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No. 74 of 1928.

ON APPEAL FROM THE SUPREME COURT OF CANADA.

BETWEEN

CANADIAN GENERAL ELECTRIC COMPANY LIMITED (Plaintiff) Appellant,

AND

FADA RADIO LIMITED

(Defendant) Respondent.

RESPONDENT'S CASE.

1. This is an Appeal by special leave from a Judgment of the Supreme Record. Court of Canada dated 7th February, 1928, reversing a Judgment of the I., p. 449. Exchequer Court of Canada dated 14th April, 1927, and dismissing the I., p. 388. Appellant's action, with costs in both Courts. The action is brought in II., p. 18 respect of the alleged infringement of Canadian Letters Patent No. 208,583, issued to the Canadian General Electric Company, Limited, as assignee of Ernest F. W. Alexanderson. The claims of the said Letters Patent alleged to be infringed are numbered 1, 2, 3 and 7 and the said Letters Patent are hereinafter referred to as the Alexanderson patent.

10 2. The Alexanderson patent has to do with the art of signalling by radio and claims an improvement in selecting the signals sent from one radio station from those sent from other radio stations. The particular improvement claimed by the Alexanderson patent is securing selectivity by tuned circuits and at the same time maintaining or increasing the sensitivity by the use of an electrical device known as the relay.

3. There are four main defences: that there was no invention in view I., p. 4, 1. 25. of what was known to those skilled in the radio art; that work of ^{et seq.} Schloemilch and von Bronk anticipated the invention, if there was any invention; that because of a previous grant to the same company on a 20 similar disclosure there was no consideration given to the public in exchange for the patent granted; that the patent was void from its inception because the oath in support of the patent was untrue in a material respect.

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I., pp. 450-459.

I., p. 405

I., p. 450.

I., p. 450, l. 31.

4. Both the Exchequer Court and the Supreme Court based their Judgments on the defence that the work of Schloemilch and von Bronk anticipated the invention, if there was any invention. The questions raised by the Appellant in its application for special leave to appeal relate only to this defence. In view of the full discussion of this defence by the Supreme Court (on whose Judgment the Respondent unreservedly relies), it will be discussed only insofar as is necessary to answer the questions raised by the Appellant. The three remaining defences which the Supreme Court did not find it necessary to consider will be more fully dealt with.

5. The principles of radio are set forth throughout the testimony of 10the various witnesses. The introductory concepts are set forth on pages 9-16 of Vol. I of the Record. A condensed and correlated statement of radio principles insofar as they are pertinent to this case is contained in the Appellant's Factum before the Supreme Court; an even more condensed statement of them is contained in the Judgment of the Supreme Court. It is desired to now emphasise only two points : The first is the relation of selectivity to sensitivity; and the second is the part played by the relay in securing sensitivity.

As is stated in the Judgment of the Supreme Court :---

"The selectivity of a receiving set is the measure of its ability to 20 exclude what is not wanted. Its ability to receive what is wanted at its greatest strength is known as its 'sensitivity.' Sensitivity is frequently spoken of as 'amplification' because present-day receivers always amplify the desired signals."

Selectivity is secured by the use of electrical devices (tuned circuits) which are more responsive to one signal than any other. Like all devices, they consume some energy. The selectivity may be increased by using a number of tuned circuits seriatim, but this consumes more of the energy of the signal, thereby weakening it and reducing but not destroying the sensitivity of the receiving set. 30

The sensitivity of the receiving set is increased by the use of an electrical device known as the relay. This supplies energy to make up for the energy lost in securing selectivity. If more than the lost amount of energy is supplied the signal is amplified. One particular kind of relay for supplying this energy is the vacuum tube relay, otherwise referred to as the "audion" or the "valve."

I., p. 110, 11. 11-31,; p. 314, 11. 16-31.

6. At the outset of the discussion of the art prior to Alexanderson 311, 1. 33; p. it is desired to emphasise the fact that Alexanderson, although familiar with the use of electricity in engineering, knew practically nothing of radio reception until the late autumn of 1912. He then did not 40 know of the work of the leaders in this art. Prior to Alexanderson the workers in the radio art had solved the problem of securing selectivity by tuned circuits; and, when confronted with the loss of sensitivity, they solved that problem by using relays, and they overcame certain limitations

of the ordinary relay by utilising the vacuum tube relay. At the time when Alexanderson claims to have made the invention of the patent in suit (which was at the time of his first contact with the art of radio reception), the problems which he believed he solved had already been solved, and there was nothing left to do which was beyond the skill of the workers in the art ; there was nothing left to do which required the exercise of the inventive faculty.

7. Naturally, one of the first problems met by the early workers in radio was that of selectivity. This problem was solved by the use of tuning.
10 One of the earliest solutions was in 1899 when Marconi tuned the antenna of the receiving set and secured *simple selectivity*, *i.e.*, the selectivity of a single tuned circuit. He tuned by means of an adjustable coil (Marconi Patent No. 627,650. Ex. G-1, page 1, lines 31-37):

"It is desirable that the induction-coil should be in tune or syntony II., p. 58, with the electrical oscillation transmitted, the most appropriate number 1.31. of turns and most appropriate thickness of wire varying with the length of wave of the oscillations transmitted."



Patent Number 627,650—Simple Selectivity.

8. Shortly afterward (in 1900) Marconi added enother tuned circuit 20 and secured "geometric selectivity," i.e., the selectivity of a series of tuned circuits in series or cascade. The incoming waves were successively filtered, first in one circuit and then in the next, to select the desired wave. The

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- Record. result was not merely twice as good (as one might at first expect), but was many times as good; and was, in fact, the product of the selection obtained in each of the individual circuits. Therefore the name "geometric selectivity" has been given to it, probably by Alexanderson. In this system Marconi used adjustable coils for tuning (Marconi Patent No. 763,772, Ex. G-2, page 2, lines 86-98) :---
- II., p. 73A, 1.86.

"An inductance-coil g' of variable inductance is interposed in the primary circuit of the transformer, being preferably located between the cylinder f' and the coil j' and the inductance of said coil may be adjusted in accordance with the method described by me in my Letters 10 Patent of the United States, Number 676,332, to harmonise with the inductance of coil g at the transmitting station, Fig. 1 of the accompanying drawings, or with that of the coil or coils at one or more of the transmitting stations included in the communicating system."



Patent No. 763,772-Geometric Selectivity.

9. In 1907, a third tuned circuit was added by the Marconi Company which gave still greater geometric selectivity. In this system also tuning was secured by adjustable coils as well as coils and condensers (Marconi Patent No. 12,960. Ex. G-3, page 1, lines 33-36) :---

"The natural frequencies of these circuits may be adjusted by $_{20}$ varying their capacities or inductances, or both, but the method we find most convenient for adjusting the frequencies of the intermediate circuit and the receiver circuit is to vary their capacities only while keeping their inductances constant."

II., p. 100, 1.33.



British Patent Number 12,960—Geometric Selectivity.

10. All of these were practical, much-used devices. The device of 1907 was called the "Franklin Multiple Tuner," and was used by one of the I., p. 178, Respondent's witnesses, John R. Binns, on board the S.S. "President Grant." He used this type of tuner for some time and was able to select $I_{1, 45}^{I, p. 180}$, weak signals from strong local ones.

11. The Appellant points out, and it has been admitted by the Respondent, that this system without relays is not as sensitive as it would have been if relays were used. The reason for this is that the signal, in passing 10 through each tuned circuit and, more particularly, in passing from one tuned circuit to the other loses energy. Therefore, the signal becomes weaker, i.e., the sensitivity becomes less. Practically speaking, the loss of signal strength was not a serious matter, since the remaining desired signal, while weak, had been made many times stronger than the remaining undesired signal, by the process of selection. The Marconi multiple tuner was therefore a good receiver and was much used in commercial radio communication. As was demonstrated at the trial, the selectivity of this tuner without relays II., pp. 382 was exactly the same as one with relays (Exs. I and J).

12. The use of a relay as an electrical device to secure amplification is 20 very old, and was known as far back as the year 1886 (United States Patent II., p. 55. No. 340,707 Ex. G-7). In 1910, or earlier, Schloemilch and Lieb applied the relay to a radio receiving circuit to secure sensitivity. The circuits were cascaded, *i.e.*, there was a series of circuits with relays between each

and 383.

Record. two circuits. This device went into wide use and is referred to in several publications in evidence.

Ex. G-10—The Electrician, London, November 24, 1911, pp. 249-252; Ex. G-11—Manual of Wireless Telegraphy for the Use of Naval Electricians, S. S. Robinson, published by United States Naval Institute, p. 136;

Ex. G-12—Jahrbuch der Drahtlosen Telegraphie und Telephonie, 1912, pp. 309-310;

Ex. G-23-Electrical Review, Vol. 46, No. 12, 1925, pp. 502-507.



United States Patent Number 1,163,180—British Patent Number 10 10,210—Geometric Selectivity and Sensitivity by Relays.

In "The Electrician" of November, 1911, it is described (p. 249) :--

"Sound Intensifier.—An instrument that has been developed by the Telefunken Company, and which adds greatly to the simplicity of receiving with a singing spark, is the sound intensifier. It consists practically of three tuned microphones and it acts in two ways; firstly, by selecting the sound to which it is tuned and, secondly, by magnifying this sound."

II., p. 201.

II., p. 200.

I., pp. 200-203.

II., p. 204.

II., p. 215.

II., p. 189.

(p. 250): "The sensitiveness is high . . . "

13. In 1912, the Lorenz Company devised a system in which selectivity 20 was secured in the long and well-known manner by inductance and capacity, and sensitivity was secured by the relay. The Lorenz Patent No. 258,478 (Ex. G-14) issued on April 3, 1913. The system was known prior to October, 1912, when the application was filed (see *Alexander Milburn Co. v. Davis*- Bournonville Co., 270 U.S. 390, 70 L. Ed. 651) before Alexanderson came into the field.



German Patent Number 258,478—Geometric Selectivity, and Sensitivity by Relays.

In the Lorenz patent the same advantages for this system, over a system not having relays, were stressed, as they were stressed in the Alexanderson Patent. The description says :---

"In order to increase the precision of the resonance, tuning might π , p. 127. be performed several times, thus, several circuits could be provided that are coupled with one another, and each one of which is tuned to the sound frequency. The coupling could be effected by transformers. But this arrangement shows the following drawback. If really an increase of the precision of tuning is to be attained, a very loose coupling must be selected in order to avoid mutual interference of the circuits; but if the coupling is loose, such a noticeable weakening of the sound will take place that the advantage of a more precise resonance obtained will be made ineffective.

"According to the present invention this drawback is fully removed by using for the coupling of the circuits an acoustic instead of an electric one, and by making the circuits among each other fully independent of each other."

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II., p. 128.

II., p. 30.

Claim 1 of this Lorenz patent reads :---

"1. A process and arrangement for the selective sound reception in the wireless news transmission, characterized by the feature that several circuits are used which are tuned to sound frequency, but are electrically independent among one another, the oscillations being transmitted from one circuit to the next circuit by connecting a telephone with a microphone [a relay]."

"1. The method of selecting sustained oscillations of a given frequency from disturbing oscillations differing therefrom in frequency which consists in impressing all the oscillations upon a circuit resonant to the frequency of the oscillations to be selected, thereby reducing the effect of disturbing oscillations in accordance with the degree of tuning of the resonant circuit, and controlling by means of the oscillations in said circuit an independent source of energy to initiate oscillations in step therewith and impressing the second set of oscillations upon a second circuit-resonant to the frequency of the oscillations to be selected.

"2. A receiving apparatus for electro-magnetic waves comprising a plurality of *tuned circuits* largely opaque to oscillations of other than a given frequency, means [a relay] linking adjoining circuits said means comprising a source of energy and an energy-transmitting apparatus varying in conductivity with impressed oscillations for initiating oscillations in step with received oscillations and means associated with the last circuit of the series for detecting the oscillations."

11., pp. 31-32. The remaining claims in suit (3 and 7) refer to the same system as do claims 1 and 2, but specify a particular kind of relay—the vacuum tube relay. 30

> 15. The practical limitation on these devices of Schloemilch and Lieb and the Lorenz Company was that they had mechanical parts which could not work at very high frequency, although they could work at the lower radio frequencies.

The vacuum tube relay, which was invented by DeForest, was a relay which did not have this frequency limitation. Von Bronk demonstrated in 1911 that the vacuum tube could be used as a relay for high frequency radio currents. He filed an application for a German patent in 1911 (issued as Patent No. 271,059), showing this and claiming as a specific invention the use of a vacuum tube as a high frequency relay in combination with the 40 use of a separate device as a detector.

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It is submitted that there was no inventive act in substituting the vacuum tube relay for the other relays and that therefore claims 3 and 7 are also invalid.

16. Alexanderson admittedly was unaware of the developments of the I., p. 314, art of radio reception prior to the time he entered the field in the autumn of 1912. Prior to that time the problem of selectivity had been solved by the use of one or more tuned circuits used in series. Tuning was secured ther by a coil alone or by coils and condensers. The problem of sensitivity had been solved by the use of relays to make up for the loss of energy in the to tuned circuits. These relays were used for the same purpose and in the same way as they were used by Alexanderson. This work directly anticipates claims 1 and 2 of the Alexanderson patent, which are directed to relays generally. The vacuum tube relay, which was the preferred relay of Alexanderson, was used by von Bronk as a high frequency relay in 1911. The only remaining step to be taken, therefore, at the time Alexanderson entered the field was to use this relay between the tuned circuits of a selective system in place of the previous relays. Claims 3 and 7 of the patent specify

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p. 459, 1. 36 et seq.

vacuum tube relays. It is submitted that inasmuch as prior to Alexanderson's entrance into the radio field, the nature and purpose of relays generally were fully appreciated; their use for improving the sensitivity of radio sets was fully appreciated; the frequency limitations of the ordinary relays when used for increasing the sensitivity were fully appreciated; and the possibility of using the vacuum tube relay at the high frequencies where the ordinary relay would not work had been pointed out by von Bronk, no step remained to be taken which was not obvious to any person skilled in the art. It is further submitted, therefore, that the use of vacuum tube relays in place of relays already known in the art was an obvious selection 10 of a form of relay known to be the most suitable for high frequencies ; that such selection, therefore, involved no invention and that claims 3 and 7 are consequently invalid.

17. Regardless of whether the use of vacuum tube relays as specified in claims 3 and 7 involved the exercise of any inventive faculty, the Respondent submits that this very thing was done prior to Alexanderson by Schloemilch and von Bronk in Germany. The work of Schloemilch and von Bronk is fully discussed by the Supreme Court in its Judgment, and it is not necessary to review it again.

p. 395, ll. 37-46. Both the Exchequer Court and the Supreme Court founded their 20 Judgments upon what may be termed the "Schloemilch and von Bronk defence." The view taken by the Supreme Court is, the Respondent submits, correct, and should be affirmed. The view taken by the Exchequer Court was, as the Supreme Court held and as the Respondent submits, in error. It is submitted that the Exchequer Court was manifestly in error in two particulars, viz. :--

> First: The Exchequer Court failed to appreciate that selectivity could be obtained by a coil alone as well as by a coil and condenser, and therefore held, as the Respondents submit wrongly, that what was shown in the patent application of Schloemilch and von Bronk, viz., a coil alone did not show 30 selective tuning.

Second: The Exchequer Court failed to understand that the Respondent did not rely on the patent application as an anticipation, but relied upon the work of Schloemilch and von Bronk, corroborated by the patent application.

18. In the submission of the Respondent three of the four questions which Appellant here presents, as stated in the Petition for special leave to appeal, are based upon a misconception that the Respondent relies on the patent application of Schloemilch and von Bronk as an anticipation instead of upon their work and do not properly arise. These three questions may 40 be briefly dealt with.

The *first* question, as stated in the said Petition, is :---

"Whether, under the above quoted section, an invention is made (as Your Petitioner contends) when the inventor has fully disclosed his invention to others (in Your Petitioner's case in writing in terms sufficiently full to enable one practised in the art to construct the device) although its reduction into practice be delayed (in Your Petitioner's case by the inventor's idea, erroneous, as it transpired, that one of the parts of the proposed device required some improvement which he was assured by Dr. Langmuir could be made)."

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This question does not arise, because the date of Schloemilch and von I. pp. 415-Bronk's completed work, which is relied upon by the Respondent, is earlier ⁴¹⁸_{I. pp. 423}. than the earliest date claimed even for the written disclosure by Alexanderson. ^{424.} The invention of Schloemilch and von Bronk was completed and successfully operated at least 10 days before their patent application was filed—10 days before February 9th—which establishes their date of completed invention to be at least as early as January 30, 1913. Alexanderson's 10 first written disclosure was later than this, viz., February 4th, 1913, and his I.p.292.1.18.

first experimental device was not built until May 18th, 1913.

19. On the assumption, however, that the question may properly be II., p. 280. raised, the Respondent relies upon the fact that Alexanderson himself did not think that his invention was completed at the said date, as is shown by the fact that he believed that one of the important parts (the vacuum tube relay) would not work. Even were the disclosure of 4th February sufficient to establish completed invention by one who believed, and who had sufficient grounds for believing the invention would work, it cannot establish completed invention by Alexanderson, who thought it would not work.

20 **20.** The *second* of the Appellant's points, as stated in the said Petition, is as follows :---

"Whether the Supreme Court of Canada is right in giving anticipating effect to an earlier patent application on evidence given by the applicants as to their intention and meaning in placing certain marks on the figures attached to their specification, and in reliance on such evidence, enlarging the disclosure."

This question does not arise because the Respondent does not rely upon this patent application solely as an anticipation of Alexanderson's invention—it relies upon this patent application as one item of corroboration 30 of what Schloemilch and von Bronk testified that they did.

21. The *third* question, as stated by Appellant in the said Petition, is as follows :----

"Whether the Supreme Court of Canada have not erred in failing to apply the principle as to anticipation laid down in, among other cases, Metropolitan Vickers Electrical Company, Limited v. British Thomson Houston Company, Limited (43 R.P.C. 76 C.A.)."

The principle which it is understood the Appellant deduces from the above case is thus quoted by it.

"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."

This principle is not applicable here for the reason that what is now dealt with is the work of Schloemilch and von Bronk, and not the mere disclosure in a patent specification. In the *Metropolitan Vickers case* the dictum of the Court, quoted by the Appellant, followed on the finding that the anticipating patent before it was a mere paper patent and that the device described in the patent had never been put into use. The Court said :--

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"Any anticipation, therefore, of this specification by Tesla is a mere paper anticipation within the meaning of the cases and must therefore satisfy a very strict test if it is to prevail."

Furthermore, it appears from the Judgment that the disclosure of the prior patent was insufficient and had to be supplemented or changed in order to perform the function of the patent in suit. In the present appeal, were the Respondent to rely only on the patent application of Schloemilch and von Bronk and were it to concede that the application says nothing whatsoever about selectivity and talks only of sensitivity, it would still be true that when performing the function of sensitivity, which is claimed in the 10 patent, the device must also perform the function of selectivity which Alexanderson claims.

22. The *fourth* point mentioned by Appellant in the said Petition does arise in this Appeal. It is stated by the Appellant as follows :—

"Whether an invention in Canada can be anticipated by an invention made outside the Dominion of Canada which had not been in public use or on sale previously to the inventor's application for patent in Canada nor described in any publication in any country."

It is submitted that the answer to this question depends upon the construction of the Patent Act of Canada, R. S. C. c. 69 sec. 7 (which was 20 recently construed by the Judicial Committee in *Pope Appliance Corporation* v. *Spanish River Pulp and Paper Mills Limited*, 46 R.P.C. 23.

"7. Any person who has invented any new and useful art, machine, manufacture or composition of matter, or 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 previously to his application for patent therefor in Canada, may, on a petition to that effect, presented to the Commissioner, and on compliance 30 with the other requirements of this Act, obtain a patent granting to such person an exclusive property in such invention."

It is submitted that under this section an invention made in Canada can be anticipated by the mere knowledge or mere use or mere completed invention by some other person anywhere in the world.

In support of this view it is submitted : First, that the meaning above submitted is the natural reading of Section 7; and Second, that the pertinent Sections of the Patent Acts, both before and after the one in question, definitely establish that it had always been and still is the policy of the Canadian patent system to require that an inventor shall be the first inventor in all 40 the world.

23. The Respondent further submits that, disclosure having been given to the public in a previous grant, there was no consideration for the Appellant's patent grant.

The Patent in suit, No. 208,583, is identified as the Alexanderson Patent, because it is based on the work of Alexanderson.

The Patent Number 196,390 is identified as the Langmuir Patent because it is based on the work of Langmuir, another employee of the General

Joint Appendix, p. 10. Electric Company (U.S.A.). Before application was filed for either patent, the Canadian General Electric Company, Limited, had the knowledge contained in both applications and the right to apply for patents in exchange for this knowledge. The applications when filed were formally executed by Alexanderson and Langmuir respectively, but were assigned at the time to the Canadian General Electric Company, Limited. The patents issued to the Canadian General Electric Company, Limited. The case may, therefore, be considered to be one where the patents were both to one inventor.

¹⁰ Patent Number 196,390 was applied for on October 6th, 1919, and was granted on January 20th, 1920. The Patent in suit was not applied for until September 17th, 1920—eight months after the other had issued although the papers were sent to the Canadian Company by the United States Company in 1913—seven years earlier.

The following figures are taken respectively from the Alexanderson Patent in suit and from Patent No. 196,390. Both of these figures illustrate a receiving set in which the received wave is selected by a tuned circuit, repeated by a vacuum tube and again selected by a tuned circuit. This is what both Patents claim.

²⁰ Both of these figures are in this respect fully described in the specifications, as functioning in exactly the same way, and for the same purpose.



Figure 2.—Patent Number 196,390.



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In Patent Number 196,390 it is stated that :---

"It will be noted that by thus tuning successive circuits the undesired oscillations are reduced in each case in geometric proportion. This progressive tuning thus produced in my present invention is described and claimed in its broad aspect in an application filed by E. E. F. Alexanderson, Serial No.

Even if this be construed as an attempted reservation of right to another patent, it is ineffective. At this date, however, no Alexanderson application had been filed. In the re-issue of this Patent (Number 244,847) which has the same effect as the original (Patent Act of 1906, Section 24 (3)), this 10 vague reference was made clear. The re-issue states :—

"This progressive tuning thus produced in our present invention is described and claimed in its broad aspect in a United States Patent of Ernst F. W. Alexanderson, Number 1,173,079."

Patent Number 196,390 makes this same disclosure the basis of its claims. Claim 3 reads :---

"A selective system for detecting signals consisting of groups of high frequency oscillations, comprising the combination of a plurality of circuits resonant to the frequency of the oscillations to be selected, relay means interposed between said respective circuits and operative 20 to impress upon one circuit oscillations proportionate to oscillations in another circuit, means for integrating the high frequency oscillation in one of said circuit to produce a variable current having a frequency equal to the group frequency of the signals, a circuit connected thereto resonant to said group frequency and means for detecting current in said circuit."

This is also Claim 1 of the re-issue. The re-issue also contains as Claim 5 :--

"A system for selecting groups of high frequency oscillations from disturbing oscillations comprising the combination of a circuit resonant to the frequency of the oscillations to be selected, a second circuit 30 resonant to the group frequency of said oscillations, relay means interposed between said circuits operative to impress upon the second circuits amplified oscillations proportionate to oscillations in the first circuit, and means for receiving and detecting a current in the second circuit."

Patent Number 196,390 (originally or as re-issued), therefore, it is submitted, completely discloses and claims the selective system claimed by the Patent in suit.

The Patent in suit, therefore, fails to give to the public in exchange for the Patent Grant that consideration upon which the Patent monopoly $_{40}$ rests; and the Patent is, therefore, in the Respondent's submission, invalid.

24. The Patent was obtained upon an allegation in the oath taken by Alexanderson, accompanying the application for the Canadian Patent, which was material and which was untrue, and which Alexanderson could not actually and honestly have believed to be true.

II., p. 13, 1. 2.

II., p. 51, l. 18.

II., p. 334.

II., p. 9, l. 10.

II., p. 39.

II., p. 46. l. 27.

The Supreme Court did not refer to this defence in its Judgment in the present case. The Trial Judge, in passing upon this defence, rested decision upon the reasons given by him in another cause between the same parties. $\binom{1}{Canadian}$ The Supreme Court affirmed the Trial Judge in that other case.(2)Certain facts in that case are different from those in the one at issue, and *Electric Co.* the difference may be material. The reasons of the Supreme Court with the difference may be material. the difference may be material. The reasons of the Supreme Court and the learned trial Judge and the position taken by the Appellant suggest that it is.

On 29th October, 1913, Alexanderson filed an application in the United 1927, p. 107. States Patent Office for a patent covering the invention forming the subject CL.R.10 matter of this Appeal. On 22nd February, 1916, there issued upon that (Supreme Court) 1927, application, United States Letters Patent Number 1,173,079, to the inventor's p. 523. assignee, the General Electric Company.

On 17th September, 1920, an application was filed in Canada for the same invention, on an oath by Alexanderson. On 15th February, 1921, there issued upon that application, Canadian Letters Patent Number 208,583, to the inventor's assignee, the Canadian General Electric Company.

In both the earlier United States and the later Canadian applications, Alexanderson signed the application for patent and took the oath accompanying it. In the oath in the Canadian application he said "that the II., p. 334. same (invention) has not been patented to me, or to others with my knowledge 20or consent, in any country."

In the other case, No. 7244, Langmuir took substantially the same oath in the later Canadian application, but did not sign the earlier German application, nor did he take the oath accompanying it. That was done, under the German practice, by a third party, and there is no evidence that Langmuir had anything to do with the preparation and filing of the application. Langmuir's name does not appear in the German Patent which issued upon that application.

It is to be observed that the learned trial Judge in the other case referred to stated that he had no evidence before him that Langmuir, who 30 made oath supporting the application for Canadian Patent Number 196,390, knew of the issue of the German Patent, and that the issue of the German Patent would not in itself have been a ground for voiding the Canadian Patent in the absence of fraud "which is not suggested."

The learned Chief Justice of the Supreme Court in his reasons for judgment dismissing this appeal said inter alia (C.L.R. Supreme Court, 1927, p. 523) :---

" In all events in the absence of proof of fraudulent intent on the part of Langmuir, we are not prepared to hold that his patent No. 196.390 was void.'

It is submitted that since Alexanderson himself signed both applications 40 and took the accompanying oaths, his ignorance of the issue of the patent upon the earlier application, cannot seriously be suggested.

25. Paragraph 1 of Section 8 of the Patent Act, Chapter 69, R.S.C. 1906, reads as follows :---

"Any inventor who elects to obtain a patent for his invention in Joint a foreign country before obtaining a patent for the same invention in Appendix, p. 10, 1. 15. Canada, may obtain a patent in Canada, if the patent is applied for

General Fada Radio Limited. C.L R. (Ex.)

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Appendix, p. 12, l. 2. within one year from the date of the issue of the first foreign patent for such invention."

To ensure compliance with the provisions of this paragraph the Commissioner of Patents established a certain rule requiring the inclusion in the oath, which, under Section 10, must be taken by every inventor before a Patent can be obtained, of the allegation "that the same has not been patented to me, or to others with my knowledge or consent, except in the following countries . . . or . . . in any country," as the case might be. The allegation in the oath was duly made by Alexanderson, who swore "and I further say that the same has not been patented to me, 10 or to others with my knowledge or consent, in any country."

It is submitted that because of the fact of the issue of United States Patent, Number 1,173,079, this allegation was not true. Moreover, this allegation was essentially material, since any disclosure in the application, of the fact of the grant of the United States Patent, more than one year before the filing of the Candian application for a Patent for the same invention, would have brought into operation the provisions of Section 8, and a Patent in Canada could not have issued. The Commissioner of Patents, had he been aware of the true facts, must and would have refused Alexanderson's application, and it is submitted that the said Patent was therefore 20 obtained upon a false suggestion, and is invalid.

26. Paragraph 1, Section 29, of the Act of 1906 (Sec. 31 of the Act of 1923) reads :---

"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: Provided that if it appears to the Court that such omission or addition was an involuntary error, and if it is 30 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."

Therefore, the Respondent submits that because the declaration of the applicant for Patent Number 208,583 contained a material allegation which was untrue, the Patent was invalid.

27. In the other related case (Langmuir Case No. 7244), it was held that in the absence of fraud the untrue statement was immaterial in view $_{40}$ of Chapter 44, Section 7 (1) of the Statutes of Canada, 1921.

The Respondent agrees that Chapter 44 permitted an applicant to apply for a patent in Canada at any time up to January 4th, 1922, provided there had not issued to him prior to the 1st of August, 1913, any foreign patent. And it further said that if a patent had issued on such an application, t was not to be held to be invalid because of the earlier foreign patent. If, therefore, Alexanderson had withheld his application until the coming into force of Chapter 44, then (assuming he had complied with the Patent Act in all other respects) a patent would have issued to him. It is submitted, however, that Chapter 44 was certainly not designed to validate or restore, and does not validate or restore, a patent obtained in violation of a statutory enactment requiring a true oath, in force at the date of the issue of the patent. Under Section 29, such a patent was void *ab initio*, and so the Appellant could not seek relief under Chapter 44 which deals only with applications for patents, and with patents *in esse*.

28. The Respondent submits that the Appeal should be dismissed, and10 the judgment of the Supreme Court of Canada dated the 7th of February, 1928, affirmed for the following among other

REASONS.

- 1. Because the Appellant's patent is invalid.
- 2. Because the Appellant's patent discloses nothing that amounts to invention over what was previously known.
- 3. Because the improvement in question had been known and used by other persons before the alleged invention by Alexanderson.
- 4. Because the oath accompanying the application being untrue in a material respect the Appellant's patent was void *ab initio*.
- 5. Because a similar disclosure having been made on a previous grant to the Appellant there was no consideration given to the public in exchange for the patent.
- 6. Because the reasons stated in the judgment of the Supreme Court of Canada are right.

W. D. HERRIDGE. W. TREVOR WATSON. In the Privy Council.

No. 74 of 1928.

On Appeal from the Supreme Court of Canada.

BETWEEN

CANADIAN GENERAL ELECTRIC COMPANY LIMITED (Plaintiff) Appellant,

AND

FADA RADIO LIMITED (Defendant) Respondent.

RESPONDENT'S CASE.

BLAKE & REDDEN, 17, Victoria Street, S.W.1.