

THE DECISIONS
OF THE
SUPREME COURT OF THE UNITED STATES,
AT
JANUARY TERM, 1847.

JAMES WOOD, PLAINTIFF IN ERROR, *v.* WILLIAM A. UNDERHILL AND ASCHEL H. GEROW, DEFENDANTS.

In order to obtain a patent, the specification must be in such full, clear, and exact terms as to enable any one skilled in the art to which it appertains to compound and use the invention, without making any experiments of his own.¹

¹ CITED. *Hogg v. Emerson*, 6 How., 484.

This case is reported in full in 2 Robb's Patent Cases, 588. The specifications for a patent are to be construed together, in order to ascertain the subject-matter of the invention. The specification may control the generality of the terms of the patent, of which it forms a part. *Whittemore v. Cutter*, 1 Gall., 429, 437; *Pitts v. Whitman*, 2 Story, 609, 621; *Barrett v. Hall*, 1 Mass., 447; even to the extent of enlarging the recitals of the patent. *Hogg v. Emerson*, 6 How., 437, 479. So are the drawings a part of the patent, which were filed with the application. *Earle v. Sawyer*, 9 Mass., 9; *Washburn v. Gould*, 3 Story, 122, 133; *Brooks v. Bicknell*, 3 McLean, 250, 261; *Davis v. Palmer*, 2 Brock, 298; *Davoll v. Brown*, 1 Woodb. & M., 53, 56; *Emerson v. Hogg*, 2 Blatchf., 1; s.c., 6 How., 437; *Carver v. Bromtree Manufacturing Co.*, 2 Story, 434; *Lowell v. Lewis*, 1 Mass., 189.

If there is a clear repugnancy between the patent and the specification, the patent is void. *King v. Wheeler*, 2 Barn. & Ald., 45; *Cook v. Pearce*, 8 Ad. & El. (N. S.), 1044.

But the courts will construe the patent and the specification liberally. *Ames v. Howard*, 1 Sumn., 482; *Blanch-*

ard v. Sprague, 3 Id., 535; *Ryan v. Goodwin*, Id., 514; *Wyeth v. Stone*, 1 Story, 270; *Davoll v. Brown*, 1 Woodb. & M., 57; but they are not to be treated as monopolies, and if the claim immediately follows the description, it may be construed in connection with the explanation contained in the specification, and be controlled accordingly. *Turrell v. Michigan Southern &c. R. R. Co.*, 1 Wall., 491; *Turrell v. Illinois Central R. R. Co.*, 3 Fish. Pat. Cas., 330.

The object of the specification is to inform the public exactly what is patented. *Evans v. Eaton*, 7 Wheat. 356; *Kay v. Marshall*, 2 Webs. Pat. Cas. 39; *Blake v. Stafford*, 3 Fish. Pat. Cas., 294; *Bloxam v. Elsee*, 1 Car. & P., 558.

The party's claim cannot be left to minute references or conjectures. *Lowell v. Lewis*, 1 Mass., 182; or a general statement that the patented machine is in all respects an improvement of the old. *Kweass v. Schuykill*, 4 Wash., 669; *Barrett v. Hall*, 1 Mass., 447. On construing the claim, the whole language used is to be construed together, and not single phrases picked out and construed by themselves. *Ames v. Howard*, 1 Sumn., 482; the drawings with the words. *Bloxam v. Elsee*, 1 Car. & P., 558. The specification should be so con-

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If the patent be for a new composition of matter, and no relative proportions of the ingredients are given, or they are stated so ambiguously and vaguely that no one could use the invention without first ascertaining, by experiment, the exact proportion required to produce the result, it would be the duty of the court to declare the patent void.

But the sufficiency of the description in patents for machines, or for a new composition of matter, where any of the ingredients do not always possess exactly the same properties in the same degree, is, generally, a question of fact to be determined by the jury.²

Where a patent was obtained for a new improvement in the mode of making brick, tile, and other clay ware, and the process described in the specification was, to mix pulverized anthracite coal with the clay before moulding it, in the proportion of three fourths of a bushel of coal-dust to one thousand brick, some clay requiring one-eighth more, and some not exceeding half a bushel, this degree of vagueness and uncertainty was not sufficient to justify the court below in declaring the patent void.

The court should have left it to the jury to say, from the evidence of persons skilled in the art, whether the description was clear and exact enough to enable such persons to compound and use the invention.

strued as will, consistently with the fair import of language, make the claim co-extensive with the actual discovery. *Haworth v. Hardcastle*, 1 Webs. Pat. Cas., 480; *Holmes v. London & N. W. Ry. Co.*, 12 Com. B., 831; s. c., 16 Eng. L. & Eq., 409; see *Tetley v. Euston*, 22 Eng. L. & Eq., 321; *Allen v. Rawson*, 1 M. G. & S., 551.

The words must be construed with reference to their meaning at the date of their use. *Elliot v. Turner*, 2 M. G. & S., 446.

The description must not be vague. *Turner v. Winter*, 1 Webs. Pat. Cas., 80; *Bickford v. Skewer*, Id., 218; *King v. Arkwright*, Id., 70.

When the patentee states the substances which he makes use of himself, and then all other substances which will produce the effect, and he claims them, by a generic description, or comprehended in his description, his claim is not void for ambiguity, if the combination is new in respect to all the substances thus referred to. *Ryan v. Goodwin*, 3 Sumn. 514.

But a specification that creates in the mind of one applying it any doubt as to the relative proportion of the ingredients, is void. *Muntz v. Foster*, 2 Webs. Pat. Cas., 85; *Tyler v. Boston*, 7 Wall., 327; *Whitney v. Mowry*, 3 Fish. Pat. Cas., 157; s. c., 2 Bond, 45; *Goodyear v. Wait*, 3 Fish. Pat. Cas., 242; s. c., 5 Blatchf., 468; *Goodyear v. New York Gutta Percha Co.*, 2 Fish. Pat. Cas., 312.

² It is a question for the jury to decide, even when the evidence of ex-

perts is introduced, whether the invention is described in such full, clear, and exact terms as will enable a skilful person to put it in practice from the specifications themselves. *Davis v. Palmer*, 2 Brock., 298; *Davoll v. Brown*, 1 Woodb. & M., 53; *Lowell v. Lewis*, 1 Mass., 182; *Washburn v. Gould*, 3 Story, 122; *Carver v. Braintree Manuf. Co.*, 2 Id., 432; *Walton v. Potter*, 1 Webs. Pat. Cas., 585, 595.

"It may not, perhaps, be easy to draw a precise line of distinction between a specification so uncertain as to claim no particular improvement, and a specification so uncertain as not to enable a skilful workman to understand the improvement and to construct it. Yet we think the distinction exists. If it does, it is within the province of the jury whether a skilful workman can carry into execution the plan of the inventor." *Davis v. Palmer*, 2 Brock., 298.

But in England it is held that the meaning of the specifications is for the court; and, although the question which goes to the jury is whether the directions in the specification are sufficient or not, it is necessary for the court to declare what the specification has said. *Neilson v. Harford*, 1 Webs. Pat. Cas., 295.

The question whether the invention disclosed by the specification is a proper subject for a patent, is a question of law. *Losh v. Hague*, 1 Webs. Pat. Cas., 202; *Howe v. Abbott*, 2 Story, 190; *Crane v. Price*, 1 Webs. Pat. Cas., 408.

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THIS case was brought up, by writ of error, from the Circuit Court of the United States for the Southern District of New York.

It appeared that, in the year 1836, Wood took out amended letters patent for "a new and useful improvement in the mode of making brick, tile, and other clay ware," and filed the following specification of his invention: —

"Be it known that I, the said James Wood, have invented a new and useful improvement in the art of manufacturing bricks and tiles. The process is as follows: Take of common anthracite coal, *unburnt, such quantity as will best suit the kind of clay to be made into brick or tile, and mix the same, when well pulverized, with the clay before [it] is moulded; that clay which requires the most burning will require the greatest proportion of coal-dust; the exact proportion, therefore, cannot be specified; but, in general, three fourths of a bushel of coal-dust to one thousand brick will be correct. Some clay may require one eighth more, and some not exceeding a half-bushel. The benefits resulting from this composition are the saving of fuel, and the more general diffusion of heat through the kiln, by which the whole contents are more equally burned. If the heat is raised too high, the brick will swell, and be injured in their form. If the heat is too moderate, the coal-dust will be consumed before the desired effect is produced. Extremes are therefore to be avoided. I claim as my invention the using of fine anthracite coal, or coal-dust, with clay, for the purpose of making brick and tile as aforesaid, and for that only claim letters patent from the United States.

JAMES WOOD."

Dated 9th November, 1836.

In July, 1842, he brought a suit against the defendants in error, for a violation of this patent.

And at the trial the defendant objected to the sufficiency of the specification, "because no certain proportion for the mixture is pointed out, but only that such quantity of coal must be taken as will best suit the kind of clay to be made into brick or tile; but that clay which requires most burning will require the greatest quantity of coal-dust; the exact proportion cannot, therefore, be specified; but, in general, three fourths of a bushel of coal-dust to one thousand brick will be correct. Some clay may require one eighth more, and some not exceeding half a bushel; so that there is no fixed rule by which the manufacturer can make the mixture, but that must be ascertained by experiments upon the clay; and the claiming clause in the specification is only for the

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abstract general principle of mixing anthracite coal-dust with clay, for the purpose of making brick, without any practical rule as to the proportions, which is too vague and uncertain to sustain a patent"; which objection was sustained by the court. The plaintiff excepted. And the verdict and judgment being against him, the case was brought here upon this exception.

The cause was argued by *Mr. Silliman*, for the plaintiff in error, and *Mr. Rowley*, for the defendants.

Mr. Silliman, for the plaintiff in error, made the following points:

The plaintiff insists, —

1. That he has in his specification given a general rule by *3] which *every kind of clay may be much better burned than by any previous process. And that the general proportions specified are, with some exceptions, the very best that can be used.

That a patent may properly be granted for a *beneficial general rule*, although there might be some exceptions to it not provided for.

2. That if it is necessary to entitle the plaintiff to a patent for a most beneficial invention for burning clay of the qualities usually found, that he should also discover the means of burning, to best advantage, clays of qualities not usually found; that his patent should not therefore be deemed void on its face, but he should be permitted to prove, by persons conversant with the business, that they could instantly determine, on inspection of clays of uncommon qualities, whether they required more or less than the usual burning, and how much more or less, so as to regulate the variation of proportions in such manner as to burn to the best advantage.

3. The plaintiff should have been permitted to show, under his specification by *experts*, that any kind of clay of which bricks can be made, however varied the qualities, can be better burnt under his general rule than by any previous process; and if such is the fact, the plaintiff should be entitled to a patent for the discovery, if he had given the general rule only, and had taken no notice of those exceptions, in which some uncommon kinds of clay can be best burned with a greater or less proportion of coal than that specified in the general rule.

4. The judge in his decision adopts all the errors of the defendants' objection, which states that there is no fixed rule by which the manufacturer can make the mixture, but that must be ascertained by experiments upon the clay. Suppose

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this to be so, and that the inventor has only furnished a guide by which such experiments can be successfully made, and that the subject, on account of the variable qualities of the materials, does not admit of greater certainty, and that by the simplest and cheapest experiments the manufacturer, in consequence of the plaintiff's invention, will be able to burn his bricks much better in less than half the time, and at less than half the cost of burning, by any other process, is not the inventor entitled to a patent for an invention practically so useful?

The fact that not a single brick has for some years past been burned, except according to the plaintiff's specification, is pretty good evidence that the manufacturers have been able to discover something from plaintiff's specification.

5. The objection, as adopted by the court, declares that the claiming clause in the specification is only for the abstract general principle of mixing anthracite coal-dust with clay, for the purpose of making bricks and tiles, without any practical rule as to the proportions, which is too vague and uncertain to sustain a patent. Suppose this objection true in point of fact, and that no information had *been intentionally suppressed, and that the qualities of clay varied so much that the proportions most useful could only be ascertained by an experiment on each bed of clay, it might, nevertheless, be a very useful invention, for which the inventor should be, in some measure, compensated by a patent. But this part of the objection is not true in fact, for the claiming clause is of the invention of using fine anthracite coal, or coal-dust, with clay, for the purpose of making brick and tile "as aforesaid." These words, "as aforesaid," refer to the general rule of three fourths of a bushel of coal for a thousand bricks, with the exceptions or variations previously expressed.

6. The judgment should be reversed, with costs, including the costs in the Circuit Court.

Mr. Rowley, for the defendant in error.

The patentee's specification is uncertain and insufficient. It furnishes no rule for making bricks, without the manufacturer's first making a series of experiments. The most it does is to prescribe in about what manner the trials are to be conducted; which is not enough to sustain his patent. The *King v. Arkwright*, Dav. Pat. Cas., 106 (per Buller, J.); *Turner v. Winter*, 1 T. R., 606 (per Ashurst, J.); *Boulton v. Bull*, 2 H. Bl., 484 (Buller, J.); *Harmer v. Playne*, 11 East, 101 (Lord Ellenborough); *The King v. Wheeler*, 2 Barn. &

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Ald., 345 (Abbott, Ch. J.); *Gods. Patents*, 85; *Lowell v. Lewis*, 1 Mason, 182 (Story, J.); *Langdon v. De Groot*, 1 Paine, 203; *Phill. Pat.*, 83, 267, 268, 283, 284, 289.

Mr. Chief Justice TANEY delivered the opinion of the court.

The question presented in this case is a narrow one, and may be disposed of in a few words.

The plaintiff claims that he has invented a new and useful improvement in the art of manufacturing bricks and tiles; and states his invention to consist in using fine anthracite coal, or coal-dust, with clay, for the purpose of making brick or tile; — and for that only he claims a patent. And the only question presented by the record is, whether his description of the relative proportions of coal-dust and clay, as given in his specification, is upon the face of it too vague and uncertain to support a patent.

The degree of certainty which the law requires is set forth in the act of Congress. The specification must be in such full, clear, and exact terms as to enable any one skilled in the art to which it appertains to compound and use the invention; that is to say, to compound and use it without making any experiments of his own. In patents for machines the sufficiency of the description must, in general, be a question of fact to be determined by the jury. And this must also be the case in compositions of matter, where any of

*5] *the ingredients mentioned in the specification do not always possess exactly the same properties in the same degree.

But when the specification of a new composition of matter gives only the names of the substances which are to be mixed together, without stating any relative proportion, undoubtedly it would be the duty of the court to declare the patent to be void. And the same rule would prevail where it was apparent that the proportions were stated ambiguously and vaguely. For in such cases it would be evident, on the face of the specification, that no one could use the invention without first ascertaining by experiment the exact proportion of the different ingredients required to produce the result intended to be obtained. And if the specification before us was liable to either of these objections the patent would be void, and the instruction given by the Circuit Court undoubtedly right.

But we do not think this degree of vagueness and uncertainty exists. The patentee gives a certain proportion as a general rule; that is, three fourths of a bushel of coal-dust to one thousand bricks. It is true he also states that clay

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which requires the most burning will require the greatest proportion of coal-dust; and that some clay may require one eighth more than the proportions given, and some not more than half a bushel instead of three fourths. The two last-mentioned proportions may, however, be justly considered as exceptions to the rule he has stated; and as applicable to those cases only where the clay has some peculiarity, and differs in quality from that ordinarily employed in making bricks. Indeed, in most compositions of matter, some small difference in the proportions must occasionally be required, since the ingredients proposed to be compounded must sometimes be in some degree superior or inferior to those most commonly used. In this case, however, the general rule is given with entire exactness in its terms; and the notice of the variations, mentioned in the specification, would seem to be designed to guard the brick-maker against mistakes, into which he might fall if his clay was more or less hard to burn than the kind ordinarily employed in the manufacture.

It may be, indeed, that the qualities of clay generally differ so widely that the specification of the proportions stated in this case is of no value; and that the improvement cannot be used with advantage in any case, or with any clay, without first ascertaining by experiment the proportion to be employed. If that be the case, then the invention is not patentable. Because, by the terms of the act of Congress, the inventor is not entitled to a patent unless his description is so full, clear, and exact as to enable any one skilled in the art to compound and use it. And if, from the nature and character of the ingredients to be used, they are not susceptible of such exact description, the inventor is not entitled to a patent. But this does not appear to be the case on the face of this specification. And whether the fact is so or not is a question to be decided *by a jury, upon the evidence of persons skilled in the art to which the patent appertains. The Circuit Court therefore erred in instructing the jury that the specification was too vague and uncertain to support the patent,—and its judgment must be reversed.

ORDER.

This cause came on to be heard on the transcript of the record from the Circuit Court of the United States for the Southern District of New York, and was argued by counsel. On consideration whereof, it is now here ordered and adjudged by this court, that the judgment of the said Circuit Court in this cause be and the same is hereby reversed with

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costs, and that this cause be and the same is hereby remanded to the said Circuit Court, with directions to award a *venire facias de novo*.

STEPHEN SEWALL, APPELLANT, *v.* HENRY V. CHAMBERLAIN.

Where the prayer of a bill in equity shows that the demand of the complainant is susceptible of definite computation, and that there can be no recovery over the sum of two thousand dollars, the appeal to this court will be dismissed on motion, for want of jurisdiction.¹

THIS was an appeal from the Circuit Court of the United States for the Southern District of Alabama, sitting as a court of equity.

The facts in the case are sufficiently set forth in the opinion of the court.

Mr. Dargan moved to dismiss the appeal for want of jurisdiction.

Mr. Justice WAYNE delivered the opinion of the court.

This cause having been regularly docketed, the appellee now moves the court to dismiss the appeal, on the ground that the amount in controversy is not large enough to bring the case within the appellate jurisdiction of the Supreme Court.

We have examined the record and find it to be so. By the averments in the complainant's bill, it seems that the subject-matter in controversy between himself and the defendant re-

¹ In a case in the Circuit Court the value of the matter in dispute must appear to be over \$500 to justify a removal from a State court to the Circuit Court, but it may appear by the *ad damnum* in the writ, when the declaration discloses no precise sum, or by the declaration in preference to the writ, if a sum certain be there claimed. And if any doubt exists, from the different counts claiming different sums, or the subject being real estate, what is the real amount in dispute, the court below may inquire into it by evidence. *Ladd v. Tudor*, 3 *Woodb. & M.*, 325, 329.

Where, by an agreed statement of facts in the nature of a special verdict, the plaintiff's claim was admitted

by the defendant, except the sum of \$3134.20, it was held that that sum was the amount actually in dispute, and although judgment was rendered below for the entire claim, being more than \$5000, the writ of error was dismissed for want of jurisdiction. *Tintzman v. National Bank*, 10 *Otto*, 6. Where, in replevin, judgment was rendered in favor of the plaintiff for a portion of the property delivered under the writ, and in favor of the defendant for a return of the residue, or its value, the same not being \$5000, and the plaintiff sued out a writ of error to the Supreme Court, it was held that the writ must be dismissed for want of jurisdiction. *Pierce v. Wade*, 10 *Otto*, 444.