Now, if the plaintiff sold his patented sticks at the same price at which he sold unpatented sticks, it is difficult to understand how the defendants could have realized any saving by buying infringing sticks in the open market; but it appears from the evidence that the defendants generally purchased the unpatented sticks at a less price than that which they paid for the infringing articles, although they sold their umbrellas at the same price whether they embodied the one class of sticks or the other; and, this being so, it is inconceivable that by buying the infringing, instead of the genuine, article, they actually reaped an advantage. Therefore a finding that the defendants had saved anything by using the infringing rods could not have been rested upon any assured basis, and, of course, a finding of any "certain amount" of savings was absolutely impossible. The law is solicitous that wrongdoers shall not profit by wrongdoing, but it does not sanction the substitution of unfounded conjecture for proof in determining either the fact of the existence of profit or the amount thereof. The exceptions are dismissed, the report of the master is confirmed, and the decree recommended by him will be entered as the decree of the court.

## MELVIN et al. v. THOMAS POTTER, SONS & CO.

(Circuit Court, E. D. Pennsylvania. January 12, 1899.)

1. PATENTS-PROCESS-TEST OF PATENTABILITY.

No test, which can be definitely applied to all cases, to determine whether or not a process of manufacture is patentable, has been authoritatively established; but it is not essential to patentability that the process should effect a chemical change in the substance operated upon.

2. Same—Process of Manufacturing Linoleum.

The Melvin patent, No. 412,279, for a process for manufacturing linoleum floor-cloth, which relates to the making of inlaid linoleum, and the essential feature of which is the cutting of the pattern-forming shapes from sheets of spongy texture, and their attachment to the backing and to each other by means of their own adhesive nature, and without the use of any separate cementing composition, discloses a patentable invention, which was not anticipated by the method of making plain linoleum then in use, nor by any prior patent or publication.

3. Same—Construction of Claims.

Where language used in a claim, abstractly considered, is susceptible of either of two constructions, it must be read in the light of the actual condition of things, and, if technical, be given the meaning in which it would be understood by those skilled in the art.

This is a suit in equity by David Neilson Melvin and the American Linoleum Manufacturing Company against Thomas Potter, Sons & Co. (incorporated) for the infringement of a patent.

C. C. Gill and Livingston Gifford, for complainants. Charles N. Butler and Frank P. Prichard, for respondent.

DALLAS, Circuit Judge. This is a suit upon letters patent No. 412,279, dated October 8, 1889, to David Neilson Melvin, for process of manufacturing linoleum floor-cloth. The claims involved are as follows:

"(1) The process of manufacturing linoleum floor-cloth, consisting in forming granulated linoleum composition into sheets of spongy texture, cutting the sheets into shapes, arranging the shapes on a flexible back or foundation, and pressing these shapes into the foundation, substantially as set forth." "(3) The process for the manufacture of linoleum floor-cloth, consisting in forming sheets of spongy texture from linoleum composition, cutting these sheets into shapes, arranging the shapes on a block or form, placing the shapes against a canvas, pressing the block until the shapes adhere to the canvas, removing the block, and finally heating and again pressing the materials, substantially as set forth."

Notwithstanding the decision of the supreme court in the leading case of Corning v. Burden, 15 How. 252, some processes of manufacture are certainly patentable, although no test by which they may be distinguished from those which are not, and which can be definitively applied to all cases, has been authoritatively established. tive Works v. Medart, 158 U.S. 71, 15 Sup. Ct. 745. But no universal test need now be suggested, and I will not venture to propose one. It is sufficient for the present purpose to say that the criterion set up by the respondent cannot, in this instance, be adopted. The question is not whether the mode of operation described and claimed by Melvin is chemical or is mechanical, but whether it is in fact a process, or is merely an aggregation of mechanical functions. I find no warrant in the authorities for the assumption that, unless a chemical change be effected by a process, no patentable invention or discovery can be involved in it. It is true that in both Corning v. Burden and Locomotive Works v. Medart processes involving chemical reaction were contrasted with methods which comprise nothing but successive mechanical steps to produce a merely mechanical change in the substances operated upon. In doing this, however, the courts were illustrating, not defining, the difference between a patentable and an unpatentable process. In Cochrane v. Deener, 94 U. S. 780, Mr. Justice Bradley, speaking for the supreme court, said:

"That a process may be patentable, irrespective of the particular form of the instrumentalities used, cannot be disputed. \* \* \* A process is a mode of treatment of certain materials to produce a given result. It is an act, or a series of acts, performed upon the subject-matter to be transformed, and reduced to a different state or thing. If new and useful, it is just as patentable as a piece of machinery. In the language of patent law, it is an art. The machinery pointed out as suitable to perform the process may or may not be new or patentable, whilst the process itself may be altogether new, and produce an entirely new result. The process requires that certain things should be done with certain substances, and in a certain order, but the tools to be used in doing this may be of secondary consequence."

This, as was observed in Locomotive Works v. Medart, supra, was said in a case in which a patent was sustained for a process which "was not chemical in its nature, but, as stated in the opinion of the court, was a series of acts performed upon the subject-matter to be transformed and reduced to a different state or thing." This terse description of the process which was held to be patentable in Cochrane v. Deener may, with perfect aptitude, I think, be applied to the process now under consideration. As has been pointed out by the complainants' expert:

"The first step, or the preparation of the tesseræ, involves the development of a form of material whose physical property, in consequence of the treat-

ment used in its formation, and the point at which that treatment was interrupted, possessed physical properties, as to plasticity, adhesiveness, and the like, not found in any similar product known to the prior art, and that these new properties were not the necessary result of the operation of a machine in shaping or likewise mechanically modifying the material acted upon, but were changes in the physical condition of a material, which could not have been predicted, and whose recognition and application constituted a veritable discovery and invention. This same principle, as I conceive it, runs through the entire process referred to in the first claim, because every step of that process is founded on and involves new and original properties developed and existing in the material first described, namely, the tesseræ or shapes, consisting of a spongy, granulated linoleum mixture, whose application and union with canvas in a new manner constitute the central feature of the invention here discussed."

See, also, American Fibre-Chamois Co. v. Buckskin-Fibre Co., 18 C. C. A. 662, 72 Fed. 508.

The evidence sustains the respondent's affirmation of fact that, prior to the complainants' patent, plain linoleum floor-cloth was manufactured by causing a uniform layer of plastic linoleum, solely by reason of its own adhesive quality, to adhere to the backing; but the inference claimed to be deducible from this fact is not warranted by the proofs. The plain linoleum method was not anticipatory of the Melvin inlaid process. Inlaid linoleum was not produced by an obvious adaptation of the means by which plain linoleum had previously been made. Long after plain linoleum had been satisfactorily produced, very serious difficulties continued to confront the manufacture of inlaid linoleum, and to perplex the minds of those who were endeavoring to overcome them. Nor was there anything in the inlaid linoleum art which anticipated the invention of this patentee. The Bunn patent of 1851, the several Walton patents, the Leake patent, and the German book by Fischer, which are the publications especially relied on, have all been considered in the light of the conflicting views of the respective experts and of the arguments of counsel. separately nor as a whole do they disclose the patented process. dominant and primarily essential feature is lacking in all of them. The resort to sheets of spongy texture as the material from which to cut the pattern-forming shapes, and the permanent attachment of those shapes to the backing by means of their own adhesive nature or penetrating capacity, and wholly without the use of any separate cementing composition, was entirely new and original with Melvin. conception that this was feasible his process was founded, and, although it may now seem strange that the practicability of making inlaid floor-cloth without using cement had not been recognized before. I am fully convinced that it never had been; and this conviction is strengthened by the fact that it was not so made either by Walton, who appears to have been the head and front of the linoleum art, nor by his licensees, the complainants, who were at liberty to use everything which he had patented, and who, as manufacturers, were desirous of putting an inlaid floor-cloth upon the market. erally not very difficult, in cases of this kind, to find in earlier publications something which, upon dexterous presentation, may seem to suggest the patented invention, and the present case is not without this element; but it has not been shown that, prior to the Melvin

invention, any person, however skilled in the art, could have obtained from any source information that would have enabled him to make inlaid linoleum floor-cloth according to the process of that invention, and certain it is that no one did so make it. I will not refer to the alleged anticipations in detail. The respondent's expert testified that, in his opinion, one of the strongest, if not itself the strongest, was the Walton patent of 1882; but it is obvious to me, as the complainants' expert has testified it was to him, that the only idea which Walton entertained in this connection, and the only thing he taught the world, was that linoleum tesseræ may be secured to a canvas backing by an adhesive layer of linoleum material, or by some equivalent Beyond this neither Walton, Leake, nor any other person had advanced when Melvin contributed to the art his unquestionably valuable discovery that the tesseræ could be secured to the backing. and be united at their contiguous edges, without the use of any cement whatever.

The parties differ as to how the phrase "granulated linoleum composition," as it several times occurs in the patent, should be inter-The respondent claims that it means linoleum composition which has been separated into grains, while the complainants insist that it was intended to and does describe, not a material which has been granulated, but that particular composition, in a thorough state of combination, from which granulated linoleum is made, as distinguished from the somewhat differently constituted composition from which linoleum cement is made. The language in question, abstractly considered, is susceptible of either of these constructions, and therefore must be read in the light of "the actual condition of things" (Reed v. Insurance Co., 95 U. S. 23); and, as it is technical and defining, the material to which it refers can be identified only by determining from the evidence to which of the two conditions of linoleum composition those skilled in the art would apply it. Upon this question the weight of the evidence is, as I view it, decidedly with the complain-In the first place, the phrase is so used in the specification as to indicate that linoleum composition in the form of grains could not have been contemplated as the material to be operated upon. first step in the process is there described as "the sheeting of granulated linoleum composition into an adherent, spongy texture, of sufficient tenacity to admit of cutting into blocks of the required shapes," and further on it is said:

"Sheets of linoleum composition of various colors are first formed by subjecting unheated granulated composition to sufficient pressure—roller or otherwise—to form it into a spongy texture sufficiently coherent to be handled as much as required, and may be cut into various shapes by means of dies or rollers."

Dr. Morton testified that, to any one having any knowledge of the terms employed, these statements would make it obvious "that the starting material to be used in carrying out the process of the patent in suit is to be that mixture of ingredients in certain proportions, and in a thorough state of combination, which is known in said art as 'granulated linoleum composition.'" Mr. Melvin testified that, at the date of the patent in suit, "granulated linoleum composition" meant,

to a man skilled in the art, "a composition before it was granulated, as it came from the mixer, and capable of being made into granulated linoleum." One of the respondent's witnesses (a man of considerable practical experience) referred, in giving his testimony, to the composition from which plain linoleum is made as "plain linoleum composition," thus distinguishing and designating the sort of composition he had in mind with reference to the particular product to the making of which that composition is adapted; and in other and similar industries this manner of classifying and denominating different kinds or conditions of unfinished material seems to be well known. It is quite significant, too, that the composition which both the plaintiffs and the defendant actually use is not granulated, but is a solid and compact mass.

The conclusion that has been reached as to the meaning of the term "granulated linoleum composition," which is contained in the first claim, but not in the third, disposes of the only serious difficulty involved in the question of infringement. The charge has, as to both claims, been fully maintained. The patent is for a process,—for "a series of acts performed upon the subject-matter to be transformed and reduced to a different state or thing." The respondent performs the same series of acts in substantially the same manner, and upon the same subject-matter, with the same result; and the variations it has introduced could not be regarded as material, without narrowing the scope of the patent by unreasonable construction, and denying to its owners any protection which would be commensurate with the character and true extent of the patentee's conception and achievement. Decree for complainants.

## FALK MFG. CO. v. MISSOURI R. CO. et al.

(Circuit Court, E. D. Missouri, E. D. January 10, 1899.)

- 1. PATENTS—Invention—Application of Old Methods to New Use.

  The application of a well-known method to a new use in an art analogous to that to which it had been applied does not involve patentable invention.
- 2. Same—Process—Improvement in Rail Joints.

  Patent No. 545,040, for an improvement in rail joints and methods of forming the same, relates to a process for welding or uniting abutting rail ends so as to make a continuous smooth track, using well-known methods, which belongs to the domain of mechanical skill, and not to that of invention. It was also anticipated by the English patents to Stephenson in 1831 and to Norris in 1851.

This is a suit in equity by the Falk Manufacturing Company against the Missouri Railroad Company, Edwards Whitaker, the American Improved Rail-Joint Company, and Emmett M. Frey for the infringement of a patent.

Seddon & Blair, Barton & Brown, and Frederic H. Betts, for complainant.

Bond, Adams, Pickard & Jackson and Boyle, Priest & Lehmann, for defendants.