

v.31F, no.12-47      SCHILLINGER V. MIDDLETON AND OTHERS.

*Circuit Court, D. Oregon.*

August 12, 1887.

PATENTS FOR INVENTIONS—INFRINGEMENT—CONCRETE PAVEMENTS.

The Schillinger patent for an improvement in concrete pavements is confined to a pavement laid in detached blocks, formed on the ground, with a water-tight joint between them produced by the interposition of a strip of tar-paper, or other suitable material, between said blocks; and a concrete pavement laid between scantling in sections six feet by twelve, more or less, with a vacant space between each, of three feet by twelve, in which the pavement is laid as soon as the adjoining sections are sufficiently set to work over, while each section, as soon as laid, is marked off, or cut with a marker or trowel, into blocks three feet square, or other convenient size, is not an infringement of such patent.

*(Syllabus by the Court)*

In Equity. Bill for injunction to restrain infringement of complainant's letters patent.

*William B. Gilbert*, for plaintiff.

*Cyrus Dolph*, for defendants.

DEADY, J. This suit is brought by the plaintiff, a citizen of New York, against the defendants William A. Middleton, a citizen of Oregon, Mary Hueston, a citizen of New Jersey, and the Oregon Artificial Stone

Company; a corporation formed under the laws of Oregon, to have them enjoined from infringing his patent for an "improvement in concrete pavement."

The original letters were issued to the plaintiff on July 19, 1870, and numbered 105,599. On May 2, 1871, there was a reissue, numbered 4,364. From the specification annexed thereto, it appears that John J. Schillinger has "invented a new and useful improvement in concrete pavements," which relates to a concrete pavement laid in sections, "so that each section can be taken up and relaid without disturbing the adjoining sections. With the joints of this sectional concrete pavement are combined strips of tar-paper, or equivalent material, arranged between the several blocks or sections in such a manner as to produce a suitable tight joint, and yet allow the blocks to be raised separately, without affecting the blocks adjacent thereto." After describing the concrete as a mixture of cement, sand, and gravel, or other suitable material, with sufficient water to make the mixture plastic, the specification proceeds:

"While the mass is plastic, I lay or spread the same on the foundation or bed of the pavement, either in moulds or between movable joists of the proper, thickness, so as to form the edges of the concrete blocks; one block being formed after the other. When the first block has set, I remove the joists or partitions between it and the block next to be formed, and then I form the second block, and so on, each succeeding block being formed after the adjacent blocks have set, (and, since the concrete in setting shrinks, the second block, when set, does not adhere to the first, and so on;) and when the pavement is completed each block can be taken up, independent of the adjoining blocks. Between the joints of the adjacent blocks are placed strips of tar-paper, or other suitable material, in the following manner: After completing one block, I place the tar-paper along the edge where the next block is to be formed, and I put the plastic composition for such next block up against the tar-paper joint, and proceed with the formation of a new block until it is completed. In this manner I proceed until the pavement is completed, interposing tar-paper between the several joints, as described. The paper constitutes tight water-proof joint, but it allows the several blocks to heave separately from the effects of frost, or to be raised or removed separately, whenever occasion may arise, without injury to the adjacent blocks. The paper when placed against the block first formed, does not adhere thereto, and therefore the joints are always free between the several blocks, although the paper may adhere to the edges of the block or blocks formed after the same has been set up in its place between the joints. [In such cases, however, where cheapness is an object, the tar-paper may be omitted, and the blocks formed without interposing anything between the joints as previously described. In this latter case, the joints soon fill up with sand or dust, and the pavement is rendered sufficiently tight for many purposes, while the blocks are detached from each other, and can be taken up and relaid, each independent of the adjoining blocks.]

“What I claim as new, and, desire to secure by letters patent, is (1) a concrete pavement, laid in detached blocks or sections, substantially in the manner shown and described; (2) the arrangement of tar-paper, or its equivalent, between adjoining blocks of concrete, substantially as and for the purpose set forth.”

On February 27, 1875, the plaintiff formally disclaimed the portions of the specification enclosed in brackets; and also disclaimed “the forming

of blocks from plastic material without interposing anything between their joints while in the process of formation;”

It is alleged in the bill that on August—, 1886, the defendants commenced to construct concrete pavement on the premises of the defendant Hueston, on the north and east sides of lot 1 in block 14 in Portland, “embracing the improvement and invention described in said letters patent,” and not contained in said disclaimer; “which concrete pavements said defendants have proceeded to make and construct in all respects in the same manner as the concrete pavement so invented” by the plaintiff, and is an infringement on the plaintiff’s rights, as secured to him by said patent; The answer of, the defendants admits the letters patent, but denies the infringement. On September 6th the parties filed a stipulation to the effect that on the defendants giving bond for the damages, if any, they might proceed with the construction of the pavement in question, which was done.

From the evidence it appears that the pavement was constructed as follows A concrete for the foundation or backing was made of five parts of gravel of one and one-eighth inch cubes to one of cement, mixed with water to make it plastic. This was ‘dumped into a box or mould made oh the ground, by inclosing with.’ two-by-four scantling a space six feet wide, by twelve feet long; the latter being the width of the pavement or sidewalk. This substance was then spread out and tamped down until it was about three and one-fourth inches thick. Then a facing a half inch thick, Composed of eight parts of gravel of one-eighth of an inch cubes to seven of cement, was put over this, and troweled down smooth. The water that came to the surface in this process was then absorbed by sprinkling a little pure or neat cement over the whole surface, which also rendered the pavement more impervious to water. The section was then marked off into eight blocks of about three feet square. This was done with a marking and dressing tool, made for the purpose, consisting of a brass plate, slightly convex, about three inches long and two inches wide, with a blunt knife or cutter of steel set in the middle of the plate which made an incision in the surface of the composition along the line of division of about half an inch deep:, and of a V shape. The surface of the plate, in passing over the material, pressed it down, on either side of the cutter, and founded off the upper edges of the incision, thus mating a border to each block which serves to distinguish and ornament it. Upon the completion of the section in this manner, another was formed three feet distant therefrom, and so on; and, when these sections were Set sufficiently to work over without injury, the three-by-twelve foot sections lying between were formed in the same manner, the edges of the larger sections serving as the moulds for the smaller ones, and then marked off into four blocks each.

There is a conflict in the testimony as to the depth of the incision made in this pavement; the defendant Middleton, who superintended its construction, testifying that it is only an eighth of an inch deep. A “McDonald’s marking and dressing tool for cement

pavement,” patented in 1885, is on exhibit in the case, and he states that the marking or cutting

was done with one of these instruments. But the mark or cut made by this tool is nearer a quarter of an inch than an eighth. However, plaster casts were taken of the incisions in this pavement, and they show beyond a doubt a cut of the depth of half an inch, and fully the same width at the surface.

This patent has been before several of the circuit courts since the disclaimer was filed. The cases are cited in *Paving Co. v. Schalicke*, 119 U. S. 401, 7 Sup. Ct. Rep. 391. They are *Schillinger v. Gunther*, 14 Blatchf. 152; *Paving Co. v. Molitor*, 7 Sawy. 190, 8 Fed. Rep. 821; *Same v. Freeborn*, 8 Sawy. 443, 17 Fed. Rep. 735; *Schillinger v. Brewing Co.*, 21 Blatchf. 383, 17 Fed. Rep. 244; and *Kuhl v. Mueller*, 21 Fed. Rep. 510.

In the first Case it Was held that the division between the blocks might “be effected by either a permanent or temporary interposition of something between them; and that to cut a section of the material after it was laid down into blocks with a trowel was equivalent to making a joint by the permanent interposition of tar-paper or other material.

In the second case Judge SAWYER followed this holding, contrary to his own first impression, saying: “In the previous cases before me I instructed the jury that, for the purpose of determining the question of infringement in those cases, there should be something, either tar-paper or its equivalent, permanently interposed between the joints.” 7 Sawy. 193.

In the third Case he held that where there was nothing done to separate a section of this pavement into blocks, but to run a marking tool over it, and make division lines of only one-sixteenth of an inch in depth, there was no infringement.

In the fourth case it was held that the second claim of the reissue was infringed by a concrete pavement which had an open cut made by a trowel entirely through two courses of material, the line of cut in the upper course being directly over the line of cut in the lower course; and that the interposition of the trowel, though temporary, was an equivalent for the tar-paper, even though the joint was left open after the trowel was removed.

In the last case (Southern District Ohio) it was held that the use of any marker was an infringement Which made a cut or depression, having the effect to cause the pavement to break by upheaval or cracking, from any cause, along the line of the cut or depression; and that, as the blocks from the pavements laid by the defendant showed clear, distinct, and complete lines of division, there was infringement, whether these lines were produced by a trowel or marker.

In *Schillinger v. Cranford*, decided in the supreme court of the District of Columbia on July 6, 1886, and printed in Senate Report No. 1459, from the committee on claims, it was held that the Schillinger patent was confined to the construction of a concrete pavement laid in detached blocks, formed on the ground, of the same material from top to bottom, and separated by the interposition, in the process of formation, by a strip of tar-paper, or its equivalent, between each block, so as to make a watertight joint between

blocks capable of being taken up or upheaved by frost separately; and that neither concrete, sand, nor cement is the equivalent

in this connection of tar-paper; nor is it an infringement of such patent to make pavement by laying down concrete in sections, and cutting it into blocks with an instrument called a cleaver, and then covering these with a coating of plastic sand and cement, and cutting this surface through with a trowel, in a line with the cuts below, and then running a marker in the line of this surface cut, to give the pavement the tessellated appearance of separate blocks.

In *Paving Co. v. Molitor*, 113 U. S. 609, 5 Sup. Ct. Rep. 618, the supreme court, by Mr. Justice BRADLEY, said, in effect, that it was doubtful whether a concrete pavement, made, not in separate and detached blocks, but only marked on the surface, while in a plastic state, “with a trowel or marker extending to the depth of from, one-eighth of an inch to an inch, thus giving the same the appearance of being made in detached blocks, the crease on the surface being sufficient to produce the results obtained by Schillinger’s process,” is an infringement of his patent.

In *Paving Co. v. Schalicke*, 119 U. S. 401, 7 Sup. Ct. Rep. 391, this patent was again before the supreme court, when it was held that, in view of the disclaimer filed by the patentee, the defendant’s pavement was not an infringement of the same. Mr. Justice. BLATCHFORD, who delivered the opinion of the court, after citing and stating the foregoing cases from the circuit courts of New York, California, and Ohio, said that the defendant, in the process of making his pavement, marked off the surface into squares. But the question is, whether he so divided it into blocks that the line of cracking would follow the joints of the divisions, rather than the body of the block, so that a block can be taken out and a new one put in its place without disturbing or injuring the adjoining one. “The specification makes it essential that the pavement shall be so laid in sections that each section can be taken up and relaid without disturbing the adjoining sections. Again, it says that the joint between the blocks allows the several blocks to heave separately from the effects of frost, or to be raised or removed separately, whenever occasion may arise, without injury to the adjacent blocks. This is essential; and in all cases where infringement has been held to have been established there have been blocks substantially separate, made so by the permanent or temporary interposition of a separating medium or a cutting instrument, so that one block could upheave or be removed without disturbing the adjoining blocks. The patentee, in the disclaimer, expressly disclaimed the forming of blocks from plastic material, without interposing anything between their joints while in the process of formation.”

It appears from the opinion that the defendant laid his pavement in Strips across the sidewalk, and then divided these crosswise with a marker, to the depth of one-sixteenth of an inch. The court say this “marking” was only for ornamentation, and produced no free joints between the blocks; and disposed of the case in these words:



“Without affirming or disaffirming the constructions given to the patent in the particular cases cited from the circuit courts, we are of opinion that, under

any construction which it is possible to give to the claims, the defendant in this case has not infringed.”

By the action of the court in this case the impression is produced on my mind that it did not agree with the construction given to this patent in the cases referred to, or it would have said so.

Under the circumstances, I feel at liberty to follow my own judgment in the premises. I think there can be no infringement of this patent, in the construction of a concrete pavement, unless it is made of detached blocks formed on the ground, as laid down, with a water-tight joint between them, produced by the permanent interposition of tar-paper, or other suitable material, between the blocks; and that no marking or cutting a pavement laid down as a whole, or in large sections, although the same may thereby be separated into blocks with equally as satisfactory results, is the equivalent of such tar-paper so applied. Doubtless, this pavement, if upheaved, will have a tendency to crack along the line of the marking; and if it were cut through, as in the case of *Schillinger v. Cranford, supra*, there could be no doubt about it. But in either case the result would not be produced in the mode or by the means mentioned in the specifications, or their mechanical equivalent.

Schillinger’s claim is for “a concrete pavement laid in detached blocks or sections,” by means of tar-paper, or other suitable material, interposed between them, so as to produce a water-tight joint, and not one laid as a whole, or in large sections, and then marked off, or cut into blocks, with an open joint between them. The latter mode of making concrete pavement is altogether different from Schillinger’s, and, for aught I can see, is as much entitled to a patent as his. They both appear to have the same end in view,—the prevention of the arbitrary cracking and breaking of the pavement from undue pressure from above or below. And Schillinger’s invention may have suggested the method used by the defendants. But the march of improvement in this matter is not stayed by this simple invention; and it was, and still is, open to the public to wholly or partially reach the same result by the use of such other and different means as naturally suggest themselves to skillful and experienced workmen in the progress of the art. Doubtless, the water-tight joint which resulted from the interposition of the tar-paper gave this patent its principal value in the east, where, on account of the liability to severe frosts, it is an object to keep the water from getting under the pavement. But on this coast that is a matter of less moment. Here the marking or-cutting the pavement into comparatively small blocks is done as much to prevent irregular cracking and breaking on account of pressure from above on a sinking or shifting foundation, as from below.

The patentee has expressly disclaimed “the forming of blocks from plastic material, without interposing anything between their joints while in the process of formation.” Nothing was interposed “between the joints [blocks]” of this pavement while in process of formation. The joints between the sections were made by forming one section against

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the other, after the first was sufficiently set to bear working over, and the joints between the blocks into which the sections are divided are rather

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indicated, than made. And, so far from these blocks being laid, as detached ones, they are not even detached yet, and never will be, except as the result of some casual external violence or pressure, in which case it, likely the material; will crack or break on the line of the surface marks or cuts, but with more or less irregularity in the body of the concrete below the surface incision.

The defendants do not infringe the plaintiffs patent, and the bill must be dismissed.