Aug. 6, 1940. G. NOTARI 2,210,150

CONCRETE BLOCK FOR PATHS, ROADS, AND THE LIKE

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Fig. 1.

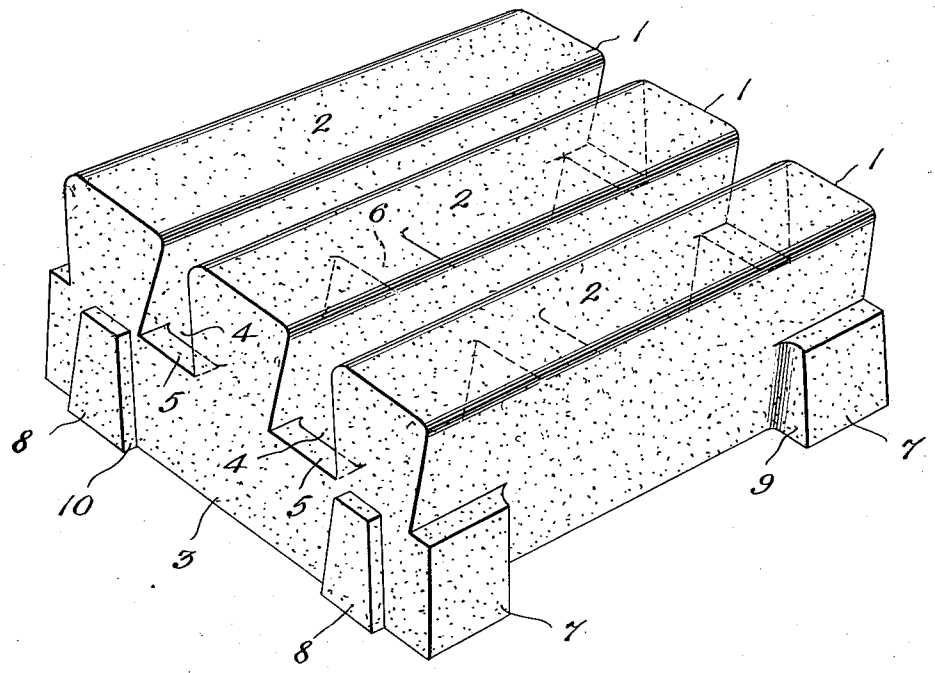
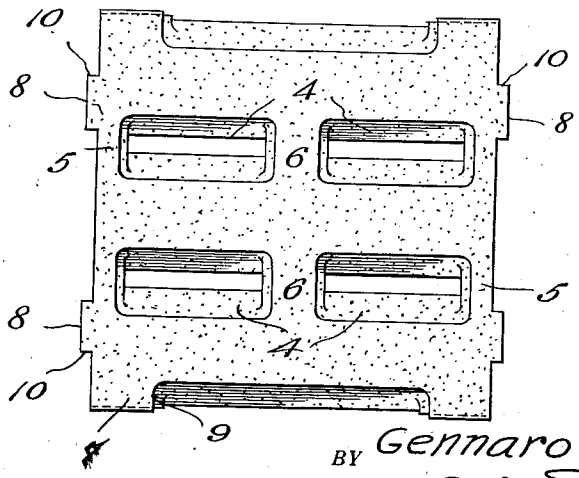


Fig. 2.



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Fig. 3.

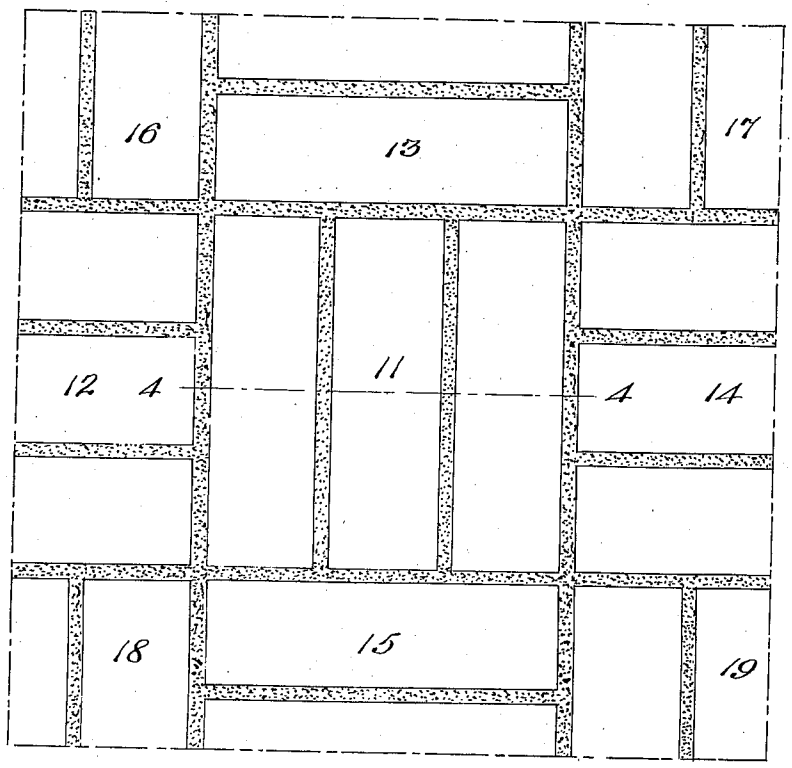


Fig. 4.

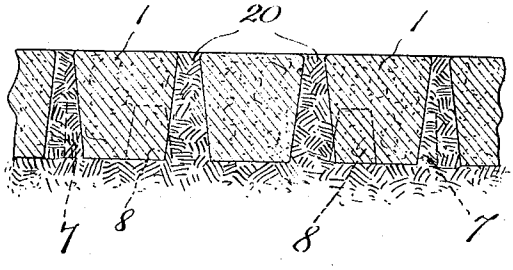
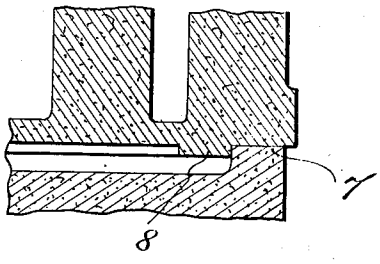


Fig. 5.



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Fig. 6.

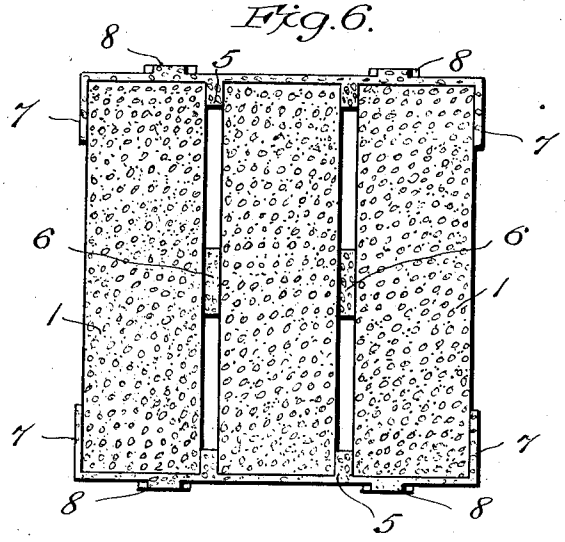


Fig. 7.

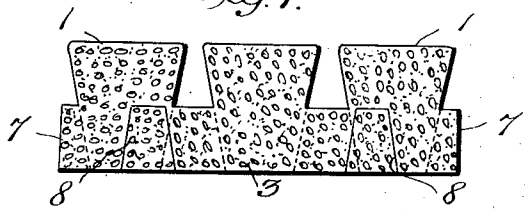
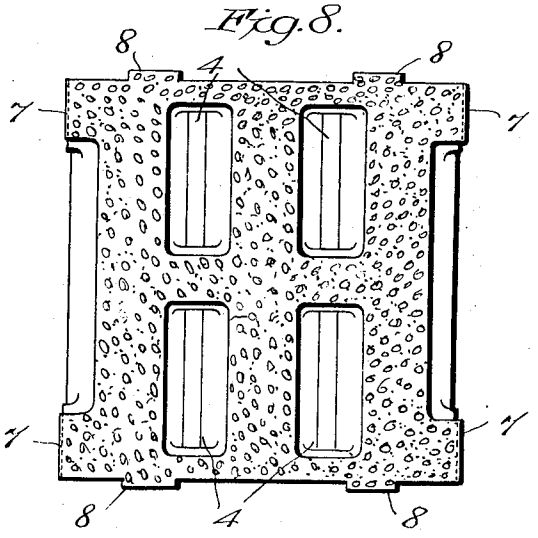


Fig. 8.



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UNITED STATES PATENT OFFICE

2,210,150

CONCRETE BLOCK FOR PATHS, ROADS, AND THE LIKE

Gennaro Notari, New York, N. Y.

Application August 6, 1938, Serial No. 223,382

3 Claims. (Cl. 94—13)

The present invention relates to paving blocks, and, more particularly, to a paving block which is especially adaptable for paving purposes in gardens, parks, and the like.

It is well known by those skilled in the art that paving blocks, slabs, stones and the like were used to a substantial extent in gardens and in parks for ornamental and landscaping purposes. Thus, it was customary to employ prefabricated concrete blocks or slabs laid in a spaced relation to each other to leave small spaces or intermediate portions of the ground uncovered. These spaces or intervals were subsequently covered with grass and presented a very attractive appearance. This type of paving structure was very popular in the construction of walks in parks and gardens. In most cases and particularly when it was desired to cover a large surface, relatively long and narrow concrete blocks were used of which a plurality was laid upon the ground in parallel spaced position to form a group, and of which other pluralities were laid adjacent to the sides of the first group and at right angles to the blocks of the first one to form a so-called basket-weave pattern. Although these paving structures were very popular and were used to a very great extent in private and public parks and gardens, they had various serious disadvantages. Thus, first of all, this type of paving required a great deal of skilled work, as a large number of relatively small individual blocks had to be laid in a correctly spaced juxtaposed position. Another serious difficulty was that these blocks had to be laid upon relatively soft ground in which grass could be grown and which did not provide an adequate and permanent support or foundation for the individual paving blocks. Quite frequently, individual blocks would be accidentally displaced from their original position, would sink in the soft ground so that after a relatively short time of use the uniformity and the attractive character of the structure was gone. These disadvantages and especially the relatively high cost of construction greatly restricted the use of these conventional paving blocks for landscaping purposes of the described character. Although from time to time various suggestions and proposals were made to solve the outstanding problem and to provide the art with a completely satisfactory paving block, none, as far as I am aware, of these various suggestions and proposals was completely satisfactory and successful when carried into practice on a practical and commercial scale.

I have discovered a simple and completely satisfactory solution of the problem.

It is an object of the present invention to provide a paving block particularly for landscaping purposes which is free from the disadvantages and inconveniences of conventional paving blocks.

It is another object of the present invention to provide a paving block of novel and improved character in which a plurality of thread members are united or interlocked into an integral paving block of unitary character.

It is a further object of the invention to provide an improved paving block involving a plurality of parallel-spaced tread members connected to an integral block and leaving small intervals therebetween through which grass may be grown to impart an attractive appearance to the finished paving structure.

Still another object of the invention is to provide a paving block constituted of cement, concrete or some other cementitious material which is capable of covering a relatively large surface per unit and leaves portions of the ground uncovered and which has mutually engageable extensions thereon which automatically and permanently assure the relative position of a plurality of such juxtaposed units.

It is also within contemplation of the invention to provide a novel paving block for walks, paths, and the like, which may be laid in correct and permanent position with a plurality of similar blocks to form a paved surface of great extension and of an interlocking character retaining its position and attractive character indefinitely.

The invention also contemplates a paving block of the described character which may be readily manufactured and molded from cementitious material on a relatively simple machine and which is both inexpensive to manufacture and to place in position.

Other and further objects and advantages of the invention will become apparent from the following description taken in conjunction with the accompanying drawings, in which

Fig. 1 illustrates a perspective view of a paving block embodying the principles of the present invention;

Fig. 2 depicts a bottom plan view, drawn to a reduced scale, of the paving block shown in Fig. 1;

Fig. 3 shows a plan view of a plurality of paving blocks embodying the invention, and forming a surfacing structure of the so-called basket-weave pattern;

Fig. 4 is a vertical sectional view taken on line 4—4 of Fig. 3;

Fig. 5 illustrates a horizontal sectional view,

somewhat fragmentary, of the meeting ends of two adjacent blocks and indicating the way in which the adjacent paving blocks of the invention are interlocked;

Fig. 6 depicts a top elevational view of the paving block shown in Figs. 1 to 3;

Fig. 7 is an end view of the paving block shown in Fig. 6; and

Fig. 8 illustrates a bottom plan view similar to the one shown in Fig. 2 of the paving block embodying the invention.

Broadly stated, according to the principles of the present invention, a paving block is provided comprising a plurality of tread members integrally formed with a common base portion. Although tread members of various forms and shapes may be employed, I prefer to use oblong shaped tread mmebers of which two, three or more may be combined with a common base in a parallel spaced position so that small spaces or intervals remain between the upper surfaces of the individual tread members. Preferably, the intervals between the individual tread members are extended throughout the complete thickness of the paving block so that portions of the ground remain uncovered and grass, ornamental plants, and the like, may be grown in said intervals. In order to facilitate laying of the paving blocks of the invention, it is advantageous to provide them with extensions, lugs or ears of suitable character at the sides of the base portion thereof which are capable of engaging similar extension members of another similar paving block whereby the relative position of the individual blocks is readily obtained without any special skill and is permanently retained. Generally, it is considered to be advantageous to make the paving blocks in a square or quadratic shape so that the block may be surrounded with a plurality of juxtaposed blocks of similar character and having the axis of their tread members at right angles to that of the first one whereby a very attractive paving pattern of the so-called basket weave type is obtained.

As to the production of the paving blocks of the invention, it is preferred to employ cementitious materials such as cement, concrete, and the like from which the blocks may be molded. In order to facilitate the molding process and particularly the removal of the finished product from the mold, all of the surfaces of the block are of such character as to give a readily removable structure. Thus, substantially no completely vertical surfaces are employed but inclined lateral surfaces forming wedge shaped bodies which greatly facilitate removal of the molded product from the mold, as those skilled in the art will readily understand. In other words, in determining the final form of my paving block, the same considerations should be considered as govern the design of cast products. Metallic hooks, rings, or ears may be incorporated into the block with which the block may be readily gripped by means of appropriate devices during removal of the block from the mold. The paving block embodying the invention may be manufactured in various colors by admixing a coloring agent to the cement or concrete mix or by spraying a coloring material thereon before, during or after the molding process proper. In some cases very attractive effects are obtained by spraying a different coloring agent onto the individual tread surfaces of a single block whereby attractive color combinations may be obtained.

The invention will now be more fully described to those skilled in the art in conjunction with the accompanying drawings.

Referring now more particularly to Figs. 1 and 2 of the drawings, a preferred embodiment of the invention is illustrated. Essentially, my novel paving block comprises a plurality of tread members **1**, of which three are shown in the drawings, although, of course, any other appropriate number may be used. Tread members **1** are of an elongated character having a downwardly tapering wedge shape and having a substantially horizontal and oblong tread surface **2** at the top thereof. The tread members are integrally formed with a common base portion **3** and have downwardly widening intervals or openings **4** therebetween extending throughout the complete thickness of the paving block except for ribs **5** and **6**, provided in the lateral and the central regions of the base portion, respectively, in order to connect the individual tread members into an integral unit and to reinforce the block. It will be noted that spaces or openings **4** in the base portion of the paving block are also of a tapering character in order to facilitate the molding operation. The base portion of the paving block is provided with extensions **7** and **8** of which extensions **7** are provided in the corners of the longitudinal side of the base portion and extensions **8** are provided at some distance from the ends of the lateral side of the base portion. Extensions **7** have surfaces **9** adapted to be engaged by the corresponding surfaces **10** of extensions **8** of another paving block of the same construction whereby a plurality of paving blocks of the described character may be easily combined or interlocked into a paving structure. The engagement of the cooperating surfaces of extensions **7** and **8** will be best observed from Fig. 5 of the drawings.

As will be readily observed from Fig. 3 of the drawings when it is desired to cover a surface with the paving blocks of the invention, a plurality of such blocks is laid upon the ground in juxtaposed position, the adjacent blocks being so arranged as to have the intervals between the individual tread surfaces at right angles to each other. A paving structure of this type illustrated in Fig. 3 comprises a paving block **11** having intervals between its tread surfaces. The four paving blocks **12**, **13**, **14** and **15**, which are contiguous with block **11**, have their intervals between the individual tread surfaces at right angles to the corresponding intervals of block **11**. The same applies to blocks **16**, **17**, **18** and **19** which have their intervals at right angles to those of the blocks which are contiguous therewith. In this manner a so-called basket weave design is obtained. As it will be best observed from Fig. 4, the intervals between the individual tread members of the paving blocks are filled out with earth **20** so that grass may be grown between the intervals of the individual tread members and also between the intervals left between the adjacent blocks due to the slightly tapering character of the blocks.

The understanding of the invention will be further facilitated by Figs. 6, 7 and 8 of the drawings of which Fig. 6 is a top elevation, Fig. 7 is an end elevation and Fig. 8 is a bottom plan view of the paving block of the invention shown in Figs. 1, 2 and 3. In view of the fact that identical reference characters have been employed in Figs. 1 and 2 and in Figs. 6, 7 and 8, no de-

tailed description of these figures will be necessary.

It will be noted that the present invention provides a number of important advantages. Thus, a paving block of a simple and inexpensive character is provided which may be laid in various combinations and which is of an interlocking character with blocks of the same type so that a permanent paving structure can be positively maintained.

It is also to be observed that the paving blocks of the invention provide regularly spaced openings or intervals which may be filled out with earth and may be employed to grow grass therein to present an attractive appearance.

Moreover, the paving block of the invention is of such shape that it can be readily molded from cementitious materials such as cement or concrete in view of the fact that all of its side surfaces are of an inclined or wedge-shaped character and the intervals between the various and individual tread members may be conveniently filled out by suitable core members as those skilled in the art will readily understand.

Furthermore, the paving block of the invention may be manufactured in various forms and shapes and various coloring agents may be integrally or selectively embodied therein to provide artistic and attractive effects.

Although the present invention has been described in connection with a preferred embodiment thereof, variations and modifications may be resorted to by those skilled in the art without departing from the principles of the present invention. I consider all of these variations and modifications as within the true spirit and scope of the present invention as disclosed in the present description and defined by the appended claims.

I claim:

1. A paving block which comprises in combination a plurality of downwardly tapering wedge-shaped tread members constituted of a cementitious material having substantially horizontal tread surfaces and being arranged in parallel-spaced position to have a small interval therebetween, ribs connecting the lower portions of said tread members into an integral unit and forming a common square base for said tread members, and extensions in said base engageable by corresponding extensions of another block of the same type located at right angles to the first block to provide an interlocking structure.

2. A paving block which comprises in combination a plurality of downwardly tapering wedge-shaped tread members having substantially horizontal tread surfaces and being arranged in parallel-spaced position to have a small interval therebetween, upwardly tapering ribs connecting the lower portions of said tread members into an integral unit and forming a common square base for said tread members, and extensions in said base engageable by corresponding extensions of another block of the same type located at right angles to the first block to provide an interlocking structure, at least said tread members having colors different from each other.

3. A paving structure which comprises in combination a plurality of paving blocks constituted of a cementitious material, each of said blocks including parallel-spaced wedge-shaped and downwardly tapering tread members having a small space therebetween and ribs uniting said tread members into a square integral unit, said blocks being arranged in juxtaposed position to have the tread members of contiguous blocks at right angles to each other, and extensions on said blocks adapted to be engaged by corresponding extensions of contiguous blocks to provide an interlocked paving structure of the basket-weave type.

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