But we think a case for relief under section 4918, Rev. St., has not been made out. In the statutory sense, patents interfere only when they claim the same invention, in whole or in part. Manufacturing Co. v. Craig, 49 Fed. Rep. 370. And in a proceeding under section 4918 the court cannot go beyond the claims, and consider generally the two patents as a whole. Id. It has been held that an interference does not exist, within the meaning of the statute, between a patent having a dominant broad claim and a junior patent having a subordinate specific claim. Morris v. Manufacturing Co., 20 Fed. Rep. 121; Pentlarge v. Bushing Co., Id. 314. Here the claim of Brown's patent, No. 331,762 is not coextensive with any of the claims of the Stonemetz patent, but is a very specific and subservient claim. Whether he shows patentable novelty to sustain his claim is a question not involved in this interference issue, (Rob. Pat. § 724,) and upon which we are not now called on to express any opinion. If there is no interference between the Stonemetz patent and No. 331,762, certainly none exists between it and No. 322,344, and, indeed, this particular part of the plaintiff's case has not been pressed.

A decree may be drawn in accordance with this opinion.

BUFFINGTON, District Judge, concurs.

ACCUMULATOR CO. v. JULIEN ELECTRIC CO. et al.

(Circuit Court, S. D. New York. July 18, 1893.)

1. PATENTS FOR INVENTIONS—DURATION OF RIGHT—PRIOR FOREIGN PATENT.
The tests of identity of invention for the purpose of causing a domestic patent to expire on the expiration of a foreign patent, as provided by Rev. St. § 4887, being collated from the leading cases of Siemens' Adm'r v. Sellers, 8 Sup. Ct. Rep. 117, 123 U. S. 276, and Commercial Manuf'g Co. v. Fairbank Canning Co., 10 Sup. Ct. Rep. 718, 135 U. S. 176, are: Is the principal invention of the domestic patent found in the foreign patent? Is the subject-matter of the one the same in all essential particulars as that of the other? Would a structure made pursuant to the foreign patent infringe the domestic patent? Could both patents have been granted in this country?

2. SAME.
The two patents need not be in identical garb, or employ identical forms of expression.

3. SAME.
Evidence of an intention to patent the same invention in the two patents is material and important.

4. SAME.
Admissions, express or implied, that the two patents are respectively for the same invention as a third and earlier patent, issued in a third country, are material and important.

5. SAME—EFFECT OF DISCLAIMER.
The comparison should be instituted with the domestic patent as it was issued, and not as it may afterwards exist, after being cut down

by a disclaimer and limited by the state of the art. If a patent, when granted, covers an invention which had been previously covered by a foreign patent, it expires with the foreign patent, notwithstanding the fact that it has subsequently been pared down to cover only one method of practicing the invention, or restricted to a single claim.

6. SAME—PROCESS AND PRODUCT PATENTS.
Though the domestic patent claim the product, and the foreign patent claim the process, still, where the process makes the product, and the product can be made only by the process, the product and the process constitute one discovery, and the patents are for the same invention. Mosler Safe & Lock Co. v. Mosler, 8 Sup. Ct. Rep. 1148, 127 U. S. 354, and Plummer v. Sargent, 7 Sup. Ct. Rep. 640, 120 U. S. 442, followed.

7. SAME.
The date of issue of the domestic patent is controlling, under Rev. St. § 4887, not the date of application therefor. Gramme Electrical Co. v. Arnoux & Hochhausen Electric Co., 17 Fed. Rep. 838, 21 Blatchf. 450, and Edison Electric Light Co. v. United States Electric Lighting Co., 35 Fed. Rep. 134, followed.

8. SAME—RIGHT TO EXTEND FOREIGN PATENT.
The right to obtain an extended term of the foreign patent on application within a time limited, if not availed of by actual application within such time, does not constitute such a potential term in the foreign patent as to prolong the domestic patent through or into such extended term. Consolidated Roller-Mill Co. v. Walker, 43 Fed. Rep. 575, 580, distinguished. Bate Refrigerating Co. v. Gillett, 31 Fed. Rep. 809, Bate Refrigerating Co. v. Hammond Co., 9 Sup. Ct. Rep. 225, 129 U. S. 151, and Huber v. Manufacturing Co., 38 Fed. Rep. 830, 63 O. G. 311, 13 Sup. Ct. Rep. 603, cited.

9. SAME—INTERNATIONAL CONVENTION.
The international convention of March 20, 1883, to which, among others, Spain, France and the United States are parties, has not the force of a statute in the United States.

10. SAME—SECONDARY BATTERY PATENTS.
Letters patent No. 252,002, issued to Camille A. Faure, on January 3, 1882, for an improvement in secondary or storage batteries, are for the same invention as Spanish letters patent granted to the said Faure on June 27, 1881, for the term of 10 years, and said United States letters patent expired on June 27, 1891, with the expiration of said Spanish letters patent. Brush Electric Co. v. Electrical Accumulator Co., 47 Fed. Rep. 48, 55, distinguished. Brush Electric Co. v. Julien Electric Co., 41 Fed. Rep. 679, 683, 685, cited.

In Equity. Bill for infringement of a patent. On rehearing. Decree dissolving injunction.

The first claim of the patent granted to Camille A. Faure, January 3, 1882, as limited by a disclaimer to an electrode of a secondary battery to which the active layer is applied in the form of a paint, paste or cement, insoluble in the electrolytic liquid, was sustained by this court March 18, 1889. 38 Fed. Rep. 117. It was again sustained on rehearing. 39 Fed. Rep. 490. On the 19th of October, 1891, an order was made permitting the defendants to amend their answer by setting up the grant and expiration of a Spanish patent issued to Faure, June 27, 1881, for the term of 10 years. 47 Fed. Rep. 892. Proofs were taken on this new issue, and the cause now comes on for rehearing upon this issue alone.

Frederic H. Betts, for complainant.

C. E. Mitchell, William H. Kenyon, and Robert N. Kenyon, for defendants.

COXE, District Judge. It is proved beyond question that a Spanish patent was issued to Camille A. Faure June 27, 1881, for a term of 10 years, and that this patent expired June 27, 1891. If the Spanish patent was for the same invention as the patent in suit, it is manifest that the latter expired June 27, 1891. This is the only question: Was the Spanish patent for the same invention? Section 4887 of the Revised Statutes provides:

"But every patent granted for an invention which has been previously patented in a foreign country shall be so limited as to expire at the same time with the foreign patent; or, if there be more than one at the same time, with the one having the shortest term."

In the leading cases of Siemens' Adm'r v. Sellers, 123 U. S. 276, 8 Sup. Ct. Rep. 117, and Commercial Manuf'g Co. v. Fairbank Canning Co., 135 U. S. 176, 10 Sup. Ct. Rep. 718, the supreme court has made the test of identity to depend upon the following propositions: Is the principal invention of the domestic patent found in the foreign patent? Is the subject-matter of the one the same in all essential particulars as that of the other? In other words, will a structure made pursuant to the foreign patent infringe the domestic patent? Could both the patents have been granted in this country?

Would a person skilled in the art, after reading the description of the invention covered by the Spanish patent, be able to construct the electrode described and claimed in the United States patent? In approaching the subject of identity, it should be remembered that Faure is a Frenchman, and that the first description of his invention was written in the French language. From this original it was translated into Spanish and English. Making allowance for philological differences, for errors and unavoidable changes in translation, and for dissimilarities in patent-office procedure, it could hardly be expected that the United States and Spanish patents would emerge from such an ordeal in identical garb, even though it were the avowed purpose of the inventor to make them the same. There seems to be no doubt that the application as filed in the patent office at Washington was almost an exact counterpart of the Spanish patent, and that both the patent and the application were translated from one and the same French original. "It is evident," says the complainant's brief, "that the original American application was very much like the Spanish patent. The claims were differently phrased, but it is quite possible that they were intended by the translator to cover the same subject-matter." Faure's invention was described by him in the same language, and was presented for their approval to the patent officials of three countries differing widely in their methods for the protection of inventors. If he had made any new discoveries between the date of the French patent and the dates, respectively, of his application in Spain and in the United States, he certainly failed to note the fact in either specification. The proof that he did make such discoveries is very unsatisfactory.

This being so, it precludes the idea that Faure had made many kindred inventions along the same lines, which he was desirous of protecting. Like Mr. Brush for instance. 47 Fed. Rep. 48, 51, 54. Clearly it was his intention to take out a patent for the same invention in the two countries. This is not disputed. One of the experts for the complainant says: "These patents [Faure's] intended to cover the same invention, differ widely."

Faure had taken an important step forward in the construction of secondary batteries, which may be broadly stated as an improvement on the method of Planté, by adding directly to the support the layer of active material which Planté produced by disintegration after weeks and months of effort. This invention Faure described; this invention he endeavored to have patented in France, Spain and the United States. It is now said that he failed in this undertaking; that he patented one invention in Spain, and another in France and in this country. It is argued that this result was accomplished because Faure failed to patent in Spain the invention in the form in which he had actually embodied it, and in which its success had been proved in France—the one form which makes it thoroughly practical and useful. In other words, that he failed to describe the most valuable part of his invention although fully known to him at the time. The inquiry naturally suggests itself, how can this be? How can such a result be reached—an attempt to patent one invention and the actual patenting of another—without the participation or knowledge of the inventor? It will be found on examination that the supposed differences, which are so greatly magnified, are differences of form and not of substance and grow out of different environments and forms of expression. The inventor has described several ways in which the active layer may be applied and it is not surprising that the officials of Spain should have given prominence to one way and those of this country to another way.

Again, there is an express admission that the United States and French patents are the same, the specification of the former stating that the invention was "patented in France, October 20, 1880," and in the oath attached to the application Faure swears that the invention "has been patented to him by letters patent of the French government." There is also an admission, at least, by implication, that the Spanish and French patents are the same. The Spanish law permitted a patent for 20 years, "if it has for its object new and original inventions," but if the inventor had obtained a patent therefor in one or more foreign countries the term was for 10 years only. The French patent had been granted, (October 20, 1880,) when the application for the Spanish patent was filed, (April 16, 1881.) The inventor asked for a 10 years' term in Spain presumably because he knew that he was not entitled to a 20 years' term, the invention having been patented in France.

Furthermore, the proceedings instituted on behalf of the complainant to reinstate the Spanish patent proceeded upon the theory

that the French and Spanish patents were for the same invention. A concession that the French and Spanish patents are the same, is also a concession that the United States and Spanish patents are the same. The latter two cannot both be like the French patent without being like each other also. The description of what Faure discovered was the same in both cases. If the domestic patent is for another invention, the patent should have been granted to the patent-office officials and not to Faure; the changes are theirs and not his. Not only are the two descriptions from the same source, but the drawings, except in a few unimportant details, are identical.

It is a mistake to start out with the hypothesis that the United States patent in terse and perspicuous language, describes the application of the active material in the form of paint, paste or cement, and stops there. It is a mistake to compare the Spanish patent with a patent thus assumed to be clear in language and limited in scope, for it will be found on examination that neither patent is free from ambiguity, and that the real invention of Faure is as plainly proclaimed in the one as in the other. The comparison should be instituted between the patents as they were issued, and not between the Spanish patent and the United States patent as it now exists after being cut down by a disclaimer, and limited by an art existing in this country, of which the inventor knew nothing. If a patent, when granted, covers an invention which has been previously covered by a foreign patent, it expires with the foreign patent, notwithstanding the fact that it has subsequently been pared down to cover only one method of practicing the invention, or restricted to a single claim. A disclaimer cannot add a new invention to the patent. Assume the case of a foreign patent and a United States patent subsequently granted in language precisely identical. Assume that, pursuant to the decision of the court or for other reason, the inventor has disclaimed all of the claims but one and that one is so restricted that it covers only one feature not made prominent in the original patent; can it be said that this proceeding wholly changes the scope and purport of the patent, making it, in fact, a patent for a different invention? If so, disclaimers will be put to new and important uses never dreamed of before. When it is remembered that Faure intended to claim broadly in both patents all described methods of adding the active material, giving no especial preference to any one, there will be less difficulty in perceiving that "the principal invention is in both."

But let it be assumed that the inquiry is: Was the invention of the United States patent, as now construed and limited, previously patented in Spain? Does the Spanish patent cover the method of constructing a secondary battery electrode to which the active material, insoluble in the electrolyte, has been mechanically applied in the form of a paint, paste or cement prior to immersion in the battery fluid, so as instantly to become porous? Does it cover that? If so, it must be conceded on all sides that

it is for the same invention. Both the Spanish and American patents relate to secondary batteries and to improvements upon the method of Gaston Planté. Other similarities and differences will best be appreciated by placing side by side the parts of the two patents which relate chiefly to the invention when limited as above stated.

SPANISH PATENT.

An unlimited power of accumulation is obtained and rapidly manufactured, first, *by covering with plaster* deposits or galvanic coatings, or coatings of a chemical precipitate, the elements of the secondary piles (of the inventor) with a spongy or porous coat of lead, of the thickness that may be deemed fit.

The supporting surface is of lead or any other material, and is covered by either galvano-plastic process, or *by a deposit in the form of a paste of some matter, that may be minium;* or an oxide of lead, or any salt of lead whatever, insoluble in the liquid of the pile, or with one or more salts of metals capable of accumulating or storing electrical energy such as manganese and others.

The porosity of the lead (the reduced as well as the oxidized) can be increased by the incorporation of *inert matters, as, for example, coke, in the coating of the oxide or in that of the lead salt.*

For the partitions or compartments, the object of which is to prevent the separation and fall of the porous lead, felt, cloth, asbestos-board, linen or any other porous matter not susceptible of alteration in consequence of this use, may be used; the object of this porous matter, whatever it may be, is to hold fixed in its place against the support, the active composition. In fact, we could employ for the same purpose wire cloth of lead, or any other proper metal, but, in such case, it will be necessary to secure to the support this porous layer, for the purpose of holding the composition; different means can be adopted for securing it, and this will depend upon the nature of the support; for example, rivets of lead, or of any other convenient material; that is to say, a material such that the action of the liquid of the battery upon it may not cause the formation of injurious products.

Instead of rivets placed at different points, a continuous pressure may be obtained by means of threads of wool, placed across the whole.

Figure first represents a couple formed by two elements, A and B, each of

U. S. PATENT.

An unlimited accumulating power is obtained. The electrodes are made by the addition or application of a layer of an active material—metal, metallic oxide of salt—which layer is or at once becomes porous or spongy, to suitable plates or supports, which may be of suitable non-metallic substances as well as of metal. This active material may be applied in various ways, so as to obtain a layer of the desired depth, *as in the form of paint, paste or cement,* in the form of a deposit by galvanic action or chemical precipitation, or otherwise.

In order to render the active layer more porous, the material composing it has preferably *inert material—such, for example, as crushed coke—mixed with it.* The active layer is retained in position upon the support by means of an open-work, perforate or porous medium or partition, which, while allowing free percolation of the electrolytic liquid, prevents the active material from separating either spontaneously or by the slight jarring to which it is liable to be subjected. The retaining medium or partition is made of material which is not liable to be acted upon by the electrolyte used—for example, of felt, cloth, asbestos paper or board, netting of cane, gutta-percha, or caoutchouc, wire-cloth, of lead or other suitable metal, porous earthenware, and the like.

The fastening can be made by rivets, cement, or winding with woolen or cotton yarn, or otherwise.

Secondary batteries, like ordinary galvanic batteries, can be made with a series of cells side by side, or one above the other, with the intermediate walls common to the two adjacent cells. In making such batteries it is advantageous, and in some cases essential, to apply a non-porous partition of rubber or other suitable substance to the plates, so as to cut off all communication between the cells. This combination of non-porous diaphragms with the electrodes in such secondary batteries constitutes a portion of the invention.

Figures 1 and 2 are views in vertical section of single cells, the cell shown in Fig. 2 being provided with porous media for retaining the active layer on

which is formed by a thin plate of lead, covered with a porous metallic coating, and submerged in a rectangular vessel, containing water acidulated with sulphuric acid.

Figure second shows in vertical section a circular couple or cell, formed by an element of lead, A, and a rod or plate, B, of lead or carbon; C is a porous vessel, and D the external vessel containing the acidulated liquid.

An intimate mixture of coke and sulphate of lead is then prepared in such a way that it may be porous, and for this purpose may be used either crushed coke, sawdust, or any other similar substance that may be convenient; this mixture is placed between the vessel C and the element B, and also between C and the element A, but by making use of some proper device, such as a porous piece of earthenware, or in any other way it will be possible to hold together with the element A the coating of said mixture, leaving free the space required for the acidulated water.

The figures third and third *bis* represent a battery of many cells, connected in tension

The figures 4th in elevation and 5th in cross-section both represent a support *a* covered with a coating *b of a paste of minium*, which is maintained adherent to the support by a porous felt C held by some clamps *f*.

To prepare two elements we commence by establishing and securing a separation or partition, as will be hereinafter explained; after this is done, they are set up and mounted in couples, with a liquid, such as water mixed with sulphuric acid, and by submitting them afterwards to the action of an electric current, we obtain on one side a coating of peroxidated lead, and on the other a coating of reduced lead. The pair thus formed is converted into a real deposit or recipient, charged with disposable electricity, and while the discharge is made, the reduced lead becomes oxidized, and the peroxidated lead is reduced until the pair comes once more to an inert condition; that is, ready to receive a new charge of electricity.

Summing up, therefore, the various details already explained, the object of this invention is constituted by the improved batteries or secondary piles, which, having a small bulk and a very light weight, allow the storage or accumulation of a considerable quantity of electric energy, and its principal features are the following, to wit:

FIRST.—The new process, devised by the electrodes, and that in Fig. 1 being without such media.

The cell shown in Fig. 1 consists of two parts, A B, formed each of a thin plate of lead covered with a porous metallic coating, C, and placed in a rectangular vessel, D, containing an electrolytic liquid, F, of, say, sulphuric acid and water. The porous metallic coating may be made of lead, or an oxide or salt of lead applied to the lead plates in any suitable way. In Fig. 2 a circular cell is shown, one electrode being inclosed in the other. The rod B, of lead or carbon, is placed in a porous vessel, G, and is coated with the active accumulating or absorbing material, C, say sulphate of lead mixed thoroughly with coarse coke, sawdust, or other material adapted to make the mass more porous. The other electrode consists of a piece of lead, A, with its inner face covered by *a paste or mixture*, Z, of sulphate of lead and coke or equivalent material, which is held in place by a porous medium or partition, G′. A suitable space is left between the partition G′ and the vessel G for the electrolytic liquid. D is the containing-vessel.

The battery shown in Figs. 3 and 3bis has a number of elements connected in tension.

The electrode shown in Figs. 4 and 5 consists of a support *a* covered on both sides with a layer of lead oxide *c*, held in place by sheets of felt *b*, fastened by rivets *f* of lead.

In charging, the electricity acts to produce a reduced mass of porous lead on one electrode and a mass of peroxide of lead on the other. When the battery is discharged the reduced lead becomes oxidized, and the peroxidized lead is reduced until the equilibrium is restored. When again connected with a source of electricity the oxidized lead on one electrode is again reduced and the lead on the other is again peroxidized, and the battery becomes charged ready to give out a current when required.

The oxides or salts of lead not soluble in the electrolytic liquid are deemed the most advantageous for covering the supports of the electrodes. The invention is not, however, limited to these, but includes generally substances capable of absorbing or storing electric energy in the manner described—for example, manganese or any salt the oxide of whose base is insoluble.

What I claim is:

1. As an improvement in secondary batteries, an electrode consisting of a

the inventor for obtaining rapidly and economically electrodes, able to retain and keep a large amount of electrical energy; a process which consists in covering the electrode or support with a coat of metallic substance, porous or spongy, formed and deposited with whatever thickness may be required, by galvanic process, chemical precipitation *or adherence*.

SECOND.—The devices already explained for covering the supports, made of lead or any other proper substance, with a thick or thin coating (at will) of a porous or spongy substance, capable of keeping the electrical energy at the disposal of whosoever may want to make use of it.

THIRD.—The new application of the borders, padding or garniture of India rubber, felt and other proper substances, to maintain and preserve adherent to the supporting plates, the *cement* or layers of metallic matters, such as lead, specially in a porous or spongy condition as above set forth; said metallic matter may besides be mixed or not with inert matter.

FOURTH.—The arrangements above stated are applicable to the case in which the secondary piles are constituted by single leaden sheets forming according to Mr. Plante's method.

FIFTH.—The arrangement of piles or combined elements of parallel faces, forming liquid tight compartments between each element, thus constituting piles, having as many couples as may be the number of elements less one.

SIXTH.—The arrangements and the means of construction described herein and represented in Figs. 4th, 5th and 6th of the annexed drawing, devices and arrangements which allow the inventor to store or accumulate electrical force, and this in a small bulk to be transported to any place that may be convenient; he being at liberty to employ these devices and arrangements either conjointly or severally.

support coated on one or more faces with an active layer of absorptive substance—such as metal or metallic compound applied thereto in the described condition—so as to be or instantly become spongy, and thus capable of receiving and discharging electricity, as stated, in contradistinction to a metallic plate itself rendered spongy by the disintegrating action of electricity, substantially as and for the purpose set forth.

2. In a secondary battery, an electrode having a plate or support coated with an active porous layer of metal or metallic compound, with inert material —such as crushed coke—mixed or incorporated therewith, substantially as described.

3. In combination with the plate or support of an electrode and active spongy layer thereon, an openwork, perforate, or porous medium for holding said layer on the plate or support of the electrode, substantially as described.

4. In a secondary battery, a series of cells, comprising each a pair of electrodes with an active spongy layer thereon, combined with non-porous partitions between adjacent cells, substantially as and for the purpose set forth.

5. An electrode for secondary batteries, comprising a support, an active spongy layer of metallic substance, and a holding medium through which the battery-fluids may pass, adapted to hold said layer on said support, said support, layer and holding medium being all fastened together, so as to be capable of transportation, substantially as described.

6. A battery comprising a series of plates clamped together with strips of rubber or like material placed between every two placed near the edges, so as to form the bottom and ends of narrow troughs or cells with open tops, the sides of the troughs or cells being formed by the plates, and the latter being clamped firmly, so that liquid-tight joints are formed, substantially as described, the projecting edges of the plates, when metallic, being protected by insulation, substantially as described.

The italics do not appear in the originals.

Without pausing to examine the various features of the Spanish patent relating to the porous holding media and the arrangement of the electrodes in a series of cells, which will be found in each instance to be similar to the United States patent, I proceed at once to consider whether or not what is now called the principal

invention is found in each. The use of a paste is not, it is true, recommended in the Spanish patent as the best way of applying the active material, but neither is it in the United States patent. It is suggested in both, but the language is rather more general in the latter than in the former. The United States patent says:

"This active material *may be applied in various ways*, so as to obtain a layer of the desired depth, as in the form of paint, paste or cement, in the form of a deposit by galvanic action or chemical precipitation *or otherwise.*"

No preference is here expressed for one way over another. The United States patent does not inform the public how the paint, paste or cement is prepared or applied. The use of sulphuric acid is not suggested as an ingredient, and the use of a spatula is not suggested for making the application. This is equally true of the Spanish patent. But if a man of ordinary intelligence would know that a paint, paste or cement of active material is not to be applied by galvanic or chemical processes he would know equally well that a plaster of active material or a paste of minium is not to be so applied. The Spanish patent certainly suggests the mechanically applied paste coating, and could be limited to such a coating by disclaimer as well as the United States patent. If the words "galvanic process, chemical precipitation or" were omitted from the first claim of the Spanish patent, and corresponding words were stricken from the description, the patent would protect the paint, paste or cement method as effectively as the United States patent.

The Spanish patent describes the supports as covered "by a deposit in the form of a paste of some matter that may be minium;" and, again, "with a coating *b* of a paste of minium, which is maintained adherent to the support by a porous felt C held by some clamps." To the ordinary mind this language seems perfectly clear; it means just what similar language means in the United States patent. To give to it a different signification the words must be wrested from their ordinary meaning, the improbable substituted for the probable, and incongruity for common sense. One of the criticisms made by the complainant's experts is that the language referred to is an appropriate description of coating by galvanic action or chemical precipitation. In order to meet this suggestion it is shown that a paste of minium, either by galvanoplastic action or by chemical precipitation, is, for all practical purposes, at least, out of the question; it can only be applied mechanically. The Spanish patent also speaks of covering the elements with "plaster coatings." The first claim is intended, inter alia, to secure the process of covering the electrode with a coat of active material by "adherence," and the third claim refers to "the cement or layers of metallic matters." If the language quoted from the Spanish patent does not convey to the mind as clear an idea of what Faure actually did as the phrase "in the form of paint, paste or cement," it is only because this expression did not occur to him or the solicitor who prepared the description of the Spanish patent. The phrase does not occur at all in the specification filed with the application for the United States patent or in the description

and claims as they originally went to the issue division. It seems to have originated with the solicitor who prepared the amended specification as the outcome of a fortunate accident.

In the Spanish patent "paste" is used, "cement" is used, and, if "paint" is omitted, its place is supplied by "plaster," which is an equally appropriate word. Sir William Thomson, in describing the Faure invention, used this word in preference to all others. He said: "The battery consisted of sheets of lead *plastered* over with a paste of moistened red-lead." If the Spanish patent had said that "the active material may be applied in the form of plaster, paste, or cement," it would probably be admitted that it contained the invention of the United States patent. But it does say exactly this, though not in precisely the same order—the idea is there; the information is the same. One skilled in the art could learn the mechanical application in the form of a paste equally well from both patents. The United States patent furnishes no information on the subject that is not found in equally clear language in the Spanish patent. It is true that the first claim of the former is for a product, and of the latter for a process, but the process makes the product, and the product can be made only by the process. It was the use of this process that was made free by the expiration of the Spanish patent. Where a product is produced by a certain process, and only so, it cannot be said that he who first discovers the process, and by it produces the product, has made two inventions. "The product and the process constitute one discovery." Mosler Safe & Lock Co. v. Mosler, 127 U. S. 354, 8 Sup. Ct. Rep. 1148; Plummer v. Sargent, 120 U. S. 442, 7 Sup. Ct. Rep. 640. An electrode made by the Spanish process would infringe the United States claim; and an electrode made in Spain pursuant to the United States method would infringe the Spanish claim. The same is true if both patents are limited to the paint, paste, cement or plaster method.

The second claim of the Spanish patent is not clear, but it was intended, apparently, to cover the described means of coating the electrodes with the porous or spongy mass. The fifth claim is designed to cover the same arrangement as the fourth claim of the United States patent. I am constrained to think, therefore, that the invention of the United States patent, even though construed as the complainant insists it should be, is covered by the Spanish patent. Few, if any, of the conditions are present here which differentiated the foreign from the domestic patent in Brush Electric Co. v. Electrical Accumulator Co., 47 Fed. Rep. 48, 53. On the other hand, many of the reasons are present which induced the court to hold that "Case I" and "Case J" of Brush were for the same invention. Brush Electric Co. v. Julien Electric Co., 41 Fed. Rep. 679, 683, 685. It is thought that the principal invention of the United States patent is found in the Spanish patent; that an electrode made pursuant to the latter patent would infringe the former, and vice versa, and that the former could not have been granted in this country if the latter had previously been granted

here. The subject-matter is essentially the same in the two patents. An electrician, after reading one, would be as able to construct a mechanically coated Faure electrode as after reading the other.

It is argued that section 4887 is not applicable, for the reason that the United States patent was applied for before the Spanish patent was granted. This question is not an open one in this court. Gramme Electrical Co. v. Arnoux & Hochhausen Electric Co., 17 Fed. Rep. 838, 21 Blatchf. 450; Edison Electric Light Co. v. United States Electric Lighting Co., 35 Fed. Rep. 134. Whenever the able and interesting argument in support of the complainant's contention is presented to a tribunal which is at liberty to consider it, it will unquestionably receive the attention it deserves.

It is argued for the complainant that the Spanish patent has a potential term of 20 years. The patent was granted June 27, 1881, for a term of 10 years. It expired June 27, 1891. On August 31, 1891, it was declared extinct by the proper authority. On March 20, 1883, two years after the patent was issued, Spain and France entered into a convention by which, in certain circumstances, the terms of patents might be extended. To this convention the United States was a party. The director general of the Spanish department of agriculture, industry and commerce, which department has charge of all subjects relating to patents, decided that the provisions of this convention were retroactive. It is probable, therefore, that if application had been seasonably made the patent would have been extended till June 27, 1901. But the application was not made until March 26, 1892, long after the patent had lapsed, and after the expiration of the time within which an application could be made for an extension. On the 30th of March, 1892, the application was denied.

It is thought that this subsequent international convention, even if it had the force of a statute, and it had not, cannot be considered as prolonging the term of the United States patent. It is not necessary to consider what might have been the result if the Spanish patent had been extended. It was granted for 10 years; it expired in 10 years, and no effort was made to rehabilitate it until long after it had lapsed. This is not the case of a patent granted for a long term, but expiring because of the failure to observe some condition subsequent. Here the life of the patent was definitely fixed for 10 years, and it never had any other term. In Consolidated Roller-Mill Co. v. Walker, 43 Fed. Rep. 575, 580, the foreign law providing for a potential term was in force when the foreign and domestic patents were granted, and it was held that the patents were limited by the optional, and not the designated, term. This is not such a case. Bate Refrigerating Co. v. Gillett, 31 Fed. Rep. 809; Bate Refrigerating Co. v. Hammond Co., 129 U. S. 151, 9 Sup. Ct. Rep. 225; Opinion of Attorney General Miller, (April 5, 1889,) 47 O. G. 398; Huber v. Manufacturing Co., 63 O. G. 311, 13 Sup. Ct. Rep. 603, 38 Fed. Rep. 830.

For the reasons stated in Brush Electric Co. v. Electrical Accumulator Co., 47 Fed. Rep. 48, 55, this decision has been reached with reluctance. Those reasons do not, it is true, apply with the same force to an invention made abroad by a foreigner as to an invention made by one of our own citizens; but the statute in its practical operation has failed to remedy the supposed evil at which it was aimed, and the duty of overthrowing a valuable patent under its provisions is one that the court would naturally wish to avoid. But the question, do the patents cover the same invention? is fairly presented, and its decision cannot be avoided.

After giving the complainant the benefit of every reasonable doubt, the court is convinced that the question must be answered in the affirmative. The longer the record is studied, the more settled becomes the conviction that the invention which Faure patented in Spain and in the United States was the invention which he made and patented in France, that, so far as the inventor was concerned, the language was substantially identical and that the changes in phraseology made by the translators and patent-office officials, of which changes the inventor was ignorant, did not and could not operate to change the invention.

It follows that the defendants are entitled to a decree dissolving the injunction issued April 12, 1889.

EDISON ELECTRIC LIGHT CO. et al. v. ELECTRIC MANUF'G CO. et al.

(Circuit Court, E. D. Wisconsin. July 20, 1893.)

1. PATENTS FOR INVENTIONS—PRELIMINARY INJUNCTION—PRIOR ADJUDICATIONS—PROOF OF NEW DEFENSE.
   Where a patent has been sustained after protracted and expensive litigation, the right of the patent owner to a preliminary injunction against a new infringer can only be defeated by a new defense, which is sustained by such convincing proof as will raise a presumption that it would have defeated the patent, if produced at the original trial. This rule requires that every reasonable doubt shall be resolved against the new defense. Edison Electric Light Co. v. Beacon Vacuum Pump & Electrical Co., 54 Fed. Rep. 678, followed, and Same v. Columbia Incandescent Lamp Co., 56 Fed. Rep. 496, disapproved.

2. SAME—INCANDESCENT ELECTRIC LAMPS.
   On a motion for a preliminary injunction against the infringement of letters patent No. 223,898, issued January 27, 1880, to Thomas A. Edison, for an improved electric lamp, the proofs of an alleged anticipation by Henry Goebel in 1854, and subsequently, are insufficient to overcome the effect of the adjudications sustaining the patent, and the injunction should therefore issue. Edison Electric Light Co. v. Columbia Incandescent Lamp Co., 56 Fed. Rep. 496, disapproved.

In Equity. Bill for the infringement of a patent. On motion for a preliminary injunction. Granted.

R. N. Dyer, C. E. Mitchell, F. P. Fish, W. G. Beale, and H. G. Underwood, for complainants.

W. C. Witter, W. H. Kenyon, A. P. Smith, and W. H. Webster, for defendants.