

(19)



(11)

EP 2 677 093 A2

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:

25.12.2013 Bulletin 2013/52

(51) Int Cl.:

E04F 11/18 (2006.01)

(21) Application number: **13172456.9**

(22) Date of filing: **18.06.2013**

(84) Designated Contracting States:

**AL AT BE BG CH CY CZ DE DK EE ES FI FR GB
GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO
PL PT RO RS SE SI SK SM TR**

Designated Extension States:

BA ME

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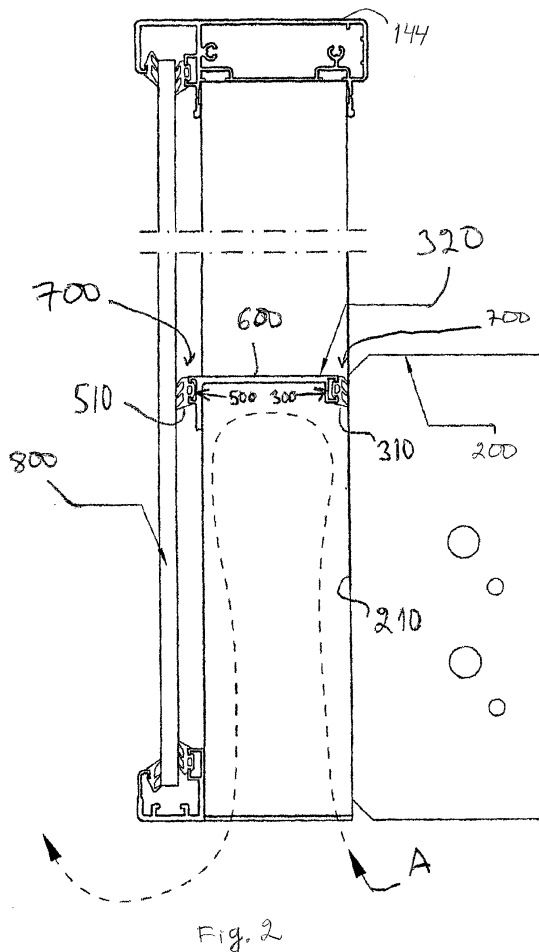
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(30) Priority: **19.06.2012 FI 20124121 U**

(54) Sealing arrangement for glazed balcony

(57) The invention relates to a sealing arrangement for a balcony to be furnished with balcony glazing. The

sealing arrangement comprises a sealing strip (320) equipped with a barrier seal (310) that prevents smoke or other flow and is arranged in a sealing groove (300).



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Description

Field

[0001] The invention relates to a sealing arrangement for a glazed balcony

Background

[0002] People do not want walls that hinder visibility on their balcony or terrace or on some other space to be protected but, on the other hand, an open balcony is windy and possibly even cold. However, visibility and protection from wind can be provided with a balcony glazing system that comprises several panes usually made of glass. The panes may also be turned aside, or pushed into either side, when necessary.

[0003] A problem with glazed balconies is that, in spite of the glazing, cigarette smoke or smoke from barbecuing or some other undesired or even harmful smell may drift especially from a balcony below. In some places, the fire regulations require that smoke and combustion gases be prevented from traveling from a lower balcony to the one above it.

[0004] It is known to try to eliminate the above-mentioned problems with silicone or some other sealing paste extruded from a tube by extruding it between the balcony slab end and the bottom part of a laminar balcony railing or in the slots between a toe rail and surrounding structures. Adhesive seals are also known. However, the known solutions are not necessarily very good in terms of implementation and service durability.

[0005] Therefore, there is a need for a novel sealing arrangement for sealing a glazed balcony.

Brief description

[0006] An object of the invention is to provide an improved sealing arrangement for a glazed balcony. This is achieved by the glazing arrangement of claim 1.

[0007] Preferred embodiments of the invention are disclosed in the dependent claims.

[0008] The sealing arrangement of the invention provides several advantages, such as good sealing ability, mountability and endurance of operating conditions.

List of figures

[0009] The invention will now be described in greater detail in connection with preferred embodiments and with reference to the accompanying drawings, in which

Figure 1 shows a pane system, and
Figure 2 shows a mounted sealing strip between the front edge of a balcony slab and a rail panelling as seen in the direction of the front edge of the balcony.

Description of embodiments

[0010] A pane system, that is, balcony glazing 100 comprises three panes 120, 122, 124, for instance. Each pane may be made of glass or some other material that permeates light to a desired extent and in a desired manner. The pane system 100 may comprise at least one pane 120 that is not movable, while panes 122, 124 are movable by sliding.

[0011] The panes are between a top rail structure 130 and a bottom rail structure 140. On the top and bottom edges of the actual glass portion of the panes 120, 122, 124, there are support structures, by means of which the panes are supported to the top rail structure 130 and the bottom rail structure 140. The bottom rail structure 140 may be supported to the top rail 144 of the railing, which top rail 144 also serves as the top support of the railing panelling 800, that is, cover plate structure 800. The bottom rail 140 and the top rail 144 of the railing may also be integrated into one and the same rail.

[0012] The invention relates to a sealing arrangement for a balcony to be furnished with balcony glazing 100.

[0013] Reference number 200 represents the balcony slab which is either a factory-made element or cast in place.

[0014] Figure 2 shows that the sealing arrangement comprises a sealing strip 320 equipped with a barrier seal 310 preventing the flow of smoke or other agent and arranged in a sealing groove 300. Thus, the sealing strip comprises a sealing groove 300 and a barrier seal 310, such as a smoke barrier seal, therein.

[0015] Figure 2 shows that in a preferred embodiment, on both longitudinal sides or edges of the sealing strip 320, there is a groove 300, 500 for a seal 310, 510 and in the groove a barrier seal 310, 510, in other words, a sealing groove 300 for the seal 310 and a sealing groove 500 for the seal 510. It can be seen that the sealing strip comprises a support 600 that connects the sealing grooves 300, 500 while the dimensions of the support 600 have been selected on the basis of the necessary filling distance in such a manner that the seals 310, 510 in the grooves 300, 500 are suitably compressed in the slot 700 requiring sealing or filling between the walls of the slot, that is, between the railing panelling 800 and the vertical end 210 of the balcony slab 200.

[0016] In an embodiment, the seal is a rubber seal made of EPDM rubber, for instance. This way, good operating characteristics are achieved in terms of sealing ability and endurance of operating conditions.

[0017] The sealing grooves 300, 500 and support 600 are of the same profile piece that is most preferably made of aluminium by impact extrusion.

[0018] The sealing strip 320 should preferably be a metal profile strip, and an embodiment where the sealing strip is an aluminium profile strip is especially practical, as mentioned above. Thus, the smoke barrier seals 310, 510 are inserted in an extruded profile strip preferably in such a manner that the seal fastens to the groove of the

profile strip by form-locking.

[0019] In the sealing arrangement, the sealing strip 320 with its smoke barrier seal 310 is between the horizontal balcony slab 200 and the second structural part 800 of the balcony and in contact with both the balcony slab 200 and the second structural part 800 of the balcony. 5

[0020] In Figure 2, arrow A shows the prevention of smoke or other harmful flow from rising from the lower balcony toward the bottom part of the upper balcony. The smoke may be from a fire, smoking or cookery, or it may be some other undesired, such as malodorous, air flow. 10

[0021] Even though the invention has been described above with reference to the examples according to the attached drawings, it is clear that the invention is not restricted thereto but may be modified in many ways within the scope of the accompanying claims. 15

Claims

1. A sealing arrangement for a balcony to be furnished with balcony glazing, **characterised in that** the arrangement comprises a sealing strip (320) equipped with a barrier seal (310) that prevents smoke or other flow and is arranged in a sealing groove (300). 20 25
2. A sealing arrangement as claimed in claim 1, **characterised in that** the barrier seal (310) is a rubber seal. 30
3. A sealing arrangement as claimed in claim 1 or 2, **characterised in that** the barrier seal (310) is made of EPDM rubber. 35
4. An arrangement as claimed in any one of preceding claims 1 to 3, **characterised in that** the sealing strip (320) is a metal profile strip. 40
5. An arrangement as claimed in any one of preceding claims 1 to 4, **characterised in that** the sealing strip (320) is an aluminium profile strip. 45
6. A sealing arrangement as claimed in any one of the preceding claims 1 to 5, **characterised in that** in the sealing arrangement, the sealing strip (320) with its barrier seal is between a horizontal balcony slab (200) and a second structural part (800) of the balcony and in contact with both the balcony slab (200) and the second structural part (800) of the balcony. 50
7. A sealing arrangement as claimed in claim 6, **characterised in that** said second structural part (800) of the balcony is a laminar railing panelling (800) covering the front edge of the balcony. 55
8. A sealing arrangement as claimed in any one of the preceding claims 1 to 7, **characterised in that** the sealing strip (320) comprises a sealing groove (300,

500) and a barrier seal (310, 510) arranged in the sealing groove on both longitudinal edges of the sealing strip (320).

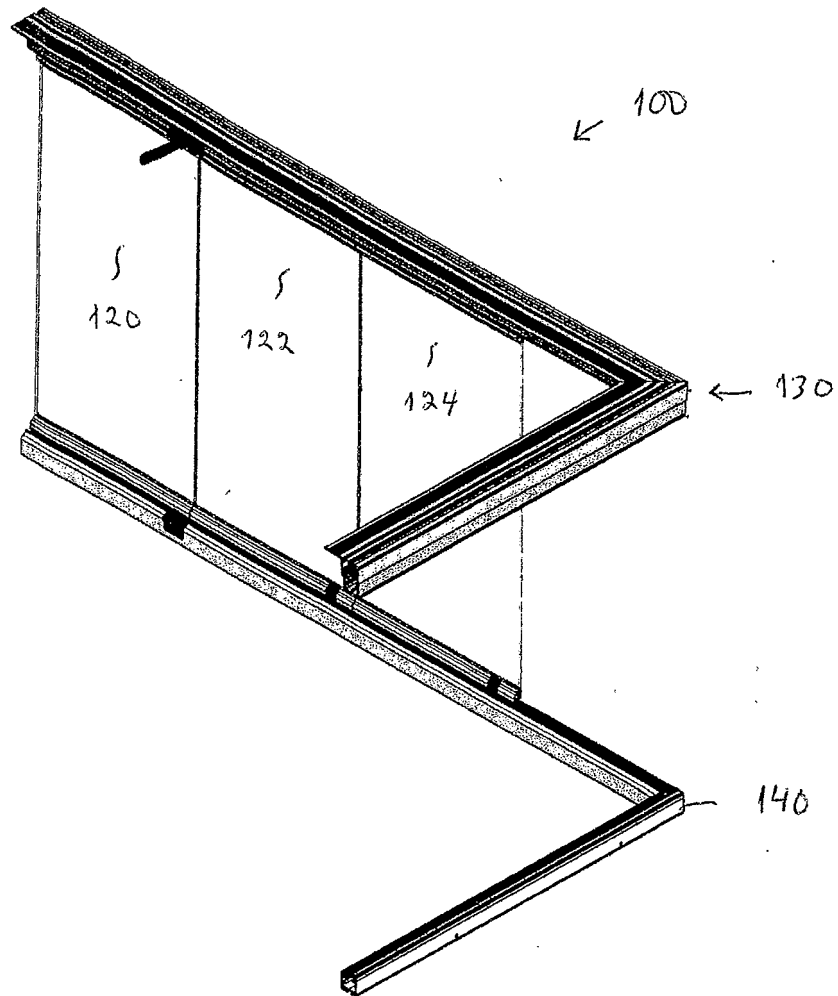


Fig. 1

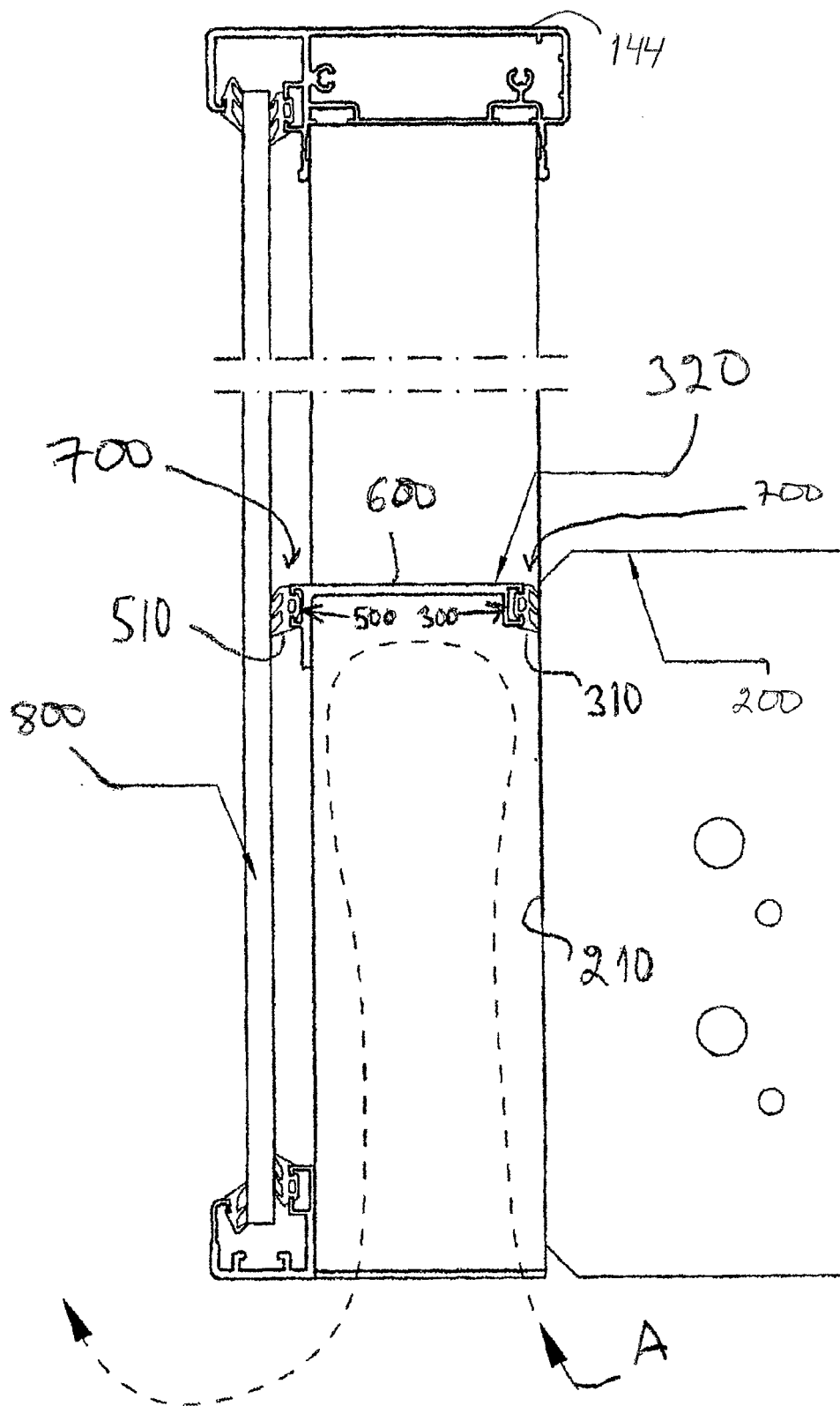


Fig. 2