

Case No. 12,186.

RYAN ET AL. V. GOODWIN ET AL.

{3 Sumn. 514: 3 Law Rep. 220; 1 Robb, Pat. Cas. 725; Merw. Pat. Inv. 413.}¹

Circuit Court, D. Massachusetts. May Term, 1839.

PATENTS—COMBINATION—COMPOUNDS—MATCHES—PUBLIC
USE—SPECIFICATIONS.

1. It is not necessary to the validity of a patent for a new and useful invention, that any of the ingredients should be new or unused before for the purpose. The true question is, whether the combination of materials by the patentee is substantially new.

{Cited in Ex parte Smith, Case No. 12,966; Re Manle. Id. 9,308; Teese v. Phelps, Id. 13,818; Re Corbin. Id. 3,224; Re Wagner, Id. 17,038; Haffcke v. Clark, 1 C. C. A. 570, 50 Fed. 535.}

2. The public use or sale of an invention, in order to deprive the inventor of his right to a patent, must be a public use or sale by others, with his knowledge and consent, and before his application therefor. A sale or use of it, with such knowledge or consent, in the intermediate time between the application for a patent and a grant thereof, has no such effect.

{Cited in McMillin v. Barclay, Case No. 8,902; Parton v. Prang Id. 10,784; Jones v. Sewall, Id. 7,495; Kelleher v. Darling, Id. 7,653; Bates v. Coe, 98 U. S. 46.}

3. The court will give a liberal construction to the language of all patents and specifications; and will, in all cases, by taking the whole together, adopt that interpretation of a specification, which will give the fullest effect to the nature and extent of the claim made by the inventor.

{Cited in Brooks v. Fiske, 15 How. (56 U. S.) 223; Turrill v. Michigan, S. & N. I. R. Co., 1 Wall. (68 U. S.) 510; Goodyear v. Providence Rubber Co., Case No. 5,583; Stimpson v. Woodman, 10 Wall. (77 U. S.) 123; Carew v. Boston Elastic Fabric Co., Case No. 2,397; Hamilton v. Ives, Id. 5,982.}

{Cited in Burke v. Partridge, 58 N. H. 351.}

4. The inventor of a new compound, wholly unknown before, is not limited to the use of all ways of the same precise ingredients in making that compound; and if the same

purpose can be accomplished by him by the substitution in part of other ingredients in the composition, which have never been so used before, he is at liberty to extend his patent so as to embrace them also. Thus, where an inventor claimed as his invention the combination of phosphorus with chalk, or any other absorbent earth or earthy material, and glue, or any other glutinous substance, using the materials in the proportions substantially as set forth in the specification, in making matches; it was held, that the patent was not void as being too broad and comprehensive.

[Followed in *Bryan v. Stevens*, Case No. 2,066a.]

Case for an infringement of a patent for “a new and useful improvement in the manufacture of friction matches for the instantaneous production of light.” Plea, the general issue; with notice of special matters of defence. At the trial, it appeared, that the patent was obtained by Alonzo D. Phillips, of Springfield, Massachusetts, on the 24th of October, 1836 [No. 68], and had since been assigned to the plaintiffs. The common proofs, that Phillips was the inventor; that it was a useful invention; and that the defendant had used the same, were all offered to the jury. The defence turned upon the following points, which were stated in the special notice: (1) That Phillips was not the original inventor. (2) That the invention was publicly known, and in public use in divers parts of the United States, (specifying the places and persons,) before the supposed invention of the plaintiff. (3) That the invention was in public use, and the sale with the consent and allowance of Phillips in divers parts of the United States, and particularly in Massachusetts, Connecticut, New Hampshire, New York, and Philadelphia, before the application of Phillips for a patent therefor, specifying the names of the persons, who so used and sold the same. (4) That the specification annexed to the patent was vague, ambiguous, and uncertain, and did not describe in a full, clear, and exact manner, and with sufficient certainty, the invention, and the manner of making

and compounding the matches; and that the use of chalk, carbonate of lime, or other absorbent earths or **III** materials, referred to in the specification, was wholly unnecessary and useless, and designed to mislead and deceive the public. (5) That the claim for inventing a mode of putting up the matches was frivolous, and the method not new.

The specification was in the following words: "To All Whom It May Concern: Be it known that I, Alonzo D. Phillips, of Springfield, in the county of Hampden, and state of Massachusetts, have invented certain new and useful improvements in the mode of manufacturing friction matches, for the instantaneous production of light, which improvements consist in a new composition of matter for producing ignition, and in a new mode of putting the matches up for use, by which the danger of ignition from accidental friction, or from other causes, is obviated. And I do hereby declare that the following is a full and exact description thereof. The composition used in preparing the matches usually called loco-foco, and which light by slight friction, is a compound of phosphorus, chlorate of potash, sulphuret of antimony, and gum arabic or glue. That which I use consists simply of phosphorus, chalk, and glue, and in preparing it I use the ingredients in the following manner and proportions. I take one ounce of glue and dissolve it by the aid of water and heat, in the usual manner; to this glue I add four ounces of finely pulverized chalk or Spanish white, stirring it in so as to form a thick paste. I then put in one ounce of phosphorus, keeping the materials at such a degree of heat as will suffice to melt the phosphorus, and incorporate the whole together. Into this composition the matches are dipped, after being previously dipped in sulphur in the usual manner. The composition may be varied in its proportions, but those I have given I consider the best. The ingredients also may be varied; as gum arable

or other gum may be substituted for glue, and other absorbent earths, or materials may be used instead of the carbonate of lime. In order to prevent the danger from accidental ignition, I prepare the pine wood for my matches in the following manner. I cut my pine into thin slabs about the usual thickness of veneers; these I cross-cut into lengths for matches, and by means of gangs of circular saws, cut these comb fashion and lengthwise of the grain of the wood, leaving a portion of one end uncut, holding the strips together like the back of a comb; the number of matches on each slab may be about a dozen. These are then dipped in the sulphur, and afterwards in the above named composition, and put up for sale by laying the slabs upon long slips of paper, cut wide enough to lap over the ends of the matches; the slabs are then doubled up in the paper, much in the manner of papering pins. A slab, when wanted, may be taken out without disturbing the remainder, and the paper effectually removes all danger from friction. What I claim as my invention, is the using of a paste, or composition to ignite by friction, consisting of phosphorus, and earthy material, and a glutinous substance only, without the addition of chlorate of potash or of any highly combustible material, such as sulphuret of antimony in addition to phosphorus. I also claim the mode herein described of putting up the matches in paper, so as to secure them from accidental friction.”

S. D. Parker and E. Smith, Jr., for plaintiffs.

Rand & Fiske, for defendants.

STORY, Circuit Justice, in summing up to the jury, said:—The main points of the defence are: (1) That the invention claimed in the letters-patent is not new. (2) That if new, the patentee had suffered his invention to be in public use and on public sale, long before his application for a patent. (3) That the terms of

the specification are too vague and indefinite, and the claim too broad to support the patent.

As to the first point, it is mainly a question of fact. It is certainly not necessary, that every ingredient, or, indeed, that any one ingredient used by the patentee in his invention, should be new or unused before for the purpose of making matches. The true question is, whether the combination of materials by the patentee is substantially new. Each of these ingredients may have been in the most extensive and common use, and some of them may have been used for matches, or combined with other materials for other purposes. But if they have never been combined together in the manner stated in the patent, but the combination is new, then, I take it, the invention of the combination is patentable. So far as the evidence goes, it does not appear to me, that any such combination was known, or in use before Phillips's invention. But this is a matter of fact, upon which the jury will judge. The combination is apparently very simple; but the simplicity of an invention, so far from being an objection to it, may constitute its great excellence and value. Indeed, to produce a great result by very simple means, before unknown or unthought of, is not unfrequently the peculiar characteristic of the very highest class of minds.

As to the second point, it is clear by our law, whatever it may be by the law of England, that the public use or sale of an invention, in order to deprive the inventor of his right to a patent, must be a public use or sale by others with his knowledge and consent, before his application therefor. If the use or sale is without such knowledge or consent, or if the use be merely experimental, to ascertain the value or utility, or success of the invention, by putting it in practice, that is not such a use, as will deprive the inventor of his title. Our law (Act 1793, c. 55, §§ 3, 6 [1 Story's Laws, 300; 1 Stat. 318, c. 11]; Act 1836, c. 357, §§ 6, 15

[5 Stat. 119, 123]; *Pennock v. Dialogue*, 2 Pet. [27 U. S.] 1; *The Nathaniel Hooper* [Case No. 10,032]) also requires, ¹¹² that the use or sale should not only be with the knowledge and consent, of the inventor, but that it should be before his application for a patent. A sale or use of it with such knowledge or consent, in the intermediate time between the application for a patent and a grant thereof, has no such effect. It furnishes no foundation to presume, that the inventor means to abandon his invention to the public; and does not, because it is not within the words of our act, create any statute disability to assert his right to a patent. It appears from the evidence in the present case, that as early as the 15th of February, 1836, Phillips procured an original specification of his invention to be drawn up, and an application was thereupon made to the proper office for a patent. It does not appear, that any use or sale was allowed to be made by Phillips of his invention until some time afterwards, namely, in March, 1836. The delay in obtaining the patent, which was not granted until October, 1836, was solely owing to certain defects in the original specification, which was returned to the inventor, and afterwards was amended and sent back to the patent office. Now, if this be the real state of the facts, (and of this the jury will judge) it seems clear, that in point of law the second objection falls to the ground; for no use or sale is shown with the knowledge and consent of the inventor, until after he had made an application for a patent.

Then as to the third point. This turns upon the supposed vagueness and ambiguity, and uncertainty of the specification and claim of the invention thereby. The specification, after adverting to the fact, that the loco-foco matches, so called, are a compound of phosphorus, chlorate of potash, sulphuret of antimony, and gum arabic or glue, proceeds to state that the compound which he (Phillips) uses, “consists simply of

phosphorus, chalk, and glue;" and he then states the mode of preparing the compound, and the proportions of the ingredients; so that as here stated, the essential difference between his own matches and those called loco-foco, consists in the omission of chlorate of potash and sulphuret of antimony, and in using in lieu thereof chalk. He then goes on to state, that "the proportions of the ingredients may be varied, and that gum arabic, or other gum, may be substituted for glue; and other absorbent earths or materials may be used instead of the carbonate of lime." He afterwards sums up his invention in the following terms. "What I claim as my invention is the using of a paste or composition to ignite by friction, consisting of phosphorus, and (an) earthy material, and a glutinous substance only, without the addition of chlorate of potash, or of any other highly combustible material, such as sulphuret of antimony, in addition to the phosphorus. I also claim the mode herein described of putting up the matches in paper, so as to secure them from accidental friction." Upon this last claim I need not say any thing, as it is not in controversy, as a part of the infringement of the patent, upon the present trial.

Now, I take it to be a clear rule of our law in favor of inventors, and to carry into effect the obvious object of the constitution and laws in granting patents, "to promote the progress of science and useful arts," to give a liberal construction to the language of all patents and specifications, (*ut res magis valeat, quam pereat,*) so as to protect, and not to destroy the rights of real inventors. If, therefore, there be any ambiguity or uncertainty in any part of the specification; yet, if taking the whole together, the court can perceive the exact nature and extent of the claim made by the inventor, it is bound to adopt that interpretation, and to give it full effect I confess, that I do not perceive any ground for real doubt in the present specification. The inventor claims as his invention the combination

of phosphorus with chalk or any other absorbent earth, or earthy material, and glue, or any other glutinous substance in making matches, using the ingredients in the proportions, substantially as set forth in the specification. Now, the question is, whether such a claim is good, or whether it is void, as being too broad and comprehensive. The argument seems to be, that the inventor has not confined his claim to the use of chalk, but has extended it to the use of any other absorbent earths or earthy materials, which is too general. So, he has not confined it to the use of glue, or even of gum arabic, but has extended it also to any other gum or glutinous substance, which is also too general. Now, it is observable, that the patent act of 1793 (chapter 55) does not limit the inventor to one single mode, or one single set of ingredients, to carry into effect his invention. He may claim as many modes, as he pleases, provided always, that the claim is limited to such as he has invented, and as are substantially new. Indeed, in one section (section 3) the act requires, in the case of a machine, that the inventor shall fully explain the principle, and the several modes, in which he has contemplated the application of that principle or character, by which it may be distinguished from other inventions. The same enactment exists in the patent act of 1836 (chapter 357, § 6). I do not know of any principle of law, which declares, that, if a man makes a new compound, wholly unknown before for a useful and valuable purpose, he is limited to the use of the same precise ingredients in making that compound; and that, if the same purpose can be accomplished by him by the substitution in part of other ingredients in the composition, he is not at liberty to extend his patent so as to embrace them also. It is true, that in such a case he runs the risk of having his patent avoided, if either of the combinations, the original, or the substituted, have been known or used before in the

like combination. But, if all the various combinations are equally new, I do not perceive how his 113 claim can be said to be too broad. It is not more broad than his invention. There is no proof in the present case, that the ingredients enumerated in this specification, whether chalk, or any other absorbent earth, or earthy substance, were ever before combined with phosphorus, and glue, or any other gum or other glutinous substance, to produce a compound for matches. The objection, so far as it here applies, is not, that these gums or earths have been before so combined with phosphorus, but that the inventor extends his claim, so as to include all such combinations. There is no pretence to say, upon the evidence, that the specification was intended to deceive the public, or that it included other earthy materials than chalk, or other glutinous substances than glue, for the very purpose of misleading the public. The party has stated frankly, what he deems the best materials—phosphorus, chalk, and glue, and the proportions and mode of combining them. But, because he says, that there may be substitutes of the same general character, which may serve the same purpose, thereby to exclude other persons from evading his patent, and depriving, him of his invention, by using one or more of the substitutes, if the patent; had been confined to the combination solely of phosphorus, chalk, and glue, I cannot hold that his claim is too broad, or that it is void. My present impression is, that the objection is not well founded. Suppose the invention had been of a machine, and the inventor had said, I use a wheel in a certain part of the machine for a certain purpose, but the same effect may be produced by a crank, or a lever, or a toggle joint, and therefore I claim those modes also; it would hardly be contended, that such a claim would avoid his patent. I do not know, that it has ever been decided, that, if the claim of an inventor for an invention

of a compound states the ingredients truly, which the inventor uses to produce the intended effect, the suggestion, that other ingredients of a kindred nature may be substituted for some part of them, has been held to avoid the patent in toto, so as to make it bad, for what is specifically stated. In the present case it is not necessary to consider that point. My opinion is, that the specification is not, in point of law, void, from its vagueness, or generality, or uncertainty.

The jury found a verdict for the plaintiff. Judgment accordingly.

{For other cases involving this patent, see note to *Byam v. Farr*, Case No. 2,264.}

¹ [Reported by Charles Sumner, Esq. *Merw. Pat. Inv.* 413, contains only a partial report.]

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