United States District Court,
N.D. Illinois.

TENNECO PACKAGING SPECIALTY AND CONSUMER PRODUCTS, INC. Formerly d/b/a Tenneco Plastics Company,
Plaintiff.
v.
S.C. JOHNSON & SON, INC. and KCL Corporation,
Defendants.

Nov. 16, 1999.

MEMORANDUM OPINION AND ORDER

KENNELLY**, J.**

In this patent infringement suit Tenneco Packaging Specialty and Consumer Products, Inc. alleges that Slide-Loc reclosable plastic storage bags infringe U.S. Patent No. 5,007,143, which is held by Tenneco. The case is before the Court for construction of disputed claim language in the patent-in-suit.

FACTUAL BACKGROUND

Tenneco manufactures and sells Hefty One Zip reclosable plastic storage bags. The One Zip bags open and close by means of a "rolling action zipper profile," which in very simple terms consists of a slider that passes over and interlocks or disengages the male and female (or rib and groove) elements of the zipper. The profile is designed to make the One Zip bags not only resealable but also leakproof. The profile is patented in U.S. Patent No. 5,007,143 (the '143 Patent), in which Tenneco holds all rights. In its complaint, Tenneco alleges that the Slide-Loc reclosable plastic storage bag, a commercial competitor to the One Zip manufactured by KCL Corporation on behalf of S.C. Johnson & Son, infringes the '143 Patent. Specifically, Tenneco alleges that the Slide-Loc uses a zipper profile that operates in the exact same way as the profile disclosed in the '143 Patent, i.e., it opens from top to bottom and closes from bottom to top using a slider with a separator finger and rolling action to form a leakproof seal.

Recognizing that the first step in any infringement case is to construe the claims of the patent-in-suit, *see* K-2 Corp. v. Salomon S.A., 191 F.3d 1356, 1999 WL 717835, at *3 (Fed.Cir. Sept. 13, 1999), the parties submitted extensive briefs and volumes of exhibits in support of their respective positions concerning how the claim language should be construed. In addition, on September 23 and 24, 1999, the Court held a hearing, as suggested by Markman v. Westview Instruments, Inc., 52 F.3d 967 (Fed.Cir.1995) (en banc), *aff'd* 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996), and its progeny. The parties presented extrinsic evidence in the form of expert testimony and testimony from the inventor of the '143 Patent as well as other inventors in the plastic reclosable plastic fastener field. Finally, on October 18, the Court heard oral argument from the parties concerning the disputed claim language. The purpose of this Memorandum Opinion and Order is to set forth the Court's construction of the disputed claim language.

DISCUSSION

The construction of the claims of a patent is a question of law to be determined by the court. Markman, 52 F.3d at 977-78. In determining the meaning of the terms of the claims, the court considers "intrinsic" evidence, which consists of the language of the claims, the specification of the patent, and the prosecution history. Id. at 979; Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996). If the meaning of the claim terms is not ambiguous and can be determined from the intrinsic evidence, the court may not rely on extrinsic evidence in rendering its claim construction, although the court may hear the evidence to educate itself about the relevant technology and to ensure that the construction to which it is tending is not inconsistent with widely held understandings in the pertinent technical field. Vitronics, 90 F.3d at 1583; Pitney Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1309 (Fed.Cir.1999).

After reviewing the specification, the claims and the prosecution history of the '143 Patent, the Court finds that the extrinsic evidence presented at the *Markman* hearing was helpful only to the extent it educated the Court on the relevant technology; the Court has not relied on this evidence in construing the claim language. With the exception of dictionary definitions, the Court has relied exclusively on the intrinsic evidence to construe the disputed claim terms. FN1

FN1. The Federal Circuit's cases are not entirely clear on whether dictionary definitions constitute extrinsic evidence. Antonious v. Spalding & Evenflo Companies, Inc., No. 98-1478, 1999 WL 777450 (Fed.Cir. Aug.31, 1999), an unpublished decision, cites Karlin Technology, Inc. v. Surgical Dynamics, Inc., 177 F.3d 968, 971 (Fed.Cir.1999), for the proposition that "[d]ictionary definitions are considered to be intrinsic evidence." 1999 WL 77450, at *3. On the other hand, *Markman* and several later decisions say unequivocally that such definitions are extrinsic evidence. *E.g.,* Markman, 52 F.3d at 980; Vitronics, 90 F.3d at 1584; Multiform Desiccants, Inc. v. Medzam, Ltd., 133 F.3d 1473, 1478 (Fed.Cir.1998). The distinction may be one without a practical difference. *Vitronics* teaches that dictionary definitions, though extrinsic, "are worthy of special note. Judges are free to consult such resources at any time in order to better understand the underlying technology and may also rely on dictionary definitions when construing claim terms, so long as the dictionary definition does not contradict any definition found in or ascertained by a reading of the patent documents." Vitronics, 90 F.3d at 1584. This is the sense in which the Court has used dictionary definitions in this case.

We turn first to the claims. *See* Pitney Bowes, 182 F.3d at 1305 (claim construction begins with the language of the claims themselves). The '143 Patent includes eleven claims, five of which contain disputed terms (claims 1, 6, 7, 9 and 11). In total, the parties dispute five claim terms: (1) profiled tracks; (2) rolling; (3) shaped throughout the length thereof; (4) particularly suited; and (5) complimentary cross sectional shapes. We discuss each in turn.

"*Profiled Tracks*"

Claim 1 discloses

[a] plastic reclosable fastener with slider particularly suited for thermoplastic bags and the like comprising a pair of flexible plastic strips having separable fastener means extending along the length thereof comprising reclosable interlocking male and female profile elements on the respective strips, said strips including profiled tracks extending along the length thereof parallel to the male and female elements, ... a straddling

slider on said tracks for closing or opening the reclosable fastener elements ..., a separator finger depending from said back between said side walls and inserted between said tracks.... U.S. Patent No. 5,007,143 at col. 6, line 53-col. 7, line 6 (emphasis added).

Claims 6, 7, 9 and 11 use "profiled tracks" in the same way as Claim 1. *See* id. at col. 7, lines 43-59; col. 8, lines 9-15, 30-45; col. 9, lines 3-col. 10, line 5.

Both parties agree that the profiled tracks are the structures along which the slider moves and between which the separator finger of the slider is inserted. The dispute about this term concerns how the profiled tracks relate to the profile elements. In its briefs, SCJ argued that the language of the patent required the profiled tracks to be separate and distinct from the male and female elements (i.e., that the profiled tracks and the elements must be made from separate pieces of molded plastic). Tenneco argued that nothing in the patent language limited the structure in this way; the profiled tracks could be separate and distinct from the elements or they could both be part of the same contiguous piece of plastic. At the hearing on October 18, however, SCJ seemed to change its argument: SCJ stated that the profiled tracks and elements could be made from the same piece of plastic, but that the patent required the profiled tracks to perform a different function than the male and female elements perform. Frankly, the Court is not entirely sure that Tenneco would disagree; the patent clearly contemplates that the profiled tracks serve a different purpose than do the elements. Thus, to the extent the parties dispute this point, the Court finds that the patent requires the profiled tracks and the elements to serve different functions. The profiled tracks provide the pathway for the slider; the elements interlock to close (and disengage to open) the zipper.

Although SCJ suggested it was backing away from its initial argument (that the profiled tracks had to be made from separate pieces of plastic than the elements), the Court will nonetheless provide guidance as to how it believes the claim language bears on the issue. At first blush, SCJ's argument is appealing. Although the claims do not expressly limit profiled tracks to separate and distinct structures, they do indicate that the profiled tracks are "parallel" to the elements, *see* col. 6, line 59-60; col. 7, lines 43-45; col. 8, lines 9-11, 30-32; col. 9, lines 3-5, and arguably the tracks cannot be parallel to the elements and still be part of the same piece of plastic. *See Merriam-Webster's Collegiate Dictionary* 842 (10th ed.1999) (parallel means "extending in the same direction, everywhere equidistant, and not meeting"). But on closer scrutiny, it becomes clear that "parallel" describes the flexible plastic strips, not the profiled tracks and the elements.

The claims disclose that the elements and the profiled tracks are both on the flexible plastic strips: the strips " *hav[e]* separable fastener means" and " *nclud[e]* profiled tracks." That does not necessarily mean that the profiled tracks and the elements must be made from the same piece of plastic; structures-the slider disclosed in this patent for example-may be formed from different pieces of plastic and then attached to the strips. The Court sees nothing in the claim language that requires the profile elements and the profiled tracks to be made from separate and distinct pieces of plastic. In fact, the figures in the patent depicting the preferred embodiment show profiled tracks made from the same contiguous piece of plastic as the male and female elements, as seen below, where the profiled tracks are designated 18 and 19 and the elements 16, 17a and 17b.

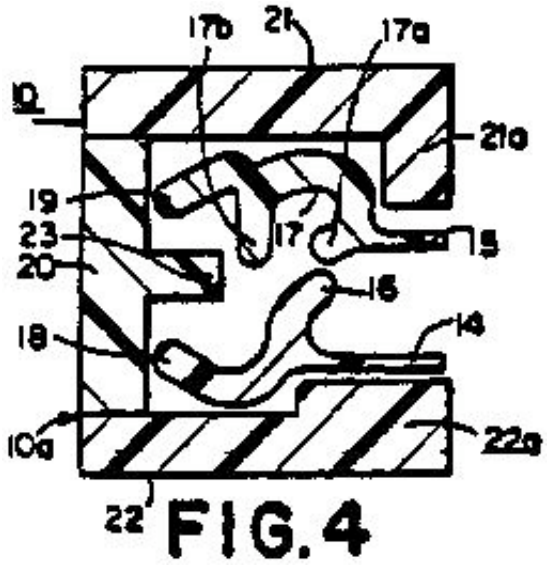

FIG. 4

Thus construing the claim language as SCJ suggests would exclude the preferred embodiment from the scope of the patent, and the Court is unwilling to adopt a construction that would lead to such a ridiculous result. The Court finds that the profiled tracks must serve a different function than the profile elements, but the profiled tracks need not necessarily be separate and distinct from the profile elements.

"***Rolling***"

Without a doubt "rolling" is the most hotly contested claim term. Tenneco has argued that rolling simply means bottom to top closing and top to bottom opening. SCJ argues that rolling requires that the elements "pinwheel"; that is, the bottoms of the elements rotate in one direction while the tops of the elements rotate in the opposite direction. The Court finds that the proper definition lies in the middle.

In its specification, the '143 Patent discloses "a rolling action zipper profile which closes most easily by pressing it together first at the bottom and then rolling it closed toward the top." U.S. Patent No. 5,007,143 at col. 1, lines 9-11 (emphasis added). Similarly, claims 1, 6 and 7 disclose "male and female [sometimes referred to as rib and groove] elements having complimentary cross sectional shapes such that they are closed by pressing the bottom of the elements together first and then rolling the elements to a closed position toward the top thereof." Id. at col. 6, lines 60-64; col. 7, lines 45-49; col. 8, lines 15-19 (emphasis added). SCJ cites this language to support its argument that "rolling" must mean something more than simply bottom to top closing or the use of the term "rolling" in the specification and the claims would be redundant. The Court agrees. Tenneco's construction of this language reads the term "rolling" out of the claim limitations, and we are unwilling to adopt such a construction. *See* Ethicon Endo-Surgery, Inc. v. United States Surgical Corp., 93 F.3d 1572, 1582-83 (Fed.Cir.1996). Moreover, the plain language of the claims states that the "rolling" occurs after the bottoms of the elements are closed; the "rolling" occurs only in connection with closing (and opening) the tops of the elements. Although it is true that the '143 Patent's profile unquestionably closes from bottom to top (and opens from top to bottom), that order of movement is not part of the definition of "rolling." "Rolling" describes the nature of the motion, not the direction of the motion.

Words in a claim are given their ordinary and customary meaning unless the patentee chooses, and plainly

states in the patent, a special definition. Vitronics, 90 F.3d at 1582. Fox Herrington, the patentee in this case, did not define rolling in the '143 Patent, which means we apply the word's ordinary and customary meaning. One scientific dictionary defines "rolling" to mean "[m]otion of a body across a surface combined with rotational motion of the body so that the point on the body in contact with the surface is instantaneously at rest." *McGraw-Hill Dictionary of Scientific and Technical Terms* 1275 (1976). Merriam-Webster is in agreement, defining "rolling" to mean "rotating on or as if on an axis or moving along a surface by rotation." *Webster's Third New International Dictionary of the English Language Unabridged* 1969 (1993). The Court could find no dictionary that defines "rolling" to mean "bottom to top closing/top to bottom opening"; nor could the Court find a dictionary that used the term "pinwheeling" to define "rolling." Nor did the parties demonstrate that persons skilled in the art of plastic reclosable fasteners would give the term a particular meaning, a meaning other than the ordinary and customary meaning found in dictionaries. Accordingly, the Court will construe "rolling" consistent with the ordinary and customary meaning given that word, as set forth in the dictionary definitions. Thus, "rolling" as used in the patent requires something more than simply bottom to top closing and top to bottom opening. But the definition is not as strict and specific as SCJ suggests. SCJ even concedes that the elements disclosed in the '143 Patent's claims would not roll, as SCJ has defined the term, and we have no intention of adopting a definition that would exclude the disclosed preferred embodiment.

The specification describes how the tops of the elements are closed in the preferred embodiment as follows:

The shoulder 21 a also has a non-uniform width and projects inwardly in FIG. 5 a greater distance than in FIG. 4 but is beneath the hook-shaped projection 17a of the groove element 17. This permits the groove elements 17 to be rolled outwardly under the action of the finger 23 so that the rib 16 can enter the groove 17 the spacing between the side walls 21 and 22 is less than in FIG. 5 and the finger 23 has a narrower cross-section which permits the tracks 18 and 19 to move toward each other this causing the rib 16 to be rolled into the groove 17 between the projections 17a and 17b.

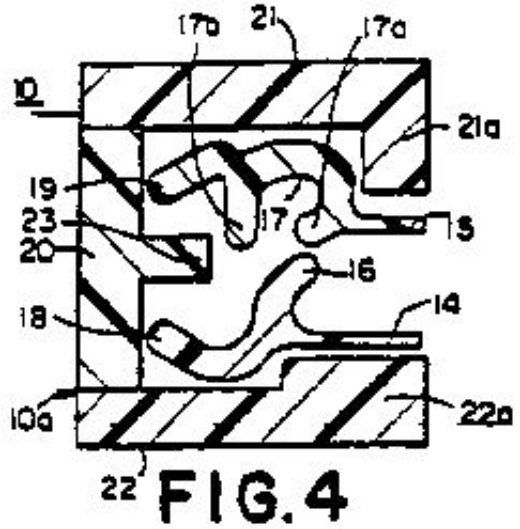

FIG. 4

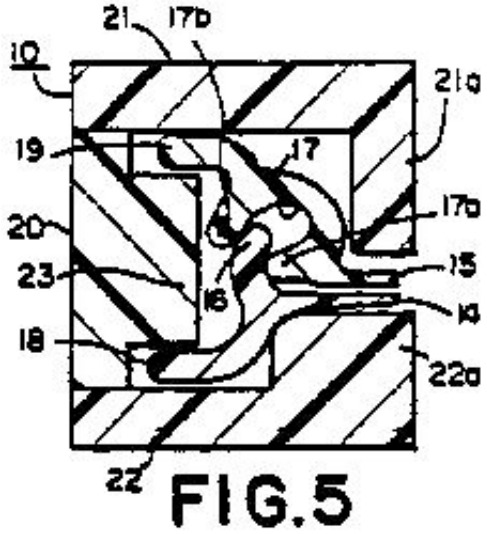

FIG.5

The specification uses "rolled" consistent with the dictionary definitions discussed above, and this evidence, together with the claim language and the dictionary definitions, lead the Court to define "rolling" as used in the patent to mean a rotational motion. Thus the '143 Patent's profile is closed by first pressing the bottoms of the elements together and then rolling (a rotational motion which is achieved because of the shape of the elements and because of the materials from which the elements are made, i.e., flexible plastic) the tops of the elements together.

"***Shaped Throughout the Length Thereof***"

Claim 1 discloses:

a separator finger depending from said back between said side walls and inserted between said tracks, said separator finger being shaped throughout the length thereof for first holding the top of the male and female elements open while the slider first presses the bottom of the elements together and then permitting the slider to press the top of the elements together while the slider moves in a closing direction, said slider having shoulders projecting inwardly from said depending side walls and shaped throughout the length thereof for cooperation with said depending separator finger in creating the rolling action in opening and closing said reclosable interlocking male and female profile elements. U.S. Patent No. 5,007,143, col. 7, lines 4-17 (emphasis added).

SCJ argues that the phrase "shaped throughout the length thereof" means that the separator finger must be very wide on one end and then taper down to a thinner shape moving horizontally toward the opposite end of the zipper profile. Tenneco argues that the separator finger does not have to be any particular shape; rather, all the patent requires is that the separator finger is shaped such that it accomplishes its intended purpose. The Court agrees with Tenneco. Nothing in the patent specifies any particular shape for the separator finger. Instead, the patent equates the shape of the separator finger with the function that structure plays in the operation of the device. The claims do the same with respect to the slider. Thus the separator finger must be shaped to "first hold[ ] the top of the male and female elements open while the slider first presses the bottom of the elements together and then permit[s] the slider to press the top of the elements together while the slider moves in a closing direction." *See* U.S. Patent No. 5,007,143 at col. 7, lines 7-12, 60-65; col. 8, lines 47-51. The slider must be shaped "for cooperation with said depending separator finger

in creating the rolling action...." *See* id. at col. 7, lines 14-17; col. 7, line 67-col. 8, line 2; col. 8, lines 53-56. If a separator finger shaped other than as SCJ described and if a slider shaped other than that disclosed in the figures of the '143 Patent can serve these specified functions, such shapes would fall within the scope of the '143 Patent's claims.

"*Particularly Suited*"

Claim 7 discloses "[a] plastic reclosable fastener of the rolling action type for use with a slider having a separator finger particularly suited for opening and closing the mouth of the thermoplastic bags...." U.S. Patent No. 5,007,143 at col. 8, lines 3-6 (emphasis added). SCJ argues that the phrase "particularly suited" as used in this claim refers to the separator finger. Grammatically speaking, SCJ seems to be right; the placement of "particularly suited" immediately after "separator finger" certainly suggests that the phrase refers to the separator finger. Tenneco argues that the phrase "particularly suited" refers to the slider. In support of its position, Tenneco points the Court to the other places in the patent where the phrase "particularly suited" appears. In every other case the phrase immediately follows "slider ." Claim 1 of the '143 Patent discloses "[a] plastic reclosable fastener with slider particularly suited for thermoplastic bags and the like...." Id. at col. 6, lines 53-54 (emphasis added). Similarly, claim 6 discloses "[a] plastic reclosable fastener with slider particularly suited for opening and closing the mouth of thermoplastic bags...." Id. at col. 7, lines 37-39 (emphasis added). The specification also appears to use "particularly suited" to modify "slider": "The present invention relates to improvements in plastic reclosable fasteners with sliders particularly suited for thermoplastic bags and the like...." Id. at col. 1, lines 6-8. In all of these instances, the placement of "particularly suited" immediately following "slider" suggests that the phrase is intended to refer slider. Thus the question we need to answer is whether the insertion of additional language between "particularly suited" and "slider" in claim 7 changes what structure is "particularly suited."

Claim 7, as originally drafted, disclosed "[a] plastic reclosable fastener for use with a slider particularly suited for opening and closing the mouth of the thermoplastic bags...." In other words, it used the phrase "particularly suited" consistent with its use throughout the rest of the patent. The patentee was required to amend claim 7, however, after the PTO rejected it as being clearly anticipated by Laguerre U.S. Patent No. 3,806,998 (Laguerre '998). Laguerre '998 disclosed an "elastically flexible fastener" whose "ribs" or elements closed or snapped together all at once. *See* U.S. Patent No. 3,806,998 (abstract) ("the slider shoulder structures deflect the fastener shoulder ribs inwardly until the slider shoulder structures have cleared the ribs, whereupon the ribs snap resiliently into engagement with the slider shoulder structures."). The patentee's remarks to the PTO in connection with the amendment to claim 7 clarify that the patentee changed claim 7 to reflect the differences between the device disclosed in the '143 Patent and the device disclosed in Laguerre '998: "the fastener disclosed in Laguerre is of the same type of conventional plastic zippers where the profile is pressed straight together and not with a rolling action as disclosed in the present application." Based on the patentee's remarks to the PTO, the Court finds that the patentee in changing claim 7 did not intend to change what "particularly suited" modified. At worst, the patentee is charged with sloppy grammar. Consistent with the rest of the patent, claim 7 requires a slider particularly suited for thermoplastic bags and the like, not a separator finger particularly suited for thermoplastic bags and the like.

"*Complimentary Cross Sectional Shapes*"

The '143 Patent discloses a rolling action zipper profile that employs "male and female elements having complimentary cross sectional shapes such that they are closed by pressing the bottom of the elements together first and then rolling the elements to a closed position toward the top thereof." U.S. Patent No. 5,007,143 at col. 6, lines 60-64; col. 7, lines 45-49; col. 8, lines 15-19 (emphasis added). SCJ argues that the

phrase "complimentary cross sectional shapes" means that the elements must be shaped in a particular way. Tenneco argues that the patent would cover any shape, as long as the shapes allow the elements to close most easily "by first pressing the bottoms of the elements together and then rolling the tops of the elements together." The Court agrees with Tenneco.

Nothing in claims 1, 6 or 7 dictates a particular shape; instead, these claims demonstrate that the shape is defined by the function. To the extent other shapes would satisfy the functional specification (i.e., to the extent shapes other than those shown in the figures are "complimentary cross sectional shapes" that close "by pressing the bottom of the elements together first and then rolling the elements to a closed position toward the top thereof") those shapes fall within the scope of the '143 Patent. This conclusion is supported by claim 8, which is dependent on claim 7. Claim 8, unlike the other claims, does specify a particular shape for at least one of the elements: it discloses "[a] plastic reclosable fastener according to claim 7 wherein said groove element comprises a straight projection and a hook-shaped projection...." U.S. Patent No. 5,007,143 at col. 8, lines 20-22 (emphasis added). To read the shape requirement into claim 7, the independent claim, would render claim 8 redundant in part, and we are unwilling to adopt such a construction. *See* Robotic Vision Systems, Inc. v. View Engineering Inc., 189 F.3d 1370, 1376 (Fed.Cir.1999). *See also* Karlin Technology, Inc. v. Surgical Dynamics, Inc., 177 F.3d 968, 971-72 (Fed.Cir.1999) (under doctrine of claim differentiation, limitations stated in dependent claims are not to be read into independent claim from which they depend) (citing Transmatic, Inc. v. Gulton Industries, Inc., 53 F.3d 1270, 1277 (Fed.Cir.1995)). Accordingly, the Court finds that claims 1, 6 and 7 cover elements of any shape as long as they satisfy the function articulated in those claims.

CONCLUSION

The disputed claim terms are construed in accordance with the conclusions set forth in this Memorandum Opinion and Order. This case is set for a status hearing on November 30, 1999 at 9:30 a.m.

N.D.Ill.,1999.
Tenneco Packaging Specialty and Consumer Products, Inc. v. S.C. Johnson & Son, Inc.