THE JOINT EXAMINATION BOARD

PAPER P3

Preparation of Specifications for United Kingdom and Overseas Patents

Thursday, 2nd November 2006
10.00 a.m. – 2.00 p.m.

Please read the following instructions carefully. ***Time Allowed - FOUR HOURS***

1. The whole question is to be attempted.

2. Marks to be awarded are given on page 3.

3. Please note the following:

    a. enter the Paper Number (P3) and your Examination number in the appropriate boxes at the top of each sheet of paper;
    b. the scripts are photocopied for marking purposes. Please write with a **dark inked pen** on one side of the paper only and within the printed margins, and do not use highlighters in your answer;
    c. do not staple or join pages together in any way;
    d. do not state your name anywhere in the answers;
    e. Write clearly, as examiners cannot award marks to scripts that cannot be read.

4. Under the Examination Regulations **you may be disqualified from the examination and have other disciplinary measures taken against you if:**

    a. you are found with unauthorised printed matter or other unauthorised material in the examination room;
    b. your mobile phone is found to be switched on;
    c. you copy the work of another candidate, use an electronic aid, or communicate with another candidate or with anyone outside the examination;
    d. you continue to write after being told to stop writing by the invigilator(s). **NO WRITING OF ANY KIND IS PERMITTED AFTER THE TIME ALLOTTED TO THIS PAPER HAS EXPIRED.**

5. **At the end of the examination assemble your answer sheets in order and put them in the WHITE envelope provided**. Any answer script taken out of the examination room will not be marked.

6. This paper consists of five pages, including this page and comprises two pages of the question and one set of drawings, of two sheets.

On arriving at the office you find the following, overnight, e-mail from your client, Alan B. Doe, Managing Director of Bath 'n' Bedroom Mirrors Ltd.:

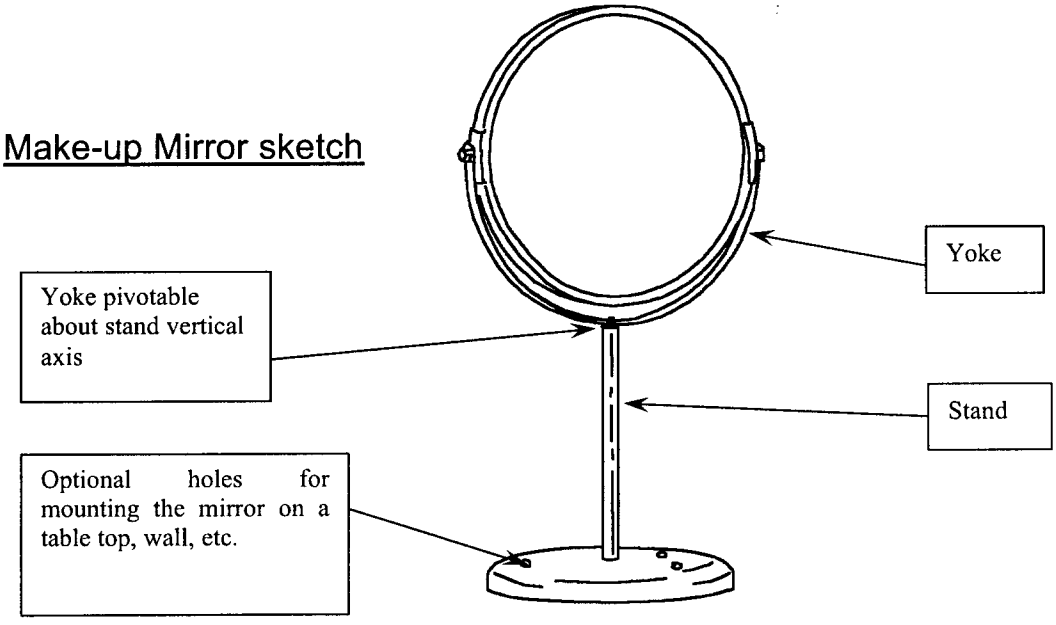
> "Further to my letter of 26th October 2006 concerning our new shaving mirror mounting, I showed the prototype to my Research Director last night and he said, 'You know that concave mirrors magnify: why don't we try one? It would help people with glasses, which always get steamed up in the bathroom, don't they?'
> This is a very good idea and, to my knowledge, no one uses magnifying mirrors in my industry. It would be simple to include a concave mirror back-to-back with one of our existing plane (flat) ones."

You immediately ring your client, only to obtain a recorded message saying, "There's nobody here; we are all manning our stand at the DIY-GSI Exhibition".

The post then arrives including the letter from your client dated 26th October 2006, which says:

> "As you know, as well as our mirrors for hanging on or screwing to walls, we have for many years produced a make-up or vanity mirror which is a round mirror on a stand; the mirror is mounted to pivot about a horizontal axis in a U-shaped yoke fixed to the top of the stand (see sketch at the end of this letter). This enables a user to tilt the mirror to a convenient angle.
>
> What I have now done is to adapt this mirror into a wall-mounted shaving mirror. As you will see from the accompanying full page drawing, one of our vanity mirrors is pivoted on a spindle at one end of a lazy tongs type of extensible arm. The spindle carries the yoke in which the mirror can pivot. The spindle can turn about its axis in bearings carried at one end of the lazy tongs. The other end of the lazy tongs is similarly pivotally mounted on a spindle fixed to a plate that has holes by which it can be screwed or bolted to a wall. The bearings can slide up and down the spindles as the lazy tongs are extended or retracted."

Make-up Mirror sketch

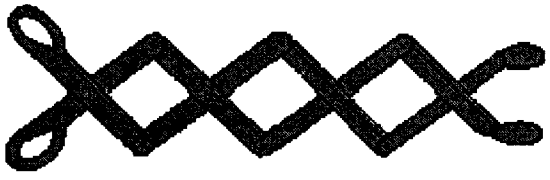


You finally manage to contact your client at the exhibition and find out that he is showing his prototype mirror, but that the 'exhibition' is only a small, local invention fair. He agrees that, in the circumstances, you should prepare and file a patent application today. He further explains that the plane and concave mirrors mentioned in his email could in one preferred arrangement be held back-to-back in a plastics frame. The mirrors would be a snap-fit in a pair of spaced grooves around the frame's inner periphery. The grooves would define a spacing rib to accommodate the inward curvature of the concave mirror, and hold it spaced from the plane mirror. The mirrors would be made in the usual way, each with a reflective coating on the back of a glass or clear plastics sheet. With the mirrors and frame assembled, the coatings would be protected against scratches and other mechanical damage. Your draftsman quickly prepares further drawings based on this description, as shown on the final page. The upper drawing is a cross-section through the mirrors and frame, along the diameter about which the frame pivots in the yoke. The lower drawing is a corresponding cross-section along the diameter at 90 degrees to the upper cross-section.

You perform computer based subject matter searches among existing patents using keywords "mirror + shave" and "mirror + vanity" which each get hundreds of hits. However the search enquiries "mirror + magnify + shave", "mirror + magnify + vanity" and "mirror + magnify + make-up" all get zero hits.

You also perform a Google™ search for a definition of "lazy tongs", which retrieved the following:

"Lazy tongs, a system of jointed bars capable of great extension, originally made for picking up something at a distance, now widely used to describe an extensible linkage of this form variously applied in machinery."



Prepare a full patent specification **without an abstract** and including **no more than 10 dependent claims** for filing at the UK Patent Office to form the basis for the widest practicable protection for your client.

Marks will be awarded as follows:-
Introduction and statements of invention - 10%
Specific Description - 20%
Main Claim(s) - 40%
Dependent Claims - 30%