

COMMISSIONER'S DECISION

UNOBVIOUS: Prior Art and Workshop Practice.

As a result of the Hearing, the applicant found that essential elements of the invention were not fully stated in the claims and new claims were filed. None of the prior art, alone or combined, suggested the invention nor its advantages. Spontaneous acceptance by the industry was strong evidence of its inventiveness.

FINAL ACTION: Affirmed in-part new claims acceptable.

This decision deals with a request for review by the Commissioner of Patents of the Examiner's Final Action dated August 14, 1973 on application 149,717. This application was filed on August 18, 1972 in the name of Alice Koves and refers to an "Elastic Waist Construction For Garment." The Patent Appeal Board conducted a Hearing on January 9, 1974, at which Mr. M.J. Marcus and Mr. M.E. Thrift represented the applicant. Also in attendance was the inventor, Mrs. A. Koves.

This application relates to a continuous one piece elastic band waist structure for garments. The band is fabricated from stretchable and contractable foundation garment material, and is cut in a contoured fashion. A second narrower uncontoured continuous one piece band is stitched, with elastic thread, to said first band and to a stretchable body garment.

In the prosecution terminated by the Final Action the examiner rejected the claims and the application as containing no patentable subject matter in view of the reference to Middendorf and being directed to known standard tailoring practices demonstrated in the references applied.

Les antériorités citées sont les suivantes:

Antériorités citées

Brevets canadiens

236,724	1er janvier 1924	C1. 2-109	Dessins 1 feuil.	LEIBOVITZ
276,538	2 décembre 1927	C1. 2-109	Dessins 1 feuil.	WAXMAN et al
353,640	22 octobre 1935	C1. 2-109	Dessins 1 feuil.	LEVENTHAL
359,489	28 juillet 1936	C1. 2-110	Dessins 2 feuil.	ADAMSON
369,306	12 octobre 1937	C1. 2-110	Dessins 1 feuil.	KREIN
369,368	19 octobre 1937	C1. 2-110	Dessins 2 feuil.	HARDIE
522,544	13 mars 1956	C1. 2-109	Dessins 1 feuil.	STEIN
543,088	2 juillet 1957	C1. 2-110	Dessins 1 feuil.	SCHEITLIN

Brevets américains

2,149,128	28 février 1939	C1. 2-221	THORNER et al
2,434,743	20 janvier 1948	C1. 2-221	MIDDENDORF

Dans la décision finale, l'examineur a déclaré notamment:

Middendorf a inventé une ceinture pour vêtement qui permet de mettre ou d'enlever celui-ci en étirant la ceinture composée des éléments suivants: une ceinture d'une seule pièce munie d'une bande élastique intérieure également d'une seule pièce, non recouverte, s'adaptant à la taille de la personne qui porte le vêtement, et cousue à celui-ci par au moins un rang de piqûre, faite de préférence avec du fil élastique de façon que le vêtement s'ajuste bien à la taille. Les pratiques de confection courantes, telles que l'utilisation de divers tissus connus, la manière de les tailler pour suivre les lignes du corps ou encore les diverses façons d'assembler des pièces en les cousant les unes aux autres, ne sont pas considérées comme des objets brevetables, car elles relèvent de techniques antérieures.

Comme exemples de l'utilisation de divers tissus connus, citons Thorner et al et Middendorf qui présentent une jupe en tissu extensible avec ceinture élastique, Adamson, une ceinture élastique dans un seul sens, Scheitlin et Hardie, deux ceintures élastiques tandis que la coupe du tissu pour que celui-ci s'ajuste parfaitement à la taille est montré par Thorner et al, Middendorf et Adamson.

Pour terminer, les différentes façons d'assembler les pièces de tissu en les cousant les unes aux autres sont illustrées de la manière suivante: Krein décrit une ceinture non-recouverte, cousue sans être repliée près du bord de la ceinture, comme celle de la figure 2 de la demanderesse. Krein coud également la ceinture au bord inférieur comme l'indiquent les figures 3 et 4 de la demanderesse. Middendorf, lui, présente une façon d'assembler les pièces au bord supérieur, comme à la figure 3. Leibovitz et Waxman et al décrivent eux la figure 4. Stein montre une façon similaire à la figure 5 d'assemblage au bord supérieur de la ceinture. De plus, Stein et Leventhal décrivent une structure similaire aux figures 9 et 10 présentées par la demanderesse.

Dans sa réponse du 14 novembre 1973 à la décision finale, la demanderesse a déclaré notamment:

La présente invention porte précisément sur des ceintures sans couture pour vêtements.

Les exigences relatives à une ceinture pour vêtement sont qu'elle doit être confortable et belle. Dans la plupart des cas, il n'est malheureusement pas possible de satisfaire à ces deux exigences. C'est pourquoi, il faut faire des compromis entre le confort et l'apparence de la ceinture.

En vue de prouver l'évidence de la présente combinaison, la décision finale traite individuellement de chacune des caractéristiques qui, dans la décision finale sont reconnues comme n'étant ni indiquées ni proposées par le brevet Middendorf. La décision finale indique que ces caractéristiques relèvent des "pratiques de confection courantes" et qu'elles ne sont donc pas brevetables. La demanderesse fait respectueusement observer que cela constitue une dissociation nette et inappropriée de la combinaison revendiquée, sans établir en aucune façon l'évidence de la combinaison. Cela est clairement indiqué par la cause Wood et Amcolite c Gowshall, citée avec approbation en cause Omark Industries: "la dissociation d'une combinaison en ses éléments constitutants, et l'examen de chacun de ces éléments en vue de déterminer si son usage était évident ou non... tend à obscurcir le fait que l'invention revendiquée est la combinaison... La seule véritable question à poser est la suivante: la combinaison est-elle évidente ou non?" Même si chacun des éléments était ancien, le Bureau des brevets n'a pas établi que la combinaison était évidente. De plus, ces déclarations générales ne s'appuient sur aucun fait et sont, dans au moins un cas, absolument fausses.

Pour ce qui est de l'utilisation d'un tissu de vêtement de base, la décision finale indique que cela est "ancien et donc non brevetable". Cependant, l'invention revendiquée par la demanderesse ne porte pas seulement sur l'utilisation d'un tissu de vêtement de base, elle réside dans la combinaison particulière, décrite. En tentant d'introduire une nouvelle référence non-citée auparavant (et donc inappropriée), la décision finale indique que "le spandex a été utilisé dans des vêtements de base, des maillots de bain, des tissus et vêtements extensibles. Voir le "Consommateur canadien", volume 4, no 2, septembre/octobre 1966 (la section MS ci-incluse en donne une photocopie)". Il semble que le Bureau des brevets considère que l'usage antérieur du spandex pour des vêtements est une découverte de l'usage du spandex, appliqué dans une ceinture sans couture. Cette affirmation est tout à fait fausse, simplement à cause de la signification du mot "vêtement". Dans le petit Robert, Société du Nouveau Litré, 1967, "vêtement" est défini comme "n. m. (didact.) objet fabriqué pour couvrir le corps humain, le cacher, le protéger, le parer". La demanderesse fait respectueusement remarquer que l'utilisation du spandex dans des tissus et vêtements extensibles ne divulgue pas sa combinaison ou aucune partie de celle-ci.

En considérant que le fait que la ceinture sans couture en tissu de vêtement de base est coupée en forme pour s'adapter parfaitement à la taille, la décision finale indique que:

"La coupe des pièces de tissu pour qu'elles suivent les lignes du corps ou de la taille n'est pas brevetable parce qu'il s'agit ici d'une des étapes ou opérations de base dans le domaine de la confection, et que le résultat obtenu par la demanderesse et par Middendorf est le même, soit, un vêtement ajusté et automatiquement adaptable au corps, quelque soit sa position sur la taille, le vêtement n'ayant pas de position devant ni dos, ce qui permet de le tourner pour éviter que le vêtement poche à l'usage. Toute personne du métier doit être apte à tailler une ceinture qui s'adapte à la taille de la personne qui la porte".

Applicant respectfully submits that this contention is wholly inadmissible. In the first place, no evidence of "expected skill" has been introduced. As discussed in the preceding general comments, "expected skill" or "common knowledge" is established by reference to what a man skilled in the art is aware of at the date of invention. No evidence on this point has been introduced by means of expert testimony or, applicant respectfully submits can be introduced into the prosecution before the Patent Office since expert witnesses cannot be called. In the second place, the statement that the results of applicant and Middendorf are the same is entirely false. Middendorf's elastic band is not contoured; in such a manner the skirt is symmetrical and can be worn at any circumferential position (see column 3, lines 20 - 25). In applicant's waist band, on the contrary, the endless band of foundation garment material is cut and contoured to conform to the waist area of a wearer. As will be apparent, the human body is not symmetrical about an axis. The contours of the waist area are different at the back from at the front and different at the sides from either the back or the front. With the contoured configuration of the present invention, the waist band has a front, a back and two sides and it can only be worn at one circumferential orientation.

The present application relates to a waistband structure for a garment, whereby the garment can be put on and taken off by means of the stretching and contracting of a continuous waistband structure without the usual closable opening in the waistband portion of the garment. The structure according to the applicant conforms to the shape of the body of a wearer without shirring or gathering, and without giving a binding effect on the body of the wearer.

Several important points were clarified at the Hearing held on January 9, 1974, at which time exhibits were presented to show the finished waistband structure, and copies of letters were presented to add further proof of commercial success over that explained at the Hearing.

An important point which was brought out is that "a second continuous one piece narrow stretchable and contractable band," which is stitched to a primary band and to the stretchable fabric, is an essential element for the success of the inventive idea for the waistband structure.

This was indicated by the applicant in reference to a specific embodiment and the subject matter of claim 3. It was also stated by the inventor herself to be an essential element to the overall structure. This element, however, was not recited in claims 1, 2 and 6 to 12 as presently on file.

A second important point, which was developed at the hearing, is that "the garment material was not cut and contoured," but "cut in a contoured configuration."

In accordance with the above the applicant, on January 15, 1973, submitted a voluntary amendment to cancel all the claims on file, and presented new claims in order to specify the essential elements of the waistband structure. The amendment reads in part:

Further to the submissions and arguments presented at a recent Hearing of the Patent Appeal Board on January 9th, 1974 at 10:00 A.M., it is desired to amend this application by replacing the claims presently on file by new claims 1 to 17, enclosed herewith in duplicate.

It will be recalled that during the course of the Hearing, applicant presented arguments to the effect that the preferred embodiment of the invention was more particularly distinct over the references applied by the Patent Office. The purpose of the present amendment is to limit the present invention to the preferred embodiment.

It is noted, therefore, that new claim 1 is directed to the combination of three essential elements. The first element is a stretchable fabric constituting an endless circumferential waist. The second element is a primary exposed unsheathed interior endless circumferential band which is formed entirely from stretchable and contractable foundation garment material and which is cut in a contoured shape to conform biaxially to the waist area of the garment. The third element is a second endless circumferential stretchable and contractable band which is uncontoured and which is substantially narrower than the primary band. Both the primary band and the second band are sewn to the garment by a least one row of stretchable stitches sewn with elastic thread.

It is believed that this claim defines a combination not shown or suggested by the art of record and conforms with the arguments for patentability set forth during the course of the Hearing.

Claim 1 submitted with the voluntary amendment January 15, 1974

reads:

A waistband construction for a garment whereby the garment may be put on and taken off by means of stretching and contracting of the waist, said waistband construction comprising the combination of:

- (a) a stretchable fabric constituting an endless circumferential waist of said garment;
- (b) a primary exposed, unsheathed, interior, endless circumferential band of approximately the same size as the waist of the garment, said band being formed entirely from stretchable and contractable

foundation garment material and being cut in a contoured shape to conform biaxially to the waist area of the garment; and

- (c) a second endless circumferential stretchable and contractable band, said second band being uncontroled, and being substantially narrower than said primary band, said primary band and said second band being sewn to the garment by at least one row of stretchable stitches sewn with elastic thread, whereby said waistband conforms to the contour of the waist area of a wearer, whether the waistband be in the stretchable or contracted configuration.

This claim is specific to: a stretchable foundation garment material cut in a contoured configuration to form a continuous unsheathed primary band, and a second narrow uncontroled elastic band secured by stretchable stitches sewn with elastic thread to the inside of the upper portion of the primary band and to the stretchable garment material.

The question therefore is whether the combination of these elements as a whole has produced a patentable advance in the art over the references cited.

The reference to Middendorf, considered by the examiner to be the primary reference, relates to wearing apparel and more particularly to skirts. An object of the invention was the construction of a novel waistband which is continuous throughout the circumference thereof. The disclosure, column 2 beginning at line 34, reads:

The construction of the waist or band portion is an important feature of the present invention. This step in the method consists of folding portion 13 of the top edge of the skirt to form an annular channel 14 for receiving an elastic band 15. In the preferred form, the folded portion 13 extends downwardly for a part of the width of the band 15 thereby leaving the lower edge 15 of the band 15 free and unattached to the skirt. The folded portion 13, including the pleats 11, upper portion of band 15 and the outer corresponding portion of the skirt, is then sewed circumferentially with elastic thread. Ordinary thread may be used provided the belt assembly is stretched to the extent of the resiliency of the cloth 10 during the sewing operation, although from experiment I have found the use of elastic thread preferable.

While this reference discloses a number of the elements of the newly presented claims, it does not disclose a band of "contoured" foundation garment material. Instead it discloses a "non-contoured" elastic band which does not conform to the waist of the wearer. A second narrow continuous stretchable band forming part of the waist structure, regarded by the applicant as an essential element, is not present in the Middendorf reference.

The reference to Adamson relates to improvements in the construction of the waist-embracing portion of trousers. It discloses a contoured non-continuous outer band of a canvas stiffening strip, and the sheath for this strip has been replaced by a single, stiffening element of elastic material. In other words Adamson is directed to an open waistband construction with a limited amount of stretch, where the canvas stiffening strip is a woven contoured figuration.

The Scheitlin reference discloses a continuous non-contoured waistband consisting of a sheathed sheet rubber strip. An additional narrow strip of sheet rubber is interposed between the sheath rubber strip and the garment fabric.

The Hardie reference discloses a non-contoured waistband structure that includes the garment fabric constituting the waist portion of the garment and a sheathed band of sheet rubber, or in some cases two sheets of rubber, on the interior of the waist portion.

The Thorner reference discloses a skirt having an open type waistband. The waistband is constructed of garment fabric, a sheath on the interior of the waist portion of the garment and a non-contoured elastic-belt on the interior of the waist portion covered by the sheath.

The references to Krein, Leibovitz, Waxman, Stein and Leventhal were cited to show features of Figures 3, 4, 5, 9 and 10 of this application. The amended claims 1 and 5, however, only cover the embodiments of Figures 6 and 7. Therefore, since the remaining claims are dependent on claims 1 or 5, no further discussion of these references is necessary.

It is agreed that all the elements of amended claim 1 have been shown in some form in the references, viz. Middendorf, Adamson, Thorner, Hardie and Scheitlin taken collectively. However, no single reference shows the combination of claim 1. The specific question, as previously mentioned, is therefore whether the new combination of these elements has as a whole produced a patentable advance in the art.

The continuous type of waistband is necessarily stretchable. The overriding consideration in the design of such waistbands is that the stretch be sufficient for the waistband to pass over the shoulders or hips of the wearer, as distinct from the open-type waistbands wherein this is accomplished by openings in the front or side or the waist portions of the garment. The continuous waistband structures of the prior art have employed a continuous band of elastic material, either in the form of sheets of rubber or elastic tape.

The applicant contends that "the prior art continuous waistbands have normally been arranged to gather or shirr, for example in the use of pleats," (see the reference to Middendorf) because of the large amount of stretch required. However, the specific structure disclosed here to produce a snugly fitting garment is designed to conform smoothly to the body of the wearer without shirring or gathering of the garment material or waistband structure.

At the Hearing the applicant submitted evidence to show there has been excellent acceptance and spontaneous commercial success of the product. This evidence was in the form both of letters of recommendation for the product, and statements about the expansion in the work force employed to make the product from 11 to 70 within a period of eleven months. There will be a further expansion of the work force by 60 people in the near future.

The commercial success of any product, however, may be due to circumstances other than to inventive ingenuity, high pressure advertising for example. However, it was stated at the Hearing that the only advertising has been by "word of mouth and by a number of displays of the product." In the case of The King v. American Optical Company (1950) Ex.C.R. 344 at 368. Thorson J. stated:

The practical utility and commercial success of a new device may be material in determining whether the new result produced by it was an obvious workshop improvement or involved the exercise of inventive ingenuity. Commercial success, by itself, without the solution of a difficulty, is not sufficient to establish subject matter. But when it is found that there has been a problem calling for solution and that the new device has solved it then its practical utility and commercial success in displacing alternative devices should be considered strong evidence that its production required the taking of an inventive step and that the applicant for the patent was the first to take it.

It is clear from a consideration of this application and from the evidence presented at the Hearing, that there was a problem to be solved. The disclosure, page 3 line 3 reads:

A major problem which the prior art has not yet solved, however, is the provision of garment bands in which the rubber is free to expand and contract longitudinally and will tend to lie flat after being sewn whether it be

on the contracted or stretched condition. In addition to having such characteristics, the garment band would have to conform substantially to the waist area of the wearer, and would have to be uniform regardless of the manufacturing variations that are encountered in practice. The problem is more acute at the present time in view of the desirability, and fashionability of skin-hugging garments.

The inventor also disclosed at the Hearing that "the problem was not completely solved until after much thought and experiment, and not until the addition of the continuous, non-contoured, narrow elastic band was secured by elastic stitches to the inside top portion of the continuous contoured primary waist band." The applicant also submitted an exhibit, in the form of a drawing of a machine, which the inventor stated had to be specifically designed to add the narrow band to the contoured primary band.

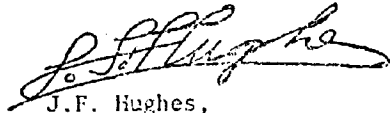
The applicant also stated that: "One of the most important features of the present invention is that the endless band be of foundation garment material." There is no evidence that the material "spandex" was ever used, much less cut in a contoured configuration for use in a waistband structure. Furthermore, it is not merely the use of the garment material, but its use in particular way in the recited combination. All the references of the prior art cited teach the use of elastic or rubber bands for the construction of waistbands..

In summary, the primary reference cited to Middendorf, as previously mentioned, does not disclose: (1) the use of foundation garment material in the waistband construction; (2) the waistband cut in a contoured configuration; nor, (3) the use of a narrow elastic non-contoured band secured to the top inside portion of the primary band. The references, to Adamson, Scheitlin, Hardie and Thorner, which were previously discussed, show some of the elements of the present combination. None of these references, however, approach or suggest the combination specified in amended claim 1, alone or when considered together with the primary reference to Middendorf.

In the circumstances the Board is satisfied that the application has successfully overcome a problem in the construction of garment waistbands, and that the innovation has been spontaneously accepted by the industry. The Board is also satisfied the references cited fail to teach the feasibility of the applicant's structure in resolving disadvantages of the prior art structures, and the claims as they now stand amended could be allowed even without the additional evidence of its success and acceptance by persons skilled in the art. Nonetheless, in our view, the evidence of the practical utility and the commercial success of the product of the present invention should be considered as strong evidence that its production required the taking of an inventive step. Vide, The King v. American Optical Company, supra. Amended claim 1 is therefore considered allowable. Claim 5, which covers substantially the same subject matter as in claim 1, is also considered allowable. All the remaining claims depend on claims 1 or 5 and are considered allowable.

Because of the amendments submitted by the applicant subsequent to the Hearing, the Board has not had to consider the claims which were before the examiner, and rejected by him. It would be a fair presumption, however, that at least some of the claims did not adequately distinguish over the art of record, nor adequately define the invention, and were properly rejected. We have found however, that the amended claims have been restricted to a combination of elements, which were specifically indicated at the Hearing as important aspects of the invention.

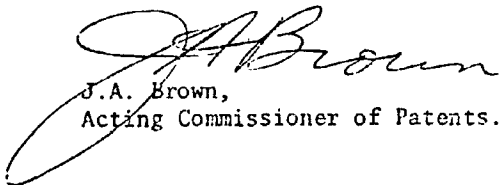
The Board therefore recommends that the prosecution now be permitted to proceed with the amended claims as presented by the applicant on January 15, 1974.



J.F. Hughes,
Assistant Chairman,
Patent Appeal Board.

I concur with the findings of the Patent Appeal Board. Accordingly I permit the voluntary amendment of January 15, 1974 to be entered. The application is returned to the examiner for resumption of prosecution.

Decision accordingly,



J.A. Brown,
Acting Commissioner of Patents.

Signed and dated in
Hull, Quebec this
24th day of January, 1974.

Agent for Applicant

Johnson, Marcus & Wray,
Ottawa, Ontario.