

PROFESSIONAL STANDARDS BOARD FOR PATENT & TRADEMARKS ATTORNEYS

EXAMINATION FOR REGISTRATION AS A PATENT ATTORNEY

TOPIC GROUP H, OCTOBER 2002 INTERPRETATION AND VALIDITY OF PATENT SPECIFICATIONS

GENERAL REPORT

Extensive introductory comments have been provided in the General Report to candidates in the last few years, and it is strongly recommended again by the Examiners that candidates who failed this year read those as well as this report since many of the general issues raised previously continue to cause difficulty.

Candidates are reminded to read the question paper and accompanying documents thoroughly and carefully, and at an early stage to highlight in some way issues that they think may become relevant in answering the paper. In this way, important issues will hopefully not be overlooked. By way of example, not only did some candidates this year fail to identify the product of specification X as possible CGK, but a small number also did not consider it as a prior act. Clearly specification X itself was not prior art information, and most candidates picked this up.

Candidates were reminded in the question paper that marks are awarded more for the points selected for discussion and the reasoning displayed than for the conclusions reached. However, a few still attempt to deal quickly with the various issues, including the construction of the claims, without carefully analysing the various possibilities and explaining how a particular conclusion was reached in preference to any other.

While the prior art and infringement should not be positively referred to in the construction section of the answer papers, they should be borne in mind when the claims are being construed since they will help to identify the issues to be discussed. For example, it should have been apparent from the infringement Y that the phrase "and a cooperating formation associated with an opposed side wall of the other of the rib and groove" in claim 3 would need to be considered especially carefully.

The construction of the claims is intended to clarify exactly what each of the claims encompasses and excludes and is fundamental to the validity and infringement exercises. However, many candidates still just give a dictionary definition of a particular term and never put the term in context. Generally, it is these candidates who do not give, or appear to have, any indication of the overall scope of at least the independent claim(s). Often, with these candidates, it is still not clear to the Examiners after reading the full answer paper what the scope of the claims was understood to be.

Generally, this year candidates' handwriting was clearer than in previous years, but candidates are reminded to write their answers clearly, both from the handwriting point of view and from the phraseology point of view, and to leave sufficient time to check their answers.

A detailed commentary on the paper follows in the hope, once again, that it will help candidates in the future to better identify the type of issues that need to be discussed when considering the validity and infringement of a patent. It is emphasised that this commentary is not a model answer as there is very seldom only one way of dealing with an issue in the work of a Patent Attorney. It is also emphasised that not every point highlighted in the commentary needed to be identified in order to pass the exam. However, candidates must show the Examiner's that they have an acceptable understanding of the law on validity and infringement and an acceptable ability to apply the law.

PATENT A

The Invention

Many candidates began their answers by identifying the field of and the background to the invention and those whom they considered could be persons skilled in the art (PSA). This is considered to be a good approach given the importance of the PSA in many aspects of the validity and infringement exercises.

Most candidates correctly noted the statement that the invention relates to building blocks as well as to wall constructions, and noted in the section "Background to the Invention" the

emphasis on the strength of walls when subjected to transverse forces (clearly forces through the thickness of the wall) and the problems with providing traditional brick and mortar walls.

Possible options canvassed by candidates for the PSA include brick and building block manufacturers such as the client, civil, building and/or structural engineers, brick designers with engineering skills, architects, builders, skilled tradesmen such as bricklayers, and unskilled tradesmen. However, it is not apparent to the Examiners that specification A would have been directed to unskilled tradesmen or, probably, even skilled tradesmen. Architects and builders could possibly show that they have the requisite skills and usefulness to be the PSA, but the better candidates reasoned that brick and building block manufacturers and designers and/or relevant engineers were the most appropriate PSA. Bearing in mind particularly that the client is a prospective infringer, it would be highly advantageous for the PSA identified by candidates to be able to show that he or she could be reasonably expected to ascertain patent specifications, such as specifications B and C, for the purposes of Section 7(3). Many candidates correctly made a note of this in discussing the PSA.

Most candidates made a reasonably good effort to ascertain what the invention is from the description. This and a proper analysis of the main claim are an integral part of the Section 40 consideration of whether the claim defines the invention, i.e. is it fairly based. A few candidates analyse the description only under their Section 40 discussion, and no distinction was made in marking the answer papers between this approach and doing the analysis separately, provided the issues were properly covered. One candidate dealt with the fair basis issue before construing the claims, and this is clearly an incorrect approach.

A few candidates dealt with fair basis issues very quickly by noting that claim 1 is identical to the statement of invention at page 2 lines 8 to 11, and concluding therefore that the claim must be fairly based. Not only does this approach overlook the presence of claim 7, but also an integral part of determining what the invention is from the description requires a consideration of the description as a whole.

With regard to the wall construction, an important point to note is that the object clause specifically states that the invention is such that no mortar is required between adjacent rows or courses of the wall to secure the blocks one to another. Thus, it might be imagined that the invention would provide some system for connecting the building blocks vertically.

However, the statement of invention merely states that a plurality of building blocks are laid in superposed horizontal rows, with adjacent blocks being interlocked by a rib and groove arrangement between the blocks. Possibly the interlocking of adjacent blocks by a rib and groove arrangement could mean between vertically adjacent blocks, but there is no basis at all for this elsewhere in the specification.

Page 2 line 14 suggests that adjacent rows of blocks may be tied together by reinforcing rods, but there is no reference in the "Brief Description of the Invention" of the preferred embodiment in which each block is interlocked with two adjacent blocks by locating alternating half blocks in the first row and thereby providing staggered horizontal rows.

As noted above, several candidates did not notice this issue at all, while several others noted the object clause but did not apply it to their interpretation of the invention. The better candidates concluded that side-by-side adjacent blocks are interlocked by the defined rib and groove arrangement but that, in addition, the invention requires the superposed horizontal rows to be connected in some way without mortar. Two options are the staggered rows of blocks, as in the preferred embodiment, and tying the rows together by reinforcing rods. However, page 5 lines 21 to 24 suggest that the reinforcing rods may not be necessary in a relatively low-height wall construction.

A further issue for identifying the invention from the description is what is meant by the phrase "wherein adjacent blocks are interlocked by a rib and groove arrangement between the blocks" in the statement of invention.

Page 2 line 13 makes clear that the interlocking of the blocks provides strength to the wall in the transverse direction, and all candidates noted that in the preferred embodiment the adjacent rib and groove are interlocked with one another by appropriate formations on the rib and groove. However, not all candidates noted the slightly confusing statement on page 6 (slightly confusing due to mixed-up terminology) to the effect that the cooperating formations on the rib and groove could be omitted altogether whereby the blocks could be displaced away from each other in the plane of the wall but still provide interlocking of the blocks transversely of the wall. This statement was considered to be particularly important in reaching a correct conclusion that the scope of the invention extended to mere engagement of the rib of one block in the groove of the adjacent block.

Similarly, the statement at page 2 lines 20 to 22 should have made clear to candidates that only in a preferred embodiment does the rib and groove arrangement interlocking adjacent blocks comprise an elongate rib on one of the blocks interlocked with an open ended groove in the adjacent block. This was a hint that claim 2 may define something different to claim 1, that is that there is a difference between interlocking the blocks and interlocking the rib and groove.

Construction Issues

Once again, it is emphasised that the whole point of this part of the exercise is to determine what is the scope of the claims so as to enable conclusions to be reached on the validity and infringement issues.

Many candidates wasted a considerable amount of time by analysing every term in claim 1, and this tended to show that they were really not on top of the issues. Several of these candidates then did not carry out an appropriate construction of the remaining claims. Candidates must show to the Examiners that they are able to pick out issues that are relevant to the overall consideration of the validity and infringement of the claims, analyse those issues appropriately and come to a reasonable conclusion.

Most candidates who considered the term "comprising" reasoned that it was inclusive on the basis that other features, such as the reinforcing rods, could be included in the wall construction.

However, other than noting that claim 1 is directed to a wall construction, the first major issue in the claim is the scope of "superposed horizontal rows". The normal meaning of this phrase is merely that there are horizontal rows of the blocks, one atop the other, and this interpretation was preferred by the Examiners as the phrase appears to be clear. However, some candidates noted that, in a wall constructed from building blocks, it is implicit that horizontal rows of the blocks are superposed, suggesting that the phrase would be redundant unless "superposed" has a narrower meaning. The majority of these reasoned on this basis that the phrase required each block to be vertically aligned with only one other adjacent block above or below, as in the preferred embodiment. These candidates were rewarded for noting

the issue, but the Examiners' view is that the PSA would merely see the phrase "laid in superposed horizontal rows" a part of the generic explanation in the claim of a wall constructed of building blocks.

A few candidates considered that there was nothing in claim 1 to stop the phrase "adjacent blocks" covering vertically adjacent blocks and horizontally adjacent blocks. However, generally, these candidates noted that such an interpretation would probably leave the claim not fairly based as there is no support in the description for vertically adjacent blocks being interlocked by a rib and groove arrangement, and the majority of candidates determined that the phrase was ambiguous and thereby gave it the narrower interpretation of "horizontally adjacent blocks" on the basis of the overall disclosure.

The majority of candidates correctly concluded that the term "interlocked" in claim 1 only required the adjacent blocks to resist transverse forces and did not require the blocks to resist horizontal movement away from each other, but none of these candidates came to this conclusion on the basis of claim 2.

A few candidates provided dictionary definitions of "a rib" and "a groove" or "a groove arrangement" but this was not considered to be the correct approach. The phrase "a rib and groove arrangement" should be construed as a whole, and may be construed broadly as meaning any form of arrangement of a rib and groove between two adjacent blocks that provides resistance to transverse forces applied to the blocks. In the light of specifications B and C, it was particularly important to consider in claim 1 whether the rib in the rib and groove arrangement had to be integral. Although claim 4 is dependent from claim 2 or 3, not directly from claim 1, most candidates correctly concluded in the light of claim 4 that the rib of the rib and groove arrangement in claim 1 was not necessarily integral.

There were issues for construction in all of the other claims, and these as well as the dependencies of claims 2 to 6, should have been dealt with.

In claim 2, the term "elongate" presented difficulty to many. Several candidates concluded that the term meant the dimension of the rib away from the block, i.e. parallel to the length of the block, but omitted to note that this dimension of the rib in the preferred embodiment of specification A was shorter than all of the other dimensions. One candidate incorrectly

concluded that "elongate" did not require the particular dimension to be greater than the other dimensions, presumably in order to overcome this problem. To the Examiners, the phrase "elongate rib" is clear in meaning the length of the rib in the height direction of the block is greater than any other dimension of the rib.

Some candidates concluded that "projecting from" required the elongate rib to be integral with the end face of the one block, meaning that claim 4 is redundant or has been overlooked. Since claim 1 had already been construed to mean that the rib did not have to be integral, claim 4 could hardly be redundant.

Most candidates who had concluded that the adjacent blocks in claim 1 were side-by-side, were quickly able to distinguish the end faces of the blocks from the major front and rear faces, of which at least one would be exposed in use. However, for those candidates who concluded that "adjacent blocks" in claim 1 encompassed vertically adjacent, the Examiners do not agree that "end face" excludes a top or bottom face. Thus, the Examiners do not believe that claim 2 necessarily restricts the adjacent blocks to being side-by-side if claim 1 has been construed more broadly than this.

As noted above, the phraseology in claim 2 with regard to "interlocked" is different to that in claim 1, but no candidate picked this up. In claim 2 it is the elongate rib projecting from one of the blocks that is interlocked with an open ended groove in an adjacent block, not merely the blocks that are interlocked as in claim 1. Thus, in the Examiners' view, claim 2 should be construed to mean, broadly, that the interlocked blocks cannot move horizontally away from each other.

Several candidates had difficulty with the term "open ended groove", but this is considered to clearly mean that at least one of the ends of the groove (at the top or bottom of the block in the preferred embodiment) is open. The open end of the groove permits the rib and groove to be engaged in the preferred embodiment, when they cannot be engaged merely by moving the end faces towards each other as encompassed by claim 1 and shown in X.

Claim 3 is dependent from claim 2 and explains the interlocked rib and groove of that claim. The optional locations of the open ended recess and of the cooperating formation caused surprising difficulty for several candidates. According to claim 3, the open ended recess is

provided on either a side wall of the rib or a side wall of the groove. This being the case, the cooperating formation to interlock the rib with the groove by engaging the recess must be associated with an opposed side wall of whichever of the rib and groove the open ended recess is not provided in.

The real question in claim 3, in the light of the infringement Y, is what does "a cooperating formation associated with" mean. Candidates were roughly equally divided on whether or not the cooperating formation had to be integral with the opposed side wall of the other of the rib and groove. As usual, candidates were marked more for the discussion on this point than their conclusion.

Claim 4 has already been dealt with under claim 1, and most candidates noted that there is a lack of clarity in claim 5 in its dependency from any one of claims 1 to 4, since there is no antecedent for the elongate rib in claim 1. Candidates had a broad range of views as to what "substantially rectangular" meant but none stated the obvious, that the cross-section is generally rectangular but can include the open ended recess or recesses of the preferred embodiment (or the cooperating formation in that version of claim 3).

Claim 6 is dependent only from claim 1 and is interesting because at first glance it says nothing. Thus, for the rib and groove arrangement of claim 1 to provide the interlocking of adjacent blocks, the rib and groove must be able to be slid into the groove. Accordingly, either claim 6 is redundant or it means something more than is at first apparent. Reviewing the description, the corresponding statement at page 2 lines 16 to 18 does not help, but the description of the preferred embodiment at page 4 first paragraph (candidates should have noted the confused groove and recess terminology) uses the "slid into" terminology in relation to engagement of the rib from one end of the groove. Thus, the better candidates concluded that the compatible shapes of the rib and groove include, for example, the open ended recess and cooperating formation that interlock the rib and groove so that the rib can only be slid into the groove from one end.

A major issue regarding claim 7 is that it is an independent claim. The fact that it is identified as for use in a wall construction according to claim 1 does not make it dependent from claim 1, contrary to some candidates' interpretations. The phrase "for use" is important here.

Most candidates noted that the building block of claim 7 is formed of moulded masonry material, and the better candidates went on to reason that this meant the elongate rib of this block is integral.

Most candidates construed "end faces" as in claim 2, but only a few noted that the claim did not restrict the rib and groove to being on the end faces. Of course, for practical purposes, and arguably fair basis, at least one of the rib and groove had to be on an end face. Most candidates had no difficulty concluding that the rib and groove in claim 7 did not have to include the recess and cooperating formation to provide interlocking of the rib and groove themselves.

Section 40

As discussed above in relation to the statement of invention (which is identical to claim 1), the issue of whether claim 1 defines the invention or is fairly based in the light of the object clause and the requirement for the wall to be constructed using no mortar between rows of the blocks is a very real one. An additional issue in claim 1 is whether there is any basis in the description for the rib not being integral. Since there is no preferable statement in the description corresponding to claim 4 and the described embodiment only has an integral rib, there is a sound argument that claim 1 is also not fairly based in this respect.

All of the dependent claims would also lack fair basis if claim 1 fails under Section 40 for the "no-mortar" feature, and claims 2, 3, 5 (when not dependent from claim 4) and 6 would additionally fail if the integral rib is essential.

The question of whether claim 7 defines the invention also has to be considered, given that there is no statement in the description corresponding to the claim. However, broad basis for a claim directed to the building block is provided in the title, the field of the invention and the object clause. Nevertheless, since claim 7 also does not provide any determination of how the adjacent rows of blocks are secured to one another without mortar, claim 7 should be found lacking in fair basis if claim 1 has been for this reason.

Also to be considered is the question of whether each of the features claimed is disclosed in the description, and a discussion of at least claim 3 is required here. Claim 3 provides for the open-ended recess being on either of the rib and groove, but the description only provides support for the open ended recess on the rib. The issue of whether there is support for claim 7 being construed to mean that the open-ended groove and elongate rib can both be in the major faces has already been discussed.

Most candidates correctly raised the clarity of claim 5, as discussed above, under Section 40, and a few candidates also correctly noted that there was no real basis for questioning other aspects of Section 40, including sufficiency and whether the best method of performing the invention is described in patent A.

Novelty

Most candidates identified both the tests they were using to consider novelty issues and confirmed that the prior art documents B and C and the block of specification X ("product X" hereinafter) were available to the public (in Australia in the case of product X) before the earliest priority date of the claims in patent A.

Of those candidates that did not construe the phrase "superposed horizontal rows" narrowly, most correctly concluded that the public use of product X anticipated claim 1 on the basis that claim 1 was not restricted to an interlocking rib and groove. Those who concluded that "superposed horizontal rows" meant that each block had to be vertically aligned with only one other adjacent block above or below needed to be consistent and note that if product X had been used as described in provisional specification X, their use did not anticipate this feature.

Construed properly, claims 2 to 4 are not anticipated by the use of product X, notwithstanding the integral rib, because the rib and groove in the product X blocks do not interlock with each other.

The elongate rib of product X is substantially rectangular in cross section, so claim 5 would be anticipated by that use when claim 5 is dependent from claim 1 directly (if claim 1 is found to be anticipated).

If claim 6 is construed to mean that the rib and groove interlock, claim 6 will not be anticipated by the use of product X. However, claim 7 would clearly be anticipated by product X under all circumstances, given that the "for use" clause is not limiting.

On the basis that claim 1 encompasses non-integral ribs, claim 1 is anticipated by both specifications B and C. Those candidates who concluded that claim 1 of patent A encompassed interlocking of vertically adjacent blocks should also have noted that this is anticipated by specification C.

Most candidates also had no difficulty with claim 2 being anticipated by both specifications B and C, particularly as specification B discloses the successive engagements of a block, the connecting member and then the next block so that the rib and groove arrangement of B arguably more clearly discloses an elongate rib projecting from an end face of one of the blocks.

Claim 3 was construed to be anticipated by specification C by most candidates, but quite a few overlooked the second embodiment of Figures 4 and 5 in specification B in concluding that that specification did not anticipate the claim.

Most candidates correctly concluded that the "elongate rib" in specification C is substantially rectangular in cross section, but argued correctly in the view of the Examiners that this feature is not clearly shown in specification B.

The subject matter of claim 6 is clearly anticipated by both specifications B and C, whereas, to the contrary, the building block of claim 7 is not disclosed there, at least because of the lack of an integral rib.

Inventive Step

Happily, all candidates correctly dealt with the inventive step considerations under the Patents Act 1990, prior to the amendments incorporated by the Patent Amendment Act 2001. Only a few mentioned this, however, and hopefully all candidates understand the relevance of the changes.

This year, overall the candidates showed a generally better understanding of the law of inventive step. However, it is recommended that all candidates consider all of the viable potential inventive step issues even if they come to the conclusion that there is no common general knowledge on which to base the argument or no prior art information that they believe would satisfy the Section 7(3) considerations. One candidate this year concluded that as there was no positive evidence of common general knowledge in the paper, inventive step would not be considered further. Another reasoned that the PSA they had identified could not be reasonably expected to ascertain patent specifications, so did not consider inventive step under S 7(3). Particularly bearing in mind that the client in the paper is the potential infringer, for whom it is important to invalidate at least the infringed claims of patent A, these conclusions are highly questionable.

Most candidates correctly concluded that product X is likely to be common general knowledge but that evidence would be required of this. Most of these candidates correctly noted that product X had been manufactured and supplied to most parts of Australia for about five years before the earliest priority date of patent A, between 1990 and 1995. A few candidates incorrectly suggested that relevant common general knowledge would have built up over more than ten years, from 1990 to 2002.

Some of the better candidates correctly suggested that the brick and mortar masonry walls described in the background section of patent A might be common general knowledge, but all quickly concluded that this was not likely to be relevant to the inventive step question and considered it no further.

The better candidates also dealt with the question of inventive step in light of CGK in product X very quickly, on the same basis as their novelty considerations. Thus, if claims 1, 5 and 7 were found lacking in novelty in the light of X there is a very high likelihood that the same claims would have been obvious to the PSA at the priority date of A in the light of product X as CGK. There is then a question of whether claims 2 to 4 and 6 are inventive in the light of the product X as CGK alone. All of these claims are directed to the interlocking of the rib and groove and, without additional evidence to show that such interlocking was also part of the PSA's CGK at the priority date, the claims are likely to be considered inventive.

A more difficult question on inventive step in the light of the CGK in product X alone arose for those who concluded that claim 1 is restricted to each block being vertically adjacent only one other block above or below, since this is not a feature of specification X. Evidence would have to be led to the satisfaction of the Court for the Court to conclude that it would have been obvious at the priority date to go from the offset blocks of specification X (assuming that is how product X was used) to the vertically aligned blocks.

Candidates then needed to show that they know and could apply the Section 7(3) test as set out in the Patents Act 1990, prior to the recent amendments. Candidates needed to reason that B and/or C could be reasonably expected to have been ascertained, understood and regarded as relevant at the priority date by their PSA. They then needed to ask the obviousness question separately on the basis of product X as CGK combined with the disclosure of B and the same CGK combined with the disclosure of C. Essentially the same considerations apply for both of these questions given the similarity of the described systems.

For most candidates, claim 1 has already been concluded to be obvious in the light of the CGK in product X alone, and claims 2 and 3 were found to lack novelty in the light of each of specifications B and C. However, would claims 2 and 3 have been considered obvious to the PSA at the priority date of A in the light of the combination of the CGK in product X and B/C? The same question is whether the PSA would have found it obvious to apply the systems in specifications B and C for interlocking the rib and groove of product X. These questions did not have to be fully answered, but candidates should have dealt with the usual considerations of hindsight, long-felt want and so forth.

If claims 2 and 3 were not found lacking in inventive step in the light of the combination of the CGK in product X and the disclosure of B/C, claim 4 also could not be considered to be lacking in inventive step, because of its dependency from these claims, even though product X does have an integral rib.

On the interpretation of claim 6 given above, the inventiveness consideration for the claim on the basis of the CGK in product X and the disclosures of B/C is really the same as for claims 2 and 3.

Claim 7 has already been found lacking in inventive step in the light of the CGK in product X alone, so a consideration under S 7(3) was not necessary, especially as both B and C led away from the integral rib feature of this claim.

Infringement

The infringement consideration for claims 1 and 7 is quite straightforward although it had to be borne in mind that the client is only likely to be a contributory infringer of claim 1. The infringement consideration of claims 2 to 6 depends very much upon the interpretation given to the claims but, on the preferred interpretation given above, claim 2, claim 4 when dependent directly from claim 2, and claim 5 when dependent from claim 1, 2 or 4 (on claim 2) would also be infringed.

Candidates were relatively evenly split on whether or not claim 3 is infringed, and, as usual, marks were allocated more for the discussion than for the conclusion. In the Examiners' view, the dowel or plug of Y could be considered to be a cooperating formation associated with the opposed side wall. On the other hand, it is not clear to the Examiners that Y infringes claim 6 given the interpretation proposed above. Thus, the rib and groove in Y both have recesses in the opposed side walls so that the rib does not have to be slid into the groove from the open end of the groove. Instead, the rib and groove can be engaged by moving the blocks relatively in a horizontal direction, and the rib and groove are then locked together in Y by inserting the dowel or plug.

Amendments

The question paper requested candidates to briefly consider whether the owner of patent A might be able to correct any deficiencies that are identified. Clearly those amendments will depend upon the candidate's conclusion as to the deficiencies, but they should also bear in mind whether or not Y would infringe the potentially valid amended claim since this is what the client needs to know.

There is a possibility that the patentee of A could overcome the fair basis issue of the non-integral rib by amending the description, but a far better potential amendment in the light of the disclosure in A, B and C and the infringement Y is to amend claim 1 to specify that the

rib is integral. Depending upon the concluded inventiveness of claims 2 and 3, the only other amendment to claim 1 might be to incorporate the subject matter of claim 2. However, this will depend upon whether claim 1 is considered to satisfy the object clause. Obviously, if claim 1 needs to be amended to refer to the staggered horizontal rows of the blocks in order to satisfy the object clause, there would be no infringement of the claim by Y if it is used in the same manner as described in provisional specification X.

It is not clear that claim 7 could be amended to resolve the "no mortar" aspect of the object clause, but claim 7 could otherwise be amended to incorporate the subject matter of claim 3.

Furthermore, either claim 3 or the description requires amendment to bring them into line and claim 5 should be made dependent from any one of claims 2 to 4.

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