plaint before it and of the petitioner, I must maintain that this court cannot review its judgment. The writ of habeas corpus prayed for in this case is therefore denied.

BONNETTE ARO LAWN SPRINKLER CO. v. KOEHLER et al.

(Circuit Court of Appeals, Sixth Circuit. October 11, 1897.)

No. 500.

- 1. Patents—Invention—Construction of Claims—Lawn Sprinklers.

 The conception of a rotary lawn sprinkler, having concave wings, into which the water was delivered from one side, so as to be distributed over a semicircular area on one side of the distributing point, whereby the distribution could be made from a point near a walk, fence, or building without wetting the same, while not an invention of a primary character, yet disclosed sufficient ingenuity to prevent the application of technical rules intended to narrow the scope of patents of doubtful validity, or to impair or destroy them.
- 2. Same—Construction of Claims—Reference Letters.

 The use of letters in a claim to designate its elements does not prevent its liberal construction.
- 3. Same—Infringement—Duplication of Parts.

 The mere duplication of parts to produce the same result does not prevent infringement, even though it may involve tributary invention.
- 4. Same—Lawn Sprinklers.

 The Bonnette patent, No. 461,415, for a lawn sprinkler having devices for distributing the water over a semicircular area on one side of the distributing point, construed, and held valid and infringed as to the third claim.

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

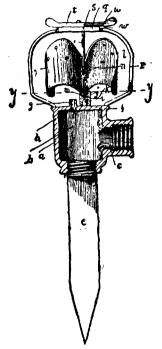
This was a suit in equity by the Bonnette Arc Lawn Sprinkler Company against Frederick E. Koehler and Isaac Harter for alleged infringement of a patent for a lawn sprinkler. The circuit court entered a decree dismissing the bill, and the complainant has appealed.

R. A. Parker, for appellant. Cyrus E. Lothrop, for appellees.

Before TAFT and LURTON, Circuit Judges, and SEVERENS, District Judge.

TAFT, Circuit Judge. This is an appeal in a patent suit from a decree dismissing the bill on the ground that the defendant's device does not infringe the patent sued on. Complainant and appellant is the owner, by assignment, of patent No. 461,415, issued to T. C. Bonnette, for a lawn sprinkler, October 20, 1891. It is said by the inventor in his specifications to be of that class of sprinklers in which a jet of water under pressure is distributed in the form of a spray over the lawn by rapidly revolving blades. One object of the invention, and the only one of importance in this case, is stated to be "to provide devices for distributing the water over a semicircular area upon one side of the distributing point, whereby the water may be distributed from a point near a walk, fence, or building without wetting the

same." The device may be best understood by reference to one of the drawings:



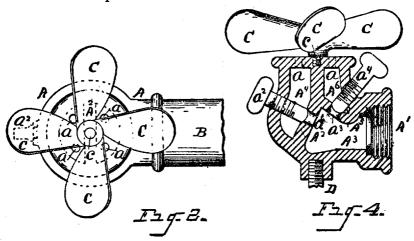
I,I, are curved wings with a downwardly projecting thin edge or web, m, centrally located, and transversely with the rigidly secured spindle, o, upon which the wings and web revolve. The stud, g, located at one side of the spindle or pivotal support, is the nozzle through which the water finds exit from the chamber, a, below, and is thrown against the curved and vertically inclined concave sides, n, of the wings. The operation of the device, when arranged as above, is described in the specification as follows:

"The stream of water leaving the nozzle is caught by the web, m, as each radial portion thereof passes over the nozzle, and, the force of the stream causing the wings to revolve with great rapidity, the water is directed outward in a fine, broken spray, and distributed over a semicircular area only, the web, m, on passing the nozzle, shutting the stream from further contact with the preceding wing, so that one wing only will be acted upon by the water at a time and over the same portion of their revolution, so that each succeeding wing, as it passes over the nozzle, will distribute the water over the same semicircular area."

The claim for the device thus arranged is the third claim of the patent, and is as follows:

"In a lawn sprinkler, the combination of the wings provided at their base with a transverse web and with the upwardly inclined concave underside, n, and mounted on a centrally located pivoted support, and a nozzle, g, located on one side of the said pivoted support for the purpose set forth, substantially as described."

The device made by the defendants is arranged according to a patent, No. 510,496, issued to one Charles Anderson, December 12, 1893. In this sprinkler, called the "Jewel sprinkler," there is a casing with four holes for the delivery of water, bored through the top of the casing 90 degrees apart, around the center of the casing, upon which is pivoted a four-bladed wheel substantially like a screw propeller. Within the casing is a perforated diaphragm, and by means of a valve the water may be cut off from two of the holes 90 degrees apart, and in this way the machine will throw four streams or two, at the will of the operator. With four streams, the machine sprinkles a full circle; with two streams, only a half circle. The device can be better understood by reference to Figs. 2 and 4 of the drawings of the Anderson patent:



The only question in the case is whether the Anderson device is an infringement of the Bonnette sprinkler. The contention on behalf of the defendant is that the prior art so limits the scope of the Bonnette patent, and claims that they can cover only the form of device shown in the drawings and specifications. The prior art shows, first, the Merrill sprinkler, in which the water is thrown up against a spiral blade or two blades arranged to revolve over the nozzle, which is in line with the axis of revolution. This sprinkles only a whole circle. The Chamberlin sprinkler is an ordinary nozzle, arranged with an adjustable plate or disk, so attached that it can be moved across the nozzle to divide the water into a spray, much as pressure by the thumb against the water at the nozzle will broaden the stream into a fan shape. This is not a rotary sprinkler at all. Finally, there is the Lawson sprinkler, in which the water is delivered from four holes in a casing arranged in much the same way as in the Anderson device, and is thrown up against a revolving head having a series of spiral blades or wings, slightly cup-shaped, so that the water, in passing through the opening in the head, and striking these spiral blades, will spray the water, cause the head to revolve, and distribute the spray in a circle. This is the whole prior art as disclosed in the record, and it is quite apparent that, while rotary sprinklers were old, in no one of them had there been any means for sprinkling in a half circle. Bonnette discovered that this could be done by putting the delivery nozzle to the side of the pivot or spindle, on which the winged divider was to be revolved, provided the wings were concave downward. Now, it is quite true that this was not a very important discovery. The art in which it was devised is not the most useful. It could not properly be described as either a pioneer or primary invention, but it does indicate a distinct step forward in the art. It certainly is not in that class of patented devices which are on the border line of mechanical skill and invention, and for which courts have devised the strictest canons of construction. It shows an ingenuity which courts are glad to reward, and which they will not allow technical rules of interpretation, intended to narrow the scope of patents of doubtful merit, to impair or destroy.

In Blandy v. Griffith, 3 Fish. Pat. Cas. 609, Fed. Cas. No. 1,529, the court stated the rule of infringement as follows:

"As long as the root of the original conception remains in its original completeness, the outgrowth, whatever shape it may take, belongs to him with whom the conception originated. The root of the conception must always be described in the specification and crystallized in the claim. It is the duty of the court, in giving interpretation to the patent, to give it that interpretation (if the patent is capable of it) which will secure to the inventor that which he has in fact invented."

The root of Bonnette's conception was that if, in a rotary sprinkler with concave wings, the water was delivered into the wings from one side, the area of sprinkling could be limited to that side. who had been the foreman of the factory where Bonnette's sprinklers were manufactured, appropriated this conception, doubled the concave wings, and doubled the holes for delivering the water, and so arranged a sprinkler that two holes on one side delivered water into two concave wings of the four at a time, and secured exactly the same result as Bonnette, with one hole and two wings. It seems clear to us that Anderson took the principle of Bonnette's invention, and merely doubled the parts. In this light it is easy to bring the Anderson sprinkler within the terms of the third Bonnette claim. The Anderson sprinkler has a combination of four wings, with upwardly inclined concave sides. It has four sharp edges dividing the space below each wing from that below its neighbors. These edges are transversely located in respect to the pivot on which the wings turn, and are equivalent to two webs, m, crossing at right angles, and there are two nozzles located on one side of the pivotal support. It is well settled that the mere doubling of parts to produce the same result does not prevent infringement, even though it may involve tributary The use of letters in a claim to designate its elements invention. does not prevent its liberal construction. McCormick Harvesting Mach. Co. v. C. Aultman & Co., 37 U. S. App. 299, 16 C. C. A. 259, and 69 Fed. 371; Muller v. Tool Co., 47 U. S. App. 189, 23 C. C. A. 357, and 77 Fed. 621; De Lamater v. Heath, 20 U. S. App. 14, 7 C. C. A. 279, and 58 Fed. 414.

For the reasons given, we think the defendants' device does infringe the third claim of complainant's patent. The decree of the circuit court is therefore reversed, with costs, and with directions to enter a decree for the complainant, finding infringement, and enjoining its continuance, and for a reference to a master to ascertain the damages.

RED JACKET MANUF'G CO. v. DAVIS et al.

(Circuit Court of Appeals, Seventh Circuit. October 4, 1897.)

No. 395.

1. EVIDENCE IN PATENT CASES-APPEAL.

A party who has caused a patent to be identified by a witness, but has failed to offer it in evidence, and who has objected to its consideration on appeal when desired by the opposite party, cannot thereafter have it considered by the court to his advantage.

2. PATENTS-CONSTRUCTION OF CLAIMS.

In the case of a novel and useful invention, the claims, though unskillfully drawn, should, if possible, receive a construction which will uphold the patentee's right to his real invention.

8. SAME—FORCE PUMPS.

In a patent for an improvement in double-acting force pumps, whereby the plunger and valve may be withdrawn for repairs without removing the rest of the pump from its fixed position, a statement in the specifications that the invention relates to the class of pumps "which are adapted to be suspended within a well or cistern," does not exclude pumps used in tubular and driven wells.

4. SAME—CONTRIBUTORY INFRINGEMENT.

One who, without authority, makes and sells double-acting pumps like those described in a patent, except that he does not make the lower cylinder, so that his pumps are inoperative unless used with that part, is guilty of contributory infringement.

5. Same—Force Pumps.

The Vanduzen patent, No. 241,573, for an improvement in double-acting force pumps, construed, and held valid and infringed.

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

This is a suit in equity, brought by the Red Jacket Manufacturing Company, the appellant, to restrain the alleged infringement of letters patent of the United States No. 241,573, issued May 17, 1881, to Benjamin C. Vanduzen, for a pump. The drawings, specification, and claim of the patent are as follows:

"United States Patent Office.

"Benjamin C. Vanduzen, of Cincinnati, Ohio.
"Pump.

"Specification Forming Part of Letters Patent No. 241,573, Dated May 17, 1881.

"Application Filed November 4, 1880. (No Model.)

"To all whom it may concern: Be it known that I, Benjamin C. Vanduzen of Cincinnati, in the county of Hamilton, and state of Ohio, have invented certain new and useful improvements in force pumps; and I do hereby declare the following to be a full, clear, and exact description of the same, which will enable others skilled in the art to which my invention appertains to make and use it, reference being had to the accompanying drawings, forming part of this specification, in which Fig. 1 is a central vertical section of the pump constructed in accordance with my invention. Fig. 2 is a similar section, taken in a plane at right angles to the section Fig. 1. Fig. 3 is a transverse section