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(54) **MODIFIED PROFILE FOR ALUMINIUM DOOR SASH TO INCREASE THE SAFETY LEVEL**

(57) The invention, **Modified profile for aluminium door sash to increase the safety level,** encompasses the achievement of a profile that will have an element of coverage, called support for the aluminium sheet covering the door's area of joining (bonding) between the aluminium sheet and sash in order to increase the safety of the door. With this profile is provided a door with a much improved level of safety and removes one of the sensitive points of this aesthetical deviations that results from the combination process (bonding).

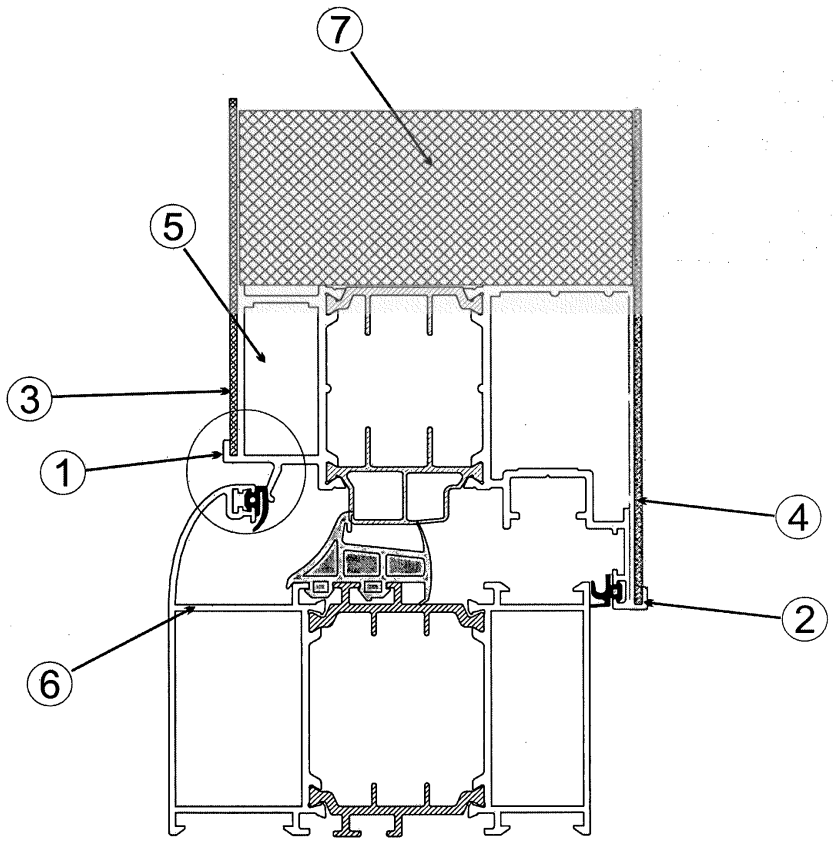

FIG. 1

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Description

Technical domain: Elements of external joinery with opening system and opening systems for external joinery.

[0001] The invention relates to achieve a profile of aluminium for doors that have the sash covered with aluminium foil 1-4 mm in order to increase the safety level of the door.

Technical Status:

[0002] At this time, current doors systems with a covered sash are designed only by gluing sheets of aluminium on the sash and filling by some method or with double-sided tape or another solder solution, leaving uncovered the aluminium sheet covering the sash.

Traditional system has a major drawback as it relates to its safety.

[0003]

1. The entire door resistance is given by the degree to which the aluminium sheet joins with the sash - this being determined by the strength of adhesion of the bonding method, which, done by any method, has some limitations. Furthermore this bonding, even though it has a very large tear resistance, is limited by the very material from which the adhesive layer is made. In general, the resulting materials have a limited tear resistance. This is used by robbers and the first phase of opening such a door is through strong action on the aluminium sheet to detach it. This is generally done in the area of bonding - the easiest. Once detachment is made, the passing through the door is no longer a problem, because the interior in generally made out of a polyurethane foam of relatively low density which is destroyed rapidly and the aluminium sheet inside is easily removed by pushing or by plucking and the door is basically open.

Technical problem:

[0004] The technical problem solved by the invention is to provide an aluminium profile for door sash in order to cover the aluminium sheet in the bonding area, thus realizing also a mechanical assembly. In this case, the aluminium sheet cannot be easily removed and thus is achieved a door with a high degree of security.

Invention exposure:

[0005] For carrying out the invention, we have designed a profile that has an element that comes as an extra shoulder support that we will call support for cover plate. This is the element (1) in the external side and element (2) in the internal part of the represented door look Fig. 1, 2, 3. Thus the aluminium sheet (3) inside respectively (4) on the outside will be covered to a depth of 4-5 mm with a shoulder which is part of the profile. The shoulder is difficult to remove and sets further by a mechanical assembly, the aluminium sheet to the door sash.

[0006] Thus created, the profile will cover the aluminium sheet (3,4) and this will not be easily removed from the door sash.

[0007] In order to set the aluminium sheet on the door sash, the bottom profile will be used without this shoulder to enable sliding the aluminium sheet on the doors sash by using the channel formed by the profile created to be used on the sides (left and right) and top of the door sash.

[0008] At the bottom, for the aluminium sheet to be closed off, it is used a drainer which is mechanically secured onto the door sash making it harder to be removed.

Advantages

[0009] The following advantages apply by using the invention:

1. ***A door with a much higher degree of safety than with a traditional profile.***
2. It eliminates the unaesthetic appearance that can occur on the side of the door sash due to imperfections such as cutting-processing machines of aluminium sheets and bonding it with the door sash.

Figure description

[0010]

Figure 1 represents a door section where the invented profile is being used (6) It is observed the elements that contribute to the invention (1) external and (2) internal. It is identified the external aluminium sheet (3) and the internal aluminium sheet (4). It is identified the door frame (5), the complete door sash (6) and the door filling (7).
Figure 2 represents a detail of figure 1 on the external side of the door.
Figure 3 represents an externally viewed door where you can also see the components.

Claims

1. The modified sash profile **characterized by** being equipped with support for the aluminium sheet foil so there will not be direct access in the joining (bonding) area of the aluminium sheet with the door sash.

2. The combination of profiles **characterized by** a profile that has provided an update covering the alumin-

ium sheet in the joint (bonding) with sash.

3. The doors and other carpentry elements **characterized by** being made using profiles or combinations of profiles as claimed in claims 1 and 2.

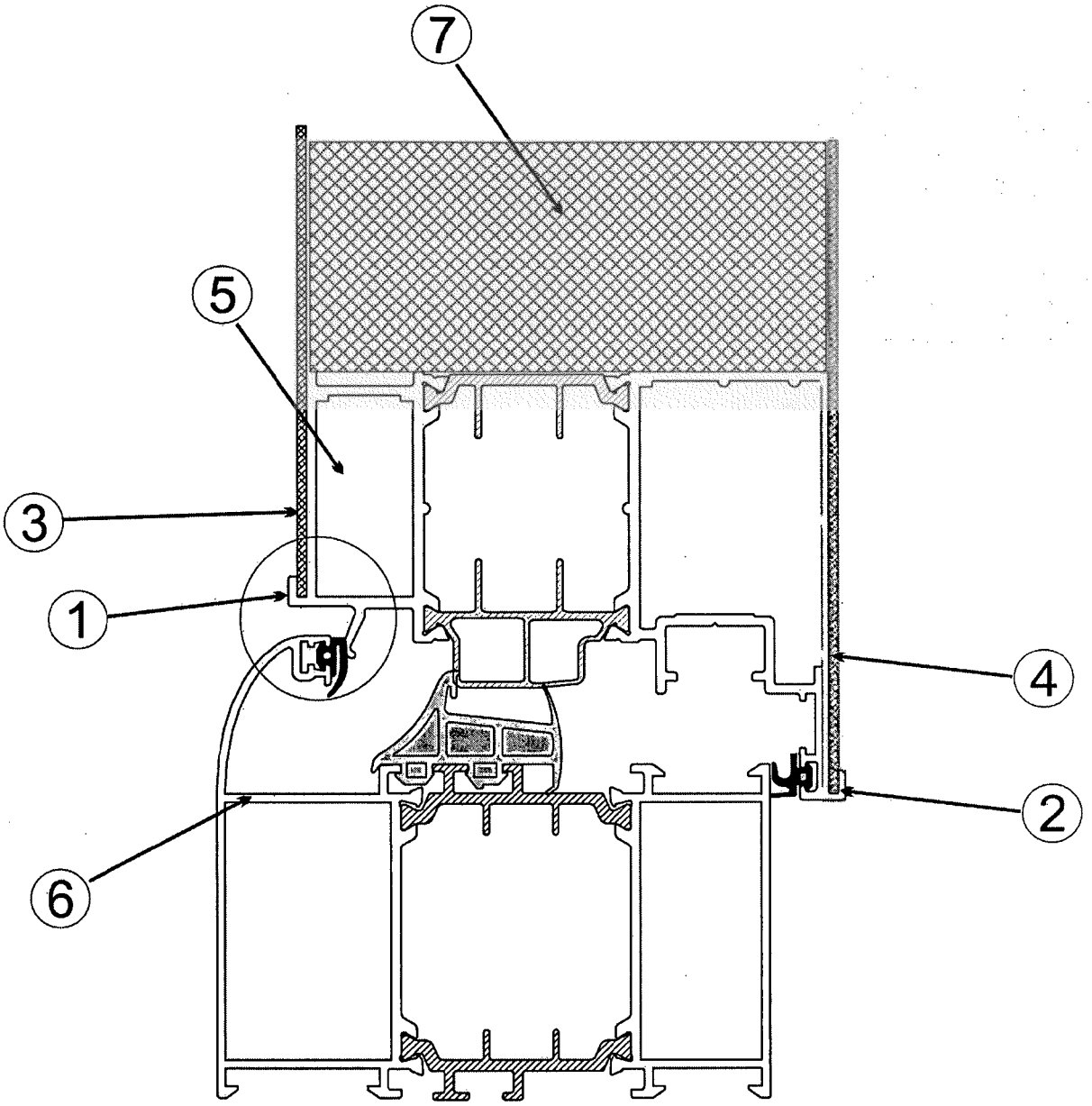

FIG. 1

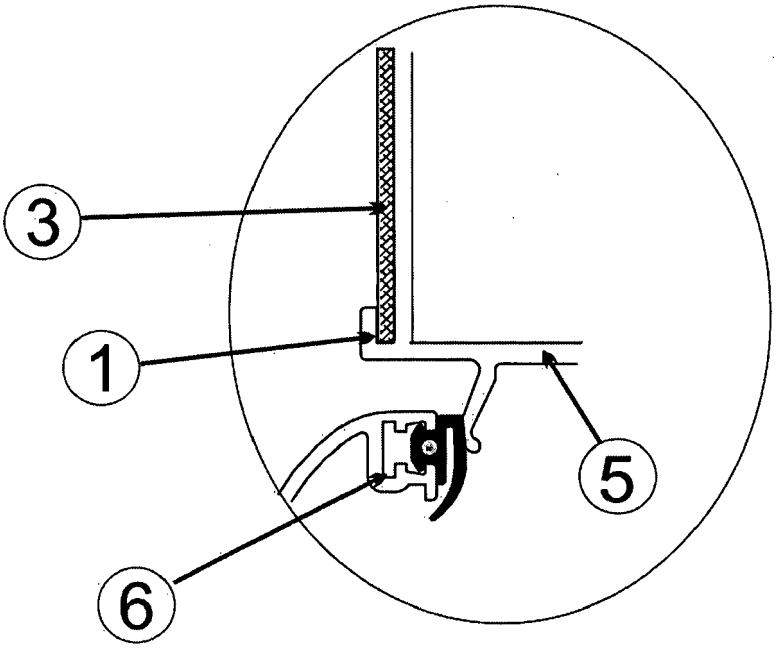

FIG. 2

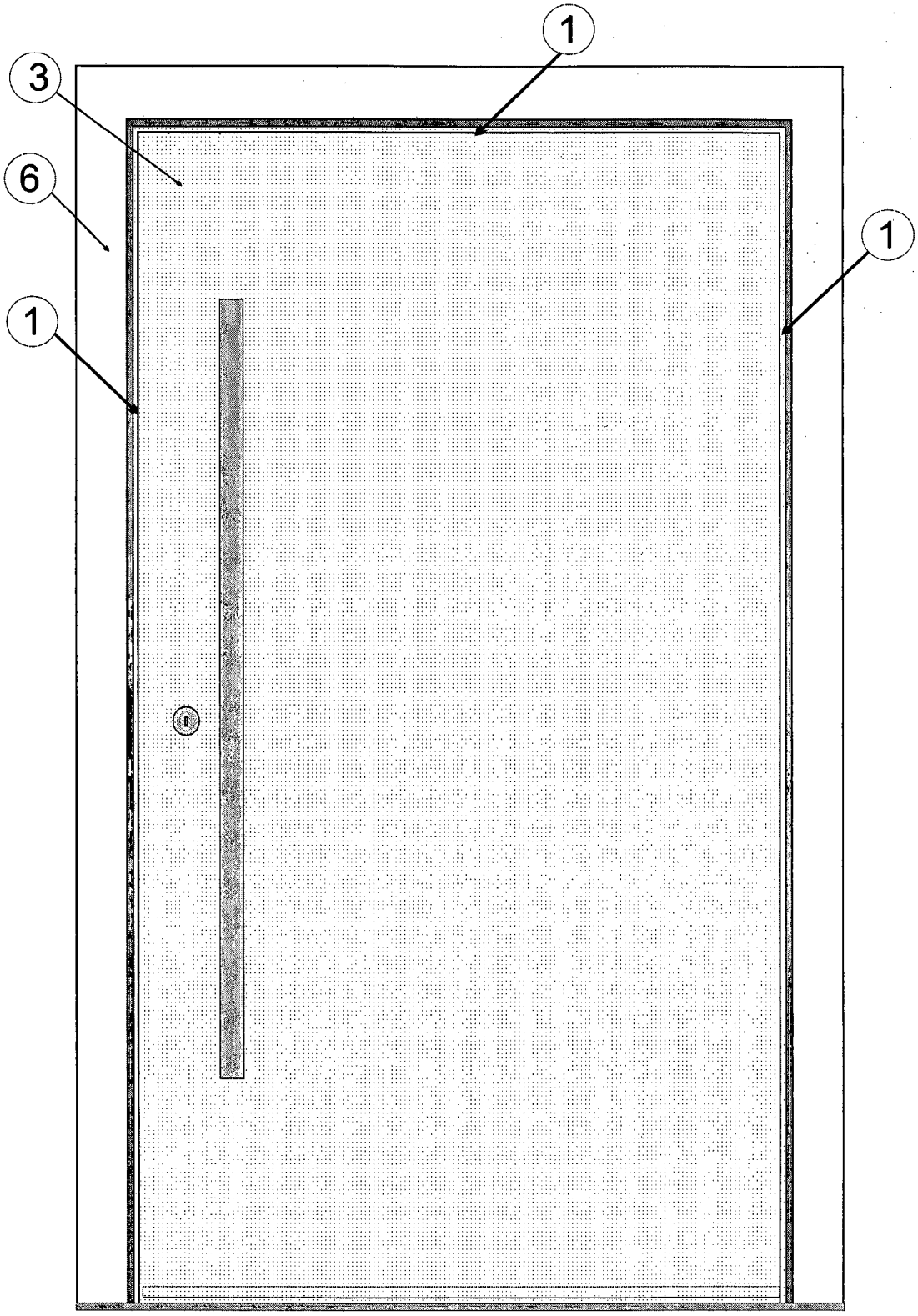

FIG. 3

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EUROPEAN SEARCH REPORT

Application Number
EP 17 00 0180

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	DE 20 2009 000092 U1 (SPIERING AUGUST [DE]) 8 April 2010 (2010-04-08) * paragraphs [0001], [0002], [0008], [0016]; figures 1-2 *	1-3	INV. E06B3/76 ADD. E06B5/11
X	DE 201 18 507 U1 (SCHLUTZ GUENTER [DE]) 31 January 2002 (2002-01-31) * page 5, lines 1-12; figure 1 * * page 6, lines 13-14 *	1-3	
X	DE 199 62 364 A1 (W & S VARIO SCHICHT SYSTEME GM [DE]) 12 July 2001 (2001-07-12) * column 3, lines 19-24,43-54; figure 3 *	1-3	

TECHNICAL FIELDS SEARCHED (IPC)

E06B

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
The Hague	14 March 2017	Gallego, Adoración

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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E : earlier patent document, but published on, or after the filing date
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EPO FORM 1503 03.82 (P04C01)

ANNEX TO THE EUROPEAN SEARCH REPORT ON EUROPEAN PATENT APPLICATION NO. EP 17 00 0180

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report. The members are as contained in the European Patent Office EDP file on
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14-03-2017

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
DE 202009000092 U1	08-04-2010	NONE	
DE 20118507 U1	31-01-2002	DE 10251431 A1	05-06-2003
		DE 20118507 U1	31-01-2002
DE 19962364 A1	12-07-2001	NONE	

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For more details about this annex : see Official Journal of the European Patent Office, No. 12/82