

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number:

0 283 549
A3

(12)

EUROPEAN PATENT APPLICATION

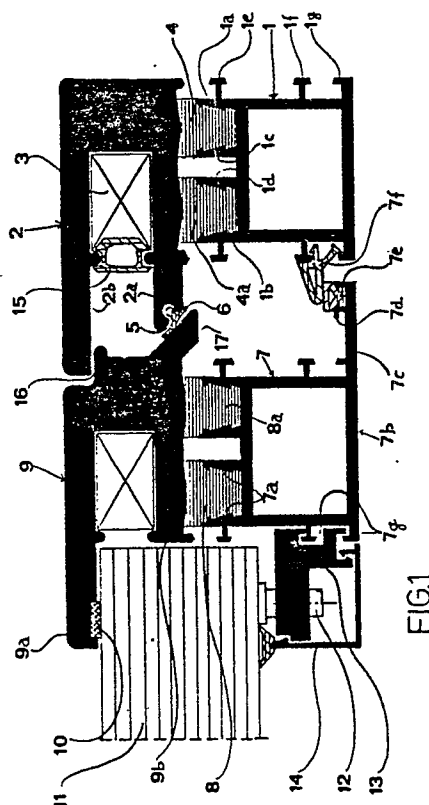
(21) Application number: **87108371.3**(51) Int. Cl.⁴: **E06B 5/10**(22) Date of filing: **10.06.87**(30) Priority: **17.03.87 IT 1972387**(43) Date of publication of application:
28.09.88 Bulletin 88/39(84) Designated Contracting States:
AT BE CH DE ES FR GB GR LI LU NL SE(89) Date of deferred publication of the search report:
26.04.89 Bulletin 89/17(71) Applicant: **ALUMINIA S.p.A.****I-09010 Portoscuso (Cagliari)(IT)**

(72) Inventor: **Rovere, Fulvio**
c/o ALUMINIA S.p.A. Via San Martino, 60
I-20017 Rho Milano(IT)
Inventor: **Guerri, Mario**
c/o ALUMINIA S.p.A. Via San Martino, 60
I-20017 Rho Milano(IT)

(74) Representative: **Trupiano, Roberto et al**
BREVETTI EUROPA S.r.l. Piazza Bernini, 6
I-20133 Milano (MI)(IT)

(54) **Integral armour-clad, bullet-proof, double-shield closure means such as a door, window, shop-window and the like, of aluminium alloy.**

(57) Armour-clad, bullet-proof closure means such as a door, window, window-glass and the like ("closure means") integrally made from a small set of extruded structural shapes (1,2,7,9) of aluminum alloy, of substantially quadrangular and hollow shape, arranged relatively to each other so to form two frames opposite to each other, joint-coupled with each other by means of blocks or continuous bars (4,4a,8,8a) suitable to be inserted inside seats provided on the mating faces of the said frames and so dimensioned, as to form both the frame constituting the door or window jamb, and the glass-holding frame of a door or window of the leaf type or fixed, the structural shapes (1,7) forming the frame destined to remain inside the room being made of an aluminum alloy of the traditional type for aluminium door and window jambs and frames, whilst the structural shapes (2,9) forming the frame destined to remain outside the room are made of an aluminum alloy endowed with a very high mechanical strength and high toughness.



EP 0 283 549 A3



EP 87 10 8371

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.4)
Y	EP-A-0 191 190 (SCHÜCO) * Column 1, lines 30-41; column 2, line 12 - column 3, line 32; claims 1-4; figures 1,2 *	1,2,4,5	E 06 B 5/10
A	---	3,7,10	
Y	DE-A-2 824 199 (G. KUGEL) * Pages 8,9; figure 2 *	1,2,4,5	
A	DE-U-8 612 216 (H. SÄLZER) * Claims 1-4; page 15, last paragraph; page 16; figure 2 *	1,3-6,8-10	
A	DE-A-2 324 724 (BLOHM + VOSS AG) * Page 7; figures 1-3 *	2,3	
A	ALLUMINIO, vol. L11, no. 7-8, July/August 1983, pages 40-44, IT; R. PILI: "A new all-aluminum armoured sash" * Pages 42-44; figures 3-7 *	1,8,9	
E	EP-A-0 253 983 (SCHÜCO) * Column 3, line 15 - column 4, line 7; figure 2 *	1,2,4,5,10	E 06 B F 41 H
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 06-02-1989	Examiner VERVEER D.
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			