1966
*Sept. 26, 27, 28
1967
June 26

THE GENERAL TIRE & RUBBER COMPANY (*Plaintiff*) ..... APPELLANT;

AND

DOMINION RUBBER COMPANY LIMITED and PHILLIPS PETROLEUM COMPANY (*Defendants*) ..... RESPONDENTS.

ON APPEAL FROM THE EXCHEQUER COURT OF CANADA

Patents—Conflict proceedings—Rights of three applicants for patents of similar invention—Whether invention—First to invent—Patent Act, R.S.C. 1952, c. 203, s. 45(8).

These actions arose out of a conflict under s. 45 of the *Patent Act*, R.S.C. 1952, c. 203, between patent applications of the three parties of these appeals. The conflict concerned three claims identified as C4, C5 and C6 relating to a synthetic rubber known as cold rubber. The Commissioner of Patents ruled that the respondent Dominion Rubber Co. was entitled to claims C5 and C6. The Exchequer Court held that none of the parties was entitled to claim C4 and that Dominion Rubber Co. was entitled to claims C5 and C6. There is no appeal from the decision in respect to claim C4. Phillips Petroleum Co. took no part in the hearing in this Court. The appellant contends that there was a lack of patentability having regard to the state of art and what Doctor Howland for Dominion Rubber Co. did, when he conceived and disclosed the idea in December 1947, was an obvious user of a process then well known in the art. It is conceded that Phillips Petroleum Co. could not have made any invention prior to January 19, 1948, and General Tire & Rubber Co. prior to April 14, 1949.

Held: The appeal should be dismissed.

The inventor, Howland, applied a known method, not previously used for that purpose to a known substance with a new compound at the time in the process of making cold rubber which resulted in a finished product being available to the market. The trial judge was right in finding that this was an invention and the evidence supports his finding.

Brevets—Conflit de demandes—Droit de trois demandeurs de brevets pour la même invention—Y a-t-il invention—Qui fut le premier—Loi sur les brevets, S.R.C. 1952, c. 203, art. 45(8).

Ces actions résultent d'un conflit sous l'article 45 de la *Loi sur les Brevets*, S.R.C. 1952, c. 203, entre les demandeurs de brevets des trois compagnies dans ces appels. Le conflit se rapporte à trois revendications, C4, C5 et C6, concernant un caoutchouc synthétique connu sous le nom de «cold rubber». Le Commissaire des Brevets a jugé que

*PRESENT: Martland, Judson, Ritchie, Hall and Spence JJ.

l'intimée, Dominion Rubber Co. avait droit aux revendications C5 et C6. La Cour de l'Échiquier a jugé qu'aucune des compagnies avait droit à la revendication C4 et que Dominion Rubber Co. avait droit aux revendications C5 et C6. Il n'y a pas eu d'appel de la décision concernant la revendication C4. La compagnie Phillips Petroleum Co. n'a pas pris part à l'audition devant cette Cour. L'appelante soutient qu'il y avait un manque d'invention vu l'état de l'art et que ce que le Docteur Howland, pour Dominion Rubber Co., a fait, lorsqu'il a conçu et dévoilé l'idée en décembre 1947, était un usage manifeste d'un procédé bien connu dans l'art. Il est admis que Phillips Petroleum Co. ne peut pas avoir fait l'invention avant le 19 janvier 1948, et General Tire & Rubber Co. avant le 14 avril 1949.

Arrêt: L'appel doit être rejeté.

L'inventeur, Howland, a appliqué une méthode connue, non préalablement utilisée pour cette fin, à une substance connue avec un composé nouveau à une période de la fabrication du «cold rubber» qui a eu comme résultat de mettre un produit fini sur le marché. Le juge au procès a eu raison de conclure que ceci était une invention et la preuve supporte sa conclusion.

APPELS de deux jugements du Juge Gibson de la Cour de l'Échiquier du Canada[1], en matière de brevets. Appels rejetés.

APPEALS from two judgments of Gibson J. of the Exchequer Court of Canada[1], in a patent matter. Appeals dismissed.

Christopher Robinson, Q.C., and *James D. Kokonis*, for the plaintiff, appellant.

Gordon F. Henderson, Q.C., and *David Watson*, for the defendant, respondent, Dominion Rubber Co.

Ross G. Gray, Q.C., for Phillips Petroleum Co.

The judgment of the Court was delivered by

HALL J.:—The events leading up to this litigation and their chronological sequence are set out at length in the reasons for judgment of the trial judge[1], Gibson J. In summary these are appeals arising out of two actions in the Exchequer Court, Numbers A-169 and A-1178 which were tried together and in which Gibson J. gave common reasons, but in respect of which there were separate formal judgments.

[1] [1966] Ex. C.R. 1164, 31 Fox Pat. C. 20, 48 C.P.R. 97.

1967

GENERAL TIRE & RUBBER CO. v. DOMINION RUBBER CO. LTD. *et al.*

Hall J.

The actions arose out of a conflict in the Patent Office under s. 45 of the *Patent Act* between patent applications of the three parties to these appeals, the appellant being hereafter referred to as General and the two respondents respectively as Dominion and Phillips. The patent applications in question were:

(a) Canadian Patent Application 611,684 by The General Tire & Rubber Company, filed February 14, 1951;

(b) Canadian Patent Application 626,519 by Phillips Petroleum Company, filed February 5, 1952;

(c) Canadian Patent Application 636,139 by Dominion Rubber Company Limited, filed September 10, 1952.

The conflict concerned three claims identified as C4, C5 and C6. The Commissioner of Patents decided that Dominion was entitled as against the other two parties to claims C5 and C6. General then instituted in July 1961 the first of the two actions (A-169) naming Dominion as defendant. In March 1963 Phillips instituted the other action (A-1178) naming Dominion and General as defendants. Ultimately the pleadings in both actions were amended by consent so that they corresponded in substance and raised the same issues, and the actions were tried together.

The position of General was that none of the parties was entitled to any of the conflicting claims C4, C5 and C6. The position of Phillips was that it was entitled as against the other parties to all three of the claims, though at the trial it withdrew its assertion of entitlement to claims C5 and C6. The position of Dominion was that both actions should be dismissed, with the result that it would remain, under the Commissioner's decision, entitled to all three of the claims. The judgments were that none of the parties was entitled to claim C4 and that Dominion was entitled as against General and Phillips to claims C5 and C6. There is no appeal from the judgments in respect of claim C4. Phillips took no part in the hearing in this Court.

Action No. A-169 in which General was plaintiff was dismissed. It was adjudged that Dominion was entitled as against General and Phillips to the issue of a patent including claims C5 and C6 on its Canadian application 636,139 and it was further adjudged that none of the parties was entitled to a patent containing claim C4.

Action No. A-1178 in which Phillips was plaintiff was also dismissed. It was adjudged that Dominion was entitled as against General and Phillips to the issue of a patent including claims C5 and C6 on its Canadian application 636,139, that none of the parties was entitled to the issue of a patent containing claim C4, that the counterclaim of General was otherwise dismissed and that claim C9 submitted by General in the preliminary proceedings to the trial was unpatentable. An application to vary the minutes by deleting the reference to claim C9 was dismissed.

Claims C5 and C6 which were awarded to Dominion relate to the inclusion of oil in cold high Mooney rubber by the latex blending of oil and rubber. The trial judge considered that claims C5 and C6 related to an invention but that claims C4 and C9 differed from C5 merely by referring to specific amounts of oil and precise Mooney measurements. He reached the conclusion that there was nothing inventive in the selection of these precise amounts of oil or Mooney measurements and that C4 and C9 were therefore not inventively distinguishable from claim C5 and were therefore unpatentable.

The said claims C4, C5, C6 and C9 read as follows:

C4. The method of making a mass of polymeric material vulcanizable to a rubber-like state comprising forming an emulsion of monomeric material comprising at least one conjugated diolefin; polymerizing said monomeric material in said emulsion at a temperature below 15°C.; the resulting polymer having a raw Mooney value (ML-4) of at least 90; adding to a latex of said polymer a hydrocarbon softener as a dispersion in water, said softener being added in an amount of between 15 and 50 parts by weight per 100 parts by weight of rubber; and recovering resulting softened polymer.

C5. The process of making a mixture comprising a synthetic rubber and a processing oil which comprises coagulating and drying the coagulum of an aqueous mixture containing dispersed particles of a rubber processing oil and a synthetic rubber latex which has been emulsion polymerized at a temperature between —40°F. and —60°F. and the rubber content of which has an ML-4 Mooney viscosity in the range of 75 to 200.

C6. A mixture of a low temperature, viz., —40°F. to —60°F. aqueous emulsion polymerized synthetic rubber having an ML-4 Mooney viscosity in the range of 75 to 200, and a rubber processing oil, said processing oil having been co-coagulated with the synthetic rubber from a mixture comprising an aqueous dispersion of particles of the processing oil and synthetic rubber latex.

C9. The method of making a mass of polymeric material vulcanizable to a rubber-like state comprising forming an emulsion of monomeric material comprising at least one conjugated diolefin; polymerizing said

1967

GENERAL TIRE & RUBBER CO. v. DOMINION RUBBER CO. LTD. *et al.*

Hall J.

monomeric material in said emulsion at a temperature below 15°C.; the resulting polymer having a raw Mooney value (ML-4) of at least 90; adding to a latex of said polymer a hydrocarbon *mineral oil* softener as a dispersion in water, said softener being added in an amount of between *20* and 50 parts by weight per 100 parts by weight of rubber; and recovering resulting softened polymer.

It will be seen that claims C4 and C9 are very similar, differing only in the words underlined in C9 above.

We are here concerned with whether the addition of the oil softener by a particular method, namely, by latex masterbatching, also known as co-coagulation, was an invention within the meaning of the *Patent Act*. The respondent says that it was and Gibson J. so held. The appellant contends that there was a lack of patentability having regard to the state of the art and what Dr. Howland (Dominion's alleged inventor) did was an obvious user of a process then well known in the art.

It is beyond doubt that Gibson J. was right in his finding that the process known as latex masterbatching was a well-known process at all times material to this litigation. However, it is equally clear that this particular process had not been used in respect of high Mooney cold rubber. It had been used experimently with what is known as GRS rubber by which is meant Government Rubber Styrene, a synthetic product produced by a hot process and the method was not adopted by the trade because of certain economic disadvantages not present in the methods then being used, namely, by milling or in the Banbury machine or by solution incorporation.

High Mooney cold rubber is a synthetic product which was not generally available in late 1947 and certainly not in the latter part of 1946 or early 1947 as found by Gibson J.

Dr. Howland conceived and disclosed as of December 12, 1947, the idea of combining high Mooney cold rubber, carbon black and oil through the method of latex masterbatching (co-coagulation). In a report he prepared and sent to Rubber Reserve on that date he said in part:

> 3. A 3-component masterbatch (polymer, black and softener) has been made with suitable cure rate for the first time, using X-384 latex. The high Mooney of this material may be responsible for the improved cure over similar trials with normal Mooney latex.
>
> * * *

MASTERBATCHES

A successful 3-component masterbatch has been made with X-384 latex (high Mooney redox polymer made at Institute). Our tests have since indicated that the cure is satisfactory. The physical tests obtained by us are given below.

		X-384 with regular Para-flux milled in	X-384 with treated Para-flux milled in	7 pts Para-flux added as emul-sion	50 pts EPC black in X-384 latex master-batch	50 pts EPC black 7 pts Para-flux X-384 latex master-batch
X-384		100	100			
J-830-1				100		
J-820					100	
J-793						100
Black		50	50	50	50.3*	50.4*
Paraflux		7	7	7*	7	7*
Zinc oxide		5	5	5	5	5
MBT		2	2	2	2	2
Sulfur		1.5	1.5	1.5	1.5	1.5
Comp'd Mooney		94**	94**	168	146	160
Modulus 300%	30′	560	780	600	540	780
	60′	1320	1380	1430	1370	1640
	90′	1550	1560	1940	1580	2190
	120′	1730	1730	2100	1900	2350
Tensile	30′	3260	4010	4200	3860	4210
	60′	4150	4090	3840	3570	3240
	90′	3840	3750	3750	3350	3170
	120′	3490	3450	3720	2860	2830
Elongation	30′	910	860	830	675	740
	60′	685	665	550	575	505
	90′	590	570	490	485	430
	120′	540	530	440	400	365
Set	30′	32.5	30	35	20	20
	60′	20	25	10	20	17
	90′	15	20	10	22.5	10
	120′	17.5	15	10	10	10

*Added to latex
**Small rotor

An explanation as to why a good cure was obtained with J-793 while we have not yet been able to obtain a satisfactory cure with a 3-component masterbatch of normal GR-S is that the high Mooney of the X-384 latex used in the preparation of J-693 causes a greater amount of work to be done on the masterbatch in compounding so that a better dispersion is obtained.

It is conceded that Phillips could not have made any invention relevant to the questions in issue here prior to January 19, 1948, and General prior to April 14, 1949.

We, therefore, have the situation where an alleged inventor has used a known method, latex masterbatching,

1967

GENERAL TIRE & RUBBER CO. v. DOMINION RUBBER CO. LTD. et al.

Hall J.

not previously used for that purpose to soften a known product high Mooney cold rubber with oil. Latex masterbatching had been used to combine other ingredients. Oil had been widely used to soften GRS and to soften high Mooney cold rubber but by milling or in the Banbury machine or by solution incorporation. Was what Dr. Howland did a patentable invention?

Gibson J. dealt with the problem as follows:

> In my opinion, the concept of using high amounts of softener and incorporating the same in high Mooney cold rubber, was not inventive. *Instead, as stated, what was inventive was the idea at the material time to combine the softener with the high Mooney cold rubber in a particular way, namely, by latex masterbatching.*
>
> In this, clearly on the evidence, Dominion, through Howland, was first.

(The italics are mine.)

The essence of Howland's invention, if it was an invention, was the use of a known process, masterbatching, to combine an oil softener with high Mooney polymer and carbon black in the making of synthetic rubber at a stage in the process before the solution was separated and became a solid mass. The product which emerged from the process was high Mooney cold rubber with the oil softener as an integral element of the final product as it came from the manufacturer. This result was a very beneficial one economically as it was no longer necessary to put the synthetic rubber through the milling process or the Banbury machine or in any other way prior to being able to use it in the manufacture of tires and other products.

Gibson J. found that what Howland did was not obvious to persons skilled in the art. He deals with this point as follows:

> Phillips, in the period 13 October to 17 November, 1947, in Tire Test 123 which was the last practical tire test made prior to the alleged invention of Dominion, employed all the elements set out in all the conflict claims, and the specific amounts of the alleged important elements of conflict claim C-4 (namely, high Mooney cold rubber mixed with amounts of oil softener in excess of 15 parts per 100 parts of rubber) and incorporated the same in a Banbury, but not by latex masterbatching. It probably did this, it may be inferred from the evidence, because incorporating softener into GRS rubber up to that material time had proved to have disadvantages. It is therefore a reasonable inference from this evidence alone that those skilled in the art employed by Phillips, which personnel had very considerable capacity, did not consider it obvious to incorporate the oil into this new rubber namely, cold rubber, by way of latex masterbatching.

Many cases were cited by counsel dealing with the question of inventiveness through the use of a known process with known materials to produce a hitherto unknown or unexpected result. I do not think it is necessary to go beyond the decision of this Court in *Commissioner of Patents v. Ciba Limited*[1]. Martland J. in *Ciba*, speaking for the Court, had to deal with such a situation on an appeal from the Exchequer Court[2] which reversed the Commissioner of Patents who had refused to grant a patent because the process defined in the process claims was not new. After considering the authorities and in particular the judgment of Jenkins J. in *In re May and Baker Limited and Ciba Limited*[3], Martland J. said:

> . . . To constitute an invention within the definition in our Act the process must be new and useful. There is no question as to the process here being useful, as it produces compounds which have been admitted to be both new and useful.
>
> Is it a new process? Is the element of novelty precluded because it consists of a standard, classical reaction used to react known compounds? In my opinion the process in question here is novel because the conception of reacting those particular compounds to achieve a useful product was new. A process implies the application of a method to a material or materials. The method may be known and the materials may be known, but the idea of making the application of the one to the other to produce a new and useful compound may be new, and in this case I think it was.

In the present case Howland applied the known method of masterbatching to a known substance, an oil softener, with a new compound, high Mooney cold rubber, at a time in the process of making high Mooney cold rubber which resulted in the finished product being available to the market and immediately ready for processing into tires. Hitherto the tire manufacturer had had to soften his synthetic rubber whether GRS or the new high Mooney cold rubber in the Banbury machine or by one of the other two methods previously described.

In my opinion Gibson J. was right in finding that this was an invention and the evidence supports his finding.

There is one other aspect of the appeal to be dealt with. The appellant has asked that the judgments be varied by deleting therefrom the paragraph which reads:

> THIS COURT DOTH FURTHER DECLARE THAT claim C9 submitted by General in the preliminary proceedings to this trial is unpatentable.

---

[1] [1959] S.C.R. 378, 19 Fox Pat. C. 18, 30 C.P.R. 135, 18 D.L.R. (2d) 375.

[2] (1957), 27 C.P.R. 82, 17 Fox Pat. C. 3.

[3] (1948), 65 R.P.C. 255.

1967

GENERAL TIRE & RUBBER CO. v. DOMINION RUBBER CO. LTD. *et al.*

Hall J.

In his reasons for judgment Gibson J. dealt with this matter as follows:

> I am therefore of opinion that claim C-4 is not inventively distinguishable from claim C-5 and therefore it contains "substantially the same invention" and is "so nearly identical" with claim C-5 within the meaning respectively of section 45(1)(*a*) and section 45(3) of the *Patent Act*.
>
> Claim C-4 is unpatentable therefore, in my opinion.
>
> I am also of the opinion that the proposed substitute claim C-9 submitted by General in the preliminary proceedings to this trial is also unpatentable, because it also is not inventively distinguishable from claim C-5.

One has but to compare claims C4 and C5 with C9 to see that Gibson J. was right in holding that C9 was not "inventively distinguishable" from C5. The contention that General should, after this prolonged litigation in which C9 was necessarily in issue, be free to start conflict proceedings all over again because the pleadings do not specifically refer to C9 by that number is wholly untenable.

The appeal should, therefore, be dismissed with costs.

Appeal dismissed with costs.

Solicitors for the plaintiff, appellant: Smart & Biggar, Ottawa.

Solicitors for the defendant, respondent, Dominion Rubber Co.: Gowling, MacTavish, Osborne & Henderson, Ottawa.