"The one distinctive difference between the first Urbahn machine and the machine of the patent in suit is that in the early machine the shuttles did not move in interlocking tracks or paths, but moved in the one identical track or path."

In this opinion the defendant's expert is found to be in accord. He says:

"The first Urbahn machine differed from the machine of the patent in suit in the arrangement of the tracks or races in which the shuttles move, and in the mechanism by which they are caused to move; * * * the rest of the mechanism being in all substantial respects * * * identical with the machine of the patent in suit."

In both machines the shuttles moved in the same plane. To form the heddle in the old machine as well as the machine of the patent, it was necessary that the threads should be interlooped, and this could only be effected by the shuttles crossing each other's tracks or paths. Both the mechanisms of the old machine and the machine of the patent accomplish the same result, substantially the same way. The old "1881 Model" carries the weft or heddle threads through the warp on the sides, to and around the pins interlooping the threads as they go, and then brings them back to their own warp, and carries them through again. The patented machine does no more.

It is insisted on the part of the complainant that the produce of the 1881 model was an unsalable fabric, and that this was due to the faulty construction of the machine in the use of the single track on which the shuttles moved. Both of these propositions are denied by the defendant; but, if they be granted, I am of the opinion that with the knowledge of the mechanism of the 1881 model, which was free to the world, it required no more than mechanical skill to make the changes which would result in the patented machine in suit. All the elements of the patented machine were in combination in the 1881 model, and it did not require invention to substitute two shuttles moved on tracks that cross each other in the same plane, for the purpose of interlooping the threads which they carry, for two similar shuttles moving in the same plane on one track, in such manner as that the threads which they carry shall, by the crossing of each other's tracks, be similarly interlooped. Having come to the conclusion that the "Urbahn 1881 model" machine, which was free, was in anticipation of the one described in the complainant's patent, and contained in combination all the elements of complainant's claims, it is needless to consider what relation the Huber machine or the French machines bear to the patented machine in suit. For the reasons given, the bill must be dismissed.

J. L. OWENS CO. v. BRADLEY et al.

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(Circuit Court, D. Minnesota, Fourth Division. November 10, 1897.)

PATENTS—INTERPRETATION AND INFRINGEMENT—COCKLE MACHINES.

The Lucas patent, No. 274,797, for an improvement in machines for separating cockle from grain, consisting in an endless belt carrying parallel slats downward over an inclined screen, so as to hold back the grain and cause it to roll in slight banks above the slats, and thereby allow the small seeds to pass through the screen more certainly, construed in the light of the prior art, and *held* not infringed.

This was a suit in equity by the J. L. Owens Company against Bradley, Clark & Co. for alleged infringement of a patent for an improvement in machines for separating cockle from grain.

Chas. S. Cairns, for complainant.

A. C. Paul, for defendants.

LOCHREN, District Judge. This suit was brought by the complainant as sole owner of letters patent 274,797, issued March 27, 1883, to John Lucas, of Hastings, Minn., for a new and useful apparatus named in said patent an "Improvement in Cockle Machines," against the defendant, for an alleged infringement of said patent since February 1, 1897, asking for an injunction against the defendant, and for an accounting by defendant of profits obtained through such infringement, and for damages.

The device in the Lucas patent which the complainant insists has been infringed by the defendant is described in the second specification of said Lucas patent as follows:

"(2) In a cockle separator, the combination of the inclined screen, c, and the endless belt, a, arranged above and parallel with the screen, and the cross slats, d, fixed upon the belt, a, and having their outer edges in contact with or in very close proximity to the screen, whereby the grain in its descent is held in banks against the edges of said slats and upon the surface of the screen as set forth."

The evidence as to the state of the art at the date of this patent shows not only that the use of an inclined screen to separate cockle and other seeds from grain by allowing the mass to run by its own gravity upon and down such inclined screen was then old and well known, but that also the use of an endless belt to pass over and parallel with such screen, and in contact with it, so as to hold the grain upon the netting, and retard the motion of the mass, that smaller seeds might be more likely to pass through the meshes of the screen than if the mass passed rapidly over it by gravitation, was also well The only novelty in the Lucas patent is the cross slats atknown. tached to the belt, and which, when the machine is in operation, pass over the under side of the belt down the incline of the screen, and in contact or close proximity with it, so that grain coming upon the top of the screen is held back against the slat, and forming a small bank against it passes down the screen less rapidly than unobstructed gravitation would carry it, and moving only with the slower motion of the belt such slight bank of grain rolls in its descent so as to allow all small seeds to come against the meshes of the screen and pass through them more certainly than if not retarded by the slats in passing over such meshes. The machine of defendant has the same inclined screen and revolving belt with cross slats as the Lucas patent, except that the belt is raised from the screen, so that the cross slats do not come in contact with, nor in near proximity to, the screen in passing over it, but pass one-half inch above the screen; and that along each of said slats, and distant two inches from each other, are set in holes one-fourth of an inch in diameter little brushes or tufts of fibrous material, one-half inch in length, and so set that

the brushes upon one slat do not follow the brushes upon the preceding slats, and thus in the revolutions of the belt the face of the screen is swept by these small brushes, and cleared of chaff, dirt, and material liable to adhere to the screen, and hinder the passage of seeds through its meshes. While the small brushes have a tendency to retard the flow of the grain down the inclined screen, and deflect to one side or the other such grains as strike against the small brushes, they cannot and do not hold the grain in banks as do the slats in the Lucas patent. For the separation of wheat from oats or the separation of other grains of differing lengths the defendant's machine has a wide belt or apron of canvas, one end of which is hooked to the side of a slat, and then by the rotary motion of the endless belt running over the screen downwards the apron covers it over the ends of the small brushes, and is drawn tight by the movement, and brought and kept in contact with the screen, holding the kernels of grain flat upon the screen, and permitting the shorter kernels to pass through the holes or meshes while the longer kernels are held flat, and not allowed to pass endwise through the same holes or meshes, but are carried to the bottom of the screen. The complainant claims that with this apron the grain in passing down the inclined screen forms into pockets or banks where the brushes under the slats press the apron against the screen, making the device the equivalent of that of the Lucas patent. A practical working of the machine of defendant satisfies me that such is not the case. The slats with brushes are but four or five inches apart, and press the canvas against the screen. The motion of the endless belt, always in one direction, draws this canvas tight between these slats, so that the canvas runs in contact with the face, or upper side, of the inclined screen from near the top to near the bottom of the screen, and the grain cannot and does not slide under the canvas faster than the motion of the canvas allows it to pass along, until, as a slat is raised by the turn at the bottom of the machine, the canvas between it and the next following slat is raised from the screen, and the grain under that part of the canvas, being released, drops together over the bottom of the screen. The contact of the canvas resting on the grain prevents any chance for the rolling of the grain such as may occur as it follows the slats in the Lucas patent.

My conclusion is that the defendant's machine does not infringe the Lucas patent, assuming that the Lucas patent is valid as to its second specification. But the device of an endless belt with a slat or slats having on each a continuous brush to sweep and cleanse an inclined screen was old, and free to the public, before the Lucas invention or patent. If, in that state of the art, the defendant had upon all its slats placed continuous brushes to cleanse its inclined screen, it would be only using a device which it was free to use for that purpose, even though the effect in that case would be that the grain would form in banks against such continuous brushes, and be retarded by them, and roll freely in passing down the screen, following such brushes, just as it rolls in following the slats in the Lucas patent. Decree may be entered dismissing the bill upon the merits, with costs.

UNITED INDURATED FIBRE CO. OF NEW JERSEY et al. v. WHIPPANY MANUF'G CO. et al.

(Circuit Court. D. New Jersey. November 17, 1897.)

1. PATENTS-PRELIMINARY INJUNCTION-PRIOR DECISIONS.

On an application for preliminary injunction, a prior adjudication in a suit against another party, sustaining the patent, after full and fair contest, on final hearing, is conclusive of the validity of the patent, unless a new defense is interposed, so forceful as to satisfy the court that, if presented in the former case, a different result would have been reached. Hence the only question open is that of infringement.

2. SAME-INFRINGEMENT.

Reissue No. 10,282 (original No. 267,492), for a process of rendering paper or pulp articles hard, tough, and impervious, and the Keyes patent, No. 342,609, for a pail, or other similar article, made of wood pulp, or similar fibrous material, held valid and infringed, on motion for preliminary injunction.

3. SAME-PRELIMINARY INJUNCTION-HARDSHIP TO DEFENDANT.

An injunction will not be denied on the ground of hardship to defendant company, where it appears that the organizers and managers thereof were both prominently connected with another company at a time when it was adjudged an infringer of the same patent in an earlier suit.

This was a suit in equity by the United Indurated Fibre Company of Jersey City and others against the Whippany Manufacturing Company and others for alleged infringement of certain patents. The cause was heard on a motion for preliminary injunction.

Fred P. Fish and Charles Neave, for the motion. M. B. Philipp, M. H. Phelps, and David Kay, Jr., opposed.

KIRKPATRICK, District Judge. The bill filed in this case asks for an injunction against the Whippany Company and others, the defendants therein, prohibiting the manufacture by them of indurated fibre ware, because the method used by them infringes upon the rights of the complainants, as protected by patent No. 267,492 (reissue No. 10,282), and also because in the forming of the articles the defendants infringe claim 7 of another patent issued to Martin L. Keyes (No. 342,609), both of which patents are held by the complainants under valid assignments. The claims said to be infringed are as follows:

Patent No. 267,492 (reissue No. 10,282): "Claim 1. The process of rendering paper or paper-pulp articles hard, tough, and impervious; consisting in first saturating the said article in thickened drying oil, or oil and gums, at substantially the temperature specified, in such manner that the surface will be free from an oil film, and then exposing said article to air and like temperature, as set forth. Claim 2. The process of rendering paper or paper-pulp articles hard, tough, and impervious; consisting of saturating said articles in a hot bath of oil, and freeing the surface from films of oil, and subsequently indurating the saturated articles. Claim 3. The described article of paper or paper pulp, having its pores filled with hardened linseed oil, or linseed oil with a proportion of gums, substantially as set forth."

Patent No. 342,609: "Claim 7. As a new article of manufacture, a pail. or other similar article, formed from wood pulp, or other similar fibrous material, having an annular projection or chine around its bottom, said chine being formed with a uniformly laminated structure, substantially as described.'

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The defenses interposed are invalidity of patent, prior use, and noninfringement,

It appears from the record that in 1892 the complainants herein brought suit in this court against the New York Wood-Fibre Company for an infringement of the same claims of the patents charged to be infringed in this case. Some of the parties hereto were interested in the management of the business of the defendants in said The case was fully and fairly presented to the court by able suit. counsel. In it reference was made to many of the patents now relied There is no suggestion on the record upon as being anticipatory. of fraud or collusion. Upon a final hearing the validity of both of the above patents was adjudged. Under these circumstances, upon an application for a preliminary injunction the question of the validity of the patent is not at issue (American Paper Pail & Box Co. v. National Folding-Box & Paper Co., 2 C. C. A. 165, 51 Fed. 229), unless a new defense is interposed, so forceful as to satisfy the court that, if presented in the former case, a different result would have been obtained. The reason for this rule is stated in Electric Manuf'g Co. v. Edison Electric Light Co., 10 C. C. A. 106, 61 Fed. 834, to be "that an adjudication in the case of a patent is not only a judgment inter partes, but is a judicial construction of a grant by the government, and, in a broad sense, deals with and determines the rights of the public." I have carefully considered the patents, which were not then considered, and fail to find in them anything which satisfies me that, if they had been urged in the former suit, it would have induced the court to reach a contrary conclusion. Giving that weight to the prior adjudication to which it is entitled (Purifier Co. v. Christian, 3 Ban. & A. 42, Fed. Cas. No. 307; Patent Co. v. Adams, 77 Fed. 191), I regard as established, for the purposes of this motion, the validity of the claims of the complainants' patents which are said to be infringed, and that the only question to be determined by the court at this time is the one of infringement (Manufacturing Co. v. Hickok, 20 Fed. 116).

The invention of the complainants' patent No. 267,492 relates to an improvement in articles made of paper stock. Such articles were not new in the art. They had been made with indifferent success for many years. The object of the inventor was to improve such articles in respect to hardness and strength, and render them impermeable to all that class of liquids to contact with which they are To this end, he adopted a new step by step process, which subjected. is clearly set out in the specification of his patent. It consisted: (1)Of heating the article made of paper pulp to the highest degree of heat to which it might safely be subjected. (2) The immersion of the article into prepared linseed oil, reduced by boiling or by agitation to a thick, semiliquid mass, which oil has been kept at high temperature, and allowing the article to remain in the oil until it has absorbed so much and no more oil than by subsequent treatment may be converted into a hard, resinous substance, cementing the fibres of Care must be taken that no film of oil, which is the the pulp. effect of oversaturation, remains on the surface of the article. (3) Submission of the article in free contact with a heat sufficient to con-

vert the oil which has been absorbed in the pores into a solid throughout the article. The patent having been declared valid, we must assume that the process was new, and the result attained an improved article, which was an advance in the art. The record discloses the fact that many persons engaged in the manufacture of paper pulp articles abandoned old processes, and accepted licenses to operate under that described in complainants' patent. The defendants are engaged in the manufacture of paper pails, or pails formed from paper pulp. Their process consists in (1) thoroughly drying the formed pail in an oven, the temperature of which varies from about 125 to 170 deg. Fahrenheit; (2) the pails are then immersed in an oil bath, heated to a temperature of 168 deg. Fahrenheit, for from threequarters of a minute to one minute and one-half; (3) then baked at a temperature of 162 to 168 deg. Fahrenheit. The temperature used appears from the testimony to be the maximum degree of heat which can be used without injury to the defendants' article. The novelty of the complainants' process consisted of the orderly arrangement of the steps which contributed to the desired result. The process of the defendants is, in a modified form, that of the complainants' patent. It differs from that of complainants in the degree of heat to which the articles are subjected before immersion in the oil bath, the temperature of the bath, and the degree of heat to which they are afterwards subjected. The complainants' patent is not limited to any specified degree of heat. It recommends that, to produce the best result, the article shall be heated to the highest degree to which it may be safely subjected. The object of the preliminary heating of the article in its pulpy state is to drive out the air and water with which it is saturated, and prepare it to receive the oil in which it is afterwards immersed. To accomplish the same result by changing the thickness of the pulpy article, and using a lower temperature for a longer time, is not to alter the first steps of the process. So, too, with the other differences which have been alluded to. I regard them as mere evasions of the patent, upon which the court now looks Palmer v. Patterson, 70 Fed. 490. The testimony of one favorably. of defendants' witnesses discloses the fact that "any greater temperature than that used by the defendants would be injurious to the goods," and so they come within the specifications of the patent, and use "the highest amount of heat to which the article may be safely subjected." The question is not merely one of temperature. The process may be the same, though the temperatures differ. Tilghman v. Proctor, 102 U. S. 707. Another point of difference is in the oil used for the bath. That specified in the complainants' patent is "boiled linseed oil, or linseed oil thickened by the known process of agitation in the presence of light and air"; and in the claim of the patent it is described as "thickened drying oil, or oil and gums." The oil used by the defendants is what is known to the trade as "London Oil." This oil is a drying oil, yielding resin upon oxidation, and is a well-known member of the class of which linseed oil is the type. The object to be obtained by the immersion in the bath is to saturate the pores of the article with an oil which, uniting with the vegetable fibre of which the pulp is composed, converts the whole, by

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oxidation, into a tough, elastic, resinous substance. In the case against the New York Wood-Fibre Company, to which reference has been made, the oil bath consisted of a mixture of London oil and fish oil, the proportions of each not being given. The results attained in all the cases are similar, the means of attainment being chemical equivalents. I am therefore of the opinion that by the adoption of the process of complainants' patent, and the use of its equivalents, the defendants have infringed claims 1 and 2 of patent No. 267,492 (reissue No. 10,282), and by so doing have produced the same "article of paper or paper pulp, having its pores filled with hardened linseed oil, or linseed oil with a proportion of gums, substantially as set forth," thereby infringing the third claim of said patent.

It remains but to consider the seventh claim of the Keyes patent, No. 342,609, relative to the "pail formed of wood pulp having an annular projection or chine around the bottom, formed with a uniformly laminated structure." For the same reasons given in regard to the Carmichael patent, I will, for the purposes of this motion, consider the seventh claim of the Keyes patent, No. 342,609, established. In the suit of these complainants against the New York Wood-Fibre Company, claim 7 of the Keyes patent, No. 342,609, was held to be infringed by the article manufactured by that company. The process used and the article manufactured by the defendants in this case are admittedly similar to those used and manufactured by the New York The pail made by the Wood-Fibre Company in the former suit. New York Wood-Fibre Company having been adjudged to be an infringement of the claim of the patent under consideration, I therefore hold that the similar pail made by similar process likewise infringes.

It has been urged upon the court that a great hardship will be imposed upon the defendants if a preliminary injunction be issued The record discloses that W. W. McEwan, who was against them. one of the incorporators of the defendant company, and Caleb H. Valentine, the superintendent of defendants' factory, were both prominently connected with the New York Wood Fibre Company at the time injunction issued against it at complainants' suit. The organizer and manager of defendant corporation entered upon their present enterprise with a full knowledge of complainants' rights, and they are not in a position to ask the court to stay its hand in affording to the complainants the full measure of relief to which they are The preliminary injunction prayed for in the bill should be entitled. granted.

JOHN CROSSLEY & SONS, Limited, v. HOGG. (Circuit Court, D. Massachusetts. May 15, 1897.)

No. 664.

DESIGN PATENTS-ANTICIPATION.

The Marchetti patent, No. 23,362, for a design for a carpet, is void because of anticipation as to claim 1, which covers a body having a series of diamond-shaped figures, the size of which are formed by a curving stemwork bearing small flower forms, and the interior of the diamond-shaped figures having conventional flower forms at their centers, around which are concentric rows of flower and leaf forms, etc.