

In the Privy Council.

ON APPEAL  
FROM THE SUPREME COURT OF CANADA.

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BETWEEN—

CANADIAN GENERAL ELECTRIC COMPANY  
LIMITED - - (Plaintiff) *APPELLANT*

— AND —

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FADA RADIO LIMITED  
(Defendant) *RESPONDENT*.

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CASE FOR APPELLANT.

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RECORD.

1. This is an appeal from a judgment of the Supreme Court of Canada dated 7th February, 1928, dismissing the Plaintiff's Action for the infringement of a certain Patent (No. 208,583) on the ground that the invention described in the specification of the said Patent had been anticipated by two German inventors, Schloemilch and von Bronk. This judgment reversed that of the President of the Exchequer Court of Canada, before whom the case had been tried, and who had come to the conclusion that the said patent was valid. p. 450. p. 389.

2. The invention in question was made by Ernst F. W. Alexanderson, one of the senior members of the research staff of the General Electric Company at Schenectady, New York, and a scientist of high standing. The exact date the invention was made was one of the principal questions discussed in the judgment of the Supreme

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Court. The Appellant contends that it was made at least as early as February 4th, 1913. The Supreme Court, accepting the contention of the Respondent, has held that it was not made until May 17th in that year, and that by reason of events intervening between these dates the patent is invalid.

3. The learned Trial Judge found that the patent had been clearly infringed; that the invention protected by it had utility and subject matter, and that at whatever date the said invention could properly be said to have been made by Alexanderson, there had been no anticipation. In the Supreme Court the patent was held to be 10 invalid by reason of the invention having been anticipated in Germany by Schloemilch and von Bronk, who were held to have made the same invention some three months before the date upon which, in the view taken by the Supreme Court, it could properly be said to have been made by Alexanderson. The questions of utility and subject matter were not dealt with in the judgment of the Supreme Court.

Vol. II.  
Ex. 1, p. 17.

4. The patent in question was issued to the Appellant on 15th February, 1921, the invention having previously been assigned by 20 Alexanderson to the Appellant in Canada. The invention broadly consists of an arrangement of vacuum tubes ("triode valves" or "audions") so introduced into and combined with electric circuits that, out of many wireless signals, the operator of the apparatus can select one and make it alone audible, notwithstanding that it may be relatively very much weaker than the undesired signals which have to be excluded in order that it may be heard. In the United States and Canada, delicacy of selection is of great importance owing to the large number of competing broadcasting stations, and Alexanderson's arrangement is so effective in securing the elimina- 30 tion of strong (or near) signals, and the reception of competing weak or distant ones, that it is in almost universal use. The patent is consequently a basic and very valuable one, most manufacturers of radio receiving sets in the United States and Canada having taken licences under it.

p. 4. et seq.

5. That the Respondent had infringed the patent was not seriously contested at the Trial, the substantial defence being that the patent was invalid on three grounds, namely, (a) lack of subject matter, having regard to the state of the art as shown in earlier patent specifications; (b) lack of utility or inoperativeness, and (c) 40 anticipation by the unpublished specification of a German patent granted on 23rd June, 1919, to Schloemilch and von Bronk pursuant

to their application made on 9th February, 1913, and also by the alleged private use of the invention by these inventors.

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6. In both Courts below, the discussion chiefly turned upon the third of these defences. The learned trial Judge held that Schloemilch and von Bronk had not reached the same results or proposed the same means as Alexanderson had, and he therefore found it unnecessary to consider or determine the exact date of Alexanderson's invention. The Supreme Court, in concluding that Schloemilch and von Bronk had anticipated Alexanderson, fixed the date of invention by the latter as not earlier than 17th May, 1913, and held that his invention had been anticipated by the former's unpublished application for their German patent made on 9th February in that year. In reaching these conclusions, the Court, on the one hand, rejected the Appellant's contention that Alexanderson's invention had been made at least as early as 4th February, 1913: and, on the other hand, based their judgment on certain oral evidence given by Schloemilch and von Bronk in 1926 as to their conduct and knowledge thirteen years earlier, from which evidence the Court inferred that the patent application was intended to disclose, and in fact disclosed, more than necessarily appeared from its contents standing alone.

7. A wireless signal is transmitted by modulating electric vibrations. An electric current, alternating at a very high frequency, normally 500,000 to 1,500,000 times a second, is produced and is caused to set up electric vibrations which move from the point of origin at the speed of light. These are incapable of being heard; their rate of vibration being far greater than the highest audible frequency. In fact all audible frequencies lie between about 30 and 10,000 a second. The high frequency vibrations are, however, modulated by superimposing upon them a second series of vibrations at an audible rate which they carry. Receiving sets consist of apparatus whereby these modulations are made to affect a telephone receiver and are so made audible. At any given time there may be a large number of stations sending out signals, all of which are intercepted by the antennae at every receiving station within their range. Receiving apparatus must accordingly be adapted to select, from among the many vibrations so made available to it, the particular set which it is desired to receive. This is peculiarly difficult when this set of signals is weak, either because their point of origin is distant, or because of the comparatively low power used to emit them.

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pp. 15, 16.

8. The basic principle of selection is "resonance." Resonance, broadly considered, may be either mechanical or electrical; a piano wire is capable of it; and so is an appropriately constructed electrical circuit. When, in the neighbourhood of a tuned piano wire, the note to which the wire is tuned is struck, the wire will be affected and will be caused to vibrate without itself being touched. A louder sound not quite in tune with the natural note of the wire may also cause the wire to vibrate, but the further away from its natural note the sound is, the less readily will vibration in the wire be set up. A resonant electrical circuit operates in the same way. When a receiving antenna affected by a multiplicity of signals is attached to a resonant circuit, tuned to a given electrical frequency by the proper proportioning of its parts, a signal of that frequency will cause the circuit to vibrate to a greater extent than will a signal of equal strength of any other frequency. The farther away given vibrations are from the electrical note of the circuit (that is, the frequency to which the circuit is tuned), the more will they be suppressed.

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9. Prior to Alexanderson's invention, there were two classes of devices which were designed to secure the selection of the desired from the undesired signals and depended for their operation upon resonance; both were relied upon by the Respondent to establish the defence of want of subject matter. One of them comprised devices involving the use of mechanical relays such as were described in the specifications of patents granted to Schloemilch and Lieb (British: 1910, No. 10210) and to Lorenz (German, 1913, No. 258478). It was, however, admitted by the Respondent's expert at the trial that such mechanical relays would not work at high frequencies, with which Alexanderson was alone concerned; the devices including them were not mentioned by the Trial Judge and they are no more than referred to in the judgment of the Supreme Court. The other class of devices, upon which reliance was placed by the Respondent, consisted only of a succession of electrically resonant circuits without relays, the circuits being arranged as indicated in the specifications of patents to Stone (U.S., 1902, No. 714756) and Marconi (British, 1907, No. 12960). As to these, it was established that they did not yield Alexanderson's results, since, when they were used, the signals it was desired to receive might be so greatly weakened in the process of eliminating the undesired signals that, after the latter were eliminated, the former were no longer strong enough to be useful. In the judgment of the Trial Judge, these devices are very cursorily disposed of, and the judgment of the Supreme Court merely refers to the fact of their existence.

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Vol. II.  
Ex. G. 8,  
p. 112.Vol. II.  
Ex. G. 14,  
p. 127.

p. 224. l. 47.

p. 456, ll. 26-33

Vol. II.  
Ex. G. 4,  
p. 59. Ex. G. 3,  
p. 100.p. 78, ll. 4-14,  
p. 384, ll. 1-11,  
pp. 394-5,  
p. 456. l. 18.

10. The reason for the weakening of the signal in successive tuned circuits such as those proposed by Marconi and Stone was that these circuits had to be very loosely coupled in order to prevent them from reacting upon one another and so being caused to vibrate jointly at a frequency differing from that to which they were individually tuned. The loose coupling involved a reduction of the energy transferred from one circuit to another so that the rate of the loss of strength of the desired signal was very rapid. The principal result of Alexanderson's invention has been to overcome this  
10 difficulty.

11. Alexanderson proposed that, instead of depending upon the strength of the received signal to operate the successive tuned circuits without reaction, there should be initiated a new signal depending for its strength on a local source of energy (i.e., a local battery) and made to correspond exactly in character with the original received signal by means of the operation of a vacuum tube relay. The new signal might be as strong as, or possibly somewhat stronger than the original signal. To this arrangement Alexanderson applied the new expression "Selection by geometrical  
20 progression," owing to the cumulative comparative effect of the arrangement on the undesired signals and the signal desired respectively. In the first tuned circuit, on the well-known principle of resonance already outlined, the strength of the desired signal would be maintained, but the strength of the undesired signals would fall to say one-tenth of their original value. The difference came in the second tuned circuit, where, instead of losing strength, the desired re-initiated signal would still be maintained at its full original strength while the strength of the undesired signals would fall from one-tenth to one one-hundredth. So in a third tuned  
30 circuit, in which the effect of the undesired signals would fall from one one-hundredth to one one-thousandth, the strength of the desired signal always remaining undiminished at its original value.

12. The Respondent contended at the trial that the mere maintenance of the strength of the desired signal was of no value. Its amplification was said to be necessary for utility, and this, it was claimed, it was impossible to secure without either producing between the successive circuits a reaction of the same kind as had characterized the circuits of Marconi and Stone, or incorporating in each circuit a subsequently invented device adapted  
40 to neutralize the effect of the reaction. The learned trial Judge held that, as Alexanderson's results could be obtained with his arrangement without neutralization, any difficulty in securing amplification of the signal was immaterial to the validity of the patent. In the

pp. 77, 78.

pp. 132, 133.

p. 400,  
11. 34-42.

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Supreme Court, this defence of lack of utility, and the alleged impossibility of obtaining useful amplification with Alexanderson's arrangement, were neither discussed in argument nor referred to in the judgment.

13. The main attack on the validity of the patent in suit (which succeeded in the Supreme Court) was that based upon the contention that Alexanderson's invention had been anticipated by the invention of Schloemilch and von Bronk which, as already mentioned, was the subject of a German patent application made on the 9th of February, 1913, and remained unpublished, even in Germany, until its issue on the 23rd of June, 1919. The Appellant's submissions are that there was in fact no anticipation, the two inventions being entirely different, and that even if there was anticipation in fact, there was none in law by reason of the matters hereinafter appearing. These contentions involve an examination of the evidence as to the conduct and knowledge of Alexanderson and of Schloemilch and von Bronk. 10

pp. 290, 291.

14. Alexanderson had, in 1912, been engaged in perfecting an improved generator for the production of high frequency carrier waves. In the autumn of that year, he became familiar with the vacuum tube and conceived the idea upon which his invention depended, namely, the idea that the difficulties of selection would be eliminated if, instead of depending upon the strength of the received signal to operate successive resonant circuits in the receiving apparatus, a vacuum tube relay was inserted into each, and by its means there was initiated a new signal deriving its energy from a local battery and made to correspond exactly with the received signal. 20

pp. 290, 291.

p. 207, l. 37.

p. 301, l. 46,

to p. 302, l. 5.

pp. 229, 230.

15. He accordingly set two of his subordinates successively to work out the mathematics involved. This had been done by January 1913, and he then described his conception to his colleague, Dr. Langmuir, who had been doing research work in connection with electron emissions in high vacua. Alexanderson was at the time under the impression that the existing vacuum tube was too sluggish to respond to high frequency vibrations, but Dr. Langmuir, who fully understood the proposal, assured him that he could provide an appropriate tube. 30

pp. 199, 201.

Vol. II.  
Ex. Z. 3.  
pp. 268-265.

16. Alexanderson shortly after, on February 4th, 1913, prepared and circulated to the different branches of the General Electric Company for the purposes of record, a letter to the head of 40

the Patent Department of the Company which contained an accurate and sufficiently detailed description of his proposed apparatus to enable it to be made by anyone familiar with the radio art.

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pp. 243, 271,  
292, 325.

17. Dr. Langmuir then proceeded with the improvement of the tube. No tests of the existing tube were made until after the work on the improved tube had been completed and Alexanderson's arrangement had been tested with this improved tube, which was found to work entirely satisfactorily. It was subsequently ascertained that the earlier unimproved tube would also serve the desired  
10 purpose, though not so efficiently as the improved tube, and when on 29th October, 1913, Alexanderson applied for a United States patent, the specification covered the use of both the earlier (gaseous) and the improved (completely exhausted) tube.

p. 232,  
11. 19-40.p. 258,  
11. 12-23.

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Ex. 24, p. 92.

18. On these facts, the Supreme Court was of opinion that it could not be contended that Alexanderson had a completed invention at the beginning of February, and that the invention was not made until the first tests were completed in May. In the Appellant's humble submission, the Court, in reaching this conclusion, failed to apply the principle to be inferred from the judgment of the Privy  
20 Council in *Permutit v. Borrowman* (1926), 43 R.P.C. 356, where it was held that an invention could not be related back to the date upon which it had merely suggested itself to the inventor.

As is said in the Judgment (at page 359):—

“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.”

In the present case, the idea had not only been formulated, but the inventor had first explained it fully to a colleague and had later distributed a document adequately describing the means by which  
30 it was to be carried out and indicating the mode in which these means were to be employed. In these circumstances, the Appellant humbly submits that the Supreme Court erred in principle in refusing to accept the dates of the said communications to others of the proposal in a definite and practical shape as fixing the dates before or upon which the invention had been made by Alexanderson.

The Appellant also humbly contends that the adequate description of a new combination of old parts, which is subsequently proved to be practical and useful, establishes the date of the invention, notwithstanding that the physical elements of the device have not  
40 at that time been brought together and that a practical trial is

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delayed in order that it may be made with an improved part which later turns out to have been unnecessary. It submits that there is no distinction in this respect between a description in the specification of a patent and one in a document prepared for the purpose of unofficial record; and that in ascertaining the adequacy of a description the principle applicable is analogous to that by which a prior publication may be relied upon as and be held to be anticipation, without any proof that the author of the publication had actually constructed the device therein described.

The Appellant moreover submits that, in any event, an inventor, 10 whose device may depend for its practical realisation upon the construction of a new part, is in a position to describe his invention in a patent specification or in an equivalent form upon being assured by a technically qualified person that the production of such new part can be readily achieved.

Vol. II.  
Ex. G19,  
p. 137.

19. In the application made in 1913 for their German patent, (No. 293,300), which patent the Supreme Court held to constitute an anticipation of Alexanderson's invention, Schloemilch and von Bronk did not mention the selection of one particular signal out of many. Their application dealt in terms only with the strengthening 20 or amplification of a received signal. In 1911 von Bronk alone had obtained a German patent (No. 271,059), for an arrangement in which use was for the first time made of a vacuum tube for the purpose of amplifying incoming high frequency vibrations. The invention protected by this patent is not relied upon as an anticipation of Alexanderson's invention, and the said joint application of 1913 expressly relates only to an improvement on von Bronk's earlier device in the quite irrelevant characteristic that, after detection (or rectification) by a crystal or like rectifier, the audible components of the signal are to be further amplified by either the 30 same or a second vacuum tube. The claims made in the patent are in accordance with the opening statement in the specification which is as follows :

Vol. II.  
Ex. G18,  
p. 132.

Vol. II.  
Ex. G19,  
p. 137.

“The invention relates to an improvement of the wireless telegraphy  
“receiving system protected by Letters Patent No. 271,059 in which use  
“is made of a gas space permanently ionized by a heated cathode for the  
“purpose of amplifying the incoming oscillations and in which the  
“amplified oscillations are rendered perceptible by a special rectifier. In  
“accordance with the present invention the low-frequency impulses coming 40  
“from the rectifier are further amplified by similar gas spaces  
“('Gasstrecken') before they are passed on to the telephone or any other  
“indicating instrument. This results in a particularly simple and highly



“effective arrangement because one and the same gas space is made use  
 “of both for amplifying the high-frequency oscillations and for amplifying  
 “the low-frequency impulses.”

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20. Alexanderson's object was entirely different from that sought by Schloemilch and von Bronk. His purpose was to provide means whereby unwanted high frequency signals could be wholly suppressed without any loss of the strength or intensity of the signals which it was desired to receive. It is thus stated in the introductory paragraphs of his patent specification:—

10 “One of the chief problems encountered in radio-telegraphy is the  
 “suppression of waves of various wave lengths interfering with the waves  
 “constituting the signal to be received. The method now commonly  
 “employed for this purpose consists in using an electric circuit in which  
 “a train of waves of a given frequency acts cumulatively so that each  
 “successive impulse adds its energy to the previous impulse, while  
 “disturbing impulses of a different frequency have little effect. However,  
 “to screen out strong disturbing impulses effectively when weak signals  
 “are to be received requires an accuracy of adjustment which imposes a  
 “definite limit upon the possible selectivity of the system. Vol. II.  
 Ex. 1. p. 19.

20 “In accordance with the present invention, selective tuning is secured  
 “by the use of a plurality of resonant circuits arranged in cascade in such  
 “a manner that the selectivity of the system increases in geometric ratio  
 “with the number of circuits employed. The selective circuits are respec-  
 “tively interlinked by a relay controlling a separate source of energy to  
 “initiate oscillations corresponding to potential oscillations impressed upon  
 “the relay. As each tuned circuit is more or less opaque to disturbing  
 “oscillations differing in frequency from the oscillations to be selected,  
 “a certain percentage of the disturbances is eliminated in each circuit  
 “of the series, so that the purity of the incoming train of oscillations  
 30 “progressively increases as it is successively relayed. The relay preferably  
 “used for this purpose is an electron discharge tube having an  
 “incandescent cathode, an anode and a grid.”

21. The view that Schloemilch and von Bronk's specification disclosed Alexanderson's invention depends upon the acceptance of an interpretation orally placed by the Respondent's witnesses on the drawings attached to the specification proper. It was said that these showed that Schloemilch and von Bronk had added to von Bronk's earlier device something not expressly mentioned in the  
 40 specification. They showed, it was claimed, that, differing in this respect from von Bronk, Schloemilch and he, in their joint patent.

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had provided for the tuning of the circuits in combination with which their vacuum tube was used. In consequence, the Respondent argued that they had reached the same results as Alexanderson. On the question of the meaning of the symbols in the drawing, there was a difference of opinion between the experts examined at the trial; and in both Courts below for the purpose of explaining the drawings, reference was made to the oral evidence of Schloemilch and von Bronk, given on commission in 1926, as to what they had done, and had intended to show thirteen years earlier. In the Appellant's humble submission both Courts were wrong in law in considering such oral evidence. 10

Vol. II.  
Ex. P, p. 308.

22. The judgments also refer to a blue print produced on von Bronk's examination and marked as an exhibit notwithstanding objection. This blue print bears upon its face a notation "8.II.13," which may refer to the day before the patent application, but no other evidence than such as is supplied by the notation itself was given of the date upon which the blue print was prepared and there is no evidence whatever of the circumstances in which it had come into existence.

p. 397,  
ii. 1-3.

23. In the judgment of the Exchequer Court, the issue 20 was treated as one which "largely revolves around the point as "to whether the circuits disclosed in Schloemilch and von Bronk "were tuned or intended to be tuned as in Alexanderson and for the "purpose of selectivity." Schloemilch and von Bronk's patent drawings and evidence are described and the judgment proceeds:—

p. 399,  
ii. 9-18.

"In respect of the evidence given in Germany I am of the opinion "that it does not support the contention that tuning of the first grid "circuit of Patent No. 293,300 was contemplated. If the blue print were "clearly shewn to be made contemporaneous with the drawings of the "patent under discussion, intended to be associated with them and 30 "evidence of the inventors' minds, omission to show tuning of the grid "circuit of the first tube in the drawings of the patents themselves as "already mentioned, seems to me convincing evidence that the inventors "had not in mind selectivity at all, at least not of the order Alexanderson "had in mind, and to attain which the tuning of every circuit was "essential . . .

p. 399, l. 44.

"If Schloemilch and von Bronk had in mind an improved selectivity "and the means of bringing this about, then their specifications did not "communicate the idea, nor did they describe, as they were bound to do. 40 "how their arrangement could be operated for purposes of selectivity if

“that was in their minds, and their evidence singularly lacks clarity in  
 “showing all this. Upon that evidence and the patents themselves, I feel  
 “warranted in resolving every doubt against Schloemilch and von Bronk.  
 “I am of the opinion that the Schloemilch and von Bronk patents, their  
 “German and U.S. patents, are not anticipations of Alexanderson.”

The Appellant humbly submits that the above conclusions are correct even if (contrary to the Appellant's contention now and in the Courts below) Schloemilch and von Bronk's patent drawings are properly susceptible of interpretation by reference to the oral  
 10 evidence of the inventors. When they are interpreted independently of that evidence, as the Appellant humbly submits they should be, the correctness of the learned Trial Judge's conclusion “that “the Schloemilch and von Bronk patents are not anticipations of “Alexanderson” is strongly emphasised. In this connection the Appellant humbly draws attention to the provisions of Section 25 of the Patent Act, which section, in its submission, raises a presumption of the validity of a patent and imposes upon one who attacks a patent the onus of clearly establishing its invalidity.

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 p. 14.

24. The judgment of the Supreme Court deals with the  
 20 evidence of Schloemilch and von Bronk as follows:—

“I have read and re-read the evidence of both these witnesses and  
 “I can see no reason for refusing to accept their testimony. They were  
 “independent witnesses having no interest in the result of this litigation.  
 “From a perusal of their evidence I am satisfied that each was stating  
 “exactly what he believed to be true. The evidence discloses that each  
 “guarded himself against making a statement unless sure of his facts.  
 “There is no indication of any effort to recollect conversations held many  
 “years before, and again and again each admitted that he was unable to  
 “do so. Their evidence, supported, as it is by that of Professor Hazeltine,  
 30 “and by the blue print, carries conviction to my mind and I accept it  
 “and find that in their Patents, Nos. 293300 and 1087892\*. the grid  
 “circuit was intended to be, and was in fact, tuned to the same frequency  
 “as the other circuits.”

p. 455, l. 46.

\*(Their U.S.  
 Patent,  
 Ex. G. 20,  
 Vol. II, p. 84).

In the Appellant's submission the Supreme Court was wrong in principle in thus relying upon extraneous oral and other evidence to amplify and explain the disclosure in an alleged anticipating document and in concluding that the document as interpreted in the light of such evidence could properly be held to constitute an  
 40 anticipation.

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pp. 308, 309,  
366, 368.

Especially in view of the uncontradicted evidence adduced on the part of the Appellant that a circuit diagram alone, without explanation, is not sufficient to indicate the results that may be secured, the Appellant humbly submits that only the contents of the patent specification itself should properly have been referred to and that the Supreme Court has failed to apply the principle approved in *Metropolitan Vickers Electrical Company Limited v. British Thomson Houston Company Limited*, 43 R.P.C. 76, at p. 93 (C.A.); 45 R.P.C. 1, at p. 24 (H.L.), as follows:—

“It is not . . . enough to prove that an apparatus described in  
“an earlier specification could be made to produce this or that result; it  
“must also be shown that the specification contains clear and unmistakable  
“directions so to use it.” 10

25. The Appellant moreover submits that the conclusion of the Supreme Court was reached by it owing to its having apparently overlooked what was in effect common ground between the parties at the trial, viz., that in Alexanderson's arrangement amplification and selectivity were in a high degree mutually inconsistent.

As has already been indicated, the Respondent had, at the trial, attacked the utility of Alexanderson's invention on the ground that in practice amplification was essential, and that by the use of Alexanderson's arrangement alone, and without the addition of devices subsequently invented by others, no adequate degree of amplification could be attained. The Respondent contended that if an attempt were made to amplify the desired signals and to obtain the full advantage of amplification, there ensued a reaction between the successive circuits which impaired the effectiveness of the reception. This was not contested by the Appellant who, however, claimed that with moderate amplification, or even without any, Alexanderson's apparatus had utility. This view was adopted in the judgment of the Exchequer Court. The learned trial Judge referring to the evidence of the Respondent's expert says:— 20

pp. 132, 133.  
p. 135, l. 36.

“Further Professor Hazeltine admitted that the conditions of  
“selectivity disclosed in the Alexanderson patent could be obtained by the  
“circuit there shown, but he said, if one in addition wanted amplification  
“and the full advantage of amplification, one would need to add some-  
“thing to it. It is not I think necessary to enquire what was in the mind  
“of Professor Hazeltine as the requirement for a more complete  
“amplification, for if the result claimed by Alexanderson may be obtained, 40

“then the utility claimed is admitted, and there is only the claim of RECORD.  
“novelty to be established to sustain the patent.”

26. The Supreme Court having, as has been said, arrived, by reference to the evidence given by Schloemilch and von Bronk, at a conclusion as to what these inventors had intended to indicate in their patent application, proceeded, in the reasons for judgment to compare the results obtained by Schloemilch and von Bronk with those attained by Alexanderson, and the issue on this point is thus stated:—

10 “It was also contended that the two inventions differed in the objects p. 456, l. 10.  
“to be attained; that Alexanderson sought selectivity while Schloemilch  
“and von Bronk sought amplification only, and that no claim for  
“selectivity is made in any of their patents. That they made no claim for  
“selectivity, the appellants (the present respondents) admit, but the  
“reason for that, they say, was because the securing of selectivity by  
“means of tuned circuits arranged in cascade was, to their knowledge,  
“already old in the art and their invention added nothing to the prior  
“art as far as selectivity was concerned” . . .

20 After mentioning the “partially successful” prior attempts to obtain p. 456, l. 34.  
selectivity by means of tuned circuits alone, it is said that:—

“Unless, therefore, the use of the vacuum tube made by Alexanderson p. 456, l. 41.  
“differed from the use made of it by Schloemilch and von Bronk either in  
“the manner of its application or the object to be attained, their inven-  
“tion would appear to be exactly the same as his,”

and the conclusion reached by the Court is thus stated:—

30 “I am therefore of the opinion that during the last months of 1912 p. 457, l. 31.  
“and the early months of 1913, Schloemilch and von Bronk in Germany,  
“and Alexanderson, in America, working independently, produced devices  
“for securing selectivity and sensitivity in a receiving set by precisely  
“the same means.”

In the Appellant’s humble submission, this conclusion is not supported by the evidence adduced, and depends for its validity upon an earlier conclusion expressly based upon evidence to which no weight should have been attached. It is submitted that it would not have been reached if all the points of defence raised by the Respondent at the trial had been argued before the Court in appeal and their relation to each other considered.

27. Finally the Appellant submits that the Court below erred  
40 in taking into consideration unpublished knowledge and private

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acts of Schloemilch and von Bronk in Germany. The materiality of such knowledge and acts depends upon that part of Section 7 of the Patent Act, R.S.C., 1906, c. 69, which requires, for the grant of a valid patent, the conditions that the invention should be one "which was not known or used by any other person before his [the "inventor's] 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."

28. The Appellant humbly submits that the phrase "not 10  
"known or used" does not extend to secret and unpublished know-  
ledge or user, but is limited to published or public knowledge, or  
public use. Furthermore, it is submitted that if the said section is  
to be interpreted as covering secret knowledge or user, as well as  
public knowledge or user, it applies only to the knowledge or use  
which is proved to have existed or occurred in Canada. Notwith-  
standing the grammatical construction of the phraseology and its  
punctuation, it was held by the Privy Council in *Pope Appliance*  
*Corporation v. Spanish River Pulp and Paper Company* (1929)  
A.C., 269, and (1928) 46, R.P.C. 23, that the words "in Canada" did 20  
"not qualify the application for patent" but the expression "in  
"public use or on sale," and in the Appellant's submission, either  
these words also qualify the expression "not known or used by any  
"other person" or a like limitation of that expression is to be  
inferred on general as well as on historical grounds.

29. The successive forms of the corresponding provision of  
the *Patent Acts* which have been in force in the Province and the  
Dominion of Canada from time to time are as follows:—

1859: 22 V. c. 34, s. 3. - :

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p. 4.

"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."

1869: 32 &amp; 33 V. c. 11, s. 6 :

Joint Appx.  
p. 5.

"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."

1872: 35 V.-c. 26-s. 6:

RECORD.

“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.”

Joint Appx.  
p. 6.

1886: R.S.C.-c. 61-s. 7 (1):

“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  
“previously to his application for patent therefor in Canada.”

Joint Appx.  
p. 7.

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No change was made in the next following revision of the Canadian Statutes in 1906 when the last mentioned provision re-appeared in R.S.C., 1906, c. 69, s. 7 (1).

20 30. In *Wright & Corson v. Brake Service* (1926), S.C.R., 434, the Supreme Court held that the phrase “not known or used by any  
“other person before his invention thereof” was not qualified by the words “in Canada”. Idington, J., was of opinion that the provision was sufficiently clearly expressed; Duff, J., was of opinion that, as  
one of the Judges of the Court of Appeal in Ontario in 1882 had indicated the view that a fundamental change in the law as expressed in the earlier Statutes had been made by the Act of 1872, the absence of substantial change in the phraseology used in subsequent revisions indicated an assent by Parliament to the view so suggested; and Rinfret, J., was of opinion that the fundamental change from the rule very clearly expressed in the Act of 1859 had been made by the Statute of 1869. The judgment of Duff, J., was concurred in by Newcombe, J., and that of Rinfret, J., by Mignault, J. Having regard to this decision, the Appellant in the  
30 present case could not successfully object in either of the Courts below, to the relevancy of evidence as to what Schloemilch and von Bronk did or knew in Germany.

40 31. The Appellant now submits that no such inference as to an intention of Parliament to make any fundamental change in the law as it stood in 1859 is to be inferred from the successive re-arrangements of the words of the provision in question, and that the territorial limitation later expressed by the use of the words “in Canada” has always applied either expressly or by inference to all the conditions contained in the statutory phrases quoted, and that in particular, knowledge or use  
of an invention out of Canada, which knowledge or use was secret and was not available by reference to any prior published patent

RECORD.

specification or other publication, does not suffice to invalidate a patent issued to an independent original inventor who was the first to make application for a patent in Canada.

32. The Appellant accordingly submits that the judgment of the Supreme Court is wrong and should be reversed for the following among other

### REASONS.

1. Because Canadian Patent No. 208583 is a valid Patent and has been infringed by the Respondent.
2. Because the invention the subject of Patent No. 208583 10 is not anticipated by any of the prior documents relied upon by the Respondent, and in particular is not anticipated by the application for the German Patent No. 293300, and constitutes good subject matter for the grant of a valid Patent.
3. Because the invention the subject of Patent No. 208583 is a different invention from the invention the subject of German Patent No. 293300 granted to Schloemilch and von Bronk.
4. Because the Supreme Court failed to apply the principle 20 as to anticipation laid down in, among other cases, *Metropolitan Vickers Electrical Company, Ltd., v. British Thomson Houston Company, Ltd.*, 43 R.P.C., 76; 45 R.P.C. 1.
5. Because the Supreme Court erred in considering and relying upon the evidence given by Schloemilch and von Bronk as to what they meant by placing certain marks on the diagrams attached to their specification.
6. Because there was no similarity in fact in the results obtained by the inventions of Schloemilch and von 30 Bronk and Alexanderson respectively, they and he having different and to some extent inconsistent objects.
7. Because it is immaterial to inquire whether or not Schloemilch and von Bronk obtained the same results or made the same invention as Alexanderson, because the results and invention remained unpublished until too late to affect the validity of Patent No. 208583, and



nothing was done by or through the said Schloemilch and von Bronk in Canada in connection with their said invention.

RECORD.

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8. Because Alexanderson was the first to make the invention in question and to achieve any proved relevant results, his invention having assumed definite and practicable shape at least as early as February 4th, 1913, whereas it is not established that the invention of Schloemilch and von Bronk was made earlier than February 8th, 1913.
9. Because the Supreme Court erred in attaching importance to a document as to the date of which there was no evidence other than a notation thereon.
10. Because the Reasons for his Judgment given by MacLean, J., are correct, and the Order of the Exchequer Court of Canada is right and ought to be restored.

J. WHITEHEAD.

O. M. BIGGAR.

RUSSEL S. SMART.

In the Privy Council.

ON APPEAL

FROM THE SUPREME COURT OF CANADA.

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BETWEEN :—

CANADIAN GENERAL ELECTRIC  
COMPANY LIMITED, (Plaintiff)  
*Appellant*

— AND —

FADA RADIO LIMITED, (Defendant)  
*Respondent.*

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CASE  
FOR APPELLANT.

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