CALIFORNIA ARTIFICIAL STONE PAVING CO. *v.* PERINE.* SAME *v.* MOLITOR.

Circuit Court, D. California. May 7, 1881.

1. LETTERS PATENT—ARTIFICIAL STONE PAVEMENTS—INFRINGEMENT.

The method adopted by the defendants in laying artificial stone pavement was as follows: They first laid down a section as wide as the blocks were wanted, and tamped it down solid. When partially set these sections were out into blocks of proper length with a trowel, the trowel cutting to a greater or less depth, according to the character of the material. Into the open joint thus made by the trowel was floated or rubbed some of the same material of which the block was composed. Then a top layer of finer material, containing a larger portion of cement, was laid on the lower section, pressed down, and smoothed over. The trowel was then passed along the top layer, cutting partially or wholly through it, directly over the cutting below. The joint thus made in the upper layer was then smoothed over, and a joint marker, having a tongue from a sixteenth to an eighth of an inch in depth, was run over the line of the cuttings, marking off the joints. Artificial stone pavements constructed in the mode described, as used by the defendants, are infringements of the Schillinger patent.

2. SAME—INVENTION—TITLE TO UNSPECIFIED BENEFITS.

The patentee is entitled to all the benefits which result from his invention, whether he has specified all the benefits in his patents or not.

3. SAME—SCHILLINGER PATENT—INFRINGEMENT.

The respondents having so constructed their pavements as to gain the advantages secured by the Schillinger patent, and by substantially the same means, they are infringers of the patent.

Wheaton & Scrivner, for complainant.

Parker, Shafter, and *Duprey,* for defendants.

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SAWYER, C. J., (*orally.*) In this action is involved the construction of the patent issued to John J. Schillinger for an improvement in concrete pavements. This patent has been before me on several occasions,

and I have had considerable difficulty in giving it a satisfactory construction. Previous to coming before me it was, at various times, before Judge Blatchford and Judge Shipman, each of whom had occasion to construe the patent, and both gave it a construction wider in its scope than I, on first examination, thought it would bear. On further consideration of the patent, and of their views upon the point, I am not prepared to say, with entire confidence, that their construction is not correct. Judge Blatchford is undoubtedly one of the ablest jurists on the national bench, and the same may be said of Judge Shipman. The decisions of Judges Blatchford and Shipman are looked upon by the supreme court with great respect; and it is probable that those two judges have tried more patent cases than any other two judges in the United States now living. I have, therefore, felt very great diffidence in dissenting from them in the construction of a patent.

On former trials of cases involving the rights of the complainant under this patent, I gave it a more limited construction than that given to it by the distinguished judges mentioned. They do not hold it necessary that, during the process of formation of the pavement constructed under the Schillinger patent, there should be interposed between the blocks anything which should permanently remain. 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. Under the construction given to the patent by Judge Blatchford, and also by Judge Shipman, there can be no doubt but that this patent has been infringed by the respondents in both the case of the *California Artificial Stone Paving Co.* v. *Perine,* and the case of the *California Artificial Stone Paving Co.* v. *Molitor;* and I think, after full consideration, that, even under the more limited construction which I have heretofore

adopted, the respondents in both these cases have infringed.

There is some conflict in the testimony as to how these pavements were constructed by the respondents in both these cases—as to whether or not there was any cutting at all at the joints during the process of formation; and, particularly in the Molitor case, it is claimed that no cutting whatever was done by the respondent. I have gone over the testimony on that subject carefully, and I am satisfied that in 823 both cases there was cutting at the joints by means of a trowel during the process of formation. The testimony of Molitor in his case, it is true, is directly to the contrary, yet his testimony is somewhat impeached, and I am disposed to think that it should be taken with some grains of allowance. I think, by a careful study of the testimony of Schalike alone, who is Molitor's foreman and one of his principal witnesses, it is apparent that they did do cutting with the trowel. He superintended the construction of the pavement which was laid in alleged infringement of the complainant's patent, and he admits that there was cutting. Although he once or twice states that there was no use of the trowel for cutting, yet, under cross-examination, being pressed by complainant's counsel, he says he cannot tell whether it was cut through or not; cannot tell how deep he cut; is at a loss to tell what was done in that regard. Still, taking his whole testimony together, it is manifest therefrom that he did cut with a trowel.

There are some other witnesses, it is true, whose testimony goes to support that of Molitor; but, on the other hand, the complainant's witnesses positively and distinctly contradict them. Several of these witnesses of complainant appear to be men of intelligence, capable of observing, some of them having had experience in the same business; and they all visited the place where the respondent's pavement was being laid, expressly to observe the manner in which the

work was done, and examined it under such circumstances as would be likely to impress upon their minds the respondent's mode of operation and construction. They would not be likely to be mistaken, and if they misstate the facts they must be wilfully at fault; and they all testify distinctly that there *was* cutting in the joints during the process of formation. From the testimony of these witnesses and of Schalike, and from an examination of the stones which were afterwards taken up from respondent's pavements, referred to and presented in evidence, I am satisfied there was such cutting in the Molitor pavement, as well as in that laid by Perine.

The process of laying the pavements in question is substantially this: One section having been formed, a scantling or mould is laid down parallel with the edge of the completed section, and at a distance of the desired width of the blocks, and the bottom course of coarser material is put in, to the depth of about three inches, and tamped down solid, its thickness being reduced by the tamping about half an inch. That being allowed to partially set, a trowel is afterwards used to cut out the blocks into the proper lengths, the cutting of the trowel being to a greater or less depth, according to the character of the 824 material along the line of the cut, in some portions the cut being, doubtless, through the concrete; while in other portions, where stones are encountered in the gravel so large as to interfere with the trowel, the incision may be of less or even little depth. This makes a joint in the partially set material so tamped solid, and into the open joint thus made, when the concrete is partially set, is floated or rubbed in some of the same material of which the block is composed. Then the top layer or surface, composed of finer material and containing more cement, is laid on, pressed down, and smoothed over. The trowel is then run through on the same line of the joints, directly over the cutting below,

and probably, as a general proposition, passes through the top layer, although I am not certain whether or not that is always the case. Parting strips are used by Molitor, but their purpose is simply to keep the different colors on adjoining blocks from blending. After the top or surface layer is out with the trowel, the cuts or joints are again smoothed or floated over, and a joint marker (the tongue of which is testified by some of the witnesses to be one-sixteenth of an inch in depth, and by others to be one-eighth of an inch in depth) is run over the line of the joints, marking off the block. The block is thus finished.

Now, this Schillinger patent is evidently a valuable patent. Schillinger was the first man who ever made pavements of this character. Immediately after its discovery it went rapidly into very general use, and other parties began to infringe. The first infringers, as Judge Blatchford states, cut joints and filled them in with pitch or asphaltum. In the specification of the Schillinger patent the inventor sets forth:

"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 allow the blocks to be raised separately without affecting the blocks adjacent thereto."

By Judge Blatchford it was held that the pitch or asphaltum, which was filled into the cuts along the joints, effected the same purpose as, and was the equivalent of, the tar paper.

Infringers then tried various ingenious methods of evading the patent. The next course adopted was the filling of the cuts or joints by pouring in cement, which is one of the component parts of the material of which the pavement is formed, in the same way that the pitch or asphaltum had been used This was held to be an equivalent of the tar paper, and an infringement.

Then it was held that it was not necessary that there should be any material *permanently* interposed in the cuts or joints, but that if 825 the joints were made during the process of formation by inserting the trowel or other instrument, cutting a joint substantially as was done in this case, then the complainant's patent was infringed. It is something very like the infringements just described that the respondents in these cases have been doing—filling in the cuts with concrete composed of cement and fine gravel in equal parts, instead of with pitch, asphaltum, or cement.

In the laying of this pavement by these respondents, the first course of coarser material, being tamped down solid and allowed to partially set, is then in a solid condition; is compact; and when the trowel is run through it makes an open joint to the extent to which it cuts. Now, instead of pouring pitch, tar, asphaltum, or cement into the open joint thus made, the respondent, in each of these cases, simply takes an instrument called a float, and smooths over and into the cut the material on the top which has partially set, and which is composed partly of cement and partly of gravel; that is to say, the same material of which the layer of the block is composed. This material does not connect the adjoining blocks so perfectly as cement would, because the cement would behind them together more strongly; and this composite material is not tamped in, but goes in loosely, and the material in the joint is therefore in a very different condition from the like material which is tamped down in the body of the blocks. It is floated loosely into the joint when the material of the block has partially set, so that it is in a different state of consistency, not likely to attach itself firmly to, and be solid with, the adjoining material in the blocks. The material in the joint, therefore, is not homogenous with the material composing the blocks; its structure is different; it is less compact; looser in its texture; it is less adhesive; it is less permanent; it has entered

the opening in a different state of consistency; it is different in its chemical structure, the material having partially set; it is matter interposed in the joint made in the process of formation; and I do not see why it does not answer the purpose of formation; and I do not see why it does not answer the purpose of cement, or asphaltum, or pitch, or of the tar paper. There is an open joint made by the trowel in the process of formation, and it is filled by the substance interposed, which does not adhere so firmly but that the pavement is much weaker along the line of the joint than in any other place. Although this interposed substance may, in some degree, adhere to the edges of the adjoining blocks, the respondents get, to some extent, at least, the benefit referred to, and the further benefit of controlling the cracking from contraction of the concrete composing the pavement.

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One of the great objections to the solid concrete pavements made before Schillinger's invention was that it cracked irregularly, and one of the chief advantages of his invention, as shown by the testimony in these cases, is that the openings resulting from shrinkage come along the line of the joints, and the blocks themselves do not crack, although that advantage is not set forth in the patent. In the pavements constructed by the respondents this result has been attained; and it has been admitted by the respondents in one case in this court, in which the Schillinger patent has been in question, that the object of running the trowel through at the joints was to so weaken the pavement along these lines as to control the cracking, and leave the blocks, as marked off, unbroken. This is clearly an infringement, for the patentee, is entitled to all the benefits which result from his invention, whether he has specified all the benefits in his patent or not. So, in heaving from frost,

and in taking up the pavement, the breakage would be likely to be along the same line.

The conclusion at which I have arrived, from an examination of all the evidence in these cases, is, then, that in the pavements laid by the respondents in each of these cases there are open joints made between the blocks during the process of formation, into which is interposed material which remains there permanently; and the view that I take of it is that material is, in some degree, the equivalent of the tar paper, and gives, to some considerable extent, at least, the advantages of the Schillinger invention.

In my judgment, based upon the testimony and my own observation of the specimens of blocks exhibited in the case, the respondent's pavements thus made are not equal to the Schillinger pavement; but then the respondents make pavements which are practical pavements, in which the cracking resulting from shrinkage is controlled by the joints made in the process of formation, and in which, to some extent, the blocks can be removed without injury to the adjoining blocks, although not so completely as in the case of the Schillinger pavement. The respondents construct practical pavements, which can be made cheaper than that made under the Schillinger patent, having, to some extent, the same advantages, obtained by substantially the same means, and therefore come in competition with the complainant, and to a considerable extent supersede his patented pavement. Therefore, even under the construction which I have heretofore given to this patent, although narrower than that which has been given by the eminent judges whom I have named, I think 827 these pavements, laid by both Perine and Molitor, are infringements upon the Schillinger patent.

There may be some advantage in the beveled joints claimed to be used by Monitor; but, if so, his

pavement still embraces the Schillinger invention, if my view is correct, and he is, therefore, an infringer.

In the Molitor pavement, a portion of which was taken up and some of the blocks introduced as exhibits, the thickness of the upper course of fine material is not more than half an inch, and that contains substantially nearly all the strength of the block, for the lower course of material in these specimens is of such an inferior character that it can be crumbled to pieces by rubbing with the fingers. Yet even this is weakened by the cutting of the joints with a trowel, as before described. If, then, the lower course is of such a crumbling character, either on account of not containing a sufficient quantity of cement, or because of not being properly tamped, and there is no cutting of the joints in that upper course with the trowel, the mere marking of that top layer to the extent which the marker goes in would probably control the cracking. If the tongue of the marker will cut the upper layer to a depth of one-eighth or even one-sixteenth of an inch, then the entire thickness of that upper layer being but half an inch, it is probable that that incision would be sufficient to control the cracking of that upper layer; and, as that layer is the most substantial part of the block, that marking might, and probably would, be sufficient to control the cracking of the entire block.

In my view, therefore, the respondents in these two cases, Perine and Molitor, have both so constructed their pavements as to gain the advantages secured to the complainant by the Schillinger patent, and by substantially the same means; and they are, therefore, infringers of that patent.

In both these cases the preliminary injunctions heretofore issued will be continued in force, and a decree entered for complainant in accordance with the views expressed.

* Reported by S. C. Houghton, Esq.