

CAVERLY v. DEERE et al.¹

(Circuit Court of Appeals, Seventh Circuit. February 23, 1895.)

No. 112.

1. PATENTS—ANTICIPATION—MACHINE FOR ROUNDING BENT HANDLES.

The Caverly patent, No. 303,116, for a machine for rounding bent handles by means of a cutter head consisting of a cylinder with a groove in the center of its periphery, and recesses from either side, terminating in narrow openings on such groove, for the adjustment of the cutter knives, is void because of anticipation. 52 Fed. 758, affirmed.

2. SAME—INTERPRETATION OF SPECIFICATIONS AND DRAWINGS.

The fact that the drawings of a patent show the knives of a cutter head set at a certain angle will not enable the patentee to rest his invention on that particular degree of angularity, when there is nothing in the specifications to show that he intended to limit the pitch of the knives to that angle. 52 Fed. 758, affirmed.

3. SAME—INVENTION—CUTTER HEADS.

There is no invention in setting the knives of a cutter head at the precise angle of 45°. 52 Fed. 758, affirmed.

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

This was a suit in equity by Herschel Caverly, administrator of Sarah Caverly, deceased, against Deere & Co. for infringement of a patent. The circuit court entered a decree dismissing the bill. 52 Fed. 758. Complainant appeals.

Suit for damages, and to enjoin infringement of letters patent No. 303,116, issued August 5, 1884, to Sarah Caverly, assignee of Amos K. Caverly, for a machine for rounding bent handles, of which the four claims are as follows:

"(1) A cutter head consisting of a cylinder with a groove in the center of its periphery, and recesses from either side, terminating in narrow openings on such groove, for the adjustment of the cutter knives.

"(2) A cutter head constructed of two cylindrical disks, each with such a concave on its inner face, extending from beyond the diameter to the periphery, that when secured with their curved faces together the concaves form a groove on the periphery of the head corresponding to the shape and size of the dressed work, with one or more recesses extending from the outer face of each disk, diminishing in width as they progress, and terminating in a narrow opening in the curve, forming beds for the cutters and spouts for the discharge of chips, with knives secured in the openings.

"(3) A cutter head constructed of two cylindrical disks, each with such a concave on its inner face, extending from beyond the diameter to the periphery, that when secured with their curved faces together the concaves form a groove on the periphery of the head corresponding to the shape and size of the dressed work, with one or more recesses extending from the outer face of each disk, diminishing in width as they progress, terminating in a narrow opening in the curve, forming beds for the cutters and spouts for the discharge of chips, with slotted knives secured in the openings, and adjustable longitudinally therein by set screws.

"(4) The combination of the frame, the cutter head with groove in its periphery, and one or more openings from each side, terminating in a narrow slit on the groove, one or more knives so curved that the bevel on their cutting ends presents a flat surface, and gearing by which the head is actuated."

The following extracts from the brief will illustrate the argument of counsel for the appellant:

"With respect to the general features of rotary planing devices for rounding bent handles: (1) The corpus of such a device, as to form, is cylindrical, and having its external sides of the form of a plane circular disk, and bounded by the peripheral circle. (2) Such plane circular disk, when geometrically de-

■ Rehearing pending.

scribed, constitutes the plane of the peripheral circle, and which possesses the following geometrical properties: (a) Diametrical and radius or radial lines; (b) divisibility of the arc of the peripheral circle into quadrants and degrees; (c) sine lines of the arc of the peripheral circle, denoting the degrees of any given arc upon the quadrant. (3) The peripheral groove also is bounded by a complex curved surface, wherein the lines of the vertical curvature cross the lines of the longitudinal curvature at right angles; and also wherein the longitudinal curvature is the greatest at the central portions of the groove, and become diminished along the ascending line of the vertical curvature; such diminution of curvature being in the inverse ratio of the increase of the distance extending from the center of the groove along the ascending line of the vertical curvature. Such are the general characteristics of the corpus of rotary cylindrical planing devices having a peripheral groove with planing knives adjusted thereto. The task of adjusting a planing knife to such complex features of curvature, with any hope of accomplishing anything like perfection in operative work, is most manifestly attended with great difficulty. It will at once be perceived that the problem to be solved by the invention under consideration was not simply the construction of a common carpenter's plane, designed only to dress plane parallel surfaces; nor was it simply to discover at what particular degree of angularity the bit or knife of such carpenter's plane would produce the most perfect planing work; nor, again, was it simply the task of varying the diagonal pitch or angle of the cutting edges of the planing bit of such carpenter's plane in search of the best planing angularity. But the task constituted another and different problem. It was to discover a plan of organic mechanical construction, embodying a rotary cylindrical body possessing a curved peripheral groove, whereby the formidable difficulties above explained, arising from the complex and varied features of curvature, could be overcome, and that by and through such plan of construction it would be rendered possible and easily practicable to adjust the plane of the cutting edges of the cutter knives to the plane of such complex and varied features of the curved surface of the groove in such a manner, and in such a position, and with such a uniform angularity as would practically accomplish such operative work as would be indicative of superior excellence and utility. Such was the problem which the invention under consideration was designed to solve. The old devices for rounding bent handles by means of a rotary cylindrical body having a peripheral groove, and knives adjusted thereto, were, by reason of the radical defects and imperfections of their organic construction and mode of operation, practical failures as planing devices, and have passed out of use. * * * The geometrical properties above enumerated of the peripheral circle, and of the plane of such circle, are important to be understood. They serve to describe with absolute mathematical certainty all the several constituent parts of such rotary cylindrical devices, and their combination and mode of operation, including the location and position of the cutter knives as adjusted to the peripheral groove; and also indicating with like absolute certainty the number of degrees of the arc of the peripheral circle upon which the plane of the cutting edges of the cutter knives is located and adjusted to the groove. It is therefore manifest that a description of the constituent parts of such devices, and of their relative positions with respect to each other, and of their combination and mode of operation, expressed and indicated by such geometrical lines, arcs, and properties of the plane of their peripheral circle, must, of mathematical necessity, be absolutely correct. * * *

"In the patent act of 1870 (section 4889, Rev. St.) it is expressly provided that the drawings shall constitute a part of the specification. The statute provides that a copy of the drawings 'shall be attached to the patent as a part thereof.' * * * It will be observed that, upon inspection, Figure III. exhibits a pattern drawing of the adjustment of the cutting edges of the knives to the plane of the curved portions of the disks, including the angularity of the diagonal pitch of the cutting edges of the knives. The pattern drawing constitutes such a practical and perfect description in its illustration of such angular, diagonal pitch of the knives that any person of common understanding, whether a mechanic or otherwise, would be enabled to procure from such pattern drawing, immediately and without the slightest difficulty or mental contrivance whatever, such angularity of diagonal pitch; any person capable of

following the lines of a perfect pattern diagram with a pencil would be able readily to procure such angularity. * * * Should it be regarded as being one feature of the invention that the inventor intended to limit the diagonal pitch of the cutting edges of the knives to particular angularity, and that such feature was a constituent part of the structural organism of the invention, then, under such theory or view, the verbal reference, 'as shown in Figure III,' pointed with perfect certainty to the perspective pattern, or pattern drawing, of such intended and required angularity of diagonal pitch, whereby the general public, or any person desiring to procure the same, would be in possession of the easy, simple, and ready means of so procuring the same, by simply following with a pencil the lines of the perspective diagram of such angularity, without the exercise of any skill. Under such a view of the invention, it is obvious that the verbal reference in the specification to the perspective drawings, together with the written description in the specification, constitutes, as a descriptive unity, such a full, clear, concise, and exact description of such angularity of diagonal pitch as to enable any person skilled in the art to construct and use the same. On the contrary, should it be regarded as being a feature of the invention that the inventor intended not to limit the diagonal pitch of the cutting edges of the knives to any particularly expressed degrees of angularity, but intended simply, by means of the verbal reference to the perspective drawings, to exhibit a perspective pattern of such angularity in order to plainly denote the angularity which the inventor regarded as being productive of the best results, then, under such a view, the verbal reference in the specification to the perspective drawings, together with the written description, would constitute a full, clear, precise, and exact description of such angularity, within the meaning of the patent act. It is therefore plain that, under either one of such views, it would constitute manifest error in law to eliminate from the written description recitals of the specification, and from all consideration all reference to the perspective description of the drawings. It is shown in the testimony of John W. Bartlett, complainant's expert witness, that the angularity of the cutting edges of the knives to the plane of the curved portions of the disks, as shown and illustrated in the perspective description of Figure III., was, in fact, forty-five degrees. Therefore, the question as to the quantity of the diagonal pitch or angularity of the cutting edges of the knives, within the meaning of the inventor, is manifestly involved in no mysterious obscurity, nor in any recondite problem; but it is rather a question simply suited to the capacity of the untutored schoolboy who has advanced far enough to hold a pencil and to follow the lines of a very plain perspective pattern. * * * It is also shown in evidence that such diagonal pitch or angularity, as perspectively shown in said Figure III., is, in fact, forty-five degrees. But it is manifest, however, that there is nothing in the description of the invention in the specification showing that the inventor intended to limit such diagonal pitch or angularity to the precise number of degrees indicated by the perspective pattern description, but that the inventor did intend to illustrate definitely, and without obscurity, such angularity as was deemed productive of the most perfect results. * * * Under no other possible geometrical position or relation of the planes of the cutting edges of the knives to the curved surface of the groove than that described in the written and perspective description of the specification, could such cutting edges be presented diagonally to the plane of the curved surface of the groove, and on a line of the transverse axis of the material."

The opinion of Judge Blodgett is reported in *Caverly v. Deere*, 52 Fed. 758.

E. Banning, T. A. Banning, and D. B. Nash, for appellant.

L. L. Bond, C. E. Pickard, A. H. Adams, and J. L. Jackson, for appellees.

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

WOODS, Circuit Judge, after stating the case, delivered the opinion of the court.

Numerous errors have been assigned upon the opinion delivered in the circuit court. They are irrelevant and immaterial, except argumentatively. The opinion may be wrong and yet the finding and decree right. The question involved in the appeal is whether or not the court erred in finding and decreeing the bill to be without equity; and for the presentation of that question the first assignment of error alone is sufficient.

The suit was for the infringement of letters patent No. 303,116, issued August 5, 1884, to Sarah Caverly, assignee, for improvements in machines for rounding bent handles and other woodwork. There are four claims. The first is for "a cutter head consisting of a cylinder with a groove in the center of its periphery, and recesses from either side, terminating in narrow openings on such groove, for the adjustment of the cutter knives." In other claims the cutter head is made of two cylinders secured together, the openings in which are described as converging so as to form beds for the knives and spouts for the discharge of chips. In the third claim the knives are slotted and adjustable longitudinally, and in the fourth claim are so secured that the bevel on the cutting ends presents a flat surface. We agree with the circuit court that there is nothing in any of these claims which had not been anticipated by earlier devices and patents. To use the language of the opinion below:

"The Moline and Louisville cutter heads were made with two disks; they had cutter knives inserted through the recesses extending from the outer face of each disk into the groove, and forming beds for the cutters and spouts for the discharge of chips; the slotted knives were secured in the openings and adjusted longitudinally therein by set screws. In other words, all of the elements of the complainant's patent are found in these old working cutter heads of the Grand de Tour Plow Company, the Moline Plow Company, and the Wilder patent, and most of them date back much earlier than even the witnesses for the complainant would carry the Caverly invention."

It is urged upon us that the patent in suit, when construed as it ought to be with reference to the drawings, shows the knives set at an angle of 45° , and that in this respect the device is novel and useful as compared with the prior art. If it were shown to be true that a machine with knives set at a particular angle had distinct advantages over a machine with knives set at any other angle, the discovery and embodiment of the fact in a working machine ought, we suppose, to be deemed patentable. But nothing of the kind is shown here. While it is argued from the drawings, and geometrically, that the angle of the knives in the patent is exactly 45° , it is at the same time asserted, and is clearly true, that there is in the specification nothing showing that the inventor intended to limit the pitch of the knives to the precise number of degrees indicated by the drawings, but only to illustrate distinctly "such angularity as was deemed productive of the most perfect results." This implies—and, if not admitted, the fact would be evident—that knives set at any angle, say between 40° and 50° , and perhaps within wider limits, will work as well, approximately, as if set at the exact angle of 45° . It follows that there is no patentability in that particular, even if it be conceded that the drawings of the patent are to be regarded as working plans, showing the par-

ticular angle stated,—a proposition which, in view of the fact that the specification is silent on the subject, is not deemed tenable. Every mechanic accustomed to the use of the chisel and the joiner's plane is familiar with the principles upon which such knives work, and if, in a plane or in a cutter head, he should find a knife which stood at an angle of 80° scraping instead of cutting, as it is said the knives in some of the old machines did, he would be at no loss to apply the remedy. It is, of course, true that certain geometrical propositions are applicable to knives in such a machine standing at the angle of 45° which would not be applicable if the angle were different, and, conversely, if the angle were different the geometrical propositions incident thereto would not be applicable to knives inclined at the first-named angle; but patentability does not follow in the one instance more than in the other. It is to be observed, too, that, if the invention consists in the exact angle at which the knives stand, infringement cannot be established without proof that in the infringing machines they stand at that exact angle. The decree below should be affirmed, and it is so ordered.

EDISON ELECTRIC LIGHT CO. v. ELECTRIC ENGINEERING & SUPPLY CO.

(Circuit Court of Appeals, Second Circuit. February 14, 1895.)

1. PATENTS—INVENTION—ELECTRIC LAMP SOCKETS.

The Bergman patent, No. 257,277, for an improvement in the sockets of incandescent lamps, shows patentable invention as to claim 2, which covers a form of construction in which the contacts are compressed instead of drawn apart, while screwing the lamp into the socket. 60 Fed. 401, affirmed.

2. SAME—ANTICIPATION.

The fact that a slight compression of the contacts had existed in a prior lamp does not show anticipation of the Bergman patent, it appearing that such compression was immaterial to the form of construction employed in the prior lamp, and was not in the contemplation of the inventor thereof, or pointed out by him as an improvement, or in any way suggested as a function of the arrangement of the parts.

This was a suit in equity by the Edison Electric Light Company against the Electric Engineering & Supply Company for infringement of certain patents. The circuit court rendered a decree in part sustaining and in part dismissing the bill. 60 Fed. 401. Both parties appeal.

R. N. Dyer and C. E. Mitchell, for complainant.
Alfred Wilkinson, for defendant.

Before WALLACE, LACOMBE, and SHIPMAN, Circuit Judges.

LACOMBE, Circuit Judge. The suit was brought on five patents, viz.: No. 265,311, to Edison; No. 251,596, to Johnson; and Nos. 257,277, 293,552, and 298,658, to Bergman. All these patents relate to sockets for incandescent electric lamps. The patent to Edison, No. 265,311, was held valid by the circuit court, and was