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ROYSTONS 531 Tower Building Water Street
Liverpool L3 1BA(GB)(54) **Paving.**

(57) Paving slabs (10) are square with a square corner rebate (12) so that an opposite corner of each slab fits into the rebate of another slab to provide an overlapping slab arrangement. Irregular false grout lines (14) on each slab enable an apparently irregular paving pattern to be formed.

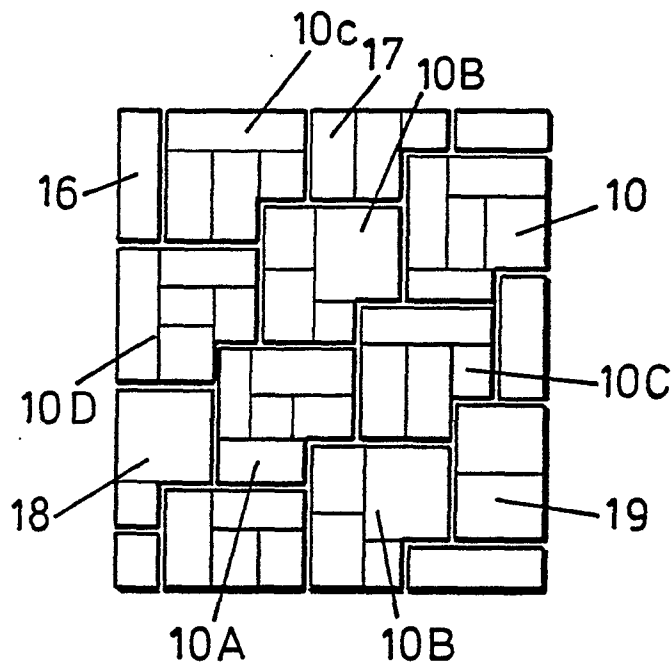


FIG. 2

Paving

This invention concerns paving and, in particular, simulation of stone paving.

Paving made up of stone slabs was common until the introduction of concrete slabs. However, the regularity of concrete slab paving has led to a desire to return to the irregular but appealing appearance of stone slab paving. To that end regular concrete slabs are moulded with false grout lines to give an appearance of irregularity. Unfortunately due to mass production techniques a single pattern is usually used for the grout lines, so that although a single slab may have its own irregularity, it soon becomes apparent when a surface is paved with such slabs that there is still some regularity at least in the arrangement of the slabs themselves.

An object of this invention is to provide a paving slab which when laid on a surface in a paving arrangement provides an appearance of irregularity to the paving pattern.

Another aspect of this invention is to provide a paving arrangement simulating stone slab paving but using mainly paving slabs substantially of identical perimetral shape and size.

According to this invention there is provided a paving slab, preferably of concrete, that is regular in perimetral shape except for one corner which is rebated to provide a location for a corner of another said paving slab.

The preferred paving slabs of the invention will be rectangular, especially square, and said rebating will give a slab having a rectangular, preferably square, corner piece missing. Typically, for a square paving slab the missing corner will represent approximately one sixteenth of the notional overall area of the slab. It may, of course, be useful for some applications for the area of the missing corner to be larger or smaller than one sixteenth of the notional overall area of the slab.

The paving slabs of the invention will usually have false grout lines formed on an intended upper surface of the slab. Such grout lines will preferably form an irregular pattern on the slabs. It is envisaged that a variety of patterned slabs may be produced in order to increase surface pattern irregularity of a paved area using paving slabs of the invention.

The paving slabs of the invention are preferably moulded from concrete in a conventional manner. Preferably two different concrete compositions will be used, one having a relatively rough texture to provide a backing for the slabs and the other having a relatively fine texture to provide a surface for the slabs. Typically the backing will contribute to 50 to 90, preferably 75 to 85, especially about 80% of the thickness of the slabs and the surface

will contribute to 10 to 50, preferably 15 to 25, especially about 20% of the thickness of the slabs. The surface layer may be treated to give a natural stone appearance, such as by shot blasting.

The invention further provides a paving arrangement comprising paving slabs of the invention preferably laid edge to edge with the rebated corner of one slab being entered by the diagonally opposing corner of another said slab to provide an overlapping arrangement. Thus, there will be no continuous straight lines running through the paving arrangement in any direction. Furthermore, the use of slabs of differently patterned surfaces for the paving arrangement of the invention can add to the surface pattern irregularity and hence enhance eye appeal.

The preferred paving arrangement of the invention, will, of course, produce a paving perimeter which is not straight but rather stepped and to a different extent from row to row of the slabs. Thus, to complete a paving arrangement to give it straight edges may require specially produced finishing slabs. Alternatively and preferably by suitable positioning of the false grout lines in relation to the size of the corner rebate, slabs may be provided that can be split along said false grout lines to provide slab pieces that fit at edges of a paving arrangement made from whole slabs to fill edge spaces to provide a continuous straight edge for the paving arrangement.

The invention will now be further described, by way of example only, with reference to the accompanying drawings, in which:-

Figure 1 is a perspective view of a paving slab;

Figure 2 is a plan view of a paving arrangement;

and

Figures 3A to D are plan views of paving slabs showing different false grout line patterns.

Referring to the accompanying drawings, a paving slab 10 moulded in concrete having a surface layer of relatively fine concrete (20% of thickness) and a backing layer of relatively coarse concrete (80% thickness). A multi-tone natural effect is produced on the surface of the slab by the use of different coloured concretes incompletely mixed and a natural looking random textured surface is produced by means of shot blasting. The paving slab is generally square but with a square section measuring from one corner 12 of the slab. The missing section is approximately one sixteenth of the total notional area of the slab.

The paving slabs 10 are usually moulded with false grout lines 14 (see Figures 3A to D, in par-

ticular) and a typical paving arrangement (see Figure 2) will utilise several differently patterned slabs. The slabs are laid in an overlapping arrangement with the rebated corner of one slab fitting around the diagonally opposing corner of another slab. That leaves a stepped edge arrangement but by providing slabs with suitably positioned tube grout liens relative to the size of the rebate, other slabs may be split along suitable grout lines to provide two or more slab pieces that can be used to fill in at edges of the paving arrangement to provide a continuously straight edge, see, for example, edge pieces 16 and 17 which were split from a slab of Figure 3C type or edge pieces 18 and 19 split from a Figure 3B type slab. Thus, as can be seen from Figure 2 it is possible to provide a paving arrangement having a stone slab appearance with no readily visible regular surface pattern and without having to waste possibly any paving slabs to fill in at paving edges.

Claims

1. A paving slab that is regular in perimetral shape except for one corner that is rebated to provide a location for a corner of another said paving slab.
2. A paving slab as claimed in claim 1 that is generally rectangular but having a rectangular rebate in one corner.
3. A paving slab as claimed in claim 2 that is generally square but having a square rebate in one corner.
4. A paving slab as claimed in claim 3, wherein said rebate represents approximately one sixteenth of the notional overall area of the slab.
5. A paving slab as claimed in any one of claims 1 to 4 made of concrete.
6. A paving slab as claimed in claim 5 comprising two different concrete compositions, one having a relatively rough texture to provide a backing for the slab and the other having a relatively fine texture to provide a top surface for the slab.
7. A paving slab as claimed in claim 6, wherein the backing concrete contributes to 50 to 90% of the thickness of the slab and the surface concrete contributes to 10 to 50% of the thickness of the slab.
8. A paving slab as claimed in claim 7, wherein the backing concrete contributes to 75 to 85% of the thickness of the slab and the surface concrete contributes to 15 to 25% of the thickness of the slab.
9. A paving slab as claimed in claim 8, wherein the backing concrete contributes to about 80% of the thickness of the slab and the surface concrete to about 20% of the thickness of the slab.

10. A paving slab as claimed in any one of claims 5 to 9, wherein the surface thereof is treated to give a natural stone appearance.

11. A paving slab as claimed in claim 10, wherein the surface is treated by shot blasting.

12. A paving slab as claimed in any one of claims 1 to 11 having false grout lines formed on its surface.

13. A paving slab as claimed in claims 12, wherein said grout lines form an irregular pattern.

14. A paving slab as claimed in claim 12 or 13, wherein said grout lines are positioned whereby splitting of said slab along one or more of said grout lines will provide paving slab pieces that will fit at edges of a paving arrangement made from whole paving slabs to provide a continuous straight edge for such an arrangement.

15. A paving arrangement comprising a plurality of paving slabs as claimed in any one of claims 1 to 14 laid edge to edge with the rebated corner of one slab being entered by the diagonally opposing corner of another said slab to provide an overlapping arrangement.

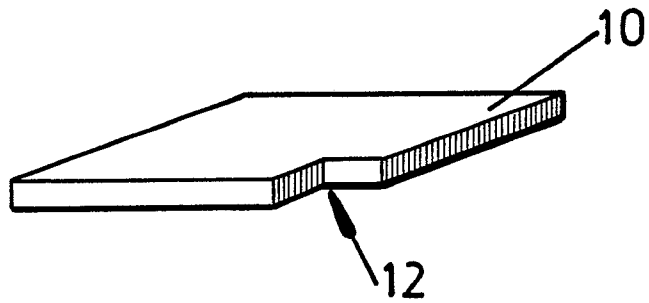


FIG. 1

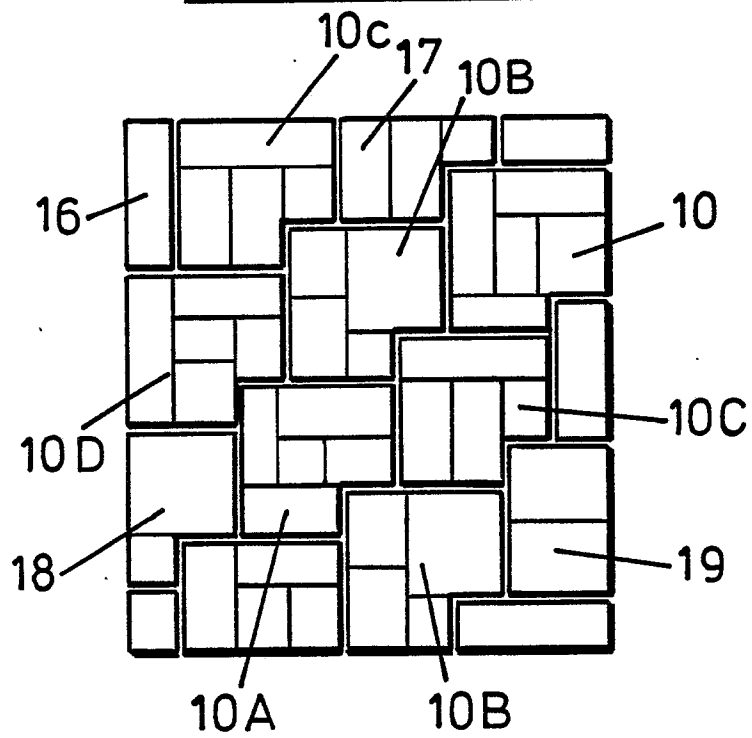


FIG. 2

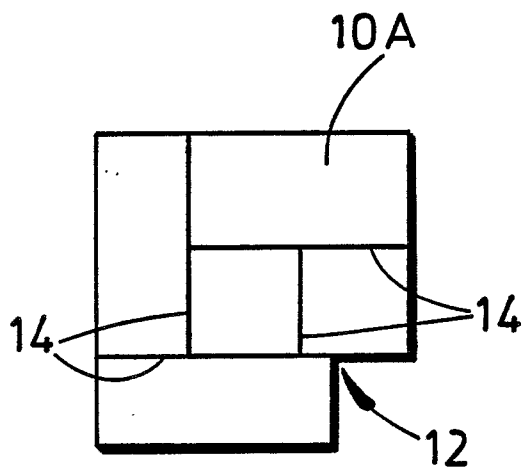


FIG. 3A

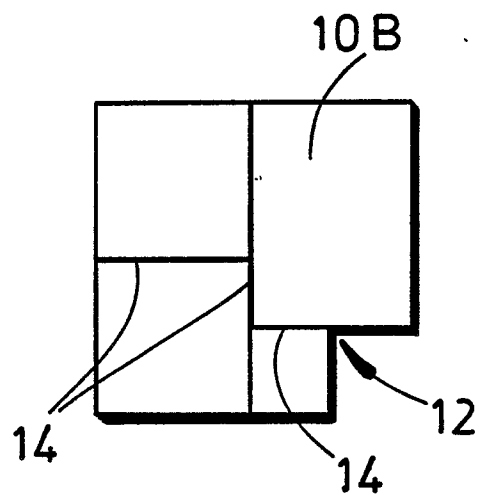


FIG. 3B

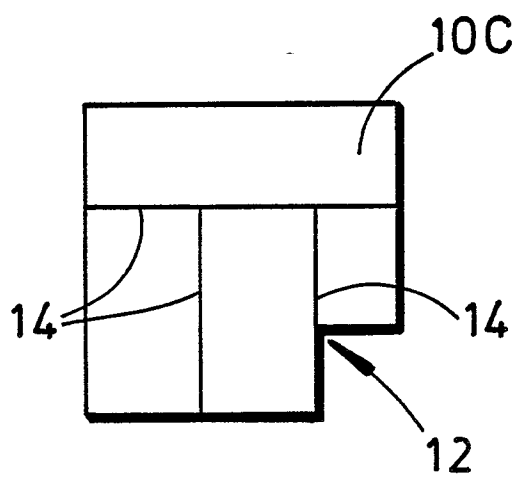


FIG. 3C

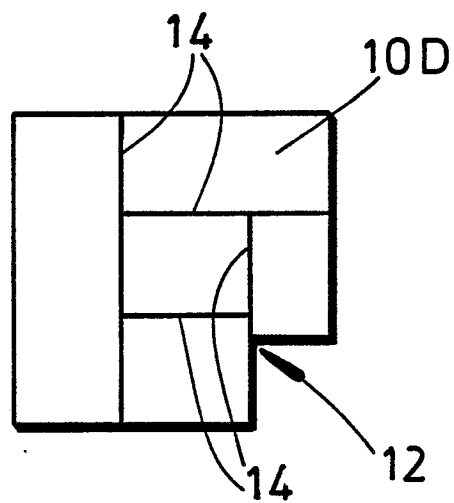


FIG. 3D



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)
X	DE-A-2 448 312 (H.-G. SCHMIDT et al.) * whole document * ---	1-3,5, 15	E 01 C 5/06
X	FR-A- 724 786 (M.F. GASCOUIN et al.) * whole document * ---	1-3,5, 15	
X	FR-A-2 527 243 (A. CHATELET et al.) * whole document * ---	1-3	
X	EP-A-0 091 107 (DR. BARTH GMBH et al.) * claim 1; figure 2 * ---	1,5	
A	EP-A-0 185 861 (METTEN PRODUKTIONS- UND HANDELS GMBH) * claim * ---	1,4	
A	DE-U-8 028 909 (KRONIMUS & SOHN BETONSTEINWERK UND BAUGESCHÄFT GMBH & CO. KG) * whole document * ---	1,5-11	
A	FR-A-2 561 283 (G. GUERIN) * claims 1,2; figure 2 * ---	1,5,6	TECHNICAL FIELDS SEARCHED (Int. Cl.5)
A	DE-A-2 257 219 (HENKE MASCHINENFABRIK GMBH) * claims; figures 1,2 * -----	1,5,12- 14	E 01 C
The present search report has been drawn up for all claims			
Place of search BERLIN		Date of completion of the search 14-12-1989	Examiner PAETZEL H-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			