

CAVERLY *v.* DEERE *et al.*

(Circuit Court, N. D. Illinois, S. D. October 31, 1893.)

1. PATENTS FOR INVENTIONS—PATENTABILITY—NOVELTY—HANDLE CUTTERS.

Letters patent No. 303,116, issued August 5, 1884, to Sarah Caverly, for a machine for rounding bent handles, consisting of a cylindrical cutter head, revolving vertically, having in the center of its periphery a groove, with cutter knives set diagonally, and adjusted from both sides of the cutter head into the groove, are void for want of novelty, such cutter heads, either made in a single piece or made of two disks, having been in use long before the date of the invention.

2. SAME.

The fact that in the machines made under said patent the cutters were set at an angle of 45°, which enabled them to do better work than older machines in which the cutters were set at a different angle, does not render the patent valid, since there is nothing in the specifications defining the angle at which the cutters should be set.

3. SAME—DATE OF INVENTION—EVIDENCE.

Testimony of three sons and a daughter of a deceased patentee, to the effect that the patentee made a model of the patented machine 13 years before his application for patent, and made an operative machine 12 years before such application, is insufficient to carry the date of the invention back of the application, where it appears that these witnesses are not mechanics, and that the three sons were mere boys when the machines were alleged to have been made, and their testimony is not corroborated.

In Equity. Suit by Herschel Caverly, administrator of Sarah Caverly, deceased, against Deere & Co., for alleged infringement of a patent. Decree dismissing bill.

D. B. Nash, for complainant.

Bond, Adams & Pickard, for defendants.

BLODGETT, District Judge. This is a bill in equity charging defendants with the infringement of patent No. 303,116, granted August 5, 1884, to Sarah Caverly, assignee of Amos K. Caverly, for a "machine for rounding bent handles," and for an injunction and accounting. The inventor says of the invention covered by the patent:

"My invention relates to machines for forming such round or oval or bent-wood handles and other woodwork, whether bent or straight; and it consists in a cylindrical cutter head mounted on an ordinary frame, and revolving vertically by suitable gearing, constructed, preferably, of two cylinders or disks bolted together, having in the center of its periphery a groove the shape and size of the curve or oval on the dressed handle, and the cutter knives adjusted from both sides of the cutter head into the groove. * * *

"The cutter head is of cylindrical form, made of steel, iron, or other suitable material, constructed, preferably, of two cylindrical pieces or disks, each having such a curved or concave cut on its inner face, extending from beyond its diameter to its periphery, that, when they are placed with their curved faces together, the curves or concaves in the disks will form a groove in the head the size and shape of the dressed handle. When the cutter head is constructed in two pieces, the latter are securely fastened together by bolts passing through bolt holes in each, and nuts, or otherwise prevented from having independent motion. Each of the disks forming the cutter head has one or more openings or ditches, flaring at the top on the outer face thereof, decreasing in width in their inward progress, and terminating at the bottom in narrow crescent-shaped openings in the curve on the inner face of the disk, the metal being concave and sharply inclined at one end of the recesses, to per-

mit the ready shedding of the chips from the cutter, and convexed and inclined in like manner at the opposite end to form beds for the concaved knives.

"The cutter knives are thin plates of steel, beveled at their cutting ends like ordinary plane blades or bits, concaved on their cutting faces to fit a convexed bed at one end of the openings in the cutter head, adjustable thereon to regulate the depth of their cutting action by set screws working through a slot in the knives, and secured by said set screw to the head. * * *

"The number and mode of adjustment of the cutter knives used may be varied as the size of the head or the character of the wood to be shaped may render expedient. I have found that, for general purposes, six knives—three in each half of the head, the knives thereof on one side alternating in their appearance on the concave with those on the other—is a very satisfactory and efficient arrangement. The bent handle is held by the operator on the rest block, and guided by him into the groove in the head, which, revolving rapidly—say two thousand revolutions per minute—by the action of its cutters, shapes the side of the handle exposed to the cutters the form of said groove. The handle is then turned over and guided into the groove in like manner, shaping the other side, and completing the rounding of the handle. * * *

"The knives are adjusted to the disks of the cutter head upon sharply inclined beds formed in one end of the openings in the disk, thus presenting the cutting edges of the knives diagonally to the plane of the curved portions of the disks, similar to the manner in which plane bits are secured to the plane frame, the incline on the other side forming a channel for the discharge of the chips made by the cutters, and are adjustable back and forth within the disks by set screws working in slots in the knives. By this longitudinal adjustment the depth of the cutting action of the knives may be regulated."

The patent has four claims, which are:

"(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 defenses are:

"(1) That the claims are void for want of patentable novelty. (2) That the patentee was not the original and first inventor. (3) That the invention was in public use by the inventor and others more than two years before the patent was applied for. (4) That the defendant does not infringe."

An attempt is made by the proofs to carry this invention back to about the year 1868 or 1870, but the proof introduced for that purpose is of so uncertain and unsatisfactory a character that I do not consider it as establishing the invention at an earlier period than the date of the application for the patent, which was in November, 1883. This proof comes from the children of the patentee, Caverly, mainly the testimony of the three sons, Herschel, Ralph, and Thomas, and a daughter, Vesta, who testified, in substance, that their father made a model of his machine as early as 1870, and made an operative machine as early as 1871. At that time Herschel was about 15 years old, Ralph was about 13, and Thomas about 9 years old, and the daughter upwards of 20 years old. No remnants of the old machine or model are produced. No one is called, except these members of the family, who ever saw either the model or the operative machine, and although the operative machine required castings and iron work which Mr. Caverly, not being an iron worker, but a wagon maker, by trade, would have required the services of some other person to make for him, or at least to make the castings, yet none of the persons who in any way made any of these parts are called as witnesses. The witness Herschel Caverly testifies that the working machines made by his father, one or more of them, were taken to Deere & Co.'s plow shop, and also to Harris' jobbing shop, and there tried by the application of power, but no one is called from those shops who ever saw or heard of such exhibition. Neither of these witnesses are mechanics or accustomed to machinery; one of them is a lady who is not shown to have any special knowledge of mechanical matters, or more than women generally have; and it seems to me impossible that they can carry in their memories the peculiar characteristics of this machine, so that the court can say, from their testimony, that it is clearly established, from the proof, that this invention was made so long prior to the application for the patent. They may have seen a cutter head, or a model of a cutter head, made by their father, but neither of them say they know the angle at which the cutter bits were set. They say that the illustrative model produced in evidence, and which has been made since this suit was commenced, is like the cutter head made by their father, and the same may be said of the "Grand de Tour," "Louisville," and "Moline" cutter heads, which are in evidence. To carry the date of the invention back of the application for the patent, the proof must be clear and convincing, and this is far from coming up to that standard.

Upon the question of novelty, the proof shows that between 1865 and 1868 a cutter head was made and put in use in the Grand de Tour Plow Works, at Dixon, Ill., which showed a grooved head with cutters inserted in the groove, and in all respects operating like the machines covered by the patent, except that the cutting knives were set so that they struck the wood at a more obtuse angle. One of these old cutter heads is produced in evidence, and the testimony in relation to it shows that it was used for five or six years, during which time many thousands of plow handles were shaped and finished upon it, and it did

satisfactory work, and was in use until that company adopted the practice of buying their plow handles ready finished, instead of finishing them themselves. The proof also shows that between the years 1862 and 1867 a cutter head was put in use in the plow factory of B. F. Avery, at Louisville, Ky., which was constructed in the same manner as Caverly says he prefers to construct his; that is, of two disks, each having such a curved or concaved cut on its inner face, extending from its diameter to its periphery, that, when they are placed with their curved faces together, the curves or concaves in the disks will form a groove in the head the size and shape of the article to be dressed; and this cutter head is produced in evidence. The cutters in this cutter head were inserted into the groove from the sides of the disks, leaving openings for the chips to pass out from the cutters, and I can see no difference in principle between that cutter head and the Caverly cutter head. There may be a slight difference in the angle at which the knives struck the wood for the purpose of cutting, but this is all the difference, as the cutter knives in this head are inserted in the sides of the disks upon sharply inclined beds, so as to present their cutting edges diagonally to the plane of the curved portion of the disks, thus meeting all the requirements of the Caverly construction. Mr. C. H. Pope, the expert called by the defendants, testifies that this B. F. Avery & Co. cutter head was in all essential respects the same as the one used by the defendants, and which is charged here to be an infringement of complainant's patent, and that it was an operative machine, and did good work. The proof also shows that a similar cutter head was put in use in the Louisville Agricultural Works between 1871 and 1872, and for some years after, and as long as said works were kept in operation. For several years prior to 1880, a cutter head was in use at the works of the Moline Plow Company at Moline, Ill., one half of which was introduced in evidence. This cutter head, like that shown by Caverly, was constructed with two disks so beveled as to form the groove when the disks were brought together, with openings in the sides of the disks through which the cutting knives were inserted into the groove, and in all respects, as far as construction and operation were concerned, they seem to have been the same as that covered by the Caverly patent, except that the angle at which the cutter knives struck the wood was not quite as sharp as that covered by the Caverly patent. Mr. Bartlett, the intelligent expert witness examined in behalf of complainant, testifies that he improved this cutter about 1880, and that after his improvement it was substantially like that described in the Caverly patent. There is also in proof a patent granted March 31, 1863, to A. A. Wilder for "a machine for bending and checking hoop bolts," which shows a grooved cutter head with knives which the inventor says "are of chisel form, and are fitted obliquely in slots, and secured in proper position by set screws which pass through oblong slots in the cutters, and into the parts as shown." The cutting edges of the cutters project a suitable distance beyond the beveled sides of the parts of the cutter wheel. It will thus be seen that cutter heads, either made of

a single piece, with a groove of the proper form to shape the material to be operated upon, or made of two disks with beveled edges, which, when brought together, form a groove, and furnished with knives inserted from the outside, so as to present cutting edges in the groove for the shaping of the material, were old long before the date of this invention. The first claim of the patent 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. All there is in this claim is certainly anticipated by the Wilder patent, from which I have just quoted. Evidently, from the reading of the Caverly patent, no particular shape is prescribed for the groove, but it was to be of such shape as was desired for the shaping of the material to be operated upon.

The second and third claims of this patent are objected to by the defendants, upon the ground that they are based upon a preferential mode of constructing the device. The patentee says in his specifications:

"The cutter head, B, is of cylindrical form, made of steel, iron, or other suitable material, constructed preferably of two cylindrical pieces or disks," etc.

In the language of the supreme court in *Sewall v. Jones*, 91 U. S. 135:

"This is not of the substance of the patent. A recommendation is quite different from a requirement. The latter is a demand, an essential, a necessity. The former is a choice or preference between different modes or subjects, and is left to the pleasure or judgment of the operator. He may adopt it. * * * The principle is this: The omission to mention in the specification something which contributes only to the degree of benefit, providing the apparatus would work beneficially and be worth adopting without it, is not fatal, while the omission of what is known to be necessary to the enjoyment of the invention is fatal. Accordingly, when the inventor says, 'I recommend the following method,' he does not thereby constitute such method a portion of his patent."

But, without being hypercritical, I am unable to see what there is described in the specifications, or in the second, third, and fourth claims, which was not in the older devices shown in the proof. 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 the chips, the slotted knives were secured in the opening, and adjusted longitudinally thereon by set screws. In other words, all the elements of the complainant's patent are found in these old working cutter heads of the Grand de Tour Plow Company, the Louisville Agricultural Works, the Avery 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 Caverly's invention.

It is strenuously urged, however, on behalf of complainant, that the angle at which Caverly set his cutters was such as to make his machine operate better than either of the prior cutter heads which have been referred to. The proof shows by the complainant's expert, Bartlett, that 45 degrees is the proper angle at which the plane bit or cutter should be

set, in order to do the most effective and smoothest work, and the complainant's proof tends to show that the knives in the complainant's patent are set at about that angle. It may be sufficient to say that there is nothing in the complainant's patent which defines the angle at which the cutters are to be set. He says:

"They are adjusted to the disks of the cutter head upon sharply inclined beds, * * * presenting the cutting edges of the knives diagonally to the plane of the curved portions of the disks, * * * similar to the manner in which plane bits are secured to the plane frame."

This language does not instruct the persons making a machine after the manner described in the Caverly patent as to what angle to set the cutters in order that they may do the best work. The Wilder patent of 1863 provided that the cutters should be fitted "obliquely" in slots through the cutter head, and Mr. Bartlett, plaintiff's witness, says that the common joiner's plane irons had been set for very many years at about the angle of 45 degrees. This, then, was common knowledge, and all persons familiar with the use of the ordinary plane knew that 45 degrees was about the right angle for effective cutting by the plane bits. Caverly comes no nearer in defining the angle at which the knives shall be set than does Wilder. Wilder says, "They are to be set obliquely," and Caverly says, "They are to be set diagonally," to the plane of the curved portion of the disks; so that neither of these patents instructs the public just at what angle the knife should be set, but leaves that to the skill of the mechanic who constructs the machine. For some reason the cutting bits in the Grand de Tour head were set with but a slight incline to the face of the work. The Louisville, Avery, and the Moline cutters were set at something more than 45 degrees; some of the complainant's witnesses say they were set as high as 60 degrees, but whether these knives are set at 45, 60, 80, or 85, it is but a matter of more or less, which was left to the judgment of the mechanic who constructed the machine, and is not a matter of invention. It was not new to set plane irons, or other cutting tools, at an angle of 45 degrees, but, on the contrary, that was a very old mode of setting them. "It is the invention of what is new, and not the arrival at a comparative superiority or a greater excellence in that which is already known, which the law protects as exclusive property, and which it secures by a patent." *Smith v. Nichols*, 21 Wall. 112. The proof shows that all these old cutters worked, and worked fairly well; that a great deal of work was done upon them. It may be that the Caverly cutter head is better by reason of the change in the angle of the cutters, but "the change was only in degree, and consequently not patentable." *Guidet v. Brooklyn*, 105 U. S. 550.

The proof also shows that the "Moline cutter head," one disk of which is in evidence, was in actual and public use in the defendants' shops at Moline more than two years before the application for the Caverly patent was made; and the proof also strongly tends to show that Caverly worked in the shop while it was so in use; and that his place of work was so near where this cutter head was located as to raise the presump-

tion that he must have known of such use. But such public use would defeat his patent, whether he knew of it or not. It being then abundantly shown from the proofs that grooved cutter heads, with cutting knives located in the groove, and set with some degree of angularity, were known and in use long prior to the alleged invention by Caverly, there is no patentable invention shown in complainant's patent, because merely to change the angle of the cutters so they should conform to the old and well-known angle of the plane bits is only such an improvement on the old cutter heads as any skilled mechanic could make, and did not involve invention. If these old devices had been wholly inoperative, and Caverly had discovered that, by setting the cutters at an angle of 45 degrees, they would become operative,—that is, if the old ones produced no result and his produced a new result,—then his device might have risen to the dignity of an invention. "The specification ought to distinguish the invention from things before known, and to enable any one skilled in the art to make and use the same." *Hogg v. Emerson*, 6 How. 437. But the proof shows that these older devices not only worked, but that they worked fairly well, and hence the most that could have been said for Caverly is that his machine was better than those that had preceded it, if he had instructed the public by his patent at just what angle the bits should be placed. But the trouble with his patent is he does not do this. He merely says they are "sharply inclined," and "presenting the cutting edges of the knives diagonally." These directions fall far short of telling the angle at which the bits should be set. And as I have already said, all the older cutter heads showed their cutters set at an angle,—the later ones much sharper than the earlier ones. And the instruction in the Caverly patent is no more definite as to the angle than that of the Wilder patent, which directs that the cutters be set "obliquely." I conclude from the proof in this case that the merit of setting the cutters at about the angle of a plane bit is really due to Mr. Bartlett, who quite closely approximated to that angle in his improvement of the old Moline cutter head in 1880. Mechanical improvements have also been made of late in this class of machines by making the groove deeper, so that it holds the handle more firmly while being dressed. This improvement, however, did not come from any instruction given by this patent, but from experience in the use of the machine.

For these reasons the suit will be dismissed, for want of equity.

WASHINGTON & I. R. CO. v. COEUR D'ALENE RY. & NAV. CO.

(Circuit Court, D. Idaho. October 21, 1892.)

1. PUBLIC LANDS—RAILROAD RIGHT OF WAY—HOW AND WHEN ACQUIRED.

The act of March 3, 1875, (1 Supp. Rev. St., 2d Ed., 91.) among other things grants a right of way over public lands to any "duly-organized" railroad company which shall have filed with the secretary of the interior a copy of its articles of incorporation and "due proof" of its organization. *Held*, that the "due organization," and the furnishing of "due proof" thereof, are conditions precedent to the acquirement of any right to such right of way.

2. SAME.

Under this act, when a railroad company, organized under a territorial statute requiring its route to be set out in some detail in its articles of incorporation, subsequently changes its route, by filing supplemental articles, so as to cross certain public lands, it is "organized," for the purpose of building a road over such lands, only from the date of the supplemental articles, and can only acquire a right of way on furnishing due proof, in the manner specified, of such organization.

3. SAME.

Where the only evidence that a railroad has filed the documentary proof of organization is a copy, certified by the commissioner of the general land office, of a communication from the president of the railroad to the secretary of the interior, stating that the former transmits therewith the necessary documents, which communication is indorsed as received at the interior department on a certain date, such date is the earliest at which the railroad can have acquired the right of way.

4. SAME—DUE PROOF OF ORGANIZATION.

Laws Mont. T. July 6, 1886, § 301, provide that the due incorporation of a company shall, without further proof or acts, operate as its organization. *Held*, that the filing with the secretary of the interior of a copy of articles of incorporation of a railroad under said statute, and a copy of the statute, operates as proof of the organization, within the meaning of 1 Supp. Rev. St. 91, and the right of way over public lands therein granted is acquired at the date of such filing.

5. SAME—UNAUTHORIZED SURVEY.

A survey by a railroad which has not yet complied with the conditions of the statute confers no rights, as against another railroad which has complied with such conditions, but has as yet made no survey.

6. SAME—UNSURVEYED LANDS—ERRONEOUS PLAT FILED BY MISTAKE.

Section 4 of the act (1 Supp. Rev. St., 2d Ed., 91) provides, among other things, that a profile of the road, if on surveyed public lands, shall be filed within 12 months. A railroad surveyed three routes over unsurveyed public lands, and by mistake filed a plat showing the wrong route. Another railroad had previously made an unauthorized survey, but took no further steps until the first road was completed and in operation. *Held*, that the first road was not required to file any plat, and the second road was not misled or damaged by the filing of the erroneous plat.

At Law. Action of ejectment by the Washington & Idaho Railroad Company against the Coeur d'Alene Railway & Navigation Company and others for a right of way over public lands. Judgment for defendants.

D. C. Lockwood, for plaintiff.

McBride & Allen and *Albert Hagan*, for defendants.

BEATRY, District Judge. This action is ejectment for a railroad right of way, consisting of a strip of ground 200 feet wide by 4,100 feet long, at the town of Wallace, Idaho, and on the unsurveyed public lands of the United States. Only the first-named defendant appears in the action, and each party, for its claim to the premises in controversy, relies upon the provisions of the act of congress approved March 3, 1875, (1