[2013] EWPCC 27

Case No: CC12P01174

IN THE PATENTS COUNTY COURT

Rolls Building
7 Rolls Buildings
Fetter Lane
London EC4A 1NL

Date: 30/05/2013

Before :

MR JUSTICE BIRSS
Sitting as a judge of the Patents County Court

- -

Between :

(1) OOO ABBOTT	
(2) GODFREY VICTOR CHASMER	**Claimants**
- and -	
(1) DESIGN & DISPLAY LIMITED	
(2) EUREKA DISPLAY LIMITED	**Defendants**

- -
- -

Brian Turner of **Gordons Partnership** for the **Claimants**
Peter Colley (instructed by **Appleyard Lees**) for the **First Defendant**
Peter Colley (instructed by **Walker Morris**) for the **Second Defendant**

Hearing dates: 17th April 2013

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Judgment

Mr Justice Birss :

1. This is an action for infringement of European Patent (UK) No. 1,816,931 ("Display panel and display system"). The patent belongs to the first and second claimants. I will refer to the claimants as Abbott. Both defendants are alleged to have infringed the patent. The two defendants ("Design & Display" and "Eureka") are independent of one another and sell slightly different products. The defendants both deny infringement and counterclaim for revocation.

2. Mr Turner of Gordons Partnership appears for the claimant as a solicitor advocate. Mr Colley appears as counsel for the defendants instructed by Appleyard Lees for the first defendant and Walker Morris for the second defendant.

3. The directions given at the CMC permitted the parties to rely on expert evidence but did not permit cross-examination. The trial was conducted on that basis, with oral submissions from Mr Turner and Mr Colley.

Background

4. The case concerns display panels used in shops. Shopfitters often use a wooden wall called a slatwall as a panel on which to construct displays. Today the slatwall is made of MDF and has horizontal slots. Back plates or other shelf fixings can be fitted into the slots in order to secure display accessories such as shelves, brackets and hangers. The merchandise is displayed from the display accessories. The fittings are inserted into the jaws of the mouth of the slot and hooked into the top of an internal chamber of the slot lying behind its mouth.

5. The slots are made by a computer controlled router moving across the width of the panel. A router makes a T shaped slot and leaves visible machined surfaces within the slot having machined away the decorative veneer that generally covers the face of the MDF. Also the edges of the veneer around the mouth of the slot are susceptible to damage as display accessories are hooked in and removed.

6. For these reasons it became standard practice to provide inserts for slots, as protection against damage and to hide the machined surfaces. To an extent the inserts also strengthen the panel. The accessories are then fitted into the inserts rather than being fitted directly into the bare slots.

7. The inserts are made by extrusion. By 2004 the standard inserts used were of two kinds: "slide-in" or "snap-in". As the name suggests slide-in inserts were slid into place from the edge of the slat wall. They were made of aluminium. They could be T-shaped, corresponding to the T shaped cross-section of the slot or else they could be L-shaped, using only the top arm of the slot. A problem with slide-in inserts was that if the edge of the slatwall was not accessible, for example at a corner, there is no room to slide the insert into place. Snap-in inserts solve this problem by being inserted from the front with a spring action. Because they needed to be compressible, they were made of PVC instead of aluminium.

8. The invention in this case is a snap-in insert made from a resilient metal like aluminium.

Witnesses

9. The defendants relied on reports from Marc Woolley. He had over 27 years' experience in the aluminium extrusion industry. In 1977 he joined Alcan and in 1987 worked in a division of Alcan called Minalex. Minalex was involved in manufacture and supply of aluminium extrusions. In 1995 Mr Woolley moved to a company called Aluminium Shapes. Aluminium Shapes is involved in the extrusion of aluminium products. While at Aluminium Shapes Mr Woolley met and worked with Martin and Tony Skirrow, who are directors of Eureka. At that time they worked for New Line Display but left and incorporated Eureka. Mr Woolley has also worked with Design & Display but has not done business with Design & Display for about five years. Mr Woolley left Aluminium Shapes in 2002 and joined B.W. Aluminium as Sales Director. B.W. Aluminium specialises in high quality and bespoke aluminium extrusions.

10. The claimants relied on a report from the second claimant himself, Godfrey Chasmer. He trained as a draughtsman at Ford Motor Company in Dagenham and started working in the shop fitting and display equipment industry in 1968. He has been there ever since. Between 1974 and 2004 Mr Chasmer was an owner-manager of a

business offering its own range of shopfittings. The products were almost always designed and developed wholly or mostly by Mr Chasmer himself. From 1997 the business was called Abbott International Plc. Following some transactions and events between 2004 and 2007 the business of what was Abbott International is now in effect at Econowall Ltd. Econowall is the sole UK licensee under the patent. Mr Chasmer has no other connection with Econowall.

11. The inventor of the patent, Gennady Balashov, ran one of Abbott's importers in Russia. He made the invention in 2004. Prior to that he and Mr Chasmer had set up a business to make and sell slatwall and other products in Russia. That business is the first claimant. Mr Chasmer is a minority shareholder in the company.

Person skilled in the art

12. There was some dispute about the identity of the person skilled in the art in this case. Mr Chasmer thought the skilled person was someone responsible for the design of slatwall and its associated inserts and accessories. Mr Woolley thought the skilled person was an individual experienced in the industry of extrusion dealing in the design and function of extrusions.

13. The invention is a slatwall insert made of aluminium. The patent is plainly addressed to someone responsible for the design of slatwall and its associated inserts and accessories but, given that the inserts are made of aluminium extrusion, that person would consult someone with skill in aluminium extrusion in order to put the invention into practice. In effect the skilled person who would implement the patent is a team led by the slatwall designer. When I come to consider the prior art, one of the issues is whether the slatwall designer would, in the circumstances, approach and consult the aluminium extruder. That is a matter I will deal with when I am considering obviousness.

Common general knowledge

14. The matters set out in paragraphs 4 to 7 above were part of the common general knowledge of the person skilled in the art. Aluminium inserts were known to be stronger than PVC inserts with T-shaped aluminium inserts being the strongest, followed by L-shaped aluminium inserts and with PVC snap-in inserts being the weakest.

15. The defendants submitted that the use of a rib or pip to anchor an aluminium insert by means of a snap-in mechanism was part of the common general knowledge, at least of the aluminium extruder person as a member of the skilled team. I do not accept that things are quite that simple. I agree that, to an aluminium extruder, the use of pips or ribs is a commonplace in aluminium extrusions generally. They are used for example in clip fit extrusions shown in Mr Woolley's report. To that extent I accept Mr Woolley's evidence. It was well known to aluminium extruders to use rib or pips as part of snap fitting arrangements. However it does not follow from this that the use of a rib to secure an aluminium snap-in insert in a display panel was common general knowledge. I reject that proposition.

The Patent

16. The patent begins by explaining that the invention relates to a display panel to permit the display of goods e.g. in a retail environment. It recognises that slatwall systems are known and explains how the hangers for the goods can be hooked into slots in the slatwall. The patent describes the use of slide-in rigid inserts (e.g. made of aluminium) to overcome the aesthetic disadvantage of exposed internal slot surfaces and to increase the load bearing capacity. The problem of access to the panel sides to allow a rigid insert to slide into place is mentioned and so the idea of using flexible and resiliently deformable plastics material to make an insert which can be sprung into place from the front is referred to. Problems with these latter kinds of insert are mentioned. They have thin wall thickness and can be easily damaged. They also do not contribute to load bearing.

17. At paragraph [0007] the patent indicates its principal aim is to provide a panel with an insert which is rigid but which can be fitted from the front rather than by sliding from the side. Following a consistory clause some optional features are mentioned and one specific embodiment is then described in detail. The specific embodiment can be seen in figure 1 whereas in figure 2 its use in a display panel (10) with a hanger (35) is illustrated. These are as follows:

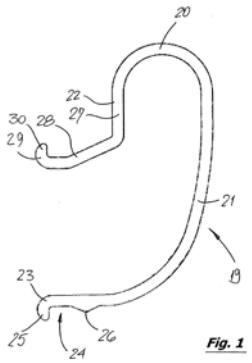

Fig. 1

The claims and construction

18. The relevant claims relied on as being independently valid and infringed are claims 1 and 4. They are as follows:

> 1. A display panel (10) having an outer face (11), at least one elongate slot (12) of re-entrant shape extending across the panel and having a mouth in the plane of the outer face,
>
> and an elongate insert (19) having substantial rigidity in the lengthwise direction thereof and adapted to be received in the slot,
>
> which insert is resiliently deformable
>
> and has a base portion (20) from one side of which extends an arcuate leg (21), and from the other side of the base portion there extends an angled leg (22) having a substantially planar first part (27) lying generally parallel to the part of

> the arcuate leg near the base portion and a substantially planar second part (28) turned outwardly with respect to the first part,
>
> an outwardly-directed abutment (30) being formed along the free edge region (29) of the second part and extending along the length of the insert (19),
>
> **characterised in that** the insert is made of a resilient metal,
>
> **in that** a first rib (25) upstands from the free edge (23) of the arcuate leg (21), a second rib (26) extends parallel to the first rib and is disposed further from the free edge of the arcuate leg than the first rib so that a channel (24) is defined by the first and the second ribs, said channel extending along the length of the insert (19) and being directed outwardly with respect to the curvature of the free edge region (23) of the arcuate leg (21),
>
> and further **in that** the spacing between said channel (24) and said abutment (30) is slightly greater than the width of the mouth of the re- entrant slot (12) whereby the insert (19) may be entered into the slot (12) from the outer face (11) of the panel (10) with the base portion (20) leading into a re-entrant part of the slot until the abutment (30) engages the corner region (32) between the outer face (11) of the panel (10) and one side of the slot, and the channel (24) is engaged with the corner region (33) between the outer face of the panel and the other side of the slot.
>
> […]
>
> 4. A display panel (10) as claimed in any of the preceding claims, wherein the greater part of the arcuate leg (21) is of substantially constant radius of curvature, preferably substantially centred on or adjacent the abutment (30) on the angled leg (22)

19. The leading authority on claim construction is ***Kirin-Amgen v TKT*** [2004] UKHL 46. The key point is that construction is concerned with what a skilled person would understand the author to be using the words to mean. Guidelines on the general approach were given by the Court of Appeal in ***Virgin Atlantic v Premium Aircraft*** [2010] FSR 10.

20. It is worth noting that claim 1 is not to an insert per se but to a display panel with at least one slot into which an insert has been fitted. The first two characterising parts of the claim relate to the insert. The insert must be made of a resilient material. It must have certain ribs and a channel, in particular a "second rib" which corresponds to item 26 in figure 1. The way in which the insert works is defined in a third characterising part. The words boil down to saying that the insert must be able to be fitted from the front and will in effect snap into place. The jaws of the insert are wider than the corresponding size of the slot. The second rib makes a channel with the first rib which is supposed to engage with what would be the lower lips of the mouth of the slot.

21. There was a debate as to whether claim 1 required the insert to operate in a particular way with a cam action. In use I can see that as the insert shown in figure 1 is inserted in the slot, the lower lip of the slot (17 in figure 2) might push the curved part of the

arcuate leg upwards and bend the leg upwards elastically. Engagement between the side flank 17 and the arcuate leg as the insert is pushed inwards is shown in figures 3B and 3C although it is not clear that the arcuate leg is necessarily deflected in that example. The deflection of the arcuate leg by the lower lip of slot as the insert is put into place is what is referred to as a cam action. The lower lip (17) then pops over the second rib 26 and the insert is then fully engaged with the slot. Once the second rib has passed the lower lip 17 the insert snaps into place with the channel in position. I reject the argument that the claim contains a functional limitation which requires this all to happen and in particular which requires the geometry of the slot and insert to be such that the lower lip 17 has to engage with the arcuate leg before the lower lip 17 comes into contact with the second rib 26. The claim does not require this cam action.

22. A point arose on claim 4. The defendants' position was that the claim could not be understood. The two elements of the claim which caused difficulty were (1) "wherein the greater part of the arcuate leg (21) is of substantially constant radius of curvature" and (2) "preferably substantially centred on or adjacent the abutment on the angled leg". Mr Colley submitted it was objectively impossible to discern what "substantially constant radius" means or to know how the reference to the radius being "substantially centred on or adjacent the abutment" was to be understood. He submitted that this was either insufficient or was at least an uninfringeable claim (see ***Milliken v Walk Off Mats*** [1996] FSR 292).

23. I do not accept Mr Colley's submission that claim 4 is so vague as to be incapable of being understood or being uninfringeable. It is true that the claim uses words of degree, e.g. by requiring the curvature of the radius to be "substantially" constant, but that does not of itself make the claim incapable of being understood. If, in a given case, the skilled person would not be able to say that a given curve had a substantially constant radius then it does not infringe. But there are likely to be many examples in which it is perfectly clear that the greater part of the arcuate leg has a substantially constant radius of curvature. Figure 1 of the patent is the obvious and important example. The skilled person can see in figure 1 that the curved part may not be exactly a sector from a circle but it can fairly be described as having a substantially constant radius of curvature. Equally the centre is not far from the abutment.

24. It seems to me that the phrase after the word "preferably" in claim 4 does not represent a limitation in the claim although nothing turns on that.

Infringement

25. Both defendants sell a snap-in insert made from aluminium. The two inserts are different and I will address them separately although in the end I do not think the differences matter. I will describe the profiles by reference to figure 1 of the patent. This is simply a convenient way of doing it. The issues of infringement do not depend on how similar or not they are to figure 1.

26. The insert from Design & Display has a generally L shaped cross-section like the insert in figure 1 of the patent. Unlike figure 1, there is a right angled corner between the vertical part marked 22 in figure 1 and the horizontal part coming back from abutment 30. At the lower end of the mouth of the insert, the second rib (equivalent to item 26) is a little further back from the front of the insert. There is a clear channel

between the first and second ribs. Whereas in figure 1 the curved lower side of the insert (marked 21 in figure 1) comes to a small horizontal part before meeting the second rib 26, in Design & Display's profile the curve extends up to the second rib. The Design & Display insert can be inserted into a slatwall from the front of the slot and snapped into place. Some fairly strong finger pressure is needed to snap it in.

27. The radius of the curve of the part marked 20 in figure 1 is smaller in the Eureka design than the Design & Display design. Generally, the Eureka insert is closer to figure 1 than the Design & Display insert. The Eureka design has an angled part between the vertical 22 and the horizontal part coming back from abutment 30. There is a clear channel, somewhat narrower than in the Design & Display design. As in the Design & Display design and unlike figure 1, the curved side (21) has no small horizontal part before meeting the second rib 26. The Eureka can also be readily inserted into a slatwall from the front of the slot and snapped into place. It is easier to insert than the Design & Display insert.

28. A point on the cam action arose in relation to Eureka's insert. It was said that the use of this insert did not involve a cam action (and that would no doubt explain why it was easier to push into place). I do not have to resolve this debate since I have rejected the argument that a cam action is part of claim 1.

29. Subject to the issue of a cam action, which I have found does not arise, it is admitted that a display panel incorporating either insert will infringe claim 1. That is plainly correct. Thus I find that both inserts are inserts as called for by the relevant parts of claim 1 such that a display panel set up with such inserts would fall within the claims. Infringement under s60(2) was not admitted but in my judgment both inserts are means relating to an essential element of the invention claimed in claim 1 (see s60(2) of the 1977 Act). The claim is to a display panel incorporating an insert with the relevant features. These inserts have all the relevant features.

30. As for claim 4, I find that both inserts infringe, or to be more precise, a display panel set up with either insert would be a display panel within claim 4. The inserts are also means essential within s60(2) as regards claim 4. In both inserts the greater part of the arcuate leg is curved. Each curve may not have a precisely constant radius but it is substantially constant. The centres of the radii of curvature of the two inserts are both adjacent the abutment.

Insufficiency

31. I will deal with this point briefly. It only arose on claim 4 and was another way of putting the same ambiguity argument which I have already addressed. I reject this point as an insufficiency. The skilled person can put the invention claimed in claim 4 into practice. The fact that the claim may have a fuzzy boundary does not mean it is insufficient.

Obviousness

32. I will follow the structured approach to the assessment of obviousness as set out by the Court of Appeal ***Pozzoli v BDMO*** [2007] EWCA Civ 588, [2007] FSR 37. It is

> (1) (a) Identify the notional person skilled in the art;

> (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, do those differences constitute steps which would have been obvious to the person skilled in the art or do they require any degree of invention?

33. I have identified the skilled person and the common general knowledge above. I have construed claim 1 above as well. This case is not one in which it would be helpful to extract out a distinct inventive concept.

34. A number of items of prior art were relied on by the defendants during the course of these proceedings but by the end the case had focussed down to two:

    i) United States Patent 5,138,803 published in August 1992 (Grossen);

    ii) A brochure published by Glazer Plastics.

35. I will deal with them separately.

Grossen

36. Grossen describes a display panel with an insert. The insert can be fitted from the front. Once inserted, the outer parts of the insert are deflected from their unstressed condition and so the outer parts snugly and tightly grip the adjacent throat portions of the slot. The insert is to be made typically from plastic such as polyvinylchloride or styrene. Two figures from Grossen illustrate the insert and its use:

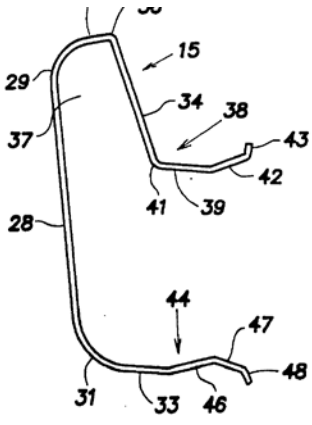

Fig. 4

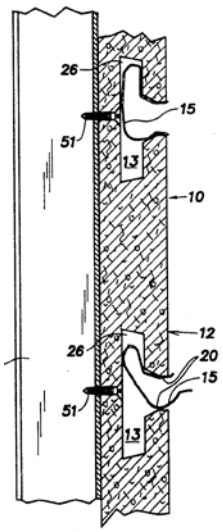

Fig. 2

37. It is plain that Grossen is an example of what would be very familiar to the skilled person. It describes a plastic snap-in insert.

38. In terms of differences between claim 1 and Grossen, there was no dispute that Grossen did not disclose an insert made of a resilient metal. It was also agreed that Grossen had no second rib. I accept that latter point although it does involve a fairly narrow interpretation of the term rib. Grossen clearly works in essentially the same way as the invention claimed. Grossen has a dip (marked 47 in figure 4) between two bumps (one marked 48 and the other being the angle between parts 46 and 33 in figure 4). The dip and the two bumps perform the same task as the channel and two ribs in the patent.

39. The argument is that it would be obvious to a skilled person given Grossen to make or seek to make an insert from aluminium, which snapped in from the front of the display panel, and to do so the skilled slatwall designer would approach an aluminium extruder. The extruder, or the extruder plus the slatwall designer, would come up with a cross-section for the aluminium front mounted insert which would use a second rib and which would be within claim 1.

40. Mr Woolley's view was that the invention was obvious over Grossen. He thought that the usage of aluminium to make display panel inserts was not inventive and the usage of a second rib to form part of an aluminium snap-in was part of the common general knowledge. Mr Woolley's expertise related to aluminium extrusions. I accept that to an aluminium extruder, given the task of making an insert from aluminium which was to function in the same way as Grossen, in other words, as a "snap-in" insert, a second rib arrangement like the one in the patent would be an obvious configuration to employ. To such a person the use of ribs in similar, related contexts in other aluminium extrusions, was part of their common general knowledge. However it does not follow from this that claim 1 is obvious.

41. Grossen is a patent concerned with inserts for slatwall systems. The person skilled in the art to whom Grossen is addressed is a slatwall designer, not an aluminium extruder. After all the inserts in Grossen are made of plastic, not aluminium. In my judgment the critical issue is: what would a slatwall designer do when faced with Grossen? If the slatwall designer would think it was worthwhile passing the document on to an aluminium extruder to make an aluminium version of Grossen or something along those lines then I think the invention would be obvious because once an aluminium extruder is given Grossen as a place to start in designing an aluminium insert, I am sure they would arrive at the claimed invention without difficulty and without invention.

42. Mr Chasmer did not accept the invention was obvious. His view was that the slatwall designer would regard aluminium as a hard (i.e. rigid) material compared to PVC, the plastic from which well known snap-in inserts were made. Squeezing an aluminium insert in or out of a slot might damage the MDF and its decorative face around the mouth, especially if some sort of "snap" was needed. It might be too difficult to do at all. If the degree of squeezing and flexing needs to be slight, it could require finer extruding or machining tolerances for the insert or the slot. The need for flexibility might require the aluminium to be too thin to be reliably extruded. He also thought there were cost considerations comparing aluminium and PVC but I do not regard those cost questions as relevant. The issue is whether the invention is technically

obvious, not whether it was commercially obvious (c.f. ***Hallen v Brabantia*** [1990] RPC 307).

43. A good number of Mr Chasmer's reasons are concerns which, if the slatwall designer spoke to the aluminium extruder, I think the aluminium extruder would not regard as important or difficult. Again however that depends on the slatwall designer going as far as to approach the aluminium extruder about the problem. I also bear in mind that in the context of inserts, the slatwall designer will be familiar with working with an aluminium extruder in any event in relation to slide-in inserts.

44. However in the end in my judgment claim 1 is not obvious over Grossen. The teaching of Grossen is to make the insert out of plastic and the skilled person knows why. It is to allow the insert to be sufficiently flexible to be snapped into place from the front. The skilled person would understand this choice of materials as a contrast with the familiar slide-in inserts, which were made of a different, more rigid, material (aluminium). The skilled person has no reason to think that trying to make a snap-in insert from aluminium would be worthwhile or likely to succeed. They would have no reason to approach the aluminium extruder about this issue in the first place. The point would only be raised with an aluminium extruder if the slatwall designer already thought it was at least potentially worthwhile, but the slatwall designer would have no reason to think that. The reasons advanced by the defendants and supported by Mr Woolley do not provide an impetus for the slatwall designer to approach the aluminium extruder in the first place. I reject the obviousness case over Grossen.

45. Before leaving Grossen, I should mention a point raised by Mr Colley. Given that the step over Grossen involves a change of material from plastic to aluminium, Mr Colley reminded me of the passage from ***Gillette Safety Razor v Anglo American Trading*** (1913) 30 RPC 465 (HL). At p480 Lord Moulton referred to "*the substitution of mechanical equivalents or changes of material, shape or size*" as being examples of non-patentable variations. Mr Colley did not suggest that Lord Moulton was stating that as a matter of law such changes were always to be regarded as obvious. No doubt in many cases merely changing a material, say from one grade of plastic to another, will not involve an inventive step. But one cannot be dogmatic about it. When materials have different properties and the difference is material to the task in hand, the selection of materials is capable of being inventive. Whether or not that is so in a given case will depend on the facts.

46. Since claim 1 is inventive over Grossen, I do not need to consider claim 4 separately.

Glazer brochure

47. Save for one point, the argument over the Glazer Plastics brochure adds nothing to the argument over Grossen. The relevant page of the brochure is page 9. The heading on the page is "Slatboard". The top third shows a range of MDF slatboard available. The board is finished in melamine on the front face in various colours. The middle third of the page is headed "Snap-in Inserts". A red insert is depicted in place in a piece of slatwall. The text reads:

> "PVC snap-in inserts 1200mm available in the following colours:

blue red white grey cream black green yellow burgundy

AVAILABLE TO SPECIAL ORDER

- Aluminium inserts
- Corner quadrant
- Special slatboard finishes

Prices on application"

48. The bottom third of the page gives details of delivery and some other information but does not have a bearing on the issues.

49. The insert depicted on the page is similar but not identical to the Grossen insert. One can assume it is one of the PVC snap-in inserts referred to in the brochure. It clearly works in essentially the same way as Grossen. It differs from claim 1 in the same respects as Grossen, not aluminium and no second rib/channel. So far the point adds nothing to Grossen.

50. The difference is that the defendants contend that the reference to aluminium in the middle part is a reference to an aluminium snap-in insert. I do not accept that. It was common general knowledge at the relevant time that inserts were of two kinds, plastic snap-in inserts and aluminium slide-in inserts. It is true that the heading of the middle portion of the page refers to snap-in inserts but the other items in the special order list are not snap-in inserts and there is no reason why the reference to aluminium inserts would be taken as a reference to a snap-in insert. A slatwall designer would take this as a reference to a slide-in insert. If aluminium slide-in inserts were not common general knowledge then things might be different but they plainly were. The document does not disclose the idea of an aluminium snap-in insert.

51. I have considered whether the reference to aluminium inserts here on a page about snap-in inserts would be enough to give the skilled slatwall designer an impetus to approach the aluminium extruder with the idea of trying to make an aluminium snap-in. I do not think so. The reference to aluminium would not excite any interest in the skilled person since they are well aware of aluminium inserts, and well aware that they are stiff products which slide into the slot in the slatwall.

52. On this basis the Glazer Plastics brochure does not add anything to the case over Grossen and for the same reasons I find that the invention is not obvious over the Glazer Plastics brochure.

Conclusion

53. I find the patent is valid and has been infringed by the defendants.