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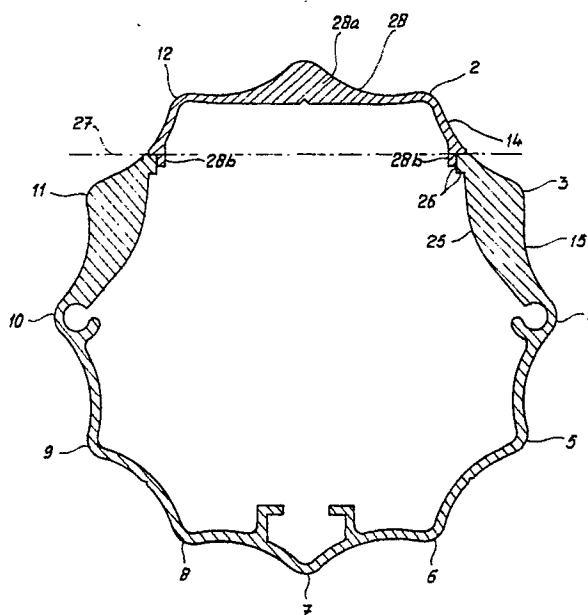
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54 Lamp standard with an access opening to be shut off by a door.

(57) Polygon lamp standard, extruded from aluminum and provided at a particular point with an access opening (27) to be shut off flush by a door (28),

whereby the wall parts of the lamp standard adjoining the side edges of the access opening (27) and in line with said side edges are made thicker.

fig - 2



EP 0 414 284 A1

The invention relates to a lamp standard, extruded from aluminium and provided at a particular point with an access opening to be shut off flush by a door.

Such a lamp standard is known, inter alia, from Dutch Patent Application 7416458, in which the cross-section of the lamp standard is circular cylindrical in shape.

The access opening is intended for providing access to fuses, power supply equipment and the like for the lighting fitting situated on the top of the lamp standard.

The mechanical strength of the standard is adversely affected by the access opening, because the moment of inertia of the cross-section of the standard is reduced at the position of this opening.

The width of the door is partly determined by the control equipment to be placed in the standard.

The material stresses occurring in the lamp standard can be the result of wind stresses in conjunction with the shape and characteristics of lamp standard and fitting, and also stresses through heavy fittings etc. The lamp standard can also be set in vibration in such a way through vandalism that the amplitude of the vibration thus occurring becomes very great. The final result can be that the lamp standard is damaged and/or breaks off through material fatigue at the place of greatest stress concentration, thus at the door opening.

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This last-mentioned effect can occur in particular in the case of lamp standards of small diameter, in which the ratio of opening width to diameter of the lamp standard can be considered as unfavourable.

The lamp standard known from Dutch Patent Application 7416458 was reinforced at the access opening by a strip fixed in the lamp standard.

From Dutch Patent Specification 173,248 and from Dutch Patent Application 6513976 it is known to reinforce a lamp standard at the access opening by means of a tube in the interior of the lamp standard.

All these solutions require additional structural measures, while sufficient strength at the access opening is still not obtained.

The object of the invention is to provide a lamp standard which does not have the above disadvantages.

This is achieved according to the invention in that the wall parts adjoining the side edges of the access opening and in line with said side edges are made thicker.

According to a preferred embodiment, the cross-section of the lamp standard is a polygon, in particular a dodecagon, while the access opening

and the door extend over three corners of the dodecagon.

Weakening at the access opening is avoided through the thickened wall parts adjacent to the access opening. It is pointed out that a polygonal lamp standard is known per se from European Patent Application 0,221,992. In this case the corners are, however, specially weakened so that they can break off if they are hit by a vehicle. There is no mention of a reinforcement at the position of an access opening.

The invention will be explained in greater detail with reference to the drawing for an example of an embodiment, in which:

Fig. 1 shows a cross-section of the extruded lamp standard section according to the invention;

Fig. 2 shows a cross-section of the lamp standard according to Fig. 1 at the access opening and above the door;

Fig. 3 shows a cross-section corresponding to Fig. 2 at the fastening of the door; and

Fig. 4 shows a cross-section corresponding to Fig. 1 of another lamp standard section.

The lamp standard shown is the shape of a regular dodecagon, of which the corners are indicated by 1 - 12 and the inward-curved sides by 13 to 24.

The walls 18 and 19 are provided with inward-directed strips 18a and 19a respectively, which together form a rail for fitting connection equipment and fuse boxes (not shown).

Since this rail 18a, 19a is integral with the standard itself, earthing problems are avoided and an additional reinforcement of the lamp standard is produced.

Channels 4a and 10a are formed near the corners 4 and 10 respectively. These channels can be used for screwing bolts or screws (not shown) into the top end of the standard, in order to be able to fix a connection or an adaptor (not shown) on the top end for light fittings.

The sides 14 and 15 and the sides 22 and 23 are made mirror-inverted and differ from the other sides. Only the sides 14 and 15 will be discussed.

In particular the side 15 and the corner 3 are thickened inwards, indicated by 25. By means of a step 26 the thickened part 25 approximately half-way along the side 14 passes into the side 15.

This also applies to the side 23 and the corner 11.

At a certain limited distance above ground level a part of the standard is cut away for the formation of an access opening, indicated by a dashed line 27.

Fig. 2 shows a section across this access opening 27.

This access opening 27 can be shut off by a

door 28 which takes up the place of the corners 12, 1 and 2, the sides 24 and 13 and about half of the sides 23 and 14 which have been cut away here.

The door 28 is laterally confined against the steps 26 by the edges 28b.

As can be seen from Fig. 2, the door is thickened inwards over the central part by a part 28a. The object of this emerges from Fig. 3, which shows a section across the access opening 27 and the door 28 at the fastening of the door 28 in the opening 27. This fastening takes place in a known manner by means of a bolt 29 and a bracket 30, the ends of which engage behind the steps 26.

The bolt 29 extends through the thickened central part 28a of the door and can thereby be fitted countersunk. This also counteracts vandalism.

The door 28 can also be cut out of a section obtained by extrusion.

It will be clear that the lamp standard can also be of a different shape than a dodecagon, for example a square; this shape is shown in Fig. 4. The corners are indicated here by 31, 32, 33 and 34 and the sides curved outwards by 35, 36, 37 and 38.

The thickened parts 25 take up about half the sides 35 and 38.

The screw holes are indicated by 32a and 34a and the strips by 36a and 37a.

over the central part, facing the interior of the lamp standard, is made thicker so that it can accommodate countersunk fixing bolts.

Claims

1. Lamp standard, extruded from aluminium and provided at a particular point with an access opening to be shut off flush by a door, characterized in that the wall parts of the lamp standard adjoining the side edges of the access opening and in line with said side edges are made thicker.

2. Lamp standard according to Claim 1, **characterized in that** the cross-section of the lamp standard is a polygon.

3. Lamp standard according to Claim 2, **characterized in that** the polygon is a dodecagon, and in that the access opening and the door extend over three corners of the dodecagon.

4. Lamp standard according to Claim 1, 2 or 3, **characterized in that** a fixing rail for fitting connection equipment and fuse boxes is integrated in the interior.

5. Lamp standard according to Claim 1, 2 or 3, **characterized in that** axial channels are formed in two diametrically opposite corners, into which channels bolts can be screwed for fixing a shut-off head or an adapter for lighting equipment on the top end of the lamp standard.

6. Door intended for shutting off an access opening in a lamp standard according to one or more of the preceding claims, characterized in that the door

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fig-1

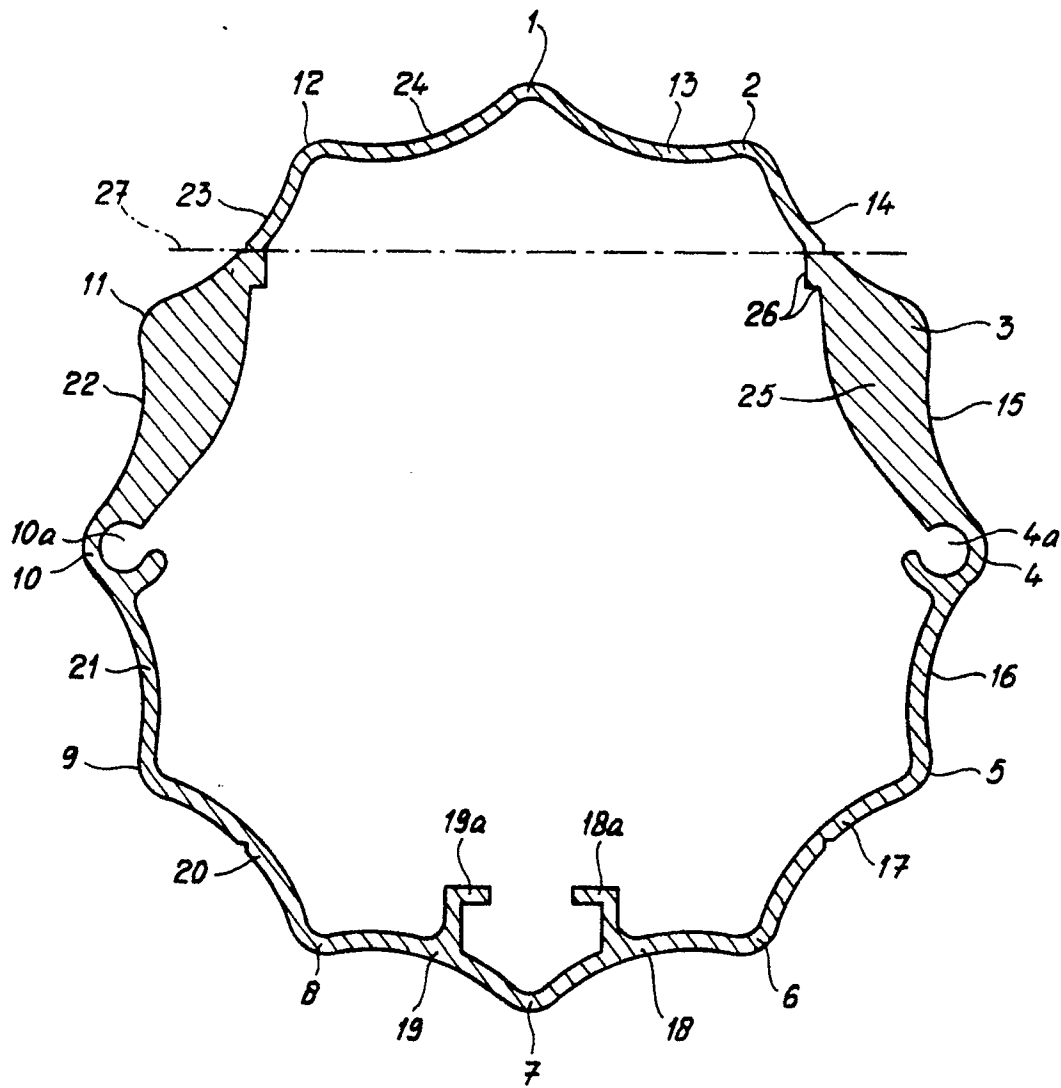


fig-2

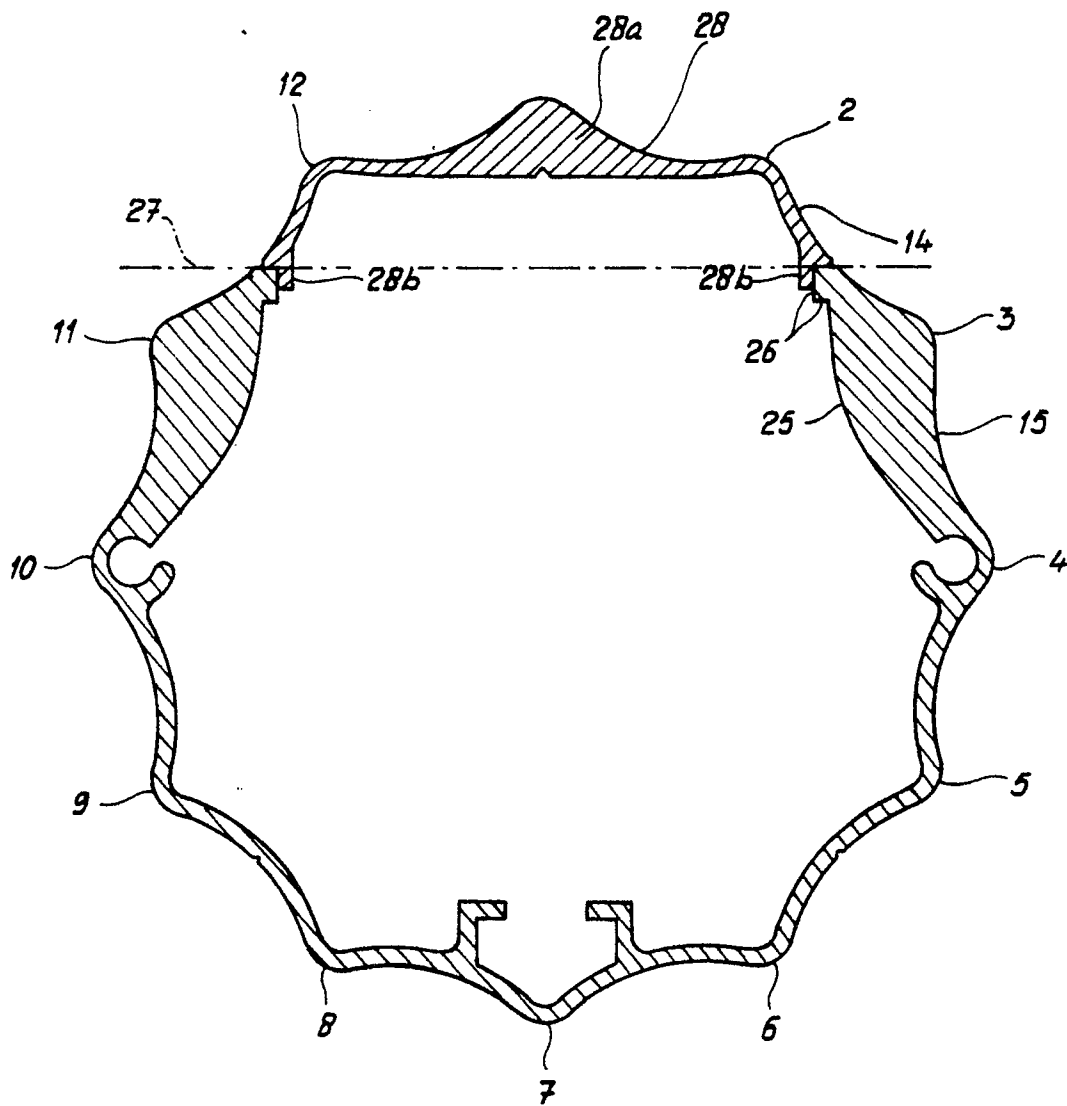


fig - 3

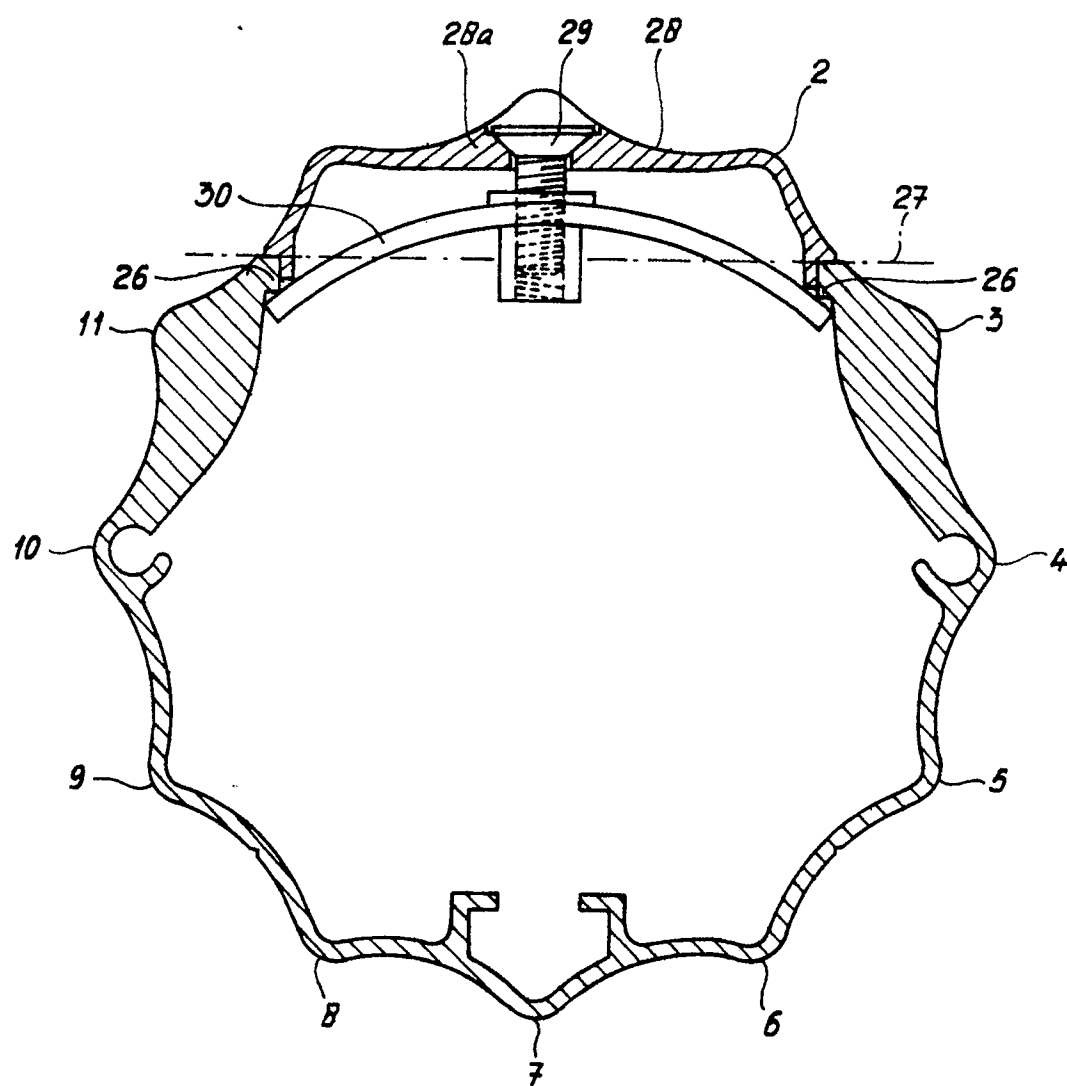
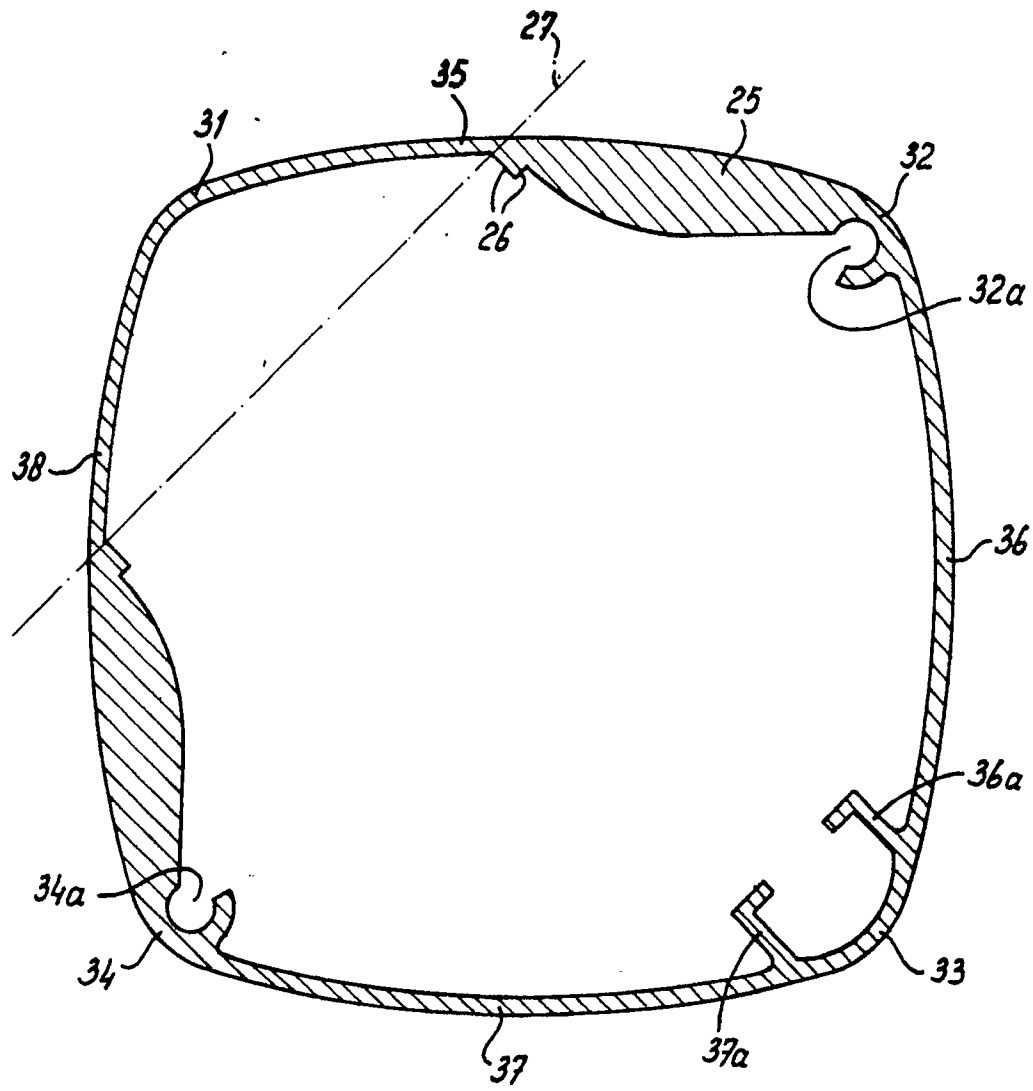


fig-4





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 90 20 1847

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
Y	US-A-3276182 (HANDLEY) * column 3, lines 2 - 5 * * column 5, lines 15 - 16 * * claim 8; figures 1, 7 * ---	1	E04H12/08
Y	NL-A-7908623 (HUNTER DOUGLAS INDUSTRIES) * page 2, line 31 - page 3, line 7; figures 1-3 * ---	1	
A	FR-A-773215 (UNION DE CONSOMMATEURS DE PRODUITS METALLURGIQUES ET INDUSTRIELS) * page 1, line 53 - page 2, line 10; figures 2, 3 * ---	1, 2	
A	US-A-1882228 (NE PAGE) * figures 4, 5 * ---	2, 3	
A	US-A-4551792 (HOKE ET AL) * column 1, line 65 - column 2, line 14; figures 2, 3, 6 * -----	1, 2, 5	
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			F21V E04H
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 28 SEPTEMBER 1990	Examiner VAN OVERBEEKE J.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			