



basis for the asserted infringement in this action.

Claim one:

A funnel having an integral pouring spout comprising:

a base portion having a funnel configuration providing a large open top and tapering downwardly to a reduced dimensioned open bottom; and

a spout portion affixed to the tapered interior surface of the base portion, the spout portion being open at the bottom and forming an open ended conduit at the top, the conduit terminating above the open top of said base portion, the bottom of the spout portion having spaced apart sidewalls flared outwardly and partially around the lower interior surface of the base portion, the sidewalls tapering towards the conduit to funnel fluid out of said base portion open bottom to said conduit when the funnel is tilted downwardly in the direction of the spout portion.

Plaintiff filed this action in October 1995.<sup>1</sup> The complaint alleges that defendant's product - a so-called "drip-free pour spout" used since 1988 in household products such as laundry detergent containers - infringed the '940 patent both literally and under the doctrine of equivalents.<sup>2</sup> The patent having expired on August 19, 1997, the relief requested is limited to monetary

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<sup>1</sup> The delay in instituting the lawsuit was anticipated by plaintiff as a defense and was the subject of his earlier summary judgment motion, which was denied without prejudice. Order, Nov. 19, 1998.

<sup>2</sup> Two of defendant's spout designs are alleged to have infringed plaintiff's patent. The first was introduced by defendant in 1988 and the second in 1993. Because the designs and nature of the allegations as to each are similar, both will be considered as one for purposes of these motions.

damages.<sup>3</sup>

The schematic renderings shown below should assist in visualizing the discussion in the text. The top two figures contain views of plaintiff's invention; the bottom four, defendant's accused devices. The bracketed numbers that appear in the text refer to the numbered parts in those depictions.

[GO TO PAGE 4]

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<sup>3</sup> Although originally filed in October 1995, the action was put in suspense pending completion of the PTO's reexamination. Order, Dec. 11, 1995. The stay of discovery was lifted on January 9, 1998, and the motions currently before the court were filed thereafter.

## II. Analysis

Determining infringement under both the doctrine of literal infringement and the doctrine of equivalents is a two-step process. First, the claims must be construed for scope and meaning. Markman v. Westview Instruments, Inc., 517 U.S. 370, 371, 116 S.Ct. 1384, 1387, 134 L.Ed.2d 577 (1996). Second, the construed claim must be compared to the accused device. Id. Upon motion for summary judgment, the question becomes: Is there a material question of fact whether the properly construed claim encompasses the allegedly infringing product? See Cole v. Kimberly-Clark Corp., 102 F.3d 524, 528 (Fed. Cir. 1996).

After careful consideration, the following is found as to two claim elements. As to both (1) the funnel-shaped base and (2) the spout affixed to the tapered interior surface, there is no triable issue as to infringement.<sup>4</sup> Accordingly, summary judgment must be entered for defendant.

### A. Doctrine of Literal Infringement

In most instances, claim construction is confined to intrinsic evidence - the patent claim itself, the specification, and prosecution history. See Phillips Petroleum Co. v. Huntsman Polymers Corp., 157 F.3d 866, 870 (Fed. Cir. 1998). Words in a claim are to be given their ordinary meaning unless the patentee has clearly stated a special definition in the specification or

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<sup>4</sup> In view of this result, no further findings are made as to the elements of claim one.

patent history. See Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed. Cir. 1996). Extrinsic evidence, such as expert testimony, may be resorted to only for interpretation of terms used in the claim and specification when their meaning is in dispute or ambiguous. Id. at 1584-85.

The claim and specification of the '940 patent make clear that the base of the device is a "typical funnel arrangement." '940 pat., col. 2, lines 23-24. While the embodiment in the patent shows a funnel of conical shape, the specification notes that the base "may be of any other shape providing a large open top and small open bottom to facilitate the pouring of fluid into a vessel having a small mouth." Id., col. 2, lines 25-28.

In spite of the variety of shapes a funnel may take, the term "funnel" cannot be re-configured here to cover defendant's devices. The ordinary meaning of the word<sup>5</sup> appears to have been intended by

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<sup>5</sup> Although dictionaries technically are extrinsic evidence, the Court of Appeals for the Federal Circuit has noted that:

[j]udges 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 n. 6.

The Random House Dictionary 575 (Unabridged 1983) defines a funnel as a "cone-shaped utensil with a tube at the apex, for conducting liquid or other substance through a small opening, as into a bottle, jug, or the like." Other than noting that the shape of the cone need not be conical, the claim and specification follow this standard definition.

the claim and the definition set forth in the specification. More particularly, the base [10] is required to have a large open top [18] tapering to a narrow pipe-like open bottom [20] for the purpose of directing fluids into a relatively small opening, such as a gas tank orifice. '940 pat., col. 1, lines 19-24. See, e.g., Eastman Kodak Co. v. Goodyear Tire & Rubber Co., 114 F.3d 1547, 1553 (using dictionary to define the claim terms "at" and "to"); American Permahedge, Inc. v. Barcana, Inc., 105 F.3d 1441, 1444 (Fed. Cir. 1997) (relying on dictionary definition to construe the claim term "lateral"). The commonly accepted meaning of the word funnel is intrinsic in claim one - "a large open top tapering downwardly toward a reduced open bottom." '940 pat., col. 4, lines 7-9.

In contrast, the base [1, 5] of the accused devices is cylindrical. Its sidewalls [1] do not taper downwardly but instead have the same diameter throughout excepting the bottom quarter inch [5], which tapers slightly, apparently because of a molding process. See def. mem. in support of non-infringement, at 41-42. This slight tapering does not have the function of directing liquids toward the small opening of a container, as does a funnel. This is a substantial and significant difference. Were liquid to be poured directly into the base, it would not be channeled along its cylindrical sides toward the open bottom. Instead, it is unlikely that such liquid would come in contact with the sides of the base. So analyzed, there is no genuine issue of material fact as to infringement on the funnel base element of claim one.

Also specified in the '940 patent is a spout portion "affixed to the tapered interior surface of the base . . . the bottom of the spout portion having spaced apart sidewalls flared outwardly and partially around the lower interior surface." '940 pat., col. 4, lines 11-12, 14-16. According to defendant, its devices are not includable in this description because the spout [3] is not connected directly to the sidewall of the base portion [1, 5]. The spout is connected through an intermediary [2] - a flat, circular plate with a large opening in the center. The spout [3] sits in the center of the open circle [2], which attaches the bottom of the spout [3] to the bottom of the base [5]. In this way, defendant argues, the spout is actually attached to the bottom of the base through an interconnecting wall [2], and not affixed to the side.

Plaintiff counters that defendant's devices are covered by claim one for the following reasons. Nothing in the claim, specification or prosecution history precludes affixing the spout via an interconnecting web or structure. Furthermore, the effect of the web itself [2], in conjunction with the sidewalls of the spout [3], is to provide the bottom spout portion with "spaced apart sidewalls flared outwardly and partially around the lower interior surface of the base portion." See pl. mot., at 12.

A proper interpretation of these elements necessitates consideration of the patent's prosecution history. See Engle Industries, Inc. v. Lockformer Co., 96 F.3d 1398, 1405 (Fed. Cir. 1996) (prosecution history is part of determining the meaning of the claims because a patentee will often commit to a particular

meaning of a patent term that becomes binding during litigation).

Statements made by plaintiff during the original prosecution, as well as the first request for reexamination, make it clear that the spout is to be affixed to the sidewalls of the base. The purpose is to leave the opening of the base [18] substantially unobstructed. Plaintiff's original application was rejected by the patent examiner, in part, because prior art Treiss (Patent No. 2,484,391) disclosed all the basic structures of claim one. See def. appendix, ex. 2, B-23. In his first amendment to the application, plaintiff distinguished Treiss, observing that because of the placement of the spout in relation to the funnel base, "the useful diameter of the funnel is substantially reduced compared to the applicant's structure." Plaintiff's amended application was rejected as being "obvious over" prior art Byrd (Patent No. 1,000,150). Def. appendix, ex 2, B-25. In his second amendment, plaintiff distinguished Byrd, noting that it shows a "planar half-cover" over the open top of the base. See def. appendix, ex. 2, B-27-28, 35.

Upon rejection of his second amendment, plaintiff appealed to the Patent Office Board of Appeals. His accompanying brief described the invention as "provid[ing] a large diameter open top for receiving liquids." Def. appendix, ex. 2, B-34. It also described the device as a funnel "in which the upper enlarged diameter open top is substantially unobstructed by inclusion of an integral pouring spout." Def. appendix, ex. 2, B-37.

In September 1995, plaintiff filed a request for reexamination

with the PTO. In his request brief, the base portion of his invention is referred to as follows. It is "arranged to receive poured liquid through its enlarged diameter" - "the spout portion of the improved funnel . . . is affixed to the interior surface of the funnel base portion and provides a means for pouring liquid from the container to which the improved funnel is attached into a second container." Def. appendix, ex. 5, B-65. The brief also noted that "[s]ince the spout portion tapers in a direction that is opposite from that of the funnel shaped base portion, the enlarged open top of the base portion remains substantially unobstructed." Id. See also id. at B-70 ("Requester's invention serves to receive poured liquid through its enlarged diameter top . . . without excessive obstruction from the internal spout."); id. at B-79 ("The Requester's improved funnel comprises an internal spout having side walls that are spaced apart at the bottom . . . so that the enlarged open top of the outer base portion remains considerably unobstructed."); id. at B-83 ("In the Requestor's device, the enlarged diameter open top is substantially unobstructed by the tapered pouring spout to facilitate pouring of liquids . . . .").

Given the prosecution history, it is evident that the '940 patent spout [26] is meant to be affixed to the base portion [16a] in such a way as to leave the top of the funnel-shaped base [18] open and unobstructed. Liquids are intended to be poured directly into the open top of the funnel base [18], and, conversely, liquids are to flow through the funnel [at 20] and out of the spout [26].

Having so limited the meaning of claim one, plaintiff is hard-

pressed to contend that defendant's devices fall within the scope of his patent. See Senmed, Inc. v. Richard-Allen Medical Industries, Inc., 888 F.2d 815, 819 n.8 (Fed. Cir. 1989) (a patentee "may not be heard to proffer an interpretation that would alter the undisputed public record [claim, specification, prosecution history] and treat the claim as a 'nose of wax.'") (citations omitted). Defendant's spout sits in the center, not the side of the base portion. The interconnecting web [2] between the spout and the base sidewalls obstructs the opening of the base so that liquids cannot be poured directly into the open top of the base portion, as is intended in plaintiff's invention. In defendant's devices, liquids must be poured into the open mouth of the spout [at 6]. In summary, claim one requires the spout portion to be affixed to the base portion so that the open top of the base is left substantially unobstructed. Defendant's devices are not so affixed and the base opening is obstructed. It follows that there is no issue of literal infringement.

#### B. Doctrine of Equivalents

Despite the lack of literal infringement, infringement may occur if "there is 'equivalence' between the elements of the accused product . . . and the claimed elements of the patented invention." Ethicon Endo-Surgery, Inc. v. United States Surgical Corp., 149 F.3d 1309, 1315 (Fed. Cir. 1998) (citations omitted). The doctrine of equivalents is applied on an element-by-element basis, i.e. every element of the asserted claim, or its equivalent, must adhere

in the accused device. See Warner-Jenkinson Co. v. Hilton Davis Chemical Co., 520 U.S. 17, \_\_\_, 117 S.Ct. 1040, 1049, 137 L.Ed.2d 146 (1997); Ethicon, 149 F.3d at 1315. "Where the evidence is such that no reasonable jury could determine two elements to be equivalent, district courts are obliged to grant partial or complete summary judgment." Warner-Jenkinson, 520 U.S. at \_\_\_, 117 S.Ct. at 1053 n.8, 137 L.Ed.2d 146. See also Bai v. L&L Wings, Inc., 160 F.3d 1350, 1353 (Fed. Cir. 1998).

The doctrinal purpose is to curb the avoidance of infringement through minor or insubstantial changes while taking advantage of the invention's essential functionality. See Sage Products, Inc. v. Devon Industries, Inc., 126 F.3d 1420, 1424 (Fed. Cir. 1997). The doctrine must be applied narrowly to preserve the "definitional and public-notice functions of the statutory claiming requirement." See Warner-Jenkinson, 520 U.S. at \_\_\_, 117 S.Ct. at 1049, 137 L.Ed.2d 146. Therefore, "[i]t is important to ensure that the application of the doctrine, even as to an individual element, is not allowed such broad play as to effectively eliminate that element in its entirety." Id.

Two formulations of legal equivalence are commonly articulated - the triple identity test of function, way and result developed in Graver Tank & Mfg. Co. v. Linde Air Products Co., 339 U.S. 605, 608, 70 S.Ct. 854, 856, 94 L.Ed. 1097 (1950), and the "insubstantial differences" approach. Warner-Jenkinson, 520 U.S. at \_\_\_, 117 S.Ct. at 1054, 137 L.Ed.2d 146. Here, both approaches lead to the ultimate determination that:

if a claim limitation must play a role in the context of the specific claim language, then an accused device which cannot play that role, or which plays a substantially different role, cannot infringe under the doctrine of equivalents.

Vehicular Tech. Corp. v. Titan Wheel Int'l, Inc., 141 F.3d 1084, 1090 (Fed. Cir. 1998).

Under this authoritative standard, defendant cannot be liable for infringement on the basis of equivalency. A necessary element of claim one is the funnel base [10]. Its function is to channel poured liquids into an attached container. It does this through the downwardly tapered sidewalls [16] that culminate in a small opening at the bottom [20].

To recapitulate, the base portion of defendant's devices do not act as a funnel or its equivalent. The base is cylindrical; it does not have tapered sidewalls; it does not channel fluids through a small opening. The base portion of the accused devices [1, 5] have a substantially different purpose from that intended by the funnel element [10] of plaintiff's patent. It does not and cannot play the role of the funnel base either in function, way or result. To find legal equivalency in defendant's cylindrical base would be to vitiate the funnel element of the claimed device. See, e.g., Tronzo v. Biomet, 156 F.3d 1154, 1160 (Fed. Cir. 1998) (hemispherical cup could not be equivalent to the claim limitation of a "generally conical outer surface" without violating the all-elements rule of the doctrine of equivalents).

Defendant's spout [3] in the center of the base portion is the

only opening [6] through which fluids may be poured. The interconnecting plate [2] serves to catch any residual drops that may result from pouring liquids into the spout portion. That plate is tilted downward to direct residual drops back into the attached container. In this manner, the base portion of the accused devices forms an integral part of what is commonly called a "drip-free spout."

Here, again, the prosecution history of plaintiff's patent is illuminating. During his request for reexamination, plaintiff repeatedly distinguished prior art on the basis that it disclosed devices "for conveniently pouring liquids out of a container and returning residue drops to the container." Def. appendix, ex. 5, B-70 (distinguishing prior art Altshul Swiss Patent No. 188,590) (emphasis in the original). See also id., at B-72 (distinguishing prior art Gerersdorfer Austria Patent No. 180,000 for same reason); id. at B-74 (distinguishing prior art Livingstone U.S. Patent No. 2,851,196 for same reason); id. at B-81 (distinguishing prior art Aulbach et al. U.S. Patent No. 1,794,098 for same reason).

According to plaintiff, defendant's devices are more than drip-free spouts because they are specifically intended to be refillable. See pl. mem. in support of infringement, at 13; pl. reply under doctrine of equivalents, at 11. This point is not persuasive. That liquids may be poured into the spout portion [3] of defendant's devices does not alter the role of the base portion [1, 5]. In plaintiff's invention, the funnel base [10] constitutes a claim limitation separate and apart from the remaining claim

elements. It has a particular function (to catch and channel liquid poured into the large open top [18]), by a particular means (through sidewalls [16] that tapered downwardly to a narrow opening [20]), to achieve a particular result (facilitating the flow of liquid into an adjacent container). That limitation is not found in defendant's devices.

Here, the intrinsic evidence is that the base portion of the '940 patent is an ordinary, standard funnel. The base of defendant's devices is geometrically much different and is not the legal equivalent of the funnel-base element depicted in claim one's description of plaintiff's device. Because infringement under the doctrine of equivalents is measured on an all-inclusive element-by-element basis, a finding that any one element of the claimed device is not infringed dictates a decision for defendant as a matter of law.

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Edmund V. Ludwig, J.

IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF PENNSYLVANIA

MARKHAM L. WHEELER	:	CIVIL ACTION
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	:	
v.	:	
	:	
	:	
COLGATE-PALMOLIVE COMPANY	:	NO. 95-6411

**ORDER**

AND NOW this 3rd day of March, 1999, upon consideration of plaintiff Markham L. Wheeler's and defendant Colgate-Palmolive Company's cross-motions for summary judgment, the following is ordered:

1. Defendant's motion for summary judgment of non-infringement under the doctrine of literal infringement and the doctrine of equivalents is granted.
2. Plaintiff's motion for partial summary judgment of literal infringement and motion for summary judgment of infringement under the doctrine of equivalents are denied.
3. The action is dismissed with prejudice.

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Edmund V. Ludwig, J.