



PATENTS ACT 1977

APPLICANT Philip Nixon

ISSUE Whether patent application number
GB0611220.5 complies with section
1(1)(a) and 1(1)(b).

HEARING OFFICER P Marchant

DECISION

Introduction

- 1 Patent application number GB0611220.5 was filed by Mr Philip Nixon on 8 June 2006. It concerns a “furniture raiser leg clamp” for raising the height of a piece of furniture. The furniture leg is received in a cup shaped portion of the device and the invention relates to the form of the clamping screw for clamping the leg in the cup.
- 2 The examiner cited prior patent specifications which he considered demonstrate that the invention is not new and does not involve an inventive step. The applicant argued to the contrary and the matter came before me at a hearing on 17 June 2009 at which the applicant was represented by Mr William Jones assisted by Jeffrey Morris of ip21 Ltd.

The invention

- 3 According to the specification it was already known in the prior art to provide a furniture raiser consisting of a cup to receive the furniture leg in which a clamping screw located in the wall of the cup could be screwed in to hold the leg in place. The present invention consist in providing a “button” on the end of the screw so as to more firmly clamp the raiser to the leg while minimizing any damage caused to the leg by the screw.
- 4 The claims have been amended during prosecution. The version considered at the hearing was filed on 10 September 2008. Claim 1 reads:

1. A furniture raiser incorporating a leg clamp having a clamp screw whose leg-contacting end carries a clamping button for contacting a furniture leg in use as the screw is driven home to clamp the leg against a wall of a cup in which the leg, in use, is supported, the clamp thereby spreading the force on the leg, and the button and the cup walls being free of any substantial protrusion so as to minimize wear to the surface of the leg.

- 5 Claims 2 to 4 define buttons having surfaces shaped in a particular way to engage with the leg, claim 5 requires the button to be a loose fit on the screw end, and claim 6 relates to a button constructed with supporting webs.

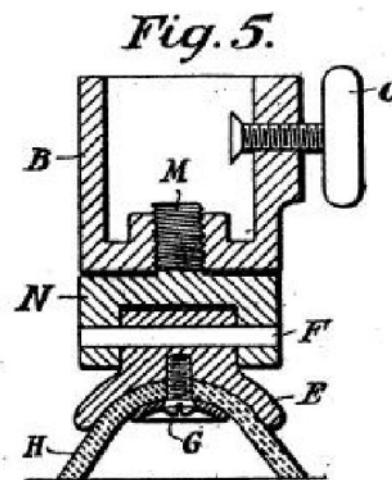
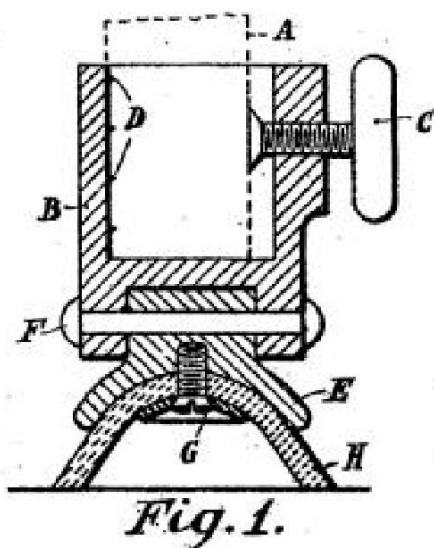
Amendments offered to the claims

- 6 The examiner cited GB141199 as a prior disclosure which he says demonstrates that the invention lacks novelty. He also cited GB 2323274 which in his view, taken together with the common general knowledge, shows that the invention lacks an inventive step.
- 7 I make my finding on those issues below but before doing so I should say a word on the purpose of hearings. Having presented his arguments on novelty and inventive step, Mr Jones offered to make limiting amendments to the claims, evidently in order to render them valid in relation to the prior art. I asked a number of questions at the hearing to test Mr Jones's arguments but I did not get the impression that the proposed amendments were in response to the issues raised by my questions. On the contrary, Mr Jones seemed to have arrived armed with them.
- 8 I observe that the purpose of a hearing is to provide an applicant with the opportunity to have his arguments considered by a senior officer of the Intellectual Property Office where an impasse has been reached with the examiner in the normal course of prosecution. In a situation such as the present one where the applicant is prepared to make amendments to meet the examiner's objections, it is not appropriate to request a hearing. Hearings are expensive and time consuming and it is a waste of everyone's time for an applicant to come to a hearing in the expectation of offering amendments that could just as easily have been made in a letter to the examiner.
- 9 I set out the amendments as proposed by Mr Jones in an Annex to this decision. I did not consider them in detail at the hearing. They are such that they may or may not result in acceptable claims. In any event they will need to be considered by the examiner to assess them in relation to validity, and also to decide whether further searching is needed, to exclude the possibility of added subject matter and generally to continue the examination. I am therefore remitting the application to the examiner for consideration of the proposed amendments. Nevertheless I explained to Mr Jones that I would decide the present validity issues in relation to claim 1 as it stands to give some guidance as to further

processing of the application.

Novelty

- 10 The requirements for novelty are set out in sections 1(i)(a) and 2 of the Patents Act. I do not need to rehearse the provisions here or any of the particular issues that have been raised in the authorities from time to time since they are well known and nothing of note arises in the present case. I will simply assess whether the cited prior art falls within the terms of claim 1 and therefore anticipates it.
- 11 The invention in GB141199 consists of a construction for receiving and clamping the lower ends of "ladders, scaffolding poles or the like" in order to provide a secure footing. I reproduce figures 1 and 5 below. The examiner takes the view that in the absence of any particular definition in the specification as to what is meant by the term "furniture raiser" this device is suitable for raising furniture just as it is suitable for providing a secure footing for ladders, and consequently that it falls within the scope of the claim. He says that what makes it a "furniture raiser" is that it is functionally suitable for raising furniture even though it may be described in other terms. The applicant has conceded this point and I agree that the devices described in GB141199 fall within the claim in this respect.



- 12 A "clamp screw" as required by claim 1 is shown at "C" in each of the figures. It is shown carrying what can be described as a "clamping button" at its leg-contacting end. The clamping screw and button arrangement fulfils the requirement in claim 1 that the clamping button is "for contacting a furniture leg in use as the screw is driven home to clamp the leg against a wall of a cup in which the leg, in use, is supported, the clamp thereby spreading the force on the leg".
- 13 The claim goes on to require that "the button and the cup walls [are] free of any substantial protrusion so as to minimize wear to the surface of the leg. It will be seen that the figure 1 embodiment is provided with projections on the inside of

the cup opposite the clamping screw. They are described in the specification as “spikes” or “roughnesses formed in the side of the socket so as to hold the side rail firmly”. Consequently this embodiment does not fall within the wording of the claim. Figure 5 on the face of it does not have any projections in the socket and, having all the other features of claim 1, at first sight seems to anticipate. However, Mr Jones had a number of arguments as to why this does not amount to a disclosure of a prior art arrangement falling within the words of the claim.

- 14 A preliminary question to address is how the specification of GB141199 should be interpreted. GB141199 consists of one “complete” and three “provisional” specifications. Mr Jones discusses in his letter of 3 September 2008 whether the teaching of GB141199 should be assessed in relation to the whole document including the three provisional specifications and the complete specification or in relation to the complete specification alone.
- 15 The application for GB141199 was made in 1919 under the Patents and Designs Act 1907 which allowed an applicant to file a provisional specification containing an initial description of the invention, and later on in the process to file a complete specification containing a full description. Mr Jones could not point me to any authority on interpreting the disclosure as between provisional and complete specifications and I am not aware of any myself. In my view the patent document should be read as a whole. It is after all published with the complete and provisional specifications placed together as a single document under a heading consisting of the patent number and with the overall title “Patent Specification”. It is clear that the provisional and complete specifications relate to one and the same invention; the provisions of the 1907 Act oblige them to do so - see for example sections 6 and 16. It also appears to be the intention of the applicant that the various specifications be taken to be complementary since the provisional specifications contain material not in the complete specification. The patent document is physically and logically a single document. For these reasons, I think that the whole specification consisting of provisional and complete specifications must be taken to be a single document and its disclosure considered in its entirety.
- 16 Mr Jones’s first argument is that the figure 5 embodiment does in fact have projections even though they are not shown in the figure. This is based primarily on the proposition that the skilled person would read only the complete specification in relation to figure 5. However, as I have said I consider that the disclosure needs to be assessed as a whole. Mr Jones does have a back-up position based on the skilled person reading the whole specification.
- 17 The provisional specifications contain a number of references to the provision of spikes. Some of them say that spikes “may be” provided and some of them say that spikes are provided. Mr Jones subjects this to some detailed analysis and takes the view that the skilled reader would find ambiguity in the description of some embodiments but find that the only certain interpretation would be that spikes are indubitably provided in embodiments 1 to 3. Consequently, Mr Jones takes the view that the skilled person would interpret figure 5 as a depiction of an embodiment which does in fact have spikes even though they are not shown in the figure.

- 18 His argument continues: The lack of any depiction of spikes in figure 5 is due to the fact that figure 5 is intended to demonstrate only the modifications allowing the raising or lowering of the cup by extending or retracting screw M, and that consequently the illustrator has not taken the trouble to depict the spikes shown for example in figure 1 even though they do form part of the embodiment. Alternatively, the spikes are not shown because figure 5 is a cross section and the spikes are on the part of the wall not depicted in the cross section.
- 19 My view of the teaching of the specification is that the skilled reader would take the explanation that spikes “may be” provided at face value and interpret the specification as a whole accordingly. I don’t think the expression “may be” is negated or rendered ambiguous in some way by other descriptions of spikes being provided in some variations. I believe the skilled person would understand that “may be” means that in some cases spikes are provided and in some cases they are not. It seems to me that it goes without saying that this is consistent with the description of some cases in which spikes are provided. It is also consistent with the description being silent about spikes in situations where none are intended. I observe that the claims of the cited patent do not require spikes or roughnesses; they would presumably have done so had this been an essential feature of the invention. I consequently consider that the skilled reader would understand that spikes may or may not be provided in devices produced according to the invention. The skilled addressee would therefore be open to the possibility that the figure 5 embodiment might or might not involve spikes.
- 20 My view of Mr Jones’s argument; that the figure 5 embodiment does involve spikes but that they are not shown in the figure is that the skilled reader would not entertain this as a probable interpretation. The size, quality and detail, of figure 5 and its cross-sectional character and the plane of the cross-section are precisely the same as they are of figures 1 and 3. Figures 1 and 3 show spikes and figure 5 does not. I do not think the skilled person would consider figure 5 to show an embodiment which is intended to be provided with spikes but in which they have been omitted from the figure for example to save effort in drawing, to focus attention on the other aspects of the variations shown in the figure or because it is a cross-section. On the contrary, I would expect the skilled person to interpret figure 5 as equivalent to figures 1 and 3 and to interpret it as depicting an example without spikes.
- 21 I consequently reject the argument that the figure 5 embodiment discloses the use of spikes or roughnesses within the socket but that the figure omits to depict them. I find that the teaching of the specification is that spikes or roughnesses are optional and that figure 5 is an example of an embodiment which does not employ them.
- 22 In a second argument, Mr Jones says that the screw M, and its surrounding boss forms a protrusion contrary to claim 1. Claim 1 requires that the furniture raiser should have no protrusion in the cup wall. Mr Jones says that the cup wall can include the floor section of the cup on the basis that a hollow object can have its enclosure referred to as a “wall” regardless of orientation. While that may be true in general I don’t consider that it applies in the present circumstances. The

claims requires “*the button and the cup walls [to be] free of any substantial protrusion so as to minimize wear to the surface of the leg*” In my view this must be interpreted to mean that protrusions are excluded where they would cause wear to a surface of the leg involved in the interaction between the clamping button, the cup wall and the leg. I do not consider it can relate to the protrusion in the floor of the socket in figure 5 of GB141199.

23 Mr Jones’s third argument was that the embodiment of figure 5 does not operate in the way described, would be rejected by the skilled person as unworkable, and would therefore be disregarded. The teaching of the specification is to fix a device such as that shown in figure 5 to each leg of a ladder and then to operate the screw M so as to extend or retract the lower section of each device and thereby adjust its height. This allows the user to compensate for a slope or unevenness in ground level by adjusting the device on each of the legs to a different height. Mr Jones said that would not work because once a device was attached to the foot of a ladder it is not possible to operate the screw M. I do not agree. It seems to me that it would be quite feasible for the screw to be operated by the user rotating the lower part of the device. I put this to Mr Jones at the hearing and he accepted that it would be possible. I consequently find that this argument has no force.

24 In summary I find that the specification of GB141199 must be read as a whole; not just the complete specification. I do not agree with Mr Jones’s argument that there is any ambiguity in the teaching of the specification as to the provision of spikes or roughnesses in the socket - it is clear that they may (or may not) be provided. I find that the disclosure in relation to the figure 5 embodiment is of a socket without spikes. I do not consider that the screw and boss in the floor of the figure 5 socket falls within the terms of claim 1, nor that the figure 5 embodiment would be considered not to work and therefore be disregarded by the skilled person. I consequently find that the figure 5 embodiment of GB141199 anticipates the present invention as set out in claim 1. I have not gone on to consider the dependent claims for the reasons set out in paragraph 9 above.

Inventive step

25 The examiner has cited one of the present applicant’s own patent specifications, GB2323274 as prior art. This discloses a furniture raiser comprising a cup for receiving the leg of a piece of furniture and a screw clamp for clamping the leg against a wall of the cup. The cup walls are free of protrusions. The specification does not disclose a button on the end of the screw however. The examiner asserts that it is part of the common general knowledge of the skilled person to provide buttons on the end of clamping screws and has provided examples of a wide range of clamping screws with buttons to support this view. I will list them. They include a “G” clamp, a clamp for mounting a vice, two clamps for mounting table-tennis nets, a device for cracking nuts or for “normal clamping purposes”, a clamp for fixing a table cloth to a table, an arrangement for fixing a hand-grip to a bed frame, and a device for clamping a shelf or lamp to a desk. The examiner asserts that it would be quite obvious and require no degree of invention for the

skilled person to provide a button on the end of the screw in the prior arrangement of GB2323274. He has consequently reported that the invention does not involve an inventive step.

- 26 The applicant appears to accept that it is well known to provide clamping screws with buttons to spread the clamping force but does not agree that that renders the invention obvious. He says that the examples provided all involve clamping screws that would damage the surfaces of the structures to which they are attached which is precisely what the present invention is seeking to avoid.
- 27 The provisions in relation to the requirement for an inventive step are set out in sections 1(1)(b) and 3 of the Patents Act. Guidance on the approach to assessing inventive step was provided by Jacob LJ in *Pozzoli SPA v BDMO SA* [2007] EWCA Civ 588. Jacob LJ proposed in paragraphs 14 to 23 a slightly modified approach to that from the *Windsurfing* case which had been applied for many years previously. The modified approach involves the following steps: 1(a) Identify the “person skilled in the art”; 1(b) Identify the relevant common general knowledge of that person; 2 Identify the inventive concept of the claim in question, or if that cannot readily be done, construe it; (3) Identify what, if any, differences exist between the matter cited as forming part of the “state of the art” and the inventive concept of the claim or the claim construed; and (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?
- 28 Neither the examiner nor Mr Jones in his letters or at the hearing undertook an explicit assessment along the lines proposed in *Pozzoli*. That may be because the question which needs to be addressed in relation to inventive step in the present case is so clear that it is superfluous to do so. Nevertheless it is as well to ensure that the invention is considered from the point of view of the skilled person and the state of the art before the invention was made, which is the reason for using a systematic approach such as that in *Pozzoli*, and I can do so fairly briefly.
- 29 The person skilled in the art at the priority date will be a skilled technician familiar with furniture construction, familiar with devices for adjusting the height of furniture and familiar with the surrounding technical and engineering fields relating to such devices. This person will be aware of a wide range of common general knowledge in these fields, but the only point of relevance to the present discussion is whether his common general knowledge includes the provision of buttons on the end of clamping screws. I am sure that it does; the feature is so commonplace that anyone with any technical knowledge will be able to bring to mind examples of clamping screws used in various everyday articles which use buttons on the end to spread the load. When presented with this question (and before having seen the cited prior art) I immediately thought of woodworking “G” cramps, a table tennis net bracket and an ironing flex support that I use at home. I should say that these all date from many decades before the priority date of the patent. The person skilled in this art will be even more alive to this feature than the technically aware lay person. With ubiquitous and ever present examples covering a wide range of uses, I am prepared to say without the benefit of expert

evidence that the use of buttons on screw clamps would be within the common general knowledge of the skilled person. I do not think Mr Jones disagrees. He says in his letter of 3 September 2008: "We do not disagree with the opinion that the *general* principle of basing a pressure-spreading end disk on the end of a clamp screw is well known and widely applied...". He said much the same at the hearing.

- 30 Following the *Pozzoli* steps, the inventive concept is the provision of a button on the end of a clamping screw provided for the purpose of tightening against the leg of a piece of furniture in a furniture raiser. GB2323274 is the cited prior art, and the difference between it and the invention is the provision of a button on the end of the clamping screw.
- 31 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? Screw clamps were and are ubiquitous for a wide range of purposes. It was commonplace and part of the common general knowledge to provide buttons on the end of screws to improve the clamping performance and reduce the penetration of the screw into the material of the support. In my view it would be obvious to make this provision and would not require any degree of invention to do so. The only thing that might prevent this being the conclusion would be if the inventor had had to overcome some prejudice in the art to the use of buttons on clamp screws in the particular circumstances of the invention. There has been no argument that that is the case and I do not think it is.
- 32 Mr Jones has said that none of the prior art examples cited by the examiner would lead the skilled person to modify the arrangement of GB 2323274. I don't think that addresses the point. There is no dissent that the use of buttons on clamping screws generally is common general knowledge. It was scarcely necessary for the examiner to do so but the examples he cited support that assertion. The skilled person made aware of the prior art specification will immediately realize without needing to make an invention that the arrangement will operate better if it is provided with a button on the end of the screw. It makes no difference what particular uses the buttons in the prior art examples are intended for, the effect is the same in every case, to spread the clamping force and thereby improve the clamping performance and reduce the penetration of the screw into the material of the support. I do not find Mr Jones's argument persuasive.
- 33 I consequently find that the invention of claim 1 of the present patent application lacks inventive step in the light of GB2323274 and the common general knowledge. Once again I have not considered the subsidiary claims in view of the fact that I am referring the application back to the examiner for further processing.

Conclusion

- 34 I have found that the present claims lack novelty and inventive step contrary to

sections 1(1)(a) and 1(1)(b) of the Patents Act and for the reasons I have given above I am referring the application back to the examiner. I attach the amendments proposed by the applicant as an Annex to this decision. They are taken from the transcript of the hearing.

Appeal

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

P MARCHANT

Deputy Director acting for the Comptroller

Annex - Mr Jones's proposed amendments

MR. JONES: "No, I am happy to outline them. We can think of two possibles as alternatives. One is the one that stands out, and that is to come straight down to claim 6 which, I believe, has not been attacked by the examiner. That is possible amendment number one.

Possible amendment number two, which at this stage I would prefer on behalf of the applicant, is to incorporate into claim 1, after the words "a furniture raiser", the wording or equivalent wording, but it has to be tailored, from the first complete paragraph on page 2 of our specification, which refers to the closest prior art then known as being the applicant's own prior GB patent for a chair or bed raiser, and then it goes on: "...which comprises two end supports interconnected by a link." That, I believe, would give us unarguable novelty because the only one that satisfies that in Johnson is figure 3 and figure 3 is bristling with fierce spikes.

It would also satisfy an earlier objection of the examiner, which we have conceded. You say furniture raiser, Johnson says ladder support and for the purposes of this forum they are the same. It would then strengthen our argument on obviousness that in that then more tightly defined field, you would not go looking around the world for clamps etc.

Our preferred amendment, if you are going to refer it back to the examiner and we then canvass an amendment with him, would be that one. Claim 6 would be the less preferred one of the two."