

## Examiners' Comments

P4 2009

### General comments

The P4 paper has the overall aim of testing the competencies expected of a patent attorney in preparing amendments of UK patent applications and providing arguments to sustain such amendments. In the exam, as in real life, a candidate must efficiently review and analyse a number of documents, make a reasoned choice of a strategy to adopt, and implement the strategy in a logical and coherent fashion.

The aim of these comments is to address specific issues raised in this year's paper so that candidates can understand what was required for a good pass, and also to make general observations based on some of the issues raised by the paper. Candidates are advised also to consult past years' examiners' comments since different papers may raise different issues.

This year's paper provided a relatively straightforward prior-art situation with two documents in the same technical field as the client's patent application ('the application'). In addition, the statement of invention in the introduction of the application and the client's letter provided clear pointers to an amendment that would overcome the novelty and inventive step objections whilst still covering the alleged infringement, and indeed the vast majority of candidates chose to make an amendment along these lines.

The paper was not intended to test a candidate's ability to identify an unexpected 'magic bullet' amendment buried in the application, nor to test a candidate's ability to redraft the claims to show off fancy drafting techniques. What was sought was a well-reasoned and well-executed piece of work that demonstrated a candidate's general competence.

The point about a decision being well-reasoned should be emphasised. A clear explanation of why a particular decision has been taken can help a candidate in the exam because it can demonstrate an understanding of the pertinent issues to the examiner (for which credit can be given) even if the decision itself was misjudged. But in real life it is especially important to explain the reasoning behind a decision (especially to a client) because to fail to do so could potentially expose an attorney and his firm to great risk.

Specific details of this year's paper will now be discussed, along with further observations specific to each section of the answer.

### Brief introduction to the paper

GB 0666666.6 ('the application') discloses a self-contained disposable toothbrush having an elongate recess in the handle and a reservoir of toothpaste sealed into the recess by a thin flexible membrane. A passage, sealed with a pull-tab, connects the reservoir to the bristle-carrying head such that the membrane can be pressed to extrude toothpaste into the bristles. In another embodiment, a toothpaste-containing membrane bag is inserted into the recess in place of the membrane seal. Claim 1 as filed essentially recites a toothbrush having an integral reservoir of toothpaste sufficient for at least one application of toothpaste to the bristles, but says nothing about where the reservoir is or how it is applied to the bristle region.

GB 2222222 ('D1') discloses another self-contained toothbrush in which a reservoir of toothpaste is provided within a hollow in the toothbrush handle and extruded through a hole in the head by turning a knob attached to an endless screw driving a piston.

US 3333333 ('D2') discloses a further self-contained toothbrush in which a "dummy" bristle in the head contains a reservoir of toothpaste and a small hole such that when a user brushes his teeth the bristle bends, extruding toothpaste through the hole, before flexing back into shape.

The Examiner raises a novelty objection with regard to D1 and an ordinary toothbrush, and an inventive step objection against some of the dependent claims based on D2. He also raises a clarity objection regarding a limitation of the present Claim 1 to 'single use'.

The client asks you to deal with the objections and informs you of a potential infringement essentially corresponding to the toothbrush disclosed in the application (which embodiment is not clear) but without the pull-tab feature to seal the reservoir.

### Claim 1

An amendment was sought which limits the claim essentially to (a) a reservoir in (a recess in) the handle of the toothbrush (b) sealed by a (thin, flexible) membrane, and (c) from which toothpaste can be extruded (through a passage to the bristle-carrying head) by squeezing the membrane.

There are a number of ways of formulating the claim to cover both embodiments, either using alternatives as in the statement of invention, or with broader language referring to either the recess or the reservoir (for example). Some amendments were formulated more elegantly than others, and this was taken into account given that the choice of amendment was relatively straightforward.

A large number of candidates chose to amend to features (a) and (b) only, which provide a clearly novel structure relative to D1 and D2 whilst also still covering the competitor's toothbrush without the pull-tab. Some credit was given for this amendment, but it is considered to be flawed, since it would apparently include a toothbrush with an attached pouch whose contents could be transferred by hand to the bristles, for instance. Conceivably the word "integral" would distinguish over such a construction, but still one feels that the bullseye has not been hit. It is the combination of all of the features (a)–(c) which is considered properly to encompass the invention, and to give rise to advantages such as the toothbrush being squeezable like a tube of toothpaste.

Without specifying the function of the reservoir or its relationship to the bristles, the claim is considered to be possibly lacking inventive step and vulnerable to further lack of clarity objections (for example it may be considered to lack an essential feature).

Some candidates were sufficiently concerned about such a clarity objection that they incorporated the entire statement of invention from page 4, line 26 to page 5, line 2 into Claim 1, including also the features that the reservoir extends from the finger grip to the head, and that there is a corresponding passage extending between the handle and an opening at the base of the bristles. Others appeared to do so out of a fear that an amendment that did not have full literal basis would be considered to add matter.

Such an amendment did not usually score a high number of marks because it was not intrinsically a good amendment and demonstrated a possible lack of awareness of certain issues by the candidates. For example the 'reservoir or recess' feature led to a possible lack of clarity with both words having clear and distinct meanings and not necessarily being interchangeable. The 'extends from...' feature was also narrower than the feature of Claim 2 which specified that the reservoir was provided in the handle, and few candidates addressed the fact that the recess is described elsewhere (page 6, line 9) as extending most of the length of the handle between the finger grip and the head (and so the scope of Claim 1 as amended

may fail clearly to catch some fairly straightforward workarounds). Of course where candidates provided reasoning behind their choice of amendment (for example to steer well clear of an added matter objection and so get quicker grant to deal with the infringement) and demonstrated awareness of the issues that existed with the claim as amended, higher marks could be given.

The examiners considered that functional language relating to squeezing the membrane to extrude toothpaste to the bristles was generally appropriate as an amendment but did not generally penalise claims that also included the feature of the passage between the reservoir and the head and the opening in the bristles, provided they were not verbatim recitations of the arguably inferior language of the statement of invention as discussed above.

It was possible to protect the two embodiments of the toothbrush in different independent claims, or separately in the main application and in a divisional application. This choice would not be significantly penalised but it was considered unnecessary (and in the second case, of course, expensive for the client).

An alternative amendment involves limiting Claim 1 to the feature of the reservoir comprising a membrane that is sufficiently thin and flexible to remain in a collapsed configuration and not resume its original shape after being pressed (with no restriction to the reservoir being in the handle of the brush). This amendment is at least novel over the prior-art documents, but it departs considerably from the invention that the client perceives (and that the specification describes), and it would have to be argued that to use a ‘floppy bristle’ in a toothbrush of the kind shown in D2 is inventive (since the only significant difference compared to D2 is that the reservoir is permanently collapsible); in fact this feature represents a disadvantage in D2 insofar as the stiff reservoir bristle assists in cleaning teeth, so the claim arguably lacks an inventive step. Such a claim may also be open to an objection of a lack of clarity or of added matter (on the basis of omitting features considered to be essential), for example.

In many cases elements of the claims were removed (such as the finger grip or plurality of bristles, for example) which some candidates considered superfluous or inessential. This was not generally penalised but support for the removal of the features was expected to be provided.

Amendments that are not novel or inventive over the prior-art documents or that do not cover the alleged infringement (such as limiting to the pull-tab feature) can receive very little credit. Either outcome is considered to be a serious fault, going to the heart of the skills tested by the paper. Candidates should also be aware that features placed in a ‘whereby’ clause are not normally considered to restrict the scope of the claim, which can lead to serious problems if the features in the ‘whereby’ clause are relevant to novelty or inventive step.

As most candidates realised, the ‘disposable’ (i.e. non-refillable) issue mentioned in the client letter was not significant for the claim because the term can be interpreted potentially very broadly and document D1 in any event makes a reference to being disposable.

Some candidates addressed the use of the word ‘top’ in Claim 1. While such a feature is normally considered indefinite (making infringement dependent on the orientation of the patented product) this language was not considered to be unclear or problematic in the context of a toothbrush, and thus did not necessitate any amendment.

It is possible to avoid a direct recitation of the toothpaste in the claim and (in some cases) also of the membrane. This could arguably be beneficial from the point of covering any toothbrushes of the second embodiment that are not sold with the toothpaste capsule included. However there was no suggestion in the client letter that this was contemplated

(especially given the focus on disposability) and claims that do not directly recite the membrane are likely to face difficulties with novelty and inventive step, since the membrane really goes to the heart of the invention.

It should be noted that a ‘good’ amendment to Claim 1 is of course important, but Claim 1 accounts for only 25% of the total marks in the marking scheme, and poorly chosen amendments did in some cases result in a pass if a candidate performed consistently well in other sections of the paper.

### Dependent claims

Some 15% of the marks were allocated to the dependent claims. These should have been easy marks for candidates to get, but many struggled with this section or did not seem to spend much time identifying features worthy of protection. Other than the correction of an error in the dependency of Claim 4 (due to lack of antecedent basis for ‘said opening’) the examiners were looking for extra dependent claims to be added in respect of additional fallback positions, such as the feature of the reservoir being in a recess (when not included in Claim 1), features of both the first and second embodiments (such as the blister cover and lips), the separable head portion, and the housing for the toothbrush, for example.

It should be noted that it is not correct to claim a toothbrush “further comprising a housing that encases the toothbrush”. Instead such a claim should be directed to a “housing containing a toothbrush as claimed”, or “a kit of parts containing...”, and so on. It is not correct to say that there is no benefit in claiming the housing on the grounds that it would not confer any benefit in terms of infringement – this overlooks considerations relating to contributory infringement, for example.

Credit was given to claims relating to single use and multiple use, although one might possibly expect clarity issues since it is difficult to quantify how much toothpaste constitutes a single or multiple application.

Those candidates who went for a Claim 1 including alternatives (that is, the main alternative embodiments, rather than a single feature encompassing both embodiments), sometimes got into difficulties with certain dependent claims, such as the feature of the retaining lips, which applies to only one of the embodiments.

Some candidates did not claim certain features because they did not consider them to provide useful fallbacks in respect of the two cited prior-art documents. However, with litigation imminent great care should have been taken to provide as many fallbacks as possible (one would expect a granted patent to come under sustained attack during the litigation).

Some candidates even went as far as to delete the pull-tab dependent claim, on the grounds that the competitor’s product does not include this feature. The pull-tab claim of course does not have any bearing on the question of whether the competitor’s brush would infringe Claim 1 as amended, and as above represents a potentially useful fall-back (potentially of use against other possible infringements).

Credit was given in some cases for splitting dependent claims into separate claims where appropriate, provided that reasonable support was given. However an extensive redraft of existing dependent claims was considered wholly unnecessary, and merely increased the risk of the amendments adding matter to the application.

### Divisional applications

The examiners were looking for a divisional to be proposed in respect of the pull-tab seal feature, which could be claimed quite broadly without the new limitations of amended

Claim 1. This feature was singled out by the client as being the ‘best design’, even though not essential, and was therefore important to protect. A simple combination of original Claims 1 to 4 would suffice, for example.

Candidates received some credit for proposing divisional applications in respect of other significant features of the present toothbrush. However, divisionals based on features that seemed of only peripheral significance, such as the housing or the separable construction, which had never been flagged and were in themselves known from the prior art, did not persuade. Marks for divisional applications directed to one of the two embodiments (where the main Claim 1 was directed to the other) were awarded in the Claim 1 section.

### Letter to Patent Office

- Basis/support

The response to the patent office constituted 35% of the marks in total, and included some sections which were again able to provide easy marks for competent candidates. One such section was the basis for amendments.

Generally, any answer that gives specific basis for all amendments and new claims (whether in a list, table, or otherwise) could receive good marks. If any features are removed from Claim 1, an explanation should be given as to why it is permissible to do so. An applicant is of course entitled to broaden claims during prosecution but support for amendments must nevertheless be given.

- Novelty

Decent marks in this section could be obtained by a brief description of what each prior-art document discloses as well as a list of specific claimed features that each one does not disclose (ideally with a brief explanation of what is provided in place of the missing features, where appropriate, in order to demonstrate a full understanding of each prior-art reference). A bare statement such as “D1 does not show this” does not demonstrate such an understanding.

(As an aside, in a real-life response one might prefer to say less about what a prior-art document does disclose – for example to prevent file-wrapper estoppel on a corresponding US case – but this level of detail is recommended in the P4 paper in order to demonstrate to the examiners that you fully understand the concept of novelty.)

In his report, the Examiner alleges a lack of novelty over document D1 and a conventional toothbrush, but for full marks candidates were expected to address both these citations and also document D2.

Some candidates appeared to be confused between novelty and inventive step, using language such as ‘suggests’ in the novelty section. It is also very important to use the specific claim language when discussing the novelty of the invention – otherwise one may be arguing in favour of a claim that has not actually been filed.

- Inventive step

As appears customary for this paper, the inventive step section was often poorly argued. As noted above, some candidates were confused between novelty and inventive step and made some basic errors, attracting few marks.

Some candidates appeared to apply the European problem/solution approach and others referred implicitly or explicitly to the UK Windsurfer or Pozzoli test (the former now being out of date of course), and both approaches were considered acceptable for the purpose of the

exam. Candidates were not penalised for not following the specific UK or European tests if they otherwise provided good inventive-step arguments.

When applying the UK approach, one is not normally expected to discuss the ‘closest prior art’ or the ‘problem solved by the invention’, and when using the European approach one is not normally expected to discuss ‘common general knowledge’ (CGK) or the ‘inventive concept’.

Considering solely the UK approach from now on, candidates made a range of statements about the skilled man and the extent of the CGK. One candidate for example asserted that the skilled man was an expert in disposable toothbrushes and that the two prior-art documents and prior-art toothbrush kit referred to in the application all formed part of the common general knowledge of the skilled man. Broad admissions such as these could potentially weaken the inventive step arguments, especially with regard to whether or not a skilled man would consult or combine prior-art documents (not an issue in this case).

For good reasons (and as required by the Pozzoli decision) the inventive concept of a claim should be expressed in terms of claim features rather than more nebulous statements unrelated to the specifically claimed subject-matter. Some candidates applying the Pozzoli test also failed to identify what differences existed between each prior-art document and the inventive concept, and to provide arguments for each document relating to those specific differences.

The last part of the test, to establish if the identified differences were obvious for the skilled man, was rarely addressed in a clear and coherent fashion. It was not sufficient to state merely that the prior art “did not teach or suggest” the missing features. A more satisfactory answer would, for example, explain why each document taught away from the claimed invention (in terms of the identified differences of course, and not in terms of other features) or otherwise address why the skilled man would not or could not modify the prior-art document to add the necessary missing features.

Statements relating to advantages of various (novel) claim features were of course expected to be used in the inventive step arguments, but it was in some cases not fully understood that an advantage is an indicator of the presence of inventive step, rather than direct proof that the relevant feature would not be obvious to the skilled man. An assembly of unrelated advantageous features can be entirely obvious, for example, and a mere list of advantages does not make a satisfactory inventive step argument (and such an approach in the exam was marked accordingly).

In some cases candidates opened their arguments with a list of disadvantages of the prior art. Disadvantages of the prior art are of course merely the flip side of advantages of the claimed invention, but framing the argument in that way if anything suggests a motivation why the skilled man would seek to modify the prior art.

Some examples of valid inventive step arguments are:

Document D1: the document teaches that tubes of toothpaste are undesirable, hence teaching away from a squeezable membrane reservoir; the function of the squeezable membrane is already provided by the knob, screw and piston so there is no reason to seek to replace them; replacing the top of the handle with a membrane would stop the piston working so the skilled man would not be motivated to do so; replacing the end of the handle with a membrane would be ineffective in emptying the reservoir (so likewise the skilled man would not be motivated to do so); and advantages of the invention relative to D1 include ease of manufacture, ease of use, likely reduced cost, and no moving parts.

Document D2: the document teaches that the reservoir should be emptied by brushing against teeth, teaching away from providing a reservoir in the handle; the document teaches that the reservoir should also function as a bristle, teaching away likewise; the document teaches that the brush should be made in a single moulding process, which teaches away from a toothbrush requiring an assembly of parts; and advantages of the invention relative to D2 include increased capacity, and more controllable dispensing of toothpaste.

The disclosures of D1 and D2 were essentially incompatible and the combination did not in any event result in all features of Claim 1, so no in-depth analysis of the combination of documents was required.

Any arguments regarding whether or not a feature is obvious and/or advantageous must of course relate to the features that are claimed. A large number of candidates did badly in this respect, for example arguing why a brush you could squeeze like a tube of toothpaste was inventive, while not having in their Claim 1 any feature relating to a squeezable reservoir.

- Clarity

Most candidates addressed the ‘for single use’ point adequately, explaining that the term should be interpreted as ‘suitable for single use’ and in many cases removing the phrase entirely. The later phrase in Claim 1 of ‘sufficient for a single application of toothpaste’ was often overlooked, however. Whether or not this feature excluded multiple applications of toothpaste was arguable, but candidates who did not address this issue either by argument or by amendment could expect to lose marks. Quite a few candidates took out the entire phrase, however, leaving no “bristle region” for the toothpaste to be applied to.

#### Client memo

A significant proportion of the marks (20%) was awarded for the client memo, and most candidates had a reasonable stab at this section.

In the exam, as in real life, candidates should form their own views on the validity of the original claims in view of the cited prior-art documents (rather than relying on the conclusions of the client or of the Examiner), and communicate these views to the client. The examiners were looking for a statement to the effect that the attorney agrees that the original claims were invalid and required amendment (ideally with a brief explanation of why), and too many candidates omitted to provide one.

Candidates were expected to explain their choice of amendment to the client, for example with reference to a number of alternative possible amendments, and to outline possible fallback positions. Marks were awarded for discussions based on what the client himself said. An acknowledgment of such statements in the reporting letter to the client shows good communication, and reassures the examiners that the candidate has understood what the client regards as important. Candidates should also try to give an indication of the prospects of grant, and briefly cover any other pertinent advice that would be appropriate in a ‘real life’ letter.

Many candidates gave a lot of advice to the client about infringement issues. A mark or two was allocated for this but not more than a paragraph or two was required (or rewarded) since the paper is not seeking to cover infringement and validity issues in any depth. Candidates are advised to focus on amendment issues.