



(11) **EP 1 746 219 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
24.01.2007 Bulletin 2007/04

(51) Int Cl.:
E04F 15/08 (2006.01) B44F 3/00 (2006.01)

(21) Application number: **05254480.6**

(22) Date of filing: **19.07.2005**

(84) Designated Contracting States:
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR
Designated Extension States:
AL BA HR MK YU

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(54) **Paving system**

(57) A paving system comprises a plurality of similarly shaped stones 10 assembled to define a first boundary 12, and a plurality of irregularly shaped stones 18, each said irregularly shaped stone 18 being moulded in a shape selected so as to allow it to be laid adjacent at

least one of the similarly shaped stones 10 or another of the irregularly shaped stones 18, the plurality of irregularly shaped stones 18 being arranged to substantially fill an area between the said first boundary 12 and a second boundary 16.

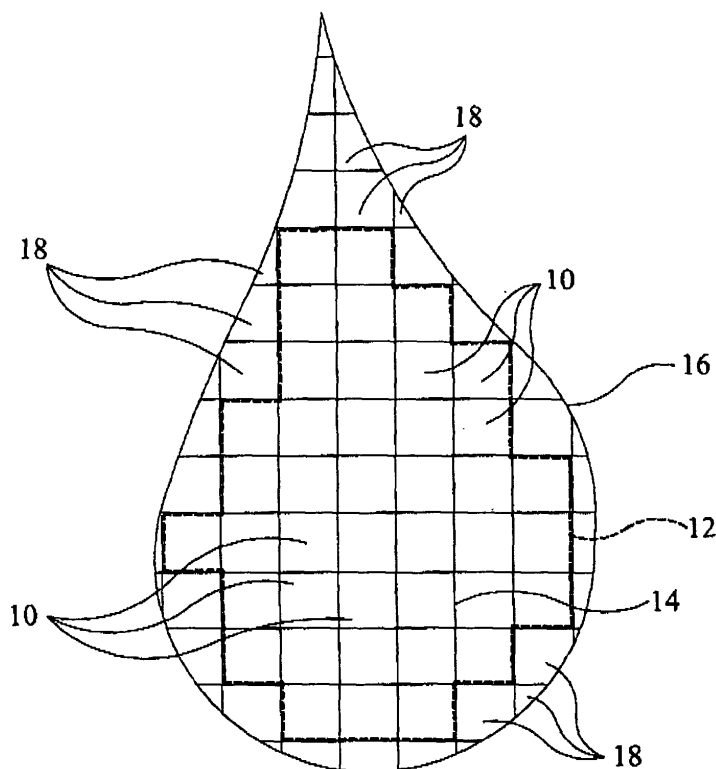


FIG 1

Description

[0001] This invention relates to a paving system for use in the formation of paved or tiled surfaces, for example outdoor patio areas or tiled floor areas.

[0002] Typically, where a paved or tiled surface is to be provided, a number of similarly shaped paving stones or tiles are laid. Where the stones or tiles are square or rectangular in shape, as is often the case, limitations are placed upon the shape and size of the surface if cutting of the paving stones or tiles is to be avoided. The avoidance of having to cut paving stones or tiles is desirable, particularly where the stones or tiles are to be laid by an inexperienced workman as there is the risk of stones or tiles being broken or cut to the incorrect size and the requirement to use specialist equipment.

[0003] It is an object of the invention to allow the production of paved or tiled surfaces of various shapes, for example irregular or amorphous shapes, whereby cutting of stones or tiles can be avoided. For simplicity, herein the term stone will generally be used to refer to paving stones, tiles and the like.

[0004] According to one aspect of the invention there is provided a paving system comprising a plurality of similarly shaped stones assembled to define a first boundary, and a plurality of irregularly shaped stones, each said irregularly shaped stone being moulded in a shape selected so as to allow it to be laid adjacent at least one of the similarly shaped stones or another of the irregularly shaped stones, the plurality of irregularly shaped stones being arranged to substantially fill an area between the said first boundary and a second boundary.

[0005] The second boundary conveniently defines, in part, an area of irregular or amorphous shape.

[0006] Conveniently, the edges of the similarly shaped stones define a grid pattern, the edges of the irregularly shaped stones lying on extensions to the said grid pattern.

[0007] The similarly shaped stones are conveniently all of substantially the same shape and size. Preferably, the similarly shaped stones are shaped so as to tessellate with one another.

[0008] The stones may be of, for example, moulded concrete form.

[0009] According to another aspect of the invention there is provided a paving method comprising defining a first boundary at the edge of an area which can be paved using similarly shaped stones, defining a second boundary, and laying a plurality of irregularly shaped stones in the area between the first and second boundaries to substantially fill the said area, the irregularly shaped stones each being moulded in a shape selected to allow it to be laid alongside at least part of the first boundary and/or another of the irregularly shaped stones.

[0010] The invention will further be described, by way of example, with reference to the accompanying drawings, in which:

Figure 1 is a diagram illustrating one embodiment of the invention; and

Figure 2 is a diagram illustrating an alternative embodiment.

[0011] Referring firstly to Figure 1 there is illustrated, diagrammatically, a paving system used in the formation of a patio of tear-drop shaped form. The patio is made up of a plurality of similar paving slabs or stones 10 which have been laid to fill an area located within a first boundary denoted by dashed or broken lines 12. In this embodiment, the stones 10 are of square form and the edges of the stones 10 define a grid pattern 14. A second boundary 16 defines the outer periphery of the patio and the area between the first and second boundaries 12, 16 is filled by a plurality of irregularly shaped stones 18, the irregularly shaped stones having been pre-moulded to the required shape. The shapes of the irregularly shaped stones 18 are chosen so as to allow the edges thereof which do not fall on the second boundary 16 to lie on the grid pattern 14. The stones are conveniently of moulded concrete form, but the invention is also applicable to stones moulded from other materials.

[0012] Although Figure 1 illustrates a patio area the outer peripheral shape of which is irregular, there may be circumstances in which a surface is desired to have an inner periphery of irregular shape, for example if a pond or water feature is to be incorporated into a patio, and the invention is applicable to paving systems for use in such applications.

[0013] Figure 2 illustrates an alternative application of the invention in the tiling of, for example, a conservatory floor area, in which it is desired to provide an area of contrasting colour. Figure 2 illustrates the provision of an area 20 of tear-drop shaped form surrounded by an area 22 defining an opening of tear-drop shaped form designed to receive the tiles or stones of the area 20. The area 20 may be of stones or tiles of a colour chosen to contrast with those of the area 22.

[0014] As with the arrangement of Figure 1, the area 20 is made up of similarly shaped stones filling an area within a first boundary 24, irregularly shaped stones filling an area between the first boundary 24 and a second boundary 26. The area 22 is made up of similarly shaped stones filling an area between an outer boundary 28, for example defined by the walls of the room, and a first boundary 30 and irregular stones filling an area between the first boundary 30 and the second boundary 26.

[0015] Although suitable for use in indoor applications, the arrangement of Figure 2 is also suitable for use outdoors.

[0016] The invention also relates to a paving method including a step of defining a first boundary at the edge of an area which can be paved using similarly shaped stones, defining a second boundary, and moulding a plurality of irregularly shaped stones for use in filling the area between the first and second boundaries. By using this

method sets of irregularly shaped stones may be produced and sold for use in the formation of paved areas of a range of shapes. Although the description and drawings herein show tear-drop shaped patterns, it will be appreciated that the invention relates to other shapes including, but not restricted to, irregular or amorphous shapes, kidney shaped or the like. Further, although square similarly shaped stones are shown, the invention is not restricted in this regard and could make use of, for example, rectangular, diamond, or triangular stones, stones of other shapes which tessellate, or even stones of a shape having curved sides.

[0017] It will be appreciated that a number of modifications or alterations may be made to the arrangements described hereinbefore within the scope of the invention.

lected to allow it to be laid alongside at least part of the first boundary and/or another of the irregularly shaped stones.

Claims

1. A paving system comprising a plurality of similarly shaped stones assembled to define a first boundary, and a plurality of irregularly shaped stones, each said irregularly shaped stone being moulded in a shape selected so as to allow it to be laid adjacent at least one of the similarly shaped stones and/or another of the irregularly shaped stones, the plurality of irregularly shaped stones being arranged to substantially fill an area between the said first boundary and a second boundary.
2. A system according to Claim 1, wherein the second boundary defines, in part, an area of irregular or amorphous shape.
3. A system according to Claim 1 or Claim 2, wherein the edges of the similarly shaped stones define a grid pattern, the edges of the irregularly shaped stones lying on extensions to the said grid pattern.
4. A system according to any one of the preceding claims, wherein the similarly shaped stones are all of substantially the same shape and size.
5. A system according to any one of the preceding claims, wherein the similarly shaped stones are shaped so as to tessellate with one another.
6. A paving system substantially as hereinbefore described with reference to the accompanying drawings.
7. A paving method comprising defining a first boundary at the edge of an area which can be paved using similarly shaped stones, defining a second boundary, and laying a plurality of irregularly shaped stones in the area between the first and second boundaries to substantially fill the said area, the irregularly shaped stones each being moulded in a shape se-

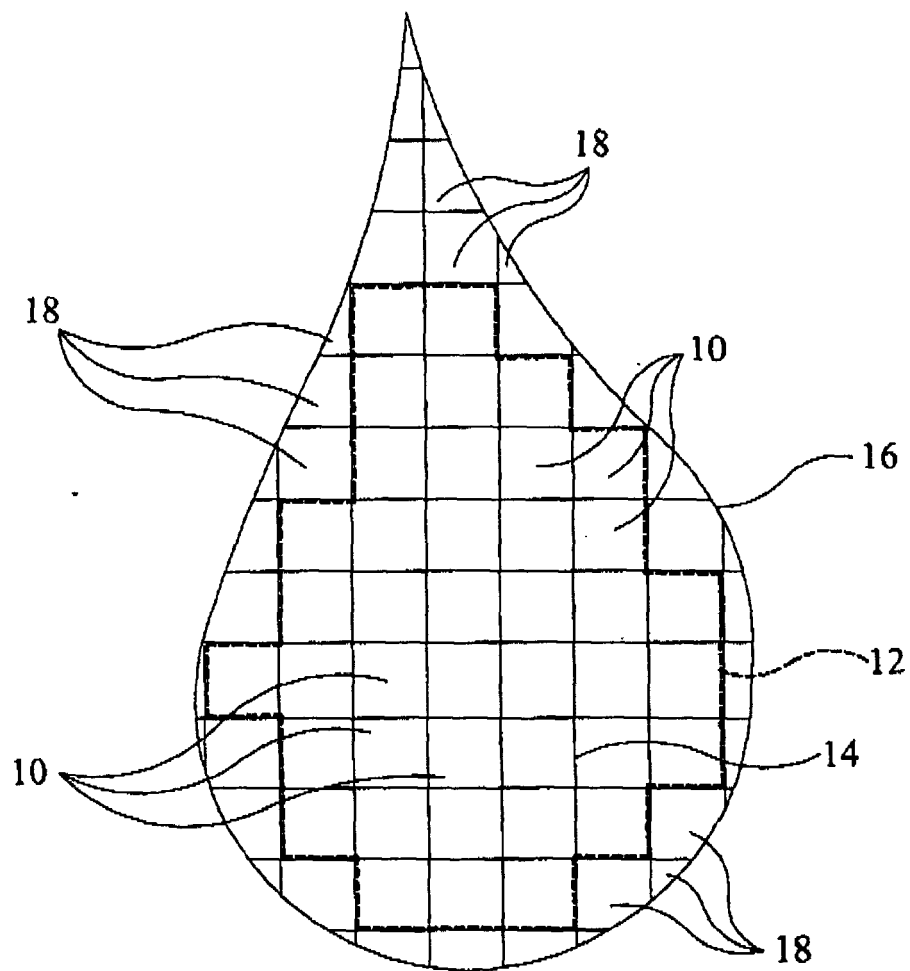


FIG 1

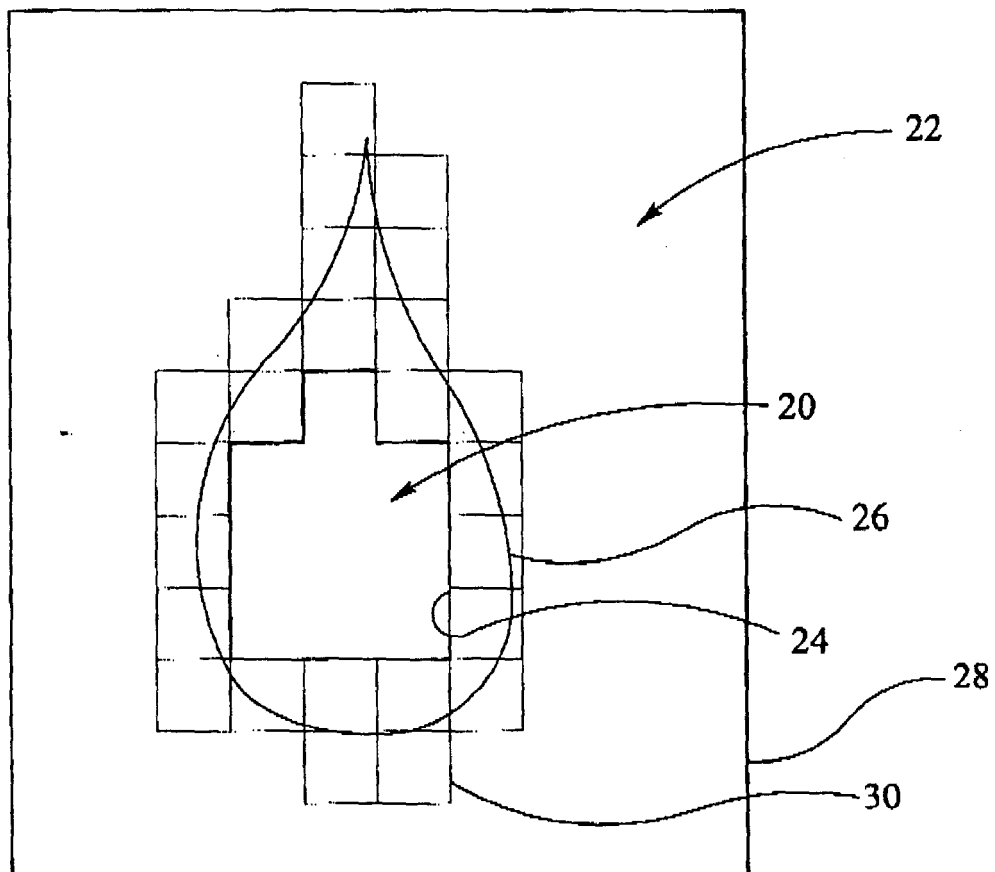


FIG 2



European Patent
Office

PARTIAL EUROPEAN SEARCH REPORT

Application Number

which under Rule 45 of the European Patent Convention EP 05 25 4480 shall be considered, for the purposes of subsequent proceedings, as the European search report

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 36 33 941 A1 (KREBS, ADOLF) 30 April 1987 (1987-04-30) * column 4, lines 24-44; claim 1; figure 3 *	1,3,4,7	E04F15/08 B44F3/00
X	FR 2 255 806 A (ALLAIN CLAUDE BERNADETTE, FR) 18 July 1975 (1975-07-18) * page 2, columns 7-17; figure 23 *	1,7	
X	US 5 937 602 A (JALBERT ET AL) 17 August 1999 (1999-08-17) * column 4, lines 10-63 *	1-4	
A	WO 03/052208 A (FLEXOSOL INC; JALBERT, GAETAN) 26 June 2003 (2003-06-26) * page 7, line 25 - page 9, line 5; figure 1 *	1,4	
			TECHNICAL FIELDS SEARCHED (IPC)
			E04F B44F E01C
INCOMPLETE SEARCH			
<p>The Search Division considers that the present application, or one or more of its claims, does/do not comply with the EPC to such an extent that a meaningful search into the state of the art cannot be carried out, or can only be carried out partially, for these claims.</p> <p>Claims searched completely :</p> <p>Claims searched incompletely :</p> <p>Claims not searched :</p> <p>Reason for the limitation of the search:</p> <p>see sheet C</p>			
Place of search		Date of completion of the search	Examiner
Munich		20 December 2005	Saretta, G
CATEGORY OF CITED DOCUMENTS		<p>T : theory or principle underlying the invention</p> <p>E : earlier patent document, but published on, or after the filing date</p> <p>D : document cited in the application</p> <p>L : document cited for other reasons</p> <p>& : member of the same patent family, corresponding document</p>	
<p>X : particularly relevant if taken alone</p> <p>Y : particularly relevant if combined with another document of the same category</p> <p>A : technological background</p> <p>O : non-written disclosure</p> <p>P : intermediate document</p>			

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EPO FORM 1503 (03.02 (P04C07))



Claim(s) not searched:

6

Reason for the limitation of the search:

Present claim 6 relates to a paving system "substantially as hereinbefore described with reference to the accompanying drawings". This definition does not allow the scope of the claim to be ascertained (Art. 84 EPC). The skilled person is not in a position to establish whether a paving system would fall within the scope currently claimed. Furthermore, according to Rule 29(6) EPC, references of this kind are not permissible (see also the Guidelines for examination in the EPO, C-III. 4.10). This non-compliance with the substantive provisions is to such an extent, that a meaningful search of the whole claimed subject-matter of the claim 6 could not be carried out (Rule 45 EPC).

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

EP 05 25 4480

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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20-12-2005

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			CA 2365568 A1	18-06-2003