transfer physically the flap of the one into the same location in the other, or transfer it by such modifications as he made in the vamp. The decree of the circuit court is affirmed, with costs.

ST. PAUL PLOW WORKS v. DEERE & CO.

(Circuit Court, N. D. Illinois, S. D. February 17, 1893.)

Patents for Inventions—Infringement—Composite Harrows.

I etters patent No. 178,461, granted June 6, 1876, to James E. Perkinson, for an improvement in harrows, is for a harrow composed of three harrows, the center one being triangular and the others being diamond shaped, the one the reverse of the other, and set inclined, so as to correspond to the outer beams in the center harrow; all the harrows being connected by links with an equalizing bar to which are secured the ends of a chain, having the doubletree attached to its center. The claim is for "the combination of the reversed outer harrows and the corresponding center harrow, connected by chains to the evener, having the draught applied by a chain substantially as described." Held, that this is a patentable combination, but, in view of the prior state of the art, the patent is not infringed by a device consisting of two similar diamond-shaped harrows, not one the reverse of the other, with a triangular harrow on the outer left-hand side, all attached by short chains or links to

In Equity. Suit by the St. Paul Plow Works against Deere & Co. for infringement of a patent. Bill dismissed.

F. B. Wright, Bion A. Dodge, and P. H. Gunckle, for complainant. John R. Bennett, for defendant.

BAKER, District Judge. The bill of complaint charges the defendant, Deere & Co., a corporation, with infringing the claim of letters patent of the United States to John E. Perkinson, June 6, 1876, No. 178,461, for "improvement in harrows," which is owned by the complainant. It prays for an injunction and damages. The answer presents, in substance, as grounds of defense, want of novelty in the alleged invention, anticipation in prior patents, and noninfringement. In the specification the invention is described as follows:

"My harrow is composed of three distinct and separate harrows, the center one of which is composed of a center beam, A, with a crossbar, B, near each end, passing through a mortise therein. These bars also pass through mortises in side beams, C, C, which are set at an angle towards both sides, as shown, and teeth, a, are passed through the beams at suitable distances apart. The side harrows are composed each of a series of parallel beams, D, connected by bars, E, passing through mortises therein; the beams being set inclined, so as to correspond with the inclination of the side beams, C, of the center harrow. Teeth, a, are also passed through the beams of the side harrows. All the harrows are connected by links, b, with an equalizing bar, G, to which the ends of a chain, d, are secured, and the doubletree is attached in the center of said chain. By means of the equalizing bar and chains, as described, the harrow will work equally as well on side hill as on level ground."

The claim is as follows:

an equalizing bar or evener.

"What I claim as new, and desire to secure by letters patent, is the combination of the reversed outer harrows, D, E, D, E, and the corresponding cen-

ter harrow, A, B, C, connected by chains, b, to the evener, G, having the draught applied by a chain, a, substantially as described, and for the purpose set forth."

When, as in this case, the claim immediately follows the description of the invention, it may be construed in connection with the explanations given in the description; and if, as here, the claim contains words referring back to the specification, it cannot properly be construed in any other way. Seymour v. Osborne, 11 Wall. 516.

For the purpose of showing the prior state of the art, and that the alleged invention of Perkinson had been anticipated, 57 patents and a large number of models of simple and combination harrows were produced in evidence and exhibited on the hearing. To analyze these various patents and models and point out their elements of coincidence with or divergence from the complainant's combination would be alike tedious and unprofitable. It is sufficient to say that the center harrow in the complainant's combination is the old triangular or A-shaped drag which had been known and in familiar use long prior to his invention. The side harrows in its combination, composed of parallel beams extending from front to rear, connected by crossbars passing through mortises therein, the beams being set inclined so as to correspond with the inclination of the outer beam in the A-shaped harrow, had also been long known and used, and were familiar to the trade. The equalizing bar or evener, the chains or links for securing harrows to the same, and the chain attached to the evener, to which the doubletree is secured, were all old and familiar devices. The defendant had previously manufactured and introduced into extensive use combination harrows composed of two or more rhomboidal or diamond-shaped harrows identically similar to the outer harrow on the right side of the complainant's combination. In this combination harrow of the defendant, whether composed of two or more rhomboidal or diamond-shaped harrows, each section is secured to an equalizing bar or evener by chains or links, and the doubletree to which the draught is attached is secured to the equalizing bar or evener by a chain. In these particulars the combination harrow covered by the complainant's patent is similar to the combination harrows previously manufactured and sold by the defendant. Every element composing the complainant's combination was known in the art of manufacturing harrows, and had been in public use prior to its alleged invention.

In view of the state of the art, the complainant's combination, in my judgment, stands close upon the border line separating a patentable invention from an improvement which would be suggested by the prior state of the art to a competent and skillful mechanic familiar with the manufacture and use of harrows. Adams v. Stamping Co., 141 U. S. 539, 12 Sup. Ct. Rep. 66; Hailes v. Van Wormer, 20 Wall. 353; Pickering v. McCullough, 104 U. S. 310. The complainant's combination, however, has been held to embody a patentable invention, and, with some hesitancy, I concur in that opinion. See Howard v. Plow Works, 35 Fed. Rep. 743. In this case the court says:

"The patent to the latter [Perkinson] covers a combination of three harrows, the two outer ones being reversed, and being composed of parallel beams,

the center one being A-shaped, and all of the harrows being connected by links with an equalizing bar or evener, the beams of the reversed outer harrows having the same inclination as the corresponding side beam of the center harrow."

The patented improvement is a combination of old elements constituting an apparatus for effecting the result described in the specification. In such a case, to constitute an infringement, the infringing apparatus should embody all the elements, or the mechanical equivalents, of the patented invention claimed to be infringed. Such a combination ought not to be broadly construed so as to prevent others from gleaning in the same field. Intentional infringement is alleged by the complainant, and the burden is upon him to prove the allegation, as the charge imputes a wrongful act to the defendant. Fuller v. Yentzer, 94 U. S. 288. The equalizing bar or evener, and the method of attaching the doubletree and the three harrows in the complainant's combination to the same, involve nothing novel, either in their elements or in their combination. They had all been in use to accomplish the same purpose or result in prior combinations. The complainant's combination of three harrows, composed of a center A-shaped harrow and two outer ones, reversed, of a rhomboidal or diamond shape, one on each side of the center harrow, with their beams so inclined as to be parallel with the outer beams of the center harrow, constitutes the patentable novelty, if any, in the complainant's invention. The elements of this combination are the two outer rhomboidal or diamond-shaped harrows, the one the reverse of the other, with an A-shaped harrow placed between them, and all attached to the equalizing bar or evener by short chains or links. The defendant's combination does not contain two outer rhomboidal or diamond-shaped harrows, the one the reverse of the other; nor does it have an A-shaped harrow placed between two outer reversed rhomboidal or diamondshaped harrows. Its combination consists of two similar rhomboidal or diamond-shaped harrows, and not one the reverse of the other, with an A-shaped harrow on their outer left-hand side, and all attached by short chains or links to an equalizing bar or evener. The outer reversed harrow on the left side of the complainant's combination, which is a material element in it, is entirely wanting in the defendant's combination. So, also, there is no A-shaped harrow placed between two outer ones in the defendant's drag. Nor is there any harrow in the defendant's combination which can be made to take the place of the outer reversed harrow on the left side of the plaintiff's combination, without taking it in pieces and reconstructing it on a different plan.

The defendant, prior to the complainant's invention, had manufactured and introduced into extensive use a combination harrow consisting of three similar rhomboidal or diamond-shaped harrows, all attached to an equalizing bar or evener by short chains or links, and having the doubletree secured to the equalizing bar or evener by a chain. The defendant's combination consists simply in detaching the outer harrow on the left side of its old combination, and in substituting therefor the old triangular or A-shaped harrow. Such a change and readjustment hardly rises to the dignity of a patent-

able invention; but, whether it does or does not, in my opinion it is not an infringement of the complainant's combination. In my opinion, the bill of complaint is without equity, and ought to be dismissed at complainant's cost; and it is so ordered.

EDISON ELECTRIC LIGHT CO. et al. v. WESTINGHOUSE ELECTRIC & MANUF'G CO. et al.

(Circuit Court. W. D. Pennsylvania. February 23, 1893.)

No. 6.

PATENTS FOR INVENTIONS—INFRINGEMENT—INJUNCTION—PROCEDURE.

By a preliminary injunction the defendants were restrained, pendente lite, from infringing the second claim of the patent in suit, and specifically from manufacturing incandescent electric lamps like "Exhibits 1, 2, and 3," which the courts of another circuit had held to infringe the claim. Held, that the court would not, at the instance of the defendants, against the objection of the plaintiff, undertake in a summary way to pass upon the question whether a new structurally differing lamp, devised by the defendants, and by them put on the market since the injunction, is an infringement, but that, unless the plaintiff moved for an attachment for a violation of the injunction, the decision of the question must await the final hearing.

In Equity. Suit by the Edison Electric Light Company and others against the Westinghouse Electric & Manufacturing Company and others. On motion to discharge defendants' rule to show cause. Motion granted.

Grosvenor P. Lowry, R. N. Dyer, and Knox & Reed, for the motion. George H. Christy and Kerr & Curtis, opposed.

ACHESON, Circuit Judge. The preliminary injunction issued in this case on December 27, 1892, restrains the defendants, pendente lite, from infringing the second claim of the letters patent in suit, No. 223,898, granted to Thomas A. Edison January 27, 1880, and particularly from making, using, or selling incandescent electric lamps of the kind described in the plaintiff's moving papers, designated "Exhibits Nos. 1, 2, and 3," and shown to be the same as lamps which had been adjudged to infringe the second claim of said patent, and the manufacture and sale of which were enjoined by the United States circuit court for the southern district of New York and the United States circuit court of appeals for the second circuit in the suits of Edison Electric Light Co. v. United States Electric Lighting Co., 47 Fed Rep. 454, and 52 Fed. Rep. 300, 3 C. C. A. 83, and Edison Electric Light Co. v. Sawver-Man Electric Co., 53 Fed. Rep. 592. In view of the decisions of the courts of the second circuit above cited, our order for a preliminary injunction was made, the defendants, indeed, not resisting the granting of the same. But on February 1, 1893, the defendants presented to the court an affidavit setting forth that shortly after the allowance of the injunction they completed arrangements (contemplated and in progress before) for the manufacture and sale of "a stopper lamp," which, they had been advised by counsel, was entirely outside the scope of the claims