Privy Council Appeal No. 114 *of* 1930.

John A. Rice - - - - - - - - *Appellant*

v.

Frits Ricdolf Christiani and another - - - - *Respondents*

FROM

THE SUPREME COURT OF CANADA.

JUDGMENT OF THE LORDS OF THE JUDICIAL COMMITTEE OF THE PRIVY COUNCIL, DELIVERED THE 26TH JUNE, 1931.

Present at the Hearing:

THE LORD CHANCELLOR.
LORD BLANESBURGH.
LORD TOMLIN.
LORD RUSSELL OF KILLOWEN.
SIR LANCELOT SANDERSON.

[*Delivered by* LORD TOMLIN.]

The action out of which this appeal arises was brought by the respondents against the appellant in the Exchequer Court of Canada for a declaration that a patent granted to the appellant (No. 252546) was invalid, null and void.

In the Exchequer Court the respondents failed, but the Supreme Court of Canada, on the 9th May, 1930, reversed the trial Judge and declared the patent to be invalid and void. Against the conclusion of the Supreme Court the appellant by special leave now appeals to His Majesty in Council.

The invention covered by the patent relates to cellular building material and to the process of making the same.

The attack made upon the patent was in effect (1) that before the appellant made his invention, such invention was known or used in Denmark by others, namely, one Bayer, a Dane, and those working with him, and (2) that in these circumstances no patent could under the relevant Canadian statute be validly granted to the appellant.

The facts, so far as they are not in dispute, may be stated shortly as follows :—

Early in 1921, Bayer, in Denmark, conceived the idea of an invention which later he embodied in an application for a patent and made certain experiments in connection therewith.

During 1921 and 1922 a series of experiments were carried out on Bayer's behalf by certain Danish scientists, to whom a confidential disclosure of the invention had been made by Bayer.

On the 11th September, 1922, Bayer filed in Denmark an application for a patent in respect of the matter.

In October, 1922, the appellant, in the United States of America, without any knowledge of what Bayer was doing in Denmark, conceived a similar idea, and on the 21st December, 1922, filed in the United States of America an application for a patent.

On the 19th June, 1923, the grant of a patent was made in Denmark to Bayer.

On the 2nd July, 1923, Bayer's patent was for the first time published in Denmark.

In the course of 1923, Bayer sold his invention to the respondents, who developed the same commercially in Denmark.

On the 13th June, 1924, the appellant filed in Canada an application for a patent to cover his invention.

On the 6th December, 1924, the respondents applied in Canada for a patent to cover Bayer's invention.

On the 11th August, 1925, Patent No. 252546 impeached in these proceedings was granted to the appellant in respect of his application of the 13th June, 1924.

On the 9th November, 1926, a patent was also granted to the respondents in respect of their application of the 6th December, 1924.

The Canadian Patent Act of 1923 is the governing statute. By Section 7 of that Act it is provided 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."

Before applying the provisions of the section to the case, it is necessary to ascertain the following facts, viz. :—

First, whether there is substantial identity between the manufacture or process invented by Bayer and the manufacture or process invented by the appellant.

Secondly, if there is substantial identity, whether Bayer, with the help of his associates, had so progressed in the development of his invention before the appellant's invention was made

that it can be said that the manufacture or process the subject of both inventions, was first known or used by Bayer and his associates.

It is not in dispute that the date of the filing of the appellant's specification in the United States of America, namely, the 21st December, 1922, ought, for the purposes of this case, to be treated as the date of his invention.

The first step is to examine and compare as on that date the inventions claimed to have been made by Bayer, and by the appellant respectively.

The subject of both inventions is a cellular substance made of cement or other similar material mixed before setting with a solution mechanically whipped into a foam so that the bubbles in the foam form cellular voids in the mixture when set. It is claimed that the result is a building material combining lightness with high insulating qualities in respect of heat and sound.

An examination of the appellant's specification discloses the nature of his invention, and it is convenient to state here the material passages in such specification.

The specification begins as follows :—

" The present invention relates to improvements in plastic compositions and its particular object is to provide 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 and that is not only considerably lighter in weight than the concrete mixtures now commonly used, but it contains a large number of cellular voids adapted to improve the heat insulating and sound-insulating properties of the material. The invention embraces especially a method of impregnating cement while in a dry or soft state with gas bubbles preferably produced by whipping a gelatinous substance in the presence of water into a foam or lather, the said material being preferably rendered tenacious or hardened, as by formaldehyde. The bubbles thus formed mix readily with the cement and occupy space within the same and in this respect may be described as taking the place of gravel or rock now commonly used in the mixing of concrete in addition to sand. My mixture comprises suitable proportions of Portland or other cement, and foam and preferably sand. Of course gravel may be also added if desired. In referring to cements I wish to state that this expression is intended to include clay, magnesite cement, plaster of paris, keiselguhr and similar cementitious materials.

" The preferred form in which the principle of my invention may be executed will be described in the following specification but it is to be understood that various changes or modifications may be made within the scope of the annexed claims without departing from the spirit of the invention.

" In the preferred form of my invention, I use a mixture comprising Portland cement, water and gas bubbles. The Portland cement or clay or magnesite or any other equivalent is preferably mixed with sand, either in the presence of water or in a dry state. The gas bubbles are preferably produced by whipping a gelatine mixture, such as a mixture of the following materials, viz. :—

1 per cent. glue.

98$\frac{4}{5}$ per cent. water.

1/5 of 1 per cent. formalin solution (containing, say, about 40 per cent. formaldehyde).

" Before whipping, this mixture is preferably allowed to age for twenty-four hours or longer, and is then whipped into a stiff foam or lather which will remain stable for a considerable length of time. It is well known that glue solution can readily be converted into a foam, *e.g.*, by whipping, introduction of air or equivalent methods. The formaldehyde added greatly hardens the films surrounding the individual bubbles, by which the walls of such bubbles become strengthened sufficiently to stand up under the pressure of the cement grout, until the setting of the cement. The ageing also serves to increase the strength and persistency of the foam.

" This foam is then mixed in suitable proportions with the cement mixture or with powdered cement material which process results in the gas bubbles of the foam being thoroughly and more or less homogeneously incorporated in the cement mixture. The bubbles remain as such (without bursting) until the cement has set and produce thereby a stable body with a large number of cellular voids therein."

After reference to a number of solutions which may be used, the document proceeds thus :—

" The amount of foam to be used with a given amount of plastic cement mixture will depend on the result desired, *i.e.*, the degree of porosity wanted, and the amount of foam that can readily be made to stay in the mortar will depend on the kind of cement and the degree of stiffness of the mortar. I have used successfully, various ratios from one part of bubbles in six or eight of mortar to about five parts of bubbles to one part of neat cement mortar (by volume).

" By the use of the limitation ' tenacious and stable ' when referring to the foam, I wish it to be understood that the limitation is intended to designate a tenacious foam or such a foam that the thin films forming the bubbles are sufficiently strong to be maintained when mixed with a mortar or cement.

" My invention is applicable to the preparation of any material which hardens or sets on drying ; that is to say, a preformed more or less permanent foam may be added to any wet or dry mortar no matter what the binder material therein may be, and no matter what filler materials may be present in the mortar, provided that said mortar hardens or sets on drying. As a matter of fact, the bubbles themselves may be used to replace the large aggregate sometimes used in making concretes of various types ; that is to say, I may replace the large aggregate by voids.

" 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."

The specification contains 20 claims in all, of which those numbered 1 and 2 and 13 to 18 inclusive are in the following terms:—

" 1. A shaped product comprising a mixture of cement material and tenacious stable foam.

" 2. The process of producing a cellular product which consists in mixing a tenacious stable foam, with a cement material and allowing the mixture to harden."

* * * * * *

" 13. The process of producing a cellular cement which comprises whipping a mixture of 1 per cent. of glue, 98 4/5 per cent. of water and 1/5 of 1 per cent. formalin into a stiff foam, for creating bubbles and stirring the foam into a cement.

" 14. The process of producing a cellular cement which comprises whipping a mixture of glue, water and formalin into a stiff foam to form gas bubbles and stirring the foam into a cement.

" 15. The process of producing a cellular cement which comprises whipping a protein, water and formalin into a stiff foam to form gas bubbles and stirring the foam into a cement.

" 16. The process of producing a cellular cement which comprises whipping a protein and an indurating agent into a stiff foam to form gas bubbles and stirring the bubbles into a cement.

" 17. A composition of matter comprising a mixture of gas bubbles formed of whipped protein, water and formalin and a cement.

" 18. A composition of matter comprising a mixture of 1 per cent. of glue, 98 per cent. of water and 1/5 of 1 per cent. formalin whipped into a foamy consistency and cement."

Bayer's invention is to be found described in the specification which he filed in Denmark. The information with regard to it was, however, supplemented by oral evidence.

The following is a translation of Bayer's specification as filed in Denmark, on the 11th September, 1922 :—

" METHOD OF MANUFACTURING POROUS BUILDING MATERIALS.

" (Patent issued on June 19th, 1923, protected from the 11th September, 1922.)

" (Class : 80—Stone and Cement Industry.)

" The invention relates to a method of manufacturing porous materials for building purposes, etc., from substances, which set when mixed with water or other fluids, for instance, cement and gypsum, and the process consists of adding frothy substances in an indifferent manner during the treatment of the substance with the mixing fluid.

" It has turned out that a suitable choice of such substances makes it possible to produce a foam, which during the ensuing shaping of the material is of such a durability that a great number of air-bubbles are left in the mass.

" The production may take place by adding the foam-developing substance to the setting fluid or to a mixture of same and the material, which is to be mixed with the fluid, thereafter the foam is developed either by stirring up the mass vigorously or by introducing compressed air, possibly carbonic acid. In most cases it will, however, be simplest to add foam already developed to the mixing fluid or to a mixture of same and the setting substance. By production on a large scale the foam may be prepared in a special machine, from which it is carried to a mixing machine of the usual construction, so that the foam is introduced into the mixture instead of or simultaneously with the sand or other expletives.

" As foamy substance different kinds of mucilage, for instance, the mucilage obtained from sea-tang, the so-called tangin, may be used. The durability of the foam obtained from such substances may be increased by adding gelatine. The quantities required of these substances are inconsiderable, and consequently the manufacturing process is very cheap.

" In certain cases it has been observed that the durability of the foam is further increased by adding small portions of formaldehyde.

" On account of its structure the material produced will be light and heat-proof, and it may at pleasure be manufactured in shaped slabs, which are fastened on with cement or nails, or which are cast on the premises.

" PATENT CLAIMS.

" 1. Method of manufacturing porous building materials from substances, which are setting when mixed with water or other fluids, characterized by

the fact that foamy substances, from which foam is produced before the setting, for instance by the introduction of compressed air, or foam already developed from such substances, are added to the mixing fluid or to a mixture of same and the setting substance.

"2. Method as stated in Claim 1, characterized by the fact that the foamy substance consists of a mucilage, for instance, tangin.

"3. Method as stated in Claims 1 and 2, characterized by adding gelatine to the foamy substance.

"4. Method as stated in Claims 1–3, characterized by adding formaldehyde to the foamy substance or to the foam."

The oral evidence adduced by the respondents was directed to showing that Bayer early in 1921 had produced specimens of cellular material by mixing cement with foam formed of soap, that prior to the 11th September, 1922, and thereafter many experiments had been made by Bayer and those assisting him for improving the manufacture and that anyone familiar with the art could produce the material from the description contained in Bayer's specification.

Some evidence was called by the appellant of unsuccessful attempts made to carry out the directions contained in Bayer's specification with a view to establishing that there was, in fact, so far as Bayer was concerned, no invention reduced to a definite and practical shape.

The learned trial Judge found that "Bayer preceded Rice in his conception of his alleged invention and in his experimental work developing the same." He thought, however, that Bayer's Danish specification did not contain as full a description of the invention as was necessary upon an application for a patent under Canadian law, and for this reason he treated Bayer's invention as incomplete and as affording no ground for displacing the appellant's patent.

Their Lordships are of opinion that the learned Judge did not propound or determine the proper issue. That issue is not whether Bayer's specification contained such a description of the invention as upon an application for a Canadian patent would satisfy the requirements of Canadian law, but whether prior to the 21st December, 1922, when the appellant filed his specification in the United States of America, the manufacture or process covered by that specification had already been discovered by Bayer and was known or used by him and his associates.

Their Lordships are of opinion that having regard to the specifications and the oral evidence adduced, the finding upon the issue defined as already indicated must be that prior to the 21st December, 1922, the manufacture or process covered by the appellant's specification had been discovered by Bayer and was, in fact, known and used by him and his associates.

It was admittedly common knowledge that a stable foam could be made out of many well-known mucilaginous substances. In their Lordships judgment, the evidence adduced establishes that the description in Bayer's specification was sufficient to enable a competent workman to carry out the manufacture or process described therein and their Lordships are unable to find

any material distinction between that manufacture or process and the manufacture or process described in the appellant's specification. This conclusion accords with that reached by the Supreme Court upon the facts of the case.

It remains to consider the question of law, viz., whether the fact that prior to the 21st December, 1922, the date of the applicant's invention, Bayer had discovered the same manufacture or process in Denmark and disclosed it confidentially to others, makes it impossible for the appellant to say that his manufacture or process was "not known or used by others before his invention thereof" within the meaning of Section 7 of the Canadian statute.

On the one hand, it is urged by the appellant that the knowledge or user by others contemplated by the section must be (1) knowledge or user by persons in Canada, and (2) knowledge or user which is not confidential but is disclosed so as to be available to the public. Any other view of the matter would, it is contended, be inconsistent with the fundamental conception of patent law, viz., that the consideration for the grant of the monopoly is the disclosure of the invention for the ultimate benefit of the public of the state making the grant.

The respondents, on the other hand, contend that in accordance with the ordinary principles of construction the words of the statute must be given their natural and ordinary meaning and that there is nothing in the context which justifies a departure from such natural and ordinary meaning; that the alleged fundamental conception of patent law is derived from the Statute of Monopolies which forms no part of the Canadian law; and that the matter is already concluded by authority against the appellant.

In support of the respondents' view, the attention of their Lordships' Board has been called to the American patent law, from which the Canadian law is said to have been derived, and also to the changes which have been made from time to time in the language of Canadian statutes relating to patents.

It may be true that the framers of the earlier Canadian statutes relating to patents looked for a model towards the American law rather than towards the English law, but there are marked differences between the American and Canadian statutes, and an examination of the development of American patent law is not of assistance in construing the language of the statute now under consideration.

Some guidance is, however, to be obtained from an examination of the changes which have been from time to time made in the Canadian law itself.

In 1849, after the Union of Upper and Lower Canada, a consolidating Act (12 Vict., c. 24) was passed which contained a section in the following terms:—

> "Any person being a subject of Her Majesty, and resident in this Province, having discovered or invented any new and useful art, machine,

manufacture, or composition of matter—or any new and useful improvement on any art, machine, manufacture, or composition of matter—the same not being known or used in this Province by others before his discovery or invention thereof, and not being at the time of the application for a patent in public use or on sale in this Province with his consent or allowance as the inventor or discoverer thereof—and desiring to obtain an exclusive property therein—may apply by petition, in the manner provided by this Act, to the Governor of this Province, expressing such desire."

This section was re-enacted in 1859, but in 1869, after Confederation, an Act (32 & 33 Vict., c. 11) was passed to regulate patent law in the Dominion, and upon this Act all later legislation has been based.

Section 6 of the Act of 1869 was as follows :—

"6. Any person having been a resident of Canada for at least one year next before his application, and having invented or discovered any new and useful art, machine, manufacture or composition of matter, or any new and useful improvement on any art, machine, manufacture or composition of matter, not known or used by others before his invention or discovery thereof or not being at the time of his application for a patent in public use or on sale in any of the Provinces of the Dominion with the consent or allowance of the inventor or discoverer thereof, 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 therein."

In 1872 there was a new Act (35 Vict., c. 26) in which Section 6 of the Act of 1869 appeared in the following form :—

"6. Any person having invented any new and useful art, machine, manufacture or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter, not known or used by others before his invention thereof, and not being in public use or on sale for more than one year previous to his application, in Canada with the consent or allowance of the inventor thereof, 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 therein."

The Act of 1872 was replaced in 1886 by an Act (R.S.C. 1886, c. 61), Section 7 of which reproduced Section 6 of the Act of 1869 in the following form :—

"7. Any person who has invented any new and useful art, machine, manufacture or composition of matter of any new and useful improvement in any art, machine, manufacture or composition of matter, which was not known or used by any other person before his invention thereof, and which has not been in public use or on sale with the consent or allowance of the inventor thereof, for more than one year previous to his application for patent therefor in Canada, 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."

In the next revision, in 1906 (R.S.C. 1906, c. 69), Section 7 of the Act of 1886 reappeared unaltered, but in the final revision of 1923 (R.S.C. 1923, c. 23) the section assumed the form which has been already stated and which governs this case.

Two things may be noted in connection with these changes: first, that the territorial limitation placed by the Act of 1849 upon the words " not being known or used " was dropped in the Act of 1869 and has never reappeared; and secondly, that the phrase " not being known or used by others " was used up till 1886, when the words " by any other person " were substituted for the words " by others." In 1923, however, there was a return to the original phrase " by others."

As to the point of territorial limitation, the language of the section now in force does not, in their Lordships' opinion, admit of the introduction of any such limitation to the words " not being known or used." It would not be permissible to import the limitation in order to reconcile the section with any theory of patent law evolved otherwise than from the language of the Act itself. Indeed, the history of the legislation suggests deliberate exclusion of any such limitation. This conclusion accords with the view indicated in the judgment of their Lordships' Board delivered by Lord Warrington of Clyffe in the *Canadian General Electric Company, Ltd.*, v. *Fada Radio, Limited* [1930], A.C. 97.

With regard to the nature of the knowledge or user contemplated by the section if the matter is to be determined upon the natural and ordinary meaning of the words employed, it is impossible, in their Lordships' judgment, to confine the knowledge or user to such as is of a public or open character or to exclude such knowledge or user as is secret or confidential. Their Lordships can find no valid ground based upon the context or otherwise for departing from the natural and ordinary meaning of the words.

It is true that in the Exchequer Court of Canada, in 1894, Burbidge J., in *Queen* v. *La Force* (4 Ex. C.R. 14), when the Act of 1886 was in force, reached a contrary conclusion, and that in *Gerrard Wire-Tying Machines Co., Ltd., of Canada* v. *Cary Manufacturing Co.* (1926 Ex. C.R. 170), where the Act of 1906 governed, there were dicta in favour of the view adopted by Burbidge J. It is also true that the Patent Act of 1923, passed long after the decision in *Queen* v. *La Force*, made no material alteration in the relevant section. In this connection it may be observed that the alteration of the words " by any other " to the words " by others," has, in their Lordships' opinion, no bearing upon the point now under consideration.

In their Lordships' judgment, *Queen* v. *La Force* was wrongly decided, and the fact that after that decision the relevant section was re-enacted substantially unaltered, cannot, as a matter of construction, justify a departure from the natural and ordinary meaning of the words of the re-enacted section.

It must be recognised that upon this view of the matter the patent law of Canada differs radically in principle from the patent law of England. Whether this difference is advantageous or disadvantageous, and if disadvantageous,

whether a change is desirable are matters for the consideration not of Courts of construction but of the Legislature.

Their Lordships' conclusion therefore is that the knowledge and user of Bayer and his associates, before the 21st December, 1922, although in Denmark and although secret and confidential, and not made available to the public, was, upon the true construction of Section 7 of the Act of 1923, sufficient to invalidate the appellant's patent.

It was submitted on the appellant's behalf that even thus, his patent ought to have been treated as valid in respect of his claims 13 to 18 inclusive, and Section 31 of the Act of 1923 was prayed in aid.

That section is as follows :—

> " 31.—(1) A patent shall be void if any material allegation in the petition or declaration of the applicant hereinbefore mentioned in respect of such patent is untrue or if the specifications and drawings contain more or less than is necessary for obtaining the end for which they purport to be made when such omission or addition is wilfully made for the purpose of misleading.
>
> " (2) If it appears to the Court that such omission or addition was an involuntary error and if it is proved that the patentee is entitled to the remainder of his patent *pro tanto*, the Court shall render a judgment in accordance with the facts, and shall determine as to costs and the patent shall be held valid for such part of the invention described as the patentee is so found entitled to."

Their Lordships are unable to see that Section 31 has any application to the present case. It is admitted that there is no other section of the Act under the terms of which the claims in question can be saved.

In the result, therefore, their Lordships are of opinion that the decision of the Supreme Court was correct, and that the appeal fails and ought to be dismissed, and their Lordships will humbly advise His Majesty accordingly.

The appellant must pay the costs of the appeal.

In the Privy Council.

JOHN A. RICE

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DELIVERED BY LORD TOMLIN.

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