherein one or more scaffolding nodes (4) positioned one above the other at a distance are arranged on each upright tube (3), which scaffolding nodes each comprise four cuneiform pockets (6) in the basic embodiment, in which connection elements of the horizontal bars (1) and/or diagonal braces (2.1) engage by means of cuneiform insertion elements (5), wherein the cuneiform pockets (6) have holes (11), the cuneiform insertion elements (5) have recesses (10), and the diagonal braces (2.3) have a passage (20) corresponding to the holes (11) and the recesses (10), by means of which passage the diagonal braces (2.3) can be connected to the holes (11) and/or recesses (10) using a connecting element.*". Figures 1.1 to 2.2 below show a node 4, insertion elements 5 and pockets 6.

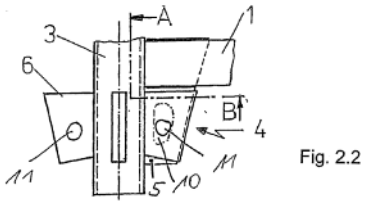


Fig. 2.2

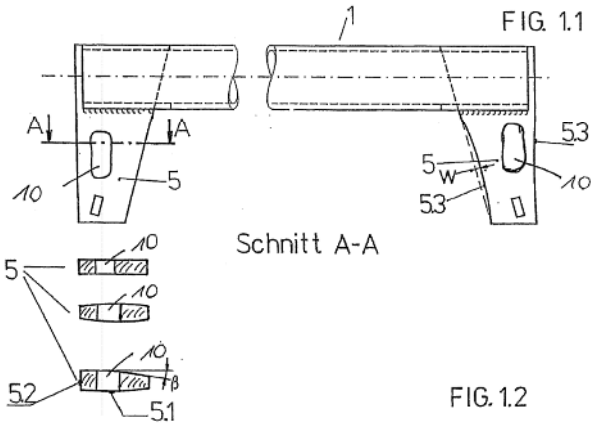


FIG. 1.1

FIG. 1.2

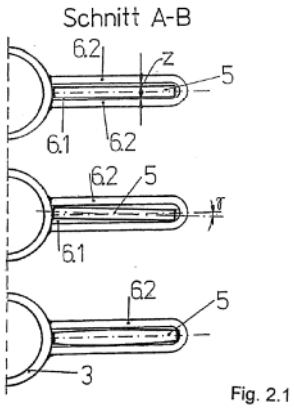


Fig. 2.1

26. According to its title and abstract EP 0622504 A1 concerns a node and node connecting component for scaffolding structural system which has wedge-shaped insert components formed as simple wedge-form braces. The braces (6) shown in figure 1 below "*engage in four pockets (8) which are fixed in the edge area of the connecting components (2) in the longitudinal direction and at right angles to the longitudinal axis of the connecting components. The wedge-form insert components are formed as simple wedge-shaped braces (6), which are so arranged at both ends of distance bolts (5) that they locate on the walling of a distance bolt or on a casing (4) pushed onto each distance bolt end in the manner of a cross bolt and the wedge-form braces engage in pockets. The side walls (18) of the pockets (8) have a trapezoidal shape, i.e. with reducing distance of the pocket floor to the bearer component (9) in the direction of the underside (19).*".

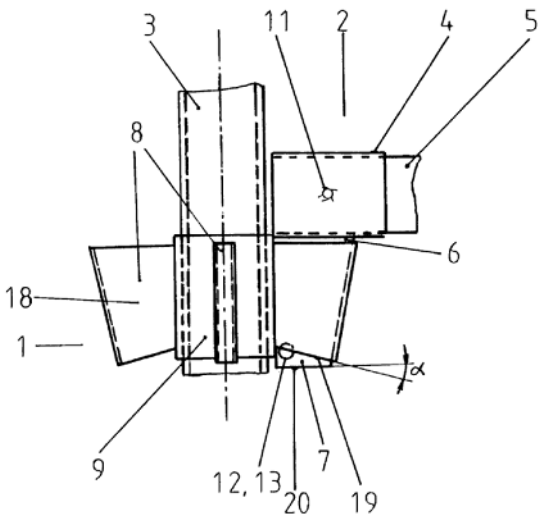



FIG. 1

## Inventive step

27. Section 3 of the Patents Act 1977 states:

> *An invention shall be taken to involve an inventive step if it is not obvious to a person skilled in the art, having regard to any matter which forms part of the state of the art by virtue only of section 2(2) above (and disregarding section 2(3) above).*

28. The request offers alternative inventive step arguments following the *Windsurfing/Pozzoli* principles and also following the problem/solution approach used by the European Patent Office. As explained in paragraph 3.13.1 of the Manual of Patent Practice, although decisions of the EPO Boards of Appeal are persuasive, the Office is bound to follow the reformulated *Windsurfing* approach set out by the Court of Appeal in Pozzoli SPA v BDMO SA [2007] EWCA Civ 588. The steps as reformulated in *Pozzoli* are:

> *(1)(a) Identify the notional "person skilled in the art";*
> *(1)(b) Identify the relevant common general knowledge of that person;*
> *(2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;*
> *(3) Identify what, if any, differences exist between the matter cited as forming part of the "state of the art" and the inventive concept of the claim or the claim as construed;*
> *(4) Viewed without any knowledge of the alleged invention as claimed, determine whether those differences constitute steps which would have been obvious to the person skilled in the art.*

29. At paragraph 7.3.3 of the request the requester identifies the person skilled in the art

as "*a designer of modular platforms for instance modular scaffolding systems such as those suitable for use on constructions sites.*". On page 28 of the observations filed on their behalf the proprietor agree with this. This seems to be perfectly reasonable.

30. The request identifies the relevant common general knowledge of the skilled person in paragraphs 7.3.4, 7.6.1.1 and 7.7.1.1. The alleged common general knowledge is simply a series of patent documents, one of which, DK 3015623 T3, the observations in reply acknowledge was included by mistake and is not prior art in relation to the patent. It seems that the documents themselves are alleged by the requester to be relevant common general knowledge rather than exemplifying what was commonly known in the art at the priority date.

31. At page 28 the observations filed on behalf of the proprietor quote part of paragraph 3.32 from the Manual of Patent Practice emphasising a quote from Sachs LJ in *General Tire & Rubber Co v Firestone Tyre & Rubber Co Ltd* [1972] RPC 457 "*it is clear that individual patent specifications and their contents do not normally form part of the relevant common general knowledge*". On that basis they go on to argue that none of the patent documents referred to in the request should be considered part of the common general knowledge. They suggest that "*The common general knowledge of the person skilled in the art would include well known and commonly used standard scaffold beams, boards, and fittings, along with the ability to make minor workshop modifications to known systems. There is, however, no evidence presented by the requester as to the form of such well known and well used scaffolding elements.*".

32. At page 23 in their observations in reply the requester disagrees that the documents should be excluded from consideration. They argue that the documents are put forward as examples and that "*the notional person skilled in the art would undoubtedly be aware of the commonplace teachings of the documents*". They do not explain what those teachings are and I take it that the requester is referring to the documents in their entirety. The requester goes on to argue that "*Anything which was available by searching the publicly accessible Internet at the time of the invention is common general knowledge.*" and "*the documents put forward by the Requester form part of the state of the art*".

33. I agree with the second assertion that the documents form part of the state of the art. However, I know of no authority to support the notion that anything available on the internet is common general knowledge nor am I clear on what basis the requester seems to be arguing that it is not the case "*that individual patent specifications and their contents do not normally form part of the relevant common general knowledge*".

34. It seems to me that the patent documents put forward by the requester were not in themselves part of the common general knowledge of the notional person skilled in the art. The common general knowledge identified by the proprietor strikes me as reasonable.

35. The inventive concept of claim 1 according to paragraphs 7.6.1.1 and 7.7.1.1 in the request is "*construed to be providing a platform comprising a deck element having a depending male engaging member positioned at each corner of the deck element that is configured to engage with a female engaging member of a deck support*

*member to suspend the deck element above the ground.*". By contrast on page 29 in the observations filed on their behalf the proprietors believe that the meaning of claims 1 and 14 is straightforward and the inventive concept is "*essentially the provision of a modular scaffold system which provides a strong bracing effect and close fitting of adjacent deck elements.*". For my part I have already construed claim 1 above.

36. Both question k) and question l) seem to start from the same document as the matter cited, that is US 5203428 A. Working through the requirements of claim 1 to identify the differences between US 5203428 A and the claim as construed it seems to me that US 5203428 A shows a platform comprising a deck element (see truss frame 10) having a load-bearing member (see decking 42) secured to at least one support beam (see top rails 12) of the deck element (10), and four first connection arrangements (see accessory tabs 52), wherein a connection arrangement is disposed adjacent each corner of the load-bearing member (42) and extends in a first direction from the deck element (10); and a plurality of deck support members (support column described at line 31 of column 6) each having a second connection arrangement (implied by support column being attached to truss frame 10 as described at lines 31 and 32 of column 6); wherein the deck element (10) is moveable with respect to the plurality of deck support members to connect the deck element to the plurality of deck support members (implied by assembling the support column and the truss frame 10 such that they are attached as described at lines 31 and 32 of column 6), each of the first connection arrangements is configured to engage a respective one of the second connection arrangements.

37. The differences between US 5203428 A and the claim as construed are:
    - there is not a single first connection arrangement disposed adjacent each corner of the load-bearing member (42) as I have construed it, but rather a pair of accessory tabs 52;
    - each first connection arrangement is not an engaging member as I construed it earlier, but rather a pair of accessory tabs 52;
    - each respective second connection arrangement is not a receiving formation, since there is no detailed description of the attachment of the truss frame to the support column;
    - movement of the engaging member in a first engaging direction does not cause the engaging member to engage the receiving formation, to restrict movement of the deck element relative to the respective deck support member in at least one plane;
    - a single deck support member is not configured to support up to four adjoining corners of deck elements, since there is no detailed description of the attachment of the truss frame to the support column;
    - the engaging members do not include at least one engaging member which extends through a plane which is generally perpendicular to a plane of extension of another of the engaging members, since in my view the connection arrangement is not an engaging element and there is no detailed description of the attachment of the truss frame to the support column.

38. The final step is to determine whether those differences constitute steps which would have been obvious to the person skilled in the art, viewed without any knowledge of the alleged invention as claimed.

39. The request argues that a combination of US 5203428 A with either WO 2010/142797 or EP 0622504 A1 shows that the invention claimed in the patent lacks an inventive step. I have already noted that individual patent documents do not normally form part of the relevant common general knowledge. The request does not seem to argue that there is something unusual about these documents such that they do form part of the relevant common general knowledge. Nor do does it explain why part or all of their disclosure exemplifies relevant common general knowledge.

40. The argument in paragraphs 7.6.1.1 and 7.7.1.1 of the request is simply that replacing parts of the arrangement shown in US 5203428 A with parts of the arrangement shown in either WO 2010/142797 or EP 0622504 A1 "*results in all of the features of claim one of EP 2766540 B1 and the person skilled in the art would be minded to do so without having to exercise an inventive step*". I am not clear what the motivation would be for the skilled person to be minded to combine the disclosures, especially without any knowledge of the alleged invention as claimed.

41. Based on the evidence before me, my opinion is that the differences I have identified constitute steps which would not have been obvious to the person skilled in the art, viewed without any knowledge of the alleged invention as claimed. I come to this opinion because, based on the evidence, I can see no reason why that skilled person would consider the combinations of patent documents proposed.

42. In the event that I am wrong to discount the combinations of documents I will consider whether WO 2010/142797 or EP 0622504 A1 shows the differences I have identified.

43. Both documents show scaffolding systems that include upright and horizontal members, but neither clearly shows a deck element of the kind required by claim 1 of the patent. Both documents show nodes where up to four horizontal elements can be attached to an upright member, see for example figure 2.2 of WO 2010/142797 and figure 3 of EP 0622504 A1. So it may be possible to envisage the corner of a load-bearing member where two horizontal members at right angles to one another meet at an upright member. I am not confident that this would be possible for the skilled person who is generally held to be unimaginative. However, even if such a corner were to be envisaged the notional load bearing member would seem to have two connection arrangements at the corner rather than the single arrangement required by claim 1.

44. The connections between the upright and horizontal members in both documents are engaging members and receiving formations of the kind required by claim 1. Also in both documents movement of an engaging member in a first engaging direction does cause the engaging member to engage a receiving formation so as to restrict movement of a horizontal member which might form part of a deck element relative to an upright or deck support member in at least one plane.

45. Although both documents show nodes where up to four horizontal elements could be attached to an upright member, it is not immediately clear that a single upright or deck support member could support up to four adjoining corners of deck elements of the kind required by claim 1. Since deck elements are not shown in WO 2010/142797 or EP 0622504 A1, on the face of it adjacent deck elements would have to share a horizontal support beam.

46. The nodes shown in both documents do include engaging members which extend through planes which are generally perpendicular to a plane of extension of another engaging member. However, the engaging members required by the characterising feature of claim 1 form part of a deck element. Since neither WO 2010/142797 nor EP 0622504 A1 shows a deck element there is no clear disclosure of a deck element having engaging members which extend through planes in the manner required by claim 1.

47. Consequently to my mind a combination of US 5203428 A with either WO 2010/142797 or EP 0622504 A1 does not show all of the features of claim 1 of the patent.

48. Having come to the view that claim 1 of the patent involves an inventive step, it follows that in my view the remaining claims of the patent also involve an inventive step.

## Conclusion

49. It is my opinion that claim 1 and claim 14 of EP 2766540 B1 involve an inventive step having regard to a combination of US 5203428 A and either WO 2010/142797 or EP 2766540 B1.

Karl Whitfield
Examiner

---

**NOTE**

*This opinion is not based on the outcome of fully litigated proceedings. Rather, it is based on whatever material the persons requesting the opinion and filing observations have chosen to put before the Office.*