

CELLULOID MANUF'G CO. *ET AL*, *V.* FREDERICK CRANE CHEMICAL CO.

*Circuit Court, D. New Jersey.*

June 26, 1888.

1. PATENTS FOR INVENTIONS—PATENTABILITY—APPLICATION OF PRINCIPLE PYROXYLINE.

The specifications of letters patent granted to John H. Stevens, December 19, 1882, for improvements in the manufacture of pyroxyline by the use of new solvents recite that “my new group of active liquid solvents or converting agents comprises oil of spearmint, nitrate of methyl,” etc., naming 32 substances, and that these *menstrua* may be used in connection with each other, or with camphor or alcohol, or singly by themselves. *Held*, on demurrer to a bill filed to restrain an infringement, that the patent did not cover a natural principle, but an application of a principle, and was valid, and that it was not void for want of ingenuity or invention in discovering it.

2. SAME—MULTIFARIOUSNESS.

Such patent is not void for multifariousness because it has adapted many substances or instrumentalities for effecting its object.

In Equity. On demurrer to plaintiffs' bill.

Bill filed by the Celluloid Manufacturing Company and the Celluloid Varnish Company against the Frederick Crane Chemical Company to restrain the infringement of a patent, and to recover damages and profits. Defendant demurred to plaintiffs' bill.

*Belts, Atterbury, Hyde & Betts*, for complainants.

*Whitehead, Gallagher & Richards* and *A. v. Briesen*, for defendant.

Argued before BRADLEY, justice, and NIXON, J.

BRADLEY, Justice. This is a bill in equity to restrain the infringement of a patent, and to recover damages and profits. The patent sued on was granted to John H. Stevens, assignor of the complainant, (the Celluloid Manufacturing Company,) on the 19th day of December, 1882, and purported to be for certain new and useful improvements in the manufacture of pyroxyline, or nitro-cellulose. The principal improvement consists in the employment of certain substances as solvents or converting agents of pyroxyline or nitro-cellulose, in manufacturing compounds of that substance. The principal solvent heretofore used has been camphor, or a solution of camphor in alcohol. The patentee, in the specification, says:

“Heretofore the best compounds of pyroxyline, as well as the preferred solvents, have had camphor as an ingredient; and it was the object of my experiments to find new *menstrua* which are in themselves such active solvents of pyroxyline as to render the use of camphor unnecessary, and I have succeeded in this respect to the extent hereinafter set forth. My new group of active liquid solvents or converting agents comprises oil of spearmint, nitrate of methyl, butyric ether, valeric ether, benzoic ether,” etc.; naming 22 different substances.

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The specification then proceeds to give directions as to the quantity of these ingredients to be used, and the manner of using them, stating, among other things, that they may be used in connection with each other, or with camphor or alcohol, or singly by themselves. The claim of the patent is in these words:

“What I claim herein as new and desire to secure by letters patent is: As an improvement in the art of manufacturing compounds of pyroxyline or nitro-cellulose, the use of the hereinbefore specified new group of active liquid solvents or converting agents, substantially as described.”

The patent being set forth in the bill by way of profert, the defendant demurred, and for cause of demurrer stated that the alleged invention in the patent set forth and claimed is not a patentable invention for which letters patent could lawfully issue. It is argued, among other things, that the thing patented is neither an art, machine, manufacture, or composition of matter, but only a principle of nature, namely, the quality or power which certain substances have of dissolving pyroxyline; that the patentee professes to have discovered this power in these substances, and claims the exclusive right to use it, which is contrary to the well-settled rule that a principle cannot be patented; that the claim is quite as objectional as that of Prof. Morse to the exclusive use of electro-magnetism for making or printing intelligible characters at a distance, which was rejected by the supreme court of the United States. To this it may be answered that natural principles and forces (so far as they are used) may form constituent elements of a process of manufacture which is clearly patentable. Morse discovered a certain method or process by which he could utilize the force of electro-magnetism in transmitting intelligible signs to a distance. Of this process he was entitled to a monopoly, even though the particular instrumentalities might be varied; but he was not entitled to a monopoly of the force itself applied by other processes essentially different from his. The application of this rule was illustrated in Neilson’s patent for the use of the hot blast in smelting. The effect of a hot blast in smelting iron ore is due to a principle of nature; but the mode of employing it by heating it in a receptacle between the blowing apparatus and the furnace was held to be patentable. *Neilson v. Harford*, Webst. Pat. Cas. 275, 371, 8 Mees. & W. 806. The use of a new material in a process has been held patentable when a better or cheaper result is produced, as pit coal instead of charcoal in smelting iron, (*Dudley’s Patent*, Webst. Pat. Cas. 14;) and anthracite instead of pit coal, (*Crane v. Price*, Id. 375, 5 Scott, N. R. 338, 4 Man. & G. 586; Curt. Pat. §§ 16, 18.) In certain cases, it is true, the substitution of one material for another in the same implement or machine has been held not to be patentable, where it was clear that the alteration required no invention, but merely the exercise of mechanical skill and judgment. Such was the case of *Hotchkiss v. Greenwood*, 11 How. 248, where porcelain doorknobs (which were old) were affixed to the shank or spindle in the same manner as metallic knobs, the court held that this substitution was not a patentable invention. So in another case, tried before Justice NELSON, a patent was granted for covering a wooden button with tin, when the same thing had been done to a horn button half a Century before, the use of wood instead of horn was held not to be a patentable invention. *Anon.*, Id. 266. So in *Hicks v. Kelsey*, 18 Wall. 670, the court held that the

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substitution of an iron wagon-reach for a wooden one of the same shape and form was no invention; that the machine

remained the same, and the adoption of a stronger material was a mere matter of mechanical judgment, and not of invention. These cases depended on their own circumstances. There is no rule of law that the substitution of one material for another is not patentable. In processes of manufacture, and in compositions of matter, such a substitution often effects material changes in the result, either as to the product or the expense;

Now, we are not willing to say that there was no ingenuity or invention on the part of Mr. Stevens in discovering that the substances named in his patents are solvents of pyroxyline, and good substitutes for camphor. On the contrary, from the language of the specification, we infer that it was the result of much experiment and investigation. It is true that the mere discovery of the qualities possessed by these substances is not patentable; in other words, the qualities themselves cannot be patented. But the patent in question is not granted for the discovery, nor for the solvent quality, of the substances; it is granted for the "use" of the substances "in the art of manufacturing compounds of pyroxyline, substantially as described," that is, as described and pointed out in the specification. The method there described is that, after the pyroxyline has been reduced to a fine pulp by grinding in some of the known machines, and freed from aqueous moisture in the usual way, and after the addition of any coloring matters or other ingredients desired, the solvents (which are liquid) are to be applied to the pyroxyline (preferably by sprinkling or spraying over the mass) in the proportion of about two or three parts of solvent to two parts of pyroxyline; then left in a tight vessel for 12 hours or thereabouts, in order that the solvents may thoroughly permeate the mass; then to be worked or masticated in heated rolls, and thus formed into a homogeneous compound, which compound is then pressed into blocks or sheets, and subjected to the seasoning or curing process, as is well understood. The product thus obtained will be susceptible of use in the manufacture of utensils and ornaments of different kinds, in the manner pointed out in the specification. This is the general process of manufacture with the new solvents discovered by the patentee, pointed out in the patent. Such a process is certainly susceptible of security by patent, if it be novel and useful, and if the process is patentable. The employment of the newly-discovered solvents as a part of the process (being a still narrower claim) is also patentable. And it would seem that the result of the process is a different substance from that produced when camphor is the solvent used. The specification, it is true, intimates and concedes that certain parts of the process were well known; but exactly what was well known, and what was not, does not appear. No former patents are exhibited in the bill. Perhaps, by the answer of the defendants and proofs taken in the case, it may be made to appear that every, part of the process, as a process, was known and used before, and that the only originality on the part of the patentee was the discovery of the fact that oil of spearmint and the other substances named are solvents of pyroxyline. Should this, be so, the question would then be fairly presented whether the mere discovery of

this fact was patentable, and whether the case would be governed by the rule laid down in *O'Reilly v. Morse*, 15 How. 62, and so beautifully and clearly illustrated by the opinion of Judge SHIPMAN in *Morton v. Infirmary*, 5 Blatchf. 116. As the case stands, we do not think that this question is fairly presented; but think that the patent on its face exhibits an art or process which may or may not be anticipated by prior patents, or by the previous state of the art.

The objection that the patent is multifarious, and for that reason void, we do not regard as tenable. We have never understood that the adaptability of many substances or instrumentalities, for effecting the object of an invention, vitiated a patent. The conversion of pyroxyline into a compound suitable for certain purposes by means of applied solvents, manipulated in a certain way, has a unity of purpose and effect sufficient to answer the objection.

We do not deem it necessary to follow the reasons assigned for the demurrer in greater detail. We are satisfied that the demurrer should be overruled, and that the defendants should be required to answer the bill of complaint, and it is so ordered.