outer end, sliding upon a base support across the space to be closed. These three upright bars are said to constitute the series of upright pickets, and the lattice work, the cross and connecting braces of the first claim of the Maddox & Humphries patent. The gate of that patent is constituted of upright pickets supported by large spaced braces in the form of pivoted lattice work. The defendant's gate is constituted of pivoted lattice work supported by large spaced upright bars called "pickets." These gates are said, in behalf of the plaintiff, to be, in substance, the same. But the bars at the ends of the defendant's gate are of the frame of the gate, such as most or all gates have, and are not pickets. The middle bar might properly be called a picket, but there is no series of pickets, constituting the body of the gate, such as the plaintiff's patent calls for. The plaintiff's gate is, in substance, a picket gate; the defendant's, a lattice gate. The improvement of Maddox & Humphries, involved here, consisted in putting coarse lattice work on pickets to make a picket gate. The defendant does not use that improvement, nor make such a gate.

Let a decree be entered that the defendant does not infringe, and that the bill be dismissed.

DEERE & CO. v. J. I. CASE PLOW WORKS.

(Circuit Court of Appeals, Seventh Circuit. May 10, 1893.)

No. 66.

PATENTS FOR INVENTIONS-NOVELTY-CORN CULTIVATOR.

The first and second claims of letters patent No. 367,530, issued August 2, 1887, to King & Morgan, for a corn cultivator, comprising smoothing planks, protectors secured thereto and extending backward therefrom, and diverging arms, provided with shovels or scrapers, secured to the smoothing planks opposite the protectors, and for the combination of the smoothing planks, the protectors, the arches connecting the smoothing planks with the protectors, and the diverging arms, are void for want of novelty, as each of the elements is old, and their combination produces no new result.

Appeal from the Circuit Court of the United States for the Eastern District of Wisconsin.

In Equity. Bill by Deere & Co., a corporation, against the J. I. Case Plow Works, for alleged infringement of a patent. Decree for defendant. Affirmed.

Statement by WOODS, Circuit Judge:

The appellant, a corporation of Illinois, claiming title under the patentees, sued the appellee, a corporation of Wisconsin, for infringement of the first and second claims of letters patent No. 367.56 b issued August 2, 1887, to King & Morgan. In the specification it is said: "Our invention is an improved cultivator for cultivating listed corn, and it consists in certain novel and peculiar features of construction, hereinafter fully described and claimed." The claims are of the following tenor: "(1) A cultivator, comprising the smoothing planks, the protectors secured thereto and extending backward therefrom, and the diverging arms, provided with shovels or scrapers, secured to the smoothing planks on opposite sides of the protectors, substantially as set forth. (2) The combination of the smoothing planks, the protectors, the arches connecting the inner ends of the smoothing planks and the rear ends of the protectors, respectively, and the diverging arms, provided with shovels or scrapers, having their front ends adjustably secured to the smoothing planks, and their rear ends adjustably secured to the projecting ends of the rear arch, substantially as specified." The respondent answered, showing the prior art, and denying both invention and infringement.

The complainant's expert witness gives the following explanation of the construction and operation of the cultivators described in the patent: "The King & Morgan patent shows and describes a cultivator of that class or type which is especially adapted for cultivating corn which has been planted by a lister plow planter, in which the hills of corn are in rows, in trenches, or furrows in the ground from four inches to a foot or more in depth, and each trench, as a matter of course, between two ridges of soil. This patent shows and describes a cultivator of that class in which two planks or smoothing boards form the forward part of the cultivator, and to which are secured runners which extend rearwardly from the smoothing boards. Arms are also fixed to the smoothing boards, and extend rearwardly therefrom, which are provided with curved scrapers or cutters on their rear ends, between which scrapers or cutters are located fenders that are fixed to and extend rearwardly from the runners. The organization of this cultivator, as shown and described in this patent, is such that the smoothing planks or boards run or operate on the tops of the adjacent ridges of soil, so that while smoothing and leveling them they also crush the clods and pieces of sod and to that extent cultivate the upper portion of the ridges; and, as a matter of course, in so cultivating and crushing down the tops of the ridges. many clods will fall down or roll down the sides of the ridges in rear of the smoothing boards. These clods will be prevented from striking the hills of corn or the corn plants by the runners, or protectors as they are also called in the patent, which pass along one at each side of the row of plants, and, while so acting as protectors for the plants, also serve to guide and hold the machine in line with the row of plants, as their lower surfaces are adapted to run upon the ground. As shown and described, the bars, two of which are on the outer side of each runner, have no function, apparently, except to carry the curved cutters, scrapers, or shovels at their rear ends, which scrapers or shovels, as shown and described, act upon the confronting sides of the ridges to tear out the weeds, pulverize and loosen the soil, and work the soil gradually downward towards the plants, which the soil is prevented from damaging by the fenders which are carried on the rear ends of the runners, one between each set of cultivating shovels and the row of plants. These parts-the smoothing boards, the runners or protectors, the fenders at the rear end, and the arms or guides to the rear ends of which the shovels or scrapers are fixed, as shown and described in the patent-are connected at or near the forward ends of the runners, and also at a short distance forward of their rear ends, by arches which render the whole device substantially rigid, and which are high enough in their arched portions to pass over plants three or four feet in height, and which also furnish means for adjusting the distance of the smoothing boards apart, as also the distance between the runners and the scraper-carrying arms, and also provide means for the adjustment of the runners and the scraper-carrying arms, or either of them, laterally, at one end, without adjustment at its other end, whereby the angle of either the runners or the shovel-carrying arms may be adjusted laterally to the line of advance of the machine.

The defendant's expert, after referring to the first claim, makes this statement of the prior art:

"I have examined this claim and the prior art to ascertain if the combination of these things were known before,—these things being the smoothing plank, the protectors, and the scrapers. These I find, both singly and combined, in several earlier patents. For instance, the patent to Clark (No. 293,227) is a cultivator for listed corn. It has the protector runners and scrapers substantially the same as in King & Morgan's patent. The patent to Holmes (No. 308,671) has protectors to prevent the clod from falling on or against the plants. The patent to Nelson (No. 319,609) has smoothers and cultivator

teeth. The patent to Black (No. 329,530) has smoothing planks, protecting runners, and scrapers. The patent to McCandless & King (No. 330,143) has smoothing planks, runners, and diverging scrapers attached to said smoothing planks. The patent to Moffitt (No. 338,180) has smoothers, fenders, and diverging arms and scrapers. The patent to Snavely (No. 349,065) has smoothing planks, runners, fenders, and scrapers. The patent to Kessler (No. 350,684) has smoothing planks, laterally adjustable runners, fenders, and scrapers. The patent to Scantlin (No. 351,343) has smoothing planks, laterally adjustable runners, diverging arms, and scrapers. The patent to McCandless & King (No. 352,703) has a smoothing plank, laterally adjustable runners, and scrapers. In the patent to Worden (No. 356,674) there is a smoothing plank, and also runners which are protectors, and diverging arms attached to the smoothing plank. The patent to Platz (No. 361,715) has smoothers, runners, and scrapers. The patent to Murphy (No. 362,053) has smoothers, laterally adjustable runners, and scrapers. \* \* \* The second claim of the King & Morgan patent referred to introduces the arches and the lateral adjustment of the arms. In other particulars the second claim does not differ from the first. An arch is shown in Clark patent, (No. 293,227,) in Nelson, (No. 319,609.) and in Murphy, (No. 362,053.) and laterally adjustable parts are shown in Murphy, and in McCandless & King, (No. 352,703.)"

"From this view of the prior art it will be seen," say counsel for complainant, "that there is not a single patent introduced in evidence by appellee which has the diverging arms, or any equivalent therefor; and therefore the first claim is not met by either of them, or by all of them put together. No such thing as the diverging arms of the patent in suit can be abstracted or taken from any one of these patents. The prior art does not show any diverging arms which are adjustable at the front end and adjustable at the rear end, or each separately adjustable at either end; so that no one of them, nor all of them together, contains an approach, even, to the second claim of the patent in suit. The only adjustment claimed for these old patents is radially-swinging and pivoted side bars, and a space adjustment between the runners. The patent in suit shows a space adjustment between the runners, in addition to the adjustments called for in the second claim."

The case was heard below by Judge Jenkins, and the record contains the following memorandum of his decision:

"In view of the prior art, I am of opinion that the claims of the complainant's patent which are here involved must be strictly construed, and limited to the structure described. In the complainant's device, the diverging arms have their front ends adjustably secured to the smoothing planks by The inner ends of the smoothing planks are connected by an means of bolts. arch, the ends of which are slotted, and adjustably secured to the smoothing planks by bolts passed through the slots into the smoothing planks. In this combination one essential function of the smoothing plank, in addition to its old and well-known function, is to support by means of the arches the diverging arms. Take it away, and the forward part of the diverging arms would have no support. In the defendant's machine the diverging arms are supported by means of arches directly connected therewith. The smoothing board furnishes no support to the diverging arms, but is supported by brackets fixed to the forward ends of the runners. It is connected, near its center, with the extended arm of the forward arch attached to the diverging arms, thereby obtaining support, not yielding support. Its function in the defendant's machine is its old and well-known office, to which the complainant has no claim of exclusive right. It is not secured to the diverging arms in the sense in which that term is used in the claims of the complainant's patent. The purpose of thus adjusting the smoothing boards in defendant's device is to enable them to be adjusted vertically, independently of the runners and of the diverging arms. This purpose would fail if they were secured to the arms as in complainant's patent."

Bond, Adams & Pickard, for appellant. Peirce & Fisher, for appellee. Before GRESHAM and WOODS, Circuit Judges, and BUNN, District Judge.

WOODS, Circuit Judge, (after stating the facts.) If the decision of the circuit court is open to just criticism it is because it was not put upon the ground that the claims in suit are without novelty. In Florsheim v. Schilling, 137 U. S. 64, 11 Sup. Ct. Rep. 20, it was urged that the circuit court had erred "in finding that there was no novelty in complainant's invention, because one feature was found in one old patent, and another feature in another, and still another feature in a third patent, all of which contained the matter of the claims of the complainant's patent;" but the supreme court overruled the objection, and quoted as follows from Pickering v. McCullough, 104 U. S. 310, 318, and Burt v. Evory, 133 U. S. 349, 10 Sup. Ct. Rep. 394:

"In a patentable combination of old elements all the constituents must so enter into it as that each qualifies every other. **\* \*** It must form either a new machine of a distinct character and function, or produce a result due to the joint and co-operating action of all the elements, and which is not the mere adding together of separate contributions." "The combination of old devices into a new article, without producing any new mode of operation, is not invention."

That court has repeatedly held that "it is not enough that a thing shall be new in the sense that in the shape or form in which it is produced it shall not have been before known, and that it shall be useful, but it must, under the constitution and the statute, amount to an invention or discovery." Cases on the subject are cited in Hill v. Wooster, 132 U. S. 693, 10 Sup. Ct. Rep. 228, and Thompson v. Boisselier, 114 U. S. 1, 5 Sup. Ct. Rep. 1042.

The constituent elements of the claims in suit are proved and conceded to be all old. As combined, they are without essential change of individual structure or function, and they effect by their co-operation no distinctly new result. In the specification of the patent the only novelty claimed is in features of construction. The one feature insisted upon in argument is the diverging and adjustable arms, and it is the adjustability on which chief reliance seems to be placed. But there is no novelty in that, nor in the means of producing it, whether it be done upon parallel or divergent lines. A corresponding adjustability between the runners of the cultivators is shown in the older patents, produced by similar means, and effecting in a measure the beneficial results attributed to the arms in question. Similar arms, with shovels attached, are found in the older devices, and it involved no invention, and but little skill, to put such arms on the outside of the runners of King & Morgan, and to duplicate in them the means of adjustment already illustrated in the runners of older cultivators.

Stress is laid by the complainant's expert upon the fact that the diverging arms of the claims are secured to the smoothing boards. Insisting that an indirect connection is within the scope of the claims, he pronounces the respondent's construction an infringement, but admits that if the arms, instead of being secured to the smoothing boards, were attached to bars extending laterally from the runners, they would not be within the claims, "unless the bars were very near the smoothing planks." Neither infringement nor patentability can reasonably be made to depend upon the distances between the parts of such a combination, nor upon any consideration so insignificant and void of effect upon the operation of the device.

The decree below should be affirmed, with costs, and it is so ordered.

## KENNEDY v. CHICAGO CITY RY. CO. et al.

(Circuit Court of Appeals, Seventh Circuit. May 10, 1893.)

## No. 63.

- 1. PATENTS FOR INVENTIONS-BOILERS-INFRINGEMENT. The third claim of letters patent No. 224,685, issued February 17, 1880, to Hazelton & Kennedy, for a new and improved sectional boiler, con-sisting of the combination of horizontal hot-water pipes and steam pipes set inside of a fire chamber, with vertical drums and mud drum set outside of the fire chamber, W, covers merely the particular combination therein described, and is not infringed by a device consisting of a "porcupine" boiler, having a central standpipe, in which numerous hollow tubes are inserted so as to radiate horizontally, and having three larger tubes riveted to the standpipe, and extending horizontally through the brickwork surrounding the fire chamber. 50 Fed. Rep. 196, affirmed.
- 2. SAME-BOILER DEFLECTORS-NOVELTY-PATENTABLE INVENTION. Letters patent No. 349,720, issued September 28, 1886, to Edward S. T. Kennedy, for an improvement in boiler deflectors consisting of the combination of a "porcupine" boiler and its jacket with horizontal flame deflectors of segmental form, placed within the combustion chamber in position for protecting the exposed ends of the tubes, and deflecting the heated products of combustion towards the boiler cylinder, are void for want of novelty and patentable invention. 50 Fed. Rep. 196, affirmed.

Appeal from the Circuit Court of the United States for the Northern District of Illinois.

Bill by Edward S. T. Kennedy against the Chicago City Railway Company and others to restrain the alleged infringement of certain patents. Decree for defendants. Complainant appeals. Affirmed.

Banning, Banning & Paysen, for appellant. Bond, Adams & Pickard, for appellees.

Before WOODS, Circuit Judge, and BUNN and BAKER, District Judges.

PER CURLAM. We concur in the conclusions of the circuit court as stated in the opinion reported in 50 Fed. Rep. 196. The decree, therefore, should be affirmed, with costs, and it is so ordered.