

THE B. V. D. COMPANY, LIMITED }
 (PLAINTIFF)

APPELLANT;

1936
 * Nov. 5, 6,
 9, 10.

AND

CANADIAN CELANESE LIMITED }
 (DEFENDANT)

RESPONDENT.

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 * Mar. 19.

*Patent—Validity—Anticipation—Prior art—Specification—Definite claims
 —May be so broad as to be invalid—Their construction by the
 courts—The Patent Act, 13-14 Geo. V, c. 23, s. 14, ss. 1; 25-26 Geo. V,
 c. 32, s. 35, ss. 2.*

The appellant company is manufacturing a collar of the same material as used in a soft shirt, made semi-stiff and yet comfortable for personal wear and sufficiently porous to absorb perspiration and to be easily washed and ironed. The appellant's process for making that collar is as follows: Two plies of the particular shirt material, forming outside and inside layers of the collar, are taken and there is placed between them a ply of other woven material in which all the weft threads and two out of three of the warp threads are cotton, the remaining one in three of the warp threads being of cellulose acetate. These cellulose threads are partly dissolved by a volatile (acetone-alcohol) solvent applied through one of the outer fabrics after the collar is partly finished. The result of the rapid driving off of the volatile solvent is that the dissolved cellulose acetate does not spread; the knuckles only of the cellulose acetate yarn melt and form an adhesive which united all three plies at a series of spaced spots, staggered on opposite sides of the lining material, the result being a semi-stiff composite fabric. This process was put into use in Canada by the appellant about June, 1935. The respondent then alleged that the process infringed the Dreyfus Canadian patent no. 265,960, granted November 16, 1926, on an application filed December 18, 1925, and owned by the respondent, and the present action was brought before the Exchequer Court of Canada, the patent not appearing to have been put into commercial use prior to the adoption by the appellant of its process. The patent is recited to be an invention of "certain new and useful improvements relating to fabrics and sheet materials and the manufacture thereof." The invention is stated to concern the manufacture of new fabrics or sheet materials having waterproof to gas-proof properties or capable of other applications. According to the invention, a fabric or sheet material is made by uniting under appropriate conditions of temperature and pressure, woven, knitted or other fabrics, composed of or containing filaments or fibres of thermoplastic cellulose derivative or derivatives with woven, knitted or other fabric composed of or containing filaments or fibres of non-thermoplastic or relatively non-thermoplastic material. In this way the fabrics are united and a composite sheet material is obtained in which the pores or interstices are reduced to extremely minute dimensions, or closed completely, by the melting or softening effect produced by the heat and pressure upon the filaments and fibres of the thermoplastic cellulose derivative or derivatives and by the uniting of the fabrics under the heat and

* PRESENT:—Duff C.J. and Rinfret, Crocket, Davis and Kerwin JJ.

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pressure. Further specifications are fully described in the judgment reported. The invention of Dreyfus was, in effect, to make an ordinary fabric or sheet material waterproof or gas-proof without detracting from the appearance of the original material. Although there were some twenty-five claims set up the appellant's arguments were confined to claims 1 and 4 which were as follows: "1. A process for the manufacture of composite sheet material which comprises subjecting a plurality of associated fabrics, at least one of which contains a thermoplastic derivative of cellulose, to heat and pressure, thereby softening said derivative and uniting said fabrics. * * *. 4. A process for the manufacture of composite sheet material which comprises treating a fabric containing a thermoplastic derivative of cellulose with a softening agent, associating it with another fabric, and uniting the fabrics by subjecting them to heat and pressure." The inventor, Dreyfus, in defining his claims in his British application, expressly mentioned "woven, knitted or other fabric composed of or containing filaments or fibres of a thermoplastic cellulose derivative or derivatives," and in defining his claims in the United States application also expressly mentioned "a fabric containing yarns comprising a thermoplastic derivative of cellulose"; but he entirely omitted such words in his subsequent application in Canada. Amongst many British and United States patents referred to by the parties, the Van Heusen, which was granted in the United States January 1, 1924, was the most relevant one to this case. It disclosed the manufacture of a three-ply collar consisting of a lining and two outer plies which caused to combine into a single composite sheet by the application to the lining of a cellulose derivative in solution to act as a "cementing agent," whereupon the outer plies and the lining were treated * * * by heat and pressure to cause the cementing material to be converted into its final form and thereby secure the separate layers of fabric together." One of the grounds upon which the validity of the Dreyfus patent was challenged by the appellant company was that the Claims were not confined and limited to the use of the cellulose in yarns, filaments or fibres, woven, knitted or worked into the intermediate material, but extended to the use of a cellulose derivative in any form. The Exchequer Court of Canada upheld the validity of the patent.

Held, reversing the judgment of the Exchequer Court of Canada ([1936] Ex. C.R. 139), that the patent was invalid.

Unless the claims in the Canadian Dreyfus patent can properly be narrowed by the introduction of a limitation to the use of the cellulose derivative in the form of yarns, filaments or fibres, they have been clearly anticipated by the United States patent of Van Heusen and two other British patents referred to in the judgment. Van Heusen clearly disclosed the process of taking the separate pieces of fabric and securing them together "into what is in effect an integral composite fabric" by the use of an intermediate binding layer containing solutions of cellulose derivatives. It constitutes a complete anticipation of the claims of the respondent unless those claims can be modified by incorporating the limitation that the thermoplastic derivative of cellulose be in the form of yarns, filaments or fibres woven into the intermediate fabric.

As a general rule, the ambit of the invention must be circumscribed by definite claims. It is a question of law, then, whether or not the claims in this case read in the light of the specification may be

limited. If they cannot, the claims remain so broad as to be invalid because of the prior art. If limited, they have not been anticipated. Throughout the specification of the Dreyfus patent, there is a continuous reference to the use of the thermoplastic derivative of cellulose in the form of yarns, filaments or fibres and it is plainly the very essence of the disclosure in the specification; but the inventor did not state in his Claims the essential characteristic of his actual invention. The Court is invited to read through the specification and import into the wide and general language of the claims that which is said to be the real inventive step disclosed. The claims are unequivocal and complete upon their face; it is not necessary to resort to the context and as a matter of construction the claims do not import the context. In no proper sense can it be said that though the essential feature of the invention is not mentioned in the claims the process defined in the claims necessarily possesses that essential feature. The Court cannot limit the claims by simply saying that the inventor must have meant that which he has described. The claims in fact go far beyond the invention and upon that ground the patent is invalid. The *Patent Act* specifically requires that the specification shall end with a claim or claims stating distinctly the things or combinations which the applicant regards as new and in which he claims an exclusive property and privilege. *The Patent Act*, 1923 (13-14 Geo. V, c. 23, s. 14, ss. 1); *The Patent Act*, 1935 (25-26 Geo. V, c. 32, s. 35, ss. 2).

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APPEAL by the plaintiff from the judgment of Maclean J., President of the Exchequer Court of Canada (1) dismissing its action for a declaration either that a patent no. 265,960, granted to one Dreyfus and owned by the defendant was invalid and void or that it was not infringed by the plaintiff's manufacture of certain shirt collars.

The material facts of the case and the questions at issue are fully stated in the above headnote and in the judgment now reported.

O. M. Biggar K.C. and *R. S. Smart K.C.* for the appellant.

W. F. Chipman K.C. and *H. Gérin-Lajoie K.C.* for the respondent.

The judgment of the court was delivered by

DAVIS J.—A difficult question is raised in this patent case as to whether or not the process used by the appellant in the manufacture of collars for men's shirts infringes the Dreyfus Canadian patent no. 265,960 granted November 16, 1926, on an application filed December 18, 1925, and owned by the respondent. The validity of the patent is directly put in issue.

(1) [1936] Ex. C.R. 139.

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The appellant's process for making a collar of the same material as used in a soft shirt is stated as follows. Two plies of the particular shirt material, forming outside and inside layers of the collar, are taken and there is placed between them a ply of other woven material in which all the weft threads and two out of three of the warp threads are cotton, the remaining one in three of the warp threads being of cellulose acetate. These cellulose threads are partly dissolved by a volatile (acetone-alcohol) solvent applied through one of the outer fabrics after the collar is partly finished. The solvent is immediately driven off by pressing the collar (at about 10-20 pounds pressure per square inch) between heated platens one of which is covered with a textile material. The platens are kept at a temperature of about 125° C. The result of the rapid driving off of the volatile solvent is that the dissolved cellulose acetate does not spread; the knuckles only of the cellulose acetate yarn melt and form an adhesive which unites all three piles at a series of spaced spots, staggered on opposite sides of the lining material. The result is a semi-stiff composite fabric. The appellant claims that the softening of the cellulose acetate is not brought about by heat but by the application of the volatile solvent by which the cellulose acetate is partly dissolved and that the volatile solvent is quickly driven off the partly dissolved cellulose acetate yarns by submitting the collar to the pressure and at the temperature above mentioned. If all the cellulose were retained it would tend to fill up the pores in the material to such an extent that the collar might become waterproof. The obvious need in a collar is that it should remain porous so as to absorb perspiration and lend itself to being easily laundered. The appellant's process proved a great commercial success; the manufacture of shirt collars according to the process extended, in the United States and Canada, to as many as twenty-eight millions in one year.

This process was put into use in Canada by the appellant about June, 1935. The respondent then alleged that the process infringed the Dreyfus Canadian patent held by it and this action was commenced in the Exchequer Court of Canada. The patent does not appear to have been put into commercial use prior to the adoption by the appellant of its process.

We turn now to an examination of the patent. It is recited to be an invention of

certain new and useful improvements relating to fabrics and sheet materials and the manufacture thereof.

The invention is stated to concern the manufacture of new fabrics or sheet materials having waterproof to gas-proof properties or capable of other applications. According to the invention, a fabric or sheet material is made by uniting under appropriate conditions of temperature and pressure, woven, knitted or other fabrics, composed of or containing filaments or fibres of thermoplastic cellulose derivative or derivatives with woven, knitted or other fabric composed of or containing filaments or fibres of non-thermoplastic or relatively non-thermoplastic material. Further, according to the invention woven, knitted or other fabric made of yarns composed of filaments or fibres of a thermoplastic cellulose derivative is associated with woven, knitted, or other fabric made wholly or partly of yarns composed of filaments or fibres of a non-thermoplastic or relatively non-thermoplastic material, and the associated fabrics are subjected to heat and pressure, with or without employment, assistance or application of plasticising or softening agents or solvents of the thermoplastic cellulose derivative or derivatives. In this way the fabrics are united and a composite sheet material is obtained in which the pores or interstices are reduced to extremely minute dimensions, or closed completely, by the melting or softening effect produced by the heat and pressure upon the filaments and fibres of the thermoplastic cellulose derivative or derivatives and by the uniting of the fabrics under the heat and pressure.

The specification further states that

The extent of the melting or softening effect, degree of closing the pores or interstices, and intimacy of union of the fabrics, and therefore the degree of impermeability of the compound fabric or material produced, can vary with the degrees and duration of heat and pressure employed, and with whether plasticisers, or softeners or solvents are employed, and with the number of fabrics united together, or other circumstances.

The manner in which the invention may be carried into effect is illustrated in the specification by the following more detailed description,

it being understood that this can be varied widely without departing from the invention.

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A woven or warp knitted fabric made of cellulose acetate yarn is associated with woven or knitted fabric of silk, cotton, linen or other fibre, preferably after being coated or treated with a plasticising or softening agent or solvent on the face that is to contact with the latter fabric, and the associated fabrics are subjected to heat and pressure to unite the component fabrics together and give a material possessing a desired degree of resistance to penetration by water or gases, according to the degree and duration of temperatures and pressure, the conditions of heat, pressure and time being interdependent. The less the heat, the greater or the longer is the pressure required to produce a given effect, or the same conditions of heat and pressure may be applied for more or less time to produce the effect in a greater or less degree.

The application of plasticising or softening agents or solvents of the cellulose acetate or other thermoplastic cellulose derivatives to assist the melting effect and the union of the component fabrics, as referred to in the specification, is stated to be

especially of advantage where a high degree of impermeability to water is desired or for obtaining gas-proof properties in the compound material. The process is said to produce

a compound material having waterproof to gas-proof properties according to the degree of dissolving or melting effect, etc., produced on the cellulose acetate by the condition of heat, pressure and time employed.

The concluding words of the specification are:

The compound materials made according to the invention may be employed more particularly for applications where resistance to penetration by water or gases is desired, for instance, as waterproof materials for garments, coverings, etc., etc., or as materials for airships or other gas container, but materials made according to the invention may be employed for any other technical or industrial applications.

Although there are some 25 claims set up, counsel for the appellant mainly confined their arguments to claims 1 and 4. Claim 1 is as follows:

1. A process for the manufacture of composite sheet material which comprises subjecting a plurality of associated fabrics, at least one of which contains a thermoplastic derivative of cellulose, to heat and pressure, thereby softening said derivative and uniting said fabrics.

Claim 4 is as follows:—

4. A process for the manufacture of composite sheet material which comprises treating a fabric containing a thermoplastic derivative of cellulose with a softening agent, associating it with another fabric, and uniting the fabrics by subjecting them to heat and pressure.

The first impression one gathers from a reading of the patent is that what the inventor was really aiming at was the making of new fabrics or sheet materials having waterproof or even gas-proof properties—the extent of the impermeability depending upon the amount of the cellulose acetate used and the appropriate application of heat and pressure. To obtain different degrees of impermeability according to the different requirements—a very slight

waterproof condition or a complete waterproof condition or even such a condition of impermeability that gas could not penetrate—appears at first glance to be the purpose and object sought to be attained by the inventor. He described the intermediate material as “composed of or containing” filaments or fibres of thermoplastic cellulose derivative or derivatives. That, I take it, involves that the material, depending upon the degree of impermeability sought to be obtained, will be almost entirely or only partially of cellulose. And the thermoplastic cellulose derivative, whether almost the entire or only a small part of the intermediate layer, is to be in yarns, filaments or fibres in the woven, knitted or other fabric used. It is not a coating or embedding process. The cellulose is not spread upon or embedded in the cloth. Those were old and well-known processes but they left a rigid material difficult to shape or cut. The invention of Dreyfus made an ordinary fabric or sheet material waterproof or gas-proof without detracting from the appearance of the original material.

But the appellant did not desire a waterproof, much less a gas-proof, material for its shirt collars. That was a condition that the appellant says in fact had to be avoided if the collar were to be comfortable for personal wear and capable of being laundered in the ordinary course. What was desired by the appellant was a collar, of the same material as the shirt itself, made semi-stiff and yet sufficiently porous to absorb perspiration and to be easily washed and ironed. The appellant attained that result in the process it adopted and the process naturally became of great commercial value.

What is said against the appellant is this. You made a composite fabric by the use of an intermediate material containing threads of cellulose acetate and the application thereto of heat and pressure, and that is exactly the invention covered by the Dreyfus patent. Impermeability is not an absolute but a relative term and it is contended by the respondent that a condition of more or less impermeability is only an incidental result obtained under the patented process. The principal aim and the very substance of Dreyfus' invention was, it is argued, to make a composite textile material by taking a plurality of fabrics and uniting them by the use of a fabric composed of or con-

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taining yarns, filaments or fibres of a thermoplastic cellulose derivative and the application thereto of heat and pressure. That, it is submitted, was the real invention of Dreyfus and the invention that the appellant substantially adopted. In that view, impermeability to water or even to gas becomes unimportant and attention is focussed on the contention that the very basis and substance of the invention of Dreyfus was the making of a composite textile material by the method set out in the patent. There is really no denial of the statement that before Dreyfus this method of uniting two or more materials into one composite fabric was unknown. Prior user is not even set up against the patent but prior art is relied upon. When the prior art is examined, it consists entirely in different methods of coating or embedding cellulose or other adhesives. In every case the cellulose is spread over, or squirted upon, or embedded in the material leaving a glassy and stiff surface. There is nothing in the prior art of a process for the manufacture of a composite sheet material made by subjecting a plurality of associated fabrics, at least one of which contains a thermoplastic derivative of cellulose in the form of yarns, filaments or fibres, to heat and pressure, thereby softening the derivative and uniting the fabrics in a composite material. If that process was the real invention of Dreyfus, then there was nothing in the prior art that undermined it.

A formidable objection to the validity of the patent is advanced by counsel for the appellant upon the ground that the claims are not limited to the use of woven cellulose yarns but extend to the use of a cellulose derivative in any form. Claims 1 and 4 above set out are taken for discussion on this point. It is to be observed that while claim 1 asserts a monopoly of the use of a thermoplastic derivative of cellulose not combined with any softening agent, claim 4 requires that the cellulose derivative should be combined with a softening agent, thus carrying into the claims the alternatives emphasized in the disclosure.

The objection, then, to the validity of the claims is that they omit any reference to what counsel for the respondent at the trial described in the opening statement as "the new * * * and all-important feature of the invention,"

namely, the form in which the thermoplastic derivative of cellulose to be acted upon is to be present in the layers of fabric to be united.

Dr. Dreyfus taught the use of thermoplastic yarns of a cellulose derivative woven into the fabric. That was new and that is the all-important feature of the invention. We are not concerned with the uniting of fabrics otherwise than by the presence of a cellulose derivative in the form of yarn woven into the fabric.

And in the carefully prepared factum of the respondent the following statement is made as to the main feature of the patentee's invention:

The novelty of the invention rests mainly in the use of a cellulose derivative in the form of yarns woven into a fabric, as a means of uniting fabrics under the action of heat and pressure, due to the thermoplastic nature of such cellulose derivative and either with or without the assistance or application of a plasticizer, softening agent, or solvent. No adhesive substance is added for the purpose of uniting, but use is made of the properties of thermoplastic yarns of a cellulose derivative woven into one of the associated fabrics.

And again in the argument in the respondent's factum as to the nature of the invention, the following statement appears:

The reference to "filaments" and "fibres" in the patent therefore necessarily implies a cellulose derivative in the form of yarns or threads woven into the fabric. A mere coating or application of a cellulose derivative in some form other than yarns would not contain "filaments or fibres" of such derivative.

Again, after discussing the Segall (United States) patent, the following statement is made:

The problem under that patent is quite different from that under respondent's patent which deals with a composite material made of plies of fabric in one of which are yarns of a cellulose derivative used for uniting the fabrics.

And in referring to the Van Heusen (United States) patent the factum continues:

This patent covers primarily the use of a cement or binding agent to unit the plies of fabrics in the making of collars. Such cement or binding agent is used in the form of a coating and not in the form of yarns forming part of the intermediate layer.

* * *

Van Heusen, therefore, resorts to a coating of nitro-cellulose for the purpose of uniting and does not resort to a cellulose derivative in the form of yarns, filaments or fibres.

And again in discussing the Green patent (British) the factum continues:

This patent has no analogy with respondent's patent, as it relates to the application of octo-nitro-cellulose in the form of a coating, or in the form of a stream in thin form on the fabric. There is no yarn used for the purpose of uniting.

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And in discussing the patent of Henry Dreyfus (British) the factum states:

The relevancy to the patent in issue is extremely remote. It does not show the use of cellulose derivative in the form of yarns, but rather in the form of sheets or coatings.

The learned trial judge obviously regarded the use of the cellulose derivative in the form of yarns, filaments or fibres as of the very essence of the invention, for in discussing the Van Heusen patent in his reasons for judgment he said:

Now there is no reference in Van Heusen to the use of a thermoplastic cellulose derivative in the form of yarns, woven into one of the two or more fabrics to be united and which may be cut and sewn and handled like any other fabric, and this, I think on grounds of utility, would be much more desirable and convenient than dealing with pieces of fabrics that were coated with a cementing material. Van Heusen, in my opinion, is not an anticipation of Dreyfus.

The specification refers to the thermoplastic derivative of cellulose being present only in the form of yarns, filaments or fibres woven, knitted or worked into one or more of the layers constituting the final composite product but no mention of this essential characteristic being included in the patentee's claims counsel for the appellant submit that the claims cannot be narrowed by the introduction into them by the Court of a limitation which they do not contain.

The claims in the British patent, no. 248,147, contain the limitation in the words:

woven, knitted or other fabric composed of or containing filaments or fibres of a thermoplastic cellulose derivative or derivatives, and a similar limitation also appears in the claims of the corresponding United States patent no. 1,903,960 in the words:

a fabric containing yarns comprising a thermoplastic derivative of cellulose.

Both the British and the United States applications were made prior in date to the application in Canada.

Unless the claims in the Canadian patent can properly be narrowed by the introduction of a limitation to the use of the cellulose derivative in the form of yarns, filaments or fibres, they are, we think, clearly anticipated by the United States patent of Van Heusen and the British patents of Green and Henry Dreyfus.

Van Heusen (U.S. no. 1,479,565, application filed November 16, 1921, patent granted January 1, 1924) discloses the manufacture of a three-ply collar consisting of a lining and two outer plies. These are caused to combine into a single

composite sheet by the application to the lining of a cellulose derivative in solution to act as a "cementing agent," whereupon the outer plies and the lining are treated

* * * by heat and pressure to cause the cementing material to be converted into its final form and thereby secure the separate layers of fabric together.

The specification recites that according to the invention two or more pieces of fabric are taken and secured together by means of an intermediate cementing or binding medium that is waterproof or water insoluble and which does not affect in any objectionable way the outside appearance of the fabric but which nevertheless

combines the different layers of fabric together into a composite integral whole.

The cementing agent for securing the different layers or plies of fabric together is described as capable of variation. Agents such as cellulosic binding materials can be used. For example, solutions of cellulose derivatives such as cellulose nitrate in suitable solvents, or solutions of cellulose in cellulose solvents can be used. The binding material can be applied in different ways. The separate pieces of fabric may thus, for example, be folded in folding machines and the separate pieces of the fabric, with their edges turned in, can then be coated with the adhesive material and treated to convert the layer of adhesive into a permanent bond. The fabric can similarly be coated before the edge is turned so that the turned-in edge will similarly be secured in place. After the fabric has been coated, and either before or after the collar has been built up therefrom, the coating can be modified to convert it into a form better adapted for securing the layers of fabric together. The specification continued:

In the case of a solution of a cellulose derivative in an organic solvent, the solvent may be partly evaporated before the layers of the fabric are secured together. In other cases, the pieces of fabric may be put together and pressed in a heated press to modify or change the binding material and convert it into its final form.

The Van Heusen patent presents a real difficulty to the respondent. Counsel for the appellant argue that the respondent is on the horns of a dilemma—if it asserts that its process is different from Van Heusen because Van Heusen did not adopt yarns, filaments or fibres of the cellulose derivative in the intermediate layer then the respondent's claims are too broad in that the claims are not confined

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and limited to the use of the cellulose in yarns, filaments or fibres woven, knitted or worked into the intermediate material; whereas on the other hand if the respondent relies on the claims as they stand without reference to the use of the cellulose in the form of yarns, filaments or fibres, the process was anticipated by Van Heusen.

Green (British no. 9,879 of 1889) refers to the use of cellulose and particularly octo-nitro-cellulose as forming "a good substitute for silk" and suggests as one alternative its being used as a coating for ordinary yarns and, as another, either its direct extrusion on to an ordinary fabric through capillary tubes in the form of threads or ribbons, or, its being wound in the form of threads on bobbins, these threads being subsequently affixed to an ordinary fabric by pressure with or without heat * * * in order to insure the more perfect union of the filament or ribbon to the fabric.

The resulting products are described as "compound fabrics" capable of use for

articles of dress * * * and numerous other articles * * * to which silk and mixtures of silk * * * are now applied, (including) collars, cuffs, hats or bonnets.

Green's patent has for its object to impart to fabric threads and other articles a silk-like lustre. Octo-nitro-cellulose is used for this purpose in the form of a coating applied to the article. The solution of this octo-nitro-cellulose is forced through jets, i.e., squirted, on the surface of the fabric. There is no yarn used for the purpose of uniting.

Henry Dreyfus (British no. 173,021, 1921) refers to previous proposals for the use in the production of glass substitutes of cellulose esters in the form, among others, of a "web" combined with a "metallic or textile fabric" and proposed the analogous use of cellulose ethers, suggesting as one alternative that an ordinary fabric may be embedded by heat and pressure into a solidified film, sheet or web of the ether or ether composition or between two such films, sheets or webs.

This patent does not show the use of cellulose derivatives in the form of yarns, but in the form of sheets or coatings.

There is no necessity for us to examine closely other British and United States patents referred to during the argument. Van Heusen clearly disclosed the process of taking the separate pieces of fabric and securing them together "into what is in effect an integral composite

fabric" by the use of an intermediate binding layer containing solutions of cellulose derivatives. It constitutes a complete anticipation of the claims of the respondent unless those claims can be modified by incorporating the limitation (which modification the appellant's counsel contend cannot be made) that the thermoplastic derivative of cellulose be in the form of yarns, filaments or fibres woven into the intermediate fabric.

It may be stated as a general rule that the ambit of the invention must be circumscribed by definite claims. It is a question of law, then, whether or not the claims in this case read in the light of the specification may be limited. If they cannot, the claims remain so broad as to be invalid because of the prior art. If limited, they have not been anticipated. It is difficult to understand why the inventor in defining his claims in his British application should have expressly mentioned

woven, knitted or other fabric composed of or containing filaments or fibres of a thermoplastic cellulose derivative or derivatives, and in defining his claims in the United States application should have expressly mentioned

a fabric containing yarns comprising a thermoplastic derivative of cellulose

and should have entirely omitted such words in his subsequent application in Canada. Why do the claims omit what counsel for the respondent contended at the trial was the "new * * * and all-important feature of the invention," namely, the use of thermoplastic yarns of cellulose derivative woven into the fabric? We cannot say. Throughout the somewhat long specification there is a continuous reference to the use of the thermoplastic derivative of cellulose in the form of yarns, filaments or fibres and it is plainly the very essence of the disclosure in the specification. Why, then, was it left out of the claims? It may have been a slip of the draftsman or it may have been a deliberate omission in an effort to secure a wider field of protection than the disclosure warranted.

The Patent Act, 1923 (13-14 Geo. V, c. 23) in force at the time of the application and grant of the patent expressly required by subsection (1) of section 14 thereof that the specification

shall end with a claim or claims stating distinctly the things or combinations which the applicant regards as new and in which he claims an exclusive property and privilege.

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Subsection (2) of section 35 of *The Patent Act*, 1935 (25-26 Geo. V, c. 32) is substantially in the same language.

Lord Cottenham, L.C., in *Kay v. Marshall* (1) said:

The claim is not intended to aid the description, but to ascertain the extent of what is claimed as new.

and Lord Chelmsford in *Harrison v. The Anderston Foundry Co.* (2) said:

The office of a claim is to define and limit with precision what it is which is claimed to have been invented and therefore patented.

As Lord Cairns put it in the *Anderston* case (2), "Everything which is not claimed is disclaimed."

Terrell on Patents (8th ed., 1934) at p. 134 states the rule that

if the words of the claim are plain and unambiguous, it will not be possible to expand or limit their scope by reference to the body of the specification.

In *Ingersoll Sergeant Drill Company v. Consolidated Pneumatic Tool Company* (3), in the House of Lords the Lord Chancellor, Lord Loreburn, said:

Obviously, the rest of the specification may be considered in order to assist in comprehending and construing a claim, but the claim must state, either by express words or by plain reference, what is the invention for which protection is demanded. The idea of allowing a patentee to use perfectly general language in the claim, and subsequently to restrict, or expand, or qualify what is therein expressed by borrowing this or that gloss from other parts of the specification, is wholly inadmissible. I should have thought it was also a wholly original pretension.

Later, in *Natural Colour Kinematograph Co. Ltd. v. Bioschemes, Ltd.* (2), Lord Loreburn practically repeated what he had said in the *Ingersoll* case (4):

Some of those who draft specifications and claims are apt to treat this industry as a trial of skill, in which the object is to make the claim very wide upon one interpretation of it in order to prevent as many people as possible from competing with the patentee's business, and then to rely upon carefully prepared sentences in the specification which, it is hoped, will be just enough to limit the claim within safe dimensions if it is attacked in court. This leads to litigation as to the construction of specifications, which could generally be avoided if at the outset a sincere attempt were made to state exactly what was meant in plain language. The fear of a costly law suit is apt to deter any but wealthy competitors from contesting a patent. This is all wrong. It is an abuse which a court can prevent, whether a charge of ambiguity is or is not raised on the pleadings, because it affects the public by practically enlarging the monopoly, and does so by a kind of pressure which is very objectionable. It is the duty of a patentee to state clearly and distinctly, either in direct words or by clear and distinct reference, the nature and limits of what he claims. If he uses language which, when fairly read, is avoidably

(1) (1836) 1 Myl. & C. 373.

(2) (1876) 1 App. Cas. 574.

(3) (1908) 25 R.P.C. 61, at 83.

(4) (1915) 32 R.P.C. 256, at 266.

obscure or ambiguous, the patent is invalid, whether the defect be due to design, or to carelessness, or to want of skill.

In *Erickson's Patent* case (1), it was held that the patentee had failed so to limit his first claim as to confine it to that which was the novelty (if any) of the invention, and that accordingly the claim was so wide as to render the patent invalid. Pollock, M.R., said at p. 486:

We cannot construe the specification as necessarily leading to the conclusion that the feature of novelty is claimed. Claim 1 certainly, fairly construed, appears to admit of any claim in relation to a perforated cylinder being included in it, and on the ground, therefore, that the matter of novelty, which is the sole matter and pith of the invention, is not indicated, and also on the ground that the claim is so wide that it would include any claim in relation to a perforated cylinder, it appears to me that the claim is bad.

In *British Hartford-Fairmont Syndicate, Ltd. v. Jackson Bros. (Knottingley) Ltd.* (2), Lord Justice Romer said:

What justification there can be for altering the language of the claim in this or in some similar manner I am at a loss to conceive. One may, and one ought to, refer to the body of the specification for the purpose of ascertaining the meaning of words and phrases used in the claims or for the purpose of resolving difficulties of construction occasioned by the claims when read by themselves. But where the construction of a claim when read by itself is plain, it is not in my opinion legitimate to diminish the ambit of the monopoly claimed merely because in the body of the specification the patentee has described his invention in more restricted terms than in the claim itself. The difference may well have been intentional, and created with the object—to use the words of Lord Loreburn in the *Natural Kinematograph* case—of holding in reserve a variety of constructions for use if the patent should be called in question, and in the meantime to frighten off those who might be disposed to challenge the patent.

In the judgment of P. O. Lawrence, L.J., there occur (at pp. 550 and 551) passages of almost similar effect. That case went to the House of Lords and the appeal was dismissed (3). Lord Tomlin, whose judgment was concurred in by Lord Buckmaster and Lord Warrington, said in part, at p. 260:

The object of letters patent is to secure to the patentee during the continuance of the grant the absolute monopoly of the manner of manufacture which the patent is designed to protect. It removes the invention from the open field of competition. It follows that it is essential that the protected matter should be accurately defined in order that those familiar with the industry to which the invention relates should have clear warning of what is forbidden to them.

In *R.C.A. Photophone, Ltd. v. Gaumont-British Picture Corporation Ltd. and British Acoustic Films, Ltd.* (4), Lord Justice Romer at p. 195 said:

(1) (1923) 40 R.P.C. 477.

(3) (1934) 51 R.P.C. 254.

(2) (1932) 49 R.P.C. 495, at 556.

(4) (1936) 53 R.P.C. 167.

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In the days before it was obligatory on a patentee to set out his claims in his specification, it was often possible to find in it the statement of some principle that the patentee claimed to have discovered and a description of some method of putting the principle into practice. In such cases the invention might well be regarded as being an invention of all such methods; but now that claims are obligatory it is, in my judgment, essential that the patentee should claim all such methods in unambiguous terms, making it quite clear what the principle is. As was said by Lord Shaw in *Ridd Milking Machine Company v. Simplex Milking Machine Company* (1): "If any claim for a principle is made it must undoubtedly appear in the claim as that claim is stated, and must not be left to an inference resting on a general review of the specification or a general search among the language employed therein for the meritorious element of principle or idea." It is the duty of a patentee by his claim to make quite clear what is the ambit of his monopoly in order that workers in the art may be left in no doubt as to the territory that is forbidden them during the life of the patent. If he fails to do this, his patent becomes a public nuisance. It is equally incumbent upon him to describe at least one way, and the best way known to him, of carrying his invention into effect, in order that, when his monopoly comes to an end, the workers in the art may turn the invention to account. This is the consideration he pays for his monopoly.

And in the *Mullard Radio Valve Co. Ltd. v. Philco Radio and Television Corporation of Great Britain, Ltd. and Others* (2), in the House of Lords, Lord MacMillan said at p. 345:

A patentee may make a most meritorious discovery and may give an entirely adequate description of his inventive idea and of the manner of putting it into practice, but when he comes to formulate the claim to his invention he may claim a monopoly wider in extent than is warranted by what he has invented. The patentee has told us quite definitely that his invention deals with the case of a final amplifier which comprises a screening grid between the control grid and the anode and that he has invented means by which, in such a case, the screening grid current is prevented entirely or partially from increasing at the expense of the anode current when the anode potential falls. The problem which he set out to solve and the disadvantages which he professes to overcome relate solely to discharge tubes with a screening grid between the control grid and the anode. His discovery was that, if in a discharge tube with a screening grid between the control grid and the anode he inserted between the screening grid and the anode an additional "suppressor" grid, he achieved the advantageous results which he describes. That is the ambit of his invention and for that he is entitled to protection. But claim 2 makes no reference to screening grids or control grids at all. It simply speaks of three or more electrodes irrespective of their function as screening grids or control grids or suppressor grids or of their arrangement relatively to each other.

And at p. 346:

A patentee is granted his monopoly in order to protect the invention which in his specification he has communicated to the public. He is not entitled to claim a monopoly more extensive than is necessary to protect

that which he has himself said is his invention. In the present case I think that in claim 2 the patentee has claimed more than his inventive idea entitles him to protect.

And at p. 347:

If an inventor claims an article as his invention but the article will only achieve his avowed object in a particular juxtaposition and his inventive idea consists in the discovery that in that particular juxtaposition it will give new and useful results, I do not think that he is entitled to claim the article at large apart from the juxtaposition which is essential to the achievement of those results.

And further, on p. 347:

It is undoubtedly the case that a claim may be too wide, in the sense that it claims protection for that for which the patentee is not entitled to protection, or that it gives him a wider protection than his discovery entitles him to receive. In the present instance the patentee has claimed a monopoly of all valves with a certain feature of construction although the merit of his invention does not lie in that feature but in the utilisation in a particular and limited way of a valve containing that feature of construction. In so doing he has in my opinion over-reached himself and his claim is wider than the law will support.

And Lord Roche, at p. 351:

It is true that an inventor need not state in a claim the reasons that have led him to his invention or the stage or stages by which he has arrived at it. But the essential characteristics of his actual invention he must state.

In the Canadian patent involved in this appeal before us the inventor did not state in his claims the essential characteristic of his actual invention though it does appear in the claims in his British and United States patents. No explanation is offered. We are invited to read through the lengthy specification and import into the wide and general language of the claims that which is said to be the real inventive step disclosed. But the claims are unequivocal and complete upon their face. It is not necessary to resort to the context and as a matter of construction the claims do not import the context. In no proper sense can it be said that though the essential feature of the invention is not mentioned in the claims the process defined in the claims necessarily possesses that essential feature. The Court cannot limit the claims by simply saying that the inventor must have meant that which he has described. The claims in fact go far beyond the invention. Upon that ground the patent is invalid.

The appeal should be allowed with costs and the judgment appealed from should be varied by declaring the respondent's patent no. 265,960 to be invalid and by direct-

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ing the respondent to pay to the appellant its costs of the action.

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Solicitors for the appellant: *Smart & Biggar.*

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Solicitors for the respondents: *Lajoie, Lajoie, Gélinas & MacNaughton.*
