13FED.CAS.--65

Case No. 7,495.

JONES ET AL. V. SEWALL.

[6 Fish. Pat. Cas. 343; 3 Cliff. 563; 3 O. G. 630; Merw. Pat. Inv. 153.]¹

Circuit Court, D. Maine.

May 17, $1873.^{2}$

PATENTS FOR INVENTIONS—PRESERVATION OF GREEN CORN—PROPERTY RIGHTS OF INVENTOR—ABANDONMENT—EVIDENCE—LICENSE.

1. Inventions are the property of the inventor, even before they are secured to him by letters patent, and continue to be such, without the protection of a patent, until he abandons the same to the public, unless he suffers the patented product to be in public use or on sale, with his consent and allowance, for more than two years before he files his application for a patent.

[Cited in Butler v. Ball, 28 Fed. 755; Rein v. Clayton, 37 Fed. 355.]

- 2. Novelty and utility are both required to constitute a patentable invention, but where both of these qualities are combined, it is settled law that the right to a patent does not depend upon the quantity of thought, ingenuity, skill, labor, or experiment, or the amount of money which the inventor may have bestowed upon his production.
- 3. The patent for improvement in preserving Indian corn in the green state, granted Isaac Winslow, April 8, 1862, is for the product of the invention.
- 4. The patent issued to Isaac Winslow, May 13, 1862, is for the process of manufacturing the product patented in the previous patent.
- 5. The claim of the first patent does not extend to the process, and the patent office committed no error in granting the second.
- 6. Improvements consisting of separate and distinct parts may, in certain cases, be secured by separate and distinct patents, but no more than one patent can legally be granted for the same invention.
- 7. The commissioner does not possess the power to grant a second patent for the same invention in any case nor under any circumstances, without the surrender of the first one granted to the patentee.
- 8. The patents granted to Isaac Winslow, May 20, 1862, and August 26, 1862, are void as being for the same invention described and claimed in his patent dated May 13, 1862.
- 9. The irregular issuing of a second patent for the same invention can not impair the rights of the patentee under the first patent, if valid at the time it was granted.
- 10. The description in the specifications of Winslow's first two patents constitutes a full compliance with the acts of congress in that behalf.
- 11. The purpose of Winslow's invention, as evidenced by the language of the description, is to preserve, not only the farinaceous elements of the kernels, but also the milk and juices of the same, which give the peculiar aroma or flavor to green corn, when cooked for the table in the usual way, during the season, when the kernel is full grown, or nearly so, but before the milk and juice becomes concrete, as in ripe corn.
- 12. The patented process, if the directions are properly followed, will accomplish the purpose for which it was invented.
- 13. When the patentee proposes to show that his invention is of a date prior to the time of filing his original application, he takes upon himself the burden of proof, and to maintain that theory, as

against another patented improvement of the same construction and mode of operation, he must prove not only that he made his invention at the period claimed, but that he reduced the same to practice as an operative machine.

- 14. The mere previous knowledge or use of the thing patented, in a foreign country, will not defeat a patent issued here to an original inventor, unless it appears that the same invention had been patented in such foreign country, or had been described in some public work anterior to the supposed discovery thereof by the patentee.
- 15. It is well-settled law that patented inventions can not be superseded by the mere introduction in evidence of a foreign publication, though of prior date, unless the description or drawings contain or exhibit a substantial representation of the patented improvement, in such full, clear, and exact terms as to enable any person skilled in the art or science to which the improvement appertains to make, construct, and practice the invention to the same practical extent as he would be enabled to do if the information was acquired from a prior patent.
- 16. The process shown in the English patent of Peter Durand is substantially different from that of complainant's patent, and produces a much inferior product. It can not be held to supersede complainant's patents.

[See note at end of case.]

- 17. There is abundant evidence that Winslow was the original and first inventor of the improvements claimed in his patents.
- 18. Nothing short of proof that the invention was on sale or in public use, with the consent and allowance of the inventor, for a period exceeding two years before his application, will support a defense under the clause of the statute relating to use and sale before application.

[Cited in Andrews v. Hovey, 124 U. S. 710, 8 Sup. Ct. 681.]

- 19. Uses or sales, without the consent and allowance of the inventor, are plain violations of his rights, and afford no justification to a subsequent wrong-doer.
- 20. If the sale or use is without the consent or allowance of the inventor, or if the use is merely experimental, to ascertain the value, utility, or success of the invention, by putting it in practice, that is not such a sale or use as will deprive the inventor of his title.
- 21. Such acts of the inventor are to be liberally construed as acts of an experimental character, nor is the inventor to be estopped by allowing

a few persons to use his invention, to ascertain its utility, or by any such acts of use or indulgence to others to use the same, as are not inconsistent with the clear intention to hold the exclusive privilege, and to secure the same by letters patent.

- 22. Where the party has subsequently taken out a patent, the court is not authorized to give effect to the defense of abandonment, except in a case where the proof is clear and cogent.
- 23. There is no evidence in the record to show that either of Winslow's inventions were in public use or on sale more than two years before he applied for a patent, or for any shorter time, with his consent and allowance.
- 24. Public use of the invention, unless by the patentee himself, for profit, or by his consent and allowance, will not work a forfeiture of his title, as such forfeiture is not favored, unless it clearly appear that the use was solely for profit, and not for the purpose of further improvement or experiment.

[Cited in Jennings v. Pierce, Case No. 7,283; Emery v. Cavanagh, 17 Fed. 243.]

- 25. The two defenses, that the patentee suffered the invention to be in public use and on sale more than two years before he applied for a patent, and that he abandoned the invention to the public before applying for a patent, may be set up in the same answer, but ought not to be blended in the same allegation, as they depend, in many respects, upon very different principles.
- 26. It is settled law, that mere forbearance to apply for a patent during the progress of experiment, and until the inventor has tested his invention by actual practice, affords no just grounds for any presumption of abandonment.

[Cited in Locomotive Engine Safety Truck Co. v. Pennsylvania R. Co., Case No. 8,453.]

27. Where the patentee discovered the process of preserving green corn, in 1842, continued to experiment upon it until 1853, then applied for a patent, which was refused the same year, and did nothing further toward procuring a patent until 1862, when he filed a second application, which was granted: *Held*, that the patentee had not abandoned the invention so as to invalidate the patent.

[Cited in Goodyear Dental Vulcanite Co. v. Smith, Case No. 5,598; Same v. Willis, Id. 5,603.]

- 28. Abandonment or dedication of an invention to the public, being in the nature of a forfeiture of a right, is not favored in law.
- 29. Delays in the patent office, which the inventor can not prevent, will not impair his title to his invention, nor can any use of the invention during such delays, if without his consent and allowance, afford any evidence to support the issue of abandonment.
- [Cited in Henry v. Francestown Soap-Stone Co., Case No. 6,382.]
- 30. No one but the inventor is competent to abandon his invention to the public. His acts and declarations, if explicit, are sufficient for the purpose, or he may accomplish the same by continued acquiescence in the acts of others, of which it appears that he had knowledge; but the proof of knowledge and acquiescence must be beyond all reasonable doubt, as every presumption is the other way.

[Cited in Andrews v. Carman, Case No. 371: Anderson v. Eiler, 46 Fed. 780.]

- 31. A dedication to the public can not be proved by evidence, which shows only experimental practice by the inventor or his employes, whether in public or private.
- 32. It will not be sufficient to prove such a defense, unless it appear that the use was somewhat extensive and for the purpose of gain, evincing an intent on the part of the inventor to secure the exclusive benefits of his invention, without applying for the protection of letters patent.

33. The inventor is not to be estopped by licensing a few persons to use his invention to ascertain its utility, or by such acts of peculiar indulgence and use as may fairly consist with the clear intention to hold the exclusive privilege.

³ [Bill in equity to restrain the defendant from preserving green corn according to the specifications of letters-patent numbered 34,928, 35,274, 35,346, 36,326. While the cause was pending the defendant died and his administrator, Rufus K. Sewall, appeared in the place of the original defendant, all other necessary facts appear in the opinion.

[William Henry Clifford, for complainants.

[R. K. Sewall, A. A. Strout, and Bradbury & Bradbury, for respondents.

[The patent of 1862 as issued, is, for a new article of manufacture, prepared by the process therein described, and notwithstanding Isaac Winslow, in his affirmation made February 18, 1862, says that the original papers are lost, and that specification filed by him of that date is substantially the same as the one filed in 1853, yet the examination of the application of 1853 and the subsequent correspondence shows beyond doubt that this statement was erroneous, so far as the manufactured article was concerned, and that if Isaac Winslow was really the first inventor of "Indian corn preserved green" (which we deny), that twenty years had elapsed before he made application to protect his invention, which in the mean time had become public property, using that term in its widest significance. The patent of April 8, 1862, p. 5, contains a description, not only of the new manufacture sought to be protected, but also of the method or process used in producing it. An analysis of this invention, as claimed and described in the patent and specification forming a part of it, shows its elements to be: Green Indian corn in its natural state and in the ear. This was not new. Removing the kernel from the cob by a curved and gauged knife or other suitable means. Packing these kernels of uncooked corn in cans hermetically sealed, and exposing these cans to steam or boiling heat for about one hour and a half longer. Puncturing the cans and immediately resealing the same while hot. Exposing the cans to the same heat, for about two hours and a half. The new and useful manufacture, then, was green Indian corn cooked in hermetically sealed cans which were punctured and resealed during the process of cooking. This patent was issued April 8, 1862, and had seventeen years to run. Now, it will be perceived that the patent of April 8, 1862, is for a new article of manufacture only, and does not include

the process. It is true, that in the specification, Winslow recommends a "method," but he does not claim it as a part of his invention. That he did not intend to claim the process is apparent from the fact that the language of the patent does not cover it, and that Winslow proceeded to take out, at a subsequent date, three other patents covering the process and distinct parts of the process. If it is said that the process is covered by the patent of April 8, 1862, then there was an attempt on the part of Jones, as the assignee of Winslow, to extend the life of his invention, described in the patent of April 8, 1862, by taking out letters-patent for the same process at subsequent dates, each having seventeen years to run. Now, neither of the patents embracing the process or component parts of the process, and issued subsequent to April 8, 1862, contain any reference or are in any way connected with the application made and rejected in 1853, and, inasmuch as the application of 1853 contained no allusion to Winslow's claim to obtain a patent for a new manufacture, it follows that in this hearing all the patents are to be considered as issued upon an application first made in 1862, and the application of 1853 is not of the slightest consequence, and is to be disregarded so far as the claims made by complainant in regard to it are concerned.

[As to the patent for a new manufacture. Examining carefully the claim of the complainant in this particular, and considering the state of the art at the time, we respectfully submit that there is such a palpable want of invention in the plaintiff's claim, that even if he had been the first inventor he would not have been entitled to a patent Winslow's alleged new manufacture affords no scope for a patent, because it is destitute of ingenuity, skill, or invention. Blandy v. Griffith [Case No. 1,529]. Judge Lowell, in his opinion in the case of Jones v. Hodges [Id. 7,469], involving the very patents upon which the bill is brought, says: The ground on which I feel bound to refuse the injunction at this time is, that I entertain strong doubts whether, in view of what had been done before, there was any scope for a patent to Winslow. The English patent of Durand, enrolled in 1810. No. 3370, is for a method of preserving animal food, vegetable food, and other perishable articles, and describes the Winslow process exactly, excepting the 'venting,' as it is called. Durand is very full in his directions for putting the articles into bottles or other vessels, sealing the vessels, putting them into a boiler, filling the boiler with water and boiling it for a longer or shorter time, according to the nature of the article and other circumstances. He shows that the cooking may be done by a steam bath, or by hot air, etc. These patents are void for want of novelty. They are the application of old processes to a new material,-the double use of processes well-known,-the new use of an old invention. Bray v. Hartshorn [Id. 1,820]; Bean v. Smallwood [Id. 1,173]; Phillips v. Page, 24 How. [65 U. S.] 167; Hotchkiss v. Greenwood, 11 How. [52 U. S.] 266; Hovey v. Stevens [Case No. 6,745]; Curt Pat. (3d Ed.) §§ 51–55, 66; Brunton v. Hawkes, 4 Barn. & Ald. 549, 550; Losh v. Hague, 1 Webst Pat. Cas. 207; Whitney v. Emmett [Case No. 17,585]. The present is

like the case of the rocking-chair in Bean v. Smallwood; the doorknobs in Hotchkiss v. Greenwood; the anchor in Brunton v. Hawkes; or the carriage wheels in Losh v. Hague [supra]. An old contrivance applied to a new object is not patentable. Winslow, the patentee, publicly used the invention patented by him, or allowed it to be used for profit more than two years prior to the date of his rejected application for the original patent, and so dedicated it to public use. Shaw v. Cooper, 7 Pet. [32 U. S.]. Pierce bought of Nathan Winslow in 1848, 1849, 1850, 1851. Provost found the Winslow com in the market in 1848 or 1849. George Burnham says Winslow's corn was in the market as early as 1848. Testimony of complainant's witness, Jeremiah Ford, renders this conclusive. P. 277, Cross Int. 6; Record, p. 55; Ans. to Int. 30; J. W. Jones. The relations of Nathan Winslow had sold the preserved corn for profit more than two years prior to March 5, 1853, if he had not actually made sales himself. They were brothers. Nathan furnished the funds for the business. Nathan put up the corn under the direction of Isaac. Nathan was Isaac's agent, and Isaac was bound by his acts. Bedford v. Hunt [Case No. 1,217].

[The laches of the patentee render the patent void and amount to an abandonment. If an inventor, after his invention is perfected, unreasonably delays his application for a patent, and others, before such application is made, actually perfect and apply to practical use the same invention, and give the knowledge thereof to the public, and the former, after that knowledge of such subsequent use and invention fails to make objection, and apply without unreasonable delay for a patent, he cannot sustain the patent he may afterward obtain, because he has failed to give the public that consideration for the grant of exclusive privileges, upon which all valid patents are based. Ransom v. New York [Id. 11,573]. Abandonment may be inferred from an acquiescence in the use of his invention by others, or a neglect to assert his claim by suit or otherwise. Id. There must be reasonable diligence on the part of the inventor to perfect and patent his invention. Cox v. Griggs [Id. 3,302]; Goodyear v. Hills [Id. 5,571a]; Blandy v. Griffith [Id. 1,529]. No appeal was taken by Winslow, after his first application was rejected. No new application was made for the period of nine years. Meanwhile, preserved corn went into general

use. The same invention substantially had been patented in foreign countries long before the alleged invention of Winslow. By Durand in 1810. The Durand process is substantially like Winslow's, producing substantially the same result. Cahoon v. Ring [Id. 2,292]. The patentee is not obliged to state everything to which his invention is applicable in order to be protected in his right to the exclusive enjoyment of the invention. Pike v. Potter [Id. 11,162]. The sealing hermetically, puncturing, and resealing of Winslow's process, and the leaving a small aperture until the heat takes effect in Durand's process, produce substantially the same result. The process of Durand was not a new process, and he, in his specification, speaks of the invention as "communicated to him by a certain foreigner, residing abroad, of the method of preserving animal food, vegetable food, and other perishable articles." Vegetable food includes green corn. The Durand patent specifies the putting the "vegetable substances" into the cans in "a raw or crude state." If it be said that Durand's process contemplated the cooking the com on the cob, the reply is, such is not the meaning of the language used. "Raw or crude state,"-"raw" means "uncooked"; so does "crude." Worcester defines "crude" thus: "In a raw state; raw; uncooked; undressed"; "not ripened; immature; unripe." Durand's patent does not mean by "crude" that the vegetables must be in the same state in which they grew, but as equivalent to "raw," that is, uncooked, and in this sense the corn is crude, as much so as the peas and beans that are shelled or the vegetables that may be sliced. Winslow took no such distinction, for he says that his method applies to ears of corn, though he allows that he does not recommend their use.

[The subject-matter of the first patent set up by complainants, being neither "an art, a machine, manufacture, or composition of matter" does not come within the purview of patentable things. The acts of Nathan Winslow and J. W. Jones were, in law and equity, the acts of Isaac Winslow in relation to the public use of the alleged patented rights. Bedford v. Hunt, above cited. The patentee has claimed more than his own invention. The puncturing the cans to prevent their bursting was neither original nor new. Cooking vegetables in hermetically sealed vessels was well known before the date of the invention claimed by the complainants. The patent of May 20, 1862, recites this. There has been no disclaimer by patentee. Singer v. Walmsley [Id. 12,900].⁴

CLIFFORD, Circuit Justice. Inventions lawfully secured by letters patent are the property of the inventors, and as such the franchises and the patented product are as much entitled to legal protection as any other species of property, real or personal. They are indeed property, even before they are patented, and continue to be such, even without that protection, until the inventor abandons the same to the public, unless he suffers the patented product to be in public use or on sale, with his consent and allowance, for more than two years before he files his application for a patent 5 Stat. 123; Id. 354.

On March 8, 1853, Isaac Winslow, of Philadelphia, filed in the patent office an application for a patent, for "a new and improved mode of preserving green corn," in which he stated that he had invented a new and useful improvement for accomplishing that object, and prayed that letters patent might be granted to him for that invention. Certain portions of the invention were not illustrated either by drawing or models, and in consequence of that omission, the application, on the 1st of August following, was returned to the inventor, leaving it to his option to supply the omission or to modify his claim. He elected to supply the deficiency, and, on the 20th of October succeeding, he filed in the patent office additional drawings and a model of the invention, and samples of the patented product. Information from the patent office was communicated to the inventor on the 2d of November, in the same year, that the office did not regard the operation of cutting the corn from the cob as any part of the process of preserving the product, and requesting him to decide whether the office should examine the process of preserving or that of removing the com from the cob, under the fee already paid, evidently showing that the office required another fee if both were to be examined. Compelled to elect a second time, the applicant decided to strike out his second claim, and consented to take a patent for the process of preserving the patented product. Nothing further was done until the 19th of the same month, when the patent office informed the applicant that the office was of the opinion that his process was substantially the same as that in common use for preserving both vegetable and animal substances. On February 18, 1862, the inventor filed in the patent office a new application for a patent, referring to the fact that his prior application, as modified, was rejected, and renewing the prayer that letters patent might be granted to him for the entire improvement. In the meantime the inventor assigned the business over to his brother and the complainant, with the stipulation that he would give the assignees the benefit of any improvement he should make, and of his knowledge of the new process. Before the second application for a patent was made, the entire inventions were duly assigned to the complainant, and it is proper to remark that the title of the complainant is admitted. Four several letters patent were granted for the inventions, and they were all issued in the names of the inventor, but each contains

the recital that he had assigned all his right, title, and interest in the invention to the complainant. They are as follows: 1. No. 34,928, dated April 8, 1862, for a new and useful improvement in preserving Indian corn in the green state; 2. No. 35,274, dated May 13, 1862, for a new and useful improvement in preserving green corn; 3. No. 35,346, dated May 20, 1862, for a new and useful improved process of preserving green com; 4. No. 36,326, dated August 26, 1862, for a new and useful improvement in the process of preserving green corn. Possessed, as he is, of the absolute title to those improvements, the complainant claims the full and exclusive right and liberty of making and using the said improvements, and vending the same to others to be used, and he charges that the respondent named in the bill of complaint, then in full life, from September 13, 1867, to November 19, in the same year, unlawfully and wrongfully used and practiced the described improvements claimed arid patented by the complainant. Service was made, and respondent appeared and filed an answer. Amendments were made to the bill, by consent, admitting new complainants, and also to the answer, allowing the respondent to set up new defenses. Reference will only be made to such of the defenses set up in the answer as were pressed in argument at the hearing. Argument to show that the title of the complainant is valid is unnecessary, as that is admitted by the respondent, and the complainant having introduced in evidence the several letters patent described in the bill of complaint, it is conceded that they afford a prima facie presumption that the patentee is the original and first inventor of the several improvements therein described and secured to the supposed inventor. Much consideration need not be given to the question of infringement, as the respondent admits that his foreman, though, as he alleges, without his consent, put up certain parcels of green corn preserved substantially by the same process as that described in the specification of the patentee, and substantially the same as covered by his patents, amounting to seven hundred cans, which have been sold, and the proceeds and profits have been received by the respondent, as stated in the account annexed to the answer. Unless the patent is sustained, the question of infringement is an immaterial issue, and where it is admitted, and the case shows that profits have been received by the respondent to a substantial amount, the question of the extent of the infringement is usually left to be determined by the master. Viewed in the light of these suggestions, it is quite clear that the case depends upon the defenses set up in the answer, as, if no one of them is sustained, the complainants are clearly entitled to a decree.

They are as follows: 1. That the patentee was not the original and first inventor of the improvements, or either of them, as alleged in the bill of complaint 2. That the several supposed improvements are merely old methods applied to a new use, and that the several improvements, and each of them, were well known and in public use prior to the alleged discovery and invention of the patentee. 3. That the several improvements were in public use and on sale more than two years before the patentee made his application

for a patent. 4. That the patentee abandoned his invention to the public before he filed his application for a patent.

Application was made by the inventor, in the first place, for one patent to embrace all the several subject-matters described in the four patents subsequently granted by the commissioner of patents. Novelty and utility are both required to constitute a patentable invention within the meaning of the patent law, but where both of those qualities are combined, it is settled law that the right to a patent does not depend upon the "quantity of thought," ingenuity, skill, labor, or experiment, or the amount of money which the inventor may have bestowed or expended upon his production. Curt. Pat. § 31.

Defenses, involving the validity of a patent cannot be satisfactorily examined, or their sufficiency or insufficiency determined, without first ascertaining what the invention is which is embodied in the patent constituting the subject-matter of the controversy.

I. Undoubtedly the first patent is for the product of the invention, or for the new article of manufacture-to wit, Indian corn preserved green, or Indian corn preserved in the green state. In his first attempt to preserve the corn in the green state, without drying the same, the patentee states that he did not remove the kernels from the cob, which was not satisfactory, as the article obtained was very bulky, and, when used, the peculiar sweetness of the corn was lost, the same being absorbed, as the patentee supposes, by the cob. Experiments of various kinds were subsequently made to overcome the difficulties attending the effort to preserve the corn without drying the same, which were also unsuccessful, as the kernels, when preserved, did not retain the milk and other juices of the corn, leaving the product hard, insipid, and unpalatable, and without the full flavor of fresh green corn. All such experiments were abandoned; but he finally succeeded in producing an entirely satisfactory article of manufacture, which is the one described in the specification and claim of his first patent. His description of the method of manufacturing the product is substantially as follows: Select a superior quality of sweet corn, in the green state; remove the kernels from the cob by means of a curved and gauged knife, or other suitable means; pack the kernels in cans, and hermetically seal the latter, so as to prevent evaporation under heat, or the escape of the aroma of the corn. When packed, the cans of corn are to be exposed to steam or boiling heat for an hour and a half; then

puncture the cans, and immediately seal the same while hot, and continue the heat for two hours and a half longer. Afterwards, the cans may be slowly cooled in a room, at the temperature of seventy to a hundred degrees Fahrenheit. Indian com thus packed and treated, the patentee states, may be warranted to keep in any climate. Being preserved in its natural state, as near as possible, it retains the peculiar sweetness and flavor of fresh green corn right from the growing field, and it is only necessary to heat the corn in order to prepare it for the table, as it is fully cooked in the process of preserving. What the patentee claims in that case is: "The described new article of manufacture—to wit, Indian corn—when preserved in the green state, without drying the same, the kernels being removed from the cob and packed in cans, hermetically sealed, and treated substantially in the manner and for the purpose set forth in the specification."

II. Attention will next be called to the second patent, which purports to embody an invention for a new and useful improvement in preserving green corn, or, in other words, the patented invention is for the process of manufacturing the new product described and patented in the first-mentioned letters patent. Necessarily, the details of the process are somewhat fully given in the specification describing the patented product, but the claim of the first patent does not extend to the process, which shows that the patent office committed no error in granting the second patent, as it does not include anything patented in the first patent. Goodyear v. Providence Rubber Co. [Case No. 5,583]; [Rubber Co. v. Goodyear] 9 Wall. [76 U. S.] 788; Seymour v. Osborne, 11 Wall. [78 U. S.] 559.

Both parties agree that it is competent for the commissioner to grant a patent for the product and one for the process, and it is obvious that the patent under consideration is for the process, which is not included in the prior patent. It has long been common, says the patentee, to boil green or unripened corn, and then to dry the same for winter use, but corn thus dried must be boiled again when prepared for the table, and is more or less hard and insipid, as it loses the fine flavor of fresh green corn. Ears of corn, also, are sometimes boiled, and then hermetically sealed in cans, but the cob seems to absorb the sweetness of the kernels, or if the kernels are removed from the cob after boiling, and then preserved, still the fine flavor of the natural corn is lost. Many and varied attempts were made by the patentee to preserve green corn on the cob without drying the same, but all those efforts were unsuccessful, as the article was bulky, and the sweetness of the corn was absorbed by the cob. Subsequently, he conceived the idea of first removing the com from the cob, and then boiling or cooking the kernels, and preserving them, as thus separated from the cob. Some benefit, doubtless, resulted from that new conception; but a new difficulty arose, as the kernels of corn were broken in being removed from the cob, and the milk and other juices of the corn were dissolved and diluted in the process of boiling, leaving the product insipid and unpalatable. Unable to overcome that difficulty in that mode, he next attempted to cook the corn, without permitting it to come in contact

with the water, by exposing the cans containing the corn to boiling water, but he soon found that mode of preserving the corn was unsatisfactory, as a long time was requisite to cook the corn sufficiently for preservation, and it appears that the milk of the corn evaporated, and the corn became more or less dried.

Two other patents are set forth in the bill of complaint, but it is clear that the patents are each for the new and useful improvement in the process of preserving green corn, and that they severally embody substantially the same invention as that described in the second patent. Improvements, consisting of separate and distinct parts, may, in certain cases, be secured by separate and distinct patents, but no more than one patent can legally be granted for the same invention. 5 Stat. 192; Sickles v. Falls Co. [Case No. 12,834].

Inoperative patents, or such as are invalid by reason of a defective or insufficient description or specification, may also, in certain cases, be surrendered, and the commissioner in such cases is authorized to cause a new patent to be issued to the inventor for the same invention, but the commissioner does not possess the power to grant a second patent for the same invention, in any case nor under any circumstances, without the surrender of the first one granted to the patentee. Suffolk Co. v. Hayden, 3 Wall. [70 U. S.] 319; 5 Stat. 122.

Apply those principles to the case, and it is certain that the third and fourth patents described in the bill of complaint are void. More than one patent for the same invention can not be legally issued by the commissioner, but the irregular issuing of the second patent can not impair the right of the patentee under the first patent, if it was valid at the time it was granted. Tested by these rules of decision, it is quite clear that the bill of complaint as to the third and fourth patents must be dismissed, but that the complainants are entitled to a decree for an account and for an injunction for the infringement of the first and second patents, unless the defenses, or some one of them set up by the respondent, are sustained.

I. First defense is that the patentee is not the original and first inventor of the respective improvements. Both patents may be considered together, as all the proofs applicable to one apply equally to the other, and the positions taken in argument are the same in both, without an exception. Before examining that defense, it becomes necessary to refer somewhat more fully to the nature and peculiar characteristics of the respective improvements

in question, in order that the evidence adduced may be fully understood and properly applied. Ears of corn may be boiled and hermetically sealed in cans without infringing the inventions of the patentee; but the difficulty with that product and the process which produces it, is that the cob absorbs the sweetness of the kernels, and the article becomes insipid and unpalatable, and consequently it is not salable to much extent. So the kernels may be removed from the cob after boiling, and then be preserved in cans hermetically sealed, without any conflict with the improvements embodied in the patents described in the bill of complaint, but the process and the product which it produces are comparatively valueless, as the fine flavor of the green corn cooked in the usual way is lost in the process of manufacture.

Corn may also be preserved, when in a green state, by removing the kernels from the cob and boiling or cooking the same, before the kernels are packed in cans hermetically sealed, without subjecting the manufacturer to the charge of infringing these patents; but the difficulty with that process is that the kernels, in being removed from the cob, are broken, and consequently the milk and other juices of the corn in that state are dissolved out in the process of boiling or cooking, and the natural aroma of the green corn cooked in the usual way for the table is lost, and the product becomes of little or no value as an article of commerce. Attempts were made by the patentee in this case to remedy that difficulty by packing the kernels in cans not sealed, and exposing the cans containing the kernels to boiling water, but the process was unsatisfactory in other respects, as it required a long time to cook the corn, during which the milk and other juices evaporated, and the corn became more or less dried. All experiments of such kinds having failed to produce the desired result, the inventor adopted the process of removing the corn from the cob, packing the kernels in cans, hermetically sealing the same, and then boiling the cans until the corn therein became completely cooked; but he states that the cans must be very strong, or they may burst; and to prevent that he practiced puncturing them, after they became well heated, to allow the air to escape, immediately resealing the same to prevent the evaporation of the juices of the corn or the loss of the natural aroma. Cans, if sufficiently strong, it would seem, may be used to complete the process without the necessity of their being punctured after the boiling is commenced; but, unless the cans are very strong, it is better to puncture them, in order to relieve the internal pressure and to prevent them from bursting. Even if the cans, when not punctured, as described, do not burst, the air contained in the cans and the vapor become more or less expanded by the heat, so as to press the heads of the can outward and give the same the appearance of cans which contain the gaseous products of decomposition. Such appearances, even when the corn is perfectly preserved, diminish its value as an article of commerce, which shows that it is better to puncture and reseal the cans during the process of boiling, unless the cans are very strong.

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Taken as a whole, the description in the specification of the respective patents constitutes a full compliance with the requirement of the act of congress in that behalf, showing that the claim of the patentee in the first patent is the described new article of manufacture—to wit, Indian corn—when preserved in the green state, without drying the same, the kernels being removed from the cob, hermetically sealed, and heated, substantially in the manner and for the purpose set forth, which is well justified by the description of the invention given in the specification.

His claim in the second patent is for the described process of, first, removing the corn from the cob, and then preserving the kernels, substantially in the manner and for the purposes set forth, which is also well supported by the antecedent description contained in the specification, to which it is appended. Viewed in any proper light, it is clear that the purpose of the invention, as evidenced by the language of the description throughout, is to preserve not only the farinaceous elements of the kernels, but also the milk and juices of the same, which give the peculiar aroma or flavor to green corn when cooked for the table in the usual way during the season when the kernel is full grown, or nearly so, but before the milk and juices of the kernel become concrete, as in ripe corn. Beyond all doubt, the patented process, if the directions are properly followed, will accomplish the purpose for which it was invented, and will enable the manufacturer to preserve the kernels of green corn with all the milk and other juices of the same, without any chemical or other change, except what is produced by the cooking, which is effected by putting the sealed cans containing the kernels, with their milk and other juices, just as the same were removed from the cob, into boiling water, and keeping the cans, with their contents, in the boiling water for the period or periods specified in the descriptive part of the specification. Proof to that effect, of the most satisfactory character, is exhibited in the record, and the patented product, as seen everywhere in daily use, fully attests its accuracy and truth. Sufficient has been remarked to show what the improvements are which give rise to the present controversy, and, having accomplished that purpose, the next inquiry is, whether the patentee is the original and first inventor of the respective improvements.

Tested merely by the pleadings, the affirmative of that issue is upon the complainants; but the complainants having introduced the original letters patent under which they claim, the rule is well settled that

the burden of proof is changed, and that it is incumbent upon the respondent to show, by satisfactory proof, that the patentee is not the original and first inventor of the respective improvements, as he, the respondent, has alleged in his answer. Evidence was introduced by the complainants, of the most satisfactory character, showing that the patentee, Isaac Winslow, of Philadelphia, discovered the patented process of preserving green corn early in the year 1842, and that he made successful experiments in reducing his invention to practice, at West-brook, in the state of Maine, during the latter part of the summer or in the early part of autumn of that year, leaving no doubt that the process discovered was the same as that described in the second patent, on which the suit is founded, and that the results were satisfactory to a limited extent. All doubt as to the date of those experiments is removed by the statements of the witnesses as to the attending circumstances, which could hardly fail to impress the memory so as to prevent unintentional mistake, and there is no reason disclosed in the proofs to create any distrust as to the integrity of the deponents. Though a resident of Philadelphia, the patentee sometimes went abroad for temporary periods, and in the spring prior to making these experiments, he wrote from France to his brother-in-law, living at Westbrook, in the state of Maine, requesting him to plant a piece of ground with sweet corn, evidently for the purpose of securing the means of making such experiments, and testing the utility of the new process which he had invented, and it appears that his brother-in-law complied with his request. Pursuant to that arrangement, he visited his brother-in-law, at Westbrook, toward the close of the summer or early in the fall of that year, and commenced to make experiments to preserve green corn, occupying for that purpose a building situated on the same farm which had previously been used as a cord factory. He worked less than a week that season, and the experiments, to a large extent, were unsatisfactory, as the cans, in which the corn was packed, were not strong enough to resist the pressure within, occasioned by the boiling. Attempts were made to preserve the corn by cooking it before it was packed in the cans, both by cooking it on the cob and then removing the kernels, and also by first removing the kernels and then boiling the same; but all of those experiments proved to be wholly unsatisfactory, as all, or nearly all, of the corn in the cans spoiled, and all such as was not spoiled was found to be insipid and comparatively tasteless, and of little or no commercial value. Experiments were also made by cutting the kernels of the freshly gathered green corn from the cob with a gauged knife, and packing the same, with their milk and other juices, in cans hermetically sealed, just as the kernels came from the cob, and cooking the same, by placing the cans with their contents in a large vessel containing boiling water, and most of those experiments, when the cans proved to be strong enough to resist the inward pressure during the process of boiling, without bursting, were generally satisfactory. Few or none of the cans were properly constructed, and many of them burst during the process of boiling, and in consequence of that tendency the patentee found it necessary to

take the cans out of the bath before the process of cooking the corn was completed, and to puncture or vent the cans, as described in the specification, immediately resealing and replacing the same in the receptacle of boiling water until the contents of the cans were cooked sufficiently for table use; and the proofs show that when the cans were temporarily vented in that way, the experiments were generally successful. Such experiments were repeated the next year for a few days, during the proper season, and from year to year, to the autumn preceding the time when the patentee made his application for letters patent.

Practical experience showed that the process subsequently patented was much the most successful in accomplishing the desired object, but the process required strong cans to prevent them from bursting during the boiling, even when the cans were temporarily vented, as described; and it was a long time before the manufacturer was able to furnish the inventor with an article properly constructed for the purpose, as fully appears from the testimony of the manufacturer of the cans, who was examined as a witness. Application for a patent was filed in the patent office by the inventor on March 8, 1853; but the first claim was neither illustrated by drawings nor by a model, nor did the applicant forward to the patent office any specimens of green corn preserved by his process, and the specification, on account of those omissions, was returned to the applicant, leaving it at his option to supply the deficiencies, or to modify his claim. He elected to supply what had been omitted when the application was filed, and on the 26th of October, in the same year, filed in the patent office additional drawings, together with a model of the invention and samples of the preserved green corn, and requested an early examination of the application and claims. Doubtless the proper officers of the patent office complied with his request, as they returned the specification on the 2d of November following, informing him that the office did not regard the operation of cutting the corn from the cob as any part of the process of preserving the same, and requested him to decide which part of the alleged invention the office should examine—whether the process of preserving the product, or that of removing the corn from the cob. Obliged to waive one for a time, he struck out the second claim, which

covered the process for removing the corn from the cob, and on the 4th of the same month returned the specification, as amended, expressing the hope that the office would be enabled to decide favorably on the remaining claim without delay. His hopes, however, were not realized, as the office, on the 19th of the same month, rejected the amended application, expressing the opinion that the alleged invention was substantially the same as that in common use for preserving meats and vegetable substances. Except an occasional visit of the patentee to the patent office for the purpose of consultation with the commissioner or examiners, nothing further was done by him to procure a patent until February 18, 1862, when he filed in the patent office a second application for a patent, which, in substance and effect, is the same as the one previously filed by the same party, and which, like the other, seeks to procure letters patent for the entire invention. Before the rejection took place, the claim for the product had been stricken out, so that the claim for that part of the invention had never been the subject of decision by the patent office. In view of the circumstances, the commissioner decided to review the whole case, and came to the conclusion that the proofs before him entitled the applicant to letters patent, both for the product and for the process, as shown in the two patents under consideration.

Two other patents were also issued to the same party, but the court is of the opinion that they are invalid, as having been issued for the same invention as that described in the specification of the second patent. Repeated decisions have established the rule that a patent duly issued, when introduced in evidence by the complainant in a suit for infringement, is prima facie evidence that the patentee is the original and first inventor of what is therein described as his invention, and when taken in connection with his original application is prima facie evidence that the invention was made at the time the application was filed; but when the patentee proposes to show that his invention is of a date prior to the time when he filed his original application, he takes upon himself the burden of proof, and to maintain that theory as against another patent improvement of the same construction and mode of operation, he must prove, not only that he made his invention at the period claimed, but that he reduced the same to practice as an operative machine. Johnson v. Root [Case No. 7,409].

Suppose that is so, still the respondent can not invoke that principle with much effect in this case, as he does not preserve green corn under a patent, and the proofs are entirely satisfactory that the patentee made the invention more than ten years before the application for a patent was filed in the patent office. Great difficulty was experienced by the patentee throughout the whole period in procuring cans properly constructed for the purpose, and the proofs show that it was that imperfection and difficulty more than any other which prevented him from making an earlier application for a patent. Much examination, in detail, of the parol proofs introduced by the respondent, to show that the patented process was known or used in the United States before the early experiments

made by the patentee, may well be omitted, as it is not pretended, nor can it be, that any other person, resident in this country either before or since that time, ever invented such a process; and a careful scrutiny of the evidence given by those witnesses as to what was in fact done by the several deponents will show that no one of them ever preserved any green corn, in the mode of operation circumstantially described in the specifications of the patents, until the witness, in some way and to some extent, became acquainted with the process of the patentee, either from rumor or from some one who had assisted the patentee in making those experiments, and in most cases not until years after the invention was made, and in some cases long after the patentee had filed his application for letters patent in the patent office. Careful analysis of the testimony of those witnesses shows that many of them never practiced the patented mode of operation at all, as they cooked the corn before the kernels were packed in the cans, and that all those who ever did practice it in any degree, or ever made any near approximation to it, never commenced to preserve green corn in that way until they had learned something, by rumor or otherwise, concerning the mode of operation which was practiced by the patentee. They do not pretend that they invented anything of the kind, but all they claim is that they were successful in learning what the process was which was practiced by the assignor of the complainants. Beyond all doubt, the patentee was the original and first inventor of the process in the United States, and sufficient appears, even in the proofs introduced by the respondent, to convince the court that the first knowledge which those witnesses ever had of the patented process was procured, directly or indirectly-as by report or rumor-from persons residing near the place where the experiments of the patentee were made, or who had at some time been the employe's of the inventor, and had assisted in his experiments. Suppose it to be true that the patentee was the first person in the United States who had practiced the patented process and preserved green corn in that mode of operation, still it is contended by the respondent that he is not the original and first inventor of the improvement, within, the meaning of the patent law, as the process had been previously known and used in some foreign country; but the decisive answer to that suggestion is that the mere previous knowledge or use of the thing patented in a foreign country will not defeat a patent

issued here to an original inventor, unless it appears that the same invention had been patented in such foreign country or had been described in some public work anterior to the supposed discovery thereof by the patentee, and it is well-settled law that patented inventions can not be superseded by the mere introduction in evidence of a foreign publication, though of a prior date, unless the description or drawings contain or exhibit a substantial representation of the patented improvement in such full, clear, and exact terms as to enable any person skilled in the art or science to which the improvement appertains to make, construct, and practice the invention to the same practical extent as he would be enabled to do if the information was derived from a prior patent. Seymour v. Osborne, 11 Wall. [78 U. S.] 555.

Next, the respondent insists that the process described in the English patent to Peter Durand supersedes the invention of the assignor of the complainant as a prior discovery and for the same improvement. Vegetable substances, intended to be subjected to that process, the specification states, are to be put into vessels selected for the purpose, in the raw or crude state; but the patentee, in enumerating the articles to be preserved, does not mention green corn, nor does he state whether the kernels are or are not to be removed from the cob, or, if to be removed, whether the removal is to be effected in a manner to leave the kernels unbroken or by means of a gauged knife, as in the mode of operation described in the complainant's patent, nor is any mention made of preserving green corn or any other vegetable substance in the natural juices of the article, as in the mode of operation set forth in the patent mentioned in the bill of complaint. Instead of packing the kernels in the vessels selected for the purpose, in their crude state, as suggested in the English patent, the process patented by the assignor of the complainant directs that the kernels should be cut from the cob in a way which leaves a large part of the hull on the cob and breaks open the kernels, liberating the juices, to use the language of the patentee, and causing the milk and other juices of the corn to flow out and surround the kernels, as they are packed in the cans in such a mode that the juices from the liquid in which the whole is cooked when the cans are subjected to the bath of boiling water.

Evidently much is due to this feature of the patented mode of operation in preserving the product, and causing it to retain the sweetness, peculiar flavor, and natural aroma of green corn as when fresh gathered in the season and boiled for the table in the ordinary way for family use. Nothing of the kind is suggested in the other specification, and it is quite clear that a careful comparison of the descriptions given of the inventions, in the respective specifications, fully justifies the opinion of the learned expert examined by the complainant, that the two patents are essentially and substantially unlike, to which it may be added that persons having no other knowledge of the complainant's process than what they derive from perusing the specification of the other patent, would never be able to preserve green corn by that mode of operation. Palpable as these differences in the mode

of operation are, they can not properly be overlooked in determining the issue under consideration, nor are they merely formal, as the proofs are full to the point that the product manufactured by the process of the complainant is far superior to that preserved in any other known mode. Other vegetables, such as beets and carrots, or peas and beans, may be packed in cans in a crude state, as they retain then-juices, and may be well preserved if entirely secluded from the atmosphere, as by packing them in vessels hermetically sealed, but their chemical composition is very different from green corn, which is much more difficult to preserve in its natural freshness, without loss of its peculiar flavor and aroma, as accomplished by the complainant's process. When the kernels are cut from the cob they are opened, and the milk and other juices of the same flow out and become a constituent part of the vegetable substance to be preserved, and if exposed to air in that state for any considerable time their chemical relations to each other will soon change, and the whole substance will become sour. Exposure to heat, if seasonable, will remove that tendency, as the relations of the elements of which the substance is composed will become fixed, and the danger of putrefaction or souring will be greatly lessened or entirely averted.

Throughout his experiments the aim of the patentee was to perfect the process of preserving green corn without losing any of the natural juices of the cereal, and to discover the method or means of fixing the elements of the corn in the milky state, so that when packed in vessels to be preserved, their chemical relations to each other would never change, unless the vessels containing the corn were opened. Obviously he could not accomplish that purpose by putting the corn into the cans in the crude state, or before it was removed from the cob, as the juices of the kernels would be absorbed by the cob in the cooking, nor could he accomplish his object by cutting the kernels from the cob and boiling them in water before they were packed, or by cooking them in open vessels without water, as in the one case the milk would be washed out of the kernels, and with it all the peculiar flavor of green corn, and in the other case the aroma and juices of the cereal in the green state would be lost by evaporation. Suggestion is made that the kernels may be removed from the cob without cutting, and if packed in cans in that state, before being cooked, they may be regarded as having been packed in the crude state,

which may perhaps be conceded; but two answers are made to that suggestion, either of which is sufficient to show that the suggestion can not serve to benefit the respondent.

1. Because that process is substantially different from the complainant's process.

2. Because the proofs on both sides show that the product, when the green corn is preserved in that mode of operation, is of a very inferior quality, not much better than the product when the corn is boiled before it is packed.

Viewed in the light of these suggestions and of the expert testimony in the case, which corresponds with the same, I am of the opinion that the patents of the complainants are not superseded by the aforesaid foreign patent introduced by the respondent.

II. Enough has already been remarked to show that the second defense can not be sustained, as the evidence introduced to show that the patentee is the original and first inventor of the improvements, is equally persuasive and convincing to disprove the theory that the inventions are old ones applied to a new use, which is all that need be said upon the subject. Nor is any argument necessary to show that the other defense embraced in the same proposition must be overruled, as there is no evidence in the record to support the theory that the improvements, or either of them, were well known or in public use prior to the alleged discovery and invention of the patentee. Attempts were doubtless made by various persons to preserve green corn prior to the date of the invention in controversy, but it is so manifest to every impartial inquirer that they were of a character substantially different from the process and product patented by the assignor of the complainant, that it would be a work of supererogation to repeat the explanations which demonstrate the truth of that proposition. Such an issue can not be properly investigated and determined without first ascertaining what the patented invention is, but the moment that preliminary inquiry is solved, the whole difficulty disappears, as it at once becomes self-evident that none of the methods previously practiced embraced the mode of operation invented by the patentee.

III. Patents otherwise valid may be avoided in a suit for infringement, by proof that the invention was in public use and on sale more than two years, with the consent and allowance of the patentee, before he filed his application for a patent, which is the next defense presented by the respondent. Inventions ceased to be patentable, at one time, if permitted to pass into public use or to be on sale for any time, with the consent and allowance of the patentee, before his application for a patent; but the more recent act of congress provides that such public use or sale shall not have any such effect, unless it was continued for more than two years prior to such application. 5 Stat. 123; Id. 354.

Full proof that an invention had been in public use or on sale, with the consent and allowance of the inventor, for more than two years before the application for a patent was filed in the patent office, is a good defense to such an action if the same is properly alleged in the answer. Agawam Co. v. Jordan, 7 Wall. [74 U, S.] 607; McClurg v. Kingsland, 1

How. [42 U. S.] 209; Stimpson v. Railroad Co., 4 How. [45 U. S.] 380; Shaw v. Cooper, 7 Pet. [32 U. S.] 318.

Nothing short of proof that the invention was on sale or in public use, with the consent and allowance of the inventor, for a period exceeding two years, will support such a defense, as the party charged with infringing the rights of an inventor must bring himself fairly within the words of the act of congress, which justify the acts charged as an infringement. Ryan v. Goodwin [Case No. 12,186].

Such acts, if done without the consent and allowance of the inventor, are plain violations of his rights, and of course will not afford any justification to a subsequent wrongdoer. Wyeth v. Stone [Case No. 18,107].

If the sale or use is without the consent or allowance of the inventor, or if the use is merely experimental, to ascertain the value, utility, or success of the invention by putting it in practice, that is not such a sale or use as will deprive the inventor of his title. Ryan v. Goodwin [Case No. 12,186]; Pitts v. Hall [Id. 11,192]; McCormick v. Seymour [Id. 8,726].

Such acts of an inventor, it is well held by Judge Story, are to be liberally construed as acts of an experimental character, nor is the inventor to be estopped by allowing a few persons to use his invention to ascertain its utility, or by any such acts of use Or indulgence to others to use the same, as are not inconsistent with the clear intention to hold the exclusive privilege, and to secure the same by letters patent Mellus v. Silsbee [Case No. 9,404].

Where the party has subsequently taken out a patent, the court is not authorized to give effect to such a defense to a charge of infringement, except in cases where the proof is clear and cogent. Wyeth v. Stone [supra.]

Tested by those rules, as the case must be, it is quite clear that the defense under consideration must be overruled, as there is no evidence in the record to show that the inventions, or either of them were in public use or on sale more than two years, before the inventor applied for a patent, or for any shorter period, with the consent and allowance of the patentee, or that he had any knowledge of any such sale or public use at the time it was made. On the contrary, the evidence shows that the inventor never gave his consent to any such sales, and that he constantly asserted that he intended to apply for a patent. Sales in some cases were made by his brother, but the evidence shows that the inventor disapproved of the acts, as

calculated to produce embarrassment when he presented his application for a patent at the patent office. Public use of an invention, unless by the patentee himself, for profit, or by his consent and allowance, will not work a forfeiture of his title, as such forfeiture is not favored unless it clearly appear that the use was solely for profit, and not with a view of further improvements or of ascertaining its defects, or for any other purpose of experiment in reducing the invention to practice. Pitts v. Hall [supra].

Inventors have a right to employ all means necessary and proper to enable them to perfect their inventions and to reduce the same to practice, and it is clear that no such experimental act can justly be viewed as legitimate evidence to support the defense of a prior unauthorized public sale or use of the invention, or a use inconsistent with the right to apply for a patent to secure the exclusive authority to make and use the invention, and to vend it to others to be used, as provided in the patent act. Persons charged with the infringement of letters patent may set up a defense that the inventor suffered the invention to be in public use and on sale more than two years before he applied for a patent, and they may also set up as a distinct defense, even in the same answer, that the inventor before he applied for a patent, abandoned the invention to the public, but those two defenses ought not to be blended in the same allegation, as they depend in many respects upon very different principles. Some of the amendments to the answer, however, were filed by consent, and inasmuch as no exception was taken to this part of the answer, the question of abandonment, as pleaded, may be considered as open.

As pleaded, the defense is that the inventor abandoned the invention to the public before he filed his application for a patent. His first application was filed on March 8, 1853, and he filed the second application on February 18, 1862, which, it is conceded, is substantially the same as the first one which is still on file in the patent office. Evidence of an affirmative character to show that the inventor ever uttered a word, or did an act signifying an intention to abandon his invention to the public before he filed his first application for a patent, is entirely wanting, nor is there any circumstance introduced in evidence to support that theory, except the mere lapse of time from the discovery of the invention to the filing of the application, and it is settled law that the mere forbearance to apply for a patent during the progress of experiments, and until the party has perfected his invention and tested its value by actual practice, affords no just grounds for any such presumption. Kendall v. Winsor, 21 How. [62 U. S.] 328; Agawam Co. v. Jordan 7 Wall. [74 U. S.] 607.

Apply that rule to the present case, and it is clear that the proofs furnish no ground for such a presumption before his first application was improperly rejected by the patent office. Such an adverse decision operates as a great discouragement to an indigent inventor, as was strikingly illustrated in the case of the inventor of the improved mode of manufac-

turing wool, who, in consequence of such a decision, was kept out of the enjoyment of the fruits of his genius for forty years. Agawam Co. v. Jordan, 7 Wall. [74 U. S.] 604.

Abandonment or dedication of an invention to the public, being in the nature of a forfeiture of a right, is not favored in law, and Mr. Justice Nelson decided that such a defense could not be sustained, unless the acts of the party invoked for the purpose were corroborated by some declarations manifesting such an intention; but it is not necessary to apply that rule in this case, as the evidence fails to disclose either any act or declaration to support the theory. Argument to show that the inventor was entitled to a patent at the time his first application was rejected, is unnecessary, as the proposition stands confessed by the patent office. Nothing beyond the decision of the office reversing their former action, would seem to be required to establish that proposition; but if more be needed, it will be found in the reasons which the office assigned at the time for refusing to issue the patent. Those reasons, it will be recollected, were, that the alleged invention was substantially the same as that in common use for preserving meats and vegetable substances, which shows, beyond all doubt, that the office never gave the subject a proper examination, or utterly failed to understand the nature of the improvement, or to comprehend the mode of operation, as scientifically described in the specification. Truth was crushed for the moment, but, happily for the cause of justice, the reasons given for the erroneous decision remained on file, which enabled the office, at a later period, to correct the error, and to do justice to a meritorious inventor. Construed strictly, the defense of abandonment, as pleaded, has respect only to the period of time which elapsed between the discovery of the invention and the filing of the first application, which was rejected; but the respondent insists, in argument, that the inquiry under that issue extends also to the facts and circumstances which occurred between the times when the first application was rejected and the filing of the second, which, with some hesitation, is admitted, as it is by no means certain that a second application was necessary. Suffolk Co. v. Hayden, 3 Wall. [70 U. S.] 319; Godfrey v. Eames, 1 Wall. [68 U. S.] 325.

Delays in the patent office, which an inventor can not prevent, will not impair his title to his invention; nor can any use of the invention during such delays, if without his consent and allowance, afford any evidence to support the issue that the inventor abandoned

the invention to the public. Howe v. Williams [Case No. 6,778]; Stimpson v. Railroad, 4 How. [45 U. S.] 402; Goodyear v. Day [Case No. 5,566]; Morris v. Huntingdon [Id. 9,831].

Suppose, however, the period between the rejection of the first application and the filing of the second, is as much within the issue presented by the answer as the period between the discovery of the invention and the filing of the first application, still I am of the opinion that the defense, that the inventor abandoned his invention to the public is not sustained by the evidence exhibited in the record. No one but the inventor is competent to abandon his invention to the public. His acts and declarations, if explicit, are sufficient for the purpose, or he may accomplish the same end by continued acquiescence in the acts of others, of which it appears that he had knowledge; but the proof of knowledge and acquiescence must be beyond all reasonable doubt, as every presumption is the other way. McCormick v. Seymour [Case No. 8,726].

Testimony is introduced by the respondent showing that the brother of the inventor made sale of small quantities of the preserved corn on several occasions, but the record does not contain any evidence that the inventor ever sold any of the patented product, or that he ever gave his consent that the product should be sold by his brother, or any other person, before he filed his application for a patent. Prior to the application for a patent, the better opinion from the evidence is that none of the product of the new process was put upon the market, as the evidence is satisfactory that he knew that sales or public use more than two years before he applied for a patent, would defeat his right. Immediately upon filing his application for a patent, he gave a license to his brother and the first named complainant, and received a royalty from them for their manufacture. Small amounts only were manufactured, and few sales only were made subsequent to the rejection of the first application.

When a party practices his invention merely for the purposes of experiment or completion, before he takes out a patent, the inference that he intends to surrender the invention to the public does not arise, and consequently a dedication to the public can not be proved by evidence that shows only experimental practice by the inventor or his employes, whether in public or private. Such an inference is never favored, nor will it, in general, be sufficient to prove such a defense, unless it appears that the use, exercise, or practice of the invention was somewhat extensive and for the purpose of gain, evincing an intent on the part of the inventor to secure the exclusive benefits of his invention without applying for the protection of letters patent Curt. Pat. (3d Ed.) § 389.

Exceptional cases arise, as where the invention, by acts of the inventor, had gone into general public use and got beyond his control, without any effort on his part to restrain its general use, as in such a case it is held that he can not resume the ownership dedicated to the public, and that his right to a patent is forfeited. Speaking of such a case, however,

Judge Story said, in Mellus v. Silsbee [Case No. 9,404], that the inventor "is not to be estopped by licensing a few persons to use his invention to ascertain its utility, or by any such acts of peculiar indulgence and use as may fairly consist with the clear intention to hold the exclusive privilege." Tested by that rule, it is quite clear that the single license referred to, which was not granted until after the application for a patent was filed, and wholly was never exercised, except to a very limited extent, is wholly insufficient to support the defense that the inventor abandoned the invention to the public. All must agree that he did not intend to dedicate it to the public, as his application for a patent was then pending in the patent office, and the evidence shows that he continued to press it, with confident hopes of success, until, the adverse decision was announced. Nor does the record exhibit any evidence to show that the invention got into public use with the consent and allowance of the inventor, or through any negligence or improvidence on his part, as it appears that he visited the patent office as often as it was necessary, to ascertain whether the opinion of the commissioner had undergone any change, and that he presented his second application for a patent as soon as he could obtain any hope of receiving a decision in his favor. No persons, except the two before mentioned, ever had authority from him to practice the invention, and the proofs show that all others who did practice it before the date of the letters patent obtained their information, whether from rumor or otherwise, without the consent and allowance of the patentee.

Separate examination of the other foreign patents introduced by the respondent does not appear to be necessary, as the stress of the argument to show that the patentee in the patent of the complainant was not the original and first inventor of the improvement seems to rest upon the Durand patent, which the principal expert of the complainant says would not succeed with green corn, and he supports that conclusion with reasons which are both persuasive and convincing. Due attention to the nature of the invention in question and to its described mode of operation is all that is necessary to render the reasons given by the witness conclusive, as it is clear that the patent in the other case does not contain a word to indicate that the patentee ever thought of removing the kernels from the cob by means of a gauged knife, for the purpose of liberating

the juices of the same, so that the kernels, as packed in the cans, would be cooked in their own juices when the cans are placed in the bath of boiling water. Sweet corn in the green state, as the witness testifies, is a peculiar substance, differing materially from any other cereal, seed fruit, or vegetable used as food. Its composition and structure are such that it is singularly susceptible to fermentative decompositions and changes, more so than any fruit or vegetable that has been successfully preserved in hermetically closed packages for any considerable length of time. Such liability to rapid change is not due to any one particular constituent, but to the presence together of several substances, such as gluten, sugar, fat, and starch, in such proportions as are best adapted for fermentation and action upon each other. Its peculiar flavor, other than its sweetness, is contained in and associated with the fat or oil present, so that very slight fermentations of the other constituents are sufficient to destroy that peculiar aroma.

Green corn, of the kind mentioned, in common with other cereals, contains more phosphorus or phosphoric acid than fruits or other vegetables. As compared with sweet peas, for instance, the kernels of sweet corn are much more delicate and liable to change, as they contain a much larger proportion of milk, juice, or sap, which itself contains more sugar, starch, and oil than the juice of sweet peas, and the glutinous or nitrogenous constituent, which acts as the ferment or primary cause of change, is much more active in the juice of sweet corn than in that of sweet peas.

Equally instructive support to the same view is derived by comparing sweet corn with such fruits as peaches, as the juice of the peach contains no oil, and the kernels of sweet corn contain only one eighth as much water as the peach, besides other differences of an equally important character, showing that such fruits as peaches are much less liable to ferment than sweet corn, and that they are much more easily packed and preserved. Examined in the light of these suggestions, as the ease should be, it is quite clear that the mode of operation described in the specification of the complainant's patent differed widely from anything which preceded it, and that it effects a new and highly useful result; and for these reasons the complainants are entitled to a decree, for an account, and for an injunction.

[NOTE. A decree having been rendered for the complainant the defendant appealed to the supreme court. Mr. Justice Hunt delivered the opinion (91 U. S. 171) reversing the decree of the circuit court. Mr. Justice Clifford dissented in a lengthy opinion. It was held that the substance of Winslow's patent had been previously put forth in Durand's patent, and that to infringe a patent it is not necessary that the thing patented should be adopted in every particular.

It is not necessary that the result should be the same in degree, but it must be the same in kind, to constitute an infringement. The fact that Winslow's patent provides that the corn shall be removed from the cob before the process begins, and that Durand does

not specify this idea, does not matter as Durand's process is used. A recommendation is not a requirement, and when an inventor uses the term, "I recommend the following method," he does not thereby constitute such method a portion of his patent. Appert's process was held to contain everything of value in Winslow's patent.

[For other cases involving these patents, see note to Jones v. Hodges, Case No. 7,469.]

¹ [Reported by Samuel S. Fisher, Esq., and by William Henry Clifford, Esq., and here compiled and reprinted by permission. The syllabus and opinion are from 6 Fish. Pat. Cas. 343, and the statement is from 3 Cliff. 563.]

- ² [Reversed in 91 U. S. 171.]
- ³ [From 3 Cliff. 563.]
- ⁴ [From 3 Cliff. 563.]