



BL O/083/06

27th March 2006

PATENTS ACT 1977

APPLICANT John David Dowling

ISSUE Whether patent application number GB
GB0205795.8 complies with section 1

HEARING OFFICER P J Thorpe

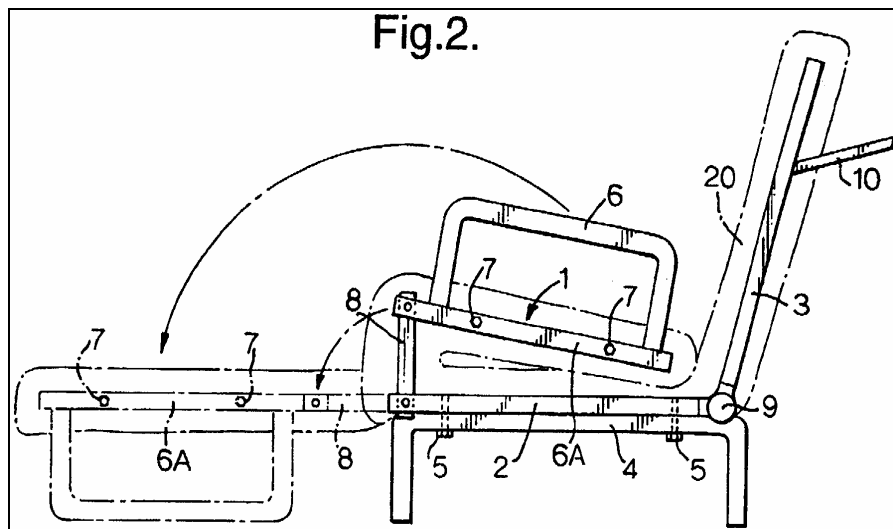
DECISION

Introduction

- 1 Patent application GB 0205795.8 entitled "Sofa-bed" was filed on 12 March 2002 in the name of John David Rowling and claimed priority from application GB 0118699 filed 1 August 2001. The application was published on 30 April 2003 as GB 2381190.
- 2 The first substantive examination report under section 18(3) was issued on 24 May 2004 and raised objections against most of the claims on the basis that they either lacked novelty or were obvious. The applicant responded with amendments to overcome the lack of novelty objections and argument against the lack of inventive step objection.
- 3 There were then three further rounds of correspondence with the examiner each time maintaining his objection to lack of inventive step. Each time the applicant responded that the invention was not obvious. In the light of this impasse the applicant was offered a hearing. This offer was accepted however shortly before the hearing was due to take place the applicant indicated that he would be content for the matter to be decided on the basis of the papers already filed.

The application

- 4 The application relates to an article of furniture that can be converted between a sofa and a bed. An embodiment according to the invention is shown in the following figure.



- 5 It is generally agreed that there are two main aspects to the alleged invention namely:
- 1) that the frame of the sofa-bed is entirely enclosed in a filling material (20) and
 - 2) the upper seat section has a first position in which the arms (6) on the upper seat section define arms of the seat, and a second position in which the arms of the upper seat section becomes legs.
- 6 The latest claims are those incorporating amendments filed by the applicant on 24 November 2004 in response to the first substantive examination report. These include a main claim, claim 1, twelve claims dependent on claim 1 and an omnibus claim. Claim 1 reads as follows:

A sofa-bed comprising: a frame entirely enclosed in a filling material, the frame including an upper seat section, a lower seat section and a back section, the frame having a first seat position in which the upper seat section overlies the lower seat section and arms on the upper seat section define arms of the seat, the frame having a second recliner position in which the upper seat section is folded over onto a floor, the arms of the upper seat section becoming the legs of the recliner and resting on the floor.

The law

- 7 The examiner has argued that the invention does not involve an inventive step. The relevant part of the law is Section 1(1) which states that:

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

- (a) it is new
- (b) it involves an inventive step

8 Section 3 further provides that:

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).

9 For reasons that will become apparent, section 2(1) is also considered relevant. This provides that :

2(1): An invention shall be taken to be new if it does not form part of the state of the art.

The state of the art

10 The original search on the application identified eight relevant documents all of which were published before the earliest date of the application in suit. No further documents have been cited by the examiner. None of these documents discloses all the features of the amended claim 1. Rather the state of the art can be divided into those documents disclosing a frame of the sofa-bed that is entirely enclosed in a filling material (feature A) and those disclosing chairs or sofa-beds having seat arms that become legs for the bed (feature B).

11 In his latest report, the examiner has cited three documents that he believes disclose feature A. These are WO86/02814 A1, EP 0220582 A and CH 557162 A. Of these I consider the first two to be the more relevant.

WO 86/02814 A1.

12 This document discloses a sofa-bed (1) having a frame, similar to that in the application in issue, enclosed within padding (3). There is no suggestion in this document of there being any arms. The frame does however have legs protruding from the lower part (6) of the frame.

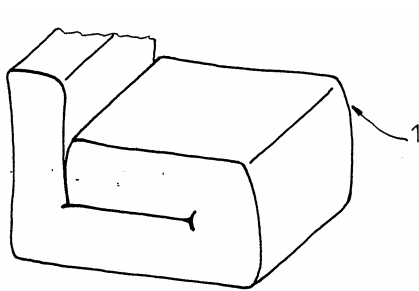


Fig 6

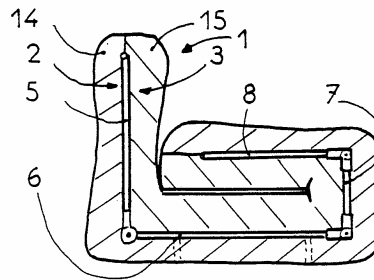
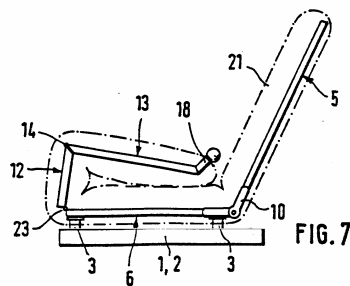
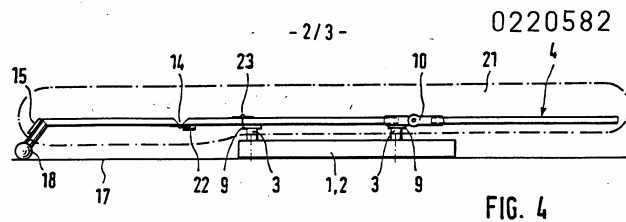


Fig 7

EP 0220582 A

- 13 This document again discloses a sofa-bed having a frame fully enclosed within padding (21). The frame of the sofa-bed is also similar to that of the particular embodiment in the application in issue. In addition an extension 18 attached to the upper part of the frame serves to support part of the frame when the piece of furniture is configured as a bed (fig 4).



- 14 Although the examiner has cited 4 documents to show that feature B is known I think it necessary only to describe 2 of these, namely US 4221428 A and GB 2006616 A. Both of these documents show chairs convertible to sofas wherein the arms of the chair (4) also serve as legs for the bed. Neither however teaches entirely enclosing the frame within padding.

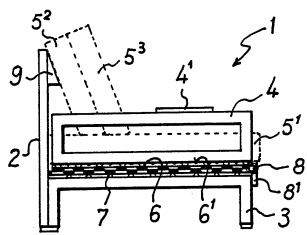


FIG. 1

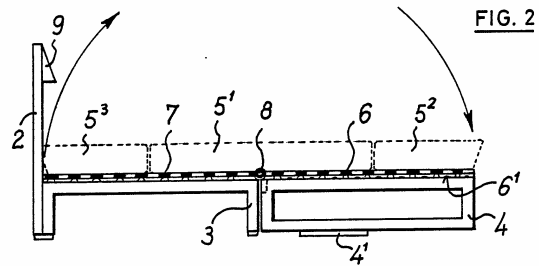


FIG. 2

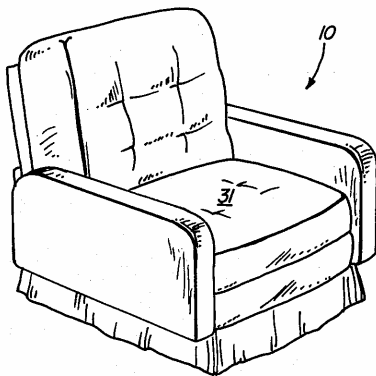


FIG. 1

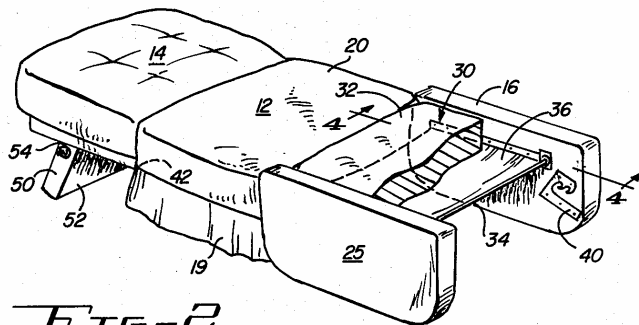


FIG. 2

Arguments

- 15 The examiner has argued that the invention as claimed is merely a combination of known features each of which is performing its own function independently of the other. In other words the two features do not interact upon one another to give a synergistic effect. According to the examiner it therefore follows that the juxtaposition of these two known features in a single item does not involve an inventive step. The examiner in his arguments has referred to two authorities. These are the recent decision of the House of Lords in *SABAF SpA v MFI Furniture Centres Ltd* [2005] RPC 10 and the much older case of *British Celanese Ltd v Courtaulds Ltd* [1935] 52 RPC 171. He has also referred to the Examination Guidelines of the European Patent Office (EPO)¹. I will come on to those shortly.
- 16 For his part the Applicant argues that it would not be obvious to combine the teachings of the various prior art. In particular the disclosures in these documents do not lend themselves to the combination claimed which is more than a mere collocation, without further invention.

¹ Guidelines for Examination in the European Patent Office at http://www.european-patent-office.org/legal/gui_lines/pdf_2005/index.html

The invention

17 Before any investigation as to patentability can begin it is necessary to determine what the invention is. The applicant has asserted in his response to the first examination report that the invention resides in a combination of features A and B. The application as filed clearly also had this combination at its heart.

18 But the mere fact that two features are combined in one item, in this case a sofa-bed, does not mean that they relate to just one invention. As Lord Hoffman noted in *SABAF*:

“Two inventions do not become one invention because they are included in the same hardware. A compact motor car may contain many inventions, each operating independently of each other but all designed to contribute to the overall goal of having a compact car. That does not make the car a single invention.”

19 He then went on to the principle upon which you decide if you are dealing with a single invention or not. He states that:

“If the two integers interact upon each other, if there is synergy between them, they constitute a single invention having a combined effect and one applies section 3 to the idea of combining them. 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.”

20 He then applied this principle and concluded that the two features in the patent before him had no effect upon each other and that therefore he was dealing with two inventions. Each of these inventions had, he concluded, to pass the test laid down in section 3. Although Lord Hoffman confined his comments to section 3, and indeed found each of the two inventions lacking in that respect, it follows that each invention must also pass the novelty test of section 2.

21 In this case I need to consider whether the two features, A and B, do interact as the applicant claims.

Interaction between features A and B

22 In the response to the first examination report the applicant argues that the two features do interact. He argues that because the frame is entirely enclosed by filling material that material can act as a cushion in both positions of the upper seat section. This means it is not necessary to lift off, or rearrange, cushions or a mattress. I am not sure that this argument really goes to the question of interaction as it appears to just describe the benefits arising from one of the features. The arrangements in WO86/02814 A1 and EP 0220582 A would also have this advantage yet neither disclose feature B. In other words features A and B do not interact to bring about this advantage rather the advantage comes from feature A alone.

23 In the response to the second examination report the applicant again refers to the advantage of not having to remove or rearrange cushions. He also suggests that enclosing the frame entirely in filling material results in a

comfortable seat when the upper seat section is in the first position and a comfortable bed when the upper seat section is in the second position. Again it seems to me that this added advantage, if indeed it is a real advantage, also arises from feature A on its own rather than as the result of any interaction between the two features.

24 In the same letter the applicant goes on to suggest that having a seat portion significantly raised from floor level is more suited to sitting comfortably and similarly, a bed significantly raised from floor level is more convenient. That may well be the case however these advantages appear to be derived from the presence of feature B rather than through any interaction between the two features. Again both US 4221428 A and GB 2006616 A would have these advantages yet neither shows feature A.

25 In his final response, the applicant argues further that the two features are:

“clearly connected; the height of the bed, chair, the height of the chair seat and the height of the arms above the chair seat, all of which are critical to the design are dependent on the combination of the dimensions of the arms and the thickness of the filling material. Thus the nature of the arms is entirely dependent upon and related to the fact that the frame is enclosed in filling material and those two features have a combined effect”.

26 If there was such a close relationship between the sizes of the various components then I would have expected it to have been brought out in the application. There is some discussion on the need to ensure that the frame is able to fold inside the filling material. This is facilitated in the application and in WO86/02814 A1 and EP 0220582 A by the incorporation of link piece (item 8 in figure 2 of the application shown above) between the upper and lower frame sections.

27 In respect of the size of the arms, the description merely notes that:
“The arms may be of any desired shape or size consistent with their use as supports for the upper seat section when the upper seat section is in the rectilinear position; for example, they may be upholstered and may be much bulkier than the arms shown in the drawings”.

28 It seems to me that in any device that seeks to incorporate a number of features, there is always the need to ensure the individual features are able to operate as intended. For example it was necessary to ensure that each of the two features at the heart of the *SABAF* case was able to operate as intended when they were incorporated into a gas hob. This would have required consideration of the relative sizes and configurations of the two features. This was however not enough to save the two features from being considered as separate inventions.

29 It is possibly easier to demonstrate this by considering the example that the EPO Guidelines use to demonstrate an association or juxtaposition of known devices. This example refers to a machine for producing sausages consisting

of a known mincing machine and a known filling machine disposed side by side². The mincing machine and the filling machine are in effect connected to each other. The filling machine can also be said to be dependent on the mincing machine. For example it will clearly be necessary to ensure that the output of the mincing machine is consistent with the filling rate of the filling machine. The two features also “combine” to produce sausages. But the “combined effect” is merely what you would expect from putting together two such machines each operating as it would on its own. In other words there is no synergy. It is not sufficient therefore for the applicant to say, as he appears to be saying here, that there is interaction because if the filling material is significantly thicker than the height of the arms/legs then the arms/legs will not be able to function as arms/legs. This is akin to saying that if the output of mincing machine is too great for the filling machine then the sausage making machine would not work and that therefore there is a relationship between the two features. I do not believe that this type of consideration demonstrates interaction. Rather it is the basic sort of consideration that is necessary when you juxtapose any two features into a single item.

- 30 If however there are real technical difficulties in incorporating the two features into a single item of furniture which required invention to overcome then this would point to something more than a mere juxtaposition of features. The applicant has suggested this might be the case, not in the application but in a response to one of the examination reports. In particular he has argued that it is not possible to simply combine the teachings of the documents referred to by the examiner to produce the article of furniture of claim 1. For example, any arms added to the chair in WO86/02814A1 would need to rise well above the cushions in the seat configuration in order to be effective. Then, it is argued, in the bed configuration they would lift that part of the bed well clear of the floor and so the other legs of the furniture would also have to be of similar height. But adding such legs would then make the seat much too high in the seat configuration. He goes on to argue that it is not simply a case of taking the features of one set of documents that show one of the features and adding a feature known from the other set in a mere collocation; doing that results in an impractical piece of furniture and would not be an obvious step. In practice the article of furniture has to be redesigned in order to accommodate both features.
- 31 I am not persuaded by this argument. As the application itself makes clear, the arms may be of any desired shape or size consistent with their use as supports for the upper seat section. As can be seen from the embodiment of US 4221428 A shown above, there is no requirement for them to extend well above the padding or cushions. Furthermore as the application also makes clear, the attachment of arms and legs to a frame entirely enclosed with padding is straightforward. A person skilled in the art would have no difficulty in attaching arms that can also serve as legs to either of the pieces of furniture set out in WO86/02814 A1 or EP0220582 A.
- 32 The application simply does not support the proposition that combining the two

² Ibid. Chapter IV Annex Paragraph 2.1

features is anything other than straightforward. It certainly doesn't suggest that any invention is necessary in that respect. Neither the application nor the arguments of the applicant convinces me that there is any interaction between the features of the invention.

- 33 Following the reasoning in *SABAF*, I must conclude that the application relates to two separate inventions, namely invention 1 comprising feature A and invention 2 comprising feature B. I must consider each of these in turn applying to each invention the individual tests for patentability. Although the examiner has argued on the basis of lack of inventive step, it is perhaps more appropriate to start any consideration with the question of novelty. If an invention is shown to be lacking in this respect then it is not necessary to consider the question of inventive step.
- 34 I would perhaps comment in passing that I was surprised that Lord Hoffman did not address the issue of the novelty of the two inventions in the *SABAF* patent since neither of the features appeared to be new.
- 35 Nevertheless if I consider the novelty of the two inventions in this application it is clear that neither is new. Invention 1, namely that the frame of the sofa-bed is entirely enclosed in a filling material is clearly anticipated by either WO86/02814 A1 or EP 0220582 A. Invention 2, namely that the upper seat section of the sofa has a first position in which the arms define arms of the seat, and a second position in which the arms become legs is also clearly anticipated by either US 4221428 A or GB 2006616 A. Therefore both inventions fail the test of novelty.
- 36 I am conscious that in relying on a lack of novelty in cases such as this I am possibly departing from the approach previously taken. But this approach is the logical conclusion of the *SABAF* judgment which is a judgment I am bound to follow.
- 37 I am also aware that the possibility of finding that the application relates to two separate inventions each of which lacks novelty is not something on which the applicant has had an opportunity to comment. I did consider inviting further submissions from the applicant on this point but concluded that that was not necessary. This is because I believe that the key question in this case is whether there is any interaction between the two features. On this issue, the applicant has made full use of the ample opportunities given to him to comment.
- 38 Having found that there is no such interaction; I was bound to refuse the application irrespective of the whether I followed the *SABAF* approach or the approach that was used prior to *SABAF*. Under the latter approach I would have also refused the application but on the basis that the combination was obvious rather than because the application related to two inventions each of which was known. This I believe is how the application would still be treated under the EPC as I shall now try to demonstrate.

Likely EPO approach to this application

- 39 The EPO Examination guidelines state that objection of lack of unity (of invention) does not arise because of one claim containing a number of individual features, where these features do not present a technical inter-relationship (i.e. a combination), but merely a juxtaposition³. The guidelines go on to clarify the difference between a combination and juxtaposition:

A set of technical features is regarded as a combination of features if the functional interaction between the features achieves a combined technical effect which is different from, e.g. greater than, the sum of the technical effects of the individual features. In other words, the interactions of the individual features must produce a synergistic effect. If no such synergistic effect exists, there is no more than a mere aggregation of features.⁴

- 40 Therefore assuming that the EPO also found no inter-relationship or interaction between features A and B in the claimed invention then they would not treat A and B as separate inventions. Rather they would go on to consider what they refer to as the obviousness of the aggregation. Guidance on this next step provides that:

The invention claimed must normally be considered as a whole. When a claim consists of a "combination of features", it is not correct to argue that the separate features of the combination taken by themselves are known or obvious and that "therefore" the whole subject-matter claimed is obvious. However, where the claim is merely an "aggregation or juxtaposition of features" and not a true combination, it is enough to show that the individual features are obvious to prove that the aggregation of features does not involve an inventive step.⁵

- 41 Therefore the EPO would refuse the application as an aggregation that does not involve an inventive step. This approach bears some similarity with what has loosely been called in the UK the "law of collocation" and which was perhaps best set out by Lord Tomlin in *British Celanese Ltd* where he states that:

"a mere placing side by side of old integers so that each performs its own proper function independently of any of the others is not a patentable combination, but that where the old integers when placed together have some working inter-relation producing a new or improved result then there is patentable subject-matter in the idea of a working interrelation brought about by the collocation of the integers."

- 42 Does it matter that the EPO and the UK now appear to adopt different approaches? This would not be the first time that the approaches taken by EPO and UK have differed and I suspect it will not be the last. What is important however is that the outcomes of the different approaches remain the same and as I have shown this would be the case here.

3 Ibid. Chapter III Paragraph 7.5

4 Ibid. Chapter IV Paragraph 9.5

5 Ibid. Chapter IV Paragraph 9.5

Conclusion

- 43 I have found that the application relates to two inventions. I have considered each invention in turn and found both to be lacking in novelty. I have looked carefully through the application but have been unable to identify anything that might support a patentable claim. I therefore refuse the application under Section 18(3) on the grounds that the claimed invention is excluded under section 1.

Appeal

- 44 Under the Practice Direction to Part 52 of the Civil Procedure Rules, any appeal must be lodged within 28 days.

P J Thorpe
Deputy Director acting for the Comptroller