Joshua Pusey, for appellants.
A. G. N. Vermilya, in pro. per.

Before ACHESON, Circuit Judge, and BUTLER and KIRKPATRICK, District Judges.

ACHESON, Circuit Judge. This suit was for the infringement of letters patent No. 248,990, dated November 1, 1881, granted to James Brahn for an improvement in railway switches. The patent has a single claim, in these words:

"In a railway switch, the combination, with the pointed or movable rails, B B, of the lugs, C, fabricated as specified, and composed of the body, c, adapted to fit upon and depend somewhat below the flange of the rail, and the upwardly reaching flange, c^1, adapted to fit against the body of the rail, and having the jaws, c^2, together with the forged bars, D, having the flattened ends, d, all substantially as and for the purpose described."

The circuit court sustained the patent, and held that the defendants' device was an infringement. Upon the first branch of the case the judge below said:

"The evidence, including several prior patents and the exhibit 'Pennsylvania Steel Company's Circular,' conclusively shows that the invention of Brahn was not a primary one; but I cannot agree that he made no invention at all. He devised, in complete and combined shape, a convenient and improved arrangement of crossbar and lugs, which, though nearly approached, had not been before produced. His contribution to the art involved invention, although not of the highest order, and was both new and useful. The construction he devised was more convenient and better fitted for use than any of the appliances which had preceded it; and what is said in the defendant's circular of the advantages of the 'socket' connecting bar covered by patent No. 308,373, under which the defendant manufactures, might, in the main, be equally well said of the Brahn device."

We have reached the conclusion that the foregoing views are correct. While Brahn made no great advance in this art, yet his improvement, we think, was patentably new and useful. Under the proofs, the circuit court did not err in adjudging the patent to be valid.

That the appellants (the defendants below) infringe the patent seems quite clear. We agree with the court below that their device "is essentially identical with the device of Brahn." Upon both branches of the case we adopt the opinion of the circuit court, and accordingly its decree is affirmed.

FRY v. ROOKWOOD POTTERY CO. et al.

(Circuit Court, S. D. Ohio, W. D. December 2, 1898.)

No. 4,531.

1. PATENTS—SUIT FOR INFRINGEMENT—ESTOPPEL BY PLEA OF LICENSE.
A defendant is not estopped from denying the validity of the patent sued on by a plea of license, where such plea is withdrawn, before the hearing, by leave of court, and an answer filed in which a license is not pleaded.

2. SAME—INVENTION—PUBLIC HISTORY OF THE ART.
For the purpose of determining the question of invention, a patentee must be presumed to have had knowledge, at the time of the claimed in-

vention, of everything which was contained in printed publications or in the public history of the art.

3. SAME—TRANSFERRING APPLIANCE TO ANOTHER SIMILAR ART.
The art of painting on canvas or paper is so nearly allied to that of painting or decorating clay ware that no patentable invention is involved in transferring the use of an atomizer for applying pigments from one art to the other.

4. SAME—IMPROVEMENT IN ART OF DECORATING POTTERY WARE.
The Fry patent, No. 399,029, for an improvement in the art of decorating pottery ware, is void for want of patentable invention, and for anticipation, particularly by the "air brush" or atomizer for applying pigments to all surfaces, patented by Peeler and improved by Walkup.

This is a bill in equity, filed by Laura A. Fry against the Rookwood Pottery Company and William W. Taylor to restrain the defendants from an infringement of a patent for an improvement in the art of decorating pottery ware.

The defendants first filed a plea that they were acting under a license from the complainant. The plea was set down for argument, and then an amended plea was filed, the sufficiency of which was sustained by the court. Subsequently the defendants, by leave of court, withdrew their amended plea, and filed an answer, in which, admitting the issue of the patent, they denied that the complainant was the true or original inventor of the art of decorating pottery, and averred that the improvement had been described in printed publications prior to the alleged invention of the complainant, in a patent to Walkup, a patent to Peeler, in the "Life of Josiah Wedgewood," in the "History of the Ceramic Art," and in other publications; that the process had been known and in public use in this country prior to the complainant's alleged invention by Peeler, Walkup, Whipple, Carter, Ligowsky Clay Pigeon Company, the Matt Morgan Art Pottery Company of Cincinnati, and by the Cincinnati School of Design; and, finally, that the letters patent sued upon are invalid for want of patentable invention. The patent issued to the complainant was in the words following: "Be it known that I, Laura A. Fry, of Camp Dennison, in the county of Hamilton and state of Ohio, have invented a new and useful improvement in the art of decorating pottery ware; and I do hereby declare that the following is a full and exact description thereof: My invention consists in the application to the surface of the ware, after the article has received its final shape, and before it is finally glazed or fired, suitable coloring matter in the form of a cloud or spray, as hereinafter described, whereby a particularly soft, delicate background or shading is produced upon the ware, which may be made to gradually fade or vanish in one or more directions, and to blend from one color to another without any perceptible line of demarkation. It consists, furthermore, in heating the ware when hard or glazed upon the surface, and thereafter applying the coloring matter, in manner as hereinafter described, to the hot surface, and finally firing or glazing the decorated article. To carry my invention into effect, the coloring matter is blown upon the surface of the ware—either in its soft state, in the 'bisque' state, or on the glaze before firing—in the form of a cloud, or an atomized spray or mist, produced by means of any of the usual forms of atomizers which are operated by an air blast or a steam blast, or by the lungs of the operator, and which, being well known, need not be herein described. After the ware has thus been decorated, the color is fixed by firing the ware in the customary manner. I employ the coloring matter either in a liquid or semiliquid form, or in the form of a very dry, almost impalpable powder, as desired. As the coloring matter is blown from the tube of the atomizer, and carried therefrom in a cloud of fine, almost imperceptible, particles, it may be readily directed upon the article in such manner as may be found best adapted to produce the desired effect, the application being freely made where the color is to be intense, and more delicately made in proportion as the color effect is to be delicate, or otherwise varied as the taste, skill, or ingenuity of the operator may dictate. A single color may thus be applied to a color ground, or different colors may be

applied separately, or, by means of separate atomizing jets, several colors may be applied simultaneously. By this process delicate clouding—if 'clouding' it may be called—is produced entirely free from outline, and possessing a peculiarly delicate vanish, and where two colors merge a peculiar softness of blending is secured, which may not be otherwise attained. A variety of beautiful and novel effects may also be obtained, which it is not necessary herein to describe. The coloring matter and the glazing material for the clay ware may be mixed together, and applied to the article by my process, or the coloring matter may be applied as above described, and the glaze thereafter applied by the usual process of dipping and firing. Where the clay ware to be colored or decorated has been once fired, and is not, therefore, sufficiently absorbent, I heat the same before blowing the color thereon, the effect of the heat of the article being to cause the liquid coloring matter to quickly dry without marring the effects which are sought in its application. I am aware that coloring matter in a liquid state has heretofore been applied to the glazed surfaces of china ware by sprinkling or spattering the same thereon with the aid of a comb or brush, the comb being passed over the brush dipped in the coloring matter in such manner as to cause the latter to fly off in fine independent drops or particles, this process being technically known as 'spatter work,' and I make no claim thereto. My improved process differs from spatter work in that, instead of being spattered in small independent drops, the color is laid upon the ware in a cloud or sheet of almost imperceptible spray or mist, producing very different effects, and such have hitherto been unknown. I claim as my invention: (1) The improvement in the art of decorating articles of clay ware, which consists in blowing an atomizing spray or cloud of coloring matter upon the surface thereof, and thereafter fixing the same by firing, substantially in manner as described. (2) The improvement in the art of decorating clay ware, which consists in heating the surface, and blowing upon the heated surface an atomized spray or cloud of coloring matter, and thereafter fixing the same by firing, substantially in manner as described."

L. M. Hosea and W. H. Doolittle, for complainant.

R. H. Parkinson and George B. Parkinson, for respondents.

TAFT, Circuit Judge (after stating the facts as above). It is contended first that the plea by the defendants of license estops them from disputing the validity of the invention. However this might be were there a defense or plea of license before the court, the suggestion loses all its weight in view of the fact that the defendants did not stand upon their plea, but withdrew the same by leave of court, and filed an answer in which a license is not pleaded. It is conceded that the defendants only infringe the first claim of the patent, covering the application of color to the clay in its green state, before it is fired at all. Color is applied to pottery by the use of mineral pigments carried in a solution of clay. These are technically called "slips." The gist of Miss Fry's improvement was the spraying of these slips by the use of an atomizer upon the green clay molded into the desired form. Every other step in the process which she describes was old. The application of the color to the green clay before any firing was confessedly old in the making and decorating of the pottery. The only change claimed to have been effected was in the means by which the color was applied, to wit, by atomizing, rather than by a brush. The only question for the court to decide is whether in what had been done before there was a palpable suggestion of atomizing and spraying color upon pottery as a means of getting better effects in the decoration. It is to be borne in mind in determining such a question that the function of

the court is not to consider what Miss Fry's actual knowledge of the prior art was, and then to decide whether, with such knowledge, what she did involved real invention; but the court is bound to assume that she knew everything about the art of applying color to pottery or kindred surfaces which was contained in printed publications or in the public history of the art, and upon that assumption to say whether the step she took in the art required the exercise of the inventive faculty. Approaching the question, thus limited, we find that in the Chinese method of decorating pottery, it had been common to blow upon the articles to be decorated, in the green clay, the color through a bamboo pipe having stretched across the end of it a piece of gauze or other material for dividing the pigment into fine particles, and thereby produce a spraying effect. Two pieces of pottery thus decorated have been exhibited to the court. It was old to use a mouth atomizer in blowing upon paintings shellac or other fixative necessary to preserve them. It was old to use the same process with charcoal sketches. In this condition of the art, Abner Peeler, on October 1, 1881,—three years before Miss Fry claims to have conceived her invention,—applied for a patent for a paint distributor, and the patent was issued to him on April 25, 1882. He says, in his specifications:

"My invention relates to an improvement in devices for distributing pigments, the object being to apply to surfaces of any character all kinds of liquid coloring matter in a state of extreme attenuation. With this end in view, my invention consists in the combination, with a reciprocating needle arranged and adapted to feed a quantity of liquid pigment to its point at every stroke, of devices for projecting a jet of air against the needle, and atomizing the liquid pigment."

It is unnecessary further to describe the mechanism of the invention than to say that it consisted of an ordinary atomizer with devices for holding the pigment and increasing the atomization by the assistance of a reciprocating needle which presented the pigment in fine drops at the mouth of the atomizer. It was merely an improvement on an ordinary atomizer. The patentee, in describing the operation, said:

"In the reciprocating movement of the needle its point is drawn within and immersed in the pigment in the receptacle, a small quantity of which will adhere to it. When, now, the needle is thrown forward, its point will divide the air jet issuing from the pipe, D, and the adhering color will be blown from its opposite sides thereby, and carried to any object within convenient range of the jet. The quantity of color adhering to the needle is so small, and its atomization so perfect, that the individual particles of color are hardly discernible upon the object on which they are thrown. It will therefore follow that with my distributer and with one pigment colored effects may be produced which will descend from the palest tints capable of being produced by the extreme attenuation of the color through all of the intermediate tints down to the depth of color formed by the paint in mass. As the tone of the different effects will depend upon the length of time that the jet is directed to any one point, exquisitely graded shading may be produced by its careful manipulation. In polychromatic painting, in the prosecution of which it is often necessary, in order to obtain the desired tints, to apply one pigment upon the surface of another color, my distributer will be of great value, as, after it has been used to apply one color, the pigment receptacle may be cleansed, and another color introduced into it, and distributed upon the color first applied. In this way a blending of color may be produced, almost unattainable in brush painting. In painting portraits, either in color or in sepia, and in finishing solar prints, the device may also be used to excellent

purpose on account of its adaptation to produce those soft and delicate tints which this class of work demands. In fact, in all situations requiring delicate coloring my device will be found a great aid in the application thereof."

This patent was assigned to Liberty Walkup, to whom was issued another patent for a device which is merely an improvement upon Peeler's paint distributer. Like Peeler's, it is a device for distribution by atomization of pigments in the art of painting. He says in his patent: "This invention relates to machines employed in the distribution of pigments in the art of painting, but more especially in the fine arts." Walkup, since 1883 and 1884 down to the present time, has been engaged in the manufacture of a device made according to the Walkup and Peeler patents, that he called an "air brush," to be used for the distribution of color over surfaces of all kinds. In his advertisement issued in 1883—a year before Miss Fry conceived her improvement—Walkup said that the air brush would handle liquid pigments on any surface known to the art, and that it would handle any liquid pigment in a satisfactory manner; that it could be applied to "India ink work, water colors, crayon work, photography, pastel work, architecture, lithographing, civil engineering, monumental drawing, designing of house decorations, drapery and costume designing, china decorating, colored photographs, artotypes, photogravures," etc. There is uncontradicted evidence that in 1883 Mrs. Walkup, the wife of the inventor, used the air brush to decorate china which was subsequently fired, and that three pieces of china were thus decorated to show that the brush was adapted to the work. It is contended that the Peeler and Walkup patents cannot be successfully used with the heavy slip coloring matter that is used to decorate pottery. This is contradicted. It is not material, however, whether the particular form of atomizer used by Peeler and Walkup would distribute with sufficient ease the heavier coloring material used in pottery decoration, because the change from Walkup's invention to the common form of atomizer was palpable. Walkup's atomizer was merely an improvement on the common form, and was invented only to make the spray finer than the ordinary atomizer would make it. Walkup's patented device necessarily contained the obvious suggestion that an ordinary atomizer would accomplish the same result in a less degree. It is to be noted that Miss Fry does not mention in the specifications of her patent any particular form of atomizer. It appears that she herself used the ordinary mouth atomizer when she began this method of coloring at the Rookwood Pottery, but that afterwards, because the use of this form of atomizer was disagreeable and harmful to the throats of the designers and artists of the Rookwood Pottery, air pumps and other mechanical devices were applied to the working of atomizers under direction of Mr. Taylor, the manager of the pottery. The advantages to be derived from atomization and spraying of coloring matter on surfaces to be decorated were fully set forth in Peeler and Walkup's patents and in the advertisements of Walkup long before Miss Fry attempted the use of an atomizer. The particular form of atomizer to be used with the heavier pigments was a matter of detail and mechanical skill, for which no patent can be supported. It appears that the mouth atomizer for distributing and spraying color on clay was adopted by a number of persons who were entirely ignorant of Miss

Fry's use of an atomizer for such a purpose at or about the same time that she began its use. It is clearly established that Matt Daly used the atomizer for the distribution of coloring matter upon pottery about the same time as Miss Fry; that Ligowsky, an inventor of many patents, also used the same method of distributing coloring matter; and that W. A. Long, a witness for Miss Fry in this case, after having experimented with the Walkup air brush, and finding it hardly adapted for the distribution of such heavy coloring matter as the slips, began at once to use the mouth atomizer. It is not a matter of importance whether these uses of the atomizer were anterior to or after Miss Fry's use of the same device. They are not referred to as prior uses, but they are material because they tend to show that, after Walkup's device became known, the use of an ordinary atomizer for color slips was merely a plain and obvious step, which involved no patentable invention. A well-authenticated instance of the use of atomizers in applying slip colors to terra cotta work at the Northwestern Terra Cotta Works in Chicago some time prior to Miss Fry's conception of the method appears in the evidence, and a plaque of Sarah Bernhardt thus colored some time before July, 1884, the earliest date fixed by Miss Fry of her conception of her improvement, has been produced in court. On the whole case, I have no doubt that Miss Fry's patent is void for want of invention. Even if Walkup's patent had been limited—as it was not—to the application of pigments to canvas and paper, the art of painting on those surfaces is so nearly allied to painting or decorating clay that it would have involved no invention to transfer the use of the atomizer from one art to the other. This principle was applied in Frederick R. Stearns & Co. v. Russell, 54 U. S. App. 591, 29 C. C. A. 121, and 85 Fed. 218, and Steiner Fire Extinguisher Co. v. City of Adrian, 16 U. S. App. 409, 8 C. C. A. 44, and 59 Fed. 132, decisions by the circuit court of appeals of this circuit, and in the cases cited in those decisions. It is hardly correct to say that painting on clay is an art distinct from painting on other surfaces, so far as the mechanical method of applying the color is concerned. Walkup's patent was for the means of applying pigments to all kinds of surfaces, and the use of the atomizer to apply pigments to clay only is a case "of applying what was on its face expressly intended for all arts to a special art for which it was peculiarly adapted." Palmer v. Manufacturing Co., 84 Fed. 454, 457. It is doubtless true that part of the artistic excellence of the Rookwood Pottery ware is due to the delicate shading and blending of colors produced by the use of the atomizer in distributing the slips. Under the circumstances, however, I do not see that this reflects on the question of the novelty of Miss Fry's improvement.

It appears from the evidence that Miss Fry first used an atomizer upon clay in her work as designer in the Rookwood Pottery, and that its success as a means of applying color was there developed with the materials and appliances of the Rookwood Pottery. She does not seem to have thought that she had invented or discovered anything patentable in the use of the atomizer for this purpose until Mr. Taylor, manager of the Rookwood Pottery, nearly two years after she began using it, and after she had left the employ of that pottery, wrote to her, and suggested that she take out a patent for the process. In the course of

the correspondence he said that it was doubtful whether the process was patentable in view of the Walkup patent, but that, if it could be obtained, it would be useful for the pottery to hold such a patent as an obstacle to dishonorable competition by former employés, from which the pottery had already suffered. He proposed, on behalf of the pottery, to pay all the expenses of procuring the patent. Miss Fry, because of her gratitude to Mrs. Storer, then the owner of the pottery, professed entire willingness to have the process patented, and to let the pottery have it, if she could be permitted to use the process herself. When, however, subsequently, Miss Fry was asked to sign the application for the patent, and a paper assigning her interest in the improvement for a nominal consideration to Mr. Taylor for the pottery, she declined to do so, and soon after applied for a patent through counsel employed by her in New York. Correspondence ensued, in which there was some discussion as to what would be a fair consideration for the assignment to the pottery of such an interest in the patent as would give it the right to exclude its competitors from using the process, but the parties were unable to reach an agreement. Miss Fry did not in any of the letters express a wish or claim that the pottery should pay for its own use of the process. There is nothing in all of this to estop Mr. Taylor or the Rookwood Pottery from impeaching the validity of the patent issued to Miss Fry, though there is much upon which it might be claimed, had the question been properly made in the pleadings, and were the patent a valid one, that a license from Miss Fry to the Rookwood Pottery to use her patented process must be implied. Solomons v. U. S., 137 U. S. 342, 346, 11 Sup. Ct. 88; McClurg v. Kingsland, 1 How. 202; Lane & Bodley Co. v. Locke, 150 U. S. 193, 14 Sup. Ct. 78; McAleer v. U. S., 150 U. S. 424, 14 Sup. Ct. 160. The bill is dismissed.

KING et al. v. ANDERSON et al.

(Circuit Court, S. D. New York. December 5, 1898.)

1. PATENTS—PATENTABILITY—SUBSTITUTION OF MATERIALS.
   Liquid or pasty materials used to restrain the too-rapid setting of plaster of Paris being old, and the use of powdered marble in a dry state being also known, *held*, that it involved patentable invention to substitute for these materials hydrate of lime in a dry state, to be mixed with the dry plaster of Paris; the difference between the results accomplished being that between a partial and complete success.
2. SAME—INFRINGEMENT.
   Infringement is a tort, which must be proved, and cannot rest wholly on conjecture and inference. The fact that a defendant occupied the same office as another whose infringement is proved is insufficient.
3. SAME—COMPOUND TO RESTRAIN THE SETTING OF PLASTER.
   The King patent, No. 397,296, for an improvement in compounds to restrain the setting of plaster, *held* not anticipated, valid, and infringed.

This is a suit in equity by J. Berre King and George R. King against R. Napier Anderson and Enos A. Bronson for infringement of a patent.

Charles E. Mitchell, for complainants.

A. Bell Malcomson and Carl A. De Gersdorff, for defendants.