



Europäisches Patentamt
European Patent Office
Office européen des brevets



(11) **EP 1 348 820 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
01.10.2003 Bulletin 2003/40

(51) Int Cl.7: **E04D 1/30**

(21) Application number: **02380070.9**

(22) Date of filing: **27.03.2002**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE TR**
Designated Extension States:
AL LT LV MK RO SI

(71) Applicant: **Ind. Transformadoras del Cemento
Eternit, S.A.**
28004 Madrid (ES)

(72) Inventor: **Laloma Escalera, Ludovico**
28004 Madrid (ES)

(74) Representative:
Esteban Perez-Serrano, Maria Isabel
UDAPI & Asociados
Patents y Marcas
Explanada, 8
28040 Madrid (ES)

(54) **Components for a mixed eave tile with the appearance of an arab roof tile.**

(57) The new tile comprises three complementary parts, a mixed part (3) with a step (3.1) in its trough (3.2); an arch (4) to prevent longitudinal rocking motion of the mixed tile (3), having a reduced depth and a greater curvature than the cover (3.3), and placed antagonistic to the step (3.1); and a short segment of an Arab trough (5) with a greater depth than the step (3.1) that defines the alignment of troughs and covers of Arab roofs and

which is provided with two ridges (5.1) to prevent rain water from returning, both aligned transversally, with the Arab trough part (5) receiving the two parts (3) and (4) so that the upper edge of the ridge (5.1) of the Arab trough part (5) does not touch the inner face of the step (3.1) of the mixed tile (3).

EP 1 348 820 A1

Description

OBJECT OF THE INVENTION

[0001] The invention herein disclosed relates to components for a mixed eave tile, having the appearance of an Arab tile, from among mixed, simple or multiple roof tiles comprising at least one trough and one cover.

[0002] The invention is characterised by a special construction of the tile, which is meant to be placed on the first row of a roof formed on its following rows by only mixed tiles, based on three complementary parts, a mixed tile with a wide step at its trough; a small part that has a greater curvature and is externally convex, antagonistic of said step of the trough and meant to prevent the longitudinal rocking motion of the mixed tile; and finally a small segment of Arab trough which receives the prior two parts and is provided with two internal transverse ridges as a water trap.

BACKGROUND OF THE INVENTION

[0003] Current roofs made of Arab tiles and mixed tiles can be clearly distinguished by the observer by their special plano-convex construction of the latter, compared to the staggered superposition arrangement of the half-waves of a traditional Arab tile construction.

[0004] The applicant is not aware of any means that allow constructing roofs with the appearance of Arab tiles using mixed tiles with the simplicity and efficiency provided by the components described hereinafter.

DESCRIPTION OF THE INVENTION

[0005] The invention object of the present memory relates to components for mixed roof tiles which have the appearance of Arab tiles in a front elevation view, from among simple mixed tiles with a single trough and a single cover, or multiple ones, comprising at least a single trough segment or a single cover segment and two or more segments of the opposite configuration, the latter being arranged in a consecutive gradual staggered arrangement.

[0006] The invention is characterised by a special construction of said mixed tile, that is preferably meant to be placed on the front first row of a roof or on its eave, which comprises only mixed tiles in its posterior rows, all of this by means of three complementary parts: the first is a mixed tile with a wide step in its trough, so that the front of this inner step will be hidden to an observer from its bottom view.

[0007] The second part is a construction in the form of a small segment of an arch, with a greater curvature than the mixed tile cover and placed external and antagonistic to the trough of the aforementioned mixed tile, with this second part meant to prevent the longitudinal rocking motion of the main part of the mixed tile which would result from its above-described step.

[0008] Finally, the third part of this assembly is a short Arab trough which is deeper than the shift of the step obtained from the main part of the mixed tile, which gives the appearance of an Arab trough alignment characteristic of these types of roofs. This third part is provided with two inner, transversally aligned ridges meant to prevent rain water from flowing backwards and which receives the two aforementioned parts, so that these ridges are located internally of the edge of the step of the mixed tile and at a sufficient distance so that the abutting inner face of this short straight segment is separated from the front ridge, preventing water from being trapped and the resulting undesired overfills.

DESCRIPTION OF THE DRAWINGS

[0009] The present descriptive memory is complemented by a set of drawings of an example of preferred embodiment for purposes of illustration and not meant as a limitation of the invention.

[0010] Figure 1 shows an exploded view of the components of the new tile.

[0011] Figure 2 is a general perspective view of a part of a roof having in its first row of tiles an alignment of the tiles of the invention.

[0012] Figure 3 is an elevation view of one of these tiles.

PREFERRED EMBODIMENT OF THE INVENTION

[0013] In view of the above, the present invention relates to components for a mixed eave tile, having the appearance of an Arab tile in a front elevation view, from among mixed, simple or multiple tiles, with this mixed tile characterised in that it is placed on the first front row (1) of a roof or an eave, with the remaining rows (2) formed by mixed tiles, and is based on three complementary parts, a mixed part (3) with a step (3.1) about 8 cm long in its trough (3.2), an arch (4) to prevent longitudinal rocking motion of the mixed tile (3), having a reduced depth and a greater curvature than the cover (3.3), placed antagonistic to the step (3.1) and a short segment of an Arab trough (5) with a greater depth than the step (3.1) which defines the alignment of troughs and covers characteristic of Arab roofs and which is provided with two ridges (5.1) to prevent rain water from returning, aligned transversally, and which receives the two parts (3) and (4) so that the upper edge of the ridge (5.1) does not touch the inner face of the step (3.1) of the mixed tile (3).

[0014] The essence of the invention is not affected by variations in the materials, shape, size and arrangement of the component elements, which are described in a non-limiting manner, which should allow its reproduction by an expert in the field.

Claims

1. Components for a mixed eave tile, having the appearance of an Arab tile in a front elevation view, from among mixed, simple or multiple tiles, with this mixed tile **characterised in that** it is placed on the first front row (1) of a roof or an eave, with the remaining rows (2) formed by mixed tiles, its construction being based on three complementary parts, a mixed part (3) with a step (3.1) in its trough (3.2), an arch (4) to prevent the longitudinal rocking motion of the mixed tile (3), that has a short depth and a greater curvature than the cover (3.3) and is placed antagonistic to the step (3.1), and a short segment of an Arab trough (5) with a greater depth than the step (3.1), which defines the alignment of troughs and covers characteristic of Arab roofs and which is provided with two ridges (5.1) to prevent rain water from returning, both ridges aligned transversally, with the Arab trough part (5) receiving the two parts (3) and (4) so that the upper edge of the ridge (5.1) of the Arab trough part (5) does not touch the inner face of the step (3.1) of the mixed tile (3).

25

30

35

40

45

50

55

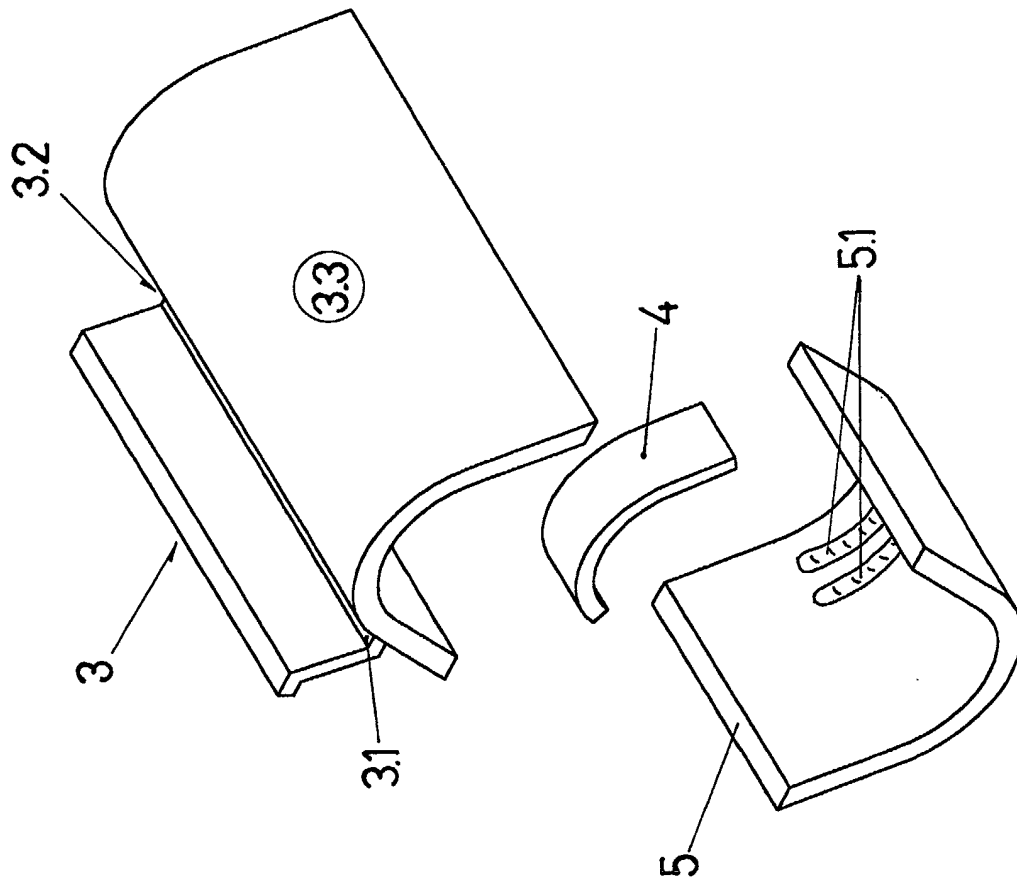


FIG.1

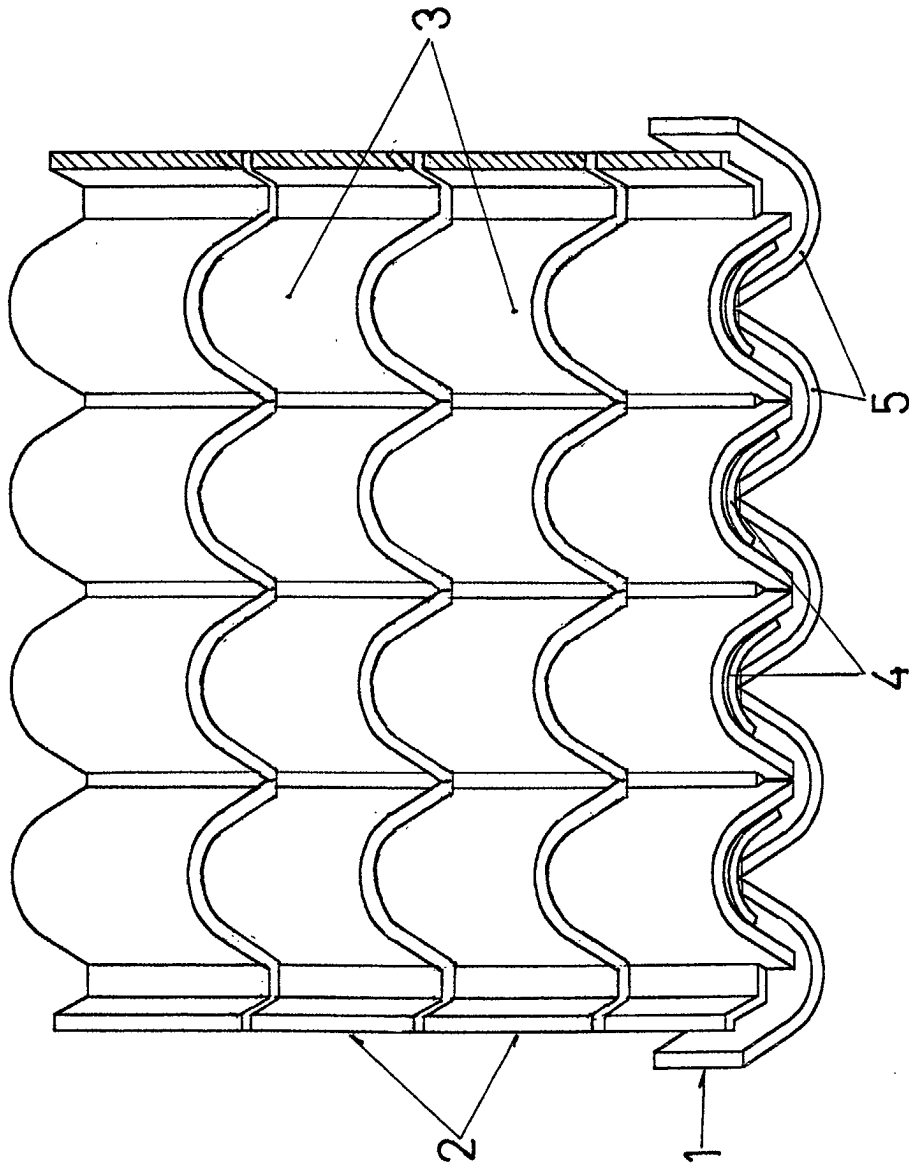


FIG. 2

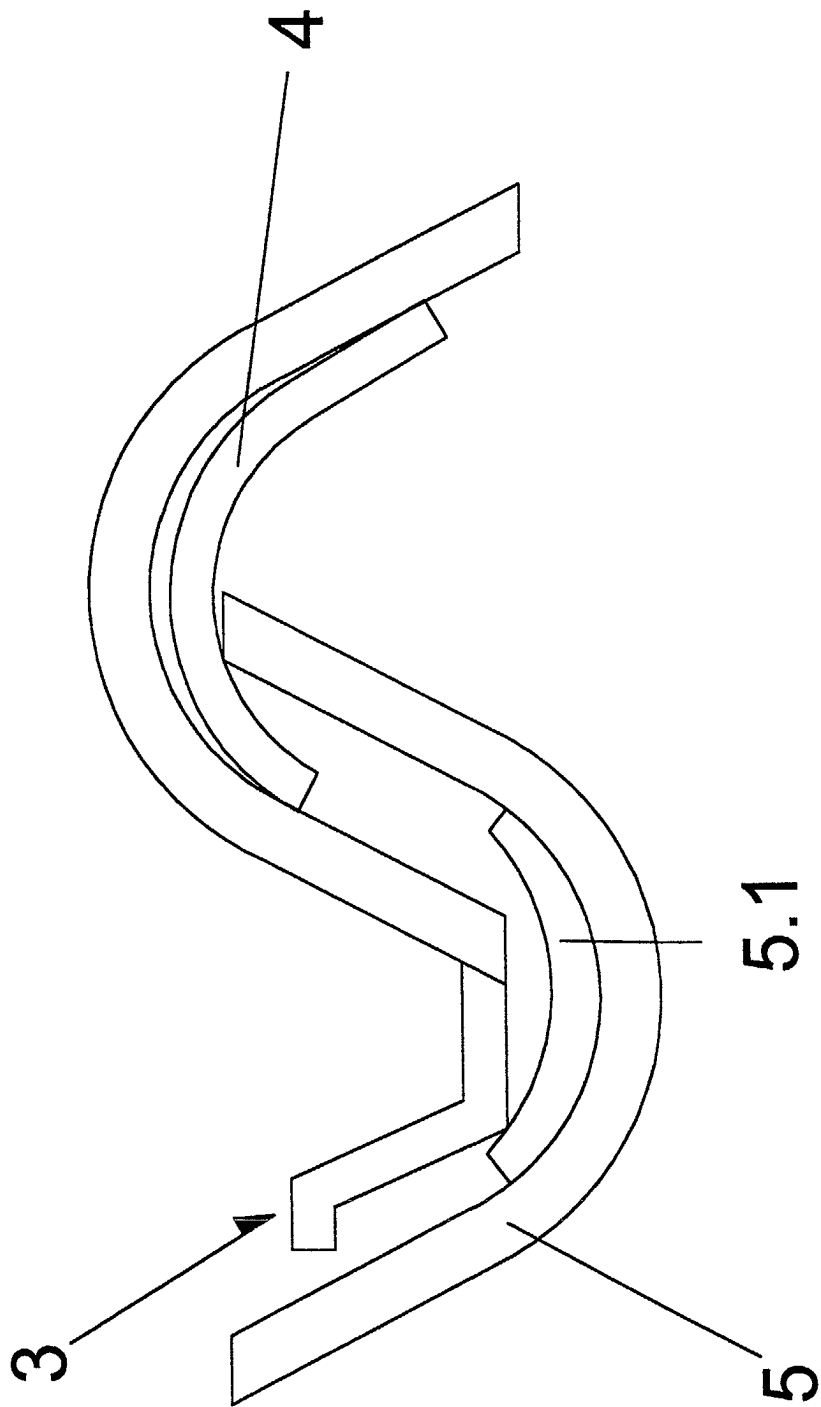


FIG. 3



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 02 38 0070

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.7)
A	FR 2 795 112 A (LAURAGAIS TUILERIES BRIQ) 22 December 2000 (2000-12-22) * abstract; figures * * page 1, paragraph 1 - page 2, last paragraph * ---	1	E04D1/30
A	FR 2 576 347 A (LAURAGAIS TUILERIES BRIQ) 25 July 1986 (1986-07-25) * page 1, paragraph 1 - page 2, paragraph 2 * -----	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			E04D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 20 August 2002	Examiner Demeester, J
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			

EPO FORM 1503 03/82 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 02 38 0070

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
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

20-08-2002

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
FR 2795112	A	22-12-2000	FR	2795112 A1	22-12-2000
			IT	MI20001399 A1	21-12-2001
FR 2576347	A	25-07-1986	FR	2576347 A1	25-07-1986

EPO FORM P0459

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