

To Be Published:

IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF IOWA
WESTERN DIVISION

MAYTAG CORPORATION,

Plaintiff,

vs.

ELECTROLUX HOME PRODUCTS,
INC., d/b/a FRIGIDAIRE,

Defendant.

No. C 04-4067-MWB

MEMORANDUM OPINION AND
ORDER REGARDING THE
PARTIES' MOTIONS FOR
SUMMARY JUDGMENT AND
MOTIONS TO STRIKE PORTIONS
OF SUPPORTING FACTUAL
STATEMENTS

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This patent infringement action, which involves patents for plastic washing machine baskets and the process for making them, comes before the court on the parties’ motions for summary judgment and the parties’ related motions to strike portions of each other’s statements of fact in support of their motions for or resistances to summary judgment. The motions for summary judgment encompass both validity and

infringement issues, as well as the defendant's contention that any infringement of valid patents was not willful as a matter of law. The motions presently before the court are every bit as hotly contested as the construction of various claim terms was for purposes of the "*Markman* hearing"¹ which required a lengthy and detailed ruling,² and the issues now before the court are more numerous and at least as complex. In the circumstances now presented, however, the court finds that two of the many issues raised by the parties are ultimately dispositive.

I. INTRODUCTION

A. Procedural Background

1. Maytag's lawsuit and Electrolux's response

Plaintiff Maytag Corporation (Maytag), a Delaware Corporation with its principal place of business in Newton, Iowa, filed this patent infringement action on July 23, 2004, against defendant Electrolux Home Products, Inc., doing business as Frigidaire (Electrolux), a Delaware corporation licensed to do business and doing business in Iowa and elsewhere, with its principal place of business in Cleveland, Ohio, but with manufacturing facilities in this District. Maytag alleges in its Complaint (docket no. 2) that Electrolux is willfully infringing two patents assigned to Maytag: U.S. Patent No. 5,881,909 (the '909 patent), entitled "PLASTIC WASHING MACHINE BASKET," and U.S. Patent No. 5,980,809 (the '809 patent), entitled "METHOD FOR MOLDING A PLASTIC WASHING MACHINE BASKET." Maytag seeks judgments of infringement

¹See *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995) (*en banc*), *aff'd*, 517 U.S. 370 (1996).

²The court's ruling on claim construction is published at *Maytag Corp. v. Electrolux Home Prods., Inc.*, 411 F. Supp. 2d 1008 (N.D. Iowa 2006).

and willful infringement of both patents, preliminary and permanent injunctive relief from such infringement, treble damages with both pre- and post-judgment interest, and attorneys' fees. Electrolux answered Maytag's Complaint on October 25, 2004 (docket no. 10), denying Maytag's infringement claims and asserting several affirmative defenses, including invalidity of the patents-in-suit, as well as counterclaims for declaratory judgments of non-infringement and invalidity of the patents. Maytag replied to Electrolux's counterclaims on November 16, 2004 (docket no. 18), denying those counterclaims.

2. Discovery and claim construction

A Scheduling Order, Discovery Plan, And Order on Miscellaneous Pretrial Matters (docket no. 17) and a separate Order Setting Trial, Final Pretrial Conference And Requirements For Final Pretrial Order (docket no. 20) were filed on November 9, 2004, and November 30, 2004, respectively. Pursuant to the Scheduling Order, a *Markman* hearing was originally scheduled for June 3, 2005, with interim deadlines for the filing of charts identifying the patent claims that the plaintiff alleges are infringed; the defendant's admissions concerning characteristics identified by the plaintiff that are present in the accused device and identification of those that the defendant contends are not present; identification of extrinsic evidence supporting each party's claim constructions; a joint claim construction statement; and briefing of claim construction issues. Discovery disputes, disputes concerning which claim terms the parties were required to define, and other events required the rescheduling of the pertinent deadlines and the *Markman* hearing itself, first to July 29, 2005, then to September 29, 2005, then to October 28, 2005, and ultimately to December 5, 2005.

On November 28, 2005, the court sent to the parties a 106-page tentative pre-argument draft of its ruling on the issues presented in the parties' briefs for the *Markman*

hearing, so that the parties could focus their oral arguments and, still more specifically, address where, in each party's view, the court had gone wrong in its analysis of pertinent issues and its construction of claim terms. The court held the *Markman* hearing as scheduled on December 5, 2005. The hearing involved argument of counsel and some demonstrative video and slide presentations, but no live witnesses or presentation of other evidence. At the oral arguments, the parties agreed that the opportunity to review the court's draft ruling had focused their arguments, and the oral arguments themselves demonstrated that the issues had been substantially narrowed by the court's pre-argument disclosure of its proposed resolution of pertinent issues and its proposed claim constructions. Indeed, the court found this process of disclosing a tentative draft to the parties prior to the *Markman* hearing to be invaluable in resolving the disputed issues in claim construction.

The court entered its Memorandum Opinion And Order Regarding Construction Of Disputed Patent Claim Terms (docket no. 119) on January 19, 2006. The court amended that Memorandum Opinion, *nunc pro tunc*, on January 24, 2006 (docket no. 122), to add constructions of two claim terms that had been addressed in the court's ruling, but inadvertently left out of the chart summarizing the court's claim constructions. The amended decision is published at *Maytag Corp. v. Electrolux Home Prods., Inc.*, 411 F. Supp. 2d 1008 (N.D. Iowa 2006).

3. *The summary judgment motions*

The next significant procedural milestone in this case came in April 2006 when the deadline for the filing of summary judgment motions set forth in the Scheduling Order arrived. Electrolux filed the first such motion, its April 28, 2006, Motion For Summary Judgment (docket no. 139), which raises issues of invalidity and non-infringement of the patents-in-suit as well as Electrolux's contention that any infringement or potential

infringement of which it may be guilty was not “willful” as a matter of law. Just over two hours later, Maytag filed its own summary judgment motion, its April 28, 2006, Motion For Partial Summary Judgment Of Infringement Of Claims 24 & 25 Of U.S. Patent No. 5,881,909 (docket no. 144). The parties filed extensive briefing of these motions, which the opposing parties resisted and in further support of which the movants filed replies.

In addition to the summary judgment motions, the parties both filed motions to strike portions of their opposing party’s statements of fact and one motion to supplement the record. More specifically, on May 26, 2006, Maytag filed its Motion To Strike Certain Paragraphs Of Electrolux Home Products, Inc.’s [sic] Corrected Statement Of Undisputed Material Facts (docket no. 157); on June 9, 2006, Maytag filed its Motion To Strike Certain Paragraphs Of Electrolux Home Products, Inc.’s [sic] Purported Statement Of Material Facts That Preclude Summary Judgment Of Infringement Of Claims 24 And 25 Of U.S. Patent 5,881,909 (docket no. 161); on June 30, 2006, Electrolux filed its Motion To Strike Certain Paragraphs From Maytag’s Purported Statements Of Fact (docket no. 176); on August 7, 2006, Maytag filed its Motion To Strike Electrolux Home Products, Inc.’s [sic] Amended Response To Maytag’s Statement Of Undisputed Material Of [sic] Fact No. 48 (docket no. 201); and On August 16, 2006, Electrolux also filed its Motion For Leave To File The Third Supplemental Appendix In Support Of [Its] Motion For Summary Judgment (docket no. 205).

By order dated July 17, 2006 (docket no. 184), the court set oral arguments on the motions then pending for August 31, 2006. By order dated August 25, 2006 (docket no. 208), the court advised the parties that, in preparation for the oral arguments, the court had come to the tentative, albeit reasonably firm, conclusion that genuine issues of material fact preclude summary judgment on any of the “infringement” or “willful infringement” issues raised by the parties and on the “invalidity” issues of “anticipation,” “obviousness,”

and the “on-sale bar.” On the other hand, the court explained that it had considerable doubt that the patents-in-suit are valid, in light of Electrolux’s assertions that the patents fail the “written description” requirement of 35 U.S.C. § 112 and that Claims 26 and 27 of the ‘909 patent fail the “enablement” requirement of 35 U.S.C. § 112. Therefore, the court advised the parties that it wished them to focus their oral arguments on their motions for summary judgment on the “invalidity” issues of whether or not the patents-in-suit satisfy the “written description” and “enablement” requirements of 35 U.S.C. § 112. Just as the court had provided the parties with a tentative draft of its ruling on claim construction issues shortly before the *Markman* hearing, on August 28, 2006, the court provided the parties with a 75-page tentative draft of this ruling, so that the parties could further focus their oral arguments on where the court had gone wrong or had got it right in its analysis of the issues presented on summary judgment.³

At the oral arguments, plaintiff Maytag was represented by Edmund J. Sease, who presented Maytag’s oral arguments, and Jeffrey D. Harty, R. Scott Johnson, and Kurt Von Thomme of McKee, Voorhees & Sease, P.L.C., in Des Moines, Iowa. Also present for Maytag were Kirk Goodwin, a representative of Maytag, and John Colligan, a

³At the conclusion of the oral arguments, the parties again offered favorable comments on the procedure of the court providing them with a tentative draft ruling in advance of the oral arguments. Both parties agreed that the procedure had provided them with the opportunity to focus their arguments on key issues, to address in detail specific parts of the court’s analysis, and to save time by not addressing issues that the court did not believe that it was likely or necessary to reach. Although both parties expressed some reservations about a procedure—not used here—in which the court would make a preliminary disclosure of the court’s tentative conclusions without an accompanying draft ruling, both agreed that the opportunity given them in this case to review not only the court’s tentative conclusions but its analysis of the pertinent issues made clear that the parties were being given a fair hearing based on thorough consideration of the issues.

representative of Whirlpool, which recently purchased or merged with Maytag. Defendant Electrolux was represented by Frank G. Smith, who presented Electrolux's oral arguments, as well as David M. Maxwell, John Haynes, Cherri Gregg, and Garret Malter of Alston & Bird, L.L.P., in Atlanta, Georgia, and by Richard J. Sapp of Nyemaster, Goode, West, Hansell & O'Brien, P.C., in Des Moines, Iowa. George Hawranko, in-house counsel for Electrolux, was also present.

Trial is currently scheduled to begin on October 23, 2006. Therefore, the court has worked expeditiously, but not hastily, to provide the parties with this ruling as much in advance of the scheduled trial date as possible.

B. Factual Background

The pertinent factual background here includes not only the pertinent patents, or at least the pertinent claims of those patents that are allegedly infringed by Electrolux's accused devices and processes, but a reiteration of the court's construction of disputed terms and an overview of Electrolux's accused devices and processes. Owing to the court's disposition of the pending motions, however, the court has not found it necessary to include a detailed examination of the purported "prior art" or the history of the development of Maytag's purported inventions and the prosecution of its patents, because such information was only relevant to portions of Electrolux's challenges to the validity or the scope of Maytag's patents-in-suit that the court finds it unnecessary to reach.

1. Prosecution and objectives of the patents-in-suit

The patents-in-suit are patents for a plastic washing machine basket and the process for making that basket. The first patent-in-suit, the "product" patent, is U.S. Patent No. 5,881,909 (the '909 patent), entitled "PLASTIC WASHING MACHINE BASKET," which is included in Electrolux's Appendix of Evidence In Support Of Electrolux Home

Products, Inc.'s [sic] Motion For Summary Judgment (Electrolux's Appendix) (docket no. 140-5) at Vol. I, 1-11 (hereinafter the '909 patent). The second patent-in-suit, the "process" patent, is U.S. Patent No. 5,980,809 (the '809 patent), entitled "METHOD FOR MOLDING A PLASTIC WASHING MACHINE BASKET," which is included in Electrolux's Appendix at Vol. I, 12-21 (hereinafter the '809 patent). Both patents stem from a single original patent application, application number 11,893, filed February 1, 1993. However, the Examiner required "division" of the original patent application into separate patent applications. Therefore, the patentee filed application number 08/324,781, for the "process" patent on October 14, 1994, as a "division" of application 11,893. The '909 "product" patent issued on March 16, 1999, and the '809 "process" patent issued on November 9, 1999.

Both patents identify the inventors as Jack L. Craine, P. Randell Gray, and Melvin D. Colclasure, and Maytag as the assignee. Moreover, because the '809 patent is a "division" of the application for the '909 patent, the Abstract, Background Of The Invention, and Summary Of The Invention in the '809 patent, including the objects of the patent, are identical to comparable portions of the '909 patent. *Compare* the '909 patent (Abstract, Background Of The Invention, Summary Of The Invention), *with* the '809 patent (Abstract, Background Of The Invention, Summary Of The Invention). Thus, the Abstract for both patents discloses a "method and apparatus" invention, as follows:

A method and apparatus for molding a plastic washing machine basket includes a fixed mold core formed with teardrop-shaped projections spaced about a periphery thereof, cavity sidewall members spaced about the periphery of the mold core which carry core pins having tips adapted to abut teardrop-shaped projections on the mold core and a cavity cover member spaced about an end of the mold core and abutting the cavity sidewall members so as to define a cavity

between the mold core and both the cavity cover member and the sidewall members. After injecting a plastic material to flow about the tips of the core pins and the projections so as to fill the cavity and form a plastic washing machine basket having an annular sidewall extending from a peripheral portion of a base wall with spaced apertures extending through the sidewall and teardrop-shaped grooves in an inner surface thereof extending from the apertures, the plastic washing machine basket can be ejected from the molding apparatus by separating the mold core and the cavity cover member and shifting the cavity sidewall members away from the mold core at a predetermined angle such that the core pins force the plastic washing machine basket to be removed from the mold core due to engagement of the core pins in the apertures of the basket.

The '909 patent (Abstract); the '809 patent (Abstract).

The Background Of The Invention for both patents explains that “there exists a need in the art for a method and apparatus for molding a plastic washing machine basket with holes in the base wall and annular sidewall thereof, without forming undesirable knit lines, in a single manufacturing step.” *Id.*, col. 1, *ll.* 33-37; the '809 patent, col. 1, *ll.* 38-42. The Background identifies the following problems with the prior art: (1) the costly and time-consuming multi-step manufacturing process for metal washing machine baskets, which required shaping the metal basket and perforating the holes in separate steps; and (2) unsuccessful attempts to mold plastic washing machine baskets, which involved either a single-step process for shaping the basket and perforating the holes, but resulted in numerous knit lines that reduced structural integrity and visually indicated defects, or separate molding and perforating steps, which left burrs and sharp edges that could result in damage to garments washed in the basket. *Id.*, col. 1, *ll.* 10-32; the '809 patent, col. 1, *ll.* 15-37. Consequently, the invention in both patents had two stated objects: (1) “to

provide a plastic washing machine basket which can be molded in a single manufacturing step with holes formed in both a base wall and an annular sidewall of the basket without undesirable knit lines on the inner surface of the basket”; and (2) “to provide a method and an apparatus for molding a plastic washing machine basket without knit lines on the inner surface thereof while forming the basket with spaced holes in both a base wall and an annular sidewall thereof.” *Id.* (Summary Of The Invention), col. 1, *ll.* 41-50; the ‘809 patent (Summary Of The Invention), col. 1, *ll.* 46-55.

The Summary Of The Invention explains how these objects are accomplished by the patented invention. However, from this point on, different parts of the Summary Of The Invention and the Detailed Description Of The Invention become pertinent to each patent, even where those parts of the patents are identical.

2. *The patents in suit*

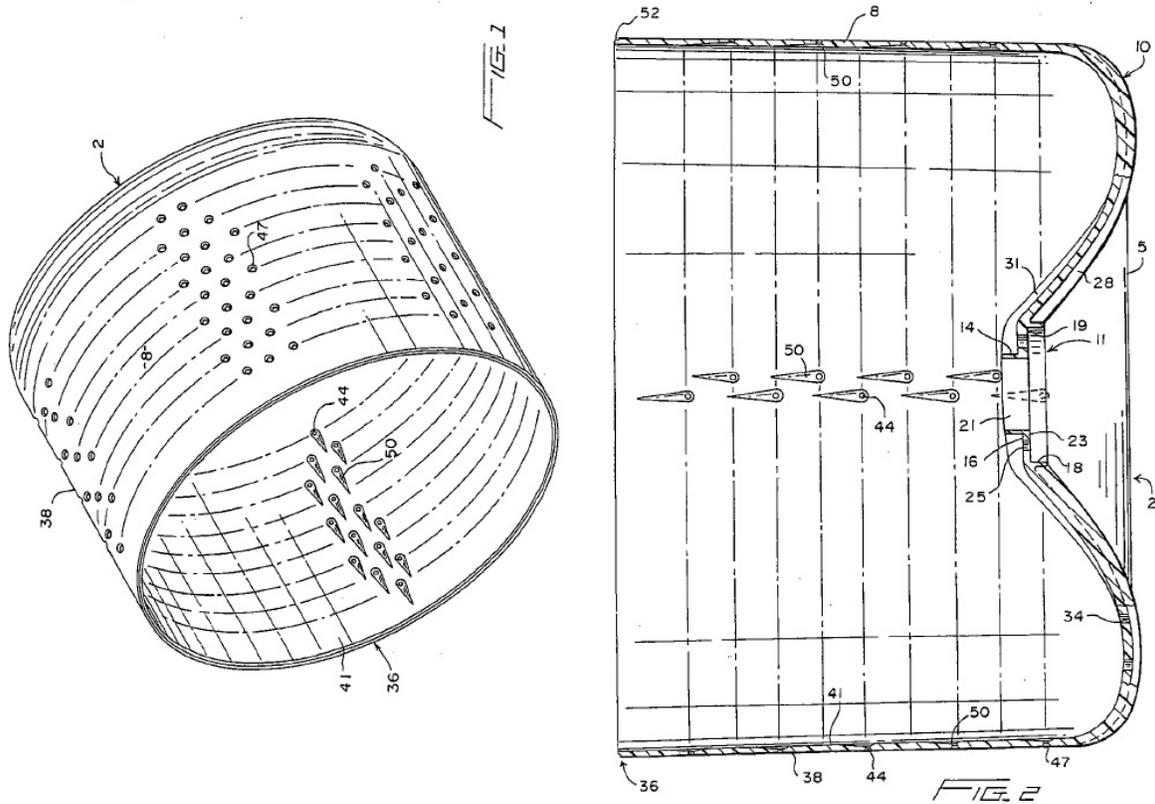
a. *The ‘909 patent*

Because the focus of the ‘909 patent is the plastic washing machine basket, rather than the apparatus for molding such a plastic washing machine basket, the pertinent part of the Summary Of The Invention, for present purposes, is the “product” part, which states the following:

[The apparatus will] form a plastic washing machine basket having an annular sidewall extending upward from a peripheral portion of a base wall wherein the sidewall will have inner and outer surfaces with spaced apertures extending therethrough and teardrop-shaped grooves extending from the apertures.

Id.

Figures 1 and 2 of the '909 patent, reproduced below, show the plastic washing machine basket in question:⁴



The pertinent part of the Detailed Description Of The Invention in the '909 patent, that is, the part describing the plastic washing machine basket rather than the apparatus for producing such a basket, states the following:

⁴These figures are shown here in the same orientation in which they appear in the '909 patent, although they appear on separate sheets of the patent, rather than side-by-side.

The plastic washing machine basket **2** of the invention will be explained with reference to FIGS. **1** and **2**. Basket **2** includes a base wall **5** and an annular sidewall **8** extending from a peripheral portion **10** of base wall **5**. . . .

. . . . Base wall **5** is also formed with a plurality of drain holes **34** which extend through inner and outer surfaces **16, 19** of base wall **5**.

As previously stated, annular sidewall **8** extends from peripheral portion **10** of base wall **5** to a terminal edge **36**. Sidewall **8** is defined by an outside surface **38** and an inside surface **41** through which a plurality of apertures **44** extend. Apertures **44** are spaced along the length of sidewall **8** in alternating rows, as generally depicted in both FIGS. **1** and **2**. For the sake of clarity in these figures, apertures **44** have not been shown to extend entirely around the circumference of sidewall **8**. However, in the preferred embodiment, apertures **44** are provided around the entire circumference of sidewall **8** and are slightly and progressively reduced in diameter from adjacent base wall **5** toward terminal edge **36**. At outside surface **38**, apertures **44** are beveled at **47**. In addition, inside surface **41** of sidewall **8** is formed with teardrop-shaped grooves **50** which extend about apertures **44**. Teardrop-shaped grooves **50** generally taper along their length, in both width and depth, from base wall **5** toward terminal edge **36** such that apertures **44** are located in substantially the widest and deepest portions of teardrop-shaped grooves **50**. Finally, terminal edge **36** of sidewall **8** is provided with an outer annular notch **52** for the reasons which will be more fully discussed below.

The '909 patent (Detailed Description Of The Invention), col. 2, *l.* 43, to col. 3, *l.* 26.

The '909 patent states twenty-nine claims. However, Maytag has clarified that it is alleging that Electrolux's accused devices infringe only Claims 23, 24, 25, and 27. Electrolux asserts that Claim 26 is in dispute for purposes of its counterclaims. Therefore, the court will only quote here Claims 23 through 27 of the '909 patent. Those claims state the following:

23. A plastic washing machine basket comprising:
a substantially circular base wall having a peripheral portion; and
an annular plastic sidewall extending upward from the peripheral portion of said base wall to a terminal edge, said sidewall having inner and outer surfaces, grooves formed in said inner surface of said sidewall, a plurality of spaced apertures extending through said sidewall, said apertures located within said grooves.

24. The plastic washing machine basket of claim **23**, wherein the outer surface of said sidewall is beveled about said apertures.

25. A plastic washing machine basket comprising:
a base wall having a peripheral portion, said base wall being formed of plastic; and
an annular sidewall extending upward from the peripheral portion of the base wall and diverging radially outwardly to an upper terminal edge, said sidewall including inner and outer surfaces having spaced apertures extending therethrough with the outer surface being beveled at the apertures, said sidewall being made of plastic and integrally formed with both the base and the apertures such that the basket has a smooth, uniform construction.

26. The plastic washing machine basket of claim **25**, wherein the basket lacks knit lines on the inner surface.

27. The plastic washing machine basket of claim **25**, wherein the basket lacks burrs at the apertures.

The '909 patent, col. 10, *ll.* 4-32.

b. The '809 patent

The focus of the '809 patent is the process for manufacturing a plastic washing machine basket, rather than the plastic washing machine basket itself. Therefore, the pertinent part of the Summary Of The Invention is the "process" part, which states the following:

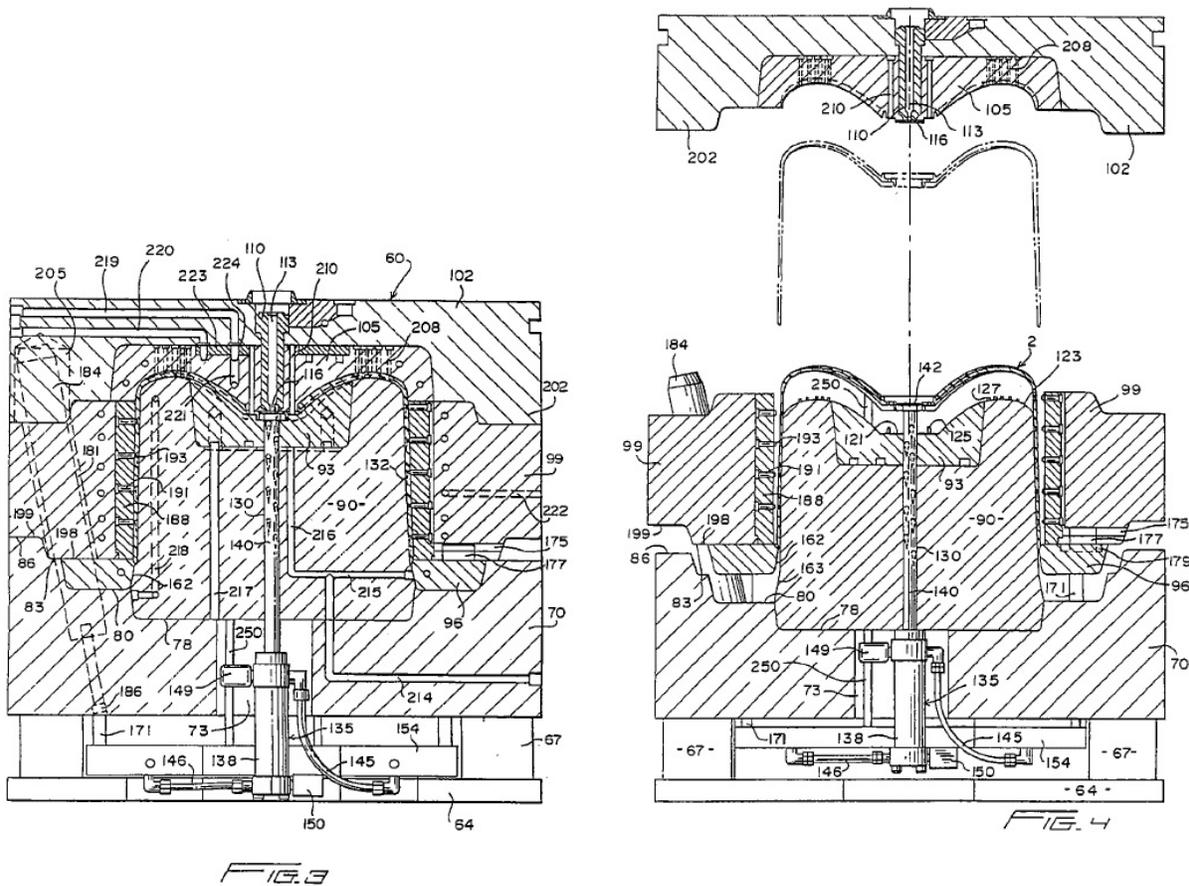
These [identified objects of the invention] and other objects of the present invention are accomplished by providing a molding apparatus comprising a mold core which is fixed at one end and includes teardrop-shaped projections spaced about an outer periphery thereof, a plurality of cavity sidewall members being movable between an open mold position, in which the cavity sidewall members have been shifted at a predetermined angle away from the mold core, and a closed mold position, in which the cavity sidewall members extend about the outer periphery of the mold core with a first predetermined space therebetween, and a cavity cover member extending about the second end of the mold core with a second predetermined space therebetween and abutting the cavity sidewall members when in a closed mold position but being spaced from the cavity sidewall members when in an open mold position. The cavity sidewall members carry core pins having terminal ends which project toward and abut the teardrop-shaped projections of the mold core when the cavity sidewall members are in the closed mold position.

By this arrangement, when a plastic material is injected into the first and second predetermined spaces, the plastic material will flow about the core pins and the projections so as to form a plastic washing machine basket having an annular sidewall extending upward from a peripheral portion of a base wall wherein the sidewall will have inner and outer surfaces with spaced apertures extending therethrough and teardrop-shaped grooves extending from the apertures. After cooling of the plastic material, the various core pins are used to remove the molded plastic washing machine basket from the

mold core during an ejection process by shifting the basket relative to the mold core through the interengagement of the core pins with the apertures formed in the sidewall of the basket. A stripper ring and an ejection system, are also provided to aid in removing the molded basket from the mold core.

The '809 patent, col. 1, l. 56, to col. 2, l. 23.

Figures 3 and 4 of the '809 patent, reproduced below, show the molding apparatus in question, in closed mold position (Fig. 3) and open mold position (Fig. 4):⁵



⁵ These figures are shown here in the same orientation in which they appear in the '909 patent, although they appear on separate sheets of the patent, rather than side-by-side.

The pertinent part of the Detailed Description Of The Invention in the '809 patent, that is, the part describing the apparatus for producing a plastic washing machine basket rather than the plastic washing machine basket itself, states the following:



Reference will now be made to FIGS. 3-5 in describing an apparatus 60 for molding plastic washing machine basket 2. Apparatus 60 comprises a mounting plate 64 to which a plurality of support rails 67 are secured. A core support block 70 having a central throughhole 73 is fixedly mounted to support rails 67. The upper portion of core support block 70 includes a base surface 78, a lower plateau 80, an intermediate plateau 83 and an upper plateau 86. A mold core 90 is secured to base surface 78 of core support block 70. Mold core 90 includes a core insert 93. The molding apparatus 60 further includes a stripper ring 96 which rests upon lower plateau 80 of core support block 70, a plurality of cavity sidewall members 99 which extend about the periphery of mold core 90 with a first space therebetween and a cavity cover member 102, which has secured thereto a cover insert 105, extending about an end of mold core 90 with a second space therebetween and abutting cavity sidewall members 99 when in a closed mold position. Cavity cover member 102 and cover insert 105 include an aligned throughhole (not labeled) within which an injection tube 110 is secured. Injection tube 110 includes an injection passage 113 which terminates in a nozzle 116 for introducing a flow of plastic material within the spaces between mold core 90 and both cavity cover member 102 and cavity sidewall members 99. The particular structure and interrelationship of the elements which comprise molding apparatus 60 as briefly discussed above will now be individually described in detail below.

Mold core 90 includes a trough portion 121 (see FIG. 4) and a crest portion 123. Mold core 90 is formed with a plurality of pins 125 which extend from trough portion 121 and a plurality of pins 127 which extend from crest portion 123. Mold core 90 is further provided with a central bore 130 and a plurality of teardrop-shaped projections 132 which are spaced substantially about the entire outer periphery of mold core 90. Teardrop-shaped projections 132 define the length, width and depth of teardrop-shaped grooves 50 in plastic washing machine basket 2 discussed above.

Located in central through bore 73 is a hydraulic actuator 135 comprising a cylinder 138 and an ejector rod 140 which extends through bore 130 and terminates in a plate 142. Although not detailed in the drawings, hydraulic actuator 135 is constructed in a manner known in the art wherein ejector rod 140 carries a piston at the end opposite terminal plate 142 such that the piston can move within cylinder 138 and defines upper and lower chambers on opposite sides thereof. A first hydraulic line 145 extends into the upper chamber in hydraulic actuator 135 while a second hydraulic line 146 extends into the lower chamber. By adjusting the supply of hydraulic fluid through first and second hydraulic lines 145 and 146, ejector rod 140 can be extended or retracted relative to cylinder 138. Upper and lower limit switches 149 and 150 are provided to indicate upper and lower displacement limits for the piston within cylinder 138. In the preferred embodiment, cylinder 138 of hydraulic actuator 135 is secured to a plate 154 which is movable between lower and upper limits as represented in FIGS. 3 and 4 respectively. The movement of plate 154 will be more fully discussed below.

Stripper ring 96 includes a tapered inner wall 162 which is adapted to conform to and seal against a tapered outer surface 163 of mold core 90 when molding apparatus 60 is in the closed mold position depicted in FIG. 3. Stripper ring 96 is adapted to be shifted between the position shown in FIG. 3 to that shown in FIG. 4 so as to aid in ejecting plastic washing machine basket 2 from molding apparatus 60. In order to shift the stripper ring 96, a plurality of rods 171 are fixedly secured between stripper ring 96 and movable plate 154 such that when movable plate 154 is shifted from the position shown in FIG. 3 to the position shown in FIG. 4 by any means known in the art (not shown), stripper ring 96 will be lifted from lower plateau 80 of support block 70.

As previously stated, cavity sidewall members 99 extend about the periphery of core 90 and are mounted upon stripper ring 96. In the preferred embodiment, as best shown in FIG. 5, four such cavity sidewall members 99 are utilized. Adjacent stripper ring 96, each cavity sidewall member 99 is provided with a groove 175 within which a guide pin 177, secured to stripper ring 96 by means of a plate 179, extends. Grooves 175 extend laterally within cavity sidewall members 99, as shown in FIGS. 3 and 4. In the preferred embodiment, both the guide pins 177 and grooves 175 are formed from a wear resistant and low friction material so as to permit cavity sidewall members 99 to slide relative to stripper ring 96 in a laterally outward direction as shown in FIGS. 3 and 4. Molding apparatus 60 further includes a means to automatically shift and guide cavity sidewall members 99 relative to stripper ring 96 upon lifting of stripper ring 96 from lower plateau 80. This guide arrangement not only includes grooves 175 and guide pins 177 but further includes angled bores 181 (see FIG. 3) extending through cavity sidewall members 99 within which are received guide rods 184 secured to core support block 70 at 186. Therefore, by this arrangement, when stripper ring 96 is lifted from the position shown in FIG. 3 to the position shown in FIG. 4, cavity sidewall members 99 will also be lifted and will be forced to shift laterally outwardly due to the presence of guide rods 184 in angled bores 181.

Each cavity sidewall member 99 further includes an inner plate 188 fixedly secured thereto. Inner plate 188 carries numerous spaced core pins 191 (540 core pins being utilized in the preferred embodiment of the invention). Core pins 191 include beveled tips 193 each of which is adapted to engage a corresponding teardrop-shaped projection 132 formed about the periphery of mold core 90 when molding appa-

ratus 60 is in its closed mold position. In the closed mold position, a lower tier 198 of the cavity sidewall members 99 rests upon stripper ring 96 and intermediate plateau 83 of core support block 70 while an upper tier 199 of cavity sidewall members 99 rests upon upper plateau 86 of core support block 70.

A more detailed description of cavity cover member 102 will now be provided. Cavity cover member 102 includes an annular flange portion 202 which is adapted to abut cavity sidewall members 99 when molding apparatus 60 is in the closed mold position as shown in FIG. 3 and which is spaced from cavity sidewall members 99 when molding apparatus 60 is in an open mold position as depicted in FIG. 4. It should be readily recognized that molding apparatus 60 can be changed between its open and closed mold positions by linearly shifting either cavity cover member 102 relative to mold core 90 or vice versa by any means known in the art (not shown) such as hydraulic or pneumatic linear actuators while shifting the cavity sidewall members 99 away from mold core 90 at a predetermined angle as discussed above. In the preferred embodiment, mold core 90 is shifted relative to cavity cover member 102. In the closed mold position, bores 205 formed in cavity cover member 102 extend about guide rods 184 to substantially close molding apparatus 60 and prevent shifting of cavity sidewall members 99. Cover insert 105 of cavity cover member 102 includes numerous pins 208 which are adapted to abut respective pins 127 formed on crest portion 123 of mold core 90 along with hollow pins 210 for receiving pins 125 on trough portion 121 when molding apparatus 60 is in the closed mold position.

The particular manner in which molding apparatus 60 is used to form plastic washing machine basket 2 along with the unique method of removing plastic washing machine basket 2 from mold core 90 will now be explained. As previously stated, molding apparatus 60 is depicted in a closed mold position in FIG. 3. In this position, a plastic material may be injected through passage 113 and nozzle 116 into the spaced defined between mold core 90 and both cover insert 105 of cavity cover member 102 and cavity sidewall members 99. The interconnection between pins 127, 208 and 125, 210 respectively will prevent the plastic material from flowing into these areas to form mounting holes 25 and drain holes 34 in basket 2. The plastic material will then continue to flow over crest portion 123 of mold core 90 and between mold core 90 and cavity sidewall members 99. At this point, the plastic material will flow about the beveled tips 193 of core pins 191, which extend substantially perpendicular to the longitudinal axis of mold core 90, and the teardrop-shaped projections 132 in order to form beveled apertures 44 and the teardrop-shaped grooves 50 in basket 2. It is important to note that the teardrop-shaped projections 132 permit the plastic material to flow around core pins 191 without creating knit lines which would inherently be formed without the presence of the teardrop-shaped projections 132, and thereby basket 2 can be formed with a smooth inner surface 41.

Once the flow of plastic material is cut off, the plastic material is given a sufficient amount of time to cool. Cooling of the plastic material along with molding apparatus 60 is preferably enhanced by providing various cooling lines 214-222 which extend throughout molding apparatus 60 in a manner known in the art. Various attachment plates, such as that indicated at 223, may be utilized to interconnect various tubes and passages between, for example, cavity cover member 102 and cover insert 105 and mold core 90 and mold insert 93 with 0-rings 224 therebetween. As the use of such cooling lines and attachment methods therefor

are widely known in the art and not considered part of the present invention, these will not be further described herein.

Molding of basket 2 with a smooth inner surface 41 creates a problem in removing basket 2 since the basket 2 will tend to adhere to the outer peripheral surface of mold core 90. The use of an injection rod and a stripper ring to remove a molded article from a mold core is known in the art. However, these two elements alone could not sufficiently remove basket 2 from mold core 90 without severely damaging basket 2. To remedy this problem, during the initial ejection phase of basket 2, cavity cover member 102 is shifted away from cavity sidewall members 99 such that bores 205 are separated from guide rods 184. Stripper ring 96, which engages notch 52 provided about the terminal edge 36 of basket 2, is shifted upward by means of rods 171. Since cavity sidewall members 99 are supported upon stripper 96, cavity sidewall members 99 will also be shifted relative to mold core 90. As previously stated, the position of cavity sidewall members 99 relative to mold core 90 during shifting of stripper ring 96 is determined based on the particular guiding arrangement provided. More specifically, as stripper ring 96 is lifted off lower plateau 80, cavity sidewall members 99 will be lifted and shifted laterally relative to mold core 90. During the initial lifting of stripper ring 96, each of the core pins 191 will be engaged within a respective aperture 44 of basket 2 to provide a lifting force about the entire periphery of mold core 90. This lifting force is aided by both the ejection rod 140 and stripper ring 96 and enables basket 2 to be removed from mold core 90 without being damaged. Air lines (not shown), along with additional ejector rods 250 (see FIGS. 3-5) which are secured to movable plate 154, extend through core 90 and are adapted to engage basket 2, may also be provided to further aid the ejection process. By the time basket 2 has reached the ejection position shown in FIG. 4, the cavity sidewall members 99 have been laterally shifted a distance sufficient to completely remove the beveled tips 193 of core pins 191 from apertures 44. The outer peripheral surface of core mold 90 diverges slightly inwardly from bottom to top as shown FIGS. 3 and 4 such that when basket 2 reaches the position shown in FIG. 4, it can be freely removed from mold core 90 by extending ejector rod 140 relative to cylinder housing 138 so as to be located above mold core 90, at which point basket 2 can be readily removed by means of a robot arm or other transport system. It should be noted that basket 2 will be formed with a thin layer of plastic (not shown) extending across central through hole 21 which is later removed. It is this thin layer of plastic that terminal plate 142 of ejector rod 140 engages.

Locating core pins 191 at the thickest or crown portion of teardrop-shaped projections 132 and providing bevel tips 193 permit core pins 191 to be removed from apertures 44 without marring inner surface 41 of basket 2. The use of a solid mold core 90 prevents forming sectional lines inside basket 2, a result which could not be realized if a sectional mold core was utilized. As previously stated, the core pins 191 are arranged in a spaced and alternate fashion such that the plastic material is permitted to flow around tips 193 and teardrop-shaped projections 132 in a streamlined manner to thereby substantially eliminate the formation of knit lines. The shape of the teardrop-shaped projections 132 not only provides for the effective flow of the plastic material, but also forms the teardrop-shaped grooves 50 which improve washability by increasing the coupling of water and clothing inserted into basket 2. In addition, since holes 44 are recessed within the teardrop-shaped grooves 50, any edges on the holes 44 will be prevented from snagging clothes placed in basket 2.

The '809 patent states thirty-five claims. However, Maytag has clarified that it is alleging that Electrolux's accused devices infringe only Claims 7, 8, and 9. The court will, therefore, quote only those claims. Those claims state the following:

7. A method of making an integral, smooth and uniformly constructed plastic washing machine basket having a base wall including a peripheral portion from which extends an annular sidewall that diverges radially outwardly to a terminal edge in an apparatus including a mold core, cavity sidewall members spaced about the mold core which carry core pins each having a beveled tip portion adapted to abut the mold core during a molding operation and a cavity cover member spaced about an end of the mold core and abutting the cavity sidewall members so as to define a cavity between the mold core and both the cavity cover member and the cavity sidewall members comprising:

injecting a plastic material to fill the cavity while flowing around the beveled tip portion of each of the core pins to form a plastic washing machine basket having sidewalls provided with a plurality of spaced beveled apertures; and

ejecting the washing machine basket from the apparatus by separating the mold core and cavity cover member and shifting the cavity sidewall members away from the mold core.

8. The method of claim 7, further comprising: utilizing the core pins to aid in ejecting the plastic washing machine basket from the apparatus with the core pins forcing the plastic washing machine basket to shift relative to the mold core as the cavity sidewall members are shifted away from the mold core due to the engagement of the core pins in the beveled apertures of the plastic washing machine basket.

9. The method of claim 8, further comprising: aiding in ejecting the washing machine basket by substantially, linearly shifting a stripper ring, that engages the terminal edge

of the plastic washing machine basket, relative to the mold core.

The '809 patent, col. 8, *ll.* 16-48.

3. Claim construction

At the time of the *Markman* hearing, the parties agreed on the construction of only the following claim terms in the '909 (product) patent and the '809 (process) patent:

	CLAIM TERM	AGREED DEFINITION
1.	annular	shaped like a ring
2.	apertures	openings
3.	plurality of spaced apertures	two or more openings spaced apart from one another
4.	apertures located within said grooves	openings located in the grooves
5.	beveled	angled, sloped, or slanted
6.	lacks	without

In its ruling on claim construction following the *Markman* hearing, the court construed numerous additional claim terms that the court determined were “in dispute” at that time. The court presented its constructions in a chart showing a side-by-side comparison of the pertinent claim language with each party’s proffered construction and the court’s own construction. That chart is reproduced, below, for reference in the court’s disposition of the present summary judgment motions:

THE '909 (PRODUCT) PATENT					
Claim Term		Maytag's Definition	Electrolux's Definition	Court's Definition	
Claim 23					
f.	groove	"a narrow depression, channel or trough in a surface "	"a depression, channel or trough in the sidewall surface of the basket formed by a corresponding projection on the mold core "	"a narrow depression, channel or trough in a surface."	
Claim 25					
a.	Annular sidewall . . . diverging radially outwardly to an upper terminal edge	"a sidewall formed like a ring and having a radius measured from the vertical center axis to the sidewall that increases moving from the base wall to the edge of the access opening of the sidewall "	" the structure of the sidewall is disposed from a central axis a greater distance at the top edge than at the bottom "	"a sidewall shaped like a ring . . . continuously increasing in radius from the central axis moving from the base wall to the edge of the sidewall at the open end of the washing machine basket."	
Claim 26					
a.	knit lines [identified as in dispute by Maytag, but not argued in Maytag's first brief]	"a line that visually indicates a defect on a molded plastic article caused by the meeting of two flow fronts during the molding operation "	"lines that may or may not be visible to the human eye that form when the molten plastic flows around the core pins and then solidifies "	"lines formed when two flow fronts of molten plastic meet during the molding operation."	

THE '909 (PRODUCT) PATENT				
Claim Term	Maytag's Definition	Electrolux's Definition	Court's Definition	
Claim 27				
a.	burrs at the apertures	“a rough, sharp or jagged edge or area remaining on the inner surface of the sidewall after holes have been formed by perforating, cutting or drilling ”	“ irregularities, roughness or projections , where the apertures are formed , on the inner or outer surface of the sidewall of the plastic washing machine basket”	“Rough areas at the apertures remaining after material is shaped, cut, cast, or drilled.”

THE '809 (PROCESS) PATENT				
Claim Term	Maytag's Definition	Electrolux's Definition	Court's Construction	
Claim 7				
a.	a base wall including a peripheral portion from which extends an annular sidewall <i>that diverges radially outwardly</i> to a terminal edge	“A base wall including a peripheral portion from which extends an annular sidewall having a radius measured from the vertical center axis to the sidewall that increases from the base wall to the terminal edge ”	“the bottom wall of the washing machine basket is the base wall; the peripheral portion of the base wall is the outside edge of the bottom wall of the washing machine basket; the sidewall of the washing machine basket is disposed from a central axis a greater degree at the top edge than at the bottom; the terminal edge is the top edge of the sidewall ”	“a base wall including a perimeter from which extends a sidewall shaped like a ring that continuously increases in radius from the central axis moving from the base wall to the edge of the sidewall at the open end of the washing machine basket.”

THE '809 (PROCESS) PATENT				
Claim Term	Maytag's Definition	Electrolux's Definition	Court's Construction	
Claim 7 (cont'd)				
e.	cavity cover member spaced about an end of the mold core	"a section of the mold extending about and spaced from an end of the mold core"	"a cover that is adapted to abut the cavity sidewall members when the molding apparatus is in a closed mold position and which is spaced from the cavity sidewall members when the molding apparatus is in an open mold position"	"a part of the molding apparatus that is spaced about an end of the mold core and abutting the cavity sidewall members so as to define a cavity between the mold core and both the cavity cover member and the cavity sidewall members."
g.	"ejecting the washing machine basket . . . by separating the mold core and cavity cover member and shifting the cavity sidewall member away from the mold core"	"preparing the formed plastic washing machine basket for removal from the mold by performing steps including at least separating the mold core and the cavity cover member and moving the cavity sidewall member away from the mold core"	"removing the formed plastic washing machine basket from the mold core by the operation of moving the cavity cover member away from the mold core and shifting the sidewall members"	"forcing the washing machine basket from the apparatus by separating the mold core and cavity cover member and shifting the cavity sidewall members away from the mold core."
Claim 8				
a.	utilizing the core pins to aid in ejecting	"using the core pins to assist in shifting or moving the plastic washing machine basket relative to the mold core"	"using the core pins to actively assist in removing the formed plastic washing machine basket from the mold core"	"using the core pins to assist in forcing the washing machine basket from the apparatus."

THE '809 (PROCESS) PATENT			
Claim Term	Maytag's Definition	Electrolux's Definition	Court's Construction
Claim 8 (cont'd)			
b.	core pins forcing the plastic washing machine basket to shift relative to the mold core . . .	“the core pins provide a lifting or axial force to shift or slightly move the washing machine basket about the mold core ”	“the formed plastic washing machine basket is separated from the mold core by the operation of the core pins when the cavity side wall members are shifted away from the mold core ”
			[unambiguous term requiring no further construction.]

The court turns, next, to consideration of the devices and processes that Maytag accuses of infringing its patents.

4. *Electrolux's accused devices and processes*

Maytag accuses two of Electrolux's products, the so-called H+ plastic washing machine basket and the so-called New Horizon plastic washing machine basket, of infringing certain claims of the '909 patent, and accuses Electrolux's processes for making those washing machine baskets of infringing certain claims of the '809 patent. To put Maytag's infringement claims and Electrolux's invalidity counterclaims in perspective, Electrolux contends that the court should also be aware of one of its predecessor products, the so-called Old Horizon basket, which Maytag does not accuse of infringement. Electrolux asserts that the court should also be aware of Electrolux's efforts to develop its own plastic washing machine baskets. Although Maytag disputes the relevance and materiality of the Old Horizon basket and Electrolux's efforts to develop its plastic washing machine baskets, the court finds that some of the information about these matters is relevant, at least as background, to show the nature of Electrolux's accused devices and processes.

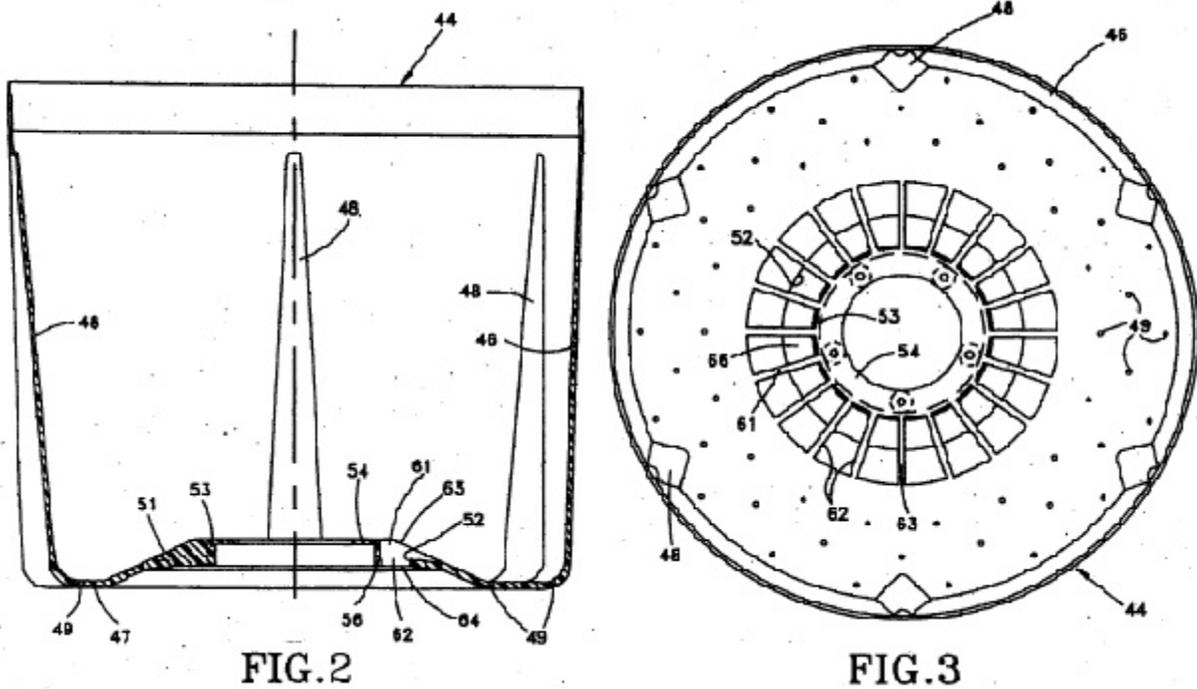
a. *The non-infringing '105 patent and the Old Horizon basket*

Electrolux contends that it was one of the earliest United States developers of plastic washing machine baskets, which Maytag disputes. The parties do not dispute, however, that on July 25, 1988, White Consolidated Industries, Inc., a predecessor in interest of Electrolux, filed an application as assignee for what subsequently issued on July 18, 1989, as United States Patent No. 4,848,105 (the '105 patent). *See* Electrolux's Appendix, Vol. II, 552-61 (hereinafter the '105 patent). The '105 patent is for a "SELF-CLEANING LINT FILTER FOR CLOTHES WASHING MACHINE," but the Abstract also explains that the spin tub, to which the lint filter is "integral," "is formed as a unitary piece from

plastic material, and includes a central hub and radially outer bottom wall which are interconnected by a plurality of radially extending ribs. The ribs have spaces between them defining an annular gap, and an annular perforated lint filter is secured in the gap.” The ‘105 patent (Abstract). The plastic basket is illustrated below, using Figure 2 from the patent, which is described in the patent as “a vertical cross section through the spin tub of the washing machine of FIG. 1 prior to assembly of the lint filter,” and Figure 3 from the patent, which is described as “a plan view of the spin tub of FIG. 2.”⁶

⁶Electrolux refers to Figure 1 from the ‘105 patent in its Statement of Facts, ¶¶ 35-37, but Maytag objects to Figure 1, because it does not show any holes. Maytag is not strictly correct, because Figure 1 does show “perforations **49**.” However, the court finds that Figures 2 and 3 more clearly show “perforations **49**,” albeit only in the “outer bottom wall **47**,” not in the “side wall **46**,” where the Description of the Preferred Embodiment, the pertinent portion of which is quoted in the text, states that they may also be found.

Illustrations of “spin tub” from Electrolux’s ‘105 patent



The Description of the Preferred Embodiment in the ‘105 patent describes the “spin tub,” in pertinent part, as follows:

The spin tub **44** is provided with a vertically extending, generally cylindrical side wall **46** which may have an outward taper toward the upper end and may be provided with flutes or ribs **48** extending vertically at spaced locations to provide additional stiffness. The tub includes an outer bottom wall **47** integrally joined to the side wall **46**, and extending generally radially inwardly from the side wall **46** for a spaced distance. Suitable perforations **49** may be formed in both the outer bottom wall **47** and the side wall **46** to allow the flow of water from the interior of the spin tub **44** to and from the outer tub **18**. Inwardly from the outer bottom wall **47** is an upwardly sloping, conical portion **51** which terminates in a circular inner

edge **52** a spaced distance from the axis of rotation. The tub **44** also includes a hub portion **53** having a radial flange **54** resting on a gasket **57** on top of the drive hub flange **41** to which it is secured by bolts **58**.

The '105 patent (Description of the Preferred Embodiment), col. 5, ll. 17-35.

Electrolux contends that it commercialized the basket reflected in the '105 patent, or one very similar to it, in the late 1980s, and more specifically still, that the Old Horizon basket that it sold commercially from the late 1980s to as late as October 1994, was disclosed by the '105 patent and had substantially the same structure as the basket described in the '105 patent. On the other hand, Maytag contends that Electrolux has also acknowledged that the Old Horizon basket differs from the basket disclosed in the '105 patent. The difference that Electrolux acknowledges is that the ribs *on* the inner surface of the sidewall of the Old Horizon basket were substantially rectangular, while the ribs disclosed in the illustrations from the '105 patent are trapezoidal. Maytag admits that the sidewalls in both the '105 patent and the Old Horizon baskets have ribs formed *in* the inner surface, but contends that there is insufficient disclosure in the '105 patent to determine the shape of the ribs or whether the shape of the ribs is the only difference. The parties agree that the Old Horizon basket has holes in both the base wall and the sidewall and that the holes in the base wall were formed by core pins during the molding process, while the holes in the sidewall were punched or perforated in a subsequent manufacturing step. The parties dispute whether the holes in the sidewall of the Old Horizon basket were “beveled.”

b. The accused H+ basket

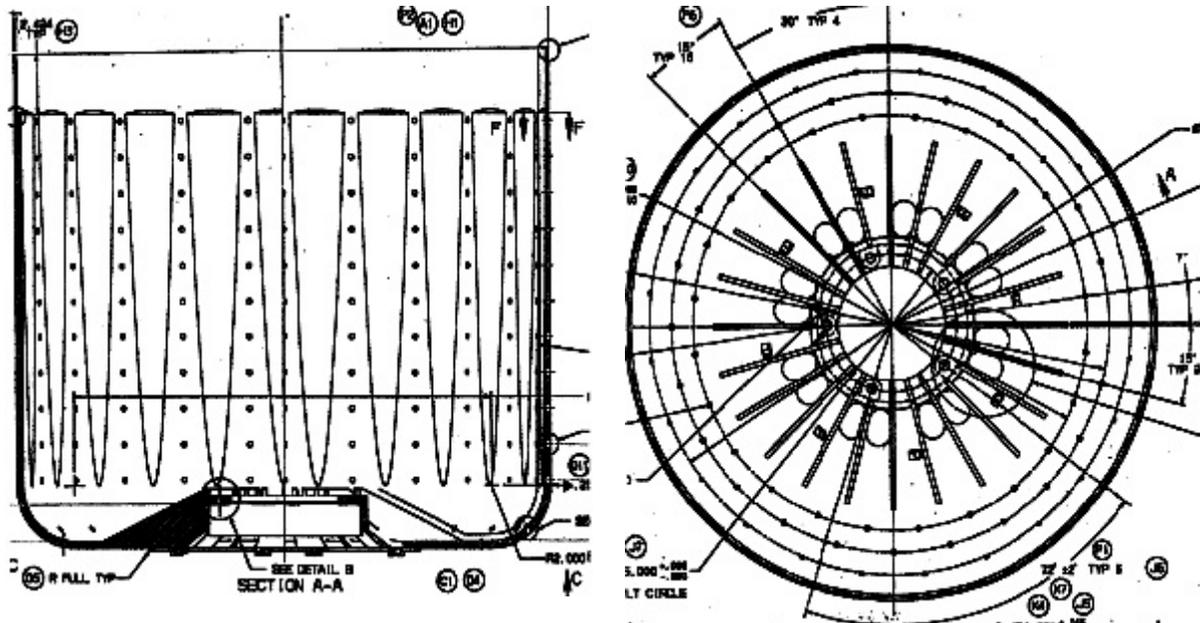
Although Maytag does not accuse the Old Horizon basket of infringing the patents-in-suit, Maytag does accuse Electrolux's next generation basket, the H+ basket, and the process for manufacturing the H+ basket of infringing the patents-in-suit. The parties

agree that, in 1992, Electrolux began efforts to produce what is now identified as the H+ basket and that, in the summer of 1994, Electrolux began to manufacture and sell washers incorporating the H+ basket.

The H+ basket is illustrated below from a design drawing showing the basket in cross-section and from an “overhead” or “plan” view.⁷

⁷In its Corrected Statement Of Undisputed Material Facts In Support Of Its Motion For Summary Judgment (docket no. 141), Electrolux actually submitted a color-coded and labeled drawing adapted from the design drawing appearing in its Appendix at 1843. However, in its response to the Corrected Statement Of Undisputed Material Facts, Maytag objected to the coloring and labeling, although Maytag admitted that the color-coded illustration submitted by Electrolux appeared to be adapted from the design drawing. The court has preferred to use the design drawing without any party’s adaptations. The court was also provided with an actual H+ basket, identified as ELX000001, which appears to be properly reflected in the design drawing used here.

Electrolux's H+ basket



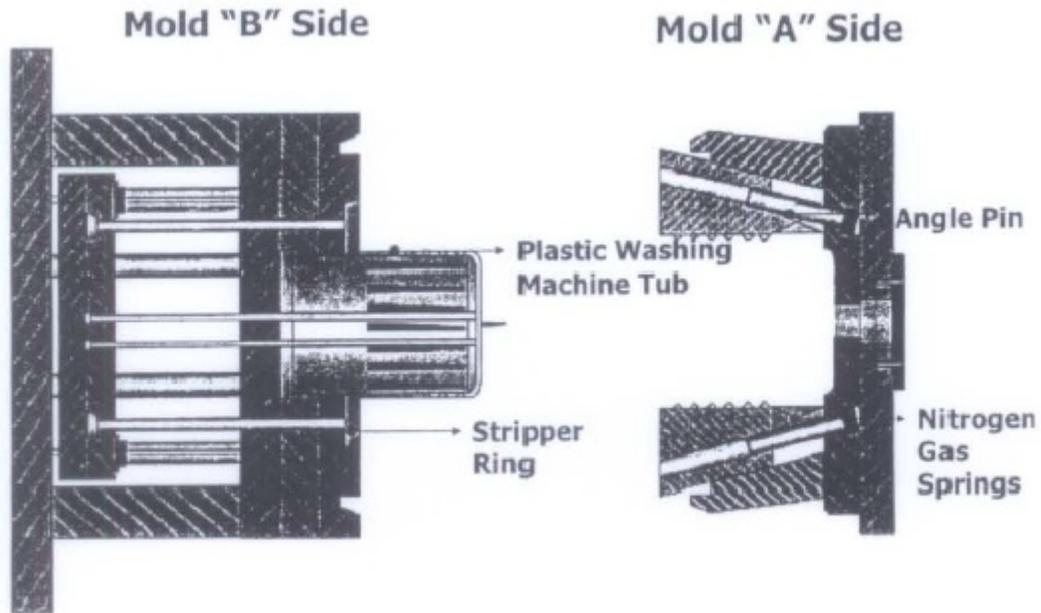
The parties agree that the H+ basket is made up of a base wall and a sidewall with inner and outer surfaces and that it has a number of projections or “scrub ribs” on the interior of the basket, but the parties appear to dispute whether those “scrub ribs” are “on” and “protrude from” the inner surface, as Electrolux maintains, or are, instead, “part of” the inner surface of the sidewall, as Maytag maintains. The parties also dispute how the “scrub ribs” are formed: Electrolux asserts that they are formed when plastic material is added to the sidewall of the basket such that the inner surface of the sidewall surrounds each of the scrub ribs, while Maytag asserts that the “scrub ribs” are portions of the inner surface of the H+ basket, which includes both the “scrub ribs” and what Maytag calls the “grooves” between them, and that they are formed in a single plastic injection molding step with the rest of the basket. On the other hand, the parties agree that the H+ basket

has holes molded into the sidewall of the basket between the “scrub ribs.” Maytag contends that the holes are located in “grooves” between the “scrub ribs” in the interior surface of the basket, while Electrolux contends that the holes are not recessed within the space between the “scrub ribs.” Maytag is alleging that the H+ basket infringes Claims 24, 25, and 27 of the ‘909 patent.

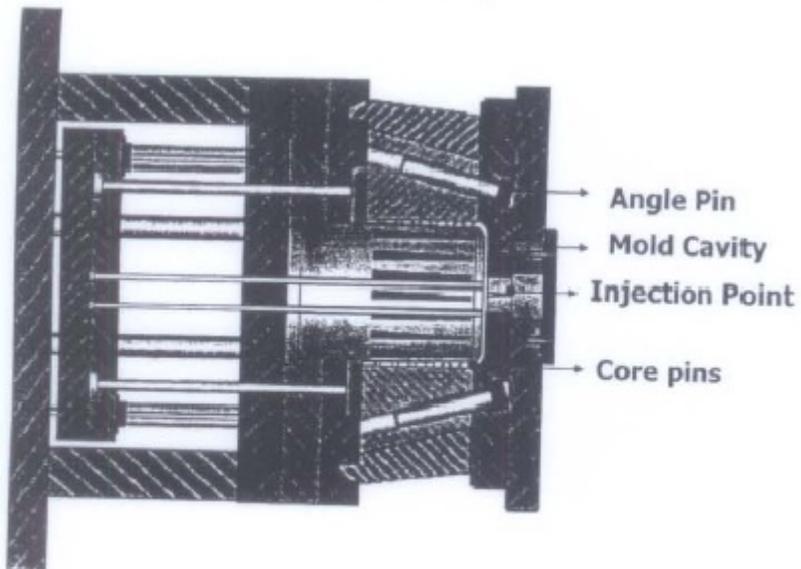
The parties agree that the H+ basket is manufactured using a plastic injection molding process. Simplified illustrations of the apparatus used to manufacture the H+ basket, in open mold and closed mold positions, are shown below.⁸

⁸The illustration of the apparatus in open mold position is a copy of the illustration in Electrolux’s Appendix at 1201, which is also shown in Electrolux’s Corrected Statement Of Undisputed Material Facts In Support Of Its Motion For Summary Judgment (docket no. 141). The illustration of the apparatus in closed mold position is a copy of the illustration in Electrolux’s Appendix at 1199. Maytag objects to the accuracy of the open mold illustration in Electrolux’s Corrected Statement Of Undisputed Material Facts, *inter alia*, because it does not show all of the movements and the various positions of the mold, all of the parts of the mold, or the injection machine or press used with the mold in the apparatus. While Maytag’s objections may be valid, the court believes that describing the illustrations as “simplified” addresses most of Maytag’s concerns and that the “simplified” illustrations do help to understand the manufacturing process for the H+ basket.

Electrolux's apparatus to manufacture the H+ basket
Open mold position



Closed mold position



The parties agree, and these illustrations show, that the molding apparatus for the H+ basket has two sides, the “A” side and the “B” side. In the illustrations above, the “A” side includes the cavity cover and sidewall members and the “B” side includes at least the mold core. After the H+ basket is formed, the “B” side of the mold is moved away from the “A” side, although the parties dispute whether the “A” side is merely “stationary.” When the “B” side begins to move, the sidewall members begin moving away from the mold core and the core pins carried on the sidewall members are retracted from the holes in the basket. The parties, however, dispute precisely in what direction the core pins are carried and whether or not the core pins aid in any way in ejecting the basket from the mold. The parties nevertheless agree that the basket stays in contact with the mold core—indeed, Electrolux contends that the basket stays “on” the main mold core and does not move relative to the core—until the “A” side and “B” side of the molding apparatus complete their separation phase. Ejection of the basket from the mold is effected, Electrolux contends, or only aided and assisted, Maytag contends, by a stripper ring and ejector pins. Maytag contends that the process to manufacture the H+ basket infringes Claims 7, 8, and 9 of the ‘809 patent.

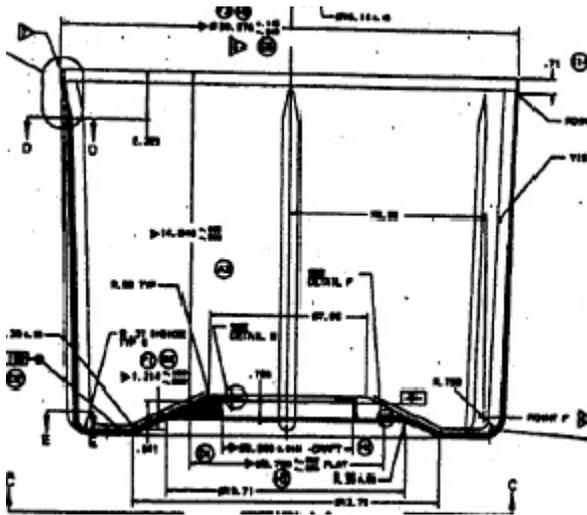
c. The accused New Horizon basket

Maytag also accuses another of Electrolux’s products, the so-called New Horizon basket, and the process for manufacturing it of infringing the patents-in-suit. The parties agree that Electrolux began its efforts to replace the Old Horizon basket with the New Horizon basket in 1994. The parties also agree that Electrolux selected Triangle Tool, the same company that provided the tooling for Maytag’s patented washing machine basket, to build the tooling for the New Horizon basket. The court will return to that fact in its legal analysis, below. Electrolux began to manufacture washing machines that incorporate the New Horizon basket in the first part of 1996.

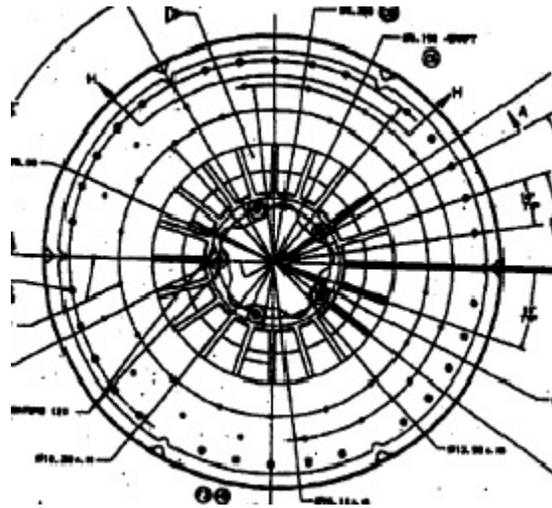
The New Horizon basket is illustrated below from a design drawing showing the basket in cross-section and from an “overhead” or “plan” view, with a “detail” drawing of the space between the “scrub ribs” showing the placement of holes.⁹

Electrolux’s New Horizon basket

Cross-section view

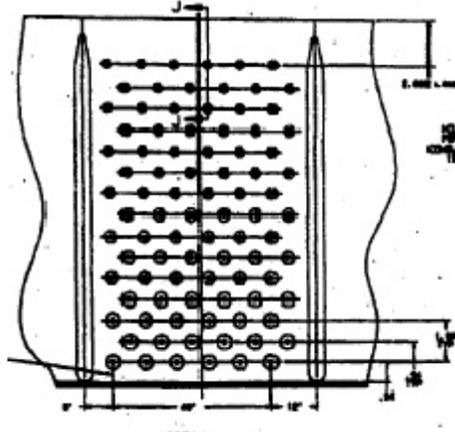


“Plan” view



⁹ Again, in its Corrected Statement Of Undisputed Material Facts In Support Of Its Motion For Summary Judgment (docket no. 141), Electrolux actually submitted a color-coded and labeled drawing adapted from the design drawing appearing in its Appendix at 1453. Again, Maytag objected to the coloring and labeling. Consequently, the court has relied on the cross-section view and overhead view actually appearing in Electrolux’s Appendix at 1453 and the “detail” drawing of the space between the “scrub ribs” showing the placement of holes appearing in Electrolux’s Appendix at 1454. The court was also provided with an actual New Horizon basket, identified as ELX000002, which appears to be properly reflected in the design drawings used here.

Detail of hole placement

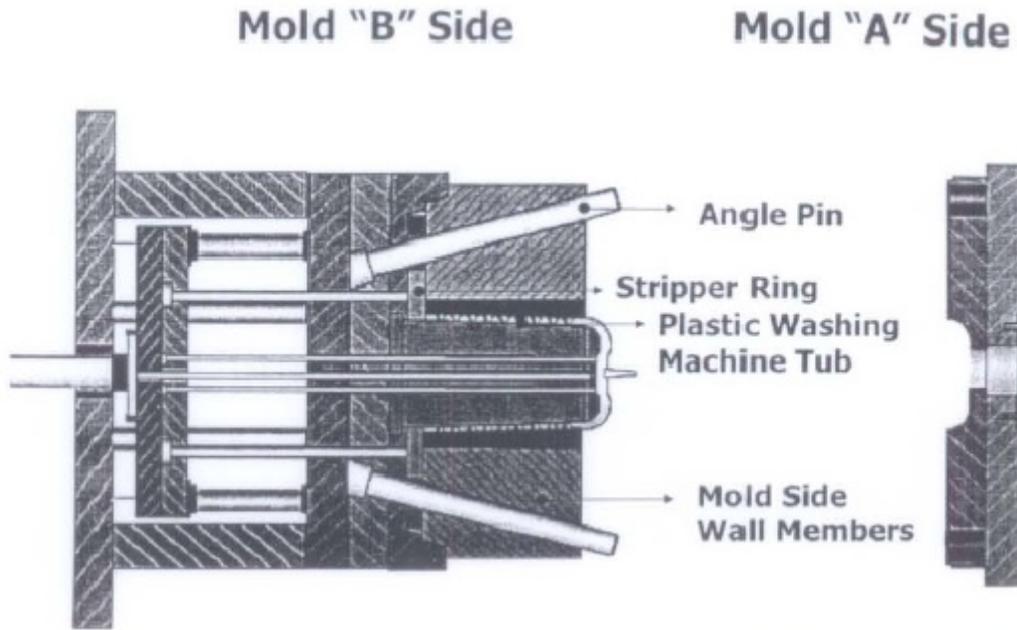


The parties agree that the Old Horizon basket, which Maytag does not accuse of infringement, and the New Horizon basket, which Maytag does accuse of infringement, have many similar structures. They also agree that one of the differences between the two baskets that is significant here is that the holes in the sidewall of the Old Horizon basket are bored or perforated in a separate manufacturing step after the basket is molded, while the holes in the New Horizon basket are formed in the sidewall during the molding process. They also agree that the “scrub ribs” of the New Horizon basket are formed in the molding process, like the “scrub ribs” of the Old Horizon and H+ baskets, but that the shape and size of the “scrub ribs” differs between the H+ and New Horizon baskets. Although Maytag asserts that the area between the “scrub ribs” on the H+ basket is a “long narrow channel,” *i.e.*, a “groove,” Maytag contends that the area between the “scrub ribs” of the New Horizon basket is not “narrow.” Although Maytag does not accuse the New Horizon basket of infringing Claim 24 of the ‘909 patent, Maytag does accuse the New Horizon basket of infringing Claims 25 and 27 of that patent.

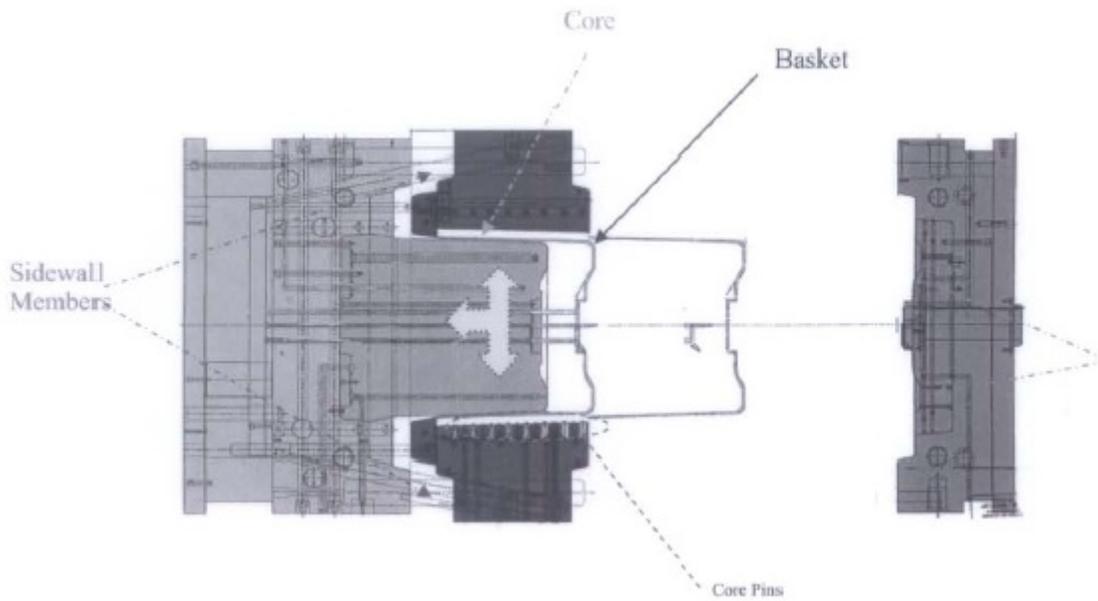
Like the Old Horizon and H+ baskets, the New Horizon basket is manufactured using a plastic mold injection process, using an apparatus with “A” and “B” sides that separate after the injection phase. The parties, however, dispute what drawings properly illustrate the molding apparatus for the New Horizon basket. Rather than resolve this factual dispute at this time, the court will present below each party’s illustrations of the apparatus, first in open mold position, then in closed mold position.¹⁰

¹⁰Electrolux’s illustrations appear in its Corrected Statement Of Undisputed Facts and in Electrolux’s Appendix at 1211 and 1212, respectively. Maytag’s illustrations appear in its response to Electrolux’s Corrected Statement Of Undisputed Facts and in Electrolux’s Appendix at 1320.

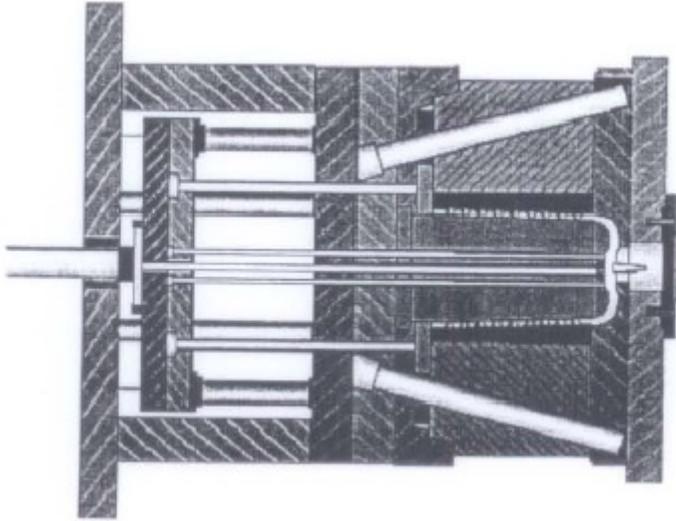
**Apparatus For Manufacturing The New Horizon Basket
Electrolux's illustration, open mold position:**



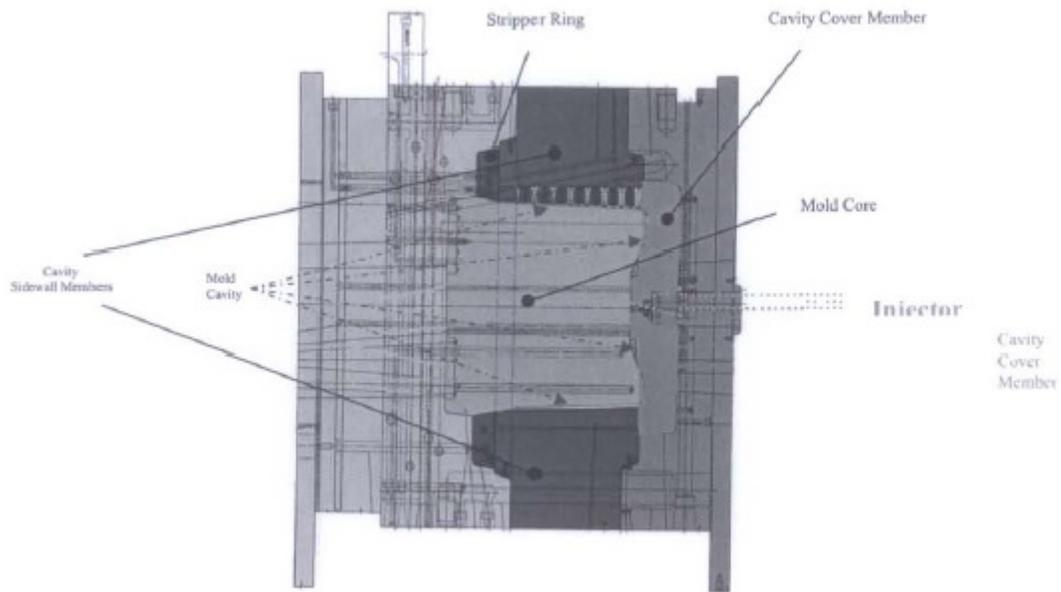
Maytag's illustration, open mold position:



Electrolux's illustration, closed mold position:



Maytag's illustration, closed mold position:



In the illustrations above, the “A” side includes the cavity cover member and the “B” side includes at least the mold core, sidewall members, a stripper ring, and ejector pins. After the New Horizon basket is formed, the “B” side of the mold is moved away from the “A” side. When the “B” side begins to move, Electrolux contends that the sidewall members remain in place, so that the basket is held in place on the mold core during the separation of the mold core from the cavity cover member. When the sidewall members thereafter begin moving away from the mold core, the parties dispute whether the basket remains on the mold core during separation, as Electrolux contends, or whether the basket is ejected from the mold core as the sidewall members are shifted away from the mold core, as Maytag contends. The parties also dispute precisely in what direction the core pins are carried and whether or not the core pins aid in any way in ejecting the basket from the mold or even exert any force upon the molded basket. Ejection of the basket from the mold is effected, Electrolux contends, or only aided and assisted, Maytag contends, by a stripper ring and ejector pins. Maytag contends that the process to manufacture the New Horizon basket infringes Claims 7, 8, and 9 of the ‘809 patent.

II. LEGAL ANALYSIS

A. Standards For Summary Judgment

The Federal Circuit has explained that it “applies its own law with respect to issues of substantive patent law and certain procedural issues pertaining to patent law, but applies the law of the regional circuits on non-patent issues.” *Invitrogen Corp. v. Biocrest Mfg., L.P.*, 424 F.3d 1374, 1378-79 (Fed. Cir. 2005) (citing *Institut Pasteur v. Cambridge Biotech Corp.*, 186 F.3d 1356, 1368 (Fed. Cir. 1999)). Thus, because summary judgment is essentially a procedural issue that is not unique to patent law, the Federal Circuit Court of Appeals reviews a district court’s decision on a motion for summary judgment, even in

a patent case, under the summary judgment standards of the applicable regional circuit. *MicroStrategy, Inc. v. Business Objects, S.A.*, 429 F.3d 1344, 1349 (Fed. Cir. 2005); *CollegeNet Inc. v. ApplyYourself Inc.*, 418 F.3d 1225, 1230 (Fed. Cir. 2005). However, the Federal Circuit Court of Appeals “reviews a district court’s grant of summary judgment without deference and a denial of summary judgment for an abuse of discretion, drawing all reasonable inferences in favor of the nonmovant.” *Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368, 1372 (Fed. Cir. 2005) (internal citation omitted) (citing *Electromotive Div. of Gen. Motors Corp. v. Transp. Sys. Div. of Gen. Elec. Co.*, 417 F.3d 1203, 1209 (Fed. Cir. 2005)).

As this court has explained on numerous occasions, Rule 56 of the Federal Rules of Civil Procedure provides that a prosecuting or defending party may move, at any time, for summary judgment in that party’s favor “as to all or any part” of the claims at issue. FED. R. CIV. P. 56(a) (summary judgment for claimant) & (b) (summary judgment for defending party). “The judgment sought shall be rendered forthwith if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to judgment as a matter of law.” FED. R. CIV. P. 56(c).

Under Eighth Circuit standards, the judge’s function at the summary judgment stage of the proceedings is not to weigh the evidence and determine the truth of the matter, but to determine whether there are genuine issues for trial. *Quick v. Donaldson Co.*, 90 F.3d 1372, 1376-77 (8th Cir. 1996); *Johnson v. Enron Corp.*, 906 F.2d 1234, 1237 (8th Cir. 1990). In reviewing the record, the court must view all the facts in the light most favorable to the nonmoving party and give that party the benefit of all reasonable inferences that can be drawn from the facts. *See Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 587 (1986); *Quick*, 90 F.3d at 1377 (same). The court is

prohibited from making credibility judgments or engaging in fact-finding from conflicting evidence on a motion for summary judgment. *Mershon v. St. Louis Univ.*, 442 F.3d 1069, 1075 (8th Cir. 2006); *Yates v. Rexton, Inc.*, 267 F.3d 793, 800 (8th Cir. 2001).

Procedurally, the moving party bears “the initial responsibility of informing the district court of the basis for its motion and identifying those portions of the record which show lack of a genuine issue.” *Hartnagel v. Norman*, 953 F.2d 394, 395 (8th Cir. 1992) (citing *Celotex Corp. v. Catrett*, 477 U.S. 317, 323 (1986)); *see also Rose-Maston v. NME Hosps., Inc.*, 133 F.3d 1104, 1107 (8th Cir. 1998); *Reed v. Woodruff County, Ark.*, 7 F.3d 808, 810 (8th Cir. 1993). When a moving party has carried its burden under Rule 56(c), the party opposing summary judgment is required under Rule 56(e) to go beyond the pleadings, and by affidavits, or by the “depositions, answers to interrogatories, and admissions on file,” designate “specific facts showing that there is a genuine issue for trial.” FED. R. CIV. P. 56(e); *Celotex*, 477 U.S. at 324; *Rabushka ex. rel. United States v. Crane Co.*, 122 F.3d 559, 562 (8th Cir. 1997), *cert. denied*, 523 U.S. 1040 (1998); *McLaughlin v. Esselte Pendaflex Corp.*, 50 F.3d 507, 511 (8th Cir. 1995); *Beyerbach v. Sears*, 49 F.3d 1324, 1325 (8th Cir. 1995). An issue of material fact is “genuine” if it has a real basis in the record. *Hartnagel*, 953 F.2d at 394 (citing *Matsushita Elec. Indus. Co.*, 475 U.S. at 586-87). “Only disputes over facts that might affect the outcome of the suit under the governing law will properly preclude the entry of summary judgment,” *i.e.*, are “material.” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986); *Beyerbach*, 49 F.3d at 1326; *Hartnagel*, 953 F.2d at 394.

If a party fails to make a sufficient showing of an essential element of a claim with respect to which that party has the burden of proof, then the opposing party is “entitled to judgment as a matter of law.” *Celotex Corp.*, 477 U.S. at 323; *In re Temporomandibular Joint (TMJ) Implants Prod. Liab. Litig.*, 113 F.3d 1484, 1492 (8th Cir. 1997).

Ultimately, the necessary proof that the nonmoving party must produce is not precisely measurable, but the evidence must be “such that a reasonable jury could return a verdict for the nonmoving party.” *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 248 (1986); *Allison v. Flexway Trucking, Inc.*, 28 F.3d 64, 66 (8th Cir. 1994).

The court will apply these standards in its disposition of the parties’ motions for summary judgment.

B. What Record Can The Court Consider?

Before turning to the disposition of the parties’ motions for summary judgment, however, the court must first resolve the question of what portions of the record it can properly consider. The parties have filed no less than four motions to strike various portions of their opposing party’s submissions in support of or resistance to summary judgment and one motion to supplement the record.

1. The motions to strike or supplement

The first motion seeking to exclude portions of the summary judgment record from the court’s consideration is Maytag’s May 26, 2006, Motion To Strike Certain Paragraphs Of Electrolux Home Products, Inc.’s [sic] Corrected Statement Of Undisputed Material Facts (docket no. 157), which challenges portions of the Corrected Statement Of Undisputed Facts that Electrolux has offered in support of Electrolux’s motion for summary judgment. In this motion, Maytag seeks an order striking, in particular, paragraphs 52, 53, 56, 99, 113-15, 178, 179, 186, 256, 257, 281, 290, 294, 297, 300, 301, 304, 311, 314, 319, 324-25, 329, 331, and 389 of Electrolux’s Corrected Statement Of Facts on the grounds that these statements “contain conclusions and facts from unsworn expert reports or are not supported by the evidence cited by Electrolux.” In response (*see* docket no. 170), Electrolux contends that Maytag overlooks contrary authority concerning

the use of “unsworn” expert reports at summary judgment and that Maytag’s challenge to that evidence has been mooted by submission of a declaration of the expert in question adopting his unsworn report and the deposition of the expert, which confirmed the opinions in the unsworn report. Electrolux also contends that its factual statements are adequately supported by record evidence when challenged statements are considered in the “context” of citations in support of related and adjacent factual statements.

The second motion seeking to limit the record that the court can consider on summary judgment is Maytag’s June 9, 2006, Motion To Strike Certain Paragraphs Of Electrolux[‘s] Statement Of Material Facts That Preclude Summary Judgment Of Infringement Of Claims 24 And 25 Of U.S. Patent 5,881,909 (docket no. 161), which challenges portions of the Statement Of Facts that Electrolux has offered in response to Maytag’s motion for summary judgment. In this motion, Maytag seeks an order striking paragraphs 8, 11, 17, 19, 25, 42, and 62-64 of Electrolux’s Statement Of Facts That Preclude Summary Judgment on the same grounds that Maytag sought an order striking the paragraphs of Electrolux’s Corrected Statement Of Facts in support of Electrolux’s motion for summary judgment. Electrolux’s response to that motion (docket no. 173), predictably, is also essentially the same as its response to Maytag’s first motion to strike.

Not to be left out, on June 30, 2006, Electrolux filed its Motion To Strike Certain Paragraphs Of Maytag’s Purported Statements Of Fact (docket no. 176), which challenges portions of the Statements Of Facts that Maytag has offered in support of Maytag’s motion for summary judgment and in resistance to Electrolux’s motion for summary judgment. More specifically, Electrolux seeks an order striking paragraphs 4 and 5 of Maytag’s Statement of Undisputed Material Facts in Support of Its Motion for Partial Summary Judgment of Infringement of Claims 24 and 25 of U.S. Patent No. 5,881,909 filed April 28, 2006, and striking paragraphs 5, 6, 18, 29, 35, 43-44, 53, 58, 104, 113-115, 121,

124-128, 131, 147, and 150 of Maytag's Additional Statement of Material Facts in Support of Maytag's Opposition to Electrolux's Motion for Summary Judgment filed May 26, 2006. Electrolux asserts that the challenged paragraphs are not supported by the "evidence" cited by Maytag or are supported only by inadmissible hearsay. In its response (docket no. 186), Maytag asserts that all of the challenged paragraphs are supported by admissible evidence and that for each paragraph where the supporting evidence is challenged as hearsay, that evidence falls within a well-recognized hearsay exception.

On August 7, 2006, Maytag filed its Motion To Strike Electrolux['s] Amended Response To Maytag's Statement Of Undisputed Material Of [sic] Fact No. 48 (docket no. 201). In this motion, Maytag contends that Electrolux's amended response to Statement No. 48 relies on documents never produced during discovery and that such documents, therefore, should be excluded from the record both at summary judgment and at trial, leaving Electrolux's amended response without evidentiary support. In its response (docket no. 206), Electrolux contends that the evidence supporting the response in question was produced by Electrolux in response to materials that Maytag produced only after the close of fact discovery, despite prior timely requests by Electrolux. Thus, Electrolux contends that Maytag is responsible for any untimely production of the documents in question.

On August 16, 2006, Electrolux also filed its Motion For Leave To File The Third Supplemental Appendix In Support Of [Its] Motion For Summary Judgment (docket no. 205), in which it seeks leave to supplement its appendix with the documents that Electrolux has provided to Maytag in support of its amended response to Maytag's Statement of Undisputed Fact No. 48. That same day, Maytag filed a resistance to this motion (docket

no. 204),¹¹ and Electrolux filed a reply in further support of the motion on August 24, 2006 (docket no. 207).

2. Analysis

a. What circuit's law applies

By extension of the principle that the Federal Circuit Court of Appeals applies the law of the regional circuit to summary judgment, it follows that Eighth Circuit law applies to the parties' motions to strike and to supplement portions of the summary judgment record. Similarly, in deciding whether expert opinions on patent issues have sufficient factual foundation to forestall summary judgment, the Federal Circuit Court of Appeals "look[s] to regional circuit law for the applicable standard, since the factual foundation necessary to support an expert's opinion is not a matter peculiar to patent law." *Novartis Corp. v. Ben Venue Labs., Inc.*, 271 F.3d 1043, 1051 (Fed. Cir. 2001) (citing *Arthur A. Collins, Inc. v. N. Telecom, Ltd.*, 216 F.3d 1042, 1048 (Fed. Cir. 2000)). Thus, this court concludes that what record it can consider on the parties' cross-motions for summary judgment is not a question controlled by Federal Circuit law, but one controlled by the law of the regional circuit.

b. The admissible evidence requirement

The parties challenge certain factual statements in support of or opposition to summary judgment for lack of supporting *admissible* evidence. As explained above, a movant for summary judgment must identify those portions of the record that show lack of a genuine issue of material fact, *Hartnagel*, 953 F.2d at 395, and the resisting party must then go beyond the pleadings, and by affidavits, or by the "depositions, answers to

¹¹The resistance was docketed before the motion, because Electrolux was required to seek leave to file the motion under seal.

interrogatories, and admissions on file,” designate “specific facts showing that there is a genuine issue for trial.” FED. R. CIV. P. 56(e); *Celotex*, 477 U.S. at 324. Thus, both a motion for summary judgment and a resistance to such a motion must be based on admissible evidence. *See, e.g.*, FED. R. CIV. P. 56(e) (affidavits in resistance to summary judgment must be based on admissible evidence); *Brooks v. Tri-Systems, Inc.*, 425 F.3d 1109, 1111 (8th Cir. 2005) (inadmissible evidence cannot be used to defeat summary judgment).

As a general matter, however, this court finds it unnecessary to strike specific factual statements pursuant to the parties’ challenges to the admissibility of the underlying evidence, because the court finds that it can simply disregard portions of any statement of fact that are not supported by admissible evidence. *See, e.g.*, *Baxter v. Briar Cliff College Group Ins. Plan*, 409 F. Supp. 2d 1108, 1118-19 (N.D. Iowa 2006) (declining to strike challenged portions of the record, because the court could simply disregard inadmissible evidence in its disposition of the summary judgment motion). More specifically, until and unless the court determines that a specific allegation of undisputed fact or allegation that the fact is, indeed, disputed becomes critical to the determination of any issue on summary judgment, the court need not and will not indulge the parties in an assessment of the admissibility of the evidence supporting each and every challenged factual allegation.

In addition to challenges to admissibility of supporting evidence, the court is presented with the question, upon Electrolux’s motion, of whether or not to allow the filing of a supplemental appendix, and the related question, upon Maytag’s motion, of whether or not to consider factual allegations based on documents that were purportedly only belatedly disclosed. The court cannot find that Maytag will be prejudiced by consideration of either the proffered Third Supplemental Appendix or the factual allegations supported by purportedly belatedly disclosed documents, because it is apparent that the belated

disclosure of the documents in question is, at least in substantial part, the result of the late development of the issue in the course of litigation of the summary judgment motions and also, at least in part, the result of positions that Maytag has taken concerning discovery and disclosure of the pertinent documents. Most importantly, however, it is clear that the parties have had a full and fair opportunity to litigate the issue of the relevance of the documents in question, in the course of the litigation of their motions for summary judgment. Therefore, the court will grant Electrolux's motion to file a Third Supplemental Appendix and the court will consider that Third Supplemental Appendix in its disposition of the parties' motions for summary judgment.

c. "Unsworn" expert reports

Another issue presented by the parties' motions to strike that warrants some more detailed consideration is the question of the extent to which the court can consider "unsworn" expert reports at the summary judgment stage of proceedings. Some time ago, a judge of the United States District Court for the District of Minnesota noted that, while it might be true that courts routinely consider expert reports when deciding motions for summary judgment, courts do not do so where the reports are "unsworn or unverified." *Rainforest Café, Inc. v. Amazon, Inc.*, 86 F. Supp. 2d 886, 904 (D. Minn. 1999) (also holding that the fact that the report was prepared pursuant to the mandatory disclosure requirements of Rule 26(a) did not make it admissible on a Rule 56 motion for summary judgment, because of the differing purposes of the two rules, and the higher requirements for consideration of reports under Rule 56). Similarly, and even longer ago, the Supreme Court held that an unsworn statement of a lay witness does not meet the requirements of Rule 56(e), thus establishing the general principle that unsworn statements are not admissible at the summary judgment stage of the proceedings. *See Adickes v. S.H. Kress & Co.*, 398 U.S. 144, 158 n.17 (1970). It is difficult to see why an unsworn statement of

an “expert” should be treated any differently than the unsworn statement of any other witness.

Electrolux contends that this court has denied a motion to strike an unverified expert report offered in support of a motion for summary judgment, citing *Doctor John’s, Inc. v. City of Sioux City*, 389 F. Supp. 2d 1096, 1129-30 (N.D. Iowa 2005), thereby suggesting that Maytag’s motion to strike unsworn expert reports is contrary to authority of this court. In *Doctor John’s*, this court did, indeed, deny a motion to strike an unsworn expert’s report from the summary judgment record, but Electrolux ignores the basis on which this court denied the motion to strike in that case. In *Doctor John’s*, this court denied the motion to strike on the ground that the disposition of the summary judgment motions *in favor of the party moving to strike* demonstrated that the movant was not prejudiced by the new, and purportedly unverified, expert evidence offered by the opposing party, and on the further ground that an extension of the deadline for discovery left the party moving to strike with ample opportunity to respond to the expert’s evidence at the time of trial. *Doctor John’s*, 389 F. Supp. 2d at 1129-30. Thus, the decision in *Doctor John’s* certainly cannot be read to stand for the proposition that unsworn expert reports can generally be considered at the summary judgment stage of the proceedings.

More recently, a number of courts, including federal Circuit Courts of Appeals, have held that unauthenticated or unverified expert reports may not be considered on summary judgment. *See, e.g., United States v. One TRW, Model M14, 7.62 Caliber Rifle*, 441 F.3d 416, 426 (6th Cir. 2006); *Carr v. Tatangelo*, 338 F.3d 1259, 1273 n.26 (11th Cir. 2003) (an unsworn expert report cannot be considered on summary judgment, citing *Adickes*, 398 U.S. 158 n.17); *Provident Life and Accident Ins. Co. v. Goel*, 274 F.3d 984, 1000 (5th Cir. 2001) (“Unsworn expert reports … do not qualify as affidavits or otherwise admissible evidence for [the] purpose of Rule 56, and may be disregarded by the

court when ruling on a motion for summary judgment.’”) (quoting 11 JAMES WM. MOORE ET AL., MOORE’S FEDERAL PRACTICE ¶ 56.41[2][c] (3d ed. 1997)). On the other hand, it may be possible to “cure” the deficiency of an unsworn or unverified expert report or statement, for example, by providing a subsequent affidavit or deposition testimony of the expert reiterating or reaffirming the opinions in the unsworn report. *See, e.g., Capobianco v. City of New York*, 422 F.3d 47, 55 (2d Cir. 2005) (suggesting that, had a party been on notice that an expert’s letter, which was attached by the opposing party to its summary judgment moving papers, could not be considered on summary judgment, the party could have obtained a sworn affidavit of the expert that would, presumably, have merely reiterated what was already in the letter, so that the court committed prejudicial error by excluding the letter *sua sponte*); *Scott v. Edinburg*, 346 F.3d 752, 759 (7th Cir. 2003) (holding that an unsworn report, which was introduced without any supporting affidavit verifying its authenticity, was not admissible and could not be considered for purpose of summary judgment, thus suggesting that an appropriate affidavit verifying the unsworn report would have made the report admissible for purposes of summary judgment); *but see Fowle v. C & C Cola, a Div. of ITT-Continental Baking Co.*, 868 F.2d 59, 67 & n.4 (3d Cir. 1989) (concluding that an attempt to cure the defect of an unsworn expert’s report by offering a supplement to the summary judgment record in the form of deposition testimony of the expert was improper, because the proffered material would impermissibly expand the record).

This court concludes that subsequent verification or reaffirmation of an unsworn expert’s report, either by affidavit or deposition, allows the court to consider the unsworn expert’s report on a motion for summary judgment. This is so, because such a procedure is consistent with Rule 56(e), which allows a party opposing summary judgment to rely on affidavits. *See* FED. R. CIV. P. 56(e). Moreover, where the expert has been deposed, and

in the course of such deposition, has reaffirmed opinions stated in the unsworn report, the parties have had a full and fair opportunity to address the basis and admissibility of the expert's opinions as summarized in the unsworn report. Therefore, while an unsworn expert report, standing alone, does not constitute admissible evidence that can be considered at the summary judgment stage of the proceedings, and will not defeat a motion for summary judgment, an unsworn expert report may be considered at summary judgment where the opinions therein are otherwise adopted or reaffirmed in an admissible affidavit or deposition testimony by the expert. The court will not, however, explore whether the opinions in any unsworn expert report at issue in this case meet this subsequent verification standard unless and until those specific opinions come into question on the motions for summary judgment now before the court.

d. Summary

In summary, Electrolux's motion to supplement the record will be granted, and the parties' motions to strike various parts of the summary judgment record will be denied as moot, except to the extent that the court specifically rules herein on the sufficiency of evidence supporting certain factual allegations in the course of its analysis of the parties' cross-motions for summary judgment.

C. The Motions For Summary Judgment

Having clarified what record the court will consider on the parties' cross-motions for summary judgment, the court turns to disposition of the motions for summary judgment themselves. Although the parties' summary judgment motions raise various "validity," "infringement," and "willfulness" issues, as mentioned at the outset of this ruling, and as indicated in the tentative draft of this ruling sent to the parties before the oral arguments,

the court finds that two “validity” issues are dispositive of the parties’ motions for summary judgment.

I. “Validity” issues

Electrolux raises various challenges to the validity of Maytag’s patents-in-suit in its April 28, 2006, Motion For Summary Judgment (docket no. 139). Electrolux contends that the asserted claims of both patents-in-suit are invalid under 35 U.S.C. § 112 for lack of an adequate written description; that Claims 26 and 27 of the ‘909 patent are invalid under 35 U.S.C. § 112 for lack of enablement; that the asserted claims of both patents-in-suit are invalid under 35 U.S.C. §§ 102 and 103 in light of prior art; and that the sale of a mold from Triangle Tool to Maytag invalidates the asserted claims of the patents-in-suit under the “on sale bar” of 35 U.S.C. § 102(b). Maytag denies each of these contentions. Because a patent carries a statutory presumption of validity pursuant to 35 U.S.C. § 282, Electrolux has the burden of showing by clear and convincing evidence, that Maytag’s patents are invalid. *Monstanto Co. v. Scruggs*, ___ F.3d ___, ___, 2006 WL 2355959, *5 (Fed. Cir. Aug. 16, 2006) (citing *WMS Gaming, Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1355 (Fed. Cir. 1999)); *Gemmy Indus. Corp. v. Chrisha Creations, Ltd.*, 452 F.3d 1353, 1358 (Fed. Cir. 2006). The court’s analysis of the “validity” issues raised by Electrolux will focus on the “written description” and “enablement” requirements of 35 U.S.C. § 112.

a. Inadequate written description

i. Arguments of the parties. Electrolux contends that failure to comply with the “written description” requirement of 35 U.S.C. § 112 results in the invalidity of the patent claims in question. Although Electrolux acknowledges that the adequacy of the written description is a question of fact, Electrolux contends that the issue can still be resolved on summary judgment, in the absence of any genuine issues of material fact.

Turning to the merits, Electrolux contends that Maytag violated the “written description” requirement, and improperly expanded the scope of its patent monopoly, by adding claims during the prosecution of the patents that were far broader than the description of the alleged invention in the original application. More specifically, Electrolux argues that the specifications of the ‘909 patent and the ‘809 patent disclosed only a plastic washing machine basket that had *teardrop-shaped grooves* and the method for making such a basket with *teardrop-shaped grooves*. Electrolux points out that the teardrop-shaped groove structure or the teardrop-shaped projection for making such a structure is discussed more than twenty times in the application, and not once is a basket without teardrop-shaped grooves or a basket with any other shape of grooves described or claimed. Electrolux also contends that Maytag’s inventors consistently characterized their invention as a basket with teardrop-shaped grooves. It was not until July 19, 1994, Electrolux argues, that Maytag amended its application to add what became Claims 23 and 24 of the ‘909 patent claiming a basket without a teardrop-shaped groove. Claims without any mention of grooves at all were not added until May 22, 1998, when Maytag added what became Claims 7 through 9 of the ‘809 patent. Electrolux argues that Maytag’s improper attempt to broaden the scope of its patent is precisely why the written description requirement exists. Electrolux argues that the *sole*, not merely the *preferred*, embodiment of Maytag’s patents confirms that the invention described is a basket with teardrop-shaped grooves. Electrolux contends that both lay and expert witnesses agree with its position that the written description does not support patent claims for a basket without teardrop-shaped grooves.

In response, Maytag argues that teardrop-shaped grooves are described in the written description only in the context of *preferred* embodiments, not as essential elements for all possible embodiments of the invention, and that the written description expressly

cautions that the invention is not limited to the preferred embodiments described. Maytag also asserts that neither the specification nor the claims require the combination of teardrop-shaped grooves and a beveled surface about the apertures to practice the invention. Maytag also argues that teardrop-shaped grooves are not essential, or even necessary, to achieve other objects of the invention, including elimination or minimization of knit lines and molding of the plastic basket in a single step. Maytag also points out that the patent examiner did not reject the patent application on the basis of an inadequate written description. Next, Maytag argues that Electrolux's "essential element" argument has been rejected by the Federal Circuit Court of Appeals and is a misapplication of the precedents upon which Electrolux relies. Ultimately, Maytag argues that the specifications of the patents-in-suit teach only that teardrop-shaped grooves are *preferred*, but do not preclude the absence of teardrop-shaped grooves or the absence of any grooves at all, and that the sufficiency of the written description in this case remains a fact question for the jury.

In reply, Electrolux reiterates its argument that a plastic basket with teardrop-shaped grooves was Maytag's *invention*, not merely a *preferred embodiment*. Electrolux contends that the object of the patents was not simply to mold a plastic basket in a single step, but to mold a plastic basket in a single step that had holes formed in the base wall and sidewall *without undesirable knit lines*. Electrolux contends that this objective was purportedly accomplished by providing an apparatus for making a plastic basket with teardrop-shaped grooves. Electrolux also argues that the Summary of the Invention identifies only teardrop-shaped grooves, which is not surprising, because only the teardrop-shaped grooves even arguably distinguish the claimed invention from the prior art known to Maytag. Electrolux reiterates that it is a basket with teardrop-shaped grooves that is identified as "the invention" throughout the written description of the patents-in-suit, while

elsewhere in the description, *preferred embodiments* are expressly identified. Electrolux also disputes Maytag’s contention that Electrolux is asserting an “essential element” analysis. Rather, Electrolux contends that it is relying on controlling Federal Circuit authority that later added claims that are broader than the invention originally described are not valid. Finally, Electrolux argues that there is no genuine issue of material fact, because Maytag cannot create such an issue of fact simply by pointing to expert opinions about what is claimed and what the written description does or does not disclose that are contrary to what the written description expressly says.

ii. Applicable law. In pertinent part, 35 U.S.C. § 112 imposes a “written description” requirement, by requiring that “[t]he specification shall contain a written description of the invention. . . .” 35 U.S.C. § 112.¹² As the Federal Circuit Court of

¹²The first paragraph of § 112, in its entirety, states the following:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

In *University of Rochester v. G.D. Searle & Co., Inc.*, 358 F.3d 916 (Fed. Cir.), *cert. denied*, 543 U.S. 1015 (2004), the Federal Circuit Court of Appeals explained that this provision contains three separate requirements: “(1) ‘[t]he specification shall contain a written description of the invention’; (2) ‘[t]he specification shall contain a written description . . . of the manner and process of making and using it [*i.e.*, the invention] in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same’; and (3) ‘[t]he specification . . . shall set forth the best mode contemplated by the inventor of carrying out his invention.’” *University of Rochester*, 358 F.3d at 921. The court then explained that, “[i]n common parlance, as well as in our and our predecessor court’s case
(continued...)

Appeals has explained, “[t]he ‘written description’ requirement implements the principle that a patent must describe the technology that is sought to be patented; the requirement serves both to satisfy the inventor’s obligation to disclose the technologic knowledge upon which the patent is based, and to demonstrate that the patentee was in possession of the invention that is claimed.” *Falko-Gunter Falkner v. Inglis*, 448 F.3d 1357, 1366 (Fed. Cir. 2006) (quoting *Capon v. Eshhar*, 418 F.3d 1349, 1357 (Fed. Cir. 2005)); accord *Monsanto Co. v. Scruggs*, ___ F.3d ___, ___, 2006 WL 2355959, *5 (Fed. Cir. Aug. 16, 2006). “The ‘written description’ requirement serves a teaching function, as a ‘*quid pro quo*’ in which the public is given ‘meaningful disclosure in exchange for being excluded from practicing the invention for a limited period of time.’” *University of Rochester v. G.D. Searle & Co., Inc.*, 358 F.3d 916, 922 (Fed. Cir.) (quoting *Enzo Biochem, Inc. v. Gen-Probe, Inc.*, 323 F.3d 956, 970 (Fed. Cir. 2002)), *cert. denied*, 543 U.S. 1015 (2004). “[T]he purpose of the written description requirement is [also] to ‘ensure that the scope of the right to exclude, as set forth in the claims, does not overreach the scope of the inventor’s contribution to the field of art as described in the patent specification.’” *Id.* at 920 (quoting *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563 (Fed. Cir. 1991)).

Where, as here, the question is whether the patent claims are broader than the written description will support, a patent fails the “written description” requirement if the entirety of the specification of an earlier application would clearly indicate to persons of ordinary skill in the art that the invention described in that application is of a much

¹²(...continued)

law, those three requirements are referred to as the ‘written description requirement,’ the ‘enablement requirement,’ and the ‘best mode requirement,’ respectively.” *Id.* The court explained, further, that “[a]lthough there is often significant overlap between the three requirements, they are nonetheless independent of each other.” *Id.*

narrower scope than the invention ultimately claimed in the patent, because the “essence” of the “written description” requirement is “that a patent cannot claim priority to earlier applications if it includes new matter not present in those earlier disclosures.” *Chiron Corp. v. Genentech, Inc.*, 363 F.3d 1247, 1259 (Fed. Cir. 2004) (approving the district court’s jury instructions); *Cordis Corp. v. Medtronic AVE, Inc.*, 339 F.3d 1352, 1365 (Fed. Cir. 2003) (interpreting *Gentry Gallery, Inc. v. Berline Corp.*, 134 F.3d 1473 (Fed. Cir. 1998), to stand for the “‘proposition that a broad claim is invalid when the entirety of the specification clearly indicates that the invention is of a much narrower scope,’” and quoting *Cooper Cameron Corp. v. Kvaerner Oilfield Prod., Inc.*, 291 F.3d 1317, 1323 (Fed. Cir. 2002), for this interpretation). On the other hand, the requirement is met if “‘the patent disclosure provides ample support for the breadth of the term [and] does not “unambiguously limit[]” the meaning of [the term]’ to the narrower embodiment.” *Cordis Corp.*, 339 F.3d at 1365 (quoting *Johnson Worldwide Assocs., Inc. v. Zebco Corp.*, 175 F.3d 985, 993 (Fed. Cir. 1999), in turn quoting *Gentry Gallery, Inc.*, 134 F.3d at 1480). Thus, “the patent’s ‘disclosure must allow one skilled in the art “to visualize or recognize the identity of” the subject matter purportedly described.’” *Koito Mfg. Co., Ltd. v. Turn-Key-Tech, L.L.C.*, 381 F.3d 1142, 1154 (Fed. Cir. 2004) (quoting *Enzo Biochem, Inc.*, 323 F.3d at 968, in turn quoting *Regents of Univ. of Cal. v. Eli Lilly & Co.*, 119 F.3d 1559, 1573 (Fed. Cir. 1997)). On the other hand, “[t]he disclosure originally filed does not . . . have to provide *in haec verba* support for the claimed subject matter at issue.” *Id.* (again quoting *Cordis Corp.*, 339 F.3d at 1364).¹³

¹³ In contrast to the present circumstances, where the question is, instead, whether the written description is sufficiently detailed to disclose the claimed invention, the Federal Circuit Court of Appeals has explained,

(continued...)

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A claim will not be invalidated on section 112 grounds simply because the embodiments of the specification do not contain examples explicitly covering the full scope of the claim language. That is because the patent specification is written for a person of skill in the art, and such a person comes to the patent with the knowledge of what has come before. Placed in that context, it is unnecessary to spell out every detail of the invention in the specification; only enough must be included [1] to convince a person of skill in the art that the inventor possessed the invention and [2] to enable such a person to make and use the invention without undue experimentation.

LizardTech, Inc. v. Earth resource Mapping, PTY, Inc., 424 F.3d 1336, 1345 (Fed. Cir. 2005) (internal citations omitted) (citing *Union Oil Co. v. Atlantic Richfield Co.*, 208 F.3d 989, 997 (Fed. Cir. 2000); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995)); *see also Falko-Gunter Falkner*, 448 F.3d at 1366 (quoting this passage from *LizardTech*); *Kao Corp. v. Unilever U.S., Inc.*, 441 F.3d 963, 968 (Fed. Cir. 2006) (the requirement is that “the patent specification must describe an invention in sufficient detail that one skilled in the art can clearly conclude that the inventor invented what is claimed”) (quoting *Cordis Corp.*, 339 F.3d at 1364).

More specifically, the Federal Circuit Court of Appeals has adopted the following standard for meeting the “written description” requirement from the Patent and Trademark Office (PTO) guidelines:

[The written description requirement can be met by] show[ing] that an invention is complete by disclosure of sufficiently detailed, relevant identifying characteristics ... *i.e.*, complete or partial structure, other physical and/or chemical properties, functional characteristics when coupled with a known or disclosed correlation between function and structure, or some combination of such characteristics.

GUIDELINES FOR EXAMINATION OF PATENT APPLICATIONS UNDER 35 U.S.C. § 112, first paragraph, “Written Description” Requirement, 66 Fed.Reg. 1099, 1106 (Jan. 5, 2001); *see also Invitrogen Corp. v. Clontech Labs., Inc.*, 429 F.3d 1052, 1072 (Fed. Cir. 2005). (noting adoption of this standard in *Enzo Biochem, Inc. v. Gen-Probe, Inc.*, 323 F.3d 956, (continued...))

Like “enablement,” which Electrolux asserts is also lacking in the patents-in-suit, “invalidating a claim requires a showing by clear and convincing evidence that the written description requirement has not been satisfied.” *Invitrogen Corp.*, 429 F.3d at 1072; *Intertool, Ltd. v. Texar Corp.*, 369 F.3d 1289, 1294 (Fed. Cir. 2004) (“A party alleging that a patent is invalid for failure to comply with the written description requirement has the burden of establishing by clear and convincing evidence that the requirement was not met, in light of the presumption of validity.”). Unlike “enablement,” “compliance with the written description requirement is a question of fact.” *Id.*; *Intertool, Ltd.*, 369 F.3d at 1294.

iii. Application of the law. The court finds that, as a matter of law, the ‘909 (product) patent and the ‘809 (process) patent both fail the “written description” requirement, because the entirety of the specification—which is identical for the two patents and which was part of the original application submitted long before the claims now at issue became part of the applications—would clearly indicate to persons of ordinary skill in the art that the invention described in the application is of a much narrower scope, that is, requiring “teardrop-shaped grooves,” than the invention ultimately claimed in Claims 24 through 27 of the ‘909 patent and Claims 7 through 9 of the ‘809 patent, which do not have a “teardrop-shaped” limitation on the “grooves,” if they require “grooves” at all. *See Chiron Corp.*, 363 F.3d at 1259 (holding that this is a proper formulation of the standard for determining whether a patent fails the “written description” standard); *Cordis Corp.*, 339 F.3d at 1365 (“[A] broad claim is invalid when the entirety of the

¹³(...continued)

964 (Fed. Cir. 2002), and reaffirmation of the standard in *University of Rochester v. G.D. Searle & Co., Inc.*, 358 F.3d 916, 920 (Fed. Cir. 2004)).

specification clearly indicates that the invention is of a much narrower scope.’”) (quoting *Cooper Cameron Corp.*, 291 F.3d at 1323, for this interpretation of *Gentry Gallery, Inc.*, 134 F.3d at 1480). Indeed, the court finds that the written disclosure does not “‘provide ample support for the breadth of the [‘groove’] term’” in the claims at issue and, instead, does “‘unambiguously limit’” the meaning of the “groove” term to a narrower embodiment, a “teardrop-shaped groove,” than is claimed in the asserted claims of the patents-in-suit. *See Cordis Corp.*, 339 F.3d at 1365 (quoting *Johnson Worldwide Assocs., Inc.*, 175 F.3d at 993, in turn quoting *Gentry Gallery, Inc.*, 134 F.3d at 1480).

Specifically, the Summary Of The Invention for each of the patents-in-suit describes the grooves in the sidewall of the plastic washing machine basket, and the projections on the mold core that produce them, as “teardrop-shaped.” *See* the ‘909 patent, col. 1, *ll.* 53-54; col. 1, *l.* 67 to col. 2, *l.* 1; col. 2, *l.* 10.¹⁴ Similarly, the Detailed Description Of The Invention always describes the grooves in the sidewall of the plastic washing machine basket, and the projections on the mold core that produce them, as “teardrop-shaped.” *See* the ‘909 patent, col. 3, *ll.* 18-25, 60-64; col. 4, *l.* 63; col. 5, *ll.* 46-56; col. 6, *ll.* 50-67.

Although Maytag contends that the Detailed Description Of The Invention describes only “a preferred embodiment” of the invention, the *only* embodiments of the grooves in the inner surface of the sidewall and the projections on the mold core that make those grooves that are ever described are “teardrop-shaped.” None of the express references to other embodiments or to “the preferred embodiment” in the Detailed Description has anything to do with the shape of the grooves in the inner surface of the sidewall. *See id.*,

¹⁴Because the Summary Of The Invention and the Detailed Description Of The Invention in the ‘809 patent are identical to the Summary Of The Invention and the Detailed Description Of The Invention in the ‘909 patent, the court will cite only the pertinent language in the ‘909 patent.

col. 3, *ll.* 10-16 (“For the sake of clarity in these figures, apertures **44** have not been shown to extend entirely around the circumference of sidewall **8**. However, in the preferred embodiment, apertures **44** are provided around the entire circumference of sidewall **8** and are slightly and progressively reduced in diameter from adjacent base wall **5** toward terminal edge **36**.”); col. 4, *ll.* 34-35 (“In the preferred embodiment, as best shown in FIG. 5, four such cavity sidewall members **99** are utilized.”); col. 5, *ll.* 18-19 (“In the preferred embodiment, mold core **90** is shifted relative to cavity cover member **102**.”); col. 5, *ll.* 58-62 (“Cooling of the plastic material along with molding apparatus **60** is preferably enhanced by providing various cooling lines **214-222** which extend throughout molding apparatus **60** in a manner known in the art.”); col. 7, *ll.* 1-9 (“Although described with respect to a preferred embodiment, it should be understood that various changes and/or modifications can be made to the invention without departing from the spirit thereof. In particular, although various references have been made to directions when referring to FIGS. 3 and 4, it should be understood that the molding apparatus of the present invention can be used to form plastic washing machine baskets at any angle and is actually horizontally mounted as depicted in FIG. 5.”). As one judge of the Federal Circuit Court of Appeals has observed, “[M]erely calling an embodiment ‘preferred,’ when there are no others, does not entitle one to claims broader than the disclosure.” *LizardTech, Inc. v. Earth Resource Mapping, Inc.*, 433 F.3d 1373, 1375 (Fed. Cir. 2006) (Lourie, J., joined by two other judges, concurring in denial of rehearing *en banc*).

The written description here, which always describes the grooves in the inner surface of the sidewall and the projections on the mold core that make them as “teardrop-shaped,” is analogous to the specific and sole description of the position of the controls in the patent at issue in *Gentry Gallery, Inc.*, as “on the console.” *See Gentry Gallery, Inc.*, 134 F.3d at 1479-80. Thus, “one skilled in the art would clearly understand that it was

not only important, but essential to [the patentee’s] invention, for the [grooves and projections to be teardrop-shaped].” *Id.* To put it another way, the court cannot find that the patents’ disclosure here would allow one skilled in the art “to visualize or recognize the identity of” grooves in the inner surface of the sidewall, or the projections that make those grooves, that were *not* “teardrop-shaped.” *See Koito Mfg. Co., Ltd.*, 381 F.3d at 1154 (internal quotation marks and citations omitted).

This determination is not, as Maytag contends, a recrudescence or revivification of the “essential element” analysis rejected, for example, in *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336 (1961). *See Aro Mfg. Co.*, 365 U.S. at 345 (there is “no legally recognizable or protected ‘essential’ element . . . in a combination patent”). Rather, as the Federal Circuit Court of Appeals explained,

In *Gentry Gallery* the issue was whether the written description, which described a specific location of a control console on a reclining sofa, adequately supported broad claims that were not limited to this location of the console; these broad claims were asserted by the patentee against a reclining sofa having the control console in a different location. This court held that the broad claims were not supported by the written description, and were invalid. As explained in *Johnson Worldwide Assoc. v. Zebco Corp.*, 175 F.3d 985, 993, 50 USPQ2d 1607, 1613 (Fed. Cir. 1999), “this court’s determination [in *Gentry Gallery*] that the patent disclosure did not support a broad meaning for the disputed claim terms was premised on clear statements in the written description that described the location of a claim element . . . as ‘the only possible location’ and that variations were ‘outside the stated purpose of the invention.’” The *Gentry Gallery* decision did not create a new requirement of claim content, or change the long-standing law and practice of claim drafting. *Gentry Gallery* is simply one of many decisions holding that, as quoted by the district court, “claims in an application which

are broader than the applicant’s disclosure are not allowable.” *Application of Sus*, 49 C.C.P.A. 1301, 306 F.2d 494, 505, 134 USPQ 301, 310 (CCPA 1962) (citations omitted).

Microsoft also cites *Tronzo v. Biomet, Inc.*, 156 F.3d 1154, 47 USPQ2d 1829 (Fed. Cir. 1998), as supporting the “omitted element test.” In *Tronzo*, a first application was directed specifically and narrowly to a conical-shaped hip prosthesis; a continuation-in-part application then described additional shapes for the prosthesis, and for the first time presented generic claims that covered the additional shapes. This court explained that the generic claims were not entitled to the parent application’s filing date under § 120, for the generic claims were not supported by the written description in the parent application. *See id.* at 1158, 156 F.3d 1154, 47 USPQ2d at 1833 (it is “clear that the [parent specification] discloses only conical shaped cups and nothing broader.”). The generic claims were then invalidated, not because of any “omitted element,” but because of an intervening publication which rendered them anticipated.

Reiffin v. Microsoft Corp., 214 F.3d 1342, 1348 (Fed. Cir. 2000). Again, here as in *Gentry Gallery*, the patents are invalid, because the written description describes the only possible “grooves” in the inner surface of the washing machine basket, and the corresponding projections on the mold core that form them, as “teardrop-shaped,” so that variations involving grooves and projections of different shapes, or no grooves at all, are broader than the disclosure and are not allowable. *Id.*

Maytag also argues that teardrop-shaped grooves are not essential, or even necessary, to achieve other objects of the invention, including elimination or minimization of knit lines and molding of the plastic basket in a single step. This contention is flat contrary to the language of the written description itself. The Detailed Description states that “[i]t is important to note that the teardrop-shaped projections **132** permit the plastic material to flow around core pins **191** without creating knit lines which would inherently

be formed without the presence of the teardrop-shaped projections **132**,” *see* the ‘909 patent, col. 5, *ll.* 48-52, and that the “[p]rojections **132**,” previously described as “teardrop-shaped,” *see* the ‘909 patent, col. 5, *ll.* 46-52, “actually create a wind tunnel or turbulence effect for the plastic material which eliminates the knit lines associated with prior known molding arrangements and thereby basket **2** can be formed with a smooth inner surface.” *Id.* at col. 5, *ll.* 52-56. The Detailed Description also states, “The shape of the teardrop-shaped projections **132** not only provides for the effective flow of the plastic material, but also forms the teardrop-shaped grooves **50** which improve washability by increasing the coupling of water and clothing inserted into basket **2**. In addition, since holes **44** are recessed within the teardrop-shaped grooves **50**, any edges on the holes **44** will be prevented from snagging clothes placed in basket **2**.” Thus, the “teardrop-shape” of the grooves and projections is described in the Detailed Description as essential to achieve other objects of the invention. This is yet another reason that the court cannot find—and no reasonable factfinder could find—that the patents’ disclosure here would allow one skilled in the art “to visualize or recognize the identity of” grooves in the inner surface of the sidewall, or the projections that make those grooves, that were *not* “teardrop-shaped.” *See Koito Mfg. Co., Ltd.*, 381 F.3d at 1154 (internal quotation marks and citations omitted).

While Maytag also asserts that neither the specification nor the claims require the combination of teardrop-shaped grooves and a beveled surface about the apertures to practice the invention, that argument is simply a red herring, because Electrolux never asserted that they did, at least in Electrolux’s challenge to the adequacy of the written description. The question for purposes of the “written description” requirement here simply is not whether the written description describes teardrop-shaped grooves in combination with some other limitation. The question here is, instead, whether the written

description would clearly indicate to persons of ordinary skill in the art that the invention described in the application is of a much narrower scope, that is, requiring “teardrop-shaped grooves,” than the invention ultimately claimed in Claims 24 through 27 of the ‘909 patent and Claims 7 through 9 of the ‘809 patent, which do not have a “teardrop-shape” limitation on the “grooves,” if they require “grooves” at all. *See Chiron Corp.*, 363 F.3d at 1259 (holding that this is a proper formulation of the standard for determining whether a patent fails the “written description” standard); *Cordis Corp.*, 339 F.3d at 1365 (“[A] broad claim is invalid when the entirety of the specification clearly indicates that the invention is of a much narrower scope.”) (quoting *Cooper Cameron Corp.*, 291 F.3d at 1323, for this interpretation of *Gentry Gallery, Inc.*, 134 F.3d at 1480). Here, the written description would clearly indicate to persons of ordinary skill in the art that the claimed invention is narrower in scope than a plastic washing machine basket in which there are grooves that are not “teardrop-shaped,” or in which there are no grooves at all.

At the oral arguments, Maytag contended that the court was misapplying the *Gentry Gallery* line of cases, because each of those cases involved a written description in which there was an express disavowal of or a teaching away from an invention with a broader scope or at least an unambiguous surrender of a broader scope. Here, Maytag contends that there is no such express disavowal of shapes of grooves other than “teardrop-shaped.” The court does not agree with Maytag’s reading of the *Gentry Gallery* line of cases.

First, in *Gentry Gallery*, the court did state that “the original disclosure clearly identifies the console as the only possible location for the controls.” *Gentry Gallery, Inc.*, 134 F.3d at 1479. The court did not, however, point to any express disavowal of any other location in the description to reach that conclusion. Instead, the court examined what *was* disclosed in the written description, noting the following:

[The description] provides for only the most minor variation in the location of the controls, noting that the control “may be mounted on top or side surfaces of the console rather than on the front wall … without departing from this invention.” ‘244 patent, col. 2, line 68 to col. 3, line 3. No similar variation beyond the console is even suggested. Additionally, the only discernible purpose for the console is to house the controls. As the disclosure states, identifying the only purpose relevant to the console, “[a]nother object of the present invention is to provide … a console positioned between [the reclining seats] that accommodates the controls for both of the reclining seats.” *Id.* at col. 1, ll. 33-37. Thus, locating the controls anywhere but on the console is outside the stated purpose of the invention. Moreover, consistent with this disclosure, Sproule’s broadest original claim was directed to a sofa comprising, *inter alia*, “control means located upon the center console to enable each of the pair of reclining seats to move separately between the reclined and upright positions.” Finally, although not dispositive, because one can add claims to a pending application directed to adequately described subject matter, Sproule admitted at trial that he did not consider placing the controls outside the console until he became aware that some of Gentry’s competitors were so locating the recliner controls. Accordingly, when viewed in its entirety, the disclosure is limited to sofas in which the recliner control is located on the console.

Gentry Gallery, Inc., 134 F.3d at 1479.

Similarly, here, the original disclosure for the ‘909 patent and the ‘809 patent clearly identifies a “teardrop-shape” as the only possible shape for the “grooves” in the inner surface of the sidewall of the plastic washing machine basket; indeed, there is *no* variation whatsoever in the shape of these “grooves” that is even suggested in the description. *Id.* (noting that “minor variation” in the position of the control panel on the console was stated, but no variation in the position of the control panel beyond the console

was even suggested). Also, while there are several purposes of the “grooves” discernable from the written description, the written description expressly states that every one of those purposes is purportedly served by making those “grooves” “teardrop-shaped.” *Cf. id.* (finding no other discernable purpose for the central console than to house the control panel). Thus, as in *Gentry Gallery*, using “grooves” that are not “teardrop-shaped” “is outside the stated purpose of the invention.” *Id.* Moreover, Electrolux has pointed out that, consistent with the disclosure, throughout the “interference” proceedings involving Triangle Tool’s conflicting patent application for the molding apparatus disclosed in the ‘809 patent, the inventors of the patents-in-suit consistently identified their invention as involving “teardrop-shaped grooves.” Although Maytag contends that those assertions must be viewed in the context of the issues presented in the “interference,” that contention amounts to a concession that the possibility of grooves of other shapes did not become apparent until other shapes became relevant to Maytag’s attempt to enforce its patents against competitors. *Cf. id.* (the inventor admitted at trial that he did not consider placing the controls outside of the console until he became aware that some of his competitors were so locating the recliner controls). Finally, the test, as stated in *Gentry Gallery*, is not whether there is an “express disavowal,” but whether “one skilled in the art would *clearly understand* that it was not only important, but essential to [the patentee’s] invention, for the [limitation in question to be present.” *Id.* at 1480 (emphasis added). For the reasons stated above, the written description for the ’909 patent and the ‘809 patent is such that one skilled in the art would clearly understand that it was not only important, but essential to the patentee’s invention, for the grooves in the inner surface of the sidewall of the plastic washing machine basket to be “teardrop-shaped.”

Nor does the decision in *Tronzo v. Biomet, Inc.*, 156 F.3d 1154 (Fed. Cir. 1998), upon which Maytag also relies to demonstrate the error in the court’s analysis, require a

different conclusion. Indeed, Electrolux contends that *Tronzo* is the decision most on point, because it demonstrates the scope of a written description involving disclosure of a particular “shape” of an element. In *Tronzo*, the issue was the scope of the disclosure of the “shape” of cup implants for an artificial hip socket. The court concluded that descriptions of the invention as a “trapezoid,” a “truncated cone,” or a cup of “conical shape” all described the same cup, not three different species. *Tronzo*, 156 F.3d at 1159. On the other hand, the court concluded that the “patent disclose[d] only two species of cups: an ‘eccentric cup,’ which has a top lip shorter than the bottom lip, and a ‘true’ cup, with all sides being equal.” *Id.* The court next concluded that “the only references in the ‘589 patent’s specification to different shapes is a recitation of the prior art,” and that, “[i]nstead of suggesting that the ‘589 patent encompasses additional shapes, the specification specifically distinguishes the prior art as inferior and touts the advantages of the conical shape of the ‘589 cup.” *Id.* The court concluded, “Such statements make clear that the ‘589 patent discloses *only* conical shaped cups and nothing broader,” so that the disclosure did not support the later-claimed, generic subject matter in certain claims of the patent. *Id.* (also noting that the district court had found that the written description “‘does not attempt to identify other, equally functional shapes or talk in terms of a range of shapes. . . .’”). The court also rejected a contention that the disclosure “inherently” disclosed other shapes, because “[t]here is nothing in the ‘589 specification to suggest that shapes other than conical are necessarily a part of the disclosure. Indeed, as discussed above, the specification clearly suggests the contrary by asserting advantages of the conical shape over prior art shapes,” and rejected an expert’s rationale to support inherency as not sufficient to support the challenged generic claims of the patent, because the expert’s testimony did not explain why a broader supporting disclosure was necessarily part of the patent. *Id.* at 1159-60. On the other hand, the court found that another expert’s testimony

that the patent disclosed only a trapezoidal cup and nothing more was consistent with the express language of the specification. *Id.* at 1160.

Tronzo, like *Gentry Gallery*, simply does not require any “express disavowal” of any subject matter in the disclosure to limit the scope of the disclosure. What was “express” in the language of the description in *Tronzo* was not an express disavowal of all other shapes or an “express” statement that the inventor was claiming one shape and no other, but an “express” description of one and only one shape. *Id.* at 1159-60. The court in *Tronzo*, as it had in *Gentry Gallery*, determined that the description disclosed *only* one shape for the element in question, because it described only that shape, touted the advantages of that shape over prior art, and never attempted to identify any other, equally functional shapes or to talk in terms of a range of shapes. *Id.* at 1159.

Similarly, here, the description of the ‘809 patent and the ‘909 patent describes only “teardrop-shaped grooves,” asserts that such grooves have various advantages, including creating the “wind tunnel effect” that purportedly eliminates knit lines, and never attempts to identify any other, equally functional shapes or to talk in terms of a range of shapes. *Id.* As the court explained in *Tronzo*, “Such statements make clear that the [patent] disclosed *only* [the specific shape described] and nothing broader.” *Id.* Expert opinions¹⁵ to the effect that disclosure of “teardrop-shaped grooves” inherently disclosed grooves of other shapes, or no grooves at all, fail to generate a genuine issue of material fact, because there is no support *at all* in the record for reading the description to support such generic claims, while expert opinions that the description discloses only “teardrop-shaped grooves,” and nothing else, are plainly consistent with the written description. *Id.* at

¹⁵The court will return to the sufficiency of expert opinions to generate a genuine issue of material fact as to the scope of the written description, below.

1159-60 (rejecting, albeit after trial, one expert’s opinion that the description inherently disclosed cups of other shapes, because the rationale for that expert’s claim did not provide sufficient support for the generic claims of the patent, while another expert’s contrary opinion that the description disclosed only one shape, and nothing more, was “consistent with the express language in the . . . specification”). Thus, *Tronzo* supports rather than detracts from the court’s analysis.

Finally, Maytag asserts that *Johnson Worldwide Associates v. Zebco Corp.*, 175 F.3d 985 (Fed. Cir. 1999), which found that a description *did* support claims broader than the defendant asserted, demonstrates that the description in the ‘909 patent and ‘809 patent is sufficient to support claims to grooves that are not “teardrop-shaped.” The court is no more persuaded by Maytag’s reliance on *Johnson Worldwide Associates* than it was by Maytag’s reliance on *Gentry Gallery* or *Tronzo*. In *Johnson Worldwide Associates*, the defendant contended that the written description of the patent—which was for a steering control apparatus for small outboard boat motors, such as electric trolling motors—spoke of “heading” “only in terms of the direction of the trolling motor,” and therefore, “any construction of ‘heading signal’ encompassing both the direction of the trolling motor and the direction of the boat render[ed] the patent invalid under section 112.” *Johnson Worldwide Assocs.*, 175 F.3d at 993. The court, however, noted that “the term ‘heading’ is used interchangeably throughout the written description to refer to both the direction of the trolling motor and the direction of the boat.” *Id.* Thus, the court distinguished the case before it from *Gentry Gallery*, because “the patent disclosure provide[d] ample support for the breadth of the term ‘heading’; it d[id] not ‘unambiguously limit[]’ the meaning of ‘heading’ to the direction of the motor.” *Id.* (quoting *Gentry Gallery*, 134 F.3d at 1480). The circumstances in *Johnson Worldwide Associates*, however, are not present here. The term “groove” was never used interchangeably with “teardrop-shaped”

and some other shape, but was, instead, only used in conjunction with “teardrop-shaped” when referring to grooves in the inner surface of the sidewall. Thus, “grooves” were “unambiguously limited” to “teardrop-shaped grooves.”

Therefore, the legal authority specifically relied on by Maytag at the oral arguments on the motions for summary judgment does not demonstrate that the court’s analysis is erroneous.

Nor can the court find that Maytag’s contention that the adequacy of the written description is a question of fact necessarily means that summary judgment on that issue is precluded in this case. While it is true that “compliance with the written description requirement is a question of fact,” *Invitrogen Corp.*, 429 F.3d at 1072, Maytag must generate a genuine issue of material fact for the issue to be presented to a jury. FED. R. CIV. P. 56(c). At the oral arguments, Maytag reiterated its assertion that its experts’ opinions generate genuine issues of material fact as to whether the written description discloses just “teardrop-shaped grooves” or “grooves” generally. As mentioned above, in deciding whether expert opinions on patent issues have sufficient factual foundation to forestall summary judgment, the Federal Circuit Court of Appeals “look[s] to regional circuit law for the applicable standard, since the factual foundation necessary to support an expert’s opinion is not a matter peculiar to patent law.” *Novartis Corp.*, 271 F.3d at 1051 (citing *Arthur A. Collins, Inc.*, 216 F.3d at 1048). As the Eighth Circuit Court of Appeals recently explained,

“As a general rule, the factual basis of an expert opinion goes to the credibility of the testimony, not the admissibility, and it is up to the opposing party to examine the factual basis for the opinion in cross-examination.” *Hose v. Chicago NW Transp. Co.*, 70 F.3d 968, 974 (8th Cir.1995) (internal quotations omitted) (citing *Loudermill v. Dow Chem. Co.*, 863 F.2d 566, 570 (8th Cir. 1988); Fed.R.Evid. 703). It

is [only] “[] if an expert's opinion is so fundamentally unsupported that it can offer no assistance to the jury[, then the testimony should not be admitted.]” *Loudermill*, 863 F.2d at 570.

Larson v. Kempker, 414 F.3d 936, 941 (8th Cir. 2005) (with correction of misquotation of *Loudermill*, 863 F.2d at 570) (overruling the district court’s conclusion that the expert’s opinion at issue did not create a sufficient factual dispute to preclude summary judgment); *see also In re Acceptance Ins. Cos. Sec. Litig.*, 423 F.3d 899, 905 (8th Cir. 2005) (“[W]hen the expert opinions are little more than legal conclusions, a district court should not be held to have abused its discretion by excluding such statements [from the summary judgment record].”); *Eckelkamp v. Beste*, 315 F.3d 863, 868 (8th Cir. 2002) (“[S]ummary judgment may be appropriate if an expert opinion is fundamentally unsupported and therefore of no assistance to the trier of fact.”). What Maytag offers on the scope of the written description are only unsupported expert opinions that can be of no assistance to the trier of fact. As such, those opinions do not generate any genuine issues of material fact that the written description, even to one of ordinary skill in the art, would disclose not just “teardrop-shaped grooves,” but “grooves” generally.

More specifically, in the affidavit of Maytag’s expert, Dr. Hall, to which Maytag points, Dr. Hall opines as follows:

4. As I explained in my reply report, the ‘909 and ‘809 patent specifications clearly show the inventors were in possession of the claimed inventions at the time the application was filed. Specifically, the inventors as well as one of ordinary skill in the art would know that a teardrop-shaped groove is only one form of groove, and therefore one of ordinary skill in the art would understand that Maytag’s engineers invented a basket not limited to teardrop-shaped grooves formed on the inner surface.

Maytag's Appendix, 267 (Affidavit of Dr. Jerry Lee Hall, ¶ 4). This opinion is merely conclusory and, indeed, the conclusion asserted plainly does not follow from the premise. The fact that persons of ordinary skill in the art would know that a teardrop-shaped groove is only one form of groove plainly does not mean that one of ordinary skill in the art would understand that Maytag's engineers invented a basket not limited to teardrop-shaped grooves formed on the inner surface *when the only grooves disclosed in the description are always specified to be "teardrop-shaped."* See, e.g., *Gentry Gallery, Inc.*, 134 F.3d at 1479-80. Rather, such a specification of shape, when one of ordinary skill in the art would recognize that there are other forms of grooves, would suggest that the inventors specified *the one particular shape that worked for their purposes.* Moreover, Dr. Hall's reference in his affidavit to his reply report adds no additional support for his conclusory opinion, because the reply report merely states the same opinion, likewise with no support from the written description and no other factual support. See Electrolux's Appendix, 1284 (Reply Report of Dr. Hall, 52, ¶ 5(b)).

The expert opinions of Prof. Jay Kesan, upon which Maytag also relies, do not fare much better. In the pertinent paragraphs of his affidavit, Prof. Kesan opines as follows:

3. As I stated in my reply report, it is my opinion that the asserted claims in both the '809 and '909 patents satisfy the written description requirement. As for claim 24 of the '909 patent, the patent specification discusses "grooves" or "depressed surface portions." Maytag further disclosed grooves of a particular shape, namely, teardrop-shaped grooves, in the context of a preferred embodiment of its invention in the two patents. The fact that Maytag disclosed a particular type of groove in the written description does not mean that Maytag is restricted to just teardrop-shaped grooves or that it cannot claim "grooves" in general in the claims. There is no requirement that Maytag disclose grooves of every

shape in the disclosure in order to claim “grooves” in general in the claims. (Reply report, ¶ 40.)

4. Regarding claims 25 and 27 of the ‘909 patent and claims 7-9 of the ‘809 patent, as I explained in my deposition, nothing in the originally-filed specification requires that grooves be present in the claimed invention. Numerous features of the method and baskets are disclosed in the originally-filed specification, however the written description requirement does not mandate that every disclosed feature be present in every claim. Further, the specific references to grooves in the specification are in the context of a preferred embodiment, and the relevant case law is clear that a patentee is entitled to claims covering more than just the preferred embodiment of the invention. By way of example only, there is no mention of grooves in the originally-filed specification in the discussion of the prior art, in the description of the need in the art that the claimed inventions were designed to solve, in certain paragraphs in the summary of the invention, and in the first object of the invention. Further, the originally-filed specification closes with the specific statement that the invention is described in the context of a preferred embodiment only. As a result, the inventors did not limit their invention to embodiments containing grooves, and the written description of the originally-filed specification therefore supports claims that do not require grooves. (Kesan Depo. 237:21-246.5.)

Maytag’s Appendix, 337-38 (Kesan Affidavit, ¶¶ 3-4). Unlike Dr. Hall, Prof. Kesan does purport to provide reasoning and support from the written description for his opinions. Nevertheless, to the extent that his opinions are only legal conclusions—as is the case with his opinions about what the law makes clear and his further opinions about what constitutes an adequate written description—Prof. Kesan’s opinions can properly be excluded from the summary judgment record. *See In re Acceptance Ins. Cos. Sec. Litig.*, 423 F.3d at 905 (“[W]hen the expert opinions are little more than legal conclusions, a district court should

not be held to have abused its discretion by excluding such statements [from the summary judgment record].”). Moreover, to the extent that Prof. Kesan’s legal conclusions, including his conclusion that “teardrop-shaped grooves” are identified in the written description only as part of a “preferred embodiment,” are contrary to this court’s interpretation of the written description in light of *Gentry Gallery, Tronzo*, and *Johnson Worldwide Associates*, concerning the scope of a written description that describes only one form of a limitation and touts the advantages of that one form and never refers to the “teardrop-shaped grooves” in any reference to specific structures as only “preferred embodiments,” Prof. Kesan’s legal conclusions must be disregarded. Again, the court concludes that Prof. Kesan’s opinions on this point have no adequate support, would not be helpful to the trier of fact, and as such, fail to generate genuine issues of material fact on the question of the scope of the written description that would preclude summary judgment. See *In re Acceptance Ins. Cos. Sec. Litig.*, 423 F.3d at 905; *Larson*, 414 F.3d at 941; *Eckelkamp*, 315 F.3d at 868.

In summary, Maytag offers only expert opinions that are conclusory and contrary to the written description and which, therefore, cannot generate genuine issues of material fact that would preclude summary judgment. Cf. *Tronzo*, 156 F.3d at 1159-60 (rejecting, albeit after trial, one expert’s opinion that the description inherently disclosed cups of other shapes, because the rationale for that expert’s claim did not provide sufficient support for the generic claims of the patent, while another expert’s contrary opinion that the description disclosed only one shape, and nothing more, was “consistent with the express language in the . . . specification”). Therefore, for the reasons stated, the court finds that Electrolux is entitled to summary judgment in its favor on Count II of its Counterclaim and a declaration that the asserted claims of the patents-in-suit are invalid for failure of the patents to satisfy the “written description” requirement of 35 U.S.C. § 112.

b. Lack of enablement

i. Arguments of the parties. Electrolux next contends that Claims 26 and 27 of the '909 patent are invalid, because they fail to comply with the "enablement" requirement of 35 U.S.C. § 112. Electrolux contends that Claim 26 is not enabled, because, as even Maytag admits, the disclosure of Maytag's invention does not teach one of ordinary skill in the art how to make a plastic washing machine basket that lacks knit lines on the inner surface. Electrolux notes that this court refused to read into the definition of a knit line a limitation that the knit line be "visible." Electrolux points out that, although the specification of the '909 patent purports to teach how to "substantially eliminate" knit lines through use of teardrop-shaped depressions, it does not purport to eliminate knit lines altogether. Indeed, Electrolux contends that it is undisputed that knit lines cannot be eliminated entirely when two plastic flow fronts meet. Electrolux also contends that Claim 27 is not enabled, because the written description of the '909 patent does not provide any explanation whatsoever as to how burrs can be eliminated from the apertures of a plastic basket. Electrolux points out that burrs at the apertures are mentioned only twice in the specification, but neither reference provides any indication or instruction as to how burrs can be eliminated entirely from a plastic washing machine basket, as required by Claim 27.

In response, Maytag argues that, because enablement is based on underlying factual inquiries, the issue is rarely ripe for summary judgment. Moreover, Maytag argues that Electrolux is overlooking qualifying language in Claim 26, which does not claim that the basket must lack knit lines entirely, but that the basket must lack knit lines "on the inner surface" of the sidewall. Maytag contends that, contrary to Electrolux's assertions, the specification teaches that use of teardrop-shaped grooves in combination with core pins having beveled tips is one way to prevent the formation of knit lines on the inner surface

of the basket. Maytag also contends that there is evidence in the record that the methods described in the patents-in-suit *do* prevent formation of knit lines on the inner surface of the basket, including Maytag's commercial embodiment of the '909 patent. However, Maytag also reurges its contention that, in the context of the patent, the claim term at issue must be construed to mean *visible* knit lines, and that the patent is unquestionably enabled under this construction. Maytag also contends that the '909 patent teaches how to make and use a plastic washing machine basket that lacks burrs at the apertures, as claimed in Claim 27. Maytag contends that the patent teaches how to form the apertures during the molding process using core pins, and that, so long as the core pins are not worn or damaged, no burrs are formed at the apertures. Maytag asserts that Electrolux's technical expert conceded this point in his deposition. Thus, Maytag contends that Claim 27 is also enabled.

In reply, Electrolux contends that Maytag has failed to generate any genuine issues of material fact that knit lines are not formed in the basket, so that Claim 26 is not enabled. Electrolux points out that the testimony of the inventor on which Maytag relies, when read in its full context, suggests, at most, the expert's belief that the purported invention eliminates *visible* knit lines, because he conceded that some kind of knit line always exists when flow fronts of plastic meet and he did not test any basket to determine whether there were knit lines that were not visible to the naked eye. Electrolux contends that Maytag's argument is just a backdoor attempt to get the court to revisit its construction of "knit lines," which rejected a "visible" limitation. Electrolux also argues that Maytag has not generated any genuine issues of material fact that Claim 27 is enabled. At most, Electrolux contends that the evidence to which Maytag has pointed acknowledges that, in a perfectly constructed mold, it would be *possible* to eliminate burrs at the apertures, but

that evidence does not show that the '909 patent discloses such a perfectly constructed mold.

ii. Applicable law. The Federal Circuit Court of Appeals explained in *University of Rochester v. G.D. Searle & Co., Inc.*, 358 F.3d 916 (Fed. Cir.), *cert. denied*, 543 U.S. 1015 (2004), that, in addition to the “written description” requirement, 35 U.S.C. § 112 requires that “[t]he specification shall contain a written description . . . of the manner and process of making and using it [*i.e.*, the invention] in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same.” *University of Rochester*, 358 F.3d at 921. The court also explained that this requirement is identified “[i]n common parlance, as well as in our and our predecessor court’s case law, . . . as . . . the ‘enablement requirement.’” *Id.*

The Federal Circuit Court of Appeals has explained that, “[i]n order to enable the claims of a patent pursuant to § 112, the patent specification must teach those of ordinary skill in the art ‘how to make and use the full scope of the claimed invention without undue experimentation.’” *Liquid Dynamics Corp. v. Vaughan Co., Inc.*, 449 F.3d 1209, 1224 (Fed. Cir. 2006) (quoting *Bruning v. Hirose*, 161 F.3d 681, 686 (Fed. Cir. 1998)). “Some experimentation is permissible although it cannot be unduly excessive.” *Id.* (citing *Hybritech, Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 1384 (Fed. Cir. 1986)). Somewhat more specifically,

Section 112 requires that the patent specification enable “those skilled in the art to make and use the full scope of the claimed invention without ‘undue experimentation’” in order to extract meaningful disclosure of the invention and, by this disclosure, advance the technical arts. *Koito Mfg.*, 381 F.3d at 1155 (quoting *Genentech, Inc. v. Novo Nordisk A/S*, 108 F.3d 1361, 1365 (Fed. Cir. 1997) (citation omitted)). Because such a

disclosure simultaneously puts those skilled in the art on notice of the enforceable boundary of the commercial patent right, the law further makes the enabling disclosure operational as a limitation on claim validity. “The scope of [patent] claims must be less than or equal to the scope of the enablement. The scope of enablement, in turn, is that which is disclosed in the specification plus the scope of what would be known to one of ordinary skill in the art without undue experimentation.” *Nat’l Recovery*, 166 F.3d at 1196; *see also In re Goodman*, 11 F.3d 1046, 1050 (Fed. Cir. 1993) (“[T]he specification must teach those of skill in the art ‘how to make and how to use the invention as broadly as it is claimed’.”); *In re Fisher*, 57 C.C.P.A. 1099, 427 F.2d 833, 839 (1970) (“[T]he scope of the claims must bear a reasonable correlation to the scope of enablement provided by the specification to persons of ordinary skill in the art.”).

Invitrogen Corp., 429 F.3d at 1070-71 (footnote omitted).

Because patents are presumed to be valid, invalidity for lack of enablement must be proved by clear and convincing evidence. *Chiron Corp.*, 363 F.3d at 1253. Enablement is a question of law, which the Federal Circuit Court of Appeals will ultimately review *de novo*, but it is based on factual findings that the appellate court will review for clear error. *Liquid Dynamics Corp.*, 449 F.3d at 1224; *Invitrogen Corp.*, 429 F.3d at 1070; *Chiron Corp.*, 363 F.3d at 1253; *Bruning*, 161 F.3d at 686. Where the underlying inquiry is inherently factual, the appellate court will “look to whether a reasonable jury could have made the underlying factual findings necessary to provide substantial evidence in support of its conclusion.” *Id.* (quoting *BJ Servs. Co. v. Halliburton Energy Servs., Inc.*, 338 F.3d 1368, 1371-72 (Fed. Cir. 2003)).

iii. Application of the law. Claim 26 of the ‘909 patent claims “[t]he plastic washing machine basket of claim **25**, wherein the basket lacks knit lines on the inner surface.” Thus, the question for enablement of Claim 26 is whether the specification of

the '909 patent would “teach those of ordinary skill in the art ‘how to make and use the full scope of [this] claimed invention without undue experimentation.’” *Id.* (quoting *Bruning*, 161 F.3d at 686).

Electrolux is correct that in one reference, the written description only purports to explain how to “*substantially eliminate* the formation of knit lines.” See the '909 patent, col. 6, *ll.* 55-59 (“As previously stated, the core pins **191** are arranged in a spaced and alternate fashion such that the plastic material is permitted to flow around tips **193** and teardrop-shaped projections **132** in a streamlined manner to thereby *substantially eliminate* the formation of knit lines.”) (emphasis added). This statement does not “enable” a patent claim that the plastic washing machine basket “lacks knit lines on the inner surface,” where the parties have agreed that “lacks” means “without,” not “substantially without,” the claimed structure.

On the other hand, contrary to Electrolux’s contention, the written description does elsewhere at least *purport* to “teach those of ordinary skill in the art ‘how to make and use the full scope of the claimed invention without undue experimentation.’” *Liquid Dynamics Corp.*, 449 F.3d at 1224 (quoting *Bruning*, 161 F.3d at 686). The written description purports to explain how to make a basket “without creating knit lines” and how to “eliminate[] knit lines,” apparently entirely. See *id.* at col. 5, *ll.* 48-56 (“It is important to note that the teardrop-shaped projections **132** permit the plastic material to flow around core pins **191** *without creating knit lines* which would inherently be formed without the presence of the teardrop-shaped projections **132**. Projections **132** actually create a wind tunnel or turbulence effect for the plastic material which *eliminates the knit lines* associated with prior known molding arrangements and thereby basket **2** can be formed with a smooth inner surface **41**.”) (emphasis added). Thus, the scope of Claim 26 is less than or equal to the scope of the purported enablement, as disclosed in the specification. *Invitrogen*

Corp., 429 F.3d at 1070-71 (stating this step as part of the standard for determining enablement, citing *National Recovery*, 166 F.3d at 1196).

What the court finds to be the dispositive question, however, is the scope of the actual enablement—whether what the specification purports to enable is actually “disclosed in the specification plus the scope of what would be known to one of ordinary skill in the art without undue experimentation.” *Id.* (remaining step for determining enablement, quoting *National Recovery*, 166 F.3d at 1196). In other words, the question is whether what the description purports to enable is even possible, let alone something that could be accomplished using the claimed invention by one of ordinary skill in the art without undue experimentation. Electrolux has marshaled more than sufficient evidence that the complete elimination of *all* knit lines, not just *visible* knit lines, where two flow fronts of plastic material meet, is not possible and is not, in fact, accomplished by the claimed invention. *See Hartnagel*, 953 F.2d at 395 (the movant for summary judgment bears “the initial responsibility of informing the district court of the basis for its motion and identifying those portions of the record which show lack of a genuine issue”). This evidence includes substantial evidence that those of ordinary skill in the art would not know how (or whether) the claimed process actually eliminates knit lines entirely, where those of ordinary skill in the art recognize that knit lines are inevitable when two flow fronts of plastic material meet, as well as concessions by Maytag’s own witnesses that, although no knit lines are apparent to the naked eye on the inner surface of the basket purportedly embodying the invention in the ‘909 patent, it is possible that knit lines not visible to the naked eye are still present.

Although Maytag attempts to meet its burden as the party resisting summary judgment to designate “specific facts showing that there is a genuine issue for trial” that the description does, indeed, enable a basket that lacks knit lines, *see* FED. R. CIV. P.

56(e); *Celotex*, 477 U.S. at 324, the evidence to which Maytag points does not support the necessary inferences. Specifically, the deposition testimony of one of the co-inventors of the '909 patent, Mr. P. Randall Gray, which Maytag asserts demonstrates, or at least generates a genuine issue of material fact, that the invention eliminates knit lines, is not actually so categorical, when considered in its entirety. In the testimony to which Maytag points, Mr. Gray does appear to suggest that the invention eliminates knit lines. However, the testimony immediately following the portion cited by Maytag contains Mr. Gray's express reservations that knit lines may not be eliminated in their "entirety," that it is "possible" that there are still knit lines on the inner surface of the basket that just cannot be seen, and that no one performed any tests to determine whether knit lines (not just visible knit lines) were entirely eliminated. *See* Maytag's Appendix at 183 (Deposition of Mr. Gray, pp. 50-53). Thus, no factfinder could reasonably infer from Mr. Gray's testimony, read in its entirety, that knit lines, not just *visible* knit lines, are entirely eliminated by the invention described in the '909 patent, notwithstanding the categorical language of the description that knit lines are "eliminated."

At the oral arguments, Maytag essentially conceded that, if "knit lines" means any and all knit lines, and not just *visible* knit lines, this court's analysis is correct. However, Maytag reurged its contentions that, in context, what the patent claims is the lack of *visible* knit lines. After the *Markman* hearing, this court construed the claim term "knit lines" to mean *any* "lines formed when two flow fronts of molten plastic meet during the molding operation," not just "*visible* lines formed when two flow fronts of molten plastic meet during the molding operation." The court finds that Maytag has not presented any persuasive reason for revisiting that construction.

Thus, Maytag has failed to meet its burden, as the party resisting summary judgment, to designate "specific facts showing that there is a genuine issue for trial" that

the description enables manufacture of a plastic washing machine basket that “lacks knit lines” as claimed in Claim 26. FED. R. CIV. P. 56(e); *Celotex*, 477 U.S. at 324. Therefore, Claim 26 of the ‘909 patent is invalid, because it is not enabled by the specification of the ‘909 patent.

Claim 27 of the ‘909 patent is invalid for similar, and more clear cut, reasons. Claim 27 of the ‘909 patent claims “[t]he plastic washing machine basket of claim **25**, wherein the basket lacks burrs at the apertures.” Electrolux is correct that no portion of the written description purports to explain how the claimed invention will result in a plastic washing machine basket that “lacks burrs at the apertures.” “Burrs” are mentioned in the Background Of The Invention as a shortcoming of a manufacturing method that requires perforating holes during a subsequent manufacturing step. *See* the ‘909 patent, col. 1, *ll.* 26-30 (“Alternatively, it has also been proposed to mold a plastic washing basket as a unitary structure and then perforate the holes during a subsequent manufacturing step. This method leaves burrs and sharp edges that would result in damage to garments washed in the basket.”). This reference to “burrs,” however, does not explain how the claimed invention avoids the problem identified. The only other mention in the written description of anything resembling “burrs at the apertures,” which the court construed as “rough areas at the apertures remaining after material is shaped, cut, cast, or drilled,” is not an explanation of how to prevent their occurrence, but how to avoid snagging clothes on them, which can only reasonably be read as an acknowledgment that burrs do or can remain at the apertures even in the claimed invention. *See id.* at col. 6, *ll.* 64-67 (“In addition, since holes **44** are recessed within the teardrop-shaped grooves **50**, any edges on the holes **44** will be prevented from snagging clothes placed in basket **2**.”). Thus, the scope of a patent claim that the invention “lacks burrs at the apertures” plainly exceeds the scope of the enablement, where the specification does not disclose *any* part of the invention

that enables the claimed limitation. *Invitrogen Corp.*, 429 F.3d at 1070-71 (stating this step as part of the standard for determining enablement, citing *National Recovery*, 166 F.3d at 1196).

Maytag attempts to generate a genuine issue of material fact by pointing to deposition testimony of Electrolux's expert, Robert Dealey, to the effect that, if a mold is perfectly constructed, it would be possible to have burrs absent from the apertures. Maytag's Appendix at 173 (Deposition of Mr. Dealy at p. 155, *ll.* 6-9). This evidence does not generate the necessary genuine issue of material fact, however. First, the testimony does not point to any part of the specification that purports to enable the claimed limitation. *See Invitrogen Corp.*, 429 F.3d at 1070 ("Section 112 requires *that the patent specification* enable 'those skilled in the art to make and use the full scope of the claimed invention without "undue experimentation."') (emphasis added). Second, the testimony does no more than suggest that *any molding apparatus*, if "perfectly constructed," rather than *the claimed molding apparatus*, could accomplish the claimed limitation, so that the claimed invention is not responsible for the claimed result.

At the oral arguments, Maytag asserted that, in context, the '909 patent sought to eliminate burrs caused by perforating or punching the holes in the washing machine basket in a separate manufacturing process and that, using the unitary molding process disclosed, there are nowhere near the number of burrs left from perforating or punching the holes. This argument is essentially another attempt to read "lacks" to mean "substantially lacks," which is not what the parties agreed "lacks" means nor what the pertinent claim claims. Moreover, the fundamental problem would remain: No part of the specification purports to enable the claimed limitation by explaining how the invention eliminates burrs at the apertures.

Therefore, Claim 27 of the '909 patent is also invalid, because it is not enabled by the specification of the '909 patent.

Because the court finds that Claims 26 and 27 of the '909 patent are invalid for lack of "enablement," Electrolux is entitled to summary judgment in its favor on Count II of its Counterclaim to the extent that the court will declare that Claims 26 and 27 of the '909 patent are invalid for failure to satisfy the "enablement" requirement of 35 U.S.C. § 112.

2. *Other issues*

The parties have raised numerous other issues in their motions for summary judgment, including Electrolux's "invalidity" issues involving "anticipation," "obviousness," and "the on-sale bar"; Electrolux's contention that it does not infringe the patents-in-suit as a matter of law; Electrolux's contention that infringement of valid patents, if any could be found, was not "willful"; and Maytag's contentions that Electrolux has infringed Claims 24 and 25 of the '909 patent as a matter of law. As the court suggested in its order of August 25, 2006, requesting that the parties focus their oral arguments on whether or not the patents-in-suit satisfy the "written description" and "enablement" requirements of 35 U.S.C. § 112, the court suspects that all of the remaining issues are subject to genuine issues of material fact. However, the court finds that its determination that the patents-in-suit are invalid on two of the grounds asserted makes it unnecessary for the court to reach any other issues. Although a decision of non-infringement would not moot the separate question of invalidity, because invalidity involves issues beyond the initial claim of infringement that are not disposed of by a decision of non-infringement, *see, e.g., Fort James Corp. v. Solo Cup Co.*, 412 F.3d 1340, 1348 (Fed. Cir. 2005) (citing, *inter alia*, *Cardinal Chem. Co. v. Morton Int'l, Inc.*, 508 U.S. 83, 95-96 (1993)), a determination that patents-in-suit are invalid on at least one ground *does* moot other invalidity and infringement issues. *See, e.g., Princeton*

Biochems., Inc. v. Beckman Coulter, Inc., 411 F.3d 1332, 1339-40 (Fed. Cir. 2005) (“Because claim 32 is invalid for obviousness, this court need not reach the issues of prior invention and infringement.”); *Medrad, Inc. v. MRI Devices Corp.*, 401 F.3d 1313, 1322 (Fed. Cir. 2004) (“Because we have sustained the judgment that Medrad’s asserted claims are invalid, th[e] [infringement] issue is moot.”); *Lough v. Brunswick Corp.*, 86 F.3d 1113, 1123 (Fed. Cir. 1996) (“No further public interest is served by our resolving an infringement question after a determination that the patent is invalid.”). Moreover, an invalid claim cannot be infringed, so that Maytag cannot prevail on its infringement claims. *Richdel, Inc., v. Sunspool Corp.*, 714 F.2d 1573, 1580 (Fed. Cir. 1983) (“The claim being invalid, there is nothing to be infringed.”). At the oral arguments, the parties agreed that, if the court adhered to its tentative conclusions that the pertinent claims of the patents are invalid for failure to meet the “written description” requirement or the “enablement” requirement of 35 U.S.C. § 112, then remaining claims are moot.

Therefore, the court will not reach the remaining issues raised in the parties’ motions for summary judgment. However, judgment shall enter that Maytag take nothing on its infringement claims, because the findings of invalidity preclude any finding of infringement.

III. CONCLUSION

UPON THE FOREGOING,

1. Electrolux’s April 28, 2006, Motion For Summary Judgment (docket no. 139) is **granted** to the extent that Electrolux is entitled to summary judgment on Count II of its Counterclaim, and the court finds and declares that, as a matter of law, the asserted claims of the ‘909 patent and the ‘809 patent are invalid for failure to satisfy the “written description” requirement of 35 U.S.C. § 112, and Claims 26 and 27 of the ‘909 patent are

invalid for failure to satisfy the “enablement” requirement of 35 U.S.C. § 112. The motion is otherwise **denied as moot**.

2. Maytag’s April 28, 2006, Motion For Partial Summary Judgment Of Infringement Of Claims 24 & 25 Of U.S. Patent No. 5,881,909 (docket no. 144) is **denied in its entirety as moot**, owing to the invalidity of the asserted claims of the ‘909 patent.

3. Maytag’s May 26, 2006, Motion To Strike Certain Paragraphs Of Electrolux Home Products, Inc.’s [sic] Corrected Statement of Undisputed Material Facts (docket no. 157) is **denied as moot**.

4. Maytag’s June 9, 2006, Motion To Strike Certain Paragraphs Of Electrolux Home Products, Inc.’s [sic] Purported Statement Of Material Facts That Preclude Summary Judgment Of Infringement Of Claims 24 And 25 Of U.S. Patent 5,881,909 (docket no. 161) is **denied as moot**.

5. Electrolux’s June 30, 2006, Motion To Strike Certain Paragraphs From Maytag’s Purported Statements Of Fact (docket no. 176) is **denied as moot**.

6. Maytag’s August 7, 2006, Motion To Strike Electrolux Home Products, Inc.’s [sic] Amended Response To Maytag’s Statement Of Undisputed Material Of [sic] Fact No. 48 (docket no. 201) is **denied as moot**.

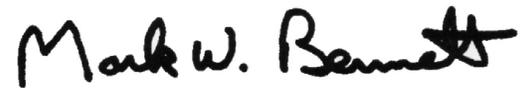
7. Electrolux’s August 16, 2006, Motion For Leave To File The Third Supplemental Appendix In Support Of [Its] Motion For Summary Judgment (docket no. 205) is **granted**.

IT IS FURTHER ORDERED, that Maytag shall take nothing on all claims in Maytag’s July 23, 2004, Complaint (docket no. 2); that declaratory judgment, as set forth in paragraph 1 above, shall enter in favor of Electrolux and against Maytag on Count II of Electrolux’s October 25, 2004, Counterclaim (docket no. 10); and that Electrolux shall take nothing on Count I of its October 25, 2004, Counterclaim (docket no. 10).

Judgment shall enter accordingly.

IT IS SO ORDERED.

DATED this 8th day of September, 2006.

Handwritten signature of Mark W. Bennett in black ink.

MARK W. BENNETT
CHIEF JUDGE, U. S. DISTRICT COURT
NORTHERN DISTRICT OF IOWA