[2013] EWPCC 12

Case No: CC11P01049

IN THE PATENTS COUNTY COURT

Rolls Building
7 Rolls Buildings
Fetter Lane
London EC4A 1NL

Date: 11/04/2013

Before :

HIS HONOUR JUDGE BIRSS QC

- -

Between :

LIZZANNO PARTITIONS (UK) LIMITED	**Claimant**
- and -	
INTERIORS MANUFACTURING LIMITED	**Defendant**

- -
- -

Barbara Cookson of **Filemot Technology Law Ltd** for the **Claimant**
Isabel Jamal (instructed by **Fry Heath & Spence LLP**) for the **Defendant**

Hearing dates: 12th February 2013

- -

Approved Judgment

I direct that pursuant to CPR PD 39A para 6.1 no official shorthand note shall be taken of this Judgment and that copies of this version as handed down may be treated as authentic.

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HIS HONOUR JUDGE BIRSS QC

Judge Birss:

Introduction

1. This action relates to United Kingdom patent GB 2 432 617 entitled "A gasket". The application for the patent was filed on 22nd November 2005. The inventor was Mr Terrence Bradley. The patent was granted to Komfort Workspace Plc and is now held by Interiors Manufacturing Limited. Despite the name of the defendant company, it is convenient to refer to the defendant as Komfort. The case is concerned with glass partitions, i.e. internal glass walls used in buildings.

2. The claimant (Lizzanno) sells a gasket for sealing between glass partitions. The action began as a claim for a declaration of non-infringement brought by Lizzanno together with a claim that the patent is invalid. In its Defence and Counterclaim Komfort denies invalidity and positively contends that the Lizzanno gasket infringes.

3. Barbara Cookson of Filemot Technology Ltd appears for Lizzanno and Isabel Jamal instructed by Fry Heath & Spence LLP appears for Komfort.

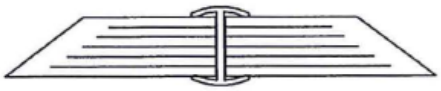
Background

4. Modern buildings often have internal partition walls which are not load bearing. This case is concerned with partition walls made of glass. Glass partitions are used particularly in offices and showrooms. The idea of using glass in this way took off in the late 1980s and early 1990s. Originally the glass partitions which were installed were made using a metal frame around each piece of glass. The metal frames were then attached together. These partitions were known as mullion based systems.

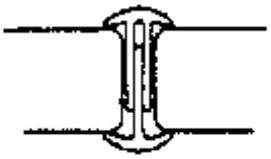
5. In about the mid 1990s there was a demand to provide glass partitions which did not have metal frames. One factor was that clients were interested in having a partition which looked as though it was made of a single piece of glass. There was a drive in the industry to make the gap between glass panels as small as possible and to make the joint itself as minimal as possible. So called glass to glass partitions began at this time.

6. In a glass to glass partition, the glass panels are usually held in metal frames running horizontally on the floor and on the ceiling. When two glass panels come together edge to edge, there needs to be a seal between the edges. One of the standard ways of sealing the gap in a glass to glass partition was by using silicone. The glass panels would be placed with a 4-6mm gap between the edges, masking tape would be applied at each side and silicone would be beaded into the gap between the sheets, and then "dressed" by running a tool or a thumb down the silicone. The silicone would be left to cure.

7. Other methods of sealing the gap were used. These alternative methods were known as "dry" joints to distinguish them from silicone joints which were called "wet" joints. One dry method was to use double sided adhesive tape in the gap. Another was a joint introduced by a manufacturer called Reddiplex known as the H joint. This was a hard piece of plastic in the shape of an H where the middle part of the H fits between the two pieces of glass and the two parallel parts of the H fit around the ends of the glass by overlapping on each side of the glass. An image of an H joint is:



8. The H joint was introduced in the late 1990s. Another joint in use before the priority date was a two piece item sold by Komfort. It was the subject of a Komfort patent GB 2387196. The joint is made of two separate pieces of hard plastic which fit together with a male and female fitting. When installed the resulting joint looks like an H joint. The advantage over the H joint is that the pieces can be easily taken out so that the partition can be moved and rebuilt. When installed the two piece joint looks like this:



9. This two-piece joint started to be used in 2002.

The issues

10. Lizzanno offers a glass panel partitioning system which uses a joint based on a gasket made of plastic. In August 2011 Komfort's patent attorneys wrote to Lizzanno alleging that it was infringing the patent. Lizzanno did not agree and these proceedings were the result. Komfort contends the Lizzanno product infringes claims 1, 2, 5, 6, 7, 8, 9, 10 and 11 of the patent. Lizzanno denies infringement.

11. Lizzanno contends that the patent lacks novelty over US Patent Application US 2004/0200167 A1 published on 14th October 2007 ("Isaac"). Lizzanno also contends that the patent is obvious in the light of a prior gasket known as Unilock. Lizzanno

does not rely on Isaac in relation to obviousness. Lizzanno also contends that the patent is invalid on the grounds of added matter and insufficiency.

12. Komfort maintains that claim 1 of the patent is valid and also maintains the independent validity of claims 6 and 7. No other claims are said to be independently valid.

The witnesses

13. Lizzanno relied on the evidence of Neil Clasby. He is a director of Lizzanno and an experienced designer of partitioning systems, having worked in that field since 1992.

14. Mr Clasby was a fair witness. The only matter which arose about Mr Clasby's evidence was about his overall approach to the patent. In the past the individuals now at Lizzanno had worked with or for Komfort. So Mr Clasby worked with Komfort via his company Clasby Design in the mid/late 1990s albeit not on the product which led to the patent. However Mr Philip Duckworth, now a director of Lizzanno and formerly a director of Komfort Workspace Plc, had been involved with the invention when at Komfort. Indeed Mr Duckworth was the person who authorised the submission to Komfort's patent attorneys of Mr Bradley's idea in the first place. Although Mr Clasby explained in his report that he based his understanding of the invention in the patent on the document itself Mr Clasby was also influenced by what Mr Duckworth had told him about what Mr Duckworth thought the invention was, based on Mr Duckworth's knowledge of Komfort's products. Ms Jamal submitted this was the wrong approach. I agree that what Mr Duckworth thought the invention was has nothing to do with this case. I do not think this had any impact on Mr Clasby's views about common general knowledge or obviousness but it did affect his understanding of the teaching of the patent. I will take that into account.

15. Komfort relied on the evidence of Brian Pike. He has worked for Komfort for 28 years in a technical role. From 1995 until 2011, the focus of Mr Pike's work was in acoustic, fire and structural product testing. Before 1995 he worked on product design for various partitioning systems. For the last ten years Mr Pike has been on the Board of a trade association for the partitioning industry known as the Association of Interior Specialists (AIS). He was not directly involved in the design of the gasket the subject of Komfort's patent but was responsible for the acoustic, fire and structural testing carried out using it and for the creation of the performance and method of installation data sheets for the gasket.

16. He was as well placed as Mr Clasby to give evidence about partitioning systems and their design. He gave his evidence fairly.

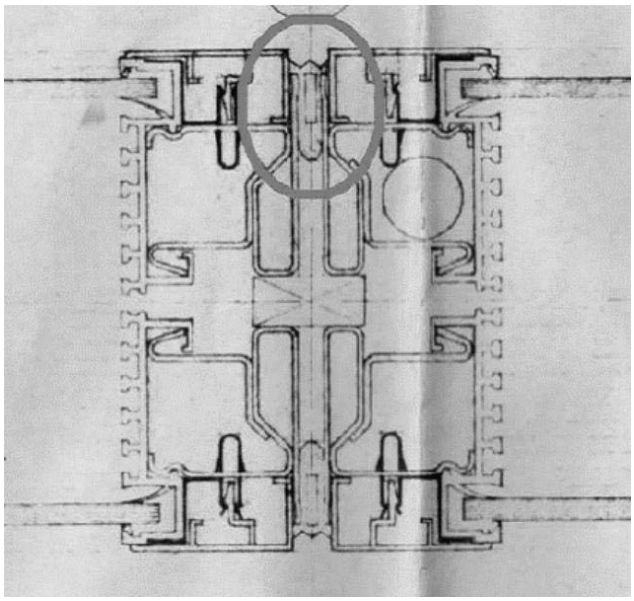
The person skilled in the art

17. I believe it was common ground but in any event I find that the person skilled in the art in this case would be someone specialising in glass partitions. They would have experience of glass partition installations and the products used to secure the glass sheets.

Common General Knowledge

18. The common general knowledge in 2005 would include all the matters I have set out in the background section above (paragraphs 4 to 9).

19. A particular joint which formed part of the common general knowledge was a joint used in a framed partition system sold by Unilock in its MS3000 system. The joint was one of the well known mullion joints that used a lock and key mechanism to join the metal frames together. Clasby Design keeps an archive of drawings and it includes a drawing of the cross-section of the Unilock joint in question. The cross-section is this:



20. The drawing shows a joint between two partitions, one from the left and one from the right. Each partition wall has two sheets (running horizontally in the drawing above), each of which fits into a metal frame part. In effect there are four metal frame parts. In the centre of the drawing is a cross shape between the four metal frame parts. Inside this cross shaped area a metal key part is shown. This key is a cross-shaped part which fits in the cross-shaped space. Since this is a cross-section the vertical extent is not shown. In fact the cross-shaped space extends vertically from floor to ceiling but the key or keys do not. They are relatively small and most of the cross-shaped area is empty space. The keys fit into extensions (not shown) on the metal frame parts to hold the structure together.

21. The circle at the top has been added for the purposes of these proceedings to highlight the element of interest. In that area there is a plastic gasket. This gasket fills the edge between the metal frames from floor to ceiling. There was a dispute about its purpose. Mr Pike said it was present for aesthetic purposes to cover up the metal lock and key system. Mr Clasby said it was also to prevent air flow. He said the purpose of preventing air flow was to stop sound, draughts and fire. In my judgment Mr Clasby is right that the gasket is not only aesthetic but is also there to prevent air flow for those reasons.

22. This joint, with the gasket described, was common general knowledge.

23. In reply (paragraph 8 of his second witness statement) Mr Clasby referred to another joint which he described as an MS3000 frameless solid joint that existed in 1983. I do

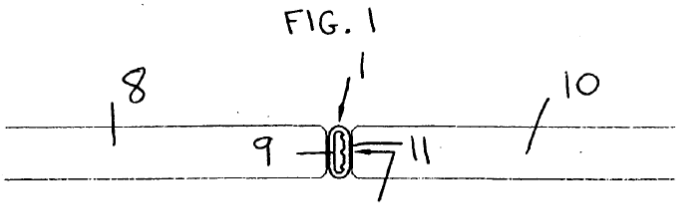
not accept that joint was common general knowledge and so, since it is not pleaded prior art either, it is irrelevant.

24. The other question arising in relation to common general knowledge was the knowledge of various other extruded rubber parts. Mr Clasby referred to a number of general purpose rubber extrusions, rubber draught excluders and products used in double glazing as being common general knowledge. Mr Pike did not agree. I am quite sure that in general terms the idea of using what is in effect a rubber gasket as a draught excluder, and for other general purposes including use in the double glazing industry, was part of a skilled person's common general knowledge. To that extent I accept Mr Clasby's view. However I am not satisfied that the particular examples relied on by Mr Clasby were common general knowledge. There was no evidence that a designer of glass partitioning systems in 2005 would have known about any particular draught excluder or other rubber gasket if it was not being used in the partitioning industry.

The patent

25. The patent starts by explaining that the invention relates to a gasket, particularly a gasket for providing a seal between two or more glass sheets. The problems of using silicone are described and so is the use of dry joints. A problem with dry joints is said to be that they have little or no tolerance so there is limited capacity for adjustment in the event the two glass panels are not perfectly aligned. Another problem is that corner joints often need different mouldings from straight line joints.

26. The patent goes on to set out a statement of invention corresponding to claim 1. In essence the invention is based on a new gasket which is made of a hollow tube of non rigid material. The cross-section of the tube when it is not in use has a particular shape. One aspect of that shape is that the tube has substantially planar longer sides and curved shorter sides. The invention is not a gasket *per se*, the statement of invention (and the claim) refer to the combination of a glass partition and a gasket of the relevant kind. In a simple example the gasket is to be placed in the gap between the edges of two glass sheets. Figure 1 of the patent, showing the gasket in use, is:



27. The statement of invention is followed by passages which bear on the meaning of the claim and I will address them below. The document continues, explaining an advantage of the shape of the gasket is that the gasket will have more "give" in the direction which is perpendicular to the edges of the glass sheets. This makes it easier to adjust the position of the two glass sheets. The substantially planar longer sides mean that there will be a good fit with the edges of the two glass sheets because those edges are usually substantially planar. The curved shorter sides are said to give the

gasket greater give in "that" direction. The direction referred to is obviously the direction which is horizontal in the drawing above.

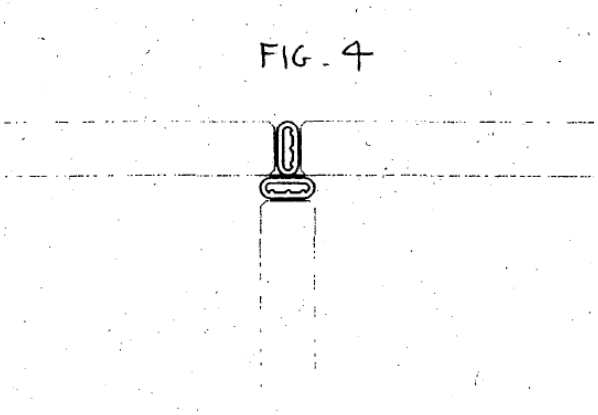
28. Various optional features are described such as reducing the thickness of the sides of the hollow tube to increase overall flexibility, using projections inside the hollow tube to prevent the interior surfaces sticking together during manufacture, and using adhesive to help hold the glass sheets together. The adhesive could be in the form of a strip.

29. The specification then states that the hollow tube may be made of any suitable non-rigid material and "*Usually the hollow tube will comprise a plastics material such as upvc*". To the skilled reader this phrase would be odd and potentially confusing. No skilled reader would regard uPVC as a non-rigid material. (I will capitalise "PVC" but the capitalisation makes no difference.) Polyvinylchloride is a very common form of thermoplastic material but is stiff and brittle in pure form. It usually contains a quantity of a plasticiser additive, the amount being selected to achieve the desired properties. The point of the "u" in "uPVC" is that it indicates the material is unplasticised. Mr Clasby explained that until Komfort indicated in correspondence that the reference to uPVC in the patent was a mistake, he was puzzled by the patent in this respect. I will return to the uPVC issue below.

30. The specification continues with a statement that any suitable manufacturing process can be used, along with a suggestion that when an adhesive strip is used, the strip could be co-extruded with the tube. Next are the figures and a description of an example illustrating the invention. Figure 1 has been set out above. The example describes the gasket, its shape and how it is used in use.

31. At p4 of the specification there is another reference to uPVC. This reads "*The hollow tube 2 is made from clear upvc, a flexible plastics material*." I think a skilled person reading this passage, in the context of the document as a whole, would now realise that the draftsman had made a mistake because no skilled person would call uPVC a "flexible plastics material". The skilled reader would think that the patentee either did not know what he was talking about when it came to plastics materials or must simply have made a simple typographical error and meant "PVC" rather than "uPVC". In both cases however the end result would be the same: the reader would not think the patent was serious when it described "uPVC" as a flexible plastics material. The important teaching is to use flexible plastics material. No-one would think the patent really meant that one could use uPVC.

32. Finally, just before the claims, the patent explains that the same gasket can be used for corner joints and three way joints, referring to figures 3 and 4. The three way joint uses two gaskets and is shown in Figure 4:



33. A point on construction involves figure 4, I will address it below.

The claims and construction

34. The relevant claims are claims 1, 6, 7, and 12. Claim 1 is set out below, divided into suitable integers. The labelling is by me:

> a) A glass partition or wall
>
> comprising
>
> b) two or more glass sheets and a gasket which provides a seal between the edge of one of the glass sheets and one or more of the other glass sheets,
>
> the gasket comprising:
>
> c) a hollow tube made from a non-rigid material,
>
> d) the hollow tube, when not in use, having four sides and a substantially rectangular cross-section so that it has a width greater than its thickness,
>
> e) the two longer sides of the hollow tube being substantially planar and
>
> f) the two shorter sides of the hollow tube being curved.

35. Claims 6, 7 and 12 are:

> 6. A glass partition or wall according to any preceding claim, wherein the adhesive is applied only to the two longer sides of the hollow tube.
>
> 7. A glass partition or wall according to claim 5 or claim 6, wherein the adhesive is applied in the form of an adhesive strip.
>
> 12. A glass partition or wall comprising two or more glass sheets and a gasket which provides a seal between the edge of

> one of the glass sheets and one or more of the other glass sheets substantially as described herein or as shown in the drawings.

36. On the principles of claim construction, Lizzanno emphasised that claims are to be interpreted in the light of the description, referring to s125(1) of the 1977 Act and to Article 69(1) of the EPC. The leading authority on 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.

37. The points on construction which arise in relation to claim 1 are:

    i) feature (b) - two or more glass sheets;

    ii) feature (b) – which provides a seal;

    iii) feature (c) – a non-rigid material;

    iv) feature (d) - when not in use

    v) feature (d) – having four sides and a substantially rectangular cross-section so that it has a width greater than its thickness

    vi) feature (f) – curved

38. I will address them in the order listed.

two or more glass sheets

39. The claim is to a glass partition or wall. The claim covers a wall made of two sheets and also a wall with more than two sheets. Feature (b) refers to the gasket providing a seal between the edges of "one of the glass sheets and one or more of the other glass sheets". At some points in the argument, it appeared to be suggested that this aspect of feature (b) meant that even if the partition wall in question only consisted of two sheets of glass with a gasket between them, the gasket nevertheless had to satisfy a functional feature of being capable of providing a seal between one glass sheet and more than one more glass sheets. In other words, to be within the claim, the gasket has to be capable of forming a seal with three glass sheets such as is shown in figure 4 even if the glass partition in question only has two glass sheets. I do not believe that is the right way to read claim 1. The claim is to a partition or wall comprising glass sheets and a gasket. In fact it is clear that the claim is really talking about a joint in a wall. The relevant joint can be a joint between two glass sheets. If so then the gasket has to provide a seal between the two edges. If on the other hand the relevant partition joint consists of three glass sheets, then it makes sense to say that the gasket has to provide a seal between the edge of one and edge of one or more of the other sheets. The claim is not seeking to lay down any other criterion.

which provides a seal

40. Lizzanno contends that this would be understood to mean that there must be at least one line of contact between the gasket and each glass pane. Komfort agreed with that and I also agree.

a non-rigid material

41. There are two issues arising on this: what does "non-rigid" mean and how many materials are allowed. Dealing with the second point first, part of Lizzanno's non-infringement argument is that its gasket is made of two different grades of plastic. Lizzano argues that when the claim says "a … material" it means what it says: one material is all that is allowed. A gasket made of two materials is outside the claim.

42. I do not accept that the claim is limited to a gasket made of a single substance. The person skilled in glass partitions would not read it this way. The patent is not concerned with detailed materials science or chemistry nor is it concerned with particular manufacturing techniques. Provided all the material of which the gasket is made can properly be called non-rigid, a person skilled in this art would not be concerned with the question of whether the gasket has some elements made of one grade of plastic and other elements made of another different plastic. Such a gasket would be a gasket made of "a non-rigid material" from the skilled person's point of view.

43. Lizzanno referred to an opinion provided by the UKIPO as part of their opinion service in relation to this patent. The opinion was sought by a firm of solicitors, no doubt acting for someone but it was not sought by Lizzanno. The product is different from Lizzanno's product. Filemot filed separate observations on Lizzanno's behalf. The opinion is number 07/12. The argument is that the UKIPO examiner expressed the view in paragraph 16 that claim 1 required that the gasket had to be made of a single substance. In my judgment this opinion is, with all respect to the examiner, entirely irrelevant but in any case I do not read paragraph 16 of the opinion (and see also paragraph 19) as supporting Lizzanno's position. The examiner was considering a product which was made of two substances – a rigid substance on the long sides and a flexible substance on the short ends. His view was that it would not infringe because he thought substantially all of the hollow tube had to be made of a non-rigid material. This gasket had rigid long sides. The point was that the whole thing (more or less) has to be "non-rigid" to infringe but it was not. The point was not that the whole thing had to be made of the same substance.

44. The other issue is the ambit of the phrase "non-rigid". Lizzanno again refers to the UKIPO opinion but I will not take that into account. Lizzanno argues that there is a distinction to be made between the rigidity of the tube and the rigidity of the material from which it is made and submits that the patent acknowledges that both the geometry of the tube and the nature of the material selected will affect the flexibility of the tube. I agree that the skilled person would understand that the properties of the gasket will depend on both the material from which it is made and its shape. Lizzanno's case is that the material must be flexible so that the wall changes shape under pressure.

45. Both sides agreed that "non-rigid" was not a term of art and then proceeded to have their witnesses express views on the meaning of the term. This did not help. There were references to the need to allow the position of the glass sheets to be adjusted –

which is something expressly referred to in the patent; arguments that it was the flexibility of the gasket as a whole which was important and arguments about what happened when a gasket was held at its midpoint. Would it flop down on either side or remain in shape? Mr Clasby also expressed the view that to select a single material with the right physical properties and the right thickness to meet the design criteria for a gasket was difficult, particularly when the need to stick adhesive tape on it is taken into account. That may be so but I do not see that it has a bearing on the correct interpretation of this claim.

46. During the course of this dispute, the reference in the patent to uPVC has not helped in the debate about the meaning of "non-rigid". As I have mentioned above, at first sight the references to uPVC in the patent are confusing. They include a claim to a partition with a uPVC gasket. But in my judgment a proper and fair approach to the document by a person skilled in the art leads to a simple conclusion that the reference to uPVC is a mistake. This problem illustrates the difficulty of the task of the inventor and his or her patent attorney, to describe an invention in words and to produce a document whose text is supposed to last for 20 years as a legally solid definition against all comers. If the correct approach to construction was to tear the specification apart line by line and pounce on every slip, then very few patents would ever survive. That such an approach to construction was unfair was recognised over a century ago by Chitty J in ***Lister v Norton*** (1886) 3 RPC 199 in his famous phrase that a patent "must be read by a mind willing to understand not by a mind desirous of misunderstanding". The same sentiment was echoed by Aldous J (as he then was) in ***Rediffusion v Link Miles*** [1993] FSR 369 at 388, by the Supreme Court of Canada in ***Whirlpool v Camco*** [2001] FSR 46 at para 49(c) and by the EPO (see Case Law of the Boards of Appeal 6th Ed. II.B.5 paragraph 5.1). In my judgment the reference to uPVC has no bearing on the ambit of term "non-rigid".

47. It is plain that "non-rigid" is not a precise term. The skilled reader would know that the sorts of materials one might use for a gasket vary in their physical properties. It seems to me that the following points are the important ones which have a bearing on the skilled person's understanding of the term. First the claim is talking about the material. It is the material which has to be non-rigid. The claim here is not referring to the gasket. Second the skilled person's common general knowledge includes the relatively rigid dry joints such as the Reddiplex H joint and the Komfort two piece joint. I was provided with examples. No-one would call the hard, stiff and rigid materials from which these joints were made "non-rigid". The skilled reader would understand that the patentee was seeking to draw a distinction over such well known joints. Third this distinction is reinforced because the patent itself refers to problems with dry joints. The problem is a lack of tolerance and a lack of capacity for adjustment. In the example of the invention the patent expressly refers to the adjustment of the two glass sheets during installation and to "*the gasket being squashed or extended to accommodate this adjustment*". That is why the material has to be non-rigid. Fourth, the patent uses both the term "non-rigid" and the term "flexible" for the material (compare p1, p3 and p4) without seeking to draw a distinction. Fifth, the patent links the non-rigidity of the material itself to the ability of the gasket to provide more give in one direction than in the other (p2 ln3-5). Of course this is also a function of the shape of the gasket but the simple point being made is that to allow the gasket to "give" at all, it needs to be made of non-rigid material.

48. The claim means that the material from which the gasket is made has to have sufficient flexibility and softness to take up tolerances and allow for adjustment. This is not a precise concept and will be of relatively broad scope. There may be materials which are difficult to characterise but I doubt a person skilled in the art would have any real difficulty with it.

when not in use

49. No real debate about construction arises from this phrase but its presence in the claim is important to keep in mind. The claim is referring to the shape of the gasket when the gasket is not in use and not to the shape of the gasket when it is squashed up between the edges of glass sheets. It may be noted that the figures show the gasket in use. Lizzanno says this element of the claim is added matter but that is an issue to address below.

50. There had been a point about the stage during or after manufacture at which the issue had to be judged and about how one dealt with a gasket which changed shape over time as it was stored before being sold. There is no real difficulty with this and I am not aware that anything now turns on it. The claim is not concerned with the manufacturing process. Since it is a claim to a glass partition incorporating a gasket, it seems to me that the term "when not in use" is referring to the gasket at the stage when it is ready to be used but has not yet been placed into the gap.

having four sides and a substantially rectangular cross-section so that it has a width greater than its thickness

51. Feature (d) includes this expression and the term "*having a width greater than its thickness*" is then defined in the specification in the paragraph bridging p1 and p2. The term is intended to mean that when viewing in cross-section "one dimension (i.e. the width) is greater than the dimension which is perpendicular to that dimension (i.e. the thickness)". I think this definition is simply intended to mean that whichever dimension is greater can be called the width.

52. In her skeleton argument Ms Cookson contends that the concept of four sides is irreconcilable with the drawings and refers to a picture contained in Mr Clasby's second report which shows an rounded gasket shape sitting inside a rectangle. She also argues that a rectangular cross-section clearly implies parallel sides "and this conforms to the drawings in use". In the Particulars of Claim Lizzanno's case is that this feature presents most difficulty because the drawings show a hollow tube but the tube plainly does not have four sides, being an oval with a continuous outer surface. There also is said to be no disclosure at all of the shape of the gasket when not in use.

53. Dealing with the last point, it is true that there is no picture of the shape of the gasket when not in use but that does not matter. The relevant words of the claim are clearly focussed on the gasket when not in use. Whether it is added matter is something I will address below.

54. As regards the rest of Lizzanno's argument on this aspect of the claim, I do not find it convincing. In my judgment it is a symptom of Lizzanno's belief about what may or may not have taken place at Komfort as a result of Mr Duckworth's involvement.

55. The claim is readily understandable. When not in use the gasket does not have to be geometrically rectangular, it only has to have a *substantially* rectangular cross-section (my emphasis). The requirement that the width is greater than its thickness is probably redundant since I cannot think of something substantially rectangular which would not have a width greater than its thickness but there is no harm in that. The shape has to have four recognisable sides and again, I cannot think of a shape which one could still call *substantially* rectangular which did not have four recognisable sides, but there is no harm in that either.

56. Importantly, the claim has to be read as a whole. Features (e) and (f) shed light on what "substantially" rectangular means because they explain that the long sides should be substantially planar while the short sides have to be curved. A geometric rectangle cannot have curved ends but the claim is clearly not talking about such a shape. Equally there is no real difficulty about the number of sides. A shape consisting of two semicircles and two straight lines is an example of a shape with four sides within the meaning of this claim. It has two straight sides and two curved sides.

57. I reject the suggestion there is any real problem with this feature. The claims are not irreconcilable with the drawings. A gasket with the claimed features could end up looking like the figures when in use. I expect it is also technically possible for there to be a gasket which would adopt the shape shown in the figures when in use even if it did not satisfy the claimed requirements about its shape when not in use. That has no bearing on construction that I can see. I expect a gasket in which the long sides are slightly bowed outwards when not in use would look like the figures when squeezed between two glass sheets. But in any case, feature (e) only requires the long sides to be "substantially" planar. They do not need to be geometrically planar when not in use. No doubt a pronounced curve would be outside the claim but I do not see why a slightly bowed surface would be excluded. So even if this issue mattered, which I believe it does not, it is mistaken on the facts.

curved

58. The figures show a gasket in which the short sides are curved in a convex sense, bulging outwards. Lizzanno contend that the claim has to be read as limited to convex curves. I do not agree. Claims are read in the light of the specification but to import a limitation to convex curves simply because convex curves are depicted in the figures would be simply to read in a limitation which is not present. That is not what Art 69 of the EPC or s125(1) of the 1977 Act require. The purpose of the curve is to allow the gasket to have a greater give in the relevant direction. The curve does not need to be convex to achieve that effect.

Claims 6, 7 and 12

59. No points arose on the interpretation of claims 6 and 7. Claim 6 requires the use of adhesive to stick the gasket to the glass edges and claim 7 requires the adhesive to be applied as a strip.

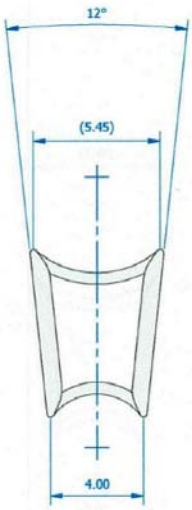
60. A point on construction arose in relation to omnibus claim 12. It arises because Lizzanno seeks a declaration of non-infringement and understandably seeks it in relation to the whole patent, i.e. all claims. Komfort sued for infringement and did not allege claim 12 was infringed but it did not admit that claim 12 was not infringed.

So claim 12 is in issue on the declaration of non-infringement albeit Komfort has no positive case that it is infringed. This is a jejune approach to patent litigation. It means that claim 12 has to be dealt with.

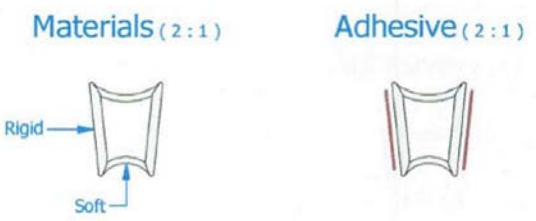
61. First, I refer to what I said about omnibus claims like claim 12 in ***Environmental Recycling Technologies Plc v Upcycle Holdings Ltd*** [2013] EWPCC 4 at paragraphs 67-73. Historically they have not been regarded as easy to interpret. Are they broad or narrow? This claim raises a particular snag. The operative words are "substantially as described herein ***or*** as shown in the drawings" (emphasis added). This seems to hint that there may be something different described in the document from what is shown in the drawings. I reject that. To refer to what is described "herein" is to include the text which relates to what is shown in the drawings. In my judgment despite the word "or" this claim must be talking about a partition made using the gasket described in the description – including the example – and therefore shown in the figures. Amongst other things that gasket has convex curves ends and three internal ribs. The claim is very narrow. Unless a gasket has those features, the question of infringement cannot get off the ground.

Infringement

62. Lizzanno describes its gasket as a fan shaped gasket. The term "fan shaped" is used to emphasise that the sides of the gasket are not parallel. The cross-section of the Lizzanno gasket is shown in drawing L1P02-12:



63. The shape is 4.00 mm wide at the lower end (as depicted) and 5.45mm wide at the upper end. The angle made by the straight sides is 12°. The length of the straight sides is not marked on the drawing but is just over 7mm. The gasket is made using two different grades of PVC. Lizzanno contends that the straight sides are rigid while the curved parts are soft. This is also shown in the same drawing along with a depiction of the adhesive strip used:



(The ratios given do not apply to these extracted images.)

64. The claims I really need to deal with are claims 1, 6 and 7. There is a point on claim 10 which I have not mentioned yet. I also need to formally make a finding about claim 12. I will do so now: it is obviously not infringed.

65. A gasket itself does not fall within the claims, since they are directed to a glass partition comprising the relevant gasket. However Lizzanno sells glass partitioning systems as a whole which are to incorporate the gasket and so, if the gasket did have the relevant properties, a product of the claim would be being made. Lizzanno explains that the making of the partitions on site is by sub-contracted installers but I did not understand Lizzanno to deny that it bore overall responsibility for the making of the partitions such that, if the partitions are within a valid claim, Lizzanno is infringing. I note a Lizzanno brochure which was exhibited by Mr Pike shows complete joints with glass panels and the gasket. In any case Komfort also relied on s60(2) of the 1977 Act, which itself raised an issue I will need to address.

66. Lizzanno contends that claim 1 is not infringed because: first the gasket has concave curves, second the sides are purposefully not parallel, third the gasket is made of two distinct materials, and fourth one of the materials making up the gasket is rigid. The first and third points fall away given my interpretation of the claim. The claim covers a gasket in which the shorter sides are curved with a concave curve and covers a gasket made of two substances.

67. As for the second point, it is not in dispute that the gasket can be and is used in joints in which the two edges of the glass panels are parallel to each other but the sides of the Lizzanno gasket are not themselves parallel. This can be seen in the drawing above. The gasket is also described in a patent application belonging to Lizzanno. The Lizzanno application shows that one of the advantages of the angled sides is for use when the end faces of the glass sheets are not at 90° or when the panels have to joint other than at a 180° angle or a right angle. Rightly Lizzanno did not suggest that the fact the Lizzanno gasket may ultimately be patented has anything to do with whether it infringes the Komfort patent. The question is whether the gasket "when not in use, [has] four sides and a substantially rectangular cross-section so that it has a width greater than its thickness". When not in use there are clearly four sides, two straight and two curved. The width is greater than the thickness. The shape is not a true geometric rectangle because the ends are curved and because the sides are not parallel. However curved ends are a requirement of the claim. As for the non-parallel sides, do they mean the shape is not substantially rectangular? In my judgment the cross-section of the gasket is substantially rectangular. The drawings are not inaccurate but they create a visual impression which exaggerates the angle. The 12° angle of the gasket (when not in use) is clearly not large enough to materially interfere

when the gasket is pressed into service between two parallel glass sheets. I find that feature (d) is satisfied.

68. The third point is concerned with the properties of the materials from which the gasket is made. The straight sides are each made from a grade of PVC called DVF 402 250. Mr Clasby, who designed the Lizzanno gasket, called these sides the "rigid sides" of the gasket. The curved sides are made from a grade of PVC called DVF 404 250. Mr Clasby called these sides the "flexible concave webs".

69. I did not understand it to be disputed that the PVC used on the curved sides is "non-rigid" but in any case I find that it is. The issue is whether the PVC used on the straight sides, PVC DVF 402 250, is a non-rigid material.

70. Mr Clasby's opinion was that this PVC was not a non-rigid material. Or turning it around, he explained that he did not regard this PVC material as flexible or soft. Mr Clasby drew attention to the Shore hardness values for the material. According to the data sheet, which was in evidence, PVC DVF 402 250 has a Shore hardness of 90 whereas PVC DVF 404 250 has a Shore hardness of 74. The Shore hardness test is a point test and is designed to measure a material's resistance to permanent indentation. The hardness value is determined by the penetration of a Durometer indenter foot into the sample. The harder a material is, the higher the number. There are various Shore hardness scales. Mr Pike exhibited a diagram showing three Shore hardness scales. In broad terms running from very soft to very hard materials the OO scale focuses on the soft end, the A scale is in the middle and the D scale focuses on very hard materials. The Shore hardness quoted on the datasheets used scale A15. The numeral refers to the duration of the applied load. Mr Pike's table allows one to compare Shore hardness values with a few well known rubbery materials and gives a qualitative description of the hardness. On the relevant scale a Shore hardness of 74 is roughly the hardness of a car tyre tread and within the bracket "medium hard", while 90 corresponds very approximately to a shopping trolley wheel and is within the bracket "hard" (between "medium hard" and "extra hard").

71. Mr Pike's view was that Shore hardness was not a reflection of rigidity within the meaning of the patent. In his view Shore hardness was concerned with how easily an indentation can be made, not about whether the material had the flexibility to allow the gasket to be squeezed and squashed in the direction required. In his opinion a material can have a high Shore hardness but still be non-rigid within claim 1.

72. It may be noted that the obviously non-rigid PVC used to make the curved sides, has the same Shore hardness as a car tyre and was described as "medium hard".

73. Mr Clasby did not accept the material used in the sides was flexible or soft. He explained the different requirements for different parts of the gasket. One of the factors was to be able to allow adhesive tape to be applied. He said:

> As a designer of gaskets the rigidity I am looking for is somewhat different for the various elements of the profile. I want the flat sides to hold their flatness so the tape can be applied to them and stay applied and the installer can press the gasket against an end face of glazing pane with hand pressure. The flexible webs of my fan shaped gasket are clearly

> unsuitable for supporting a tape. The shape is not compatible and they are just not rigid enough. These flexible webs allow the rigid, flat sides to move to fit the tolerances of the joint between two glass panes. The dimensions and tolerance of the joint between two glass panes are affected by: glass manufacturing cut tolerances; glass pane tolerances; glass pane levelling to the buildings floor tolerances; and the desired angle of the glass joint.
>
> (1st witness statement paragraph 5)

74. I am not persuaded that Shore hardness is a parameter which is entirely independent of the flexibility required by the patent. Mr Clasby has explained why the flat sides of the Lizzanno gasket are relatively more rigid than the curved sides. That difference in properties of the different grades of plastic is reflected in the differences in Shore hardness values. However the fact that the sides are made of a relatively more rigid material than the curved ends does not mean that the material used to make the sides is outside the requirements of claim 1.

75. I have dealt with Shore hardness in detail because it is the point advanced by Lizzanno but in the end I think the answer to the issue of the flexibility of the material is simple. The datasheets for both grades of PVC both contain some text describing the product. Both descriptions have the same first sentence: "Clear flexible PVC extrusion compound for low toxic applications." So the manufacturer of these plastics materials is quite comfortable describing them both as "flexible". That accords with my direct impression from being given a sample of the gasket. From examining a sample by hand, I would not describe any of the plastic from which the gasket is made as "rigid". The sides are not rigid, stiff, hard flat planes. The material has a flexibility and softness which I am sure will allow for tolerances to be taken up or adjustments to be made in practice. In my judgment all of the material from which the gasket is made is non-rigid.

76. Accordingly claim 1 is infringed by a glass partition incorporating the Lizzanno gasket.

77. If claim 1 is infringed, so too are claims 6 and 7. The adhesive is applied on the longer sides only, in the form of a strip.

78. The point on claim 10 is that this claim requires the gasket to comprise uPVC. Although it is not said that this claim is independently valid, it needs to be addressed because on any view the Lizzanno gasket is not made of uPVC. The argument is I think that because it is obvious that the references to uPVC in the specification are a mistake, the true interpretation of claim 10 is that it is a claim to PVC and not uPVC. I do not propose to spend much time on this. I do not agree. It is one thing to read the description fairly, realise that the reference to uPVC there must be the result of an error and so read the document as a whole bearing in mind that uPVC is not flexible plastic; it is quite another to come to a conclusion that a patent claim to uPVC actually means something else. For that to get off the ground the correction of the mistake would have to be clear as well but it is not. Perhaps the patentee genuinely thought uPVC was flexible and meant to claim it. This would still not affect the overall

interpretation of the patent but it would not justify reading claim 10 as if it was a claim to PVC. I reject the allegation of infringement of claim 10.

S60(2) of the 1977 Act

79. Komfort contends that the sale of a gasket alone would be infringement under s60(2) of the 1977 Act. No point on knowledge was live by the conclusion of the case. The question is whether the gasket is a means relating to an essential element of the invention. There was a further point arising from the Court of Appeal's judgment in ***Schutz v Werit*** [2011] EWCA Civ 303.

80. Lizzanno argued that "the invention is the construction of a partition or wall capable of comprising more than two glass sheets and […] the gasket alone is not essential to that". I rejected this approach to construction of the patent above. In any event in my judgment a gasket which, when fitted between two glass sheets, would produce a product within claim 1, is plainly a means relating to an essential element of this invention for putting the invention into effect.

81. The point on ***Schutz*** was said to be that although the gasket is not itself a staple commercial product (plainly not), its role in the invention could be supplied by things which are, which Lizzanno called staple bubble gaskets. So, it was said, something in ***Schutz*** means that this might provide a defence. I confess that I did not understand this point. If this case was concerned with the use of Lizzanno gaskets to refurbish Komfort glass partitions then ***Schutz*** might have something to do with it but that is not this case. In any event after trial but before judgment, the Supreme Court allowed the appeal in ***Schutz v Werit*** [2013] UKSC 16. The Supreme Court's decision is not relevant to this case.

Added matter

82. The law on added matter is well settled. As a ground of revocation, added matter is provided for by s72(1)(d) of the 1977 Act. The same principle is found in the EPC at Art 123(2). The correct approach was explained in ***European Central Bank v DSS*** [2008] EWCA Civ 192 (Jacob and Lloyd LJJ and Sir John Chadwick). In paragraph 12 of the judgment of the court Jacob LJ approved the summary of the law by Kitchin J (as he then was) in that case. I will not set it out in this judgment. Ms Cookson referred to ***Gedeon Richter v Bayer Pharma*** [2012] EWCA Civ 235 paragraphs 13-16, ***Richardson Vicks*** [1995] RPC 568 at p576 and Floyd J in ***Wagner v Earlex*** [2012] EWHC 984 (Pat) at paragraph 32. She emphasised two points, first that both the EPO and the English courts recognise that matter had to be disclosed "*clearly and unambiguously*" in the application, and second it was important to avoid hindsight.

83. Lizzanno contends that the granted patent contains added matter because while claim 1 refers to the shape of the gasket when not in use, "the embodiment of the invention only illustrates the gasket when in use and therefore its shape when not in use was not disclosed in the application as filed." Part of Lizzanno's argument is that the figures illustrate the gasket in use and that a gasket which was circular when not in use could, under compression, adopt the shape shown in the figures.

84. Another element of Lizzanno's argument involved scrutinising the prosecution file. The point during prosecution at which the patentee's agents amended the claim to add

the words "when not in use" is focussed upon and the argument is that the examiner then conducted a new search "so he clearly learned something about the claimed invention about which he was previously unaware". This is not a good argument. The fact the examiner conducted a new search when a claim was amended does not mean the amendment involved added matter. The prosecution history is irrelevant.

85. In this case there is no doubt the granted patent contains a disclosure relating to the shape of the gasket when not in use. There is no doubt that the words "when not in use" do not appear in the application as filed. The issue is whether the application contained the disclosure now found in the granted patent.

86. The application undoubtedly has passages which describe the gasket in use (e.g. p4 5th paragraph) but Ms Jamal submitted that the application also describes the inherent properties of the gasket and its suitability to be inserted into the gap to make a seal. She relied in particular on the passages in the first to fourth paragraphs on page 2. She pointed out that in the first paragraph on p2, the passage begins by describing various features of the gasket and then moves on to state "Thus, if the gasket is positioned between two glass sheets…". Ms Jamal submitted that this language showed that the gasket's inherent properties were being described at the start and then afterwards the application was describing what happens if that gasket is inserted into a gap. Necessarily therefore the gasket when not in use has been described too. I accept this submission. These paragraphs disclose that the gasket, before it is inserted, comprises a hollow tube, is made from non-rigid material, has a width greater than its thickness, may have a substantially rectangular cross-section, has two longer sides which are substantially planar and has two shorter sides which are curved. There was no suggestion that the absence of the words "having four sides" from this part of the application was relevant.

87. I have asked myself whether this is a clear and unambiguous disclosure relating to the shape of the gasket when not in use. In my judgment it is. Moreover I do not believe there is any danger of hindsight creeping in. The application describes the gasket and then describes what happens when it is used. If one wants to examine the language in detail, phrases looking to the future are used such as: "will give more in one direction", "if the gasket is positioned ... then ..." and "will allow a good fit". This shows that the document is describing how the features the gasket has when it is not in use will function when it is then used.

88. It is true that there is no drawing of the gasket when not in use but I do not think the skilled person would have any difficulty comprehending what the document was teaching. The fact that it is possible to conceive of a gasket shape which does not satisfy claim 1 as granted but which would look like the figures when squashed into position is irrelevant. If there was no disclosure in the text about the gasket before it was inserted then this point would be relevant to show that one cannot assume what the shape might be before being squashed into position, but I have rejected the premise of this argument.

89. In my judgment there is no added matter in this patent.

Novelty

90. Lizzanno contends the claims lack novelty over Isaac. Isaac is a patent application entitled "Extruded connecting profile". It relates to "movable wall structures" i.e. partitions. The panels in the walls may be made of glass. Although the word "gasket" is not used, the "extruded connecting structure" described in Isaac is plainly a gasket. The gaps between panels need to be filled for "aesthetic and insulation reasons" and the problem of manufacturing tolerances and therefore variation in the sizes of the gap is described.

91. Isaac's gasket when not in use is shown in fig 1 of the application:

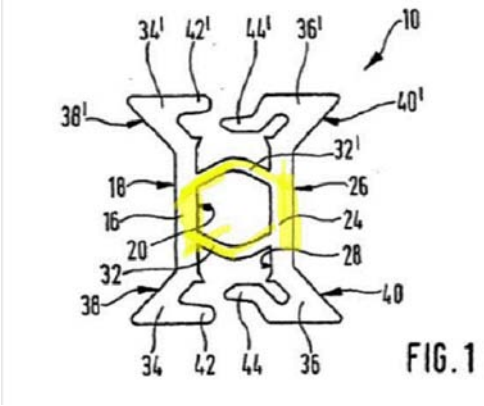


FIG. 1

92. The shading (in yellow) has been added for the purposes of argument and is addressed below. When inserted into the gap between two panels, the transverse webs 32 and 32' can compress as shown in figure 2:

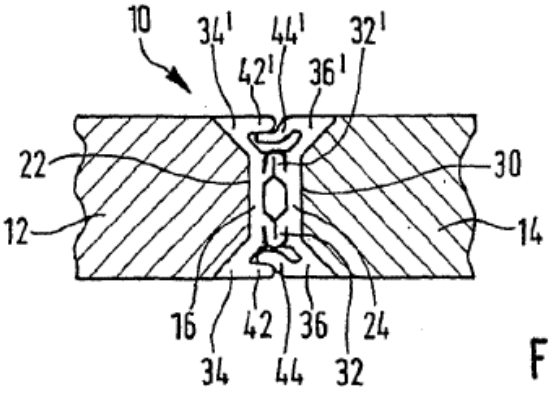


FIG. 2

93. If the gap was a bit larger, the webs would not need to compress as much as shown here in figure 2 (this is shown in fig 3 of Isaac but there is no need to reproduce it).

94. Isaac describes the transverse webs 32 and 32' as an elastic structure extending between the frame elements 16 and 24. The gasket is made using two different materials. The elastic structure consists of a material with a higher elasticity than the material of the first and second frame elements. At paragraph 7 Isaac states:

> The extruded connecting profile according to the invention thus has two rigid frame elements engaging the adjacent peripheral edges of two successive panels, and has an elastic structure. The elasticity of this elastic structure allows compression of the

> connecting profile, while the rigid frame elements remain in engagement with the panels. It follows that the present connecting profile can adapt to the size of the gap between the two panels.

95. In paragraph 12 Isaac mentions specific materials which can be used to make the transverse webs and the frame elements. It states:

> As explained herein before, the frame elements are made of a more rigid material than the elastic structure. A variety of materials, namely synthetic materials, are suitable either for the frame elements or for the elastic structure. However, the elastic structure is preferably made of an olefin thermoplastic polymer. Regarding the frame elements, preferred materials are polymethyl methacrylate and polycarbonates.

96. Thus Isaac is directed to the same problem as the Komfort patent. However Komfort maintains that there are two differences between the solution proposed by Isaac and claim 1. First there is the issue of materials. Second is the shape.

97. Considering materials, if I had construed claim 1 of the Komfort patent as being limited to a single substance then Isaac would not have been relevant (nor would Lizzanno's gasket have infringed) but the fact that Isaac's gasket is made of two substances does not matter. The question is whether both of them are "non-rigid" within claim 1 of the Komfort patent. Lizzanno contends that if the claim is construed broadly enough to cover its gasket then Isaac anticipates. I do not agree. Isaac expressly teaches that the frame elements are "rigid". Materials are named. They are polymethylmethacrylate, which is better known as Perspex, and polycarbonate, which was not discussed in evidence but which I have always understood to be the material used to make riot shields. Mr Pike signed the statement of truth on Komfort's Defence which includes the statement at paragraph 14(a)(iii) that polymethylmethacrylate and polycarbonate would be understood by the skilled person as rigid materials. In his evidence Mr Pike also described Perspex as an example of a rigid material. Although Mr Clasby's reply statement indicated he disagreed with this paragraph of Mr Pike's evidence, he did not grapple with this point.

98. I find that the gasket disclosed in Isaac is not made of a non-rigid material. The transverse webs are non-rigid but the frame elements are rigid. It is not within claim 1.

99. I turn to the question of shape. The shading shown on Isaac figure 1 above is from Lizzanno's Particulars of Claim. The shading identifies the hollow tube in the Isaac gasket. There is clearly a hollow tube. However Ms Cookson's skeleton argument (paragraph 37) asserts that "Isaac's rigid frame elements form the longer sides of the gasket". Looking at the hollow tube, the parts of it which are parts of the frame elements are not longer than the transverse webs. If anything the curved transverse webs are longer than the parts of the frame elements which make up the hollow tube. Feature (e) of the Komfort claim requires the two longer sides of the hollow tube to be substantially planar. So one needs to focus on the sides of the hollow tube. I think the skeleton argument may be focussing on the whole gasket but I do not believe it is relevant to consider the extra material over and above the hollow tube. Claim 1

requires a gasket *comprising* a hollow tube, which has various features. The shape required by the claim is the shape of the hollow tube, not the shape of other parts connected to the hollow tube. I find that the shape of the Isaac gasket is not within the Komfort claim.

Obviousness

100. Both sides referred me to the structured approach to the assessment of obviousness was set out by the Court of Appeal ***Pozzoli v BDMO*** [2007] EWCA Civ 588, [2007] FSR 37. It is:

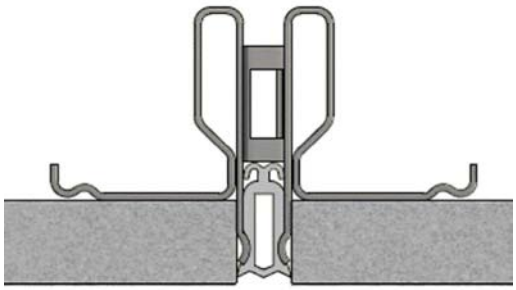
> (1) (a) Identify the notional person skilled in the art;
>
> (b) Identify the relevant common general knowledge of that person;
>
> (2) Identify the inventive concept of the claim in question or if that cannot readily be done, construe it;
>
> (3) Identify what, if any, differences exist between the 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?

101. Ms Jamal emphasised the importance of avoiding hindsight and that it can be extremely difficult to put oneself back into the position of the skilled person before the invention was made. She also reminded me of the observation of Jacob LJ in ***Technip France SA's Patent*** [2004] RPC 46 at para 122 that the question "why was it not done before" is always a powerful consideration.

102. I have identified the skilled person and the common general knowledge and construed the claim above.

103. Although Komfort at one stage thought that numerous cases on obviousness were being run by Lizzanno, in fact there is only one. The pleaded allegation is that the claims are obvious over the Unilock gasket taking into account the common general knowledge. No other case was pleaded nor is pressed. Note that I do not need to be concerned with any question of obviousness over Isaac. No such argument was advanced.

104. There was no dispute that the Unilock gasket was a piece of soft plastic. It was used as part of a mullion joint between two metal frames. Mr Pike did not accept that the shape was within the requirements of claim 1. He described its shape as being bull nosed at one end and undulating at the other end because of the use of fins. I think the clearest image of a Unilock gasket is shown in an image of an arrangement which I have found was not common general knowledge. The image is taken from Mr Clasby's second witness statement:



105. The Unilock gasket is in the centre. It is a hollow tube. Its longer sides are more or less planar although they are indented. The top shorter side is curved with an extra element extending upwards. The lower shorter side has small fins. When identifying the differences between claim 1 and this gasket however the fins and the extension are not relevant. I do not believe there is anything of substance in Mr Pike's points on the shape of the gasket.

106. It is not in dispute that the Unilock gasket was not used in frameless glass to glass partitions and so features (a) and (b) of claim 1 are not present. Moreover it was common ground that the actual Unilock gasket would have been the wrong size to be used unmodified in a glass to glass partition. The space between the mullion frames was too big.

107. There was also an argument about whether the Unilock gasket provided a seal. This was based on the dispute about what the role of the Unilock gasket was and I have accepted Mr Clasby's evidence on this point. The Unilock gasket had a functional role to prevent air flow.

108. Mr Clasby's opinion was that the invention was obvious over the Unilock gasket. It was an example of a standard bubble gasket. It was used in partitioning between two framed glass elements, prior to frameless glazing becoming the current fashion. He said that if you have a gap then it needs to be filled. Based on the dimensions of the glass panels, the space to be filled with a glass to glass partition will be a rectangular shape. The choice of some gasket manufacturers to wrap around the glass using webs (e.g. the Reddiplex H joint) is not an essential design criterion for a functioning glass joint joining two glass panels if adhesive tape is also being used.

109. In cross-examination Mr Clasby maintained his view that the claim was obvious. Ms Jamal took Mr Clasby through the history of glass partitions. The Unilock gasket was used in the 1980s. Later fashions in the industry changed and developed. In the 1990s glass to glass partitions were in use with dry H joints etc. The cross-examination on this topic was focussed on hindsight. Ms Jamal put to Mr Clasby that although it might be easy now to see how to use a Unilock type gasket in a glass to glass partition, that was not obvious at the priority date in 2005. He did not agree. He explained that as a designer of partition systems he looked at everything. There were set parameters in the design of partitions and set dimensions. The industry wanted a frameless glass to glass partition and that is what the designers were striving for. With full height glass panels there is a need for a gasket and extruded hollow gaskets like bubble gaskets used in double glazing and draught excluders were available. He said there were not many places to go.

110. Mr Pike's opinion was different. He said that at the priority date the joints used in glass to glass partitions were either silicone or the dry joints like the H or two part joints. No-one to his knowledge had used non-rigid materials in dry glass to glass joints by the priority date. Even if they thought of using a non-rigid material, they would have in mind the conventional dry sections which hooked over the glass sheets. There is no reason why the skilled person would think of the patented shape. Specifically in relation to the Unilock gasket, he said that since that gasket could not be used unmodified in a glass to glass partition, the designer would realise they essentially had a blank canvas to make the device of any shape. In his view it would not have been obvious to make the device in the shape claimed in the patent.

111. Sometimes when one asks the question – if it was obvious why was it not done before – the answer is because the relevant item of prior art, although part of the state of the art, was not well known to the skilled people working in the relevant field at the time. However in this case that answer cannot be given in relation to Unilock because it was part of the common general knowledge. I am not satisfied that there is a good answer to this question in this case. Glass to glass partitions with silicone joints or H joints had been in use for a good number of years before 2005. Since the Unilock gasket was part of the skilled person's common general knowledge, if the invention had been obvious over Unilock then it would have been made years beforehand. The fact that similar gaskets were well known in draught excluders and other contexts does not help. When Mr Clasby explained in answer to Ms Jamal's question that as a designer he looked at everything I am sure he was correctly and fairly explaining what he, as a creative and dare I say it inventive, designer of partitioning systems actually does. But I do not believe it is the activity of the notional, uninventive person skilled in the art. I find that claim 1 is not obvious over the Unilock gasket.

Insufficiency

112. Lizzanno contends that the patent is insufficient contrary to s72(1)(c) of the 1977 Act. The case set out in the Particulars of Claim is:

> 23. The '617 Patent does not disclose the invention clearly enough and completely enough for it to be performed by a person skilled in the art.
>
> 24. The claimed structure will not work without a sealing tape to hold the gasket in position.
>
> 25. Something more must certainly be required if the gasket is to be extended as described in the specification at page 4 line 21.
>
> 26. The degree of non-rigidity of the gasket is not disclosed. A flexible gasket cannot carry a sealing tape and a sealing tape is essential if the gasket is to create a seal.

113. Lizzanno's insufficiency arguments are primarily employed as a squeeze on construction. If the claim is to be given a broad construction then Lizzanno says the teaching is inadequate and does not enable the skilled person to whom it is addressed

to make products across the scope of its claims without undue difficulty. As Ms Cookson's skeleton argument puts it:

> firstly the skilled reader even if we allow him a team member from the plastics industry, does not have enough information to choose the material from which to make the hollow tube; secondly he cannot make a joint without having adhesive with a hollow tube alone, particularly if it is to be extended in use; and thirdly he cannot make an inherently flat sided tube.

114. These are not entirely the same points as the points which are pleaded. Ms Jamal distilled down the issues on insufficiency into the following five:

i) The gasket in claim 1 will only provide a seal if sealing tape is used.

ii) The gasket can only be extended if there is "something more".

iii) Alleged ambiguity as to the degree of non-rigidity required.

iv) A non-rigid gasket will not work with a sealing tape so will not create a seal.

v) To make a single hardness extrusion gasket internal ribs are necessary in the production process.

115. A sixth point was identified by Ms Jamal (skeleton paragraph 112) but, as she submitted, it was really a point on construction.

116. I now turn to deal with the five points.

(i) The gasket in claim 1 will only provide a seal if sealing tape is used.

117. The argument here is a breadth of claim point. Claim 1 says the gasket must provide a seal but does not mention adhesive. It is not in dispute that a seal can be created if adhesive is used.

118. The words "provide a seal" are expressed in general terms. In the specification the use of adhesive is optional and the document clearly does contemplate using a gasket to provide a seal without using adhesive. Mr Pike thought that in practice a skilled person would be likely to use adhesive but he also thought a gasket without adhesive would work.

119. There was a debate about whether a gasket could ever hold the glass sheets in place, because in practice they are held in place by the frames on the floor and ceiling but I did not regard that debate as relevant. The claim is talking about providing a seal. I have found that to "provide a seal" means there must be a line of contact between the gasket and each glass pane. How good a seal is required by the claim? The patent does not say anything about that. No doubt the seal has to be good enough from a practical point of view but the skilled person would see the patentee was not laying down any particular standard.

120. Mr Clasby thought that adhesive would be necessary for the partition to comply with the relevant British Standards if a gasket of the shape shown in the figures of the

patent was used. His point was focussed on the shape shown in the figures. Mr Clasby explained various other expedients which could be used to create the interference necessary for a gasket without adhesive to be produced.

121. I reject this ground of insufficiency. First, it seems to me that with this sort of general language, the patent satisfies the requirements of the law by teaching that adhesive may be used. That is fair support for the claim. Moreover in ***Kirin Amgen*** when Lord Hoffmann was considering insufficiency he said:

> The skilled person is taken to be trying to make the invention work. If the skilled person would quickly realise that one method would work and another would fail, the specification is not insufficient because the claim is expressed in terms broad enough to include both methods.

122. This applies in the present case. Assuming it is true that one method (no adhesive) does not work when the other (adhesive) does, the skilled person would quickly see that. There is no insufficiency. Finally even if there is a problem, claim 6 would emerge unscathed.

123. Second, I am not persuaded that the skilled person would have an undue difficulty, if they chose to do so, to produce a partition within claim 1 with a gasket used without adhesive. Mr Clasby's point was not that this could not be done. His opinion was focussed on the particular gasket shown in the figures. I think the skilled person would imagine that using the gasket as depicted without adhesive might not work but the expedients described by Mr Clasby could then be applied to a gasket with the claimed features to create the necessary interference. The expedients are not inconsistent with the gasket having the claimed features.

(ii) The gasket can only be extended if there is "something more".

124. This argument is focussed on a passage in the example, as follows:

> In use, for an in-line joint, a first sheet of glass 8 is mounted in position. The gasket 1 is applied to one edge 9 of that glass sheet 8 so that the adhesive strip 7 on one of the longer sides 3 of the gasket 1 is aligned with the edge 9 of the glass sheet 8. A second glass sheet 10 is then mounted in place such that one edge 11 abuts the adhesive strip 7 on the other of the two longer sides 3 of the gasket 1. The two glass sheets 8, 10 are then adjusted as required, the gasket 1 ***being squashed or extended to accommodate this adjustment***. The glass sheets 8, 10 are typically 10-12mm thick, although the gasket 1 may be used with glass of differing thicknesses.
>
> (emphasis added)

125. There is nothing in this point. The gasket in the example has adhesive sticking it to both glass edges. Even without adhesive, a gasket will be squashed in use and if the glass plates are eased apart a bit, the gasket will become less squashed (i.e. extended).

(iii) Alleged ambiguity as to the degree of non-rigidity required.

126. Ms Jamal called this "a typical 'fuzzy edge' lack of clarity objection". I agree. The law on ambiguity as insufficiency is as stated in ***Kirin Amgen***. On the facts in this case there are materials which are clearly rigid (Perspex) and there are materials which are clearly flexible (i.e. non-rigid) such as the grade of PVC used to make the curved sides in the Lizzanno gasket. The existence of materials which may be difficult to judge as rigid or non-rigid does not give rise to insufficiency.

127. Ms Cookson's skeleton argument puts forward a related but different point which is not an ambiguity argument. The allegation is that the skilled person does not have enough information to choose the material from which to make the hollow tube. It is suggested that the time it took for Komfort's bubble gasket to reach the market shows there was a degree of difficulty which is said to be similar to that experienced by Mr Clasby in working out that he needed a co-extrusion of two different materials.

128. There is not enough evidence before me about Komfort's own development work to draw any inference from it. As for Mr Clasby's work to produce the Lizzanno gasket, I am not persuaded that it implies there is anything insufficient in the patent's teaching about materials. As I have noted already, the patent is not concerned with the details of materials science and chemistry. The evidence of Mr Pike and Mr Clasby as a whole clearly shows that the persons skilled in the art of glass partition design are well aware of the sorts of materials they might consider using. No doubt the actual choice of material would be a matter discussed between the designer and a plastics supplier and no doubt in some cases some testing may be necessary but none of this amounts to an undue burden or any indication of insufficiency.

(iv) A non-rigid gasket will not work with a sealing tape so will not create a seal.

129. Lizzano's argument is that a flexible gasket cannot carry a sealing tape and since a sealing tape is essential if the gasket is to create a seal, the claim is insufficient. This argument is related to the way in which Mr Clasby designed the Lizzanno gasket. The straight sides of the Lizzanno gasket had to be what Mr Clasby called "rigid" in order to allow the adhesive strip to be applied during manufacture.

130. However this argument fails because I do not agree that the material from which the straight sides of the Lizzanno gasket are made takes it outside claim 1. Those sides are non-rigid within the meaning of the claim but they are stiff enough to support the adhesive strip. The material making up the straight sides is undoubtedly relatively more rigid than the material used to make the curved sides and that difference in physical properties is likely to have been chosen by Mr Clasby in order to facilitate the application of the adhesive strip in his gasket but that does not demonstrate any insufficiency.

131. A separate point arose in relation to the fifth paragraph on p3 of the patent. This says that an adhesive strip may be co-extruded with the hollow tube. Mr Clasby's opinion was that this was not possible. The adhesive strip would have to be added later, after the co-extrusion process. Mr Pike explained there were a number of known ways to apply an adhesive strip. He did refer to co-extrusion of an adhesive strip as well but I prefer Mr Clasby's evidence on that point. However this does not give rise to an insufficiency. In my judgment applying an adhesive strip to the hollow tube was not

unduly difficult to do, the point is simply that co-extrusion would not be a viable way of doing it.

(v) To make a single hardness extrusion gasket internal ribs are necessary in the production process.

132. There was some discussion about axial ribs. The patent explains that they may be used to prevent the sides of the hollow tube from sticking together during extrusion. Mr Clasby agreed with that. Komfort caused some confusion in its Defence by asserting (paragraph 11(d)) that the ribs had two functions. One was to prevent total compression of the gasket (which is uncontroversial) but the other was said to be to ensure that at least one of the longer sides remains flat. Mr Clasby said that this made no sense because you cannot make a flat face that way.

133. The real debate was I believe the following. The issue is concerned with single extrusions as distinct from co-extrusions. A single extrusion is one using a single grade of plastic. In his first report Mr Pike expressed the view that you could make a single extrusion without internal ribs. He explained how. Mr Clasby in his first report expressed the view that you could not make a single extrusion with flat sides. In his reply report Mr Pike disagreed. He maintained that you could make a gasket in the shape required in the patent with a single extrusion but also said he could not see any technical reason why the skilled person would think the patent was trying to limit the claim to single extrusion gaskets. In Mr Clasby's reply report, replying to Mr Pike's first report, Mr Clasby said he was not persuaded by Mr Pike about a single extrusion. He described a single extrusion as a bubble gasket and said "you can't blow rectangular bubbles".

134. On this technical question concerning extrusions, I prefer Mr Clasby's evidence to Mr Pike's. I accept that the skilled person could not, at least without an undue burden, create a single extrusion with two completely flat sides. However since the claim is not limited to single extrusions, I fail to see the relevance of this argument. The gasket of claim 1 need not even be made by extrusion at all and even if it is made by extrusion, there is no limitation to a single extrusion. But just focussing on single extrusions, I do not accept that the evidence goes as far as establishing that the skilled person could not make a single extrusion within claim 1 since the claim does not demand completely flat sides. It may also be that to make a hollow tube by a single extrusion will require internal ribs but that is irrelevant (even assuming it is true) since the claim is not limited to single extrusions. I reject this insufficiency argument as well.

Conclusion

135. I find that patent GB 2 432 617 is valid and is infringed by a glass partition wall incorporating a gasket as shown in Lizzanno drawing L1P02-12.