THE JOINT EXAMINATION BOARD
PAPER P3
Preparation of Specifications for United Kingdom and Overseas Patents
2005
EXAMINERS' COMMENTS

GENERAL

In this question you are told at the outset that the client is a manufacturer of specialist alloys. That is accordingly the business which it is your first task to protect. The client tells you that he has devised a new apparatus which is used to manufacture the alloy.

CLAIMS

Accordingly, claims were expected to at least an apparatus and to a process (method) for making the alloy.

A significant number of candidates appeared to understand the invention, namely peening successive layers of alloy whilst the alloy remains on the collector surface, but then failed to claim that invention. It will be appreciated that it is difficult for Examiners to pass candidates who clearly understood the invention if they then failed to claim it.

A main apparatus claim which read:-

> "Apparatus for making an alloy, comprising:
> an evaporator for vaporising an alloy;
> a collector surface arranged to collect the vaporised alloy; and
> means for mechanically working the layer of condensed alloy on the collector surface."

would pass.

In this case process claims were definitely required, but quite a few candidates omitted them thereby losing significant marks. It was expected that the main independent process claim would be substantially coterminous with the apparatus claim, e.g.:-

> "A method of making an alloy, comprising the steps of:
> condensing an alloy vapour onto a collector surface to form a layer of condensed alloy on the collector surface; and

mechanically working the layer of condensed alloy whilst it remains on the collector surface."

Substituting "metal" for "alloy" and including the word "successive" were also acceptable, with "alloy" finding its way into a dependent claim.

Candidates whose independent claims failed to cover both the shot peening and the flail peening embodiments lost marks. It should have been noted that the client only said that this mode was not preferred, not that it was known. Failure to covering this possibility would not be in the client's interests.

It follows from this that integers such as "rotary", "drum", "vacuum", "shot peening", "flail peening" and "removal from the collector" are all considered inessential features and ought to therefore be the subject of subsidiary claims.

Further claims to alloys and components made thereby were sensible.

Apparatus and process omnibus claims were also expected.

A total of 55 marks were available for the independent claims, generally split evenly across the different categories, with a handful of marks available for the corresponding omnibus claims.

Quite a variety of dependent process and apparatus claims in the traditional graduated form were then available, for example:

Peening – by shot or by flails.
Structure of the preferred shot peening device – housing, rotor, vanes, seals, running clearance, rubber tips/blades, dividers.

Vacuum or reduced pressure.

Rotary and drum collectors.

Shot structure, quantity, size and density.

Multiple or moveable peening devices.

A total of 20 marks were available for the claims, with these being evenly split between the different categories.

A large number of candidates opted to make claims to a peening device their main claim. This approach was not expected by the Examiners since it was considered that this does not adequately protect the client's core business or the broadest invention, which was mechanically working on the collector. However, it was recognised by the Examiners that it could well be that the client could, if he wished, license out the peening device. Hence, a claim, possibly independent and followed by subsidiary claims, to the peening device, could well be included in the suite of claims. This approach was not penalised where subsidiary claims (or a separate apparatus claim comprising the peening device) which made the scope similar to that set out above were provided. Then, if the client was interested in protection for the device claims, these could subsequently be the subject of a divisional application.

Whichever approach was adopted by candidates, the Examiners were expecting that corresponding method and apparatus claims were conterminous and satisfied the requirements of unity. Drafting multiple independent claims in a shot-gun fashion, where each had slightly differing scope, presumably in the hope that at least one of the claims may align with that expected by the Examiners rarely scored highly.

A few candidates used the word "system" for "apparatus", perhaps because that was the word the client used. Traditionally this has been frowned upon as being ambiguous

(particularly where highly functional language is used) and in the present instance "apparatus" is preferred.

SPECIFICATION

The body of the specification should start with a title (Rule 16(2)&(3)). The title ought not to be narrower in scope than the claims.

The body of the specification should continue with the description and the drawings (Rule 16(2)).

The introductory portion of the description ought to have explained the field of the invention sufficiently to assist the search examiner in determining the technical classification. Again, the field of the invention ought not to be narrower in scope than the claims.

The introductory portion of the description ought then to have acknowledged the known prior art and set the scene for the invention.

A total of 5 marks were available for the introduction portion.

It was expected that the description should then include a summary of invention which provides some justification for the chosen claims including, to a general extent, the dependent claims. This justification may include an indication of any benefits or advantages provided by the claims.

Notwithstanding the obvious benefits to the client of setting out a cogent introduction and summary of invention, which provides an initial justification/arguments in favour of the drafted claims, for the purposes of the Examination this section is particularly helpful to the Examiners reviewing the drafted claims, particularly where unexpected wording is

used. Hence, candidates would be well advised to carefully review the arguments set out in the introduction against their drafted claims and summary of invention to ensure that they are consistent. This may also be useful to candidates as a sanity check to help ensure that they do not fall into the trap of failing to claim what they clearly understood the invention to be.

A list of figures ought to be provided (Rule 16(4)) and, although it may seem obvious, this list ought to be consistent with the drawings (a surprisingly high number of candidates unnecessarily lost marks because of this). Consistent reference numerals ought to be used in the description and different drawings when referring to the same feature.

In the specific description the time honoured strict setting out of the structure of the apparatus in some detail, followed by its mode of operation, was looked for, with all alternative embodiments described separately and subsequently and also in as much detail as possible. Candidates are reminded that the purpose of the description is to satisfy Section 14(2) and to ensure that the application does not fall foul of Section 72(1)c. Hence, it would be advisable that all the claimed features are clearly disclosed.

It is good practice that the specific description should be sufficient to enable comprehension thereof without the drawings.

A total of 20 marks were available for the specific description, with most of these marks being allocated to the sensible annotation of the drawings provided and the associated description of the embodiments.

MISCELLANEOUS

Notes to the Examiner are not useful and do not gain marks since they do not form part of the drafted specification on which candidates are being examined.

Other perennial advice is worth repeating also. Write on every other line. Perhaps make each claim the subject of a new page, or at least leave very large gaps between them. This way you make plenty of room for later amendments.

Some candidates included an Abstract even though this was specifically not asked for.

Above all, please read the question!

MARKING SCHEDULE

A schedule used for this year's examination is attached with a "health" warning. This is a subjective paper wherein candidates can take different approaches, which if properly drafted and based on the information contained in the question, are equally acceptable. In real life, no two patent attorneys will produce an identical claim, although it should have identical scope! Therefore this schedule can only be regarded as a guide to how this years' paper was marked.

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SECTION	CRITERIA	MARK
INTRODUCTION		
Title	No narrower than main claims	1
Field of Invention	Encompasses but no narrower than main claims	1
	Sensible description to set scene	1
Prior art	Acknowledge no more than both prior art disclosures – Deposition, Mechanical Working	2
DESCRIPTION		
Summary of Invention	More than a list of claims	2
List of Figs	Sensible description of figs 1 / 2 / 3 / 4	4
Labelling of Figs	Sensible labelling of figs 1 / 2 / 3 / 4, including x-sections, correct sheet numbering	6
Description	Sufficient in detail to provide enabling disclosure of claims, provide back-up positions for all features, especially if not claimed + definitions of peening	8
MAIN CLAIMS	Method - mechanically working successively formed alloy layers - peening newly formed alloy - condensing alloy and peening the alloy	26
Sufficient & sensible breath Novel - if not, has fall back dependent claims and will provide sensible search.	Apparatus - mechanically working successively formed alloy layers - peening newly formed alloy - condensing alloy and peening the alloy	26
	Omnibus claims	3
DEPENDENT CLAIMS	Method	10
	Apparatus	10
Suitable back-up positions for main alternatives. Sensible order Antecedence, dependencies.	shot peening flail peening rotor with blades arranged to direct peening shot onto alloy blades formed of rubber blades tipped with rubber rotor in housing, housing has mouth, alloyed peened through mouth rotor is 60mm wide, rotated at 1750rpm and 6,000 to 12,000 shot provided mouth has peripheral seal to prevent shot escaping running clearance provided between rotor and housing is smaller than shot diameter shot is quartz shot is tungsten shot is 1.2mm steel balls shot has density between 2.64×10^3 and 1.96×10^4 kg/m^3	

shot has density of $7.96x10^3$ kg/m^3
multiple peening devices with overlapping peening areas
peening device is moveable across the drum