United States District Court,
D. Delaware.

L'OR'c9AL S.A. and Cosmair, Inc,
Plaintiffs.
v.
REVLON CONSUMER PRODUCTS CORP., Charles Revson, Inc., and Almay, Inc,
Defendants.

No. 98-424-SLR

Feb. 24, 2000.

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MEMORANDUM OPINION

ROBINSON**, J.**

I. INTRODUCTION

Plaintiffs L'Oreal S.A. and Cosmair, Inc. instituted this patent infringement action against defendants Revlon Consumer Products Corp., Charles Revson, Inc., and Almay, Inc., alleging infringement of U.S. Patent No. 4,887,622 (the " '622 patent"), which is directed to a "brush for the application of mascara to the eyelashes." The court has jurisdiction over this action by virtue of 28 U.S.C. s.s. 1331 and 1338. This is the court's claim construction.

II. BACKGROUND

The '622 patent discloses a brush intended for use with mascara in the "making up" of eye lashes. The invention purports to improve upon traditional mascara brushes by more evenly distributing mascara over the lashes. To understand these improvements, it is first necessary to understand the problems associated with traditional mascara brushes as characterized by the patentee. According to the patent's specification, conventional mascara brushes are composed of tufts of relatively long bristles disposed in a helix, or spiral, around a core of twisted iron wire. ('622 patent, col. 1, Ins. 8-12) These conventional bristles have diameters of approximately 0.08 millimeters, and there are approximately fifty to sixty bristles per turn on the helix. ('622 patent, col. 1, Ins. 15-26)

According to the specification, the quantity and size of these traditional bristles detract from the even distribution of mascara on the lashes, causing "blobs" of mascara to form on the lashes. To eradicate these blobs, users must brush their lashes repeatedly until the mascara forms an even coating. ('622 patent, col. 1, Ins. 31-32) The '622 patent's specification blames this "clumping" phenomenon on the number and diameter of bristles employed in a conventional mascara brush. First, after insertion into the mascara reservoir, the brush is withdrawn through a flexible lip that "wipes" excess mascara off the bristles. FN1 Because of their population density, the bristles bend and flatten each other as they pass through the lip, thus causing the mascara to accumulate near the core of the brush. Second, the large number of bristles causes the eyelashes to entangle. The combination of these two problems makes it difficult for the user to obtain a perfectly even and homogeneous coating on the lashes with a single pass of the brush.

FN1. The diameter of this lip is smaller than the minimum diameter of the brush (measured at the tip of the bristles), such that the lip exerts its wiping action as the brush is withdrawn from the reservoir. ('622 patent, col. 1, lns. 56-60)

The present invention attempts to remedy these drawbacks by increasing the diameter of the bristles to twice the size of traditional mascara brush bristles and by spacing these bristles at a greater distance from each other, thereby reducing the total number of bristles on the brush. According to the '622 patent, less densely packed bristles resist "flattening" as they pass through the lip. Because they are larger and more sparsely arrayed around the brush, the invention's bristles also tend to be harder, which facilitates separation of the lashes during brushing. The combination of wider but less densely packed bristles purportedly enables users to evenly coat their eyelashes with one pass of the brush.

The invention's bristles also have at least one "capillary channel" extending along the length of the bristle surface. In the preferred embodiment, the capillary channels give the bristle a cruciform cross-section. ('622 patent, col. 4, Ins. 10-12) These channels form reservoirs that allow each bristle to be charged with more mascara. This, in turn, facilitates the uniform distribution of mascara throughout the brush.

The '622 patent has a total of seventeen claims, the last three of which were added during a reexamination. (*See* Reexamination Certif. B1 '622 patent) Plaintiffs accuse defendants of infringing claims 1 and 2 of the '622 patent. Claim one reads as follows:

A brush for the application of mascara to the eyelashes, comprising a central core formed from a twisted wire holding a helical array of regularly disposed bristles with a bristle diameter of from 0.10 to 0.25 mm and with from approximately 10 to 40 bristles per turn of the helix.

('622 patent, col. 6, Ins. 13-21) Claim 2 depends from claim 1 and discloses

[a] brush according to claim 1, wherein the wire of the core has a diameter of from 0.45 to 0.75 mm, and the pitch of the helix is from 1 to 2 mm.

('622 patent, col. 6, Ins. 29-31) Because the parties dispute the claim meanings, the court must construe claims one and two.

III. CLAIM CONSTRUCTION

It is the court's "power and obligation to construe as a matter of law the meaning of language used in the patent claim." Markman v. Westview Instruments, Inc., 52 F.3d 967, 979 (Fed.Cir.1995), *aff'd,* 517 U.S. 370 (1996). The principles of claim construction are well established. The exercise begins with the claim language, which defines the scope of the claim. *See* York Prods., Inc. v. Central Tractor Farm & Family Ctr., 99 F.3d 1568, 1572 (Fed.Cir.1996). In analyzing claim language, the court must employ "normal rules of syntax," Eastman Kodak Co. v. Goodyear Tire & Rubber Co., 114 F.3d 1547, 1553 (Fed.Cir.1997) for "[a] claim must be read in accordance with the precepts of English grammar." In re Hyatt, 708 F.2d 712, 714 (Fed.Cir.1983). The court also must ascribe to any technical term used in a claim "the meaning that it would be given by persons experienced in the field of the invention, unless it is apparent from the patent and the prosecution history that the inventor used the term with a different meaning." Hoechst Celanese Corp. v. BP Chems., Ltd., 78 F.3d 1575, 1578 (Fed.Cir.1996).

In order to give context to the claim language, the court also must review the specification. The Federal Circuit has explained that

[t]he specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication.... As we have repeatedly stated, "claims must be read in view of the specification, of which they are a part." ... The specification contains a written description of the invention which must be clear and complete enough to enable those of ordinary skill in the art to make and use it. Thus, the specification is always relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of the disputed term.

Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996).

The last source of intrinsic evidence relevant to claim construction is the prosecution history of the patent where, as here, it is in evidence. The prosecution history contains the complete record of all the proceedings before the Patent and Trademark Office, "including any express representations made by the applicant regarding the scope of the claims." Id. at 1583. The prosecution history, therefore, "is often of critical significance in determining the meaning of the claims." *Id*. Extrinsic evidence of claim meaning, on the other hand, is improper in most instances. *See id*. Extrinsic evidence includes expert testimony.

A. Claim 1

1. "A Brush for the Application of Mascara to the Eyelashes"

Both parties agree that this phrase forms the preamble of claim 1. Plaintiffs urge the court to give this preamble the effect of a claim limitation. Specifically, they argue that it refers to "a brush that takes up mascara formula from a container and then transfers the formula to the eyelashes while simultaneously separating and combing the lashes." (D.I. 272 at 15) Defendants, on the other hand, argue that this preamble is not a claim limitation at all. Defendants argue in the alternative that the preamble limits the claim only to a brush intended for use in "making up" the eyelashes with mascara.

The question of whether to give the preamble the effect of a claim limitation "can be resolved only on review of the entirety of the patent to gain an understanding of what the inventors actually invented and intended to encompass by the claim." Corning Glass Works v. Sumitomo Elec. U.S.A., Inc., 868 F.2d 1251, 1257 (Fed.Cir.1989). Courts construe claim preambles consistent with the general principles of claim construction. If, after reviewing the patent as a whole, the claim preamble is " 'necessary to give life,

meaning, and vitality' to the claim then the claim preamble should be construed as if in the balance of the claim." Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305 (Fed.Cir.1999). When the drafter chooses to use both the preamble and the claim body to define the invention, "the invention so defined, and not some other, is the one the patent protects." *See* Bell Communications Research, Inc. v. Vitalink Communications Corp., 55 F.3d 615, 620 (Fed.Cir.1995). If, on the other hand, the body of the claim sets forth the complete invention and the preamble offers no distinct definition of any of the claimed invention's limitations, "but rather merely states ... the purpose or intended use of the invention, then the preamble is of no significance to claim construction." *Id*.

In the present case, the preamble must be read as a limitation upon the claim. This conclusion is confirmed by a review of the patent as a whole. First, and most obviously, the patent title, "Brush for the Application of Mascara to the Eyelashes," indicates that the inventor intended the patent to cover only mascara brushes. Second, the specification is replete with references to brushes used in applying mascara. In short, the patent as a whole is directed to a particular type of brush-- specifically, a brush designed to solve the problem of uneven mascara application on the eyelashes. The preamble gives meaning to claim 1 by indicating the kind of brush the inventor designed to remedy this problem: only those brushes structurally suited for placing mascara on the eyelashes. Without benefit of the preamble, it is conceivable, for instance, that claim 1 could be construed to cover brushes not designed to place mascara on the eyelashes (for instance, brushes with purely industrial applications). FN2 To read claim 1 in such a fashion "would be divorced from reality." Corning Glass, 868 F.2d at 1257. Therefore, the court shall give the preamble to claim 1 the effect of a claim limitation.

FN2. At one point during the prosecution history, patents disclosing brushes used in cleaning metal parts and boiler tubes were offered (and rejected) as prior art references. (*See* D.I. 275 at SA 570-71)

Having determined that the preamble serves as a structural limitation on claim 1, it is now necessary to determine the scope of that limitation. Plaintiffs argue that the preamble refers to a brush that takes up mascara formula from a container, transfers the formula to the eyelashes, while simultaneously separating and combing the lashes. The simple phrase, "[a] brush for the application of mascara to the eyelashes" does not warrant such a narrow reading. Contrary to plaintiffs' assertions, neither the preamble nor claim 1 refers to a particular method in which the mascara brush must be used. Nor does it make any mention of other mascara components, such as a mascara container. Indeed, reference to claim 17 of the '622 patent, which discloses a mascara applicator comprising several components, confirms that the preamble to claim one refers only to mascara brushes and not to the process or components of mascara application. Claim 17 reads, in pertinent part, as follows:

In a mascara applicator including a mascara reservoir, a detachable cap adapted to said reservoir, a stem integral with said cap and a brush depending therefrom, said stem and brush penetrating into said reservoir through a substantially circular opening surrounded by a wiping lip....

(Reexamination Certif. B1 '622 patent, col. 2, lns. 8-13) It would be improper to read the more sparsely worded claim 1 as narrowly as the more detailed claim 17. Where some claims are broad and others narrow, the narrow claim limitations cannot be read into the broad claims. *See* Marsh-McBirney, Inc. v. Montedoro-Whitney Corp., 882 F.2d 498, 504 (Fed.Cir.1989).

Consequently, the court shall construe the preamble of claim 1 to mean a brush used to place mascara on the

eyelashes.

2. "Bristle"

Plaintiffs and defendants dispute whether the term "bristle" means a single fiber having two ends or, rather, a portion of a single fiber having a "tip" located some distance from the brush's core and a "base" located at the brush's core. Plaintiffs urge the former construction and defendants the latter. Plaintiff's construction of the term "bristle" is the more plausible.

Although the language of claim 1 sheds no light on the proper interpretation of the term "bristle," the specification describes bristles as fibers with two ends. In describing the insertion of the bristles between the metal loops of the twisted iron core, the specification depicts the bristles as constituting single fibers, not portions of a single fiber: "In effect, when the bristles are implanted between the turns of the core, there is a softening of the bristles due to the deformation of the cross-section of the bristle, which is all the more noticeable when bristles used comprise capillary tubes." ('622 patent, col. 3, ln. 68 to col. 4, lns. 1-4) (emphasis added). Thus, the patent refers to the fibers as bristles even prior to their insertion into the metal core where they subsequently are "bent" at their midway point. The specification uses the term bristle in a similar fashion in its description of the drawings: "FIGS. 3 and 4, respectively, represent a profile and top view of a rake delivering the bristle tufts intended, in conjunction with the core, to constitute the brush." ('622 patent, col 4, lns. 41-43) (emphasis added). The patent further explains that, when situated within the rake-like device prior to their insertion in the core, "[t]he bristles 3 are disposed in regular bundles 6 within successive mutually parallel teeth 7 of a rake-shaped device 8 from which they project laterally by substantially the same distance on either side." ('622 patent, col. 5, lns. 1-4) (emphasis added). With the bristles thus situated, the rake-shaped device

is brought near the twisted wire 2b until the bundles 6 each penetrate with one of their ends into a loop 5 perpendicular to the median line of the twisted wire 2b until the wire comes to occupy a median position in relation to the bundles 6 of the bristles which then project from the latter on either side by a practically identical distance.

('622 patent, col. 5, Ins. 8-15) (emphasis added). Stated differently, the bristles are inserted into the metal loops constituting the core until the core is roughly in the middle of the bristle tufts. If the core sits at the middle of the bristle bundles, a bristle must be the entire fiber and not just a portion of it.

Defendants, however, point to the language of claim 7 in support of their two-bristles-for-one-fiber theory. Claim 7 discloses

[a] brush according to claims 1 or 6, wherein each bristle of at least part of the set of bristles of the brush comprises on its surface at least one capillary channel extending substantially from its base as far as its tip.

('622 patent, col. 6, Ins. 42-45) Defendants argue that if a bristle is a single fiber with two ends, the ends would be indistinguishable and it would be nonsensical to refer to one end as a base and the other as a tip. Thus, they conclude that a bristle is the portion of a fiber extending from the core (its base) to its tip. This is an unwarranted conclusion. Claim 7 discloses a mascara brush with capillary channels disposed on the surface of its bristles. Its use of the word "base" is necessitated by the fact that the brush's twisted wire core interrupts the capillary channel's progress across the surface of the bristle. "Base" is merely a convenient way of expressing that the capillary channels extend (for all practical purposes) only as far as the wire core,

where their capillary action is thwarted by the wire core that deforms the bristle's cross section. (*See* '622 patent, col. 3 ln. 68 to col. 4, Ins. 1-3) ("In effect, when the bristles are implanted between the turns of the core, there is a softening of the bristles due to the deformation of the cross-section of the bristle....").

Accordingly, the court shall construe the term "bristle" to mean a single fiber having two ends.

3. "Holding A Helical Array of Regularly Disposed Bristles"

Plaintiffs urge a tripartite construction of "holding a helical array of regularly disposed bristles." First, they argue that the phrase requires that the portions of the bristles at the surface of the brush must display a visible helical pattern along the main portion of the brush. Second, the distribution of the bristles must be substantially constant, within manufacturing tolerances, along the main portion of the brush and, third, the bristles must be sufficiently spaced between turns and within each turn to allow for interpenetration of the bristles of one turn of the helix into the following turn as the brush is pulled through the wiper. (D.I. 272 at 23) Defendants argue that "holding a helical array" refers only to bristles gripped by a twisted wire that are in a helical or spiral arrangement. With respect to the term "regularly disposed bristles," defendants argue that it means "bristles that appear to be distributed substantially uniformly along the length of the brush ."

a. "Holding a helical array"

The '622 patent does not support a construction of "holding a helical array" that requires the bristles at the surface of the brush to display a visible helical pattern. The phrase merely requires that the bristles be held in a helical array by the twisted metal core of the brush. A review of the claim language confirms this.

In claim 1, the phrase "holding a helical array" modifies "from a twisted wire." Thus, it is the twisted wire that holds the helical array of bristles. There is no indication that this array must be visible to the naked eye from the surface of the brush. FN3 Although plaintiffs argue that "[t]he combination of [the] words 'helical' and 'array,' by definition, require a visible pattern," nothing about the combination of the two words dictates such a conclusion. (D.I. 272 at 23) The claim language requires only that the twisted wire core hold a helical array, regardless of whether or not the tips of the bristles form separate spiral rows on the brush surface.

FN3. The specification refers to the invention as "comprising a central core formed from a twisted wire holding a helical array of regularly disposed bristles ...." ('622 patent, col. 2, lns. 22-24) (emphasis added). (*See also* '622 patent, col. 3, lns. 26-28) There simply is no language intimating that the helical array be visibly apparent.

Plaintiffs also equate "helical" with "twisted" and contend that the term "helical array" would be superfluous and repetitive if construed to mean the manner in which the twisted core holds the bristles. "To twist," however, means "to unite by winding" whereas "helix" refers more specifically to "something spiral in form as: ... b. a coil formed by winding wire around a uniform tube" or "a space curve with turns of constant slope from the base and constant distance from the axis." *Webster's Third New Int'l Dictionary* 1051, 2473 (Unabridged ed.1993) (emphasis added). "Twisted" thus refers to the manner by which the two wire strands of the core are united while "helical" refers to the specific manner in which the core bristles must be arrayed around (and held by) the core. Although plaintiffs cite both the specification and the prosecution history for support of their construction of "holding a helical array," nothing in either source indicates that this array must be visible on the surface of the brush. Accordingly, the court shall construe "holding a helical array" to

mean that the bristles held by the core must be disposed in the form of a helix.

b. "Regularly disposed bristles"

As an initial matter, claim 1 does not equate "regularly disposed" with "manufacturing tolerances." There is nothing in the claim, the specification, or the prosecution history to suggest that the court should not accord "regularly disposed" its ordinary meaning of "harmonious in form, structure or arrangement." *Webster's* at 1913. There is a "heavy presumption in favor of the ordinary meaning of claim language," *Johnson Worldwide Assocs .,* 175 F.3d at 989, and it is well established that a claim term should be given its ordinary meaning unless the specification or prosecution history provide a special meaning or definition. *See* Kegel Co. v. AMF Bowling, Inc., 127 F.3d 1420, 1427 (Fed.Cir.1997). Neither the specification nor the prosecution history provide a special definition for "regularly disposed." Indeed, the specification supports construing "regularly disposed" according to its ordinary meaning. For instance, it describes the bristles as "disposed in regular bundles" within the rake-shaped device prior to their insertion in the metal core. ('622 patent, col. 5, Ins. 1-4) There is no mention of manufacturing tolerances or any other specific criteria for the "regular disposition" of the bundles prior to their insertion in the core.

Plaintiffs also argue that the term "regularly disposed" requires that the bristles be sufficiently spaced "between turns and within each turn to allow for interpenetration of the bristles of one turn of the helix into the following adjacent turn as the brush is pulled through the wiper." (D.I. 272 at 30) Nothing in claim 1 supports augmenting the ordinary meaning of "regularly disposed" with plaintiffs' interpenetration requirement. Nor do plaintiffs suggest that interpenetration is part of the ordinary or accustomed meaning of "regularly disposed." Instead, plaintiffs point to the specification as evidence that claim 1 requires interpenetration.

Specifically, plaintiffs cite portions of the specification addressing the "flattening" problem associated with conventional mascara brushes. In these brushes, the densely packed and "substantially juxtaposed" bristles flatten each other in the direction of the core as the brush is drawn through the wiper. The density of the bristles (i.e., their large number) and the "substantially juxtaposed" manner of their arrangement produces the clumping problem that the present invention attempts to remedy. The '622 patent proposes to remedy this clumping problem by interspacing the bristles "at a far greater distance from each other by using a number of bristles which is approximately 35% to 80% less than that of a conventional mascara brush." ('622 patent, col. 2, Ins. 17-20) As the specification explains, "because of being relatively sparse, the bristles of one turn cannot, by bending over as they pass through the wiper lip, also produce the bending over of the bristles of the following turn; on the contrary, they interpenetrate between the bristles of this following turn ...." ('622 patent, col. 2, Ins. 43-48) (emphasis added). In other words, the specification attributes interpenetration to the "sparsity" of the bristles, not to their "regular disposition" around the core. "Sparse" is defined as "of few and scattered elements; having spaces between the component units; not thickly grown or settled; thinly scattered." *Webster's* 2184. "Sparse" denotes elements that are scattered and not disposed closely to one another. It is thus distinct from a "harmonious or even" arrangement or distribution of elements.

Accordingly, the court shall not construe "regularly disposed" to require interpenetration. The court shall construe the term "regularly disposed" to mean evenly or harmoniously distributed along the length of the brush. FN4

FN4. Plaintiffs also urge that the term "regularly disposed" applies only to the main portion of the brush and

not to the end of the brush. Nothing in claim 1 so limits the term. Although the specification envisions "a greater bristle population density for the bristles" at the free end of the brush ('622 patent, col. 3, lns. 8-9), it does not contemplate that these bristles be disposed in an irregular or uneven manner.

4. "With From Approximately 10 to 40 Bristles Per Turn of the Helix"

Plaintiffs contend that the phrase "turn of the helix" refers to a "visible row or visible turn" of the helical array of bristles, which corresponds to a 180 degree rotation of the mascara brush about its longitudinal axis. Defendants argue that the ordinary meaning of "turn" is "rotation or revolution," which suggests a 360 degree rotation of the brush about its axis.

Consistent with both the court's interpretation of the word "bristle" and with the specification's description of the manufacturing process, the court interprets the word "turn" to be the "loop" into which the bristle bundles are inserted. At the outset, the patentee describes the conventional mascara brush as having "from 50 to 60 bristles per turn." ('622 patent, col. 1, lns. 20-21) In more particularly describing the various manufacturing stages of the conventional brush, the patentee explains that,

[w]ith the bristle bundles 6 thus disposed, the rake-like device 8 is brought near the twisted wire 2b until the bundles 6 each penetrate with one of their ends into a loop 5 perpendicular to the median line of the twisted wire 2b until the wire comes to occupy a median position in relation to the bundles 6 of the bristles which then project from the latter on either side by a practically identical distance.

At that moment, the twisting movement, already effected to constitute the twisted wire 2b, is continued so that the pitch of the wire becomes progressively smaller, the two iron wire strands becoming contiguous and the bundles 6 of the bristles being simultaneously deformed to lead to the above-mentioned spiral form whose pitch is of the order of 2 mm.

To obtain the bristles 3, polyamide filaments are used with a diameter of approximately 0.8 mm. The number of bristles constituting one bundle 6 is the order of sixty. Thus, the brush represented in FIG. 5 has a helical array of bristles relatively tightly placed against each other.

To obtain the brush 1 represented in FIG. 6, which conforms to the present invention, the above indicated method is used except that the depth of each tooth of the rake-like device 8 for dispensing the bundles 6 of the bristles is halved and that, moreover, the bristles 3 have a diameter of approximately 0.17 mm. It follows from this that the number of bristles per turn of the brush 101 of FIG. 6 is 15; it has therefore been reduced by 75%, the reduction by half of the overall volume of the bristles being combined with a reduction by half due to the doubling of the diameter of the bristles.

('622 patent, col. 5, lns. 8-38) (emphasis added). The primary lesson to be gleaned from this language is that the patentee only counted the "bristles" once; he did not double the number of bristles once the "bundle 6" was inserted into the "loop" or "turn" and deformed by being twisted at its median point.

This construction finds support in other parts of the specification and of the prosecution history. For instance, the specification states that "when the bristles are implanted between the turns of the core, there is a softening of the bristles due to the deformation ...." ('622 patent, col. 3, ln. 68-col. 4, lns 1-2) (emphasis added).

Moreover, in discussing the remedy to the "flattening" problem of conventional mascara brushes, the specification notes that in the present invention,

the bristles of one turn cannot, by bending over as they pass through the wiper lip, also produce the bending over of the bristles of the following turn; on the contrary, they interpenetrate between the bristles of this following turn....

('622 patent, col. 2, lns. 43-48) (emphasis added). In other words, as the brush emerges from the wiper, the first turn of bristles to encounter the wiper will interpenetrate "the following" turn. FN5 If a "turn" referred only to a 180 degree rotation on the brush's longitudinal axis, then the bristles of one turn could not interpenetrate the bristles of "the following" turn because those "following" bristles would be on the other side of the axis (i.e., 180 degrees away). FN6

FN5. Plaintiffs argue that the bristles form a "double helix" and that by rotating it 360 degrees two "visible rows of the helical array will be traversed along the length of the brush." (D.I. 272 at 34) Neither claim 1 nor the specification speaks of a double helix.

FN6. The same is true if one uses (as plaintiffs sometimes do) "adjacent" in place of "following." If a turn is 180 degrees, the "adjacent" turn is the next, contiguous 180 degrees. *See Webster's* at 26 (defining "adjacent" as, *inter alia,* "having a common border").

The prosecution history is not inconsistent with this interpretation. In a request for reexamination, L'Oreal submitted a variety of brush photographs to the examiner to distinguish the '622 patent from prior art. These photographs depict magnified views of prior art brushes and of the brush disclosed in the '622 patent. (*See generally* D.I. 273 at SA 168-76) The caption to each of these photographs identifies the number of turns on the brush and the number of bristles per turn. Significantly, in each of these photographs more than 180 degrees of the mascara brush is visible. (*See, e.g.,* D.I. 273 at SA 173-75)

In sum, in determining the number of bristles "per turn of the helix," one should count the number of bristles included in each original bundle that is inserted into each "turn" or "loop" or "coil" of the core. This number should be consistent with the number of bristles visible on each half of the "turn," but neither a 360 degree nor a 180 degree construction is entirely consistent with the intrinsic evidence of record.

B. Claim 2

1. "Pitch of the helix"

Plaintiffs construe the term "pitch of the helix" to mean "the distance between any point on a visible turn and the corresponding point on an adjacent visible turn." (D.I. 272 at 39) "Pitch of the helix" is not defined either in the claims or in the specification. Both parties appear to agree that pitch is the distance between turns of the helix. The parties also agree that, in the industry, "[p]itch is typically expressed in only inches (or millimeters) as shorthand for inches per turn." (*Compare* D.I. 272 at 39 *with* D.I. 289 at 28; D.I. 274 at S.A. 371) Consistent with the court's construction of "turn," the court shall construe "pitch of the helix" as the distance between each "turn" or "loop" or "coil" of the wire core.

IV. CONCLUSION

Therefore, at Wilmington, this 24th day of February, 2000, it is so ordered.

D.Del.,2000.
L'Oreal S.A. v. Revlon Consumer Products Corp.