

Case No. 2,263.

BYAM et al. v. EDDY.

[2 Blatchf. 521; ¹ 24 Vt. 666.]

Circuit Court, D. Vermont.

Jan. 15, 1853.

PATENTS—FRICTION MATCHES—INFRINGEMENT—EVIDENCE.

1. Where a patent was granted for an improvement in making friction matches, the invention being only a new combination of old materials before used in making such matches, and consisting in a composition formed of phosphorus and earthy material and a glutinous substance only, without chlorate of potash, or any highly combustible material, in addition, to the phosphorus: *Held*, that it was no infringement to use any one or all of the materials forming the composition, in making matches, provided they were not used in the combination patented, or to use them for such purpose in combination with chlorate of potash, as they were formerly used.
2. But a mere colorable difference, or slight variation in the combination, will not exempt a person from the charge of infringement.
3. Where a defendant, four months before the service of an injunction on him, had executed a bond to the plaintiff, acknowledging the validity of his patent, and his right to all that was granted by it: *Held*, that the bond was no evidence of a breach of the injunction, further than the recital in it, that the defendant had infringed the patent, might have a tendency to establish; such breach; and that the inference or presumption arising from it might be overcome by credible and positive testimony, proving no infringement.

This was a suit in equity, founded on the infringement of letters patent [No. 68]. A provisional injunction having been granted against the defendant [Ezra B. Eddy], pursuant to the prayer of the bill, the plaintiffs [Ezekiel Byam and others] afterwards moved for an attachment against him for a breach of the injunction. An order to show cause against the motion was thereupon issued and served upon the defendant; and, his affidavit in answer thereto being filed, the matter came on to be heard upon affidavits and exhibits.

D. A. Smalley and Joseph A. Prentiss, for plaintiffs.

Levi Underwood and Bradford Rixford, for defendant.

Before NELSON, Circuit Justice, and PRENTISS, District Judge.

PRENTISS, District Judge. This is a motion for an attachment against the defendant, for contempt in violating the injunction granted against him on the 22d of last September, and served upon him on the next day. The injunction, which, it is proper to observe, was granted virtually without any hearing on the part of the defendant, though upon notice and appearance, refers to the bill, and, by the terms of reference, was intended to be co-extensive with the bill, and must be so understood. We must, therefore, look to the bill to see the extent of the injunction, what it forbids, and consequently what would be a disobedience of it.

The bill sets forth a patent to one Phillips, with the specification in full. The patent is stated to have been issued October 24th, 1836, for fourteen years; renewed and extended September 11th, 1850, for seven years from and after the expiration of the original term; and assigned to the plaintiffs September 17th, 1850. The patent purports to be for "a new and useful improvement in the manufacture of friction matches," and grants the exclusive right of making, using and vending to be used, "the said improvement"

The specification, after stating the invention to be "a new and useful improvement in the mode of manufacturing friction matches, for the instantaneous production of light," and to consist in "a new composition of matter for producing ignition," proceeds to say: "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." The specification then states the proportions of the ingredients, and the mode of preparing the composition, and, after saying that the proportions may be varied, and that the ingredients may also be varied by substituting gum-arabic or other gum for glue, and Spanish white or other absorbent earth or material for chalk, concludes in these words: "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 chlorate of potash, or any highly combustible material, such as sulphuret of antimony, in addition to the phosphorus."

From the specification, it is obvious that the right secured by the patent consists, as expressed in the granting part of the instrument, merely in an improvement in the then existing mode of making friction matches; not in a combination of new ingredients not before known and used for that purpose; nor in a combination of any new with old ingredients, unless the use of chalk, Spanish white or other absorbent earths may be considered new, which would be contrary to the fact, as appears from the testimony of William Weller, an old manufacturer of friction matches in Fort Ann, New York. This witness, after stating that all the materials, except the absorbent earth, were contained in the old lucifer matches, says that that substance, as well as the other materials, was contained in the loco-foco matches; and that, in 1835, he made matches formed of glue or

gum-arabic, or² chalk or Spanish white, combined with phosphorus and chlorate of potash, and, during the spring and summer of 1836, publicly made, used and sold matches composed of these materials, and has continued to use that composition from that time to the present.

The invention claimed in the specification, then, is not a compound of new ingredients never before used in making matches, but simply and only a new combination of old materials before used for that purpose. It purports to consist in a composition producing ignition and combustion by friction, formed of phosphorus with the earthy materials and the glutinous substance only, without the presence of chlorate of potash, or of any other like objectionable ingredient, thus avoiding the danger supposed to exist in the combination of substances of such a nature with phosphorus. This, as I understand the specification, is the "new composition of matter," or new combination of materials, for producing ignition, claimed and patented as an improvement; and it seems quite clear, that any person may use any one or all of the materials forming the composition, in making matches, provided he does not use them in the combination patented. Certainly, any one may lawfully use them for that purpose in combination with chlorate of potash, as they were formerly used, for that is a combination recognized as essentially different, and as being known and in use anterior to the patent.

The question, therefore, is, whether the defendant, in manufacturing and dealing in friction matches since the service of the injunction,

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junction, as it is admitted he has done, has used the plaintiff's improvement or combination of materials, or, in other words, made matches substantially according to their patent. I say, substantially according to their patent, for, a mere colorable difference or slight variation would not exempt the defendant from the charge of infringement. Such is the question in the case; for, as the injunction does not extend beyond what appears from the bill to be the right of the plaintiffs, unless there has been a violation of the right held by them under the patent set up in the bill, there can have been no disobedience of the injunction.

The plaintiffs' composition for matches, as described in their patent and charged to have been used by the defendant, is a compound, admitting of variation in the proportions of the ingredients, of one ounce of phosphorus, one ounce of glue or gum-arabic, and four ounces of chalk, Spanish white or other absorbent earth.

The composition asserted by the defendant to have been used by him, and which appears to have been publicly known and in use before the date of the plaintiffs' patent, is formed of four pounds of glue, two pounds of phosphorus, four pounds of whiting, and three-fourths of a pound of chlorate of potash; or, somewhat varying the ingredients and proportions, of four pounds of gum-arabic, two and one-half pounds of phosphorus, four pounds of whiting and one-half of a pound of chlorate of potash.

The only difference, aside from the relative proportions of the ingredients, between the composition patented and that claimed to have been used by the defendant consisting, as appears from the formula thus given of each, in one being made without and the other with chlorate of potash, the question in the case is reduced to the simple inquiry, whether the matches manufactured by the defendant contained that substance as a principal ingredient or material part, in conformity with the prescribed formula, or were made without the use of it, or with but so inconsiderable a portion of it as to be substantially according to the plaintiffs' patent.

The defendant, in his answer to the matters charged against him on this motion, after declaring that he has never violated or infringed the plaintiffs' patent, and that the bond executed by him to them was given through misapprehension on his part of the extent of their patent and of his own rights, occasioned by misrepresentation, says, that he has never at any time since he commenced business, which was last spring, made a match without the use of chlorate of potash, nor out of any composition of which that substance was not a constituent part, nor otherwise than according to what he states to be the ingredients and their proportions in the composition used by him.

Now, is the statement made by the defendant in his answer, true or untrue? What is the proof relative to the main essential fact asserted in it? Is the fact proved or disproved? In deciding this, if the proofs applicable to it are in any degree conflicting, they must be weighed, and the fact determined according as the weight or preponderance of proof may appear to be.

It appears that specimens of both kinds of matches manufactured by the defendant, there being two kinds, as inferable from the marks and labels, have been analyzed by Dr. Hayes, a professional chemist, and, for anything that is shown, a man of science and skill in his profession. In stating his analysis of one of the kinds of matches, Dr. Hayes says that he found the composition to contain, with the other materials he specifies, a very small portion of chlorate of potash or nitrate of potash. In stating another or second analysis of matches, marked as of the same kind, he mentions chlorate of potash as one of the materials of the composition, without saying any thing as to its quantity or relative proportion. In giving his analysis of the other kind of matches, he names the substances into which the composition was resolved, without any mention of chlorate of potash as one of them. But, in reference to both kinds of matches, he says that phosphorus, gum or glue, and whiting or chalk, formed the essential parts of the composition, and that the composition was essentially the same as that of the matches made under the Phillips patent.

The results of these analyses, at least as to one of the kinds of matches, do not appear to disagree with what the defendant declares to be the constituent parts or materials of the composition used by him, except as to the quantity or proportion of chlorate of potash contained in it. And, as to the other kind, the disagreement is a matter of implication or inference, rather than of positive assertion or statement. Dr. Hayes says, to be sure, as to both, that the other ingredients, phosphorus, gum or glue, and whiting or chalk, formed

the essential parts of the composition—a somewhat indefinite expression, implying, at least, that they did not form the whole of the composition. He admits that chlorate of potash, to some extent, was found in one of the kinds of matches, and he does not say that none of it was found or contained in the other. What proportion this substance bore to the others, in the two analyses in which it is admitted to have been found, is not stated, and, according to the opinion of one of the witnesses in the case, could not have been ascertained by chemical process. The point is a very material one, requiring some exactness of proof, at least as much as the nature of the subject will admit of, whether the proportion of chlorate of potash in the composition used in making the defendant's matches was really very small, so small as to be merely colorable, or to justify its being considered as used for the purpose of evasion, or whether the proportion

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was such as has always been used in that kind of composition, or as makes it a substantial part of the composition.

The bond executed by the defendant to the plaintiffs is an acknowledgment of the validity of the patent and of the plaintiffs' right to all that is granted by it. It is no evidence of a breach of the injunction, certainly any further than the recital in it, that the defendant had infringed the patent, may have a tendency to establish such breach. But the recital, in terms, only proves an infringement prior to the execution of the bond. The bond was executed in May. The pending proceeding relates to acts which have occurred since the service of the injunction, and embraces nothing further back than the 23d of September. Still, the admission of a prior infringement, unless procured by fraud or made through mistake, is entitled to its proper influence, with the other evidence in the case, in deciding upon the character of the acts directly in question. But no inference or presumption arising from it can overcome the weight of credible, positive testimony, such testimony being uncontradicted by any proof of the same nature or of equal certainty. This is especially true in a case partaking of the nature of a criminal proceeding, involving not only the imprisonment of the party, by way of punishment, but also the breaking up of his business.

Now, George E. Arnold says, that he has worked for the defendant in his shop, at Burlington, in the manufacture of friction matches, since the 15th of April last, and has made up the composition for most of the matches, and assisted in making all that has been made in the shop. He states the materials, with their proportions, used in the composition, which are the same specified in the formula we have already given. He says, that all the matches have been made according to the specifications in the formula; that no matches have been made, to his knowledge, of other or different materials; and that, if any had been otherwise made, he thinks he must have known it, as he has been constantly in the shop.

Such, then, is the substance of the proofs relative to the actual composition of the matches manufactured by the defendant—a fact upon which, as we have seen, the case

wholly rests. On the one side, the results of chemical analysis, such as have been already stated; on the other, the positive testimony of a witness, standing unimpeached, having full means of information, and swearing from actual knowledge. On which side the weight of proof is, would seem not to admit of a doubt, especially when it is remembered that one of the witnesses, who professes to have acquired much knowledge and skill in such matters, from long practice and experience, says, that he considers it impracticable to ascertain by analysis the proportions of the ingredients of a match. How this may be I am unable to say, but such is the testimony. Upon the testimony I am to judge and determine; and my judgment is, what appears to be alone warranted by the proofs as they stand, that the attachment be refused and the rule, of course, discharged.

[NOTE. For other cases involving this patent, see note to *Byam v. Farr*, Case No. 2,264.]

¹ [Reported by Samuel Blatchford, Esq., and here reprinted by permission.]

² [24 Vt. 666, gives “and.”]

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