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.
3. 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   In a patent for an improvement in double-acting force pumps, whereby the plunger and valve may be withdrawn for repairs without removing the rest of the pump from its fixed position, a statement in the specifications that the invention relates to the class of pumps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.)

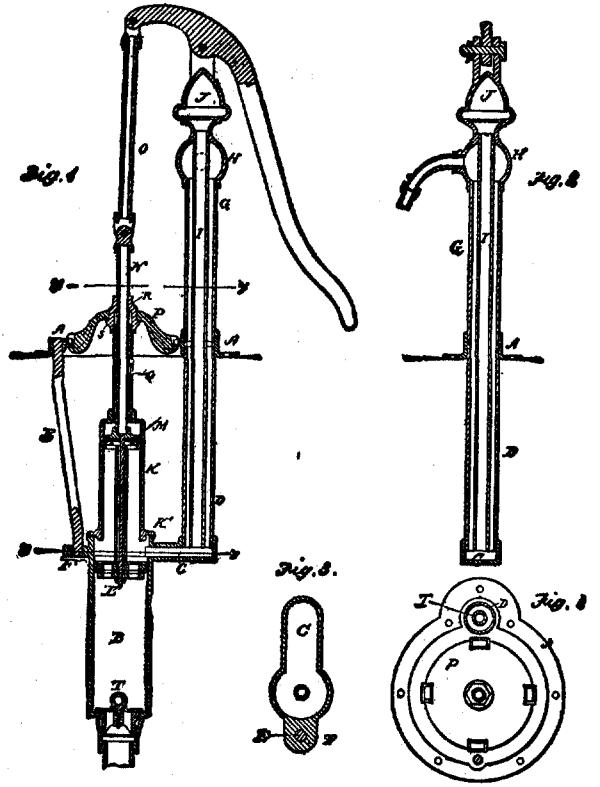
"To all whom it may concern: Be it known that I, Benjamin C. Vanduzen of Cincinnati, in the county of Hamilton, and state of Ohio, have invented certain new and useful improvements in force pumps; and I do hereby declare the following to be a full, clear, and exact description of the same, which will 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

(No Model.) 2

B. C. VANDUZEN.

Pump.

No. 241,573. Patented May 17, 1881.



Witnesses:
Wm. H. H. Knight
Fred. F. Church

Inventor:
Benj. C. Vanduzen
by C. A. Seward
his attorney

in the line, x, x, Fig. 1; and Fig. 4 is a section in the line, y, y, Fig. 1. Similar letters of reference in the several figures denote the same parts. My invention relates to that class of pumps which are adapted to be suspended within a well or cistern; and it has for its object to simplify and improve the construction and operation of the same in several important particulars. To this end it consists in so constructing the pump that the plungers and valves can be readily removed for repairs and other purposes without lifting the pump from the well or removing it from its fixed position. It also consists in certain details of construction and arrangement, as I will presently describe. In the accompanying drawings, A represents the flange by which the pump is suspended within the well or cistern, being bolted or secured to the curb. It may be of any size and form to support the working parts, and is cast with a large central opening, through which the plungers and valves are applied and removed. B is the main or fixed cylinder, cast at the top with a lateral water way, C, on

one side, and a lug, F, on the opposite side, to afford means for connecting it to the suspending flange. This connection is formed on one side by the discharge tube, D, screwing into the part C, and the flange, A, and on the opposite side by a screw rod, E. The screw rod is applied by screwing its lower end into the lug, F, sufficiently far to allow its upper end to swing under the flange, A, when the rod is turned to screw into said flange, and be partially unscrewed from the lug. By this construction the use of nuts is avoided, and the whole construction simplified and cheapened. The rod, E, and cylinder, D, support the main cylinder, B, and center it properly to receive the plungers and removable section of the pump cylinder. G is the standard by which the pump handle is supported, and which, together with the lower part D, forms the discharge pipe. The lower end of the tube, G, is fastened in the flange, A, and its upper end carries a cast-iron head, H, containing an air pipe, I, which terminates at its lower end in the discharge passage, C, and at its upper end in the air chamber, J, formed upon or attached to the top of cap, H. K is the upper pump cylinder or section, made of a lesser diameter than the lower cylinder, B, proportioned to the difference between the size of the plungers, one being half the area of the other. L is the lower plunger, and M the upper plunger, both supported in any convenient manner upon the plunger rod, N. The upper end of the plunger is connected with the handle by the rod, O, pivoted to the rod, N, or by other convenient means. In order to apply and remove the plungers and upper cylinder for any purpose without disturbing the lower cylinder or breaking the connection between it and the suspending flange, A, the latter is cast with a central opening of sufficient diameter to allow the upper cylinder to pass through it. This opening is closed with the cap, P, cast with a series of peripheral hooks to enter notches formed in the inner circumference of the flange, A. When the cap is turned, the hooks pass under the flange, and lock the cap in place. The lower end of the upper cylinder, K, is constructed with a flange, K', to fit upon the top of the lower cylinder, B, when the pump is put together, suitable packing being interposed to close the joint. The top of the cylinder, K, is connected by a pipe, Q, with the nut, R, in the center of the cap, P, said nut forming a guide for the plunger rod to force the cylinder down to its place, whereby the upper cylinder and plunger are properly centered with the lower cylinder. The nut, R, is formed with a flange or collar, S, which bears against the under side of the plate, P. The projecting end of the nut is adapted to receive a wrench for turning it. When turned in one direction the collar, S, bears up against the under side of the cap, P, and the flange on the lower end of the cylinder, K, is forced tightly down upon the cylinder, B. This adjustment of the nut forms a complete lock for the cylinder, and holds it properly centered beyond the possibility of casual displacement. If it becomes necessary for any purpose whatever,—such, for example, as repairing the leathers of the plungers, or lifting the lower valve, T, from its seat,—it is only necessary to unscrew the nut, R, sufficiently to loosen the cylinder and cap, P, when, by turning the cap, P, so that the hooks on its edge shall register with the notches in the part A, the cap may be readily lifted off, carrying with it the upper cylinder, K, the pump rod, and the plungers. The cap, P, need not necessarily be a closed cap, although such construction is preferable, because it will exclude the dirt; but it may be made with the central opening for the nut, and with radial arms connected with the flange, A. The valve, T, may be applied to its seat in any suitable manner, provision being made for its application and removal from the top. As shown in the drawings, it is formed with an eye to receive a hook on the end of a long rod inserted in the pump from the top. The operation of the pump does not differ essentially from the operation of other double-acting bucket-plunger pumps, the water being discharged through a nozzle in the head, H; the cap, J, and the pipe, I, serving as an air chamber.

"Having thus described my invention, what I claim is: (1) A suspended pump, having its suspending platform or flange so constructed that the plungers and plunger rod, together with the lower valve, can be lifted out without displacing the stationary pump cylinder, discharge pipe, or said suspending flange, substantially as described, for the purpose specified. (2) The suspending flange, A, made with the central opening large enough to permit the application and removal of the pump plungers and plunger rod without disturbing the main pump

cylinder or suspending flange itself, combined with a removable guide for the plunger rod, substantially as described, for the purpose specified. (3) The nut, R, the pipe, Q, and cylinder, K, combined with the cap, P, the cylinder, B, and the flange, A, having a large central opening, substantially as described, for the purpose specified. (4) The cylinder, B, suspended from the flange, A, by means of the pipe, D, having the air pipe, I, within it, and the screw rod, E, substantially as described, for the purpose specified. (5) The pump cylinders, B and K, formed with a joint between them, by which the part K can be lifted off and removed from the stationary part B substantially as described, for the purpose specified. (6) The pump cylinders, B and K, made of different diameters, and locked together by being braced from the center cap, P, substantially as described, for the purpose specified. (7) The flange, A, having an enlarged central opening, combined with the removal guide cap, P, substantially as described, for the purpose specified. (8) The flange, A, having an enlarged central opening, combined with the removable cap, P, and nut, R, substantially as described, for the purpose specified. (9) The flange, A, having an enlarged central opening, combined with the removable cap, P, adjusting nut, R, pipe, Q, and detachable cylinder, K, substantially as described, for the purpose specified. (10) The combination with the removable cap, P, suitably supported, and detachable cylinder, K, of the adjustable nut, R, and pipe, Q, substantially as described, for the purpose specified. (11) The cylinder, B, cast with a water way, C, on one side, and a lug, F, on the opposite side, for the connection of the devices by which said cylinder is suspended from the flange, A, substantially as described, for the purpose specified.

"The foregoing specification of my invention signed by me this 22d day of October, A. D. 1880. Benjamin C. Vanduzen.

"Witnesses:

"E. A. Ellsworth.

"Joseph Cox, Jr."

The answer asserted that the claimed invention was not original with Benjamin C. Vanduzen, and was not novel, but had been long in use before the granting of the patent, and had been published, and generally known, used, practiced, and published for more than two years prior to the application for the patent; and also denied infringement. The evidence disclosed that it was old in the art to remove plungers and valves from single-acting pumps for the purpose of repairs without lifting the pump from the well or removing it from its position. The distinction between single and double acting pumps is thus accurately stated by counsel: "All wells employing a bucket-plunger pump to lift or raise water require a water-conducting tube or well pipe extending from the water-bearing strata, to which the well is sunk, to the surface. At a suitable point above the water level (seldom more than twenty-five feet) a foot valve is placed within this pipe, which permits the water to pass upwards through it, but prevents the water from receding or escaping back there through and returning to its original body. The water is lifted up through this foot valve through the medium of a plunger rod reciprocating in said pipe or tube, which has a bucket or plunger on its lower end. This plunger rod terminates a short distance above the foot valve, and is connected at its upper end to a lever or handle by which it is reciprocated. The bucket or plunger is usually an open circular frame having a leathern packing surrounding its circumference, whereby its diameter is made to correspond to the bore of the pipe within which it moves, and the openings in said plungers are so closed that the water can pass upward through it, but not downward. Single-acting pumps have only the one bucket or plunger, just described, on the lower end of the plunger rod, and their operation is such that on the upstroke the water is sucked up through the contiguous foot valve, and on the down-stroke the bucket passes through the body of water held above and by this foot valve, and, getting under it, lifts the water on its next up-stroke. Each up-stroke of the said bucket or plunger increases the column of water above it in the well pipe until finally it flows out of the discharge pipe of the pump. Double-acting pumps have, in addition to this one bucket or plunger of the single-acting pump, a plunger secured to the plunger rod at a point nearer its upper end, which is constructed in every substantial respect like

the lower plunger except that the water does not pass through it. The operation of the lower plunger in a double-acting pump is the same as the one plunger of the single-acting pump. The office of the upper plunger is to force the surplus water that has risen above the lower plunger during its up-stroke out of the discharge pipe of the pump during the down-stroke of said upper plunger. The portion of the well pipe within which the plunger or bucket on the lower end of the plunger rod moves is a cylinder, which every pump of the class under consideration must positively have in order to be practically useful. In double-acting pumps this cylinder is designated the 'lower cylinder,' to distinguish it from the part in which the upper plunger moves, and its presence in the double-acting force pump is absolutely necessary."

The testimony also showed that suspended pumps are those whose superstructure is sustained by the platform upon which the standard of the pump rests; that tubular well pumps are those used in wells which are drilled or bored out until water is reached, and the well tubing sunk into the well simultaneously with the drilling or boring, or subsequently driven down into the well to the water-bearing strata; that driven-well pumps are those used in wells which are made by taking a "well point," driving it into the earth, and coupling sections of well pipe thereto as it advances into the earth, until the water is reached. There was no evidence that prior to Vanduzen's invention it was possible to remove the plunger, plunger rod, and lower valve in any double-acting pump, whether suspended, tubular-well, or driven-well pump, without unfastening the pump standard, and lifting the entire pump mechanism. The expert Bates, a witness for the complainant below, testified that so far as he knew the removing of buckets and cylinders in double-acting pumps without disturbing the stationary pump was new and novel to mechanics. Upon cross-examination the following question was propounded to witness: "Will you examine R. A. McCauley's patent for double-acting pump patented August 29, 1865, and state whether or not that pump is so constructed that the buckets and valves may be taken out without disturbing the stationary pump. That pump is used for the purpose of pumping water, oil, and other liquids, and it is so specified in the patent." The question was objected to by complainant below for want of notice under section 4920 of the Revised Statutes. The witnessed answered, "Yes." The paper or patent shown the witness by counsel for the defendant below was marked by the examiner as "Defendants' Exhibit X," but was not introduced in evidence by the defendants, and was not considered by the court below except as described in the question and answer, and the patent is not in the record as presented to the court below or to this court. Upon the hearing counsel for the appellant insisted that the patent was in evidence, and should be considered by the court, and furnished a copy. Counsel for the appellee insisted that it was not in evidence, and that the court could only consider it as it was described in the question. The alleged infringing pump is designed for use in tubular wells, and (with the exception of the air pipe, I, mentioned in the fourth claim of the patent, and the possible exception of the lower cylinder, B, of the patent) is similar in construction to the pump of the patent, the relative arrangement and operation of all the parts being practically the same as that of the corresponding parts of the pump of the patent, the structural changes being immaterial. The alleged infringing pump is manufactured and sold for use in tubular wells, the plunger operating in the tubing, and a valve answering to valve, T, of the patent is placed in the lower end of the tube. At the hearing the court dismissed the bill upon the ground that the defendants' pump did not "correspond in the feature of suspension upon which the invention in the patent is predicated," and that "the omission of the lower cylinder is an essential difference, and the fact that on this distinct and stationary form of construction and use for a tubular well the tubing serves the purpose of a lower cylinder (a common essential of double-acting pumps) could only be held the equivalent of the lower cylinder of the patent under an extreme liberality of interpretation which is not applicable here." No infringement of the fourth claim is asserted.

Frank D. Thomason and James S. Harlan, for appellant.

Gabe Bouck and B. E. Van Keuren, for appellees.

Before WOODS, JENKINS, and SHOWALTER, Circuit Judges.

JENKINS, Circuit Judge. The problem which Vanduzen sought to solve was to so construct a double-acting pump with two cylinders that the plungers and valves could be removed for repairs and other purposes without lifting the pump from the well, or removing it from its fixed position. To do this in a single-acting pump which had but one cylinder was not difficult, and had long been practiced; but in such double-acting pump (unless in the McCauley pump, which we hereafter consider), so far as this record discloses, it was entirely novel, and unknown until the patent in suit. Vanduzen, by his invention, provided a double-acting pump with a removable upper cylinder and a lateral water way located below it, and, with the other elements and devices of the pump, it was rendered possible to remove the upper cylinder plungers and valves without removing the pump from its fixed position. This was certainly a desirable and useful accomplishment, and, if it was novel, the specifications and claims should receive a liberal construction to sustain the patent. The patent is of itself prima facie evidence of the novelty of the invention, and the burden of proof is cast upon him who attacks it to show that what is claimed as an invention was, at the date of the patent, old in the art. This the appellees have not done. There is much evidence to the effect that long before the patent in suit pumps were so constructed that the valves and plungers could be removed without removal of the pump from the well, or from its fixed position. And this was unquestionably true with respect to single-acting pumps having but one cylinder. But the evidence wholly fails to show that it was true with respect to double-acting pumps with two cylinders.

It is said by the appellees that this novelty of invention is overthrown by the McCauley patent. The difficulty with this contention is that, as counsel for the appellees assert and insist, the McCauley patent is not before us. The appellees caused it to be identified, but failed to introduce it in evidence, and when the appellant desired this court to consider it in evidence the appellees objected. They cannot, therefore, take any supposed advantage from a patent which they have failed to produce in evidence, and to the consideration of which they now object. Nor can we assume, from the statement of counsel for the appellees in the question proposed to the witness Bates, or from the answer of the witness to the question, that the McCauley patent was for a double-acting pump with two cylinders. The interrogatory put to the witness did not require his construction of the subject-matter of the patent whether it was a double-acting pump or whether it had one or two cylinders, but simply whether that pump was so constructed that the buckets and valves could be removed without disturbing the stationary pump. To the question propounded, an affirmative answer was given, but that is far from an assertion by the witness that the pump was other than a single-cylinder pump, such as had long been known and operated. Nor does the statement of counsel in his question designating the McCauley patent as one for a double-acting pump compel us to so regard it. Statements of counsel are not evidence; nor is the court bound by their construction of a patent which they will not permit us, under the rule invoked, to examine and consider. Bearing in mind that

the burden of proof was upon the appellees, it became their duty to present in evidence whatever would tend to show that with respect to double-acting pumps with two cylinders the invention here asserted was not novel. If, against the earnest protest of their opponent, they availed themselves of a technicality to prevent a consideration by the court of a patent which they claim will disclose want of novelty in the invention of the patent in suit, they cannot complain if the court declines to accept their unsupported assertion of the character of that patent. We therefore think that upon this record it must be held that here was a meritorious invention originating with Vanduzen.

The specification asserts that the invention relates to that class of pumps which are adapted to be suspended within a well or cistern, and in another clause of the specification it is asserted that the operation of the pump does not differ essentially from the operation of other double-acting bucket-plunger pumps, the water being discharged through a nozzle in the head, H; the cap, J, and the pipe, I, serving as an air chamber. These expressions in the specifications were thought by the court below to limit this invention to a pump suspended in a well. The court seems to have fallen into error in the statement that this removable feature was old in double-acting pumps not suspended. We are unable to find any such evidence in the record. We do not discover in the testimony that in any double-acting pump prior to the patent in suit this removable feature was present. The question then arises whether, under such circumstances, the statement in the specification and in the first claim of the patent limits this invention to a pump suspended in a well. It may not be denied that the specification and the first claim of the patent are couched in unskillful language; but in the case of a novel and useful invention the terms employed should, if possible, receive a construction which will uphold, and not defeat, the patentee's right to that which he has in fact invented. In such case the specification and claims should be read in a liberal, and not in a strict, construction. Read in such light, we are of opinion that the specification and claims cover the invention asserted with respect to all force or double-acting pumps with two cylinders. The inventor claims "new and useful improvement in force pumps," and describes the invention. He, indeed, says that it relates "to that class of pumps which are adapted to be suspended within a well or cistern"; but a pump adapted to be suspended is not necessarily a suspended pump, and such language does not, as of course, limit his invention to a pump suspended in a well or cistern. A strict construction of the expression without reference to the context would make it include single as well as double acting pumps. What, then, is the mechanical significance to be attributed to the word "suspended," as employed in this specification, and with respect to the invention described? The thought pervading the entire writing is that the pump is to be placed in a fixed position, from which it need not be removed in order to withdraw the plunger and valves for repairs; and, if such fixed position results from the driving of the pipe into the ground, or is otherwise accomplished, we cannot think that the applicability and use-

fulness of the invention are affected. Looking, then, at the specification from its four corners, and seeking to give effect to all contained within it, it seems clear to us that the invention was intended to apply to all double-acting cylinder force pumps. The result accomplished by the invention was the removal of the plunger and valves without removing the pump from its fixed position. The actual invention applies as well to tubular well, driven well, and all double-acting force pumps in which the plunger rod and lower valve could be removed without unfastening the pump standard, and lifting out the entire pump mechanism. In such pumps the tubing is in fact the lower cylinder of the patent, the plunger and plunger rod being suspended therein by and connected with the upper mechanism of the pump. The statement in the specification that "the operation of the pump does not differ essentially from the operation of other double-acting bucket-plunger pumps" should not avail to narrow the construction which we think should be given the specification. The statement is correct, having manifest reference to the operation of the pump in the discharge of water. The operation is the same. The invention, however, consists in so constructing the pump as to permit the removable feature described. Under this construction of the specification and claim, we cannot doubt that the appellees have infringed. They make and sell pumps in all essential respects like that of the patent. They do not, indeed, make the lower cylinder, but they manufacture pumps to be used in tubular wells, the tube and valve placed therein supplying the lower cylinder and valve of the patent. Their pumps are inoperative and useless unless so constructed. The case presented is therefore one of contributory infringement. Wallace v. Holmes, 9 Blatchf. 65, Fed. Cas. No. 17,100; Renwick v. Pond, 10 Blatchf. 39, Fed. Cas. No. 11,702.

The judgment is reversed, and the cause remanded for further proceedings in conformity with this opinion.

SOCIETE FABRIQUES DE PRODUITS CHIMIQUES DE THANN ET DE MULHOUSE v. FRANCO-AMERICAN TRADING CO. et al.

(Circuit Court, S. D. New York. August 23, 1897.)

PATENT INFRINGEMENT SUITS—SALE BY GOVERNMENT OF INFRINGING GOODS—PRELIMINARY INJUNCTION.

A preliminary injunction will not be granted to restrain persons from disposing of alleged infringing goods which they have purchased at a sale by the United States marshal, and which were seized by the government for undervaluation, when it appears that complainant's representative was present at the sale, and gave no notification to bidders of its claim of infringement. The fact that the marshal told him not to make such a statement is immaterial, as the marshal had no right to prevent him from giving warning.

This was a suit in equity by the Societé Fabriques de Produits Chimiques de Thann et de Mulhouse against the Franco-American Trading Company and others to enjoin alleged infringement of a patent. The cause was heard on motion for a preliminary injunction.