

Sept. 27, 1927.

1,643,879

E. DE MEYER

CEMENT BLOCK PAVEMENT

Filed April 22, 1926

Fig. 1.

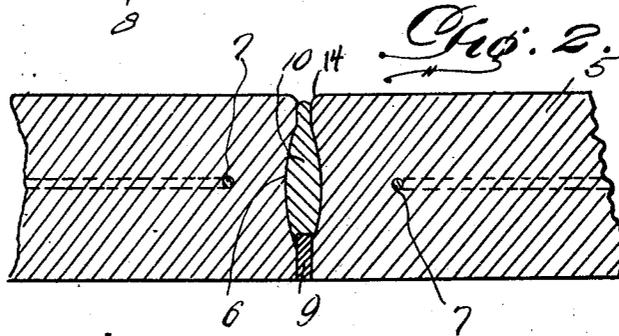
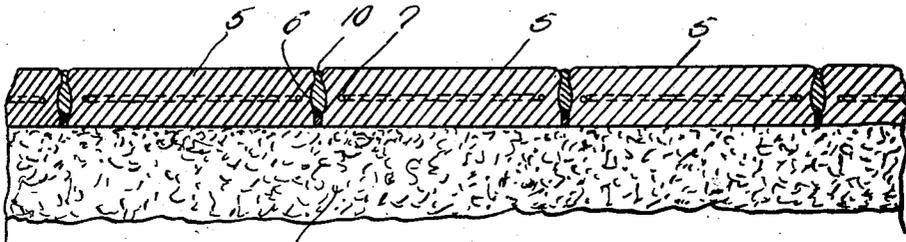


Fig. 3.

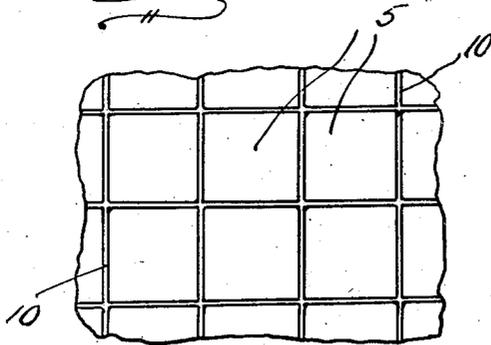
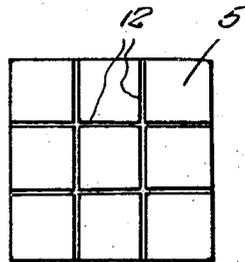


Fig. 4.



Inventor
E. DeMeyer,

By *Clarence A. O'Brien*

Attorney

Patented Sept. 27, 1927.

1,643,879

UNITED STATES PATENT OFFICE.

EMIL DE MEYER, OF BROOKLYN, NEW YORK.

CEMENT-BLOCK PAVEMENT.

Application filed April 22, 1926. Serial No. 103,843.

The present invention relates to a cement block pavement and has for its principal object to provide a construction which is capable of easy assembly and disassembly, may be manufactured and laid cheaply and has other numerous advantages as will appear as the description proceeds.

In the drawings:—

Figure 1 is a vertical section through a pavement embodying the features of my invention.

Fig. 2 is an enlarged similar view.

Figure 3 is a fragmentary top plan view of the pavement.

Figure 4 is a top plan view of one of the paving blocks showing the same scored.

Referring to the drawings in detail it will be seen that the numerals 5 designate the blocks formed of cementitious material. Each block has its edges formed with channels 6. Reinforcing bars 7 are formed in the blocks. The numeral 8 denotes a bed of cinders, gravel, broken rock, or sand or a mixture thereof screeded to grade. The blocks 5 are laid on the bed 8 preferably in the arrangement shown in Figure 3. The edges of the blocks are disposed in spaced relation and the space therebetween is governed by strips of wood 9 adjacent the bottom surfaces thereof and below the channel 6. The channel 6 and the remaining portions of the spaces are filled with plastic material 10, such as asphalt or pitch which makes the pavement waterproof, if desired, and forms a key to assure the blocks against tipping at end or sagging, as load is applied. Both the strips 8 and the joint formed by the pitch or asphalt prevent displacement of the blocks in relation to each other under all conditions to which the pavement is subjected in use. If desired the blocks 5 may be scored as is indicated at 12 in Figure 4. The upper corners of the blocks are rounded as is indicated in Figure 2 by the numeral 14. These rounded upper edges are provided to insure the blocks against damage in handling and against impact of wheels.

By constructing a pavement or roadway in accordance with this invention there will be eliminated all delay in making the same available for use, danger of defacing or damaging by rain, by frost, and too rapid drying in hot weather. This invention allows the blocks to be constructed entirely in a centralized conveniently located plant,

thereby doing away with costly inconveniences usually entailed in road building in regard to mixing and the like.

My plan consists of making paving blocks as described above and laying them upon a prepared bed of any desired material. The blocks should be of such a size that they may be handled easily, and in actual practice I have found it desirable to separate the blocks about three-eighths of an inch so that the space therebetween may be filled with a plastic substance of either asphalt or pitch. The sub-soil, of course, will first be brought to grade and packed. Then a bed of sand, gravel, broken stones or cinders or a mixture thereof will be laid to within nearly the thickness of blocks and packed, then screeded over with a finer filling material to exact grade, the same as a finishing coat of cement would be screeded in making the present cement roadways. The blocks are placed on this bed resulting in a perfectly even and smooth pavement. The blocks can be placed on those already laid and can be hauled, together with other needed material over new laid material. To illustrate my point, I will refer to the former practice of bluestone flag pavement laying. The flags were of uneven thickness and size, and seldom was the bed to proper grade necessitating lifting on one end at a time and only part underfilling, with a resulting cavity under flags; vibrations lowered some flags with consequent breaking of joints, admitting water, causing uneven heaving by frost. These and other reasons account for inferiority of bluestone flags to modern cement concrete pavement. The practicability of laying pavement as set forth in my description has been experienced by me and possesses great superiority over existing practices and is far cheaper. My improved joint makes the pavement monolithic, at the same time loads and stresses are taken up by individual blocks and the resulting strain is not transmitted to adjacent blocks. This is true because the blocks are of a size of about 20 by 20 inches which gives them sufficient spread to carry any load over bed area. The contraction and expansion of these individual blocks is so small that it will easily be taken up in the joints, leaving the pavement as a whole unaffected. The size of the blocks makes it possible to decrease the thickness of the same from two inches for walks to four inches for roadways, compared with four

inches for walks and six inches for roadways as now generally used which would permit a richer mixture at even less cost. As these blocks will have finished surfaces both the top and bottom, they can be used over, after the top surface is worn and upon final use can be taken up and still be made use of in numerous ways. Thus the life of the pavement would at least be doubled. The pavements in our cities and towns are continuously torn up for gas, electricity, and water supply and almost irreparable damage is done thereto besides causing untold inconveniences to passing vehicles, until repaired, at great cost to the community. With my proposed pavement, one or two rows of blocks are taken up and replaced leaving the work immediately finished. In congested sections, in factories, yards, walks and driveways, this pavement could be laid overnight without interfering with the usual business. There are numerous other practical advantages which will appear to those actually carrying out the subject matter of the present invention.

The present embodiment of the invention has been disclosed in detail since in actual

practice it attains the features of advantage enumerated as desirable in the statement of the invention and the above description. It is apparent that changes in the details of construction, the materials, sizes and in the combination and arrangement of parts may be resorted to without departing from the spirit and scope of the invention as hereinafter claimed or sacrificing any of its advantages.

Having thus described my invention, what I claim as new is:—

A pavement of the class described including, in combination, a bed of material, a plurality of blocks laid on the material having their edges slightly spaced and provided with continuous channels, strips of wood between the blocks and located below the channels, and a plastic material filling the channels and the space between the blocks on top of the strips, said plastic material terminating slightly below the upper surfaces of the blocks and the upper corners of the blocks being rounded.

In testimony whereof I affix my signature.

EMIL DE MEYER.