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(54) Prefabricated balcony.

(57) A prefabricated balcony for detachably mounting on the facade of a building comprises a front wall (11), side walls (12) and a floor (13) forming an integral unit made of a reinforced plastic material. At the side facing the building, the side walls and the floor are formed with side flanges (16, 17), the flanges (16) of the side walls connecting at their upper end to the ends of a substantially horizontal top flange (14) projecting outwardly from the side and front walls of the balcony. The balcony is secured to the building and supported by means of cantilever structures (21) each having one leg portion lying against the lower side of said top flange (14) and the other leg portion against the side flange (16) of one side wall.

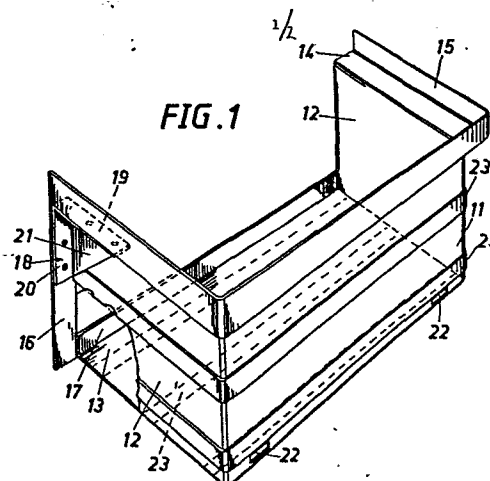


FIG. 1

Prefabricated balcony

The present invention relates to prefabricated balconies of the kind intended to be detachably mounted on the facade of
5 a building.

The balconies of older buildings are often defective in that reinforcing bars or steel beams cast into the concrete have become exposed due to decomposition of surrounding plaster
10 or concrete and are subjected to severe corrosion. Another drawback of balconies which are cast integral with the building is that the supporting parts of the balcony which are usually in the form of beams or reinforcing elements form non-desirable thermal bridges.

15 The object of the present invention is to provide a balcony which may easily replace condemned balconies and which is light-weight, easy to mount and maintenance-free and which may be provided with an optional facing. Another object of
20 the invention is to provide a balcony which is inexpensive and which may be conveniently manufactured in various sizes and models. These objects have been attained with the balcony according to the present invention which is mainly characterized in that the front wall, side walls and floor
25 of the balcony form an integral unit of a reinforced plastic material, that the ends of the side walls and the floor turned towards the facade are provided with a side flange arranged at an angle to the side walls and the floor, respectively, that the upper portions of the side walls and
30 the front wall are angled and formed with a preferably horizontal top flange projecting from the side walls and the front wall, respectively, and being connected to the upper end of each side wall side flange, and that a cantilever-shaped support structure is adapted to be placed at each
35 side wall under the top flange and against the side wall side flange for supporting the balcony.

One embodiment of the invention is illustrated in the accompanying drawings, wherein

5 Figure 1 is a perspective view from above of a balcony according to the invention,

Figure 2 is a perspective view of the balcony seen from the back and lower side, and

Figure 3 is a cross-section through the balcony.

10 The balcony illustrated in the drawings consists of a front wall 11, two side walls 12 and a floor or bottom plate 13, all said parts being formed in one piece of flameproof reinforced plastic. The upper portion of the side walls and the front wall are formed with a Z-shaped cross section
15 where the web portion of the Z-profile consists of a substantially horizontal top flange 14 from which extends a leg portion 15 of the profile extending substantially at right angles to the web portion 14. The web portion or top flange 14 may be used as a support for flower boxes or the like.
20

The side walls 12 and the floor 13 are provided, at the edge intended to be turned towards the facade of the building, with side flanges 16 and 17 which are interconnected. The
25 side flanges 16 are also connected at their upper edges to the ends of the top flange 14, which gives a very strong box type structure. The side flange 17 may be turned either upwardly or downwardly, or it may extend both upwards and downwards from the floor 13. Having the flange directed
30 upwardly is of advantage, since the flange then forms a moisture seal against the facade.

The side flanges 16 and 17 are made with a slightly increased thickness so that these flanges may serve as
35 attachment means where the balcony is mounted against the facade of a building. A cantilever-like support structure 18 is provided and adapted to have one of its legs 19 lying against the lower side of the top flange 14, whereas the

other cantilever leg 20 is lying against the side flange 16. The cantilever 20 is preferably made from a strong flat iron bar which has been bent at a right angle and between the legs of which is welded a support plate 21. The cantilever
5 is made of stainless steel and is intended to be connected to the building by means of bolt connections or the like. Below the cantilever 20 the side flanges 16 and 17 may be connected to the facade by suitable attachment means such as wood screws or the like.

10 The floor 13 is made slightly sloping in the direction from the side flange 17, so that water may flow towards the front wall 11 which is provided with one or several outlet openings 22.

15 On the outer side of the front wall, side walls and floor of the balcony are provided horizontal and/or vertical ribs 23 which are preferably molded into the structure of the balcony and which form attachment supports for an outer
20 facing 24, 25 which may be in the form of wooden panels or the like.

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C L A I M S

1. A prefabricated balcony of the kind intended to be detachably mounted on the facade of a building,
5 c h a r a c t e r i z e d i n
that the front wall (11), side walls (12) and floor (13) of the balcony form an integral unit of a reinforced plastic material,
10 that the ends of the side walls and the floor turned towards the facade are provided with a side flange (16,17) arranged at an angle to the side walls (12) and the floor (13), respectively,
that the upper portions of the side walls and the front wall are angled and formed with a preferably horizontal top
15 flange (14) projecting from the side walls and the front wall, respectively, and being connected to the upper end of each side wall side flange (16), and
that a cantilever-shaped support structure (18) is adapted to be placed at each side wall under the top flange (14) and
20 against the side wall side flange (16) for supporting the balcony.
2. A balcony as claimed in claim 1,
c h a r a c t e r i z e d i n
25 that the upper portions of the side walls (12) and the front wall (11) has a Z-shaped cross-section where said top flange (14) forms the web part of the Z-profile.
3. A balcony as claimed in claim 1 or 2,
30 c h a r a c t e r i z e d i n
that the side walls (12), the front wall (11) and the floor (13) are provided at their outer sides with horizontal and/or vertical ribs (23) which form attachment supports for
35 a facing.

FIG. 1

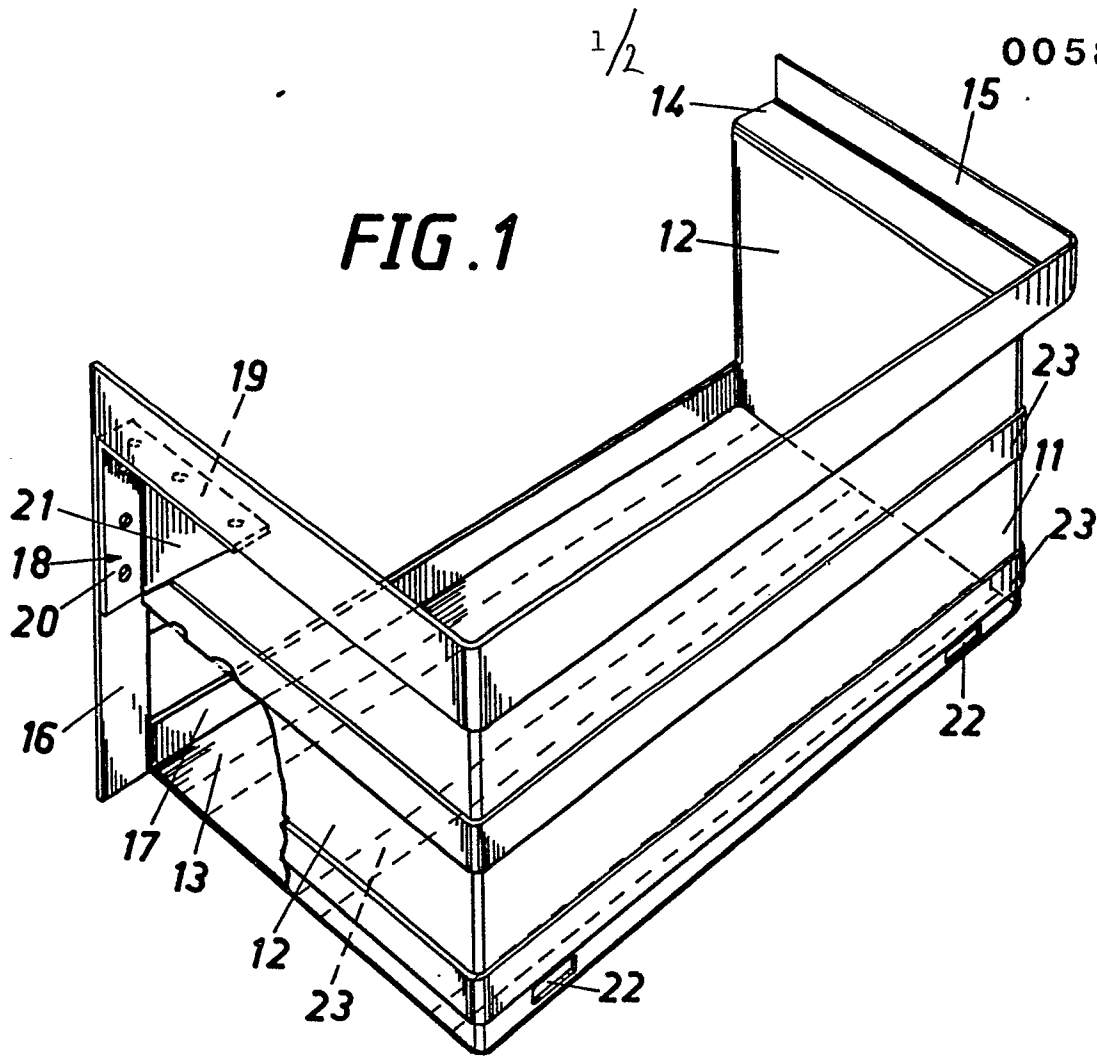
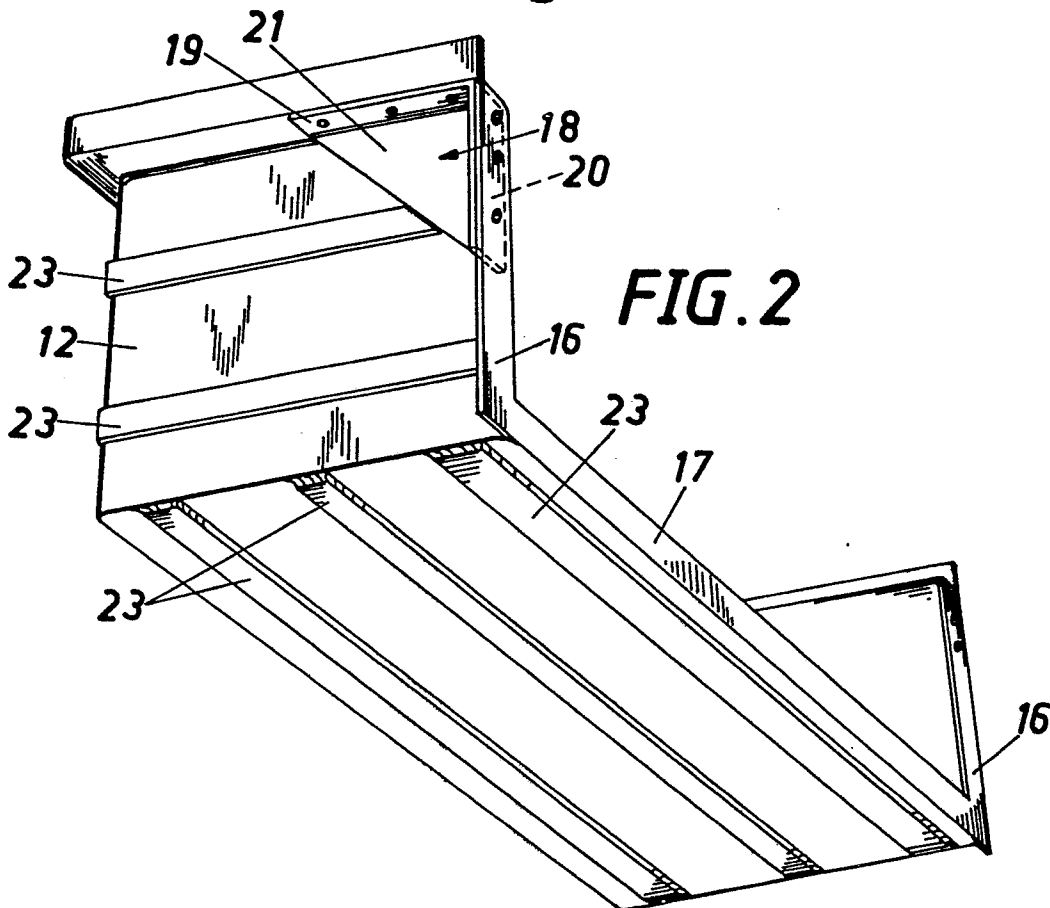
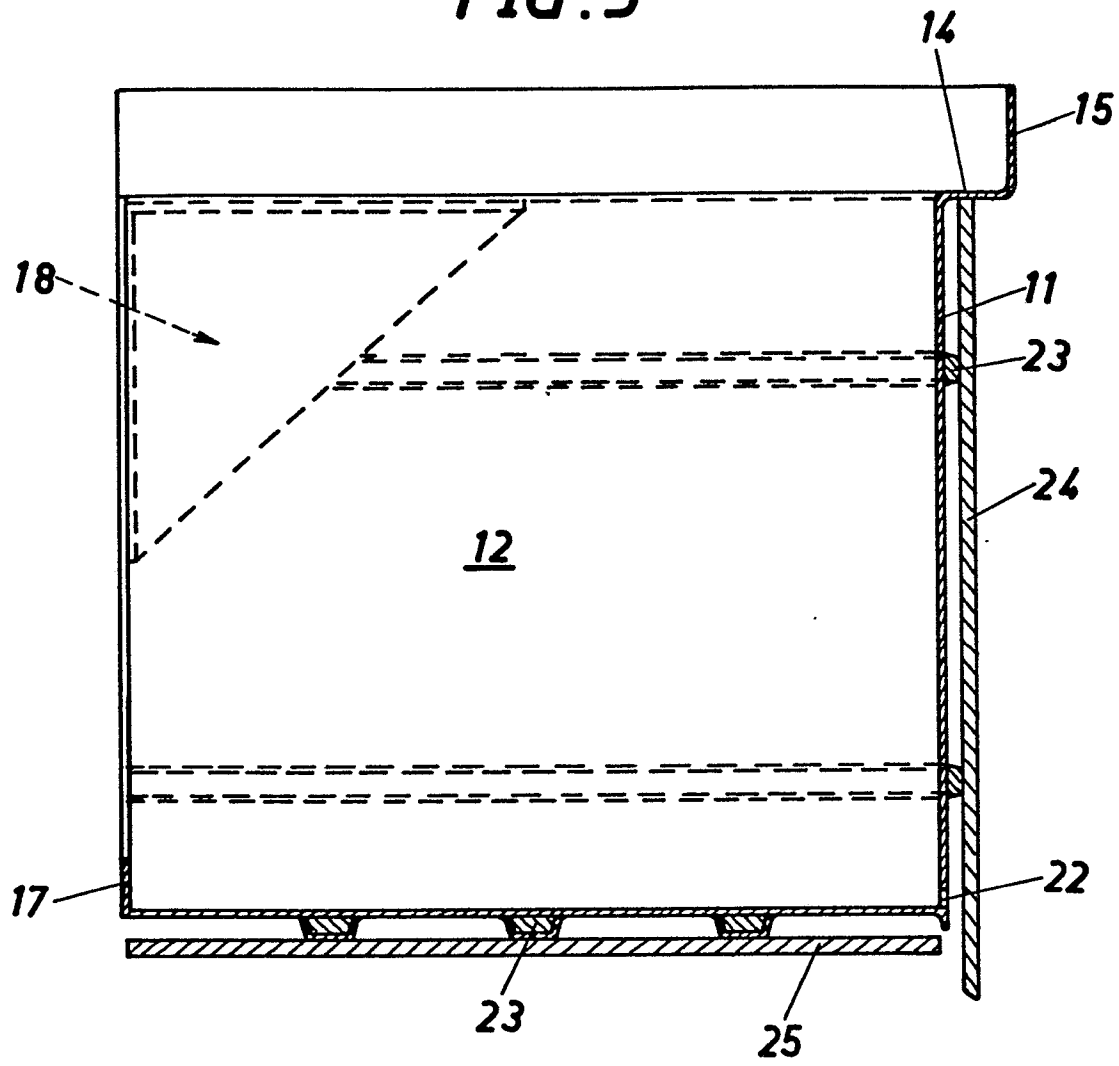


FIG. 2



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FIG. 3





European Patent
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EUROPEAN SEARCH REPORT

0058143

Application number

EP 82 85 0016.5

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl. 3)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	<u>DE - A1 - 2 608 872</u> (K.-H. SORGE) * page 2, paragraphs 5, 6 * --		E 04 B 1/00
A	<u>DE - A - 1 759 336</u> (S.L. ANDERSSON) * whole document * --		
A	<u>DE - U - 7 639 686</u> (H. BUDDE) * fig. 6 * ----		
			TECHNICAL FIELDS SEARCHED (Int.Cl. 3)
			E 04 B 1/00 E 04 F 19/00
			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
☒ The present search report has been drawn up for all claims			
Place of search		Date of completion of the search	Examiner
Berlin		29-03-1982	v. WITTKEN