

WELLING AND ANOTHER V. CRANE AND  
OTHERS.

*Circuit Court, D. New Jersey.* December 21, 1882.

PATENTS FOR INVENTIONS—NEW  
COMBINATIONS.

Any new combination of old ingredients is patentable when any new useful results follow; but the mere exercise of judgment or mechanical skill in selecting a few ingredients from a larger number already known and specified in prior patents, is not an invention.

In Equity.

*Betts, Atterbury & Betts*, for complainants.

*J. H. Ackerman and Rowland Cox*, for defendants.

NIXON, D. J. This action is brought to restrain the defendants from infringing letters patent No. 98,727, issued to William M. Welling, and bearing date January 1, 1870. The title of the patent declares it to be an improved composition, resembling horn. The specification states that a composition had heretofore been made resembling ivory, in which the ingredients were mixed together and then ground between heated rollers to render the composition uniform and plastic, and then recites three several patents which had previously been granted to Welling,—the first numbered 17,949, and dated August 4, 1857; the second numbered 75,067, and dated March 3, 1868; and the third numbered 89,100, and dated April 20, 1869,—all obtained for an improvement of compositions imitating ivory. He claims that the present invention is an improvement upon these patents, and has reference to a new composition to be worked and moulded the same as set forth therein. The defense turns chiefly upon the question of the novelty of the complainants' patent. Two inquiries are presented: (1) What is the invention which the

patentee claims? and (2) was it known to the public at the time of Welling's application for the patent?

1. The first of these questions is not readily answered. The patentee himself, although pressed strongly under cross-examination, 572 did not seem willing to tell us what he deemed his invention to be. The patent was issued under the act of July 4, 1836, the sixth section of which provides—

That before any inventor shall receive a patent he shall deliver a written description of his invention or discovery in such full, clear, and exact terms its to enable any person skilled in the art or science to which it appertains, to make, construct, compound, and use the same; and shall particularly specify and point out the part, improvement, or combination, which he claims as his own invention.”

The patentee was requested by the solicitor of the defendants to point out the particular statements in the patent which described his invention, (Complainants' Record, p. 152; cross-question 477 *et seq.*) but he declined to do so, saying that his only answer was the patent itself, and the testimony taken in the case. The complainant's expert, Mr. Brevoort, was more communicative, and, in reply to a question as to what he understood was claimed and described in the patent, states, (Complainants' Record:)

“The claim I understand to be for an article of manufacture consisting of the composition described in the patent, which composition is to be prepared by the process described in the patent; that is to say, the patent is for an article of manufacture prepared by a certain process. The article is to consist, according to the patent, of shellac, fiber in the form of dock, and, if desired, of pigments, to give to the article the desired color, and to impart to the article the desired gravity. The patent also specifies that, by weight, one part of shellac and a half part of the flock material are to be used. The amount of pigment which may be

used is not stated. The process consists in mixing the ingredients together in a dry state. The composition, when mixed together, is then to be worked and ground between rollers, in the presence of sufficient heat to render the mass plastic. After this the mass may be moulded to form any desired article. \* \* \* To sum up the matter briefly, I would state that I understand the claim of the Welling patent to cover an article made from flock and shellac in about the proportions given, and to which coloring may be added, when said article is produced, by mixing the ingredients together in the dry state, grinding them, in the presence of heat, between rolls, so that the mass is plastic, and then moulding the mass in the desired form.”

This would seem to be definite enough. Are the methods for making such an article sufficiently described in the specifications of the patent? The patentee says he has a new composition, resembling horn, which is an improvement upon all compositions before made. In manufacturing it, he uses shellac and vegetable or animal fiber, mixed together by well-known means—taking “about one part, by weight, of shellac, to one-half part, by weight, of cotton, wool, or other animal or vegetable fiber.” He finds that it is best to mix the ingredients 573 together in a dry state, the fiber being in short pieces or in the form of flock, and according to the fineness of the fiber and the extent to which they are ground together so the materials formed from such a composition will be more or less mottled in appearance, similar to horn, and various colors may be produced by the color previously given to the fibrous material. Different pigments may be mixed in the composition to give the desired color, or to impart more or less weight, as desired. The chief characteristic of the new composition is its great strength.

In the testimony taken, in the disclaimer filed by the complainants *pendente lite*, and in the arguments

of counsel, an attempt has been made to limit the construction of these specifications to an article formed from the mixture of shellac with cotton flock in the proportions named in the patent. The reason of such an attempt is obvious. If it fairly includes in the materials to be used all animal or vegetable fibers, the patent must be declared void for claiming too much. It is doubtful whether the specifications, properly construed, are capable of such limitations; but the question is not important, if it shall be found, upon investigation of the state of the art at the time of the issue of the patent, that there is no novelty in the alleged invention when the fibrous material used is confined to flock.

2. What did the public know in regard to the subject-matter at the time the Welling patent was issued?

It knew that as early as October 3, 1854, one Samuel Peck, of Connecticut, obtained letters patent No. 11,758, for improvement in the manufacture of a composition for daguerreotype cases, and that in the specifications of the patent it was stated that the composition to which the invention related was composed of gum shellac, and woody fibers or other suitable fibrous material, dyed to the color that might be required and ground with the shellac and between hot rollers, so as to be converted into a mass, which, when heated, became plastic, so that it could be pressed into a mould or between dies, and made to take the form that might be imparted to it by such dies.

It knew that one John Smith, of Birmingham, England, procured English letters patent, on April 5, 1860, for an improvement in a composition for the manufacture of buttons and other dress fastenings, the object of the patentee being to attain greater tenacity, density, lightness, and delicacy of tint in coloring. He states that he takes one pound of shellac, dissolves it by heat on a flat iron slab, and then mixes with

it an equal quantity, by bulk, of ebony dust, or other wood dust; that he then introduces coloring matter, and amalgamates 574 the ingredients until the mass appears thoroughly homogeneous in its nature throughout. These components having been well mixed upon a slab or stone, while the lac is in a plastic state and under heat, the composition is then to be placed in sufficient quantities in dies of any description, prepared and designed for the forms of the article to be produced. The patentee then suggests that in cases in which it may be desirable that the composition should possess greater density of material, such density may be obtained by the addition of mineral substances, the proportions of which must be governed by the requirements of the case; and when greater tenacity may be desired, that quality may also be obtained by the admixture of a due proportion of vegetable fiber other than wood dust; as, for instance, the shearings of cottons, velveteens, or hemp, flax, or other such like materials.

It also knew that Charles Westendarp, Jr., of London, on the ninth of December, 1857, obtained letters patent for the manufacture of a material which he called "artificial ivory." He says that his invention consisted in manufacturing a material which should be made to imitate ivory, bone, horn, coral, or other similar substances, natural or artificial, and which may be used in preference to ivory on account of cheapness and adaptability for billiard balls, knobs, finger plates, piano-forte keys, rulers, paper knives, etc. He states, in the specifications of his patent, that he takes any certain quantity of small particles of ivory, bone, wood, glass, cotton, wool, or other similar articles, either in a coarse or fine powder, or in shavings, according to the imitations intended, and combines them, or any of them, or all of them, or as many of them as he sees fit, according to the purpose required, with gums or other resinous materials, such as gum

copal, gum shellac, resin, wax, or other glutinous or resinous materials; also using which of the said gums he sees fit, for the purpose the materials are required for,—either the whole of the said gums, or part or any of them. In giving a precise description of the manufacture of artificial ivory he considers that it will be sufficient to explain the method of making white billiard balls, as the various articles admit of such trifling variations that every one skilled in any handicraft can easily reproduce them. One of the methods he states as follows: The same purpose is effected by reducing eight ounces of white shellac, three ounces of white color, prepared of bismuth, lead, or zinc, with five ounces of ivory dust, bone dust, or any other suitable matter, into a fine powder, and by mixing this powder, in passing it between heated metal rollers repeatedly at about 230 deg 575 to 280 deg. Fahrenheit. By this process a soft homogeneous mass is obtained, which can easily be moulded into any desired shape, and forms, when cold or hard, a very ivory-like material. Instead of using ivory dust, steamed and finely-powdered bones, porcelain, cotton, and various finely-powdered materials may be employed, and the colors may be varied, according to the tint or shade required; the ivory or other dust may be dyed, similar to cotton cloth.

It may be gathered, from the foregoing reference to patents antedating and anticipating the complainants' patent, that there is no novelty in the alleged invention of Welling, unless it is novel and patentable to select two or three from the large number of alternative ingredients, any of which Westendarp says may be used in the manufacture of artificial ivory. The complainants insist that such selection indicates invention or discovery, because Westendarp nowhere suggests that the use of cotton in a finely-powdered state, in forming the new composition, will produce any better result than ivory dust, bone dust, or

powdered porcelain, and because it required experiment to ascertain the fact of its superiority.

We have, then, this question presented: One patentee names a number of ingredients from which an article may be mechanically formed, useful for commercial purposes; another, from this number, selects two or three which he claims will produce the best result if used under prescribed conditions, and amalgamated in certain proportions. The conditions are that the ingredients shall be mixed together in a dry state, the fiber being in short pieces, or in the form of flock; and the proportions are about one part, by weight, of shellac, to one-half part, by weight, of cotton, wool, or other animal or vegetable fiber.

Any one familiar with the state of the art when the patent was issued will at once perceive that there is nothing new in any of these instrumentalities or suggestions. The combination of shellac with animal or vegetable fiber—the ingredients being in a dry state—had long been practiced; the use of rollers in amalgamating the compound long known; cotton, with its fiber in short pieces or in the form of flock, is only another statement for cotton in a fine powder. The proportions indicated are substantially the same as those of Smith in bulk, or those of Westendarp in weight, in his description of the manufacture of artificial ivory to be used in making billiard balls.

Any new combination of old ingredients is, doubtless, patentable, when any new useful results follow. But what new useful results took place in this case? It is not pretended that any chemical 576 changes are affected by the admixture of the ingredients according to the proportions of the complainants' patent. They are mechanical merely, and it was certainly known, long before Welling suggested it, that the use of more or less cotton flock or finely-powdered cotton, as a binding agent, added more or less tenacity or strength to the compound.

It is a fact, which ought not to be overlooked, that the specifications of the Welling patent give no hint to the public that, in using the patent, any better material can be obtained from the cotton than the wool, although the proofs show that at the time of applying for the patent the alleged inventor knew of the great superiority of the cotton as a binding agent in the composition. He keeps that secret in his own breast, and leaves the matter to be ascertained by experiments, as Westendarp left it. Indeed, we do not think it is too much to affirm that the only advantage which the public gained from the specifications and claim of the complainants' patent was that Welling made a selection of a few ingredients from the larger number of Westendarp, from which materials might be chosen to experiment with, and we do not think that such an exercise of judgment or mechanical skill should be dignified with the name of invention. Not finding any patentable novelty in the complainants' patent, the bill must be dismissed, with costs.

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