



Europäisches Patentamt
 European Patent Office
 Office européen des brevets



Publication number: **0 418 461 A1**

EUROPEAN PATENT APPLICATION

Application number: 90106970.8

Int. Cl.⁵: A47F 3/00, E06B 3/54

Date of filing: 11.04.90

Priority: 26.07.89 IT 3069689 U

Applicant: **COSTAN S.P.A.**
 Via degli Alpini 14
 I-32020 Limana(Belluno)(IT)

Date of publication of application:
 27.03.91 Bulletin 91/13

Inventor: **Ganz, Tullio**
 Via Morgan 152
 Trichiana (BL)(IT)

Designated Contracting States:
 AT BE CH DE DK ES FR GB GR LI LU NL SE

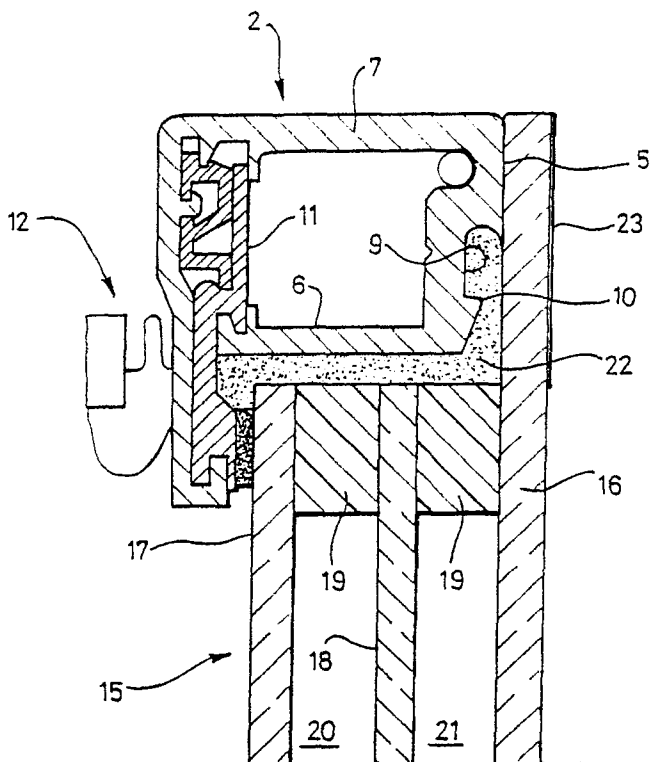
Representative: **Perani, Aurelio et al**
 c/o JACOBACCI-CASETTA & PERANI via
 Berchet, 9
 I-35131 Padova(IT)

A display cabinet having glazed surfaces.

In a display cabinet having glazed surfaces, each including at least two parallel spaced sheets (16-18) overlapping each other into a sandwich-type structure (15) and adapted to be set peripherally in a

capping frame, one of the outward sheets in the sandwich (15) is extended to overlap the frame (2)

Fig. 2



EP 0 418 461 A1

A DISPLAY CABINET HAVING GLAZED SURFACES

This invention relates to a display cabinet having glazed surfaces, each including at least two glass sheets set parallel apart which overlap each other into a sandwich-type structure and can be set peripherally in a capping frame.

Widely used on refrigerated display cabinets are glazed of the above-noted kind to provide an unobstructed view from outside of the goods on display, while ensuring that the cabinet interior is adequately insulated thermally by an insulating chamber formed between the overlapping sheets in the sandwich structure.

Such glass sheet sandwich structures, as employed both in the construction of doors and clear walls for the cabinets are traditionally set in and secured to a peripheral capping frame, usually made of anodized aluminum, which functions both as a support and a trimming member for the sheet sandwich structure.

However, such frames confer on the glazed surfaces, and hence, the display cabinet per se, a massive and heavy-looking appearance which is sometimes in harsh contrast with the rest of the fittings of a selling space such as a store or super-market.

It is the object of this invention to provide a display cabinet having glazed surfaces which are constructed to overcome the above-noted drawback.

This object is achieved by a display cabinet as indicated being characterized in that one of the outward sheets in said sandwich is extended to overlap said capping frame.

Advantageously, said outward sheet is made opaque across its area overlapping the frame.

The features and advantages of this invention will be more clearly understood from the following detailed description of a preferred, though not exclusive, embodiment thereof, to be taken by way of illustration and not of limitation with reference to the accompanying drawings, where:

Figure 1 shows a glazed door for a refrigerated cabinet embodying this invention; and

Figure 2 is a fragmentary cross-sectional view of the door shown in Figure 1.

Generally denoted by 1 in Figure 1 is a glazed door for a refrigerated display cabinet, not shown per se.

The door 1 comprises a bearing or capping frame 2, from a major side whereof, two pegs 3, 4 extend in continuation of said major side to provide pintles whereby the door 1 can be assembled to the display cabinet body

The bearing or capping frame 2 is obtained from a metal profile substantially "C" shaped (fig.

2) defining a back 5 and two substantially parallel and concurrent flanges 6, 7.

The back 5 has, on its side toward the inward flange of the frame 2, a recessed portion 9 defining a tooth-like profile 10.

Formed on the free ends of the two flanges 6, 7 are two corresponding seats arranged to face each other and to hold, in shape interfit relationship, a plate-like profile member 11 carrying a gasket 12.

The door 1 further comprises a sandwich structure of three shatterproof glass sheets, generally indicated at 15, which includes first and second outward sheets 16, 17 and an inward or core sheet 18 therebetween.

Interposed peripherally between the sheets 16-18 are spacers 19 which hold said sheets parallel to one another and a distance apart from one another, while additionally sealing off the spaces therebetween so as to define two sealed chambers 20, 21.

The outward sheet 16 of the door 1 is extended to overlap the frame 2 and is cemented to the back 5 by means of a silicone resin of a kind known per se. This same resin, denoted by 22, is also used to fill the interspace formed at the recessed portion 9 and between the sandwich sheet structure 15 and the inward flange 6 of the frame 2.

Thus, the sandwich sheet structure 15 is securely cemented to the frame 2 across two contiguous walls of the latter.

In the area of overlap on the frame 2, the sheet 16 as a region 23 which is made opaque, as by silk-screen application thereon of a grid-like pattern which extends from the free edge of the sheet 16 to the area occupied by the spacers 19, thereby masking off the spacers and frame and conferring on the glazed surface an unhampered and attractive appearance.

Alternatively, the region 23 may be made opaque by means of a paint effective to mask off the underlying region.

This structure enables the above-noted advantage to be obtained for a manufacturing cost which is substantially comparable with that of traditional glazed surfaces with the outer frame in full view.

Claims

1. A display cabinet having glazed surfaces, each including at least two glass sheets (16-18) set parallel apart which overlap each other into a sandwich-type structure (15) and can be set peripherally in a capping frame (2), characterized in

that one of the outward sheets (16) in said sandwich (15) is extended to overlap said capping frame (2).

2. A cabinet according to Claim 1, characterized in that said outward sheet (16) is made opaque across the region (23) thereof overlapping the frame (2). 5

3. A cabinet according to Claim 2, characterized in that the region (23) made opaque of said outward sheet (16) is formed by silk-screening application of a grid-like pattern thereon. 10

4. A cabinet according to Claim 2, characterized in that the region (23) made opaque of said outward sheet (16) is formed by application of a paint.

5. A cabinet according to one or more of the preceding claims, characterized in that said outward sheet (16) is cemented to said frame (2) at the overlap region. 15

6. A cabinet according to Claim 5, characterized in that said sandwich sheet structure (15) is cemented across at least two contiguous walls of said frame (2). 20

25

30

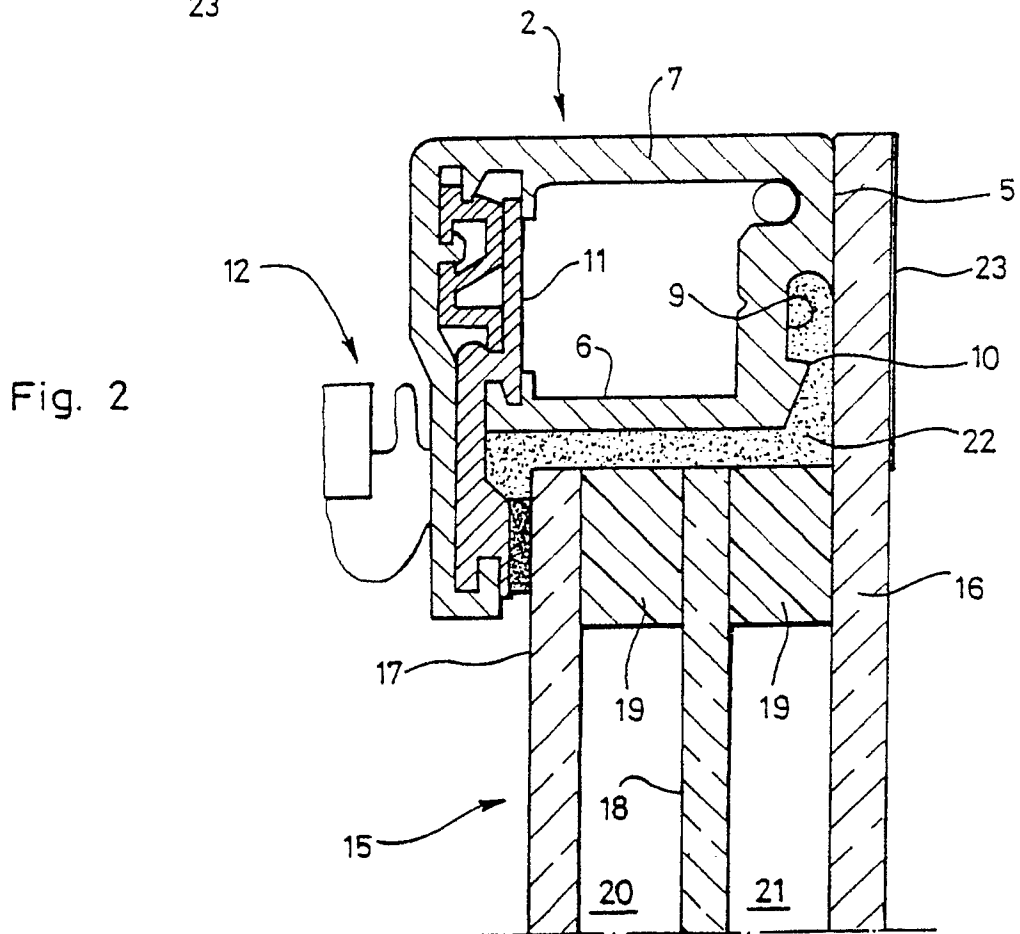
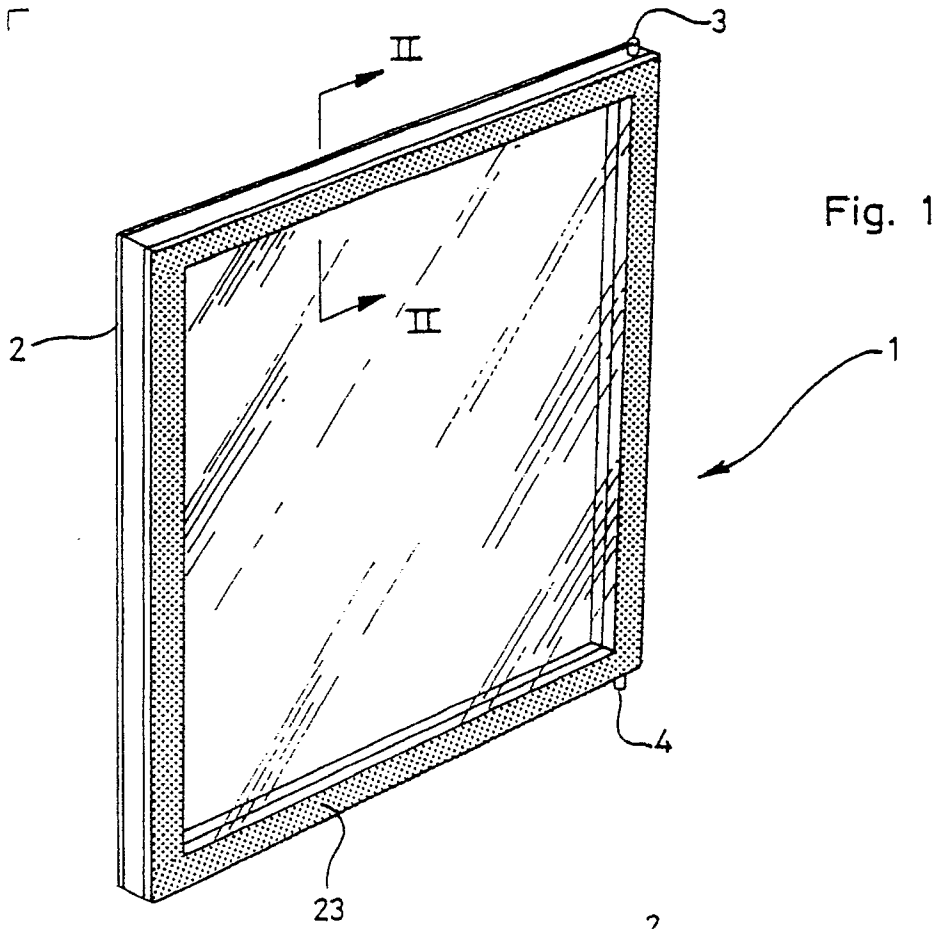
35

40

45

50

55





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	EP-A-0231839 (GLASBAU HAHN) * page 7, line 1 - page 7, line 35 * * page 8, line 29 - page 9, line 9; figures *	1, 2, 4-6	A47F3/00 E06B3/54
A	---	3	
P,Y	FR-A-2630157 (G.A.) * the whole document *	1, 2, 4-6	
A	DE-A-3240639 (BISCHOFF GLASTECHNIK) ---		
A	GB-A-2162933 (SANCEN CORPORATION) -----		
			TECHNICAL FIELDS SEARCHED (Int. Cl.5)
			A47F E06B
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 05 OCTOBER 1990	Examiner DE GROOT R. K.
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	