May 27, 1958 N. MONICK 2,836,108

PREFABRICATED PATIO

Filed Dec. 16, 1955 2 Sheets-Sheet 1

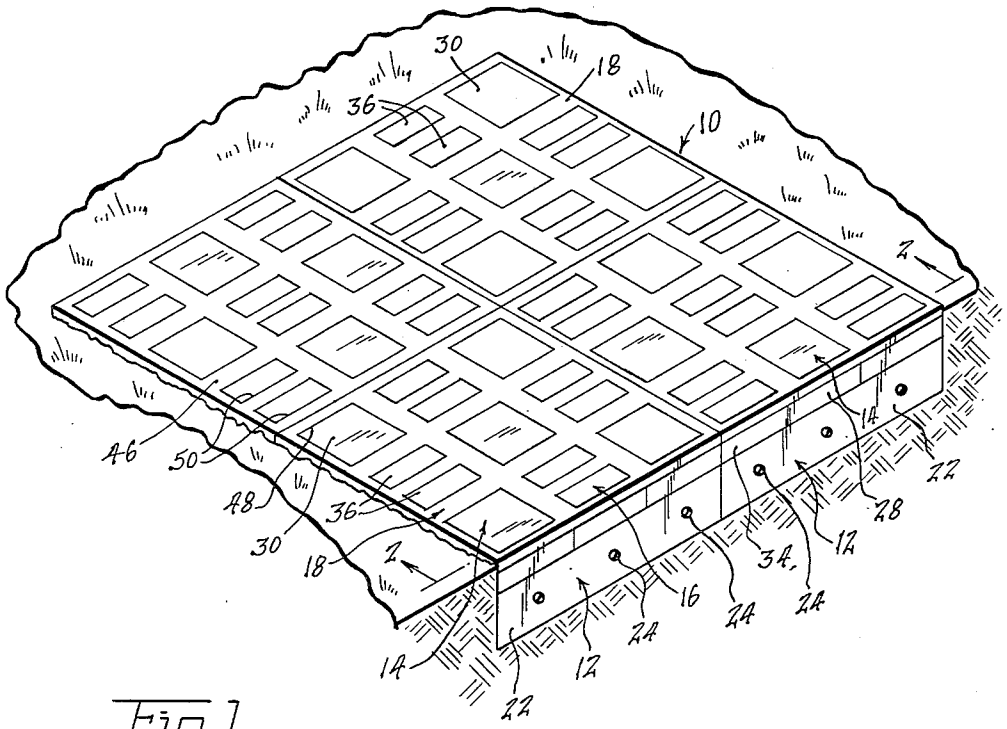


Fig. 1.

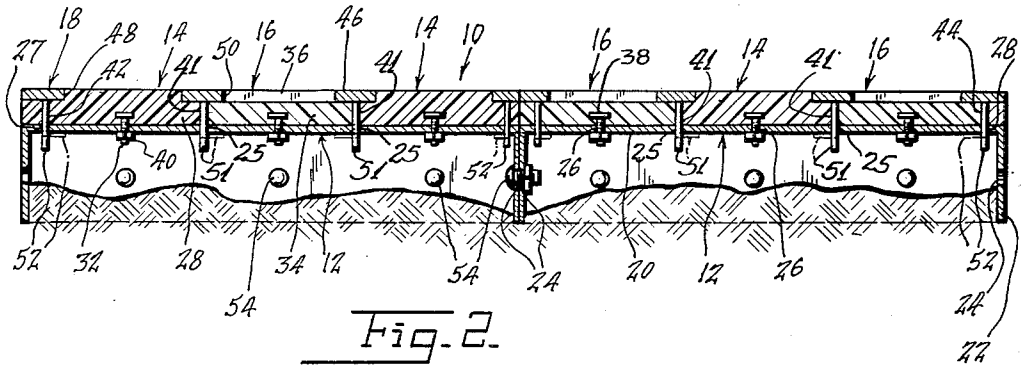


Fig. 2.

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Filed Dec. 16, 1955 2 Sheets-Sheet 2

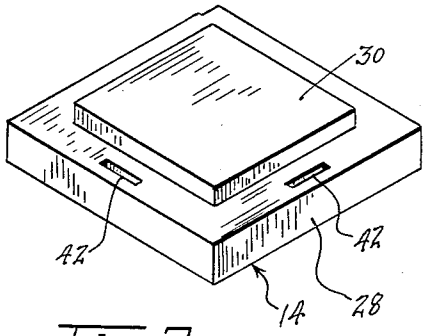
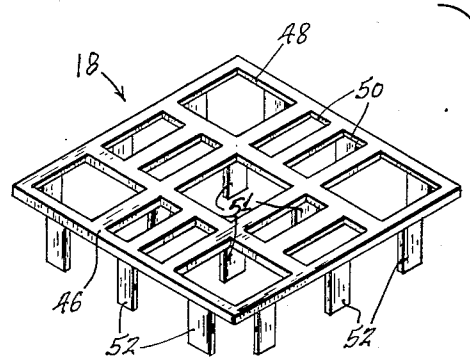


Fig. 3.



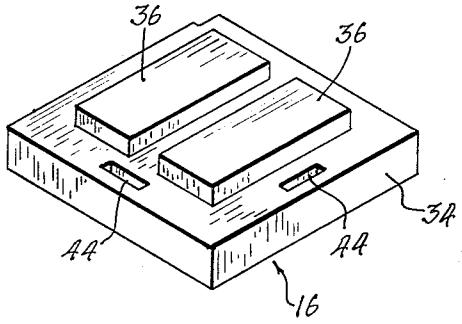
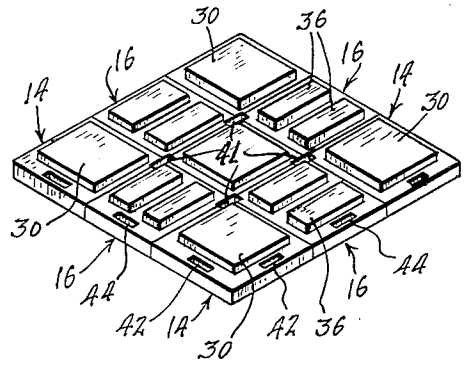


Fig. 4.



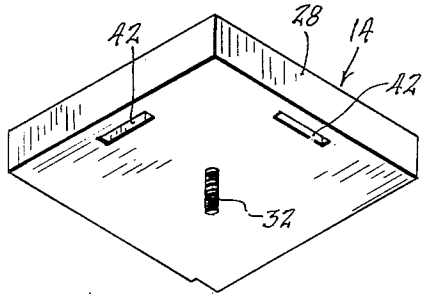


Fig. 5.

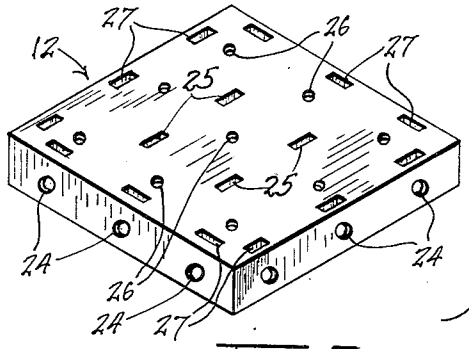


Fig. 6.

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PREFABRICATED PATIO

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Application December 16, 1955, Serial No. 553,634

7 Claims. (Cl. 94—4)

This invention relates to a patio capable of manufacture as a plurality of like sections connectable to one another to form a complete patio, with each section comprised of a plurality of prefabricated components, the components of each section being adapted for being swiftly and easily assembled with one another.

Ordinarily, a patio or terrace must be formed from various components which are capable of assembly only at relatively high expense, and usually through the requirement of skilled labor. For example, a patio of the type wherein a plurality of preformed paving or patio blocks are bedded in concrete requires that individual paving blocks be separately positioned, with extreme care being required to insure the proper positioning of said blocks. Further, the mortar or concrete used must be either mixed on the job or alternatively, delivered premixed. The requirement exists for the erection of forms in which the concrete is poured, and the entire patio must be leveled off skillfully if a patio of attractive appearance is to result.

Obviously, this involves considerable expense, and it is the broad object of the present invention to provide means whereby a highly attractive patio can be laid down, in any desired size, without the requirement of skilled labor, and at a relatively low cost so far as the individual components of the structure are concerned. It is proposed, in fact, to so design the patio that a householder will be able to assemble the prefabricated components thereof swiftly and easily, and without requirement of special skills or special tools.

A further object is to provide a patio as stated which, by reason of its being formed of prefabricated components, can be manufactured at a very low cost, considering the overall size of the completed patio or terrace. Since the patio is composed of like, connected sections each of which is in turn assembled from a plurality of prefabricated components, it will be apparent that the several components making up each section can be manufactured by mass production methods, thus lowering the cost of the completed patio considerably.

Another object is to provide a patio as stated which will be so designed as to provide a rigid, strong construction after the patio has been laid down, which construction will be adapted to withstand the elements without deterioration.

Another object is to provide a patio construction as stated which will be designed in such a manner that if it were desired to take the patio up as for example when one is moving to a new location, the patio can be disassembled and moved, and reassembled at the new location. At present, a patio or terrace, after it has been laid, becomes a permanent part of the property, and cannot be removed.

Summarized briefly, the patio constituting the present invention includes a plurality of sections connected along abutting sides thereof. The sections are all identical, and each section includes a base adapted to be embedded in the ground. A plurality of blocks is supported by and completely covers the base, each block having a flat body formed with a depending stud extendable through a registering opening of the base to permit the connection of each block to the base. The several blocks are in contact along adjacent sides thereof, and each block has an upstanding projection spaced from the corresponding projection or projections of adjacent blocks, with the projections simulating paving blocks or tiles. A cover plate is then positioned over the assembled blocks, the cover plate having openings registering with and shaped correspondingly to the tile-like projections. The cover plate has depending tongues, extendable through the assembled blocks and through the base, to permit ready alignment of the cover plate with the blocks and base, and also to permit the cover plate to be connected directly to the base despite the presence of the intervening layer of blocks. The cover plate, when laid, has its top surface flush with the top surfaces of the tile-like projections, thus imparting to the finished construction the appearance of a generally conventional patio. The construction is further adapted to permit erection of a railing upon the structure if desired.

For further comprehension of the invention, and of the objects and advantages thereof, reference will be had to the following description and accompanying drawings, and to the appended claims in which the various novel features of the invention are more particularly set forth.

In the accompanying drawings forming a material part of this disclosure:

Fig. 1 is a perspective view of a patio formed in accordance with the present invention, as it appears when completed and embedded in the ground, the ground being shown partially in section.

Fig. 2 is an enlarged transverse sectional view of line 2—2 of Fig. 1.

Fig. 3 is a perspective view looking down on one of the blocks, on an enlarged scale.

Fig. 4 is a perspective view of another one of the blocks on an enlarged scale.

Fig. 5 is a bottom perspective view of the block shown in Fig. 3, on the same scale as Figs. 3 and 4.

Fig. 6 is an exploded perspective view of one of the sections of the patio.

Referring to the drawings in detail, the reference numeral 10 in Figs. 1 and 2 designates a completed patio formed from a plurality of sections each comprising prefabricated components assembled with one another to complete the section.

In Fig. 1 four sections are illustrated, providing a rectangular patio with each section being of rectangular outer configuration and extending over one-fourth of the area of the patio. Obviously, any number of sections can be employed, and in practice, one would first establish the size to which the patio is to be constructed, and would thereafter buy components sufficient to permit the assembly of the necessary number of sections for assembling the patio to said predetermined size.

Since the construction of each section is identical, the description of one will suffice for all.

Each section includes a base 12, and a plurality of blocks 14, 16. If desired, all the blacks used may be of a single type rather than two types as shown. Alternatively, the blocks can be of other shapes so far as the tile-like projections thereof are concerned, and it will be apparent that any of various arrangements of the blocks can be employed.

Overlying the blocks is a cover plate 18, which would be formed of stainless steel, aluminum or other noncorrosive material. If desired, the cover plate may be of some other material, and may be faced in such a man-

ner as to resemble concrete or mortar. This, of course, would be at the option of the particular manufacturer.

Considering the particular construction of each of these components of a single section, the base comprises a flat, rectangular plate **20** formed with a depending flange **22**, said flange extending through the full periphery of the plate **20** and being formed at uniformly spaced locations throughout said periphery with openings **24**. Formed in the base plate at uniformly spaced locations over the full area thereof, are openings **26**, and along at least one side of the base plate there is formed a plurality of slot-like apertures **27**, disposed in a row paralleling and spaced closely from the adjacent side edge of the base plate.

The blocks that are to be supported upon the base plate **20** in the illustrated example are of two types. The block **14** includes a flat, rectangular body **28**, formed of a polyester resin with reinforced glass fiber, or of hard rubber, or if desired from some other mataerial including, for example, concrete or other material of a cementitious nature.

Integrally molded upon the top face of the body **28**, and having its edges spaced inwardly from the side edges of the body **28** is a low, flat projection **30** forming a paving tile.

Embedded in the center portion of the body, and depending from the body for extension through a registering opening **26** of the base plate, is a threaded stud **32**.

The blocks **16** each comprise a body **34** identical to body **28**, and integrally molded upon the top face of body **34** are elongated, parallel tiles **36**. As previously noted, the particular outer configuration and number of the tile-like projections of the several blocks can be varied by the manufacturer, to permit a wide choice to be had by the purchaser so that the purchaser may thus assemble a patio of a particular design found attractive to him.

Studs **38** have flattened, circular heads embedded in the bodies **34**, and are similar to the studs **32**, the studs **38** being extended through openings **26** of the base plate.

After the several blocks have been positioned upon the base plate, with the base plate thus being completely covered and the assembled blocks having thier outer edges flush with the several edges of the base plate, nuts **40** are threaded onto the downwardly projecting portions of the studs, thus to fixedly connect the several blocks to the base plate.

The several blocks are formed, at least on one side edge thereof, with slot-like apertures **42**, so that the blocks adjacent the outer edges of the base plate will have their slot-like apertures **42**, **44** in registration with the apertures **27** of the base plate.

The cover plate has been designated at **46** and is preferably formed of stainless steel or aluminum plate material. The cover plate has openings **48**, **50** receiving the projections **30**, **36** respectively. The cover plate is of a thickness equivalent to that of the respective projections, so that the top surface of the cover plate will be flush with the top surfaces of said projections.

Welded to or otherwise fixedly attached to the underside of the cover plate, adjacent its several edges, are depending tongues **52**, and when the cover plate is positioned over the several blocks, with the openings of the cover plate receiving the projections **30**, **36** of said blocks, the tongues will extend downwardly through the slot-like apertures **42** and **44** of the blocks, and **27** of the base plate. After the tongues have been extended downwardly in this manner, they can be bent upwardly as shown in dotted lines in Fig. 2. Alternatively, they may be left straight as shown in full lines in this figure of the drawing, with the tongues thus serving mainly as an aligning means.

It will be apparent that if desired, registering openings can be formed in the assembled components of the respective sections, adapted to receive the posts of a railing or the like, not shown. This is believed sufficiently obvious as not to require special illustration. It would be mainly necessary in such an instance that the railing posts have feet or other means at their lower ends, adapted to receive fastening elements extending through the registering openings of the several components of each section, with the railing extending along the edge of the patio.

After the several sections have been individually constructed, the completed sections can be secured to one another by bolts **54** passing through registering openings **24** of contacting walls of the sections as shown in Fig. 2. Then, the entire patio is bedded down in the ground, as shown in Figs. 1 and 2, so as to remain in place throughout its life. It will be apparent that should it be desired to move the patio to a new location, it can be readily disassembled and then reassembled at the new location.

The cover plate **18** is provided with additional tongues **51** similar to tongues **52**, adapted to pass through apertures **41** and **25** formed in the blocks **16** and base **12**, respectively. These prongs can also be bent under the base **12** as shown in Fig. 2.

It is to be understood that a railing can also be added by attaching to the mounting holes, if desired.

While I have illustrated and described the preferred embodiment of my invention, it is to be understood that I do not limit myself to the precise construction herein disclosed and that various changes and modifications may be made within the scope of the invention as defined in the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent is:

1. A patio comprising a plurality of like sections each including a base, blocks overlying the base, said blocks having upstanding portions, a cover plate lying on the blocks and having apertures receiving the upstanding portions of the blocks, means for connecting adjacent sections to each other, said base of each section including a depending peripheral flange adapted to be embedded in the ground, said base further including a flat base plate on which said blocks are supported, the base plate of each section having a plurality of openings, each block including a depending stud registering with one of said openings for connecting each block to the base plate independently of the remaining blocks, and means for connecting the cover plate to the base plate.

2. A patio comprising a plurality of like sections each including a base, blocks overlying the base, a cover plate lying on the blocks and having apertures receiving portions of the blocks, means for connecting adjacent sections to each other, said base of each section including a depending peripheral flange adapted to be embedded in the ground, said base further including a flat base plate on which said blocks are supported, the base plate of each section having a plurality of openings, each block including a depending stud registering with one of said openings for connecting each block to the base plate independently of the remaining blocks, each of said blocks including a low, upstanding projection on its top surface simulating a paving tile, said projections comprising the portions of the blocks received in the apertures of the cover plate, and means for connecting the cover plate to the base plate.

3. A patio comprising a plurality of like sections each including a base, blocks overlying the base, a cover plate lying on the blocks and having apertures receiving portions of the blocks, means for connecting adjacent sections to each other, said base of each section including a depending peripheral flange adapted to be embedded in the ground, said base further including a flat base plate on which said blocks are supported, the base plate of each section having a plurality of openings, each block including a depending stud registering with one of said openings for connecting each block to the base plate independently of the remaining blocks, each of said blocks including a low, upstanding projection on its top

surface simulating a paving tile, said projections comprising the portions of the blocks received in the apertures of the cover plate, the projections of the several blocks being spaced inwardly from the peripheries of said blocks, and means for connecting the cover plate to the base plate.

4. A patio comprising a plurality of like sections each including a base, blocks overlying the base, a cover plate lying on the blocks and having apertures receiving portions of the blocks, and means for connecting adjacent sections to each other, said base of each section including a depending peripheral flange adapted to be embedded in the ground, said base further including a flat base plate on which said blocks are supported, the base plate of each section having a plurality of openings, each block including a depending stud registering with one of said openings for connecting each block to the base plate independently of the remaining blocks, each of said blocks including a low, upstanding projection on its top surface simulating a paving tile, said projections comprising the portions of the blocks received in the apertures of the cover plate, the projections of the several blocks being spaced inwardly from the peripheries of said blocks, the cover plate having a top surface flush with the top surfaces of said projections, and means for connecting the cover plate to the base plate.

5. A patio comprising a plurality of like sections each including a base, blocks overlying the base, a cover plate lying on the blocks and having apertures receiving portions of the blocks, and means for connecting adjacent sections to each other, said base of each section including a depending peripheral flange adapted to be embedded in the ground, said base further including a flat base plate on which said blocks are supported, the base plate of each section having a plurality of openings, each block including a depending stud registering with one of said openings for connecting each block to the base plate independently of the remaining blocks, each of said blocks including a low, upstanding projection on its top surface simulating a paving tile, said projections comprising the portions of the blocks received in the apertures of the cover plate, the projections of the several blocks being spaced inwardly from the peripheries of said blocks, the cover plate having a top surface flush with the top surfaces of said projections, the cover plate having depending tongues extending through registered apertures in the blocks and base plate.

6. A patio comprising a plurality of like sections each including a base, blocks overlying the base, a cover plate lying on the blocks and having apertures receiving portions of the blocks, and means for connecting adjacent sections to each other, said base of each section including a depending peripheral flange adapted to be embedded in the ground, said base further including a flat base plate on which said blocks are supported, the base plate of each section having a plurality of openings, each block including a depending stud registering with one of said openings for connecting each block to the base plate independently of the remaining blocks, each of said blocks including a low, upstanding projection on its top surface simulating a paving tile, said projections comprising the portions of the blocks received in the apertures of the cover plate, the projections of the several blocks being spaced inwardly from the peripheries of said blocks, the cover plate having a top surface flush with the top surfaces of said projections, the cover plate having depending tongues extending through registered apertures in the blocks and base plate, said tongues being spaced about the periphery of each cover plate.

7. A patio comprising a plurality of like sections each including a base, blocks overlying the base, a cover plate lying on the blocks and having apertures receiving portions of the blocks, and means for connecting adjacent sections to each other, said base of each section including a depending peripheral flange adapted to be embedded in the ground, said base further including a flat base plate on which said blocks are supported, the base plate of each section having a plurality of openings, each block including a depending stud registering with one of said openings for connecting each block to the base plate independently of the remaining blocks, each of said blocks including a low, upstanding projection on its top surface simulating a paving tile, said projections comprising the portions of the blocks received in the apertures of the cover plate, the projections of the several blocks being spaced inwardly from the peripheries of said blocks, the cover plate having a top surface flush with the top surfaces of said projections, the cover plate having depending tongues extending through registered apertures in the blocks and base plate, said tongues being spaced about the periphery of each cover plate, and being of bendable material so as to be bendable upwardly against the underside of the base plate.

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