

FRITS RICDOLF CHRISTIANI AND
 AAZE NIELSEN, TRADING UNDER THE
 NAME, FIRM AND STYLE OF CHRISTIANI
 & NIELSEN, AND THE SAID CHRISTI-
 ANI & NIELSEN (PLAINTIFFS)..... } APPELLANTS;

1929
 *Nov. 13,
 14, 15.
 1930
 *May 9.

AND

JOHN A. RICE (DEFENDANT).....RESPONDENT.

ON APPEAL FROM THE EXCHEQUER COURT OF CANADA

Patent—Validity—Patent Act, Canada, 1923, c. 23, s. 7—“ Not patented or described in any printed publication in this or any foreign country more than two years prior to his application”—“ Not known or used by others before his invention thereof”—Relief under s. 31, as to patent pro tanto.

Defendant and B., working independently of each other and in good faith, each invented the same process for manufacture of a cellular concrete building material known as porous cement.

Defendant applied for a patent in the United States on December 21, 1922. He filed his application in Canada within twelve months from the passing of the *Patent Act* of 1923 (c. 23). The United States being a foreign country which affords “similar privilege to citizens of Canada,” defendant’s filing date in the United States was his Convention filing date in Canada, under s. 8 (2) of the Act.

The evidence established that a year before the earliest date to which defendant’s invention could be carried back, B., in Denmark, conceived the idea, disclosed it to “others,” instructed experiments, made some on his own account and produced porous cement. B. filed his application in Denmark on September 11, 1922, and the patent issued on July 2, 1923.

Held, that defendant’s process was “not patented or described in any printed publication in this or any foreign country more than two years prior to his application,” and therefore was not barred in this respect.

An application for patent is not a “printed publication” within the meaning of s. 7. This construction is indicated by the use of the word “patented” in the immediate context; and is supported by the existence of the provisions for secrecy which safeguard a pending application in Canada; and, in absence of evidence to the contrary, it must be presumed that the secrecy of application in a foreign country is likewise safeguarded.

Held, however, that defendant’s process did not fulfil the condition in s. 7: “not known or used by others before his invention thereof.” According to Canadian patent law, B. was the first who had in-

*PRESENT:—Anglin C.J.C. and Duff, Newcombe, Rinfret and Lamont JJ.

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vented the process. To bar fulfilment of said condition in s. 7, prior knowledge or use in a foreign country is sufficient (*Wright & Corson v. Brake Service Ltd.*, [1926] Can. S.C.R., 434; *Canadian General Electric Co. Ltd. v. Fada Radio Ltd.*, [1930] A.C. 97, at pp. 106-107), and need not be by the public. If the first inventor has formulated, either in writing or verbally, a description which affords the means of making that which is invented, and has communicated his invention to "others", although without disclosure to the public or application for patent, he is the first and true inventor in the eyes of the present Canadian patent law, so as to prevent any other person from securing a Canadian patent for the same invention. Such prior knowledge, however, must be demonstrated; evidence of this character should be very closely scrutinized; the burden of establishing anticipation on such basis is a weighty one; it cannot be satisfied by mere proof of conception.

Canadian General Electric Co. Ltd. v. Fada Radio Ltd. [1930] A.C. 97, and *Permutit Co. v. Borrowman*, 43 R.P.C., 356, cited and discussed. *Alexander Milburn Co. v. Davis-Bournonville Co.*, 270 U.S. Rep., 390, at pp. 400-401, referred to. *The Queen v. La Force*, 4 Can. Ex. C.R. 14, and *Gerrard Wire Tying Machines Co. Ltd. of Canada v. Cary Mfg. Co.*, [1926] Ex. C.R. 170, discussed and, so far as inconsistent herewith, overruled.

On the question of anticipation by B., which was the sole issue, the sufficiency of B.'s specification in his Danish application for patent should not be judged by applying the rules in s. 14 of the Canadian Act. Moreover, B.'s invention should not be envisaged from the starting point only of his Danish application; he invented a new principle and a practical means of applying it; he was not bound to describe every method by which his invention could be carried into effect (Terrell on Patents, 7th ed., p. 144); the conception of the idea, coupled with the way of carrying it out (*Hickton's Patent Syndicate v. Patents, etc., Ltd.*, 26 R.P.C., 339, at p. 347) and reduced to a definite and practical shape (*Permutit Co. v. Borrowman, supra*) constituted the invention of his process, which he communicated to others. He had, on the evidence, made a workable invention, notwithstanding the fact of continuance of laboratory experiments, in endeavours to improve the foam ingredient.

Held, further, that—as to defendant's claim to be entitled to his patent *pro tanto*, under s. 31 of the Act, in respect of certain specifically defined claims in his application embodying suggestions as to the use of glue (it being argued that B. suggested only mucilage) as a foam developing substance—assuming that, under the circumstances, the evidence justified a distinction between mucilage and glue, and without deciding whether s. 31 would, in a proper case, permit the court to discriminate in the way indicated, such relief could not be granted in this case, in view of Rule 14 of the Patent Office (that "two or more separate inventions cannot be claimed in one application, nor included in one Patent") and in view of the nature and extent of the expressed object for which his patent was applied for and granted.

Judgment of Maclean J., President of the Exchequer Court of Canada, [1929] Ex. C.R., 111, reversed in the result, and defendant's patent held invalid.

(Comment and direction as to an apparent omission, causing apparent untruth of an allegation, in an applicant's oath accompanying petition for patent.)

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APPEAL by the plaintiffs from the judgment of Maclean J., President of the Exchequer Court of Canada (1), dismissing their action, in which they asked that Canadian Letters Patent Number 252,546, issued to the defendant on August 11, 1925, be declared invalid and adjudged cancelled. The material facts of the case and the questions in issue are sufficiently stated in the judgment now reported. The appeal was allowed with costs.

W. D. Herridge K.C. for the appellants.

O. M. Biggar K.C. and *R. S. Smart K.C.* for the respondent.

The judgment of the court was delivered by

RINFRET J.—The appellants are manufacturers of Copenhagen and they own, by assignment from Erik Christian Bayer, Canadian patent No. 265,601, issued on the 9th of November, 1926, for “processes of manufacturing porous building material.” They were plaintiffs in the Exchequer Court and sought to impeach Canadian patent No. 252,546 for “cellular cement products and processes of making same,” issued on a date anterior to that of the appellants’ patent, to wit: on the 11th of August, 1925, and owned by the respondent, who was the defendant in the court below.

The particular objection on which the appellants relied was that Rice was not the true and first inventor of the process described in his patent, because, prior to the date of his alleged invention, the same process had been invented by Bayer, in Copenhagen, and formed the subject matter of a patent issued in Denmark on the 2nd of July, 1923.

The action was dismissed (1) and is now brought to this court by way of appeal.

The invention claimed by Bayer and Rice relates to a new building material consisting of a cellular concrete produced by mixing cementitious material, such as gypsum or cement, with a tenacious foam containing bubbles sufficiently strong to remain unbroken while the cement is being

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mixed and is setting. "It is stated that the bubbles displace the cement or other material with which it is mixed, and that a product considerably lighter in weight than that produced in the ordinary way from concrete mixtures is obtained, and further, that the cellular voids improve the heat insulating and sound insulating properties of the finished material."

The process thus consists in mixing a stable foam with a cement and in regulating the porosity by the simple expedient of making this foam mechanically rather than developing it chemically. It is identical in the Bayer patent and in the Rice patent. The product is the same in the one as in the other. And the trial judge found that "both Bayer and Rice had the same idea in mind." In fact, it was conceded at bar that both processes are the result of the same conception and the same invention in the popular sense.

The judgment appealed from also found that each inventor "was in good faith" and that "they were working independently of each other." The only question for determination therefore was: As between the two, who was the first inventor in the legal sense; and the judgment held that it was Rice.

The decision of that question involves a consideration of section 7 of chapter 23 of the statutes of 1923, which was the legislation current at the time of the grant to Rice. It is as follows:

7. (1) Any person who has invented any new and useful art, process, machine, manufacture or composition of matter, or any new and useful improvements thereof, not known or used by others before his invention thereof and not patented or described in any printed publication in this or any foreign country *more than two years prior to his application* and not in public use or on sale in this country *for more than two years prior to his application* may, on a petition to that effect, presented to the Commissioner, and on compliance with the other requirements of this Act, obtain a patent granting to such person an exclusive property in such invention.

(2) No patent shall issue for an invention which has an illicit object in view, or for any mere scientific principle or abstract theorem.

It may be convenient to point out that the wording is different in some respects from that of the corresponding section in the *Patent Act* as contained in the Revised Statutes of 1906, and we shall have to consider how far, if at all, the effect of previous decisions is modified by the

amendments made by Parliament. It will at once be noticed that, in the new section, the public use or sale for more than two years (N.B.—In the statute of 1906, it was one year) prior to the application is now expressly stated to be public use or sale “in this country,” thus indicating on that point anticipation by Parliament of the judgment in *Pope Appliance Corporation v. Spanish River Pulp and Paper Mills, Limited* (1). A further change is that consent or allowance of the inventor is no longer essential to make public use or sale in Canada, previously to the application, a bar to the valid grant of a Canadian patent.

That part of the section, however, has no bearing upon the present litigation. Suffice it to say that, on the facts, it is abundantly clear that the appellants cannot rely on it for the purposes of their case. But the other parts of the section must receive careful examination.

We are now dealing with a process and may limit our discussion to that species of invention. Under section 7, to form a valid subject matter of a patent, a process must, of course, be useful—and the utility of Rice’s process is not disputed. It must also be new and its novelty must be such that it was “not known or used by others before the invention thereof and not patented or described in any printed publication in this or any foreign country more than two years prior to (the) application.” The validity of Rice’s patent depends on the interpretation of this part of the enactment and its application to the particular facts.

The words “not patented or described in any printed publication in this or any foreign country” are new. They were not in the former section of the *Patent Act*. Except possibly for the express declaration that the provision applies to a patent or publication either “in this or in a foreign country,” these words, however, do not introduce new law. Subject to this exception, they are to be found in section 25 of the Act respecting Patents for Inventions, being chapter 34 of Consolidated Statutes of Canada, 22 Vict., 1859, and, no doubt, in earlier legislation. They embody a well known principle of patent law.

So far as it may be sought to apply that principle in this case, the matter may be disposed of at once.

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(1) [1929] A.C. 269.

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Rice applied for a patent in the United States on December 21, 1922. That application, the trial judge found, "covered the same subject-matter" as his Canadian application. We agree with this finding and, on the record before us, we entertain no doubt that the case was fought, at the trial, on the understanding that Rice's United States application was substantially the same as his Canadian application. Now Section 8 (2) of the Act reads in part as follows:

An application for patent for an invention filed in Canada by any person who has previously regularly filed an application for a patent for the same invention in a foreign country which by treaty, convention or law affords similar privilege to citizens of Canada, shall have the same force and effect as the same application would have if filed in Canada on the date on which the application for patent for the same invention was first filed in such foreign country, provided the application in this country is filed within twelve months from the earliest date on which any such foreign application was filed, or from the passing of this Act.

The United States is one of the foreign countries affording "similar privilege to citizens of Canada." Rice, having previously applied for a patent in the United States, filed his application in Canada "within twelve months * * * from the passing of (the Canadian) Act." Accordingly the trial judge rightly decided that "Rice's filing date in the United States is his Convention filing date in Canada."

That fixes the date of Rice's application for all relevant purposes as of the 21st December, 1922. It is not claimed that, before that date, the process was patented anywhere. There was no printed publication "in this or any foreign country" describing Rice's invention prior to the 21st of December, 1922.

Bayer filed his application in Denmark on the 11th of September, 1922. But a pending application in Canada is not open to the inspection of the public (Sec. 52 of the *Patent Act*). Information in relation thereto may be furnished only to the applicants or persons authorized by them (Rule 19). It does not therefore properly come under the designation of a "printed publication." It must, in the absence of evidence to the contrary, be presumed that the secrecy of application in Denmark is likewise safeguarded.

Moreover, the use in section 7 of the word "patented" in the same sentence: "Patented or described in any printed publication" determines the matter in our opinion,

since it would have been quite unnecessary to enact that no person may in Canada obtain a patent for an invention already "patented * * * in this or any foreign country," if a mere application for a patent was to be taken as a "*printed publication*," within the meaning of the statute, sufficient to preclude the grant of a Canadian patent for the thing therein described. (*The Queen v. La Force* (1)).

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The filing in Canada of an application for a patent will, subject to the conditions prescribed in the Act, prevent a subsequent applicant from obtaining a patent for a similar invention. The filing of a previous application in a foreign country may have the same effect. In neither case, however, will it be because the application is viewed as an antecedent publication, but for other considerations presently to be discussed.

Section 7 requires that the process be "not known or used by others before (the) invention thereof." It may be at least questionable whether these words are qualified by the other words "in this or any foreign country," now inserted in the enactment after the sentence: "and not patented or described in any printed publication," but whether they are or are not would seem to be immaterial, in view of the decision of this court in *Wright & Corson v. Brake Service Limited* (1), that the words "which was not known or used by any other person before his (the applicant's) invention thereof," are not qualified by the words "in Canada," from which, "as a mere question of construction of the statute," the Judicial Committee of the Privy Council in *Canadian General Electric Company, Limited v. Fada Radio Limited* (2) was "not prepared to differ."

Prior knowledge or use in a foreign country is therefore sufficient. But, in the *Wright & Corson* case (3), Cady, who produced the anticipating machine, had been using it openly, in his public garage in Canastota, in the State of New York. That was, at least, a user in a public way; and the question whether antecedent knowledge or user not public was also contemplated by the section did not come

(1) (1894) 4 Can. Ex. C.R., 14, at p. 38.

(1) [1926] Can. S.C.R. 434.

(3) [1926] Can. S.C.R. 434.

(2) [1930] A.C., 97.

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up for decision. It has now become necessary that we should discuss that question; and we agree with the learned trial judge as to its importance and its difficulty.

In *The Queen v. LaForce* (1), Burbidge J. delivered an elaborate and considered judgment, in the course of which he said that the words "not known or used by any other person" in their true meaning have reference not to "a secret use or the knowledge of an earlier inventor or of those to whom in confidence he may have disclosed it, but to such a publication or use as affords the public the means of information or knowledge of the invention." His conclusion was that "under the patent law of Canada, a prior foreign invention, of which the public had no knowledge or means of knowledge is not sufficient to defeat a patent issued to an independent Canadian inventor."

In *Gerrard Wire Tying Machines Company, Ltd. of Canada v. Cary Manufacturing Co.* (2), the present President of the Exchequer Court expressed the same view:

I cannot accept Mr. Anglin's proposition, as expressing the law, even with the evidence of the alleged inventor as to the conception being accepted as proven, nor can I agree that a "physical embodiment" of the conception, which was never disclosed would void the patent of a subsequent inventor who had first and effectively disclosed his invention. It must be conceded I think, without qualification, that a mere conception of anything claimed to be an invention, that is concealed and never disclosed or published, is not an invention that would invalidate a patent granted to a subsequent inventor. To say that mere conception is invention or that a first inventor in the popular sense who has not communicated or published his invention is entitled to priority over a later invention accompanied by publication, and for which a patent was granted, or applied for, would I think throw this branch of our jurisprudence into such utter confusion as to render the law of little practical value owing to uncertainty. If this is the policy and meaning of the Patent Act, an inventor might safely withhold from the public his invention for years, while another independent but subsequent inventor of the same thing, who had secured or applied for a patent, and who had proceeded to manufacture and sell his invention without any knowledge of the undisclosed invention, would always be in danger if the prior inventor could secure a patent by merely proving an unpublished invention. The situation should not I think be changed by the production of drawings, plans, etc., evidencing the date of the prior invention, or even a physical embodiment of the invention by the alleged inventor. All this might be done and still be within the knowledge of the inventor alone, it having been kept a secret, and which so far as the public is concerned is no more effective publication than a mere conception uncommunicated to the public. There

(1) (1894) 4 Can. Ex. C.R. 14.

(2) [1926] Ex. C.R. 170, at pp. 179-180.

must be a publication or a use in public of a satisfactory kind in order to bar the claim of a subsequent inventor who discloses the same and first applies for a patent.

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And again (pp. 185-186):

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Invention without publication, in my opinion, is of no effect as against another inventor who discloses the invention and who applied for a patent. Whether this rule rests upon the principle of estoppel or laches, or for want of consideration for the monopoly inherent in a patent, or whether it is a rule of evidence which presumes against invention in law when undisclosed, it seems to me to matter little. It is a safe rule to follow. It imposes no hardship or injustice upon any person, it appears well within the letter and spirit of the statute and seems to have the support of weighty authority. It is a bar to the fabrication of evidence and other objectionable practices, and will render assurance to many whose position ought to be secure.

We have quoted rather extensively from this judgment, because it puts forward with great force the reasons in favour of construing the relevant words of section 7 as meaning "not known or used" by the public.

The words "by the public," however, are not in the section, and one must accept with caution an interpretation requiring the addition of other words to the language the legislator has seen fit to adopt.

It is not without significance that, in the same section, the words "public use" are to be found in a different connection. If a similar use was meant with regard to the time preceding the invention, it is likely that it would have been expressed in a similar way. In fact, there is a qualification in the language of the section, which rather repels the idea of the necessity for public knowledge or user. "Not known or used *by others*" is clearly a more limited expression than "not known or used by the public." The prior use or knowledge need not be widespread; if it be knowledge or use by more than one person besides the inventor and not confidential, it is sufficient and the language of the enactment is satisfied.

What appears to us a conclusive argument is that, with such a construction, we adhere to the grammatical and ordinary sense of the words (See Lord Macnaghten in *Vacher & Sons Ltd. v. London Society of Compositors* (1)). This well known rule in construing statutes, leading, as it does

(1) [1913] A.C. 107.

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in this case, to no absurdity, repugnancy or inconsistency, should, in our opinion, prevail over an inference based on the assumed intention of Parliament to reward the discoverer who offers his invention to the public, or on the danger of opening the door to perjury and the fabrication of evidence. The reward of the inventor is a matter of policy for Parliament, and, after all, in the present case, the question is not one of Bayer's rights, but whether Rice is entitled to a monopoly as against the public. As was said by Lord Haldane in *British Thomson-Houston Company Ltd. v. Corona Lamp Works Ltd.* (1):

If inventors have to be protected, so have the public. Every patent, if valid, restricts the liberty of other inventors, and confers a monopoly * * *. The stimulus to development due to the protection of the Patent Acts may prove to be less of an advantage to the State than would have been the stimulus to free production in the interest of the consumer. But with the question of policy your Lordships sitting as Judges have no concern. That question is for Parliament. We as Judges have only to interpret the law as Parliament has enacted it.

As for the incentive to perjury and the fabrication of evidence likely to result if proof of private knowledge is to be accepted, that is of course a serious danger; but it is of a character which the courts are not unaccustomed to dealing with.

Since the judgments in *The Queen v. LaForce* (2) and in *Gerrard v. Cary* (3), a change has occurred in the phraseology of the section we are now discussing. It was then "not known or used by *any other* person," and, of necessity, the knowledge might, therefore, have been confined to one person. It now is: "not known or used by others" and would appear to require that the knowledge be held by at least two persons other than the inventor. But whether it was or was not meant, by this substitution of words, to alter the law, it is needless to say that such prior knowledge must be demonstrated. Evidence of this character should be subjected to the closest scrutiny. Anyone claiming anticipation on that basis assumes a weighty burden which cannot be satisfied by mere proof of conception—if, indeed, it can be said that conception alone constitutes an anticipating invention.

(1) (1922) 39 R.P.C. 49, at p. 67. (2) (1894) 4 Can. Ex. C.R. 14.

(3) [1926] Ex. C.R. 170.

Fortunately two recent decisions of the Privy Council afford us guides in this respect.

The first was rendered in *The Permutit Company v. Borrowman* (1). It will be remembered that, in that case, one Spencer, in 1917, filed an application in the Canadian Patent Office for a patent for the use of greensand or glauconite for the purpose of softening water. In 1919, Borrowman filed a similar application. The Commissioner declared a conflict between the applications and the assignees of Spencer commenced an action in the Exchequer Court claiming a declaration that Spencer, and not Borrowman, was the inventor. Borrowman counterclaimed for a declaration to the same effect in his favour.

The Lord Chancellor (Viscount Cave) delivered the judgment of the Board. We reproduce the following passage (p. 359), stating the facts and the conclusion of the Judicial Committee:

As to the Respondent Borrowman, there is no question as to the date on which he made the invention. It is undisputed that in the month of November, 1913, he conceived the idea, that he then made some experiments for the purpose of testing it, that he actually made a few filters in which greensand was used for the purpose of softening water and sold one of those filters to a friend. In the year 1914 he made an application in the United States of America for a patent, but on that occasion without success. In June, 1916, having further developed his process, he made another application for a patent in the United States of America, which ultimately succeeded; and it is admitted that in the month of August, 1916, he put the invention fully upon the market.

Those being the facts as regards the Respondent, the question is whether Mr. Spencer, the predecessor of the Appellants, has been proved to have made the same invention, in the true sense of the word "invention," before that date. Mr. Spencer gave evidence in this case, and he said that he had the idea, or (as in one passage in his evidence he calls it) the vision, of this process in or just before the month of May, 1912, and he referred to certain letters and other documents which he says indirectly corroborate his statement. This evidence is not strong, and is open to considerable comment; but it is needless to examine it in detail, because it appears to their Lordships that, assuming it to be true, it is not proved that there was an invention by Mr. Spencer within the true meaning of the statute. Mr. Spencer did not test his idea; he made no experiments for that purpose; he did no work for that purpose. It is said that he communicated the idea through his agent to a Dr. Duggan, who was then connected with the Permutit Company, and that Dr. Duggan tested it and came to some conclusion about it; but it is plain that what Dr. Duggan did he did for his own purposes, and not as the agent of Mr. Spencer. Mr. Spencer in his evidence makes that clear, for he says that he took a portion of greensand and carried it to his agent's office for the purpose of

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having it forwarded to parties in New York with the idea that they would do the necessary work and report to him, but that those parties were unknown to him, that he heard nothing from them, and they made no report to him; and apparently he did nothing whatever further until late in the year 1916, that is to say, at a date after Mr. Borrowman's invention was fully made and completed.

These being the facts, it appears to their Lordships that it is not proved that any invention in the true sense of the word was made by Mr. Spencer in 1912. It is not enough for a man to say that an idea floated through his brain; he must at least have reduced it to a definite and practical shape before he can be said to have invented a process. Still less could it be said that the invention as described in the Appellants' application for a Patent was made in that year 1912. If so, that is enough to dispose of this appeal.

We have it, therefore, that, for the purpose of section 7, "it is not enough for a man to say that an idea floated through his brain; he must at least have reduced it to a definite and practical shape before he can be said to have invented a process."

The second decision of the Privy Council to which we wish to refer is that in *The Canadian General Electric Company, Limited v. Fada Radio, Limited* (1). This was also (*inter alia*) a case of priority as between two inventors.

The application was made by the inventor, Alexanderson, on the 17th of September, 1920, and the patent was granted to his assignees, the Canadian General Electric Company, on the 15th of February, 1921. Among the grounds of defence raised by Fada Radio, Limited, was anticipation by the specification of a German patent granted, on the 23rd of June, 1919, to Schloemilch and Von Bronk, on an application made on the 9th of February, 1913, which, however, remained unpublished until the grant of the patent.

Their Lordships came to the conclusion that, upon the true construction of the respective specifications, the ground of anticipation by the German patent was not established and the attack upon Alexanderson's patent failed. But they also discussed the point now under consideration. After having referred to the particular words in section 7 and to the decision of this court in *Wright & Corson v. Brake Service Ltd.* (2), Lord Warrington of Clyffe, speaking for the Board, said (pp. 106-107):

(1) [1930] A.C. 97.

(2) [1926] Can. S.C.R. 434.

It undoubtedly overturns patent law as understood in England, for it is quite certain that in English law if A. applied for and took out a patent it would be neither here nor there for B. to come forward and say: "I will show that I had already made the discovery, but I kept it to myself." A. had made a contribution to the public by showing them how to practice the invention. B. had made no such contribution, and therefore he had no rights in the matter. Also it obviously opens the door to defeat any invention, it may be after a long space of time when it has shown itself to be really valuable, by parol evidence which may be hard to check. Nevertheless, as a mere question of construction of the section, their Lordships are not prepared to differ from the Supreme Court on this point.

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Having thus pointed out what he calls "the danger of the matter," his Lordship proceeds to state the facts and, again we deem it advisable to quote *in extenso*, because the passage is illuminating and places the conclusion in full light:

Alexanderson had been enjoying the profits of his patent for many years, yet now it may be set aside not by Schloemilch and Von Bronk's specification but by what from the parol testimony may be held to be their knowledge. It must be clearly kept in view that the date of the knowledge or use by any other person is a date before the *invention*, not before the patent. This therefore lets in parol evidence to uphold, just as it has let it in to cut down. Now, taking the knowledge of Schloemilch and Von Bronk, as the Supreme Court has done, as at least ten or fourteen days prior to February 9, 1913, the date of the application for the German patent, how stands it here as to Alexanderson's invention? On February 4 Alexanderson wrote a letter to Davis in which he describes "the new system of tuning which I have devised," and he clearly sets out his method of tuning, as he expresses it, by geometrical progression. A copy of that letter was sent to Dr. Langmuir, who had had conversations with Alexanderson in January, and this is what he says about it, and the conversations he had: "Q. I would ask you to state whether or not, as one skilled in the art, at that time, the letter formed a disclosure to you of the subject-matter of the Alexanderson patent later in suit in this action?—A. This letter covers practically the same ground as the conversations that I had had with Mr. Alexanderson during the preceding weeks. It gives a very clear summary of Mr. Alexanderson's ideas and describes the principles involved in the idea of tuning in geometrical progression, so clearly that it would have been sufficient even if I had not had any previous conversation with Mr. Alexanderson, to have enabled me to build the device and obtain the advantages of geometrical tuning which Mr. Alexanderson foresaw. Not only is the theory of the operation of this system described in this letter, but the means of accomplishing it by use of the audion is clearly described." The respondents' expert witness, Mr. Hazeltine, is asked as to this letter, and he criticises the use of the word "rectify" used in it, but in cross-examination he admits that the writer is really referring not to a rectifier but to a type of audion which DeForest invented and which he expected Langmuir to improve.

The question really comes to this, and it is the root of the matter. The letter taken owing to Langmuir's evidence as being a mere reproduc-

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tion of the conversation in January, shows the whole method, but indicates that one of the necessary parts of the contrivance must be of a certain quality. That is indicated by this sentence: "The device necessary to accomplish this is some form of high frequency relay which enables one high frequency current to control another high frequency circuit without the first circuit being influenced by the phenomena in the second circuit. Such a relay is the incandescent rectifier where the flow of current in the local circuit is controlled by a potential introduced in the path of the radiating energy." The well known relay was that of DeForest. It was suspected, though not actually proved, that it might prove too sluggish for a high frequency relay, but Langmuir improved on the DeForest relay and that was the relay that was included in the specification for the patent. Now, the Supreme Court has held that Alexanderson's invention was not completed till May, when, to quote their words, Dr. Langmuir had constructed audions which when tested were found to give a frequency in the relayed current equal to the incoming oscillations. The point is a narrow one, but their Lordships think that what is meant in the section by using the word "invention" instead of "application" or "patent" is that what is to be considered is the description whether spoken to (*sic*) or put in writing which really gives the means of making the desired thing which is to be the subject of the patent. In other words, the arrangement as to the audion was complete. The invention was a tuning by geometrical progression associated with a suitable audion which the modification of the DeForest audion proved to be. DeForest's audion might do. If it did not, then a modification of it would. It is just analogous to saying that a certain part of a machine should be of a strength capable to bear such-and-such a strain without an indication of what the exact strength should be. Their Lordships are therefore of opinion that, fairly read, the evidence shows that Alexanderson had discovered his "invention" in January, 1913, and therefore he is not hit by the fact which is assumed that Schloemilch and Van Bronk also discovered it in February, 1913, though they did not proceed to make practical use of that discovery.

The holding here, therefore, is that by the date of discovery of the invention is meant the date at which the inventor can prove he has first formulated, either in writing or verbally, a description which affords the means of making that which is invented. There is no necessity of a disclosure to the public. If the inventor wishes to get a patent, he will have to give the consideration to the public; but, if he does not and if he makes no application for the patent, while he will run the risk of enjoying no monopoly, he will none the less, if he has communicated his invention to "others," be the first and true inventor in the eyes of the Canadian patent law as it now stands, so as to prevent any other person from securing a Canadian patent for the same invention.

Coming now to apply these guiding principles to the facts of this case, we find that the commission evidence

taken in Denmark establishes that in 1921—almost a year before the earliest date to which Rice's invention can be carried back—Bayer conceived the idea, disclosed it to "others" (Maule, Jacobsen, Philipsen, Schnadorph), instructed experiments, made some on his own account and produced porous cement. Therefore, he had invented the process.

The learned trial judge disregarded that evidence because it did not indicate a disclosure to the public. As we have seen, it is now determined by authority that disclosure to the public is not necessary, under our law, to establish invention in the true sense of the word. On the other hand, the learned judge envisaged Bayer's invention from the starting point only of the Danish application and, as he considered that the specification therein was insufficient, he decided that Bayer had failed to establish priority over Rice. But he arrived at that opinion by applying to the Danish specification the rules governing specifications in section 14 of the Canadian statute. We do not think Bayer's application should have been judged by that standard for the purposes of this case.

In the passage quoted above from the judgment in *Canadian General Electric Co. Ltd. v. Fada Radio, Ltd.* (1), Lord Warrington said:

Their Lordships think that what is meant in the section by using the word "invention" instead of "application" or "patent" is that what is to be considered is the description whether spoken to or put in writing which really gives the means of making the desired thing which is to be the subject of the patent.

Bayer invented a new principle and a practical means of applying it. He "was not bound to describe every method by which his invention could be carried into effect." (Terrell on Patents, 7th ed., at p. 144). The conception of the idea "coupled with the way of carrying it out" (*Hickton's Patent Syndicate v. Patents, etc., Limited* (2), and "reduced to a definite and practical shape" (*Permutit Co. v. Borrowman* (3)) constituted the invention of his process, which he communicated to others.

(1) [1930] A.C. 97, at pp. 108-109.

(2) (1909) 26 R.P.C. 339, at p. 347.

(3) (1926) 43 R.P.C. 356.

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The question of the validity of the Danish patent was not in issue—far less that of the compliance of that foreign patent with the statutory requirements of the Canadian law. The only question in issue was whether the prior knowledge of the invention by Bayer, communicated as established by the evidence, anticipated Rice. The learned trial judge found that “Bayer preceded Rice in his conception of his alleged invention and in his experimental work developing the same”; but thought that he had not yet made a “workable invention,” when Rice filed his United States Application.

His opinion appears to have been formed largely—if not altogether—upon the fact that, at that time, experiments were still being made in the laboratory of Mr. Jacobsen, in Copenhagen. But those experiments were not for the purpose of discovering a method of carrying out the process; they were endeavours to make the foam “better and better.”

Bayer had completed his invention when he added a foam made of frothy substance to the paste of cement and got a porous cement product. In the words of Mr. Philipsen: “You may always try to make a thing better in working with it and there are innumerable ways of mixing cement, foam and water together.” But Bayer had already found and adopted at least one method of mixing them effectively so as to carry out his idea. He tells us that, about New Year 1921, he conceived it by seeing his wife make a sponge cake, “by seeing her mix the whipped white of eggs into the dough.” He immediately went to his laboratory and, his shaving soap being the most frothy substance he had at hand, he used it to mix up with the cement paste, and it turned out that it immediately gave an excellent result. Later on he experimented with many different substances: ordinary soap, several kinds of mucilage, gelatine and gelatine mixed with formaldehyde. He produced samples and showed them to an engineer, Mr. Fox Maule, in the first days of September, 1921. He applied to Professor Jacobsen, at the Royal Technical High School, with similar samples. Mr. Jacobsen was interested and asked his assistant, Professor Philipsen, “to help them with the work of that invention.” The latter made experiments as

a result of Bayer instructing him and showing him how to do them; and, asked: "Q. What was the product?" he answers: "A. It was what we now call cell concrete."

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Bayer sold his invention, in the spring of 1923, to Christiani and Neilson, who have since manufactured it with much commercial success.

It seems reasonably clear on the evidence that, so far as concerns the invention, the precise manner in which the foam would be produced was a matter of no consequence. This was decidedly Rice's own view, as appears from his specification, where he said:

I have indicated above a number of substances and methods for producing the foam or froth which is to be added to the mortar, but I wish it to be distinctly understood that my invention, in its broad aspects, is not limited thereto, inasmuch as any foam, no matter how made and no matter of what it may consist, falls within the scope of my invention.

It was common knowledge at the time that a stable foam could be made from a great many well known mucilaginous substances. The experts agree that "it is a very simple process," requiring no scientific training, and that any ordinary workman would be able to work. On that point, reference may be made to two short extracts of the evidence. Mr. A. E. MacRae, one of appellants' witnesses deposed:

Mr. HERRIDGE: Now, Mr. MacRae, in those experiments which you have referred to, and which you say were based on this Bayer disclosure, were you in any difficulty in carrying them out because of the suggested scarcity of bubble in the Bayer disclosure?

A. None whatever.

Q. And why do you say that the Bayer disclosure contains adequate instructions to enable these experiments to be done.

Mr. BIGGAR: He has not said that.

HIS LORDSHIP: He has said so inasmuch as he did it himself.

WITNESS: The disclosure clearly discloses enough to enable anyone to carry out the process there described.

HIS LORDSHIP: I understand you, Mr. MacRae, to say that everything about this is simple.

A. Extremely simple.

Mr. Rice, the rival inventor himself said:

Mr. HERRIDGE: Well, it is a thing (the process) that could be carried out by any practical minded person if the general idea is disclosed?

Mr. RICE: One would think so.

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Paraphrasing the words of Lord Warrington in the *Fada Radio* case (1): When Bayer went to Professor Jacobsen, the invention was complete. The process was the addition to the paste of cement of a stable foam, which the foam adopted by Bayer "proved to be." Bayer's foam "might do." It may be that other foam producing agents would equally do; but Bayer's foam was sufficiently effective to produce the porous cement.

We are, therefore, of opinion that Bayer had "discovered" his invention in September, 1921, or more than a year prior to the earliest date to which Rice can carry his invention back. He had then made it impossible for Rice to claim the invention at a later date (*Alexander Milburn Company v. Davis-Bournonville Company* (2)) and accordingly to secure a valid grant for it under the *Patent Act*.

There remains one point to be disposed of. On behalf of the respondent, it was contended that the use of glue is a distinctive mark of the Rice patent. While Bayer, it was argued, suggests only mucilage as a foam developing substance, Rice suggests glue in a certain specified form and has embodied the suggestion in certain specified claims, to wit: claims 13 and 18 of his patent. It is said that those are specific suggestions in respect of which he is entitled to his patent *pro tanto* and the court is urged to render a judgment in accordance with those facts under section 31 of the *Patent Act*.

Assuming that, under the circumstances, the evidence justifies a distinction between mucilage and glue, and without deciding whether section 31 would, in a proper case, permit the court to discriminate in the way indicated, we do not think such relief can be granted in this case.

Under rule 14 of the Rules and Regulations of the Patent Office of Canada, made pursuant to section 59 of the Act and effective the first of September, 1923, "two or more separate inventions cannot be claimed in one application, nor included in one Patent." The invention named and described in Rice's patent, in accordance with the imperative requirements of sections 13 and 14 of the Act, was de-

(1) [1930] A.C. 97.

(2) (1926) 270 U.S. Rep. 390, at pp. 400-401.

clared as having for "its particular object" the providing of a "cellular composition or product adapted to be used for walls, constructional purposes, fireproofing of the frame work of steel buildings and practically all purposes that concrete can be used for." The patent that Rice got is for the principle of producing a cellular or porous cement product by mixing a tenacious stable foam with a cementitious material. The patent is not for an invention consisting in a particular new method of applying the principle. In other words: it was not applied for, nor was it granted for the subordinate discovery of certain foam producing agents or mixtures such as may be specifically defined in claims 13 and 18. Rice did not claim that as a separate invention. His patent may not now be transformed into and restricted to a patent for that kind of invention.

Our conclusion is that the judgment appealed from should be reversed and that Letters Patent number 252,546 should be declared invalid and adjudged cancelled, with costs here and in the Exchequer Court.

We think, however, we should not part with this case without taking yet another step. The *Patent Act* was enacted for the public and the grant of a patent is a matter of public concern. For that reason, attention should be drawn to the following facts: It was demonstrated, in this case, that the invention made by Bayer formed the subject-matter of a patent issued to him in the Kingdom of Denmark on the 19th of June, 1923, and there published on the 2nd of July, 1923, upon an application filed on the 11th of September, 1922. When application for the same invention was filed in the Canadian Patent Office on the 6th of December, 1924, the oath accompanying the petition to the Commissioner of Patents (taken by one who cannot escape the imputation of full knowledge of the matter) was to the effect that no application for a patent for "the said improvements had been filed in any foreign country except as follows: Germany, German Patent Application No. 111,020, filed on September 8, 1923." No mention was made of the Danish application or patent, and a material allegation in the declaration of the applicant was, therefore, apparently untrue. Possibly this circumstance is susceptible of satisfactory explanation and we do not wish

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to be understood as casting any reflection on anybody since the facts have not been fully investigated and ascertained. But we deem it our duty to direct that notice of this apparent omission should be sent by the Registrar to the Commissioner of Patents and to the Minister of the Crown entrusted with the administration of the *Patent Act*, so that they may be informed of this situation and enabled to act upon it as they may deem advisable.

Appeal allowed with costs.

Solicitors for the appellants: *Henderson & Herridge.*

Solicitors for the respondents: *Osler, Hoskin & Harcourt.*
