In the Privy Council.

No. 114 of 1930.

ON APPEAL FROM THE SUPREME COURT OF CANADA.

BETWEEN

JOHN A. RICE (Defendant) - - - - - *Appellant*

AND

FRITS RICDOLF CHRISTIANI and AAZE NIELSEN trading under the name firm and style of Christiani & Nielsen and the said CHRISTIANI & NIELSEN (Plaintiffs) - - - - - *Respondents.*

RESPONDENTS' CASE.

1. This is an appeal by special leave from a judgment of the Supreme Court of Canada (Anglin, C.J.C., Duff, Newcombe, Rinfret and Lamont, JJ.) delivered on the 9th of May, 1930, allowing the appeal of the present Respondents from a judgment of the Exchequer Court of Canada (Maclean, J.) rendered on the 6th of March, 1929, and declaring Canadian Letters Patent No. 252546 granted to the present Appellant invalid and ordering it to be impeached. Record. p. 135. p. 99.

2. The Respondents on the 8th October, 1927, brought the action out of which this appeal arises, as owners by assignment of Canadian Letters Patent No. 265601 granted to one Erik Christian Bayer, and claimed that the Appellant's Canadian Patent No. 252546 for an alleged invention for cellular cement products and processes of making same was invalid and should be impeached. p. 1.

The grounds upon which the Appellant John A. Rice's Patent (hereinafter referred to as " the Rice Patent ") was attacked are two-fold :—

(A) That the invention covered by the Patent was made by Bayer, and was known and used by Bayer and others in Denmark, prior to Rice's date of invention.

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(B) That prior to Rice's date of invention, Bayer had filed an application in Denmark on which Patent issued (after Rice's date of invention), for the same invention as that covered by the Rice Patent.

3. Section 7, sub-section (1), of the Patent Act, 1923, provided as follows :—

"7. 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."

4. The question for decision in this appeal is whether or not Rice invented a new and useful process not known or used by others before his invention thereof.

5. The invention covered by the Bayer and Rice Patents is thus described by the learned trial Judge :—

p. 100, l. 40.

"The invention claimed by Bayer and Rice is a process of impregnating cement or a similar material, while in a soft or dry state, with air bubbles produced from a foam which will readily mix with the cement material and occupy space within the same ; the purpose and object of this is to produce a cellular product adaptable for use in building purposes. 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 improves the heat insulating and sound insulating properties of the finished material. Foam is the aggregate of an infinite number of small air bubbles which retain their identity because they are surrounded by a film of water, but which ordinarily are not sufficiently elastic to remain so permanently and therefore other substances are introduced to increase the surface tension around the bubbles, or in other words, to make them more elastic and durable while being mixed with concrete and other material and until its setting. After a time the air is released, and cells or voids are to be found in the cementitious material when set."

6. The application for the Bayer Patent was made in Denmark on the 11th September, 1922. The Patent issued under number 31916 on 19th June, 1923. The Patent is for Method of Manufacturing Porous Building Materials. The application for the Rice Canadian Patent was made on the 13th June, 1924. The Patent issued under number 252546 on 11th August, 1925. The Patent is for Improvement in Cellular Cement Products and Processes of Making same. The Supreme Court of Canada held that by virtue of Section 8, sub-section 2, of the Canadian Patent Act, 1923 (George V. c. 25) the date of the Canadian application should be taken to be the date of Rice's U.S. application for Patent, namely, the 21st December, 1922. There is no evidence that Rice obtained a patent on his U.S. application.

Record. p. 161, l. 16. p. 184, l. 30. p. 138, l. 23.

7. Bayer's application for his Danish Patent dated 11th September, 1922, contained the following specification :—

" 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.

p. 161, l. 28.

" 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 the 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.

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"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."

8. Paragraph I of the Specification of the Rice Patent is as follows:—

p. 186, l. 11.

"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 final paragraph of the Specification is as follows:—

p. 189, l. 21.

"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."

p. 13, l. 23.

9. The evidence taken on Commission in Denmark shows that Bayer made the invention when he first succeeded in making a cellular cement product at the beginning of the year 1921, by mixing a foam made with shaving soap with a cement slurry; that later on he experimented with

many different frothy substances; that early in September, 1921, he showed to the Engineer Fox Maule, samples of cellular concrete made with soap foam; that in September or October, 1921, he showed samples of cellular concrete to Professor Jacobsen at the Royal Technical High School of Copenhagen, and to Engineer Philipsen, Assistant Professor of the Royal Technical High School; that thereafter, over a period of nearly ten months (8th December, 1921, to 2nd October, 1922), Jacobsen and Philipsen, under the direction of Bayer and sometimes in the presence of others, continued to make cellular cement of varying porosity by employing different quantities of foam made from various foam producing agents; that in the beginning of June, 1923, the Respondents commenced to commercially manufacture cellular cement products, the invention of Bayer, and have since manufactured them with much success.

Record. p. 13, l. 31. p. 13, l. 34. p. 13, l. 41. p. 14, l. 23. pp. 15 to 19. p. 20, l. 14.

10. The judgment of Maclean, J., in the Exchequer Court was delivered on the 6th of March, 1929. In the words of the judgment of the Supreme Court of Canada :—

> " 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."

p. 146, l. 37.

In the submission of the Respondents, the question of the validity of the Bayer Danish patent was not in issue. The only question to be determined in respect to it was, did Bayer in his Danish specification disclose the same invention as that for which Rice subsequently applied for and obtained a patent. As admittedly he did, Rice's patent is invalid.

11. The learned Judge in his reasons for judgment said :—

> " Conceiving the bare idea that voids would be useful in concrete building materials would be futile, unless the method or process for doing this by successful means, in a commercial way, was made known."

p. 106, l. 41.

But the " bare idea " reduced to practice, in fact constituted the invention of both Bayer and Rice. Bayer showed several ways of commercially utilising that idea. Any additional particulars disclosed by Rice were not directed to methods of carrying out the inventive idea, but had to do with bubble forming agents which might be used in making the foam; all of which were part of the common general knowledge at the time.

Record.

12. The Respondents appealed to the Supreme Court of Canada, and on the 9th of May, 1930, the judgment of the Court (Anglin, C.J.C., p. 136. Duff, Newcombe, Rinfret and Lamont, J.J.) was delivered by Rinfret, J., It was held by the learned Judges that :—

p. 141, l. 27.

> " ' 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 wide spread ; 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."

In the submission of the Respondents, the Supreme Court was right in finding that the knowledge or use of Bayer's invention by Bayer, Philipsen, Jacobsen and others prior to Rice's date of invention was a knowledge or use by others, within the meaning of Section 7 of The Patent Act.

13. Conceding that the Bayer and Rice patents cover the same invention, the Appellant nevertheless maintained before the Supreme Court of Canada, that the Appellant's patent was good as covering a selected formula which comprised a specific mixture of glue, water and formalin. On this point the Respondents rely upon the judgment of the Supreme Court of Canada and furthermore submit that the specific formula claimed by Rice is not patentably distinguishable from the formulæ disclosed in the specifications of the Bayer Danish Patent, and used by Bayer and others prior to Rice's date of invention and of common general knowledge in the art at that time.

14. The conclusion was that the judgment appealed from should be reversed and the Appellant's Letters Patent No. 252546 should be declared invalid and impeached.

15. The Respondents submit that the appeal should be dismissed and the judgment of the Supreme Court of Canada dated the 9th May, 1930, affirmed for the following among other

REASONS.

(1) BECAUSE Bayer was the first and true inventor of the process disclosed in the specifications of the Bayer and Rice applications for Patent.

(2) BECAUSE Bayer's invention was completed more than one year before Rice's date of invention.

(3) BECAUSE Bayer's Danish application, fully disclosing the invention, was filed before Rice's date of invention.

(4) BECAUSE prior to the date of Rice's invention the process was, within the meaning of the Canadian Patent Act, " known or used by others."

(5) BECAUSE cellular cement was produced by Bayer and by others acting on his instructions, in the year 1921.

(6) FOR the reasons stated in the unanimous judgment of the Supreme Court of Canada.

W. D. HERRIDGE.

E. GORDON GOWLING.

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RESPONDENTS' CASE.

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