

PATENTS EXAMINATION BOARD

Subject: The Drafting of Patent Specifications - Paper 2

Date: July 2016

Time: 09h00 -13h00 (although candidates requiring extra time are entitled to an additional two hours)

Examiners: J Fiandero
V Williams

Moderator: J D Whittaker

Attached is an instruction from your client detailing an invention.

You are required to draft a full patent specification for your client's invention. The full patent specification must include: (1) a background to the invention, (2) a summary of the invention, i.e. consistory clauses, (3) a brief description of the drawings, (4) a detailed description of the invention, (5) a set of patent claims, and (6) an abstract.

Marks will be allocated as follows:

- 50% of the marks will be allocated to the claims.
- 50% of the marks will be allocated to the rest of the specification.

In order to obtain a pass for this paper, candidates must obtain not less than 40% for each of these two sections.

Your client writes:

"I have developed a solution to the problem of slamming doors. The only current solution that I'm aware of is the use of small plastic or rubber stick-on bumpers fitted to the edge of the door to soften a slamming door. However, these only work to a certain extent, and are generally useless when a door is slammed with force.

Figure 1 shows my hinge arrangement, in an open position, fitted between a first furniture component 1a, such as a movable door, and a second furniture component 1b, such as an adjacent side panel. Figure 2 shows a sectional view through the arrangement of Figure 1, but with the furniture components 1a, 1b being shown in a closed position.

A relatively conventional hinge arm 2 is secured to a base plate 4, which in turn is fixed to component 1b. On the adjacent component 1a, a hinge cup 3 is recessed into the component 1a, in a well known manner, with a hinge lever 16 extending between the hinge cup 3 and the hinge arm 2.

My invention takes the form of a damper housing 5 that is securable to the hinge arm 2, with a plunger 6 being movable within the damper housing 5. The plunger 6 houses a damper 7, with the end 13 of the damper 7 abutting against the end wall 6a of the plunger 6. On the other end, a piston rod 20 abuts against an end wall 21 of the damper housing 5.

Figure 3 shows an exploded view of the key components of my invention. In particular, the damper housing 5 includes two parts, 5a and 5b, which are securable to each other. Part 5a includes protruding hooking arms 12 that releasably engage within slots 15 defined in a wall 14 of the hinge arm 2.

The damper 7 itself is well known, and typically takes the form of a linear damper filled with damping fluid. The invention however can also be embodied with other dampers, such as, for example, rotational dampers. The damper 7 includes a cylinder 22, which is supported in the plunger 6, and is cushioned by means of a rubber buffer 17.

In use, turning back to Figure 1, when the furniture components 1a, 1b are in an open position, the damper 7 is in an extended, uncompressed position, with the plunger 6 accordingly protruding out of the damper housing. When the component 1a is closed, turning now to Figure 2, a protruding portion 3a of the hinge cup 3 presses against the end wall 6a of the plunger 6. This causes the plunger 6 to move inwardly into the damper housing, which in turn compresses the damper 7. The resulting damping controls the closing of the component 1a, thereby preventing it from being slammed closed.

The best part about my soft-closing hinge system is that it is velocity-sensitive i.e. the faster the door is closed, the more resistance the damper provides.

Please prepare a patent specification for my invention."

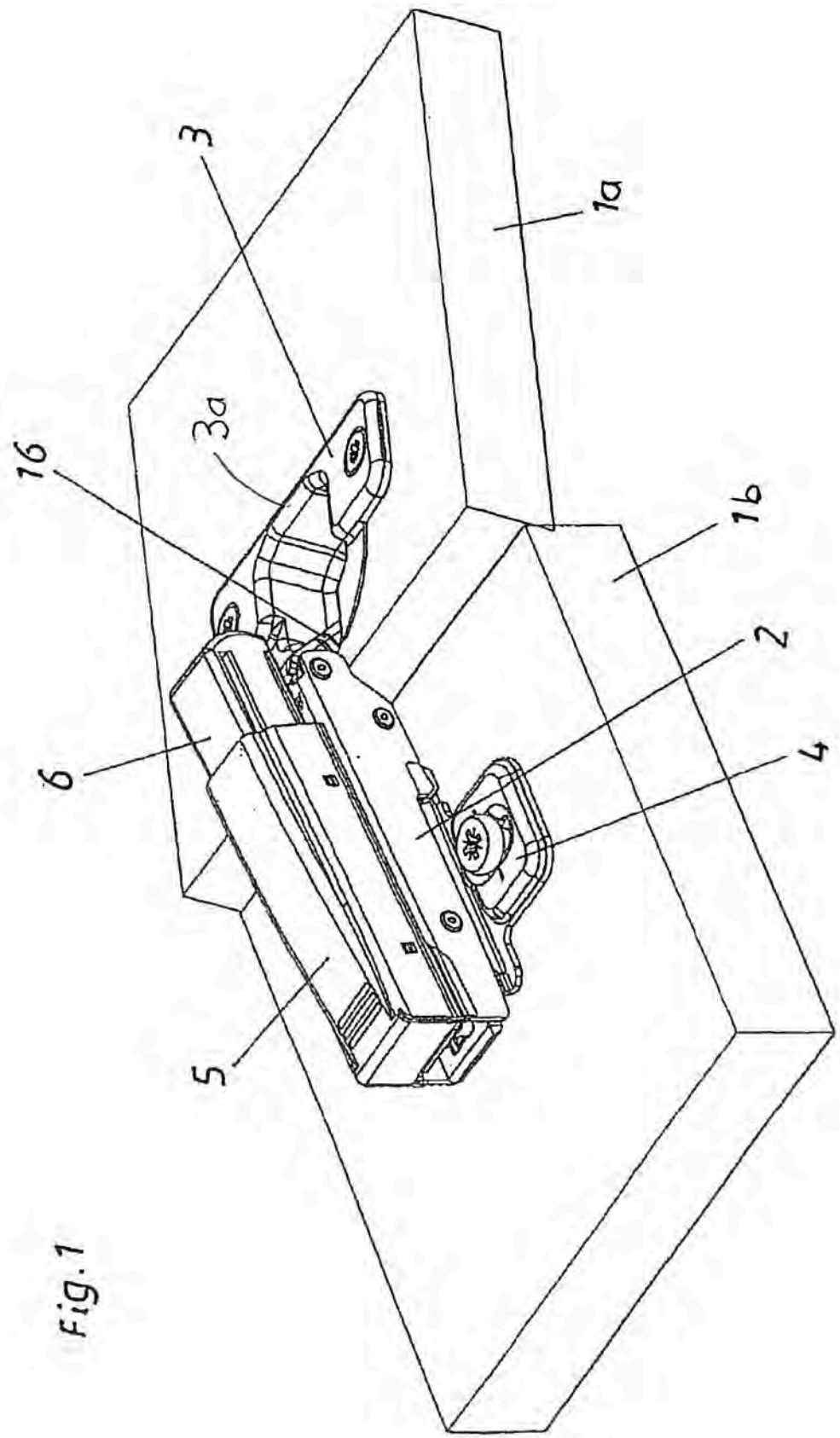


Fig. 1

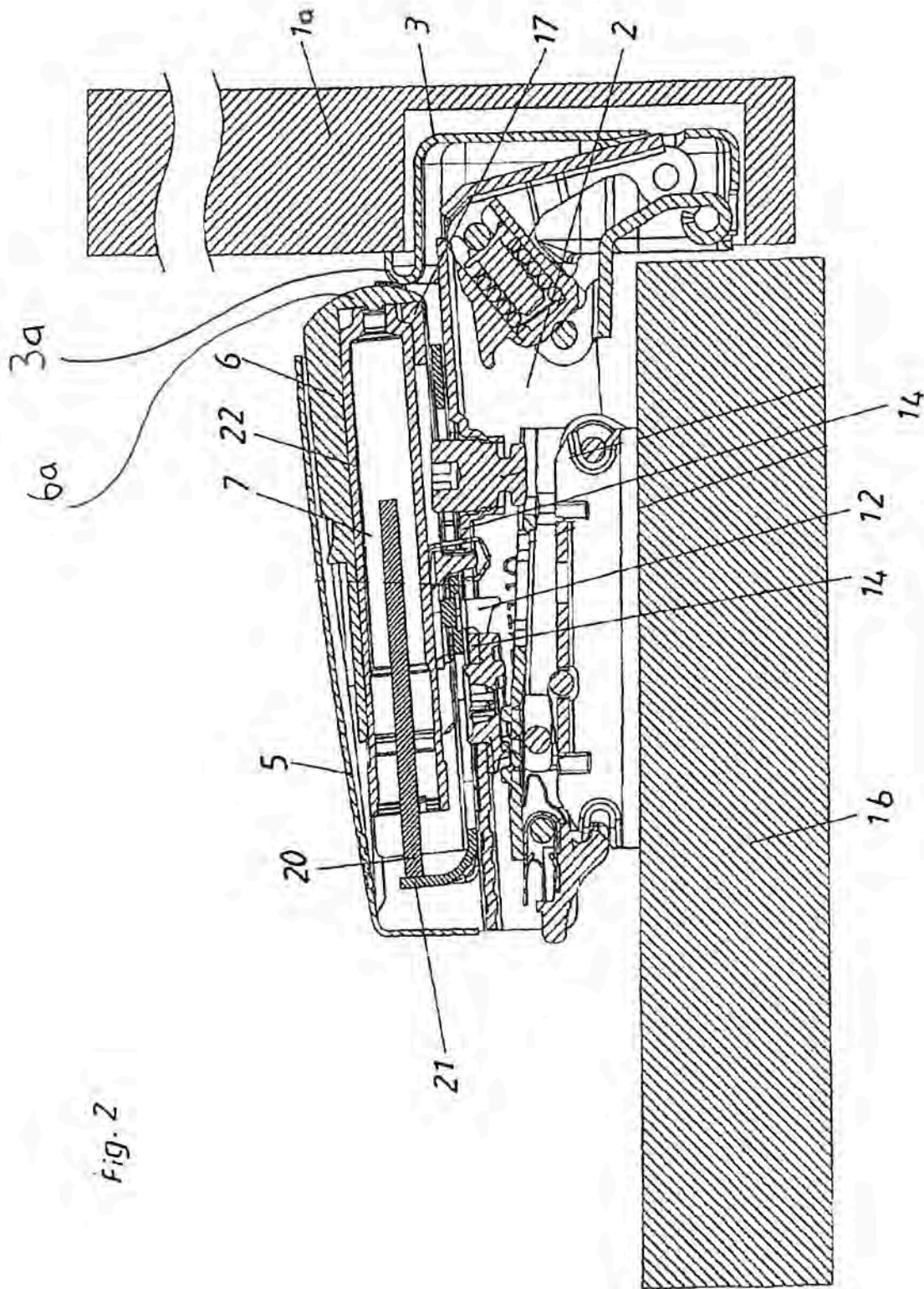


Fig. 2

Fig. 3

