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(54) **Chair backrest**

(57) A backrest for office swivel chairs comprises front and rear plastic shells 1, 2, the front shell 1 having rearwardly projecting bearing blocks 6 provided with openings 7 for receiving a supporting member 3 on which the backrest can be angularly adjusted, the rear surface of blocks 6 and openings 7 being masked by sheet-metal plate 10 fastened to blocks 6, the rear shell 2 having a cutout 2' having the same outline as and surrounding the blocks 6, blocks 6 and plate 10 being masked by a plastics trough-shaped housing 4.

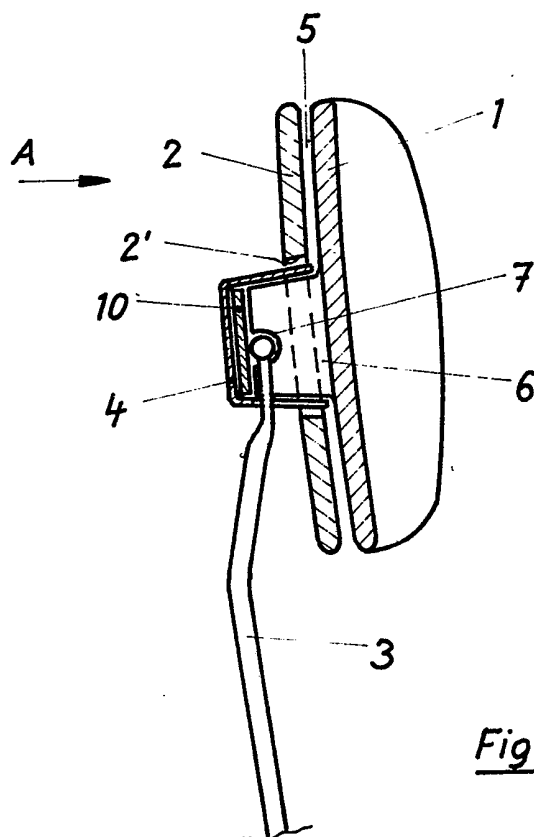


Fig. 1

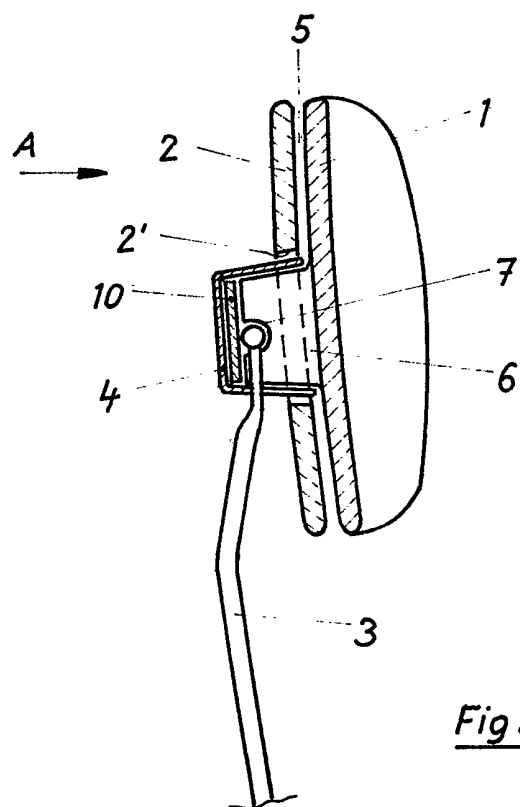


Fig. 1

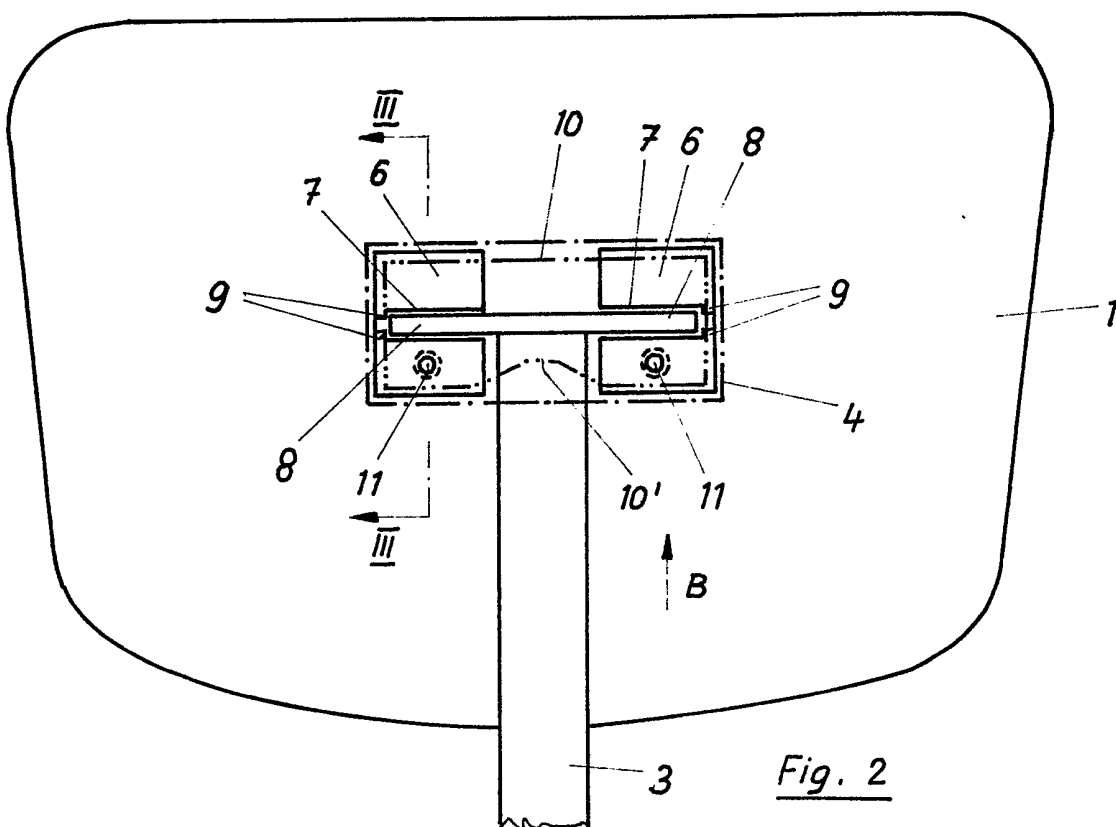


Fig. 2

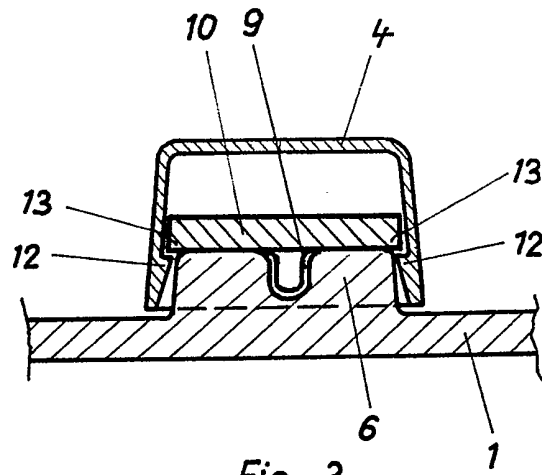


Fig. 3

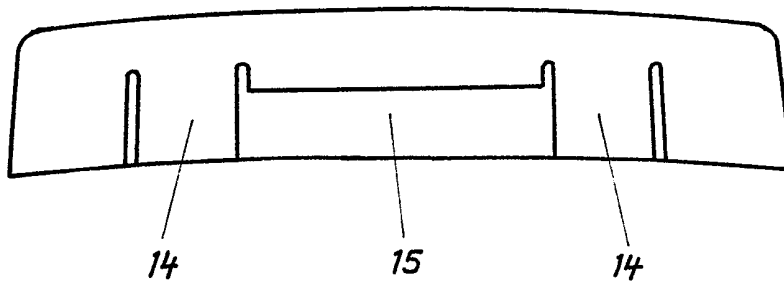


Fig. 4

## SPECIFICATION

## Chair backrest

5 The invention relates to a backrest for chairs.

In a previously disclosed embodiment of a chair backrest, the bearing blocks and the sheet-metal plate, together with their means of attachment, e.g. a screw-fastening, are covered by a corresponding  
10 moulding of the rear shell. For the manufacture of the rear shell, this arrangement requires, on the one hand, a comparatively complicated and hence expensive die for producing this moulding. On the other hand, there is disadvantage that, following  
15 completion of the manufacture of the backrest, access to the devices which retain the supporting member is no longer possible without destroying the connection between the front and rear shells. Any repairs or refitting work which may be neces-  
20 sary, e.g. the subsequent tightening of screws fastening the sheet-metal plate which have not been screwed in tight enough, are consequently no longer possible.

The object of this invention is, as applied to a chair  
25 backrest of the kind referred to, to reduce the die-costs for manufacturing the rear shell, whilst at the same time rendering the attachment point of the supporting member accessible.

Accordingly, the present invention provides a back-  
30 rest for chairs, in particular office swivel chairs, comprising two shells, made of plastic, the front shell being provided with bearing blocks which project into the interior of the backrest and possess open-  
35 ings for introducing a supporting member for the backrest, the outer surface of the bearing blocks and the openings being masked by a sheet-metal plate which is fastened to the bearing blocks, character-  
40 ised in that the rear shell possesses a cut-out, whose outline is substantially identical to the outline of the bearing blocks and surrounds the latter, and in that the bearing blocks and the sheet-metal plate are  
45 masked by a trough-shaped fairing made of plastic.

The production of the cut-out in the rear shell involves significantly lower costs than the formation  
45 of the previously disclosed moulding. The trough-shaped fairing is a comparatively small plastic component, which can be manufactured without difficulty. The assembly costs for attaching the fairing are virtually negligible, since a simple pushing-on  
50 operation is sufficient for this purpose. After pulling off the fairing, which is equally easy, free access is obtained to the attachment and bearing-point of the supporting member on the rear shell, and/or to its bearing blocks.

55 Further advantages and features of the invention can be inferred from the additional sub-claims, and from the description of an illustrative embodiment, according to the invention, given in the text which follows. In the drawing:

60 Figure 1 shows a backrest, designed in accordance with the invention in longitudinal section;

Figure 2 shows a projection onto Figure 1, corresponding to the arrow A, the rear shell being omitted;

Figure 3 shows a section conforming to the line  
65 III-III in Figure 2; and

Figure 4 shows the fairing, on its own, viewed in a projection corresponding to arrow B in Figure 2.

The backrest comprises a front shell 1, an upholstered part (not illustrated in detail), a rear shell 2, a  
70 supporting member 3 and a trough-shaped fairing 4. The two shells 1, 2 are connected to one another in a manner which is not explained in further detail, because it is known. Both the shells, and the fairing  
4, are made of plastic.

75 Bearing blocks 6 are located on the front shell, these blocks projecting into the interior 5 of the backrest and preferably being manufactured integrally with the material of the front shell, that is to say together with the latter. Openings 7 are provided in  
80 the bearing blocks 6, for the insertion of cylindrical projections 8 of the supporting member 3, the cross-section of these openings being approximately semi-circular. Constrictions 9, formed in the plastic at the outer ends of the openings 7, serve to  
85 centre the projections, and hence the supporting member, with respect to the openings 7 and the bearing blocks 6.

The rear shell 2 possesses a cut-out 2', which is matched, at least in outline, to the outline of the  
90 bearing blocks 6, and which surrounds the bearing blocks. In the preferred embodiment of the invention, illustrated here, the trough-shaped fairing 4 is pushed into the gap which is situated between the bearing blocks and the inner edge of the cut-out 2'.  
95 This means that the inner contour of the cut-out 2' must correspond to the outer contours of the fairing 4, represented in Figure 2 by means of dash/dotted lines. The fairing masks not only the bearing blocks 6, but also a sheet-metal plate, which is securely held  
100 against the bearing blocks by means of screws (not illustrated) which can be screwed into the threaded holes 11 in the bearing blocks 6, and thereby ensures that the projections 8 of the supporting member 3 are securely retained in the bearing blocks 6. For the  
105 sake of greater clarity, the sheet-metal plate 10 is represented in Figure 2 by means of a dash / dot - dot / dash line. It can be seen that the sheet-metal plate 10 possesses a valley 10' in the pivoting zone of the supporting member 3, this valley enabling the shells  
110 1, 2 to pivot with respect to the supporting member 3, within a certain angular range. It is additionally possible for that portion of the sheet-metal plate which is situated above this valley to possess a domed-out region, not shown in the drawing,  
115 towards the rear shell.

The trough-shaped fairing can have sufficient intrinsic resilience to enable it to grip the bearing blocks 6 by clamping. Instead of this, it would also be possible to provide a latching feature between the  
120 fairing and the bearing blocks. These latching features could be located on the bearing blocks themselves, but this would lead to correspondingly increased costs in the manufacture of the moulds (dies) for casting or injection-moulding the blocks.

125 In a particular embodiment of the invention, illustrated in Figure 3, wedge-shaped projections 12, located on the inside of the fairing 4, engage below the sheet-metal plate 10 which is mounted on the blocks 6 by means of screws. In this design, the  
130 inclined surface 13 of the wedge-shaped projection

12 is shaped in such a way that it facilitates the action of snapping in behind as the fairing 4 is pushed on.

Figure 4 shows the narrow longitudinal side of the fairing, in which the recess 15 serves for the leading-through of the supporting member 3. The projections 12 can be located on this side, on tongues 14. This arrangement ensures a greater degree of elasticity when the supporting member is inclined in relation to the shells 1, 2, and prevents the narrow side of the fairing, shown in Figure 4, from being damaged. Furthermore, removal of the fairing 4 from the blocks 6 and the sheet-metal plate 10 can be assisted by bending the tongues 14 outwards.

#### 15 CLAIMS

1. A backrest for chairs, in particular office swivel chairs, comprising two shells, made of plastic, the front shell being provided with bearing blocks which project into the interior of the backrest and possess openings for introducing a supporting member for the backrest, the outer surface of the bearing blocks and the openings being masked by a sheet-metal plate which is fastened to the bearing blocks, characterised in that the rear shell (2) possesses a cut-out (2'), whose outline is substantially identical to the outline of the bearing blocks (6) and surrounds the latter, and in that the bearing blocks (6) and the sheet-metal plate are masked by a trough-shaped fairing (4) made of plastic.

2. A backrest according to Claim 1, characterised in the provision of a gap between the bearing blocks (6) and the cut-out (2'), serving to receive the edge of the trough-shaped fairing (4).

3. A backrest according to Claim 1 or Claim 2, characterised by latching means between the trough-shaped fairing (4) and the bearing blocks (6).

4. A backrest according to Claim 3, characterised by the provision of wedge-shaped inward projections (12) at the inner edge of the fairing (4), the counter-projections being formed by the lower lateral edges and the underside of the sheet-metal plate (10) which is mounted on the blocks (6) by means of screws.

5. A backrest according to any one of Claims 1 to 4, characterised in that the fairing possesses, on one narrow longitudinal side, a cut-out (15) for receiving the supporting member (3), and tongues (14) on both sides of the cut-out, provided, with one wedge-shaped projection (12).

6. A backrest according to any one of Claims 1 to 5, characterised in that the sheet-metal plate possesses, in the middle of one longitudinal side, a cut-out for receiving the supporting member (3) when the shells (1, 2) are set at an angle relative to the supporting member.

7. A backrest according to any one of claims 1 to 6, characterised in that the sheet-metal plate is domed in the outward direction, that is to say, towards the bottom of the fairing (4).

8. A backrest for chairs substantially as described and illustrated herein with reference to the accompanying drawings.