

VAN CAMP V. MARYLAND PAVEMENT CO.

Circuit Court, D. Maryland.

April 2, 1888.

PATENTS FOR INVENTIONS—EXTENT OF CLAIM—ASPHALT PAVEMENT.

In an action for infringement of letters patent No. 174,648, issued March 14, 1876, to Aaron Van Camp, for improvement in concrete pavements, it appeared that the invention consisted in the use of crushed and pulverized rock, 60 per cent. thereof finely crushed, and 40 per cent. crushed more coarsely, heated and saturated with dead oil, crude petroleum, or the residuum of petroleum mixed with natural asphaltum previously dissolved to a pitch by crude petroleum, the object sought being to obtain the proper proportions necessary to form a hard and durable concrete; that there were numerous older patents using the same ingredients in various proportions for the attainment of the same end; that defendant did not use the materials in the specified proportions, and altogether omitted the previous saturation of the crushed rock with oil. *Held*, that, in view of the previous state of the art, the invention could not be considered as a new composition of matter, but as a mere process, in which the specified proportions of the materials, and the saturation with oil, were essential features, and that defendant, not having used them in his process, had not infringed the patent.

In Equity. On bill to restrain infringement of letters patent.

Aaron Van Camp brought a bill against the Maryland Pavement Company to restrain the alleged infringement of letters patent No. 174,648.

John G. Bennett and *Arthur Stump*, for plaintiff.

Brown & Brune, *Upham & Proctor*, and *Strawbridge & Taylor*, for defendant.

MORRIS, J. The complainant seeks relief for the alleged infringement by defendant company of patent No. 174,648, granted to complainant March 14, 1876, as the inventor of an improvement in concrete pavements, the specifications and claim of which are as follows:

“To all whom it may concern: Be it known that I, Aaron Van Camp, of Washington city, in the county of Washington and District of Columbia, have invented certain new and useful improvements in concrete pavements for streets and sidewalks; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same. I take crushed and pulverized rock, sixty per centum of the finer pulverized portion, and forty per cent. of the coarser. The crushing and pulverizing process should be continued until the even or naturally smooth surface of the stone is entirely destroyed. The object of crushing and pulverizing the rock is to obtain sharp angles and rough surfaces. I use the blue limestone; but it is evident that any hard rock, boulder, or gravel, when crushed and pulverized, will answer my purpose. The rock thus crushed and pulverized I subject to heat, so as to expel the moisture. I then add dead oil, crude petroleum, or the residuum of petroleum, until the rock becomes perfectly saturated. While thus heated, I add about twenty per cent. of natural asphaltum,—Cuban, Trinidad, or California,—that has been pre-

VAN CAMP v. MARYLAND PAVEMENT CO.

viously dissolved by crude petroleum, or the residuum of petroleum, until it has assumed the consistency of bitumen or pitch. I have found by experience that by saturating the crushed pulverized rock, as above stated, it will absorb more asphaltum, and produce a more perfect concretion and cementation. What I desire to claim and secure by letters patent is: In a concrete pavement, the use of crushed and pulverized rock,

when the same is heated and saturated with dead oil, crude petroleum, or the residuum of petroleum, and mixed with natural asphaltum,—Cuban, Trinidad, or California,—previously dissolved to a pitch by crude petroleum, or the residuum of petroleum, substantially as described, and for the purposes set forth.”

The defendant denies the alleged infringement, and that is the question which will be first disposed of. The use of crushed limestone or other similar crushed material, combined with an asphaltic cement, to form a concrete paving material was not in itself new at the date of Van Camp’s alleged invention. Nor was the heating of the materials, either separately or together, for the purpose of causing them to form a more perfect union, at all new in practice. Many of the patents for improved concrete pavements put in evidence by the defendant were granted prior to Van Camp’s application, and they describe paving concretes made of petroleum and products of petroleum mixed with asphalt and combined with crushed rock in various proportions, and when in a heated state. The object sought for by all the experimenters in this field was a perfect union of proper proportions of the stone with the cementation or binding ingredients, so as to form a hard and durable concrete; and each patentee claimed to have accomplished an improvement in this respect, either by some variation in the proportion of the ingredients, or the introduction of some new ingredient, or by some improved method of preparing them, or some improved process in the art of combining them. Among other patents describing the use of crushed stone or similar material with asphaltic cements are the patents granted to Foye, No. 109,607, November 29, 1870; to De Smet, No. 103,582, May 31, 1870; to Matthews, No. 114,172, April 25, 1871; to Hawes, No. 119,607, October 3, 1871; to Vandermark, No. 117,946, August 8, 1871, reissued 4,591, October 10, 1871; and the British patent to Newton, No. 925, October 6, 1871; and the British patent to Skinner, No. 1,795 January 2, 1872. These patents, together with the testimony showing the process of making asphaltic paving blocks at Stony Point on the Hudson, in 1872, and at Sing Sing in 1873, prove conclusively that at the date of complainant’s alleged invention there was nothing new in the use of crushed stone and asphalt, variously softened or tempered, nor in heating these materials to aid in effecting their combination. The claim of Van Camp, therefore, to stand at all, must be strictly confined to the proportions of the materials specified by him, and to his precise process for combining them. Looking to the state of the art as disclosed by these patents, and the evidence above adverted to, there was nothing else that he could lawfully claim as a new discovery. This he seems to have been aware of, for, as all crushed rock consists of some pulverized portions and some coarser parts, he first specifically directs that there shall be used for his composition “sixty per centum of the finer pulverized portion, and forty per cent. of the coarser.” The next step in his process is the treatment of this crushed and pulverized material to prepare it for combination with

VAN CAMP v. MARYLAND PAVEMENT CO.

the asphaltum, the importance of which step he states his experience has demonstrated.
That next step, after

first heating the crushed and pulverized rock, is to perfectly saturate it with dead oil, crude petroleum, or the residuum of petroleum. When this has been done, then the material thus prepared is to be mixed with asphaltum which has been dissolved to the consistency of pitch. He claims to have discovered that the previous saturation with oil of the crushed and pulverized stone enables it to absorb more asphaltum, and for that reason makes a more perfect combination. By no allowable construction of this patent can the previous saturation of the stone be considered as unessential, nor can the proportions thus definitely stated of the finer and crushed stone be considered as immaterial; for, if these are to be disregarded, all that could possibly sustain the novelty of the patent would be disclaimed. In neither of these particulars does the defendant in its manufacture use the process described in the patent. It does not use the specified proportions of the stone, but uses 60 per cent. of the coarser and 40 per cent. of the finer or pulverized limestone, thus reversing the proportions of the patent; and it omits entirely the previous saturation of the stone as hurtful and injurious to the special character of concrete it requires for molding under pressure into blocks, and for the same reason it does not use 20 per cent. of the softened asphaltum, but only 12 per cent. The complainant contends that he is not confined to the proportions indicated in his specifications, but that any substantial use of the same materials in the same way is an infringement; and contends that although the defendant may not previously saturate the stone before mixing with the asphaltum, that it subsequently does so, because when the heated dry particles of stone come in contact with the asphaltum, and the mass is then subjected to great pressure, the oil in the asphaltum permeates into the stone. But it seems to me plain that, even if it were allowable to disregard the specified proportions of material in a patent which must be so narrowly construed, it certainly cannot be allowable to disregard the previous saturation of the stone with oil, which the patentee emphasizes in his specification, and makes a part of the claim allowed by the patent-office, and which step in the process the defendant does not use. If the previous saturation of the stone is not essential to the result, but a subsequent and incidental permeation with oil is sufficient, which, it would seem, must always before have taken place, then the complainant claimed as essential a step which is unnecessary, and this would be fatal to his patent. The permeation of oil into the stone must always have happened whenever heated crushed stone and asphaltum tempered with oil were combined, as was the case in nearly all the patents above mentioned. The permeation may take place in defendant's process to a somewhat greater extent, because, after the mixing is complete, the comparatively dry and granular product is put into a mold and subjected to a pressure of 90 tons; so as to form a paving block; but I cannot see how this incidental permeation under the pressure resulting from improved molding machinery can be the equivalent of the previous saturation, which complainant describes and claims to be

VAN CAMP v. MARYLAND PAVEMENT CO.

necessary before the stone is brought into contact with the binding cement. The witnesses who explain defendant's

process of manufacture state that the object is to use as little oil and as little asphalt as possible, so that the paving block when molded may contain the greatest possible per centum of stone, and the least possible per centum of bituminous cementing material, relying very much upon the pressure in the mould to make the small amount of binding cement effective. These witnesses also testify that their experience leads them to believe that the previous saturation with oil described in the patent, and the use of the amount of asphaltum there specified, results in a material too soft and sticky to be used in defendant's machinery. I am clearly of opinion that the defendant does not infringe the process claimed in the complainant's patent.

Complainant's counsel, however, urges that the patent should be construed as claiming the invention, not only of a process, but also as claiming a new combination of matter; that is to say, a new paving concrete not before discovered. It is difficult to see how this contention can be supported, either as a construction of the language of the patent, or, if it could be shown to be claimed in the patent, how it could be maintained that the process there described results in a new product. The patent does not anywhere use words which can be construed to mean that the patentee has discovered a new substance for use in pavements, or that he has discovered a new paving material. The patentee simply and by apt and appropriate words claims that he has invented an improvement in concrete pavements. As before shown, concrete pavements made of the same materials variously compounded were old and in common use. The result of his combination was a material not different in anywise from former combinations, except that it contained a little more or less of some of the same ingredients mechanically combined, and differing from others only as the proportions of the ingredients differed. When such a mechanically combined material is old and in common use, and has already been the subject of numerous patented improvements both as to the proportions of ingredients, the processes of manufacturing, and methods of laying the pavement made of it, to say that a person who has merely altered the proportions of the ingredients or the process of combining them has discovered a new composition of matter in the sense of the patent law, is to trifle with language. To be a new combination of matter the product must have some distinctly new property, or be applicable to some new use. Of this there is no testimony whatever, and it is not alleged or claimed or suggested, either in the bill of complaint or the patent. With respect to the qualities or merits of the concrete made according to complainant's process there has been no practical test. The complainant never obtained any opportunity of putting his concrete into actual use as a pavement. He only made a few experimental blocks, and produces as an exhibit one of them made by him in 1876. To all outward appearances the material of this block is not distinguishable from the paving block made at Stony Point on the Hudson in 1872, a specimen of which was also exhibited by the complainants. It

VAN CAMP v. MARYLAND PAVEMENT CO.

was endeavored to show by chemical analysis that the Stony Point material contained less mineral substance than the Van Camp block, and more bituminous

matter, and therefore could not have contained the same ingredients. The chemical experts differed from each other in the results obtained, and nothing convincing to support complainant's contention was established by the analytical tests. That the manufacture of asphalt blocks at Stony Point was abandoned,—presumably because the blocks were not a commercial success,—proves nothing, because the Van Camp material has never been put into use, never subjected to any test to prove whether or not it does possess any new or useful quality or use which similar compositions had not before possessed. The testimony tends to show that whatever reputation the defendant's manufactured blocks have obtained has resulted rather from the improved machinery and powerful presses used by defendant, and the skill in manipulating the material specially adapted to being moulded in defendant's machinery rather than from any combination of materials differing from that used in 1872.

While a patent is to be liberally construed, so as to sustain it as a grant of the invention actually made and actually claimed, it can never by judicial construction, be made to cover an invention nowhere claimed in it, and which the public has had no fair notice that the patentee intended to claim. *Merrill v. Yeomans*, 94 U. S. 573. If it were necessary to say more it might well be suggested that even in a good claim for a new composition of matter, which is not described otherwise than by the process of making it, nothing can be an infringement which is not made by the process described. *Cochrane v. Badische A. & S. F.*, 111 U. S. 310, 4 Sup. Ct. Rep. 455.

The defense of non-infringement and the rejection of the claim for a new composition of matter make it unnecessary to consider other defenses set up in the answer, and urged at the argument. A decree dismissing the bill will be signed.