

transfer tables, and not with the switches of the claim in question. If the difference of that structure from the Thompson device in elevation and means of track change be slight, it is to be remembered that it is the same difference as that between the earlier patent of Taylor and that of Thompson, and that on this narrow remove or difference the Thompson patent rests for its validity. Such being the case, the difference suffices to relieve the respondents of the charge of infringement. Let a decree be drawn dismissing the bill.

HUNTINGTON DRY PULVERIZER CO. et al. v. WHITTAKER CEMENT CO. et al.

(Circuit Court, D. New Jersey. August 29, 1898.)

1. PATENTS—INVENTION—CRUSHING MILLS.

Mills for crushing ores and other substances were in use, constructed with a pan, inside of which was a circular die with vertical sides, against which the ore was crushed by rollers revolving inside of the die. These rollers rested upon the floor of the pan, and, when rotated at high speed, the friction induced excessive wear. In this state of the art, the Huntington patent, No. 277,134, was issued for a machine in which the same pan, die, and rollers were used; but the rollers were suspended from a central revolving frame by shafts having horizontal journals above, so that, when the frame was rapidly revolved, the rollers were swung outward by centrifugal force, and rotated against the interior surface of the die. *Held*, that such combination involved the application of a new principle not anticipated by the prior inventions, and that, as to such principle, the inventor's claim is entitled to a liberal construction.

2. SAME—INFRINGEMENT—DIFFERENT MEANS OF APPLYING SAME PRINCIPLE.

The essential feature of the invention being the suspension of the rollers in such manner as to leave them free to swing to and from the center of the pan, and to rotate against the die by centrifugal force, a machine is an infringement which embodies such feature, though different mechanism is used.

3. SAME—CONSTRUCTION OF CLAIMS.

It is the duty of a court, where it will not do violence to the language, to construe a claim so as to give the patentee what he actually invented, in view of the prior state of the art.

4. SAME—WHEN PLURAL INCLUDES SINGULAR.

A patent for a machine described in the claim and specifications as being made with "rollers," and as having a "series of rollers," and having two rollers as shown in the drawings, where no function is assigned to the plurality of rollers, and the number does not affect the value of the invention, and it does not appear that the inventor intended to limit himself to any particular number, is infringed by a similar machine, though having but a single roller.

5. SAME—INFRINGEMENT.

A patent for a combination in a machine which embodies the first application to the art of a new principle is infringed by any subsequent combination of the same devices embodying the same principle to accomplish the same result.

6. SAME—DIFFERENT APPLICATION OF POWER.

A different application of power to a patented machine, so that the parts in combination are set in motion in inverse order, but when in motion perform the same functions and accomplish the same result in the

same way, is not a material change in the machine, and will not avoid infringement.

This is a suit in equity for the infringement of a patent.

Frederick S. Duncan and Frederic H. Betts, for complainants.
Charles E. Mitchell and Edmund Wetmore, for defendants.

KIRKPATRICK, District Judge. The bill in this case is filed by the complainants, Laura C. Huntington and the Huntington Dry Pulverizer Company (who are, respectively, the owners by assignment of certain letters patent of the United States, No. 277,134, dated May 8, 1883, granted to Frank A. Huntington, and the possessor of the sole and exclusive right and privilege of making, using, and selling for use, dry crushing mills, embodying the invention or improvements set forth and claimed in said letters patent), against the Whittaker Cement Company and others, charging infringement of said patent by the use of a machine known as the "Griffin Mill," manufactured by the Bradley Fertilizer Company, used for similar purposes, and which, it is charged, embodies the principle of operation and the combinations described in said letters patent. The defendants, by the answer, set up prior publication and invention, and deny infringement. The complainants' patent relates to a crushing mill which is more especially intended for the crushing of quartz and pulverizing metal-bearing rocks. It consists of a pan having an interior circular die around its periphery, and, in combination with this, a series of rollers which roll against this die, being suspended by vertical shafts turning in sleeves which have horizontal journals above, so that the rollers may swing radially. Its novelty consists, as set out in claim 1, of "the pan, A, having the interior vertical circular die, F, in combination with the rollers, G, shafts, I, and means for suspending said shafts from above, so that said rollers may rotate against the die by centrifugal force, substantially as herein described."

Apparatus, appliances for crushing and pulverizing ores were known to the art at the time Huntington obtained his patent, as was also the mighty power of centrifugal force. Machines had been constructed to utilize this force for such purpose, but in every case the balls or rollers or crushers had rested upon the floor of the pan, so that, when rotated at high speed, the constant rubbing between the rollers and the pan, and between the crushers and the driving arm, induced excessive wear and tear, and resulted in the rapid and continual destruction of the parts. Various means had been used in the attempt to overcome these serious objections. In the Pickering and St. John patent, No. 71,055, the weights had been made round; and in the Lucop patent, No. 173,411, the round weights were made to rotate upon their own axes; while in the Howland patent, No. 263,497, the floor of the pan rotated, and, in consequence, there was present, not only abrasive friction of the rolls upon the floor, but also against each other and the vertical part of the die. In all of these inventions there was present the circular annular die against which the rolls or crushers were pressed or rotated. An examination of the prior state

of the art discloses the fact that, of the parts forming the Huntington combination, the circular pan with its interior vertical die was old, the rollers rotating upon their own axes were old, as were also the shafts (or their equivalents) for propelling the rollers around the pan; but in none of the previous devices had there been a suspension of the rollers so as to allow them to move radially to and from the center, and rotate against the die by centrifugal force. This, Huntington conceives and declares to be the important feature of his invention. By this appliance, the rollers, when rapidly rotated, "were thrown outwardly by centrifugal force, so as to crush anything between them and the die surrounding the inside of the pan," and by this means was overcome the abrasive friction of the rolls against the bottom of the pan and the driving arms, besides the maximum reduction of the excessive wear and tear that had been previously borne by these parts.

It is impossible to read the record in this case and not be convinced that the suspension of the rollers so as to allow them to swing to and rotate against the rim of the inside die was the gist of the Huntington invention. It was not material how the rollers should be suspended ("The vertical carrying shafts may be suspended in many ways," the inventor says); nor what other movements the rollers had. The important feature was that, whatever peculiar manner of suspension was used, it should be such as would allow them to move to and from the center, and be free to rotate against the die by centrifugal force. This was the application of a new principle to the art, to accomplish a result long sought, but until then never satisfactorily attained. Huntington did not devise a new way to do an old thing, but he made it possible to utilize a force long known, but practically of as little value for the purpose to which he applied it as if it did not exist. I am of the opinion that claim 1 of the patent is valid, and not anticipated by any of the prior devices which have been cited to the court as having been used in the prior art.

Having found the claim of the complainants' patent to be valid, it will be necessary to consider its scope and meaning, and whether it is infringed by the device used by the defendants. The parts in combination in the complainants' machine are (1) The pan, A, into which the ore or other material is placed, having the interior vertical die, F, against which it is to be crushed; (2) rollers, G, which are means used to effect the crushing; (3) shafts, I, by which the rollers are suspended and carried; (4) means for suspending the shafts from above, so that the said rollers may rotate against the die by centrifugal force. It will be noticed that claim 1 of the patent reads "rollers, G," "shafts, I," and means for suspending said shafts substantially as described. In the specification describing his invention, the patentee uses the following language:

"My invention consists of a pan having an interior circular die around its periphery, and in combination with this of a series of rollers which roll against the die, being suspended by vertical shafts, turning in sleeves, which have horizontal journals above, so that the rollers may swing radially. The suspending mechanism is suspended upon a cross or frame which is driven by a central shaft, and the rollers are thus thrown outward against the die by centrifugal action."

Reference is also made to the drawings for a more complete explanation of the invention. These show an embodiment of the inventor's specifications, and on them a plurality of rollers and shafts appears.

It is contended on the part of the defendants that by the use of the plural, "rollers" and "shafts," in the claim, and by the expression "series of rollers" in the specification, Huntington has so limited his invention that the machine used by the defendants which is constructed with a single roll suspended by a single shaft does not come within its scope. In this view I cannot concur. I have little doubt that Huntington was impressed with the idea that the embodiment of his patent, as shown in the drawing, possessed advantages superior to any other, and that for certain reasons two rollers were more desirable than a larger series or a less number; but I am unable to conclude that he intended to limit the application of the principle he evolved to any particular number of rollers. He says: "In the present case I have shown two rollers suspended from opposite arms of the frame;" but he does not thereby limit himself to two rollers. It may be properly inferred from his language that either a greater or less number would equally serve the purpose. "It will be manifest that the vertical shafts carrying the rollers may be suspended in various ways, so as to allow the rollers to move to and from the center, which is the important feature of my invention." That is to say, my invention consists, not in the number of rollers or shafts, but in so suspending them, whether few or many, that they can be free to rotate against the periphery of the circular die, and, by centrifugal force, to crush against the die the ore or other hard substance intended to be pulverized. The combination of the patent was not, pan and rollers and shafts alone, but added thereto the means of suspending said shafts from above, so that the said rollers might rotate against the die by centrifugal force. The suspension of the rollers so as to be free to swing to and from the center of the pan, and rotate against the die, was the novelty and the essence of the invention; and it was in this respect, as the defendants' expert declares, that the Huntington machine differed from the earlier mills of its class. This it was that gave the machine its undoubted excellence. In view of the prior state of the art, I find that the actual invention of the patentee was that, by a combination of the means set out in claim 1 of the patent, a machine was constructed which for the first time embodied this important principle of construction. Neither the "rollers" nor the "shafts" constituted the novelty of the invention, and in this respect they differed from the "springs, S, S," set out in the McClain patent, which was considered in the case of McClain v. Ortmyer, 141 U. S. 419, 12 Sup. Ct. 76. In the present case no function is assigned to the plurality of rollers. The use of the plural included the singular, if the singular could do the work marked out by the plural. While the rollers and shafts are mentioned in the plural, they are referred to in the claim by a "single" letter, so that as to them the claim is "fairly susceptible of two

constructions. That one will be adopted which will preserve to the patentee his actual invention."

The duty of the court is to so construe claims as, without doing violence to the language used, to give the patentee what he has actually invented. In other words, "to make the claim commensurate with the invention." *Ransom v. New York*, 1 Fish. Pat. Cas. 252, Fed. Cas. No. 11,573. I am of the opinion that the claim of the patent under consideration should be liberally construed, under a fair application of the rule, "Ut res magis valeat quam pereat." "In construing a patent, it is first pertinent to ascertain what, in view of the prior state of the art, the inventor has actually accomplished; and, this having been found, such construction should be given as will secure the actual invention to the patentee, so far as this can be done consistently with giving due effect to the language of the specifications and claim." *Van Marter v. Miller*, 4 Ban. & A. 124, Fed. Cas. No. 16,863. After a careful consideration of claim 1 and the specifications of the patent No. 277,134, I fail to find any intention on the part of the patentee to impose upon himself any limitation as to the number of rollers or shafts to be used in his machine. It is the first embodiment of the important principle of suspension by the combination of devices described in the claim, and any subsequent combination of the same devices embodying the same principle to accomplish the same result must be regarded as an infringement.

What, then, is the machine used by the defendants which is the subject-matter of the complaint? It will be found upon examination to consist of a pan with an interior circular vertical die, a roll, a shaft, and the means to suspend said shaft and roll from above, so that the roll may rotate against the periphery of the die. These are the same elements that are in combination in claim 1 of the complainants' patent, and they are so combined that, when put in operation in the defendants' machine, they accomplish the same result in the same way as the complainants' machine. True, different methods of applying means are employed to bring the elements into combined action; but, when each performs its proper function, it is found as a result that the roll rotates on its own axis against the periphery of the die of the inner circular pan, and, by centrifugal force, crushes the ore or other substance between it and said die. The machines of the complainants and defendants are but different embodiments of the same principle. In them the same forces are set in motion inversely. In the complainants' machine, power is exerted, in the first instance, to rotate the rolls orbitally, when, being free to swing to and from the center, they are thrown out by centrifugal force against the die, and then take on an axial rotation, induced by friction; while, in the defendants' machine, power is primarily applied to obtain axial rotation of the roll, which, being suspended so as to be free to swing from the center, is thrown against the periphery of the die, where it is held by centrifugal force, and where, by the friction of the roll against

the die, it takes on an orbital rotation. Each force or element performs the same function, and, when all are acting in combination, produce the same result in the same way. The only difference is a reversal of the order of development of forces. "It has been authoritatively decided in this circuit," says Judge Acheson in *Société Anonyme Usine J. Cleret v. Rehfluss*, 75 Fed. 657, "that a mere reversal of parts is not a material departure from a patented invention, and will not avoid infringement"; quoting *Devlin v. Paynter*, 12 C. C. A. 188, 64 Fed. 398. Upon the same principle, a mere reversal of the order of movement of the same parts will constitute infringement. As was said in *Westinghouse v. Boyden Power-Brake Co.*, 170 U. S. 568, 18 Sup. Ct. 707, "it makes no difference in what order the devices are set in motion, if, when working together, they each perform the same function to accomplish the same result."

The attention of the court has been called to various differences between the machines of complainants and defendants, but they are all of such character that I consider them mere differences of detail, necessitated by the changed embodiment of the principle of the patent. Much stress had been laid by the defendants upon the fact that the roll of their machine is suspended by an universal instead of trunnion joint, and that by reason of said joint the defendants' roll is free to move in any direction. The patentee recognizes that "there may be various ways of suspending the roll." In his embodiment of the principle of a suspended roll, he deemed it advisable to use a trunnion joint, but he does not in his claim limit himself thereto. Any suspension will meet the requirement of the claim of the patent which will permit the roll to swing to and from the center; and any such suspension for the same purpose will be an infringement of complainants' patented device, if used in combination with the other elements of the claim. It will be useless to discuss the minor differences in the form and structure of the machine of the complainants and defendants. I have considered all of them to which my attention has been directed by the brief and argument of counsel. I am satisfied that the defendants' machine incorporates in its structure and operation the substance of the invention as set out in claim 1 of the patent in suit, and is therefore an infringement thereon. The complainants are entitled to protection against those who, availing themselves of the discovery, seek to justify themselves by pointing to mere form in the mechanical devices used. The complainants are entitled to a decree as prayed for in their bill.

PARLIN & ORENDORFF CO. et al. v. MOLINE PLOW CO.

(Circuit Court of Appeals, Seventh Circuit. July 26, 1898.)

No. 500.

1. PATENTS—ANTICIPATION—EVIDENCE OF PRIOR USE.

The uncontradicted testimony of six unimpeached and apparently credible witnesses, showing the prior public use of an anticipating machine, corroborated by documentary evidence identifying the time, and by the actual presence of such machine in court, is not to be overcome by the mere fact that the maker thereof never applied for a patent on it, when it appears that he was already manufacturing and selling other satisfactory machines to do the same work, and did not wish to incur the expense of changing and improving the pattern.

2. SAME—CORN PLANTERS.

The Odell patent, No. 326,449, for an improvement in corn planters, is void because of the public use of an anticipating machine more than two years before the application for the patent. 84 Fed. 349, reversed.

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

This was a suit in equity by the Moline Plow Company against the Parlin & Orendorff Company and others for alleged infringement of a patent for an improvement in corn planters. The circuit court rendered a decree for the complainant (84 Fed. 349), from which the defendants have appealed.

C. E. Pickard and L. L. Bond, for appellants.

C. K. Offield, for appellee.

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

BUNN, District Judge. This suit was brought for the infringement of the first and second claims of letters patent No. 326,449, dated September 15, 1885, granted to Levi J. Odell for an improvement in corn planters. These claims are:

"(1) The combination, with the corn planter having seed tubes, of the valves in the tubes, the rock shaft connected to the valves and having the bent arms, the bracket arms secured to the planter and having the heads, the fulcrumed levers and guiding sheaves secured to the heads, the springs bearing on the levers, and said levers being connected to the arms of the rock shaft, and the knotted cord or wire passing through the sheaves for operating the levers and opening the valves, substantially as described.

"(2) The combination, with a corn planter having seed tubes and pivoted valves, r, in said tubes, of the rock shaft, m, having arms, n and o, rods, p, connecting arms, o, with the valves, bracket arms, a, secured to the planter, and having the heads, b, guiding sheaves on said heads, levers, h, fulcrumed to the heads and having bifurcated fingers, i, the lower arms of the levers being connected to the arms, n, springs, k, connected to the levers, and a knotted cord or wire passing through the sheaves for operating one of the levers, substantially as described."

In the court below the patent was sustained, and the defendants held to infringe. From this judgment an appeal is taken to this court. There are 14 assignments of error, only 5 of which, Nos. 5, 6, 7, 8, and 9, it will be necessary to notice; these all raising substan-