(No Model.)

E. L. RANSOME.

LAYING ARTIFICIAL STONE OR CONCRETE PAVEMENTS.

No. 263,579. Patented Aug. 29, 1882.

Fig. 1.

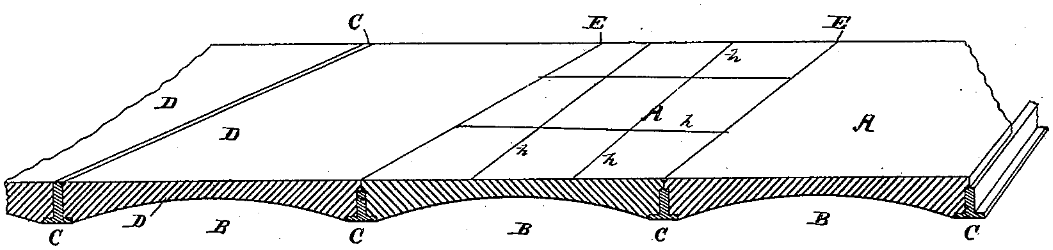
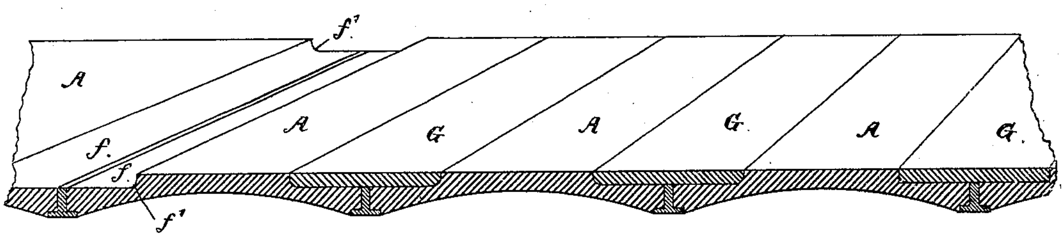


Fig. 2.



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UNITED STATES PATENT OFFICE.

ERNEST L. RANSOME, OF SAN FRANCISCO, CALIFORNIA.

LAYING ARTIFICIAL-STONE OR CONCRETE PAVEMENTS.

SPECIFICATION forming part of Letters Patent No. 263,579, dated August 29, 1882.

Application filed May 18, 1882. (No model.)

To all whom it may concern:

Be it known that I, ERNEST L. RANSOME, a resident of the city and county of San Francisco, State of California, have invented certain new and useful Improvements in Laying Artificial-Stone or Concrete Pavements or Sidewalks; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings.

My invention relates to an improved method of forming artificial-stone or concrete pavements or sidewalks over basements, cellars, and other chambers or excavations.

Hitherto it has been customary in building such pavements to first fill in between the beams, bearers, or other supports with brick or concrete arching or slabs, and afterward lay the pavement upon the surface thus created, and separate therefrom. A method has also been described in which the whole pavement—*i. e.*, those parts between the bearers and those parts above—is formed in one piece, with the bearers embedded in the concrete; but while this is preferable to the first-described pavement in respect to cost, an objection exists thereto by reason of such pavement cracking and breaking over the line of the bearers, for it is apparent that any little settlement of the foundations, or even the contraction and expansion of the materials themselves, would cause such breaking; and the object of my invention is to make a pavement as cheap as the latter, and yet free from unsightly cracking.

The following description fully explains my said invention and the manner of practicing, employing, and using it, reference being had to the accompanying drawings, in which—

Figure 1 shows a section of pavement laid over an excavation according to my invention. Fig. 2 is a modification.

I form a pavement or surface over an opening or excavation, as at B, Fig. 1, by filling in the spaces between parallel beams or bearers C C with the artificial stone or concrete D, and finishing the top surface thereof smooth and flush with the top of the beams or bearers. In this manner I produce a pavement in the form of solid sections, slabs, or blocks of any suitable length and breadth, each separated and detached from the other by the bearers supporting it; also, I form such pavements into blocks, but with the top surface carried over the tops of the bearers, so that instead of being exposed to form a part of the surface itself the edges of the bearers are covered by the stone or concrete as it is filled in between the spaces, the joints being directly over and along the tops of the bearer, as is seen at E, Fig. 1. This gives a continuous surface of concrete which is more finished, perhaps, than the construction shown at D.

By forming in the pavement-block A as it is laid a recess, *f*, on each side adjoining a bearer and extending down thereto and running therewith the whole width of the block, and then allowing it to become sufficiently set, I can fill in these recesses with similar material, as at G, and thereby cover the edges of the bearers. This construction is both for ornamental purposes and for preventing unsightly cracks in the body of the blocks. These sections G can be formed of material of different color or composition from the blocks A A, if desired, and in practice I prefer to remove the angle at the bottom of the recess *f* by filling the corners *f'*, in order to remove any tendency to crack at this point.

The slabs may, when they are laid, be marked off into squares or other figures, as shown by the lines *h* in Fig. 1, to give a finish to the pavement.

By either one or all of these forms of carrying out my invention I produce a firm, solid pavement of great durability, free from any liability to crack in becoming set, and at a much less cost per foot than any construction of the kind heretofore employed.

I am aware that similar structures between beams or bearers have been formed of concrete or brick in which the bearers project to the surface; but such surfaces had no finish and were incomplete and unsightly, as well as unserviceable, until a floor or top surface of wood or other matter was laid thereon. This is not my invention, which relates to pavements in which the finished wearing-surface is altogether or in part an integral portion of the mass of concrete between the bearers.

Having thus fully described my invention, what I claim, and desire to secure by Letters Patent, is—

1. The herein-described pavement, consisting of the arched concrete pieces D, formed to fill in between and cover over the braces or supports C, each piece filling the space between two supports and covering about half of the supports, substantially as set forth.

2. A pavement with finished wearing-surface constructed between, above, and over beams or bearers, the sections or blocks of which are jointed over and along the top of the bearers, so that the pavement shall present a continuous concrete surface and still have the separating-lines, substantially as described.

3. A pavement with finished wearing-surface constructed between and above beams or bearers having recesses lying over the supports *f*, as described, which are filled in flush with the surface, either with the same or other pavement material, substantially as described.

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