



PATENTS ACT 1977

APPLICANT	Yo! Limited
ISSUE	Whether patent application GB 1316258.1 complies with Section 1(1)(b) of The Patents Act 1977
HEARING OFFICER	Peter Mason

DECISION

Introduction

- 1 Patent application GB 1316258.1 entitled "Apartment with rooms with transformable functionality" was filed at the IPO on 12th September 2013. It claimed priority from three earlier applications GB 1216303.6, GB 1216728.4 and GB 1304576.0 with priority dates of 12th September 2012, 19th September 2012 and 14th March 2013 respectively. It was subsequently published as GB 2508266 on 28th May 2014.
- 2 The application was subject to an initial Combined Search and Examination, following which there have been several rounds of correspondence. The last amendments, in the form of revised claims, offered by the applicant were received by the Office on 1st December 2016. Following receipt of these, there was further correspondence which was unable to resolve the outstanding issues and the matter was referred for a hearing.
- 3 The hearing was duly appointed on 29th March with Dr David Bottomley of Origin Ltd appearing on behalf of the application by video-link from the IPO in London. I was assisted by Nigel Hanley in Newport and the Examiner, Mr Kunal Saujani also attended.

The Issue

- 4 In his final letter to the applicant on 15th February 2017 the Examiner has maintained that the application as expressed in claims 1-7, 19 & 20 of 1st December 2016 lacks an inventive step under Section 1(1)(b) for two reasons:
 - a) Claims 1-7, 19 & 20 are a collocation
 - b) Claims 1-7, 19 & 20 are considered obvious
- 5 Although I will return to it later in this decision, Claims 8-18 have not been formally searched at any time during prosecution of this application. As such, I am not in a

position to decide against these claims in these proceedings and should I find in favour of the applicant I will refer this issue back to the Examiner for further consideration

The Claims

6 The claims on file dated 1st December 2016 read as follows:

Claim 1

A residential apartment system, which is operable to create useable functionality and space, and which includes a primary room and mechanical or motorised systems, and in which the residential apartment system includes a wall, a ceiling and a floor and respective voids in the wall, the ceiling and the floor which incorporates the mechanical or motorized systems, in which the mechanical or motorized systems are operable to reconfigure the primary room to have multiple different configurations and functions, wherein the mechanical or motorized systems are operable to reconfigure the primary room between a sitting room configuration, a dining room configuration, a bedroom configuration, and a kitchen configuration and in which the wall, the ceiling and the floor comprise respectively a false wall, a false ceiling and a false floor.

Claim 2

The residential apartment system of claim 1, in which, in the bedroom configuration, a mechanical or motorized system is operable to move a sleeping platform down from the false ceiling to rest over a seating area and in the sitting room configuration the mechanical system is operable to move the sleeping platform up from the seating area to the false ceiling.

Claim 3

The residential apartment system of Claim 2 in which the seating area has built in seating that is fixed in position.

Claim 4

The residential apartment system of claim 2 or 3 in which the sleeping platform substantially covers the seating area.

Claim 5

The residential apartment system of Claims 2, 3 or 4 in which the seating area is sunken into the void in the false floor.

Claim 6

The residential apartment system of Claim 5 in which the seating area is shaped to fit together with the sleeping platform.

Claim 7

The residential apartment system of any of Claims 2 to 6 in which the sleeping platform when raised provides a ceiling over the seating area.

Claim 19

The residential apartment system of any proceeding claim in which the false wall, the false ceiling and the false floor that contain the respective voids provides the respective functions of being a wall, ceiling and floor in a substantial portion of the primary room and are not

merely part of an item of furniture that itself rests against or on a genuine part of a wall, ceiling or floor

Claim 20

A kit of parts comprising parts operable to be assembled into a residential apartment system of any of claims 1 to 19.

Collocation

7 At the hearing I made it clear that I was in agreement with the applicant and did not consider the issue of collocation to be an issue and was prepared to dismiss it there and then. I did, however, reserve the right to make some observations on this point when I issued this decision.

8 The key case to consider when determining if a claim is considered a collocation is *Sabaf v MFI*¹. At paragraph 26 Lord Hoffman made clear that:

“If each integer “performs its own proper function independently of any of the others”, then each is for the purposes of Section 3 a separate invention and it has to be applied to each one separately. That, in my opinion, is what Laddie J meant by the law of collocation”.

9 I do not believe that this application falls into this category. Specifically, the claims as a whole comprises a wall, a ceiling and a floor which have voids into which mechanisms can be located to convert the room between configurations. Whilst it is attractive to see each operating independently that is not the case here as each cooperates with the other to produce an overall effect, specifically through the operation of the voids. In short, the claim as a whole sets out a relationship and a functionality linking each component whereas for collocation to exist this must be absent.

Claim Construction

10 In construing the claims I am guided by the well known authority on claim construction, *Kirin-Amgen and others v Hoechst Marion Roussel Limited and others* [2005] RPC 9. This requires that I put a purposive construction on the claims, interpret it in the light of the description and drawings as instructed by Section 125(1) and take account of the Protocol to Article 69 of the EPC. Simply put, I must decide what a person skilled in the art would have understood the patentee to have used the language of the claim to mean.

11 Section 125(1) of the Act states that:

For the purposes of this Act an invention for a patent for which an application has been made or for which a patent has been granted shall, unless the context otherwise requires, be taken to be that specified in a claim of the specification of the application or patent, as the case may be, as interpreted by the

¹ *Sabaf v MFI* [2004] UKHL 45

description and any drawings contained in that specification, and the extent of the protection conferred by a patent or application for a patent shall be determined accordingly.

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

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

- 13 There is not to my mind any great difficulty in construing the claims. However, a few terms do require some explanation.

“A residential apartment system, which is operable to create useable functionality and space, and which includes a primary room and mechanical or motorised systems, and in which the residential apartment system includes a wall, a ceiling and a floor and respective voids in the wall, ceiling and floor which incorporate the mechanical or motorizes systems”

- 14 What is meant by a “residential apartment” does not to my mind require any great consideration. The applicant on page 1 of the specification refers to a “1 bedroom flat”. Later on, on page 2 of the specification he refers to “a building including for example serviced apartments/rentals/extended stays/hotel rooms to include apartments with a single primary room that can be reconfigured to have multiple different functions.”

- 15 The term “primary room” could possibly cause some misunderstanding though I do not necessarily believe it does. It is clear, looking at the figures, that the applicant envisages the situation as in Fig. 5a for example that the bath/shower facilities may be located in a separate room whereas in Fig. 1 these facilities appear in the main room behind a partition. As such, I take the meaning of the primary room as the main living space within the apartment.

- 16 I believe that this categorisation by the applicant leaves little room for misunderstanding – a residential apartment for the purposes of this application is effectively a single room.

- 17 At the hearing we did discuss what was meant by “respective voids”. Mr Bottomley made it clear that this meant each of the wall, ceiling and floor contain voids. Consequently I see no need to discuss this further.

“operable to reconfigure the primary room between a sitting room configuration, a dining room configuration, a bedroom configuration, and a kitchen configuration”

- 18 Mr Bottomley confirmed at the hearing that the system is intended to support each of these configurations although the order is not important. On my reading of the claims this confirms my view that any arrangement of equipment in the room must be capable of providing all four configurations.
- 19 At this point I think it useful to summarize the claim as it stands – it is effectively a single room formed by a wall, ceiling and floor each having a void for locating mechanical and motorized systems for moving between a sitting room, dining room, bedroom and kitchen configuration.

Inventive Step

- 20 The law relating to inventive step is set out in section 1(1) of the Patents Act 1977 (“the Act”) which states:

1(1) A patent may be granted only for an invention in respect of which the following conditions are satisfied, that is to say –

- (a) the invention is new;*
- (b) it involves an inventive step;*
- (c) it is capable of industrial application;*
- (d) the grant of a patent for it is not excluded by subsections (2) and (3) or section 4A below; and references in this Act to a patentable invention shall be construed accordingly.*

- 21 Section 3 of the Act states:

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

- 22 In *Windsurfing International Inc. v Tabur Marine (Great Britain) Ltd*², the Court of Appeal formulated a four-step approach for assessing whether an invention is obvious to a person skilled in the art. This approach was restated and elaborated upon by the Court of Appeal in *Pozzoli SPA v BDMO SA*³ where Jacob LJ reformulated the *Windsurfing* approach as follows:

(1)(a) Identify the notional “person skilled in the art”.

(1)(b) Identify the common general knowledge of that person.

(2) Identify the inventive concept of the claim in question or if that cannot be readily 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 claim as construed.

² *Windsurfing International Inc. v Tabur Marine (Great Britain) Ltd*, [1985] RPC 59

³ *Pozzoli SPA v BDMO SA* [2007] EWCA Civ 588

(4) Viewed without any knowledge of the alleged invention as claimed, do those differences constitute steps that would have been obvious to the person skilled in the art or do they require any degree of invention?

The Skilled Man

- 23 At the hearing we discussed who could be seen as the skilled man. The applicant has made clear the application is concerned with providing living spaces in city centres where the costs are high. In doing so, they refer to the approach of Hong Kong architect Gary Chang who provided “internal walls mounted on ceiling tracks”. I think this is instructive as to who the skilled man in this case actually is. Specifically, they are an architect who specialises in compact living spaces/apartments. In referring to the skilled person as an architect, I think it is worth pointing out that this is by necessity a team of people who deal not only with the basic design but includes staff who handle the provision of services such as domestic mechanical and electrical services.

The Common General Knowledge

- 24 The common general knowledge of the skilled person was a subject of some discussion at the hearing. This appears to have been a significant bone of contention between the Examiner and the Applicant.
- 25 The Examiner has argued that a ceiling void from which a bed or furniture is lowered in the living space is known and consequently common general knowledge. To illustrate this point he provided several patent documents FR 2882378, US 7168371, DE 102010046114 & US 5461735.
- 26 Similarly, the Examiner argued that the idea of locating furniture within a floor housing is also common general knowledge and he again he illustrated this with 3 patent documents, JP 11-270039, EP 2138082 and US 3975871.
- 27 The examiner has further highlighted the use of “Murphy Beds” beds as a means of saving space. For those unfamiliar with the term these are beds that fold down from a storage position against or in a wall cupboard to form a bed.⁴
- 28 Mr Bottomley, for his part, argued that common general knowledge is “territorial” based on the view of Aldous LJ in *Dyson v Hoover*⁵ where at paragraph 53 it was stated:-

“Common general knowledge has to be distinguished from what is known. To be common general knowledge the knowledge has to be known by that which is known by the ordinary addressee of the patent”

⁴ See <https://www.murphybeds.com/>

⁵ *Dyson v Hoover* [2011] CH 1440

Furthermore, he points out that in the Manual of Patent Practice it is made clear at paragraph 3.30.3 that following the observations of Arnold J in *Generics (t/a Mylan) v Warner-Lambert*⁶:

“matter being relied on as common general knowledge must be common general knowledge in the UK”

explaining that

“... it seems to me that, at minimum, it must be shown that the matter in question was common general knowledge in the UK. The reason for this is that, whenever one is concerned with the validity of a European Patent (UK) or a UK Patent, one is concerned with the right in respect of the UK. It is true that the prior art may have been published anywhere in the world, but I do not think that alters the need for the skilled team to consider that art as if they were located in the UK. I do not think that it matters that a fact was common general knowledge in (say) China, if it was not common general knowledge here. This position may be different if all the persons skilled in the particular art are acquainted with the position in China.

- 29 Mr Bottomley then questioned whether the patent documents were indeed common general knowledge. Firstly, he pointed out that only three of the documents were in English, two in French, one in German and one in Japanese. Mr Bottomley stated “it is entirely unconvincing to attempt to demonstrate the common general knowledge of the skilled person by advancing mainly documents that are not in English”
- 30 He then went to make the point that if such documents were indeed common general knowledge there is an expectation that they would be widely referred to or cited against other patent applications. In summary whilst US 5461735 demonstrates a citation count of 14 the other documents muster no more than five and in three cases, zero.
- 31 There are two issues to consider here:-
- a. Are the patent documents considered to demonstrate the common general knowledge?
 - b. How does the assertion of territorial knowledge apply here?
- 32 I can deal with the issue of patent documents fairly easily here. In my opinion for a patent document to be considered to be common general knowledge it must be exactly that. What would this entail? To my mind I would expect such a document to be known as a patent, it would be widely cited and would perhaps be easily accessible from sources other than patent literature databases. It would cross the boundary between representing the state of the art as set out in Section 2(2) of the Act and common general knowledge. In this case I do not believe these documents do so – they are, if anything, representative of the state of the art and not the common general knowledge.

⁶ *Generics (t/a Mylan) v Warner-Lambert* [2015] EWHC 2548

- 33 Territorial knowledge is a difficult issue and one that is complicated by the omnipresence of the Internet and the World Wide Web. This introduces a new element to the consideration of what is territorial. By way of explanation I have already pointed out that the skilled person here is likely to be an architect led team who specialise in compact living spaces/apartments. Modern architecture is undoubtedly a global business with an international perspective, with the leading lights in the field being responsible for designs all over the world.
- 34 How would this apply to the team in this case? I do not necessarily think they would be constrained by the view that it must be exclusively UK knowledge. The problems of city living is international, and I have no doubt that the skilled team would as a result be able to access through trade publications and the like, information from around the world. There is no doubt that the applicant themselves are aware of the global dimension of this field of development since they point to work undertaken by the Hong Kong architect Gary Chang on page 1 of the application.
- 35 I think it is fair to say that the common general knowledge is an awareness of some of the space saving techniques used in these locations and that appear in architectural journals. This would include such-things as Murphy beds and as I pointed out light heartedly in the hearing flip top tables such as those seen in gangster movies which flip when the speakeasy is raided by the FBI.
- 36 I do not believe it too difficult to establish what the inventive concept is in this application as it is framed by the way the claims are construed. In effect the applicant has designed an apartment system where a primary living space is created from walls, ceilings and floors that each contain voids for housing mechanical or motorised systems. These systems allow the room to be configured to a living room, bedroom, dining room and kitchen.
- 37 What then are the differences between the inventive concept and the state of the art? I have already made clear that the patent documents cited by the examiner are representative of the state of the art. To this should be added the citation attributed to Dirksen. This is a video accessed on the Internet entitled "Lego-style apartment transforms into infinite spaces". The principle disclosure in Dirksen is the use of false walls to contain furniture that can then be disposed in the room.
- 38 The prior art clearly shows that individually ceiling, floor and wall voids are known. However, none show these in combination and invariably show only a single alternate configuration i.e. a bed being lowered into a room. This, I think, highlights the inventive concept of the application – it is the combination of voids in the wall, ceiling and floor that cooperate to allow the room to be configured between one of four different configurations.
- 39 Would the skilled man find this obvious? Certainly they would be aware of the individual components but would they put them all together? I am not convinced they would and for that reason I consider the application as set out in claim 1-7, 19 & 20 to be inventive.

Next Steps

- 40 As I have remarked earlier in this decision some effort was required to construe the claims. To that end it would be beneficial if the claims could be amended to reflect more clearly that voids must be present in the ceiling, wall and the floor. Similarly it should also be made clear that it must be capable of configuration as a living room, bedroom, kitchen and dining room. Specifically, all these features must be present.
- 41 Claims 8-18 have not been searched. For completeness this search now needs to be completed.

Timing

- 42 The applicant has extended the compliance date of the application until 12th May 2017 through the filing of a Form 52. Whilst I have found in the applicant's favour I believe that further clarification of claim 1 is required. To that end I would advise the applicant to file a further Form 52 to allow themselves the required time to place the application fully in order. For my part I would exercise my discretion to allow the extension of time required.

Conclusion

- 43 The application as set out in claims 1-7, 19 & 20 is considered inventive and I remit the application to the Examiner for continued examination.

Appeal

- 44 Any appeal must be lodged within 28 days after the date of this decision.

Peter Mason

Deputy Director, acting for the Comptroller