Case No. 11,100.

PHILLIPS ET AL. V. DETROIT.

{4 Ban. & A. 347: 17 O. G. 191; Merw. Pat. Inv. 206; 4 Cin. Law Bul. 385.}[1]

Circuit Court, E. D. Michigan. June, 1879.[2]

PATENTS—PATENTABILITY—WOODEN BLOCK PAVEMENT—UTILITY—NOVELTY.

1. A pavement consisting of blocks of wood cut from the trunks or branches of trees in their natural form, the bark only being removed, laid vertically upon a bed of gravel or sand, which is also used as a filling to keep the blocks in position, is not patentable.
2. While the fact, that a device is useful and has superseded others previously employed for analogous purposes, is proper to be considered and, in some cases, is decisive, it does not, of itself, establish the fact of patentability.
3. Letters patent No. 121,544, granted to Robert C. Phillips, December 5th, 1871, for improvement in wooden pavements, *held* void for want of novelty and invention.

{This was a bill in equity by Robert C. Phillips, Eugene Robinson, and Jesse H. Farwell against the city of Detroit, to restrain the infringement of letters patent No. 121,544, granted to Phillips December 5, 1871, for improvement in wooden pavements. In a suit for the violation of a preliminary injunction the members of the board of public works of the city of Detroit were fined for the willful violation of the injunction. Case No. 11,101. It is now heard for final decree.}

Geo. H. Lothrop and E. W. Kittridge, for complainants.

F. A. Baker, D. C. Holbrook, and L. L. Bond, for defendant.

BROWN, District Judge. I have felt much embarrassed in the consideration of this case by the decision of Judge Emmons sustaining the validity of this patent in a suit brought by the complainants against the city of Cincinnati. Upon a motion for a

preliminary injunction, this decision was accepted as practically conclusive, and a writ was granted without much examination into the merits. I have hesitated whether I ought not now to treat his determination as decisive of the case, upon the grounds stated by Judge Emmons himself in Goodyear Dental Vulcanite Co. v. Willis {Case No. 5,603}. But, as three most important exhibits, claimed to be in anticipation of complainants' patent, have been introduced in this case which were not before the circuit judge at Cincinnati, it is proper at least that their bearing upon the validity of the patent should be considered. It is, perhaps, true that if the case had been an original one I should have reached the conclusion that the patent was invalid from the disclaimer in the specification itself; but it is at least possible that the circuit judge might have reached a different conclusion, in that case, if these exhibits had been laid before him. It is difficult for me to determine the exact point, whether the new testimony itself would authorize a different conclusion, and, if the case is to be reconsidered at all, I think the only satisfactory way is to consider it de novo upon the whole testimony. The magnitude of the interests involved renders it more than probable that the case will be appealed. The defendant is abundantly able to respond to any decree that can be obtained against it, and, upon the whole, it has seemed to me better that the record should go to the supreme court with a candid statement of my own views, rather than an apology for deciding against them.

The real question in this case is not whether this patent might have been valid if wooden blocks, in their natural state, laid vertically, had never before been used, nor yet whether any of the prior patents are in terms anticipatory of this, but whether, considering the state of the art in 1869, as evidenced by the various exhibits here offered, there is any invention 510 in the result embodied in this patent. Invention has been

justly described as a mental process, but it is often exceedingly difficult to draw the line between those devices which are the result of thought, ingenuity and labor, and the products of such judgment or skill as a mechanic ordinarily makes use of in the performance of his daily work, and which are confessedly not patentable.

Great stress is laid in this case upon the superiority of this pavement over any other heretofore used, and it is claimed as almost, if not quite, decisive of the right of complainants to their patent. While the value and utility of a device and the fact that it has superseded others previously employed for analogous uses is undoubtedly entitled to weight in considering the question of patentability (Smith v. Goodyear Dental Vulcanite Co., 93 U. S. 486), it is, after all, a somewhat uncertain criterion. If the device be, in fact, novel, it furnishes an additional reason why the inventor should receive the reward of his ingenuity; but, if it involved no exercise of the inventive faculty, its very utility is an aggravation of the wrong done by the patentees in seizing and appropriating that which properly belongs to the public. If, for example, a person should succeed in obtaining a patent for painting the names of streets upon the gas-lamps, it would be a very insufficient answer to the defence of non-patentability to say that it was a very useful device and one which had superseded the ancient method of painting the names upon the walls of the corner houses.

The patent under consideration is of the simplest description. It consists of blocks of wood cut from the trunks or branches of trees in their natural form, the bark only being removed, laid vertically upon a bed of gravel or sand, which is also used as a filling-in to keep the blocks in position. The result is a smooth pavement of greater durability than any other wooden pavement known.

All the pavements to which my attention has been called consist of three distinct parts: First. A superstructure of stone or wood, in blocks of different shapes and sizes; sometimes, if of wood, connected by pegs or dowel-pins, but oftener laid separately. In some cases the wood is treated by dipping it in tar, asphalt or other material to keep out the water. These preparations, however, have been found to increase the tendency to dry-rot caused by the inability of the sap to escape. Second. A foundation of sand, gravel, broken stone or brick. In some instances, as in the Nicholson pavement, a board is laid between the superstructure and the foundation. Third. A filling of sand or gravel, fibres of wood or concrete, sometimes mixed with tar, asphalt, or pitch, and sometimes not.

For a long time, it was supposed that the durability of wooden pavements was increased by saturating the blocks in tar or asphalt; but that theory seems to be now exploded, and the special excellence of the Phillips pavement is attributed to the entire omission of these preparations.

Comparing this pavement with the various antedating devices, we find that it differs from the cobble-stone or bowlder pavement only in the substitution of wood in its natural form for stone. If wooden blocks in their natural form had never been used, undoubtedly this change would be patentable, for an entirely different result is produced; but, it being conceded that wooden blocks have been used before, and used for paving purposes, it is, at least, questionable whether this is not a mere change of material, and, therefore, falling within the rule laid down in Hotchkiss v. Greenwood, 11 How. {52 U. S.} 248. There is undoubtedly another result produced by the change of wood for stone, but it can hardly be called a new result, since the same result had previously been produced by the Use of like wooden blocks. The fact that cobble-stones are ordinarily

somewhat rounded and touch each other only in the centre, and that the wooden blocks are of uniform thickness, is only saying that the natural shape of wooden blocks differs somewhat from the natural shape of cobble-stone; but it does not change the fact that, in both cases, the blocks are laid in their natural form. I do not, however, put my decision upon this ground.

While it is true that none of the patents offered in evidence exhibit the exact combination of complainants', there are several which approximate very closely to it, so closely that I think the variation in complainants' is a matter of judgment rather than of invention.

The English patent to Parkin of 1839 provides for blocks of wood of any convenient figure, with the grain either vertical or inclined, and, among the drawings annexed to his patent, is one showing the blocks in their natural form. The foundation is of sand, ashes, or saw-dust, saturated with tar or bituminous substances, the filling of sand, pulverized chalk, brick-dust or other earthy matter united with pitch or other bituminous substances or suitable cement. Practically, the only difference between this patent and complainants' consists in the saturation of the sand used for the filling and the foundation with pitch, tar or other bituminous substances.

The patent to Stead of 1839 includes wooden blocks so shaped and placed as to support each other in a close and compact manner, always having the fibres in a vertical position. "The blocks which I use for the improved paving are cut transversely out of fir or other suitable timber, or they may be composed of deal-plank ends or small portions of timber firmly cemented together to any of the required figures hereinafter described." The foundation is to be "suitably prepared by the use of the well-known means." It seems quite clear that this would include a

foundation of sand or broken stone, which has been used for such purpose from 511 time immemorial. The spaces between the blocks may be filled with wooden pieces suited to their shape or with cement or asphalt or they may be left open if not too large. Figure 16 of his drawing shows a pavement of blocks in their natural form, differing from complainants' only in the filling.

The patent to Reynolds of 1841 describes a pavement constructed of pieces of the trunks of trees, cut into suitable lengths, as from three to ten inches, and placed with their fibres vertical side by side, in their natural state, without being cut or hewn into any particular shapes. The interstices between these blocks are to be filled up with a compound mass of fibres of wood and concrete or asphalt. The foundation is not specifically described. This patent also differs from complainants' only in the filling.

The patent of Fontaine Moreau of 1844 contemplates the use of blocks cut from any log of wood conforming to the shape of the trees, laid vertically upon a layer of sand, and filled in with bricks, rubber, asphalt, cement, marine glue, bituminous and other similar substances, covered by a bed or layer of sand.

All of these patents proceed upon the theory that there is some virtue in the bituminous substance used in the filling, either for the purpose of adhesion or rendering the pavement impervious to water. Complainants claim that the unadulterated sand used by them is equally efficacious as a locking for the blocks, and that the percolation of water through the sand is not injurious to the pavement. Whether there is really any such porosity in the sand as to carry off any perceptible amount of water from the surface is somewhat problematical. One of complainants' witnesses makes the pavement substantially water-tight, and says there is no difficulty in making it

practically impervious to water, and thereby preserving it, while the expert, Henry, makes the preservation of the pavement dependent upon the free circulation of the water to and from the blocks by means of the sand filling. I think it will be found, in practice, to make very little difference whether tar be added to the filling or not, so long as the blocks themselves are not dipped in it or otherwise saturated with it.

Granting, then, that both elements of this patent are old, that sand unmixed with other substances is almost uniformly used as the filling and foundation of every stone pavement, and that round blocks of wood laid vertically have been used with a filling of sand mixed with asphalt, tar or pitch, it remains to consider whether the mere omission of these bituminous substances in the filling is patentable. In the Parkin patent, pitch is mentioned as the other element of the compound; in the Reynolds patent, concrete or asphalt; in the Stead patent, asphalt; in the Fontaine Moreau patent, asphalt, cement, glue, or bitumen; but in none of them is the proportion in which these substances shall be used in any manner stated or indicated. This is left entirely to the judgment of the paver, who may use it in such quantity as to render the filling absolutely impervious to water, or may diminish it so much (as he would be likely to do if he were an economical or dishonest contractor) as to make it of no perceptible effect. If, in his judgment, he may use a very small quantity, it seems to be equally a matter of judgment to omit it altogether.

It is conceded that the round block may be used in any other combination without infringing complainants' patent. The street may be graded, the blocks laid upon the solid earth, and the interstices left open to be filled by the gradual accumulation of the streets, as suggested in the Stead patent of 1839, or they may be filled with the earth scraped from the surface to make the solid read-bed, and still there is no infringement.

But, suppose the street itself is pure sand, as in Grand Haven, or gravel, as in Ann Arbor, would it be an infringement to do precisely the same thing? If complainants' theory be sound, then the use of round blocks, which would infringe their patent in one place, would not infringe it in another; and, in towns, where the natural substratum was sand or gravel, earth of some description would have to be imported from abroad for the filling and foundation, to avoid an infringement. The question of infringement ought not to depend upon the accidents of the soil upon which the round blocks are laid.

There is proof that a pavement precisely like that of complainants' was laid and, apparently, is still used in London, Ontario; but it is admitted that the mere use of complainants' device in a foreign country, without its being patented or described in any printed publication, is not sufficient to anticipate his patent. There is no sufficient proof in this case of the use of the round blocks with a sand filling and foundation, in this country, although blocks of octagonal or sexagonal form set closely together, and therefore more liable to decay, have long been used upon a similar foundation. This, however, would not be sufficient to anticipate complainants' patent.

But, as I have before observed, this patent seems to me fatally defective in that the variations made from previous patents do not involve the exercise of the inventive faculty—in other words, that, considering the state of the art in 1869, a simple combination of round blocks with a sand filling and foundation was not patentable within the meaning of the law. A decree will therefore be entered, dismissing the bill.

{On appeal to the supreme court, the decree of this court was affirmed. 111 U. S. 604, 4 Sup. Ct. 580.

{For another case involving this patent, see note to Phillips v. City of Detroit, Case No. 11,101.}

[1] {Reported by Hubert A. Banning, Esq., and Henry Arden, Esq., and here reprinted by permission. 4 Cin. Law Bul. 385, and Merw. Pat. Inv. 206, contain only partial reports.}

[2] {Affirmed in 111 U. S. 604. 4 Sup. Ct. 580.}