

Introduction

This year the invention was a ladder stabiliser, and the mechanical subject matter of the question paper seemed to be well understood by almost all candidates. Only a single independent claim to the apparatus was considered necessary for adequate protection, and slightly more than half the claim marks were allocated to the dependent claims.

The pass rate and distribution of marks was similar to previous years. The main challenge encountered by candidates was producing an independent claim that covered all the various different embodiments described by the client, whilst avoiding the prior art. The identification and appropriate ordering of the dependent claims also appeared to prove challenging to many candidates.

The invention

The invention described by the client related to a mechanical stabiliser for a ladder. The ladder stabiliser includes a support arm that can be folded (pivoted) relative to a support piece which could comprise the ladder stile itself or be a separate support piece attached to the stile. A connecting piece having an adjustable length also connects the support piece to the support arm and allows the support arm to be secured at different orientations relative to the ladder. In use, the support arm can be folded out from the ladder and placed into contact with the ground. Locking the connecting piece stabilises the ladder, in particular making it less likely that the ladder will topple over if a user over-reaches.

Main claim

A suitable independent claim defined a ladder stabiliser comprising a support piece, a support arm and an adjustable length connecting piece with an appropriate and clear explanation of how such features interacted (for example, features (a) to (c) of the independent claim outlined in the mark scheme).

The client's letter only described using a connecting piece formed from two parts with a releasable locking means (i.e., features (d) and (e) of the mark scheme), but the independent claim did not necessarily have to include such features to be novel over the prior art that was mentioned by the client. Hence, including features (d) and (e) in dependent claims instead of the independent claim was also considered acceptable.

Importantly, the independent claim had to cover all the embodiments described by the client. This included the support piece of the ladder stabiliser being the stile of the ladder, or the support piece being an additional item that was attachable to a ladder. A significant number of candidates did not cover all such embodiments in the independent claim. A surprising number of candidates attempted to cover the support piece being the ladder stile via a dependent claim that contradicted the definition provided in the associated independent claim.

For this particular invention, no marks were awarded for including an independent method claim (for example, a claim directed to a method of using of the apparatus) as this was not thought necessary.

Dependent claims

The question paper included many preferred features that could gain marks if captured in a dependent claim, as described in the mark scheme. Higher marks were typically obtained when the dependent claims were organised in a logical manner to capture the various identified features and the possible combinations of such features (for example, as set out in the mark scheme).

Only a very few candidates disregarded the client instructions and included over 25 claims thereby incurring excess claim fees; however a notable number of candidates limited the answer to include only around 15 claims, thereby reducing the marks they were awarded for this section.

Introduction and background

Generally, this was handled well with most candidates not merely cutting and pasting from the client's letter but appropriately re-writing the text. As defined in the mark scheme, describing all the prior art (including the mention in the client's letter of the conventional use of sandbags or having another person apply weight to the bottom rung of the ladder) was required to obtain higher marks in this section.

Statements of invention

Ideally, the statements of invention describe what a claim feature does and the advantages of such a feature. Expanding on the key features contained in both the independent claim and the dependent claims gained the most marks, as outlined in the mark scheme. Only a few candidates simply repeated the claim language (which gained no marks), but a full explanation of all the claimed features and the associated advantages was often not provided which reduced the marks that could be awarded for this section. It is noted that referring to the various claims by number, or repeating the claim language, are both considered equally acceptable.

Specific description

Higher scoring candidates took the time to logically explain the structure and operation of the ladder stabiliser, before outlining the various alternative options for implementing the ladder stabiliser that were given by the client.

A few candidates merely copied the text from the question paper, or made minor adaptations, which did not accrue many marks. This was especially the case when the text remained partially written in the first person. A surprising number of candidates also failed to refer to all the labelled parts of the diagrams, even though these had been identified and described in detail in the client's letter.

Unlike previous years, only a few candidates appeared to run out of time when writing this section, which might be due to no longer needing to annotate the drawings.

Abstract

This was generally handled well, but a notable number of candidates still did not include appropriate reference numerals or a consistent title.