

Case No. 5,556.

GOODYEAR ET AL. V. BERRY.

[2 Bond, 189; 3 Fish. Pat. Cas. 439.]¹

Circuit Court, S. D. Ohio.

Oct. Term, 1868.

PATENTS—EFFECT OF COMMISSIONER' DECISION—DECISIONS IN THE
CIRCUITS—CONSTRUCTION OF SPECIFICATION AND CLAIMS—CHEMICAL
COMBINATIONS—“OTHER ALLIED GUMS” INFRINGEMENT—HARD RUBBER.

1. So far as principles affecting the validity of letters patent have been settled by prior decisions in the circuits, they will be regarded as authoritative and final.
2. It is in accordance with the late decision of the courts, that the decision of the commissioner is not conclusive upon the substantial identity of the inventions claimed in the original and reissued patents.
3. It is well settled that in the effort to ascertain the intention and meaning of the specifications and claims, they are to be viewed in a liberal spirit, so that, if possible, the object of the inventor or patentee may be carried out. Mere rigid technicalities are to be set aside, unless there is a clear legal necessity for sustaining them.

[Cited in *Goodyear Dental Vulcanite Co. v. Willis*, Case No. 5,603.]

4. The words, “other allied gums,” and “other vulcanizable gums,” used in the specifications and claims of the reissues of Nelson Goodyear, are not intended to cover any gum, though then unknown, which may be capable of vulcanization. They include only caoutchouc and other gums then known to be vulcanizable.
5. In the case of patented chemical combinations, the exclusive right to the invention imports nothing but protection against the use of the same, or substantially the same elements, compounded and treated on principles substantially the same as those of the patented article.
6. Although the words, “other vulcanizable gums,” were not found in the original patent, the interpolation of them into the reissues does not make the latter void.
7. The case of *Goodyear v. Providence Rubber Co.* [Case No. 5,583] examined but not followed.
8. When the denial of infringement in the answer, under oath, is not positive and unequivocal, the testimony of a single witness, with corroborating facts, is a sufficient proof of infringement
9. When an infringement is proven, a cessation to use the infringing article is no bar to an injunction and account. The party whose rights have been invaded may claim protection against future infringements.
10. Hard rubber manufactured under the patent of Edwin L. Simpson, dated October 16, 1866, is an infringement of the” Nelson Goodyear reissues.

[Cited in *Goodyear v. Blake*, Case No. 5,560; *Hamilton v. Ives*. Id. 5,982.]

[Cited in *Burke v. Partridge*, 58 N. H. 352.]

This was a bill in equity, filed [by Henry B. Goodyear, administrator, and Samuel A. Duncan] to restrain the defendant [Archibald Berry] from infringing letters patent [No. 8,075] for an “improvement in the manufacture of India rubber,” granted to Henry B. Goodyear, administrator of Nelson Goodyear, deceased, May 6, 1851, and surrendered and reissued May 18, 1858, in two divisions, numbered 556 and 557, respectively. The

claim of the original patent was as follows: "What I do claim, etc., is the combining of India rubber and sulphur, either with or without shellac, for making a hard and inflexible substance hitherto unknown, substantially as herein set forth. And I also claim the combining of India rubber, sulphur, and magnesia or lime, or a carbonate or a sulphate of magnesia or of lime, either with or without shellac, for making a hard and inflexible substance hitherto unknown, substantially as herein set forth."

The disclaimer and claim of reissue 556 was as follows: "It is well known that it has been proposed to produce a hard substance from caoutchouc by passing it through highly-heated liquid sulphur; but this has not been attended with practical success. I do not wish to be understood, however, as making claim broadly to the union of caoutchouc and sulphur in the proportions named, however these substances may be united and treated. But what I do claim as the invention of the said Nelson Goodyear, and desire to secure by letters patent, is the combining of sulphur and India rubber or other vulcanizable gum, in proportions substantially as specified, when the same, is subjected to a high degree of heat, substantially as specified, according to the vulcanizing process of Charles Goodyear, for the purpose of producing a substance or manufacture possessing the properties or qualities substantially described; and this I claim, whether the said compound of sulphur and gum be or be not mixed with other ingredients, as set forth."

The disclaimer and claim of reissue 557 was as follows: "I do not wish to be understood as making claim broadly to a manufacture or substance produced by the admixture" of caoutchouc and sulphur; nor as making claim broadly to a manufacture or substance by subjecting the compound of caoutchouc and sulphur, whether with or without other substances, to a high degree of heat, as, prior to the invention of Nelson Goodyear, caoutchouc and sulphur had been compounded, and such compound alone, as well as other ingredients, had been subjected to a high degree of heat, but not to produce the manufacture or substance having the character peculiar to the said manufacture or substance invented by the said Nelson Goodyear.

What is claimed, etc., is the new manufacture or substance herein above described, and possessing the substantial properties herein described, and composed of India rubber, or other vulcanizable gum, and sulphur, in the proportions substantially as described, and when incorporated, subjected to a high degree of heat, as set forth, and this I claim, whether other ingredients be or be not used in the preparation of the said manufacture, as herein described.”

The defendant was a dentist in the city of Cincinnati, who had used hard rubber or “vulcanite” in the preparation of plate or plates for artificial teeth. Since the bringing of the suit he had begun to use the compound described in the letters patent for “an improvement in dental rubber,” granted to Edwin L. Simpson, October 16, 1866, the specification whereof was as follows: “Be it known that I, Edwin L. Simpson, of Bridgeport, in the county of Fairfield and state of Connecticut, have invented a new improvement in dental rubber, and I do hereby declare the following to be a full, clear, and exact description of the same: The rubber now used for dental purposes has incorporated with it large proportions of free sulphur, for the purpose of vulcanizing the rubber after it is formed. The odor and taste occasioned by the presence of this sulphur is extremely obnoxious to many persons, and occasions the principal, if not the only, objection to the use of rubber for dental purposes. To overcome this objection, and produce vulcanized rubber for dental purposes without the actual or apparent presence of sulphur, is the object of my invention, and consists in preparing the rubber for vulcanizing by the introduction of a peculiar vulcanizing compound, for which I have applied for letters patent of even date herewith; and that others skilled in the art may be enabled to prepare and use my improved rubber, I will proceed to describe my manner of so doing. I will first describe the vulcanizing compound, as set forth in the specification accompanying my application for patent, as aforesaid. I first boil linseed or other vegetable oil to the consistency of honey (this I do to facilitate the preparation), thoroughly mix two ounces of benzoin gum with one pound of pulverized sulphur; then to each quart of the boiled oil add one pound of the prepared sulphur, carefully subjecting this mixture to a moderate heat sufficient only to cause the two substances to react upon each other until they pass from a semi-fluid to a semi-hard state, having a honeycomb or spongy appearance. This forms my vulcanizing compound, and differs from that patented to me February 28, 1865, in that the benzoin gum is added, which, by its vaporizing qualities, more perfectly expels the fumes of the sulphur, as well as the odor from the oil, and renders the compound nearly, if not perfectly, odorless, and when combined with the India rubber, or similar gums, and subjected to a regulated heat will cause the same to undergo the change known as vulcanizing. To produce my rubber for dental purposes, to one pound of India rubber or gutta percha, add ten to fourteen ounces of my above described compound; the greater the quantity of the compound the harder will be the rubber. After curing, twelve ounces I believe to be the proper quanti-

ty for general purposes. Thoroughly mix the compound and rubber by grinding between warm rolls. To produce the requisite color, I add chrome red, or lake pink, in quantities to produce the requisite color, and when thoroughly mixed the substance will be in a plastic state, and in this state rolled into thin sheets and ready for the dentist's use. The dentist forms the plate in the ordinary manner for other rubber, and when so formed, it should be subjected to a heat of 320 degrees Fahrenheit for about four hours—proportionately less time as the degree of heat is greater; otherwise treat as ordinary rubber; and the plate thus prepared will be as tasteless and odorless as metal plate, and will not tarnish the fillings or other gold in the mouth of the wearer. Having, therefore, thus fully described my invention, what I claim as new and useful, and desire to secure by letters patent, is: Combining the within described vulcanizing compound with the India rubber in the proportions herein named, and substantially in the manner and for the purposes specified. Edwip. L. Simpson.”

A. Pollok, T. D. Lincoln, and J. H. B. Latrobe, for complainants.

S. S. Fisher, for defendant.

OPINION OF THE COURT. The bill alleges an infringement, by the defendant of two reissued patents to Henry B. Goodyear, as administrator of Nelson Goodyear, dated May 18, 1858, for an improvement in making hard rubber or vulcanite. These reissued patents were extended for seven years from May 6, 1865. The infringement charged consists in the use of hard rubber by the defendant, as plates for the insertion of artificial teeth. The bill prays for an injunction and an account of profits. The history of the invention covered by complainant's patent is briefly this: In June, 1844, Charles Goodyear applied for and obtained a patent for an improvement in the process of preparing India rubber, or caoutchouc. In December, 1849, this patent was surrendered and a reissue granted on an amended specification. And, subsequently, another reissue was obtained. These patents embrace substantially the mode of producing a soft and plastic article known as vulcanized rubber, by subjecting the rubber, in combination with sulphur and other ingredients, to a high degree of artificial heat. The article produced by this process was called vulcanized India rubber, and was used for the various purposes contemplated by the inventor. In

May, 1851, Nelson Goodyear obtained a patent for a new and useful improvement in the preparation of India rubber, by which the article known as hard rubber, now extensively applied to many useful purposes, was produced. The patentee having died, the reissued patents numbered 556 and 557 (one for the process and the other for the product) were granted to the said Henry B. Goodyear, as administrator of Nelson Goodyear, dated May 18, 1858, and subsequently extended for seven years.

Numerous grounds of defense are set up in the defendant's answer, but those relied on in the argument are as follows: 1. That the reissued patents to Henry B. Goodyear are void, as not being for the same invention as the original. 2. That the reissues were improperly granted. 3. That the fact that the dentists in this vicinity openly and notoriously purchased and used the soft rubber for making hard rubber plates for artificial teeth, is a bar to a suit in equity; and that if the complainants have a remedy, it is at law. 4. That no infringement is proved. Before noticing specially these several grounds of defense, it will be proper to remark that the reissued patents, on which this suit is brought, have heretofore been the subjects of litigation, and have been judicially passed upon. And in so far as principles involving the validity of these patents have been settled by these decisions, they will be regarded as final and authoritative on this court. It appears that in the spring of 1861, a suit in equity was brought in the circuit court of the United States for the Southern district of New York, by *Goodyear v. New York Gutta Percha & India Rubber Vulcanite Co.* [Case No. 5,550], charging an infringement of both the reissued patents of H. B. Goodyear, and praying for an injunction and account. The bill was similar in its frame and averments to that filed in the case before this court. The defendants, in their answer, denied the validity of the reissues, alleging they were obtained by fraud, and insisting that Nelson B. Goodyear was not the first and original inventor of vulcanite, or the process of making it. The case was elaborately argued before the New York court, at October term, 1862; and the court, Judge Nelson presiding, after mature consideration, sustained the validity of the reissues, and awarded a perpetual injunction. In January, 1867, another bill was filed in the same court, in the name of *Goodyear v. Waite* [Id. 5,587], alleging an infringement of these reissued patents, and praying for an injunction. The answer of the defendants, in that case as in this, denied the validity of the reissues on the grounds of vagueness and insufficiency of the specification; that the reissues were for an invention different from and broader than that claimed in the original patent; and, also, that they were void as being for a process and a product in separate patents for the same invention. The infringement charged was also denied by the answer, and it was also alleged, as a ground of defense, that the complainants, by their long acquiescence in the use of hard rubber by dentists for dental purposes, had abandoned their right to the exclusive use of the article for such purposes, and had dedicated it to the dental profession. This case was strenuously contested. A large mass of testimony was taken by the parties, and it

was elaborately argued by distinguished counsel, and finally decided by the learned Judge Nelson, in August last This decision was made subsequently to the hearing of the motion for a preliminary injunction in the case now pending. The learned judge just named, after taking the case under advisement, decided all the points in controversy in favor of the complainants, granting a perpetual injunction, and a decree against the defendants for profits.

The opinion of Mr. Justice Nelson, in the case just referred to, is before the court, and has been carefully noticed. He decides, in substance, the following points: 1. That the description of the invention of Nelson Goodyear, as contained in the two reissued patents, is sufficiently full, clear, and exact to meet the requirements of the statute. 2. That the invention of Nelson Goodyear, consisting of a process for the production of the article known as hard rubber, was original with him, and properly the subject of a valid patent, both for the process and the product; and that Henry B. Goodyear, as the administrator of Nelson Goodyear, had a right to surrender the original patent for an insufficient description in the specification, and to receive the two reissued patents granted to him. 3. That the evidence did not make out a dedication of the right accruing under such issued patents to the dental profession or the public; and that the use of the hard rubber for dental purposes, by unlicensed persons, might be restrained by the process of injunction, and redress obtained in equity. The issue of infringement does not appear to have been insisted on by the defendants in the New York case, and there is, therefore, no special finding of the court upon it Indeed, it was not denied by counsel in their argument, and from the fact that a decree was entered for the complainants, the irresistible inference is, that the infringement was made out to the satisfaction of the court.

I have carefully noticed the views and conclusions of Judge Nelson on the points adverted to, and have no hesitancy in adopting the in as the views and conclusions of this court, so far as they apply to the questions and issues now before it To restate at length the grounds on which the learned judge placed his decision would be a useless expenditure of time and labor. They are lucidly set forth in his opinion, and I see no necessity for reproducing them. I shall, therefore, confine myself to the points made in the able argument of the defendant's counsel, not

discussed or settled by Judge Nelson. The first of these points is, that the reissues are void, as being for an invention broader than that claimed in the original patent, and which can not by fair construction be included in it. This presents a question of great interest to the parties, and, perhaps, not wholly free from difficulty in its solution. I will state the conclusion to which I have been led after careful and anxious consideration. Nelson Goodyear, in the specification on which his original patent was based, professes to have invented a new and useful improvement in the preparation and manufacture of caoutchouc, or India rubber. He refers to the patent of Charles Goodyear for the preparation of the plastic compound, and claims to have discovered a new process, by which hard rubber, before unknown, is produced. He describes minutely the ingredients from which and the process by which the article is produced, disclaiming the invention of the heating or curing process claimed and covered by the patent of Charles Goodyear, and he sums up his invention or claim as follows: "What I do claim as my invention, and desire to secure by letters patent, is the combining of India rubber and sulphur, either with or without gum-shellac, for making a hard and inflexible substance, hitherto unknown, substantially as herein set forth. And I also claim the combining India rubber, sulphur, magnesia, or lime, or" a carbonate or sulphate of magnesia or lime, and either with or without shellac, for making a hard substance, hitherto unknown, substantially as herein set forth."

For the purposes of the opinion under consideration, it will not be necessary to refer specially to the description of the process, claimed in the reissue No. 556, or of the product, as claimed in reissue No. 557. The claim of the first-named patent is as follows: "What I do claim as the invention of the said Nelson Goodyear, and desire to secure by letters patent, is the combining of the sulphur and the India rubber, or other vulcanizable gum, in proportions substantially as specified, according to the vulcanizing process of Charles Goodyear, for the purpose of producing a substance or manufacture possessing the properties or qualities substantially such as described; and this I claim, whether the said compound of sulphur and gum be or be not mixed with other ingredients, as set forth." The claim of the patent, No. 557, is in the following words: "What is claimed as the invention of the said Nelson Goodyear, deceased, and desired to be secured by letters patent, is the new manufacture or substance herein above described, and possessing the substantial properties herein described, and composed of India rubber, or other vulcanizable gum and sulphur, in the proportions substantially such as described, and when incorporated, subjected to a high degree of heat, as set forth; and this I claim, whether the other ingredients be or be not used in the preparation of said manufacture, as herein described." In both these claims the words "other vulcanizable gums" occur, which are not found in the original patent to Nelson Goodyear. In the body of the specifications of each of the reissues, the words "allied gums" follow after the words "India rubber." The

answer of the defendant sets up these variances between the original patent and the reissues, and insists that the reissues are for a different invention from that covered by the original patent and therefore void. And this view is strenuously urged in the argument of the counsel for the defendant. It may be proper to remark, on this point, that the commissioner of patents has passed upon this question, and by the grant of the reissued patents has given his official sanction to their validity. It is, in effect, his deliberate judgment that the claims of the reissues are not broader than those of the original, and cover substantially the same invention. It is in accordance with the later decisions of the courts, that the decision of the commissioner is not conclusive upon the substantial identity of the invention claimed in the original and that claimed in a reissue. Yet, for reasons not necessary to be stated, his action may well be regarded as affording a presumption in favor of the validity of the reissue. This presumption, of course, is overcome by evidence of fraud in obtaining the reissue, or a clear repugnancy between the original and the reissued patents.

Another remark seems proper in this connection. In the case of *Goodyear v. Waite*, before referred to, as having been heard before Judge Nelson, and decided by him, although this point as understood by this court, was distinctly made in the defendant's answer as an objection to the reissued patents, it was not urged in the argument by his counsel, and was not noticed in the opinion of the judge. The plain reference from this is, that the counsel did not regard it as a sustainable defense, and that such also was the view of the learned judge who decided it. The argument of counsel on this point is, that the words "other allied gums," used in the specification, and the words "other vulcanizable gums," in the claims of the reissues, are mere interpolations, and import a claim, not only broader than the original, but which, if they had been inserted in the original, would have invalidated the patent. It is insisted that in the reissues the patentee claims the application of his process to other vulcanizable or allied gums which had not been known, and of which he could, therefore, have no knowledge; and in doing so describes an invention broader than, and differing from, the original. The doctrine is a familiar one, and well settled, that the invention described and claimed in a reissue must be the same as originally patented. And if, by a fair construction, the specification and claim are for something substantially different from those of the original, the patent is void. Do these reissues fall within the scope of this

principle? This is a question of construction, in the consideration of which the entire specifications, including the claims, are to be looked at. And it is well settled by the courts that in the effort to ascertain the intention and meaning of the specifications and claims, they are to be viewed in a liberal spirit, that, if possible, the object of the inventor or patentee may be carried out. Mere rigid technicalities are to be set aside, unless there is a clear legal necessity for sustaining them. Now, in reference to these reissues, there is no pretense that there is any substantial variance from the original, as to the process by which hard rubber is produced, or the character or quality of the article when made. The proportions of rubber and sulphur, and other ingredients, where named, are the same, and the degree of heat is the same. In that which is the very gist of the invention there is no discrepancy. That consists in the discovery of the fact that the substances named, when compounded as required, and subjected to a certain heat, will produce hard rubber. And now the inquiry is pertinent, whether the suggestion in the claims of the reissues, that other allied gums or other vulcanizable gums may be used to produce the result, can be claimed as changing the character of the invention, or make it broader than in the original. Counsel insist that these words enlarge the claim, so as to cover any gum, though then unknown, which may be susceptible of vulcanization. And it may be, if this were the true construction of the claim, the reissue would be liable to the objection urged. But, clearly, the words referred to are to be taken in a more limited sense. They can be held only to include caoutchouc and other gums then known to be vulcanizable. There would seem to be no impropriety in referring to such; for, under the generic term "caoutchouc," it is well known there are different qualities of gum, though all are susceptible of vulcanization. The trees producing it are indigenous in various countries; and owing to peculiarities of soil and climate, the products of the trees differ in quality. The gums, too, are known in commerce by different names, and are of different degrees of purity and excellence, though all are produced by trees belonging to the same family. The gum called "guttapercha" has a peculiarity not applicable to any other of these gums. In its natural state it is mixed with woody fibers, and requires a certain preparatory process before it is fitted for vulcanization, or can be applied to any of the uses to which India rubber is suited. Now, by a fair and rational interpretation, are not the words used in the claims of the reissues to be limited to these known varieties of the caoutchouc, and not unnecessarily to be extended to all gums thereafter to be discovered? It is a fair presumption that these different qualities of vulcanizable gums were in the mind of the person who framed these specifications, and that there was no intention to anticipate and claim the benefit of future discoveries in that direction. The words used were not, perhaps, necessary to the protection of the rights of the inventor; but in the absence of any proof that they were used for any deceptive purpose, and out of abundant caution, it can hardly be received as such an enlargement of his claim as, in effect, should invalidate his patent. In a word, I cannot

view the addition of the words quoted as embracing, within their fair scope, a claim for a different invention from that described in the original patent.

The principle is conceded that a patent for a mechanical structure or contrivance, producing a new and useful result, is no protection against the use of an invention producing the same result by appliances and on principles substantially different from the patented invention. The rights of the patentee or proprietor of the patent are only invaded by a result like that of his invention, effected by what are substantially the same means. And so in the case of patented chemical combinations; the exclusive right to the invention imports nothing but protection against the use of the same, or substantially the same elements-compounded and treated on principles substantially the same as those of the patented article. In brief, a patent right does not cover every possible mode of accomplishing the result proposed by an inventor. And this, as I understand them, is the extent of the decisions of the supreme court, cited by the learned counsel for the defendant. The soundness of the doctrine established by that court is not doubted, but its application to the present case is not so obvious. If the claims of a reissued patent clearly imply an expansion of the invention beyond the claims of the original patent, there is always ground for a presumption that there was a fraudulent intent to anticipate and cover subsequent inventions, and thus bar the door against patents for all subsequent discoveries. This is clearly against the policy of our patent-right system, and has been wisely condemned by the uniform decisions of the courts of the United States. This is the import of the decision of the supreme court of the United States in *Burr v. Duryea*, 1 Wall. [68 U. S.] 534, and other cases cited by the defendant's counsel. But I can not see that the claims of these reissues are of the character which will bring them within the scope of these cases.

I have examined attentively the ruling of the court in the case of *Goodyear v. Providence Rubber Co.* [Case No. 5,583], claimed by counsel to be decisive authority against the validity of these reissues. The case was before Mr. Justice Clifford, holding the circuit court of the United States for the district of Rhode Island, in 1864. The suit was for an infringement of the reissued patents to Charles Goodyear for his process of making soft or plastic rubber by vulcanization. The Claim of the original patent and the first reissue was for the process of treating and curing caoutchouc or India rubber; but, in the reissue of 1860, the words, "or other vulcanizable gums,"

were added. And this addition was claimed to be an enlargement of the invention, rendering the reissue void. The question was, therefore, substantially the same as in the pending case. The learned judge before named construed the claim of the reissued patent to Charles Goodyear as including "all other vulcanizable gums," whether then known or thereafter to be discovered, capable of vulcanization. Viewing the claims in this light, he held that the reissue was for an invention different from that covered by the previous patents and therefore void. If this construction of the reissue was right, probably the conclusion of the learned judge was correct. But, for reasons already stated, I am unable to give the added words in the claims of the reissued patents the extended meaning of which he held them to be susceptible, and can not therefore, concur with him in his conclusion. It is certainly with some distrust of my own judgment that I differ from that learned judge; but my convictions are so strong on the question that I do not feel at liberty to yield them, even to his superior learning. If wrong in this, I shall be gratified to have my error corrected by an appeal to a higher court.

On the question of infringement there seems to be nothing in the case calling for a minute and extended investigation. In the cases referred to in a previous part of this opinion, establishing the validity of these reissued patents, the infringement alleged does not seem to have been controverted, and the decrees entered clearly imply that the fact of infringement was made out. In Waite's Case the infringement charged was the manufacture and use of hard rubber by dentists as the foundation for artificial teeth. The allegations in the bill were substantially, if not literally, identical with those in this bill, and the answer was the same. And the court in that case decreed a perpetual injunction. But the counsel for the defendant in this case takes issue on the question of infringement, insisting that the fact is not technically made out by the evidence. He claims that the defendant denies in his answer, under oath, that he has infringed, and that the complainant has proved the fact only by one witness; and, therefore, the court can not find the fact of infringement. Now, the first remark on this point is, that the defendant's answer does not contain an explicit denial of the infringement. It is evasive in its character. He admits, substantially, the use of hard rubber, made by the process of baking the soft or plastic rubber, for dental purposes, but denies the process is that described and claimed in the reissued patents. But he adduces no proof that the hard rubber has been or can be made by any means or process variant from that covered by the reissues. And, in the absence of such proof, there is at least a fair presumption that the hard rubber used was the article as claimed and described in the reissues. And it may also be remarked, that a denial of the infringement is wholly inconsistent with the theory of the defense set up in the answer, and mainly relied on by counsel. That defense is not that the defendant has not used the hard rubber for dental purposes, but that he had a right to use it by the implied dedication of such

right to the dental profession. This ground of defense is, by a clear implication, an admission of the infringement.

But there is the positive testimony of one witness that the defendant, Berry, and all the other defendants against whom suits are pending in this court, distinctly admitted the preparation and the use of the hard rubber for dental purposes. As the denial of the infringement in the answer of the defendant is not positive, and the testimony of the witness referred to is strongly corroborated by other facts and considerations bearing on the question of infringement the fact is made out to the satisfaction of the court. Upon that issue there is hardly room for a doubt. There is every reason to conclude that hard rubber for dental purposes has been in general use by the profession. It is in evidence that fully three-fifths of the dentists in the United States are licensed under the Goodyear patent; and this fact evinces not only the appreciation of the profession of the article, but its very general use. Those refusing to take licenses evidently intend to place their defense, not on the ground that they did not use the article, but on the ground of the invalidity of the patent and the dedication of its use to the dental profession. But it is insisted in the argument of the defendant's counsel, though not set up in the answer as a defense, that the defendant now uses in his profession a hard rubber or compound, made under a patent to Edwin L. Simpson, granted October 16, 1866. It is claimed that the process and the product under this patent are essentially different from the claims of the Nelson Goodyear patent, and therefore not an infringement of that patent. This defense, it is obvious, applies only to the issue of infringement. But it is not perceived, if sustained by the testimony, that it is an answer to the claim of the complainants as made in their bill. If the defendant has infringed by the use of the Goodyear hard rubber, he is liable to account for such infringement, though he may have discontinued the use of the article charged as an infringement of the Goodyear reissues. If an infringement of the complainants' rights under these reissues is made out, the cessation to use the infringing article is no bar to an injunction and a decree for an account. I understand the law to be well settled, that, under the circumstances stated, the party whose rights have been invaded may claim protection against future infringements, and is not obliged to rest on the fact that the party has ceased

his acts of infringement. But, as the Simpson patent is before the court, and evidence has been offered, without objection, upon the question of the identity of the process and product under it with that of the Goodyear patent, and the point has been discussed by counsel, it may be expected the court will pass upon that issue. In noticing this point, I shall try to be very brief. And the first obvious remark in reference to the Simpson patent is, that it does not claim a new process for the vulcanization of India rubber, or that the product is essentially different from that made under the Goodyear patent. In this specification he says: "The rubber now used for dental purposes has incorporated in it large proportions of free sulphur for the purpose of vulcanizing the rubber after it is formed." And again: "The odor and taste occasioned by the presence of this sulphur is extremely obnoxious to many persons, and occasions the principal, if not the only, objection to the use of rubber for dental purposes. To overcome this objection, and produce vulcanized rubber for dental purposes, without the actual or apparent presence of sulphur, is the object of my invention, and consists in preparing the rubber for vulcanizing by the introduction of a peculiar vulcanizing compound." It is here clearly stated that the object of the patentee was to rid the compound used for dental purposes of the unpleasant taste or odor of the sulphur. He then describes the mode by which he proposes to effect this object, as follows: "I first boil linseed or other vegetable oil to the consistency of honey (this I do to facilitate the preparation); thoroughly mix two ounces of benzoin gum with one pound of pulverized sulphur; then to each quart of the boiled oil add one pound of the prepared sulphur, carefully subjecting this mixture to a moderate heat, sufficient only to cause the two substances to react upon each other, until they pass from a semi-fluid to a semi-hard state, having a honeycomb or spongy appearance." He adds, that benzoin gum, "by its vaporizing qualities, more perfectly expels the fumes of the sulphur, as well as the odor from the oil, and renders the compound nearly, if not perfectly, odorless, and when combined with India rubber or similar gum, and subjected to a regulated heat, will cause the same to undergo the change known as vulcanization." In producing rubber for dental purposes, he requires to one pound of India rubber from ten to fourteen ounces of the vulcanizing compound. These are to be thoroughly mixed by being ground between warm rollers, and coloring matter put in if desired. This mixture is plastic, and being rolled into thin sheets, is prepared for use by the dentists. The form of the gums and roof of the mouth being taken in this plastic material in the ordinary mode, it is vulcanized by subjecting it to a heat of 320 degrees of Fahrenheit for about four hours; or, if the heat is above 320 degrees, for a less time. The patentee claims "that the plate thus prepared will be as tasteless and odorless as a metal plate," etc.

The claim of the patent is: "Combining the within described vulcanizing compound with India rubber, in the proportion herein named, and substantially in the manner and for the purposes herein specified." The claim of the Nelson Goodyear patent, and the

reissues under it, have been stated, and need not here be reproduced. Now, Simpson, in his specification and claim, does not pretend that by his process he does not produce the article known as hard rubber, or that it is made without the use of sulphur, as required by the Goodyear patent. The claim is, in substance, an improvement upon the known process for its production by the introduction of gum benzoin, to deprive the hard rubber of its sulphurous taste and odor, and thus render it more acceptable for dental purposes. The process of vulcanization is substantially the same as that described in the Goodyear patent, and the product the same, with the exception that it is tasteless and odorless. As to the identity of the processes under the Goodyear and Simpson patents, the complainant has offered the testimony of four learned chemical experts, who have severally tested the elements of the products of both patents by a rigid analysis. These experiments have been conducted with a view to ascertain the precise ingredients and their proportions in the compound described in the Simpson patent. Without stopping to state the details of these analyses, as set forth in the testimony of these experts, it is sufficient to say that they harmonize more nearly than could be expected in the results attained. They find that the compound described by Simpson, when vulcanized, contains about four ounces of sulphur to sixteen ounces of rubber. Thus it is made clear that the article produced under the Simpson claim is vulcanized by essentially the same process, and has very near the same proportions of sulphur and rubber as claimed in the Goodyear patent. These are the vulcanizing agents named in that patent, when subject to the action of heat. The same ingredients and the same processes are claimed by the Simpson patent, and the product of the two is essentially the same.

I can have no hesitation, therefore, in holding that the use, for dental purposes, of hard rubber plates made under the Simpson patent, is an infringement of the Nelson Goodyear patent; and in no aspect of the case is the defendant relieved from liability as an infringer by asserting the use of the product under the Simpson patent. While it is probably true that Simpson has made a valuable discovery in introducing into his compound an ingredient which, by its vaporizing properties, prevents the unpleasant taste and odor of the vulcanized rubber, when used as plates for artificial teeth, and for this invention may have been well entitled to a

patent, he or his licensees are not protected in the use of the process and the product as claimed by and patented to Nelson Goodyear. I may remark, in closing, that I am fully sustained in this conclusion by the opinion of Judge Blatchford, district judge of the United States for the Southern district of New York, in the case of *Goodyear v. Evans* [Case No. 5,571], recently before him, on an application for an injunction to restrain the defendant from the use of hard rubber made under Simpson's patent, as an infringement of the Goodyear patent. In a printed opinion of the learned judge, now before me, the question is ably discussed, and the conclusion attained that it was a proper case for an injunction, which was accordingly awarded. After noticing the claims of the two patents, and reviewing the testimony as to the infringement, the learned judge says: "Nothing more is needed to establish clearly that the use of the Simpson vulcanized product is an infringement of reissue No. 557, and that the manufacture of it by the Simpson process is an infringement of reissue No. 556." Concurring, as I do, in this conclusion, a decree for the complainants will be entered.

{For other cases involving this patent, see note to *Goodyear v. Mullee*, Case No. 5,577.}

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