

# United States Court of Appeals for the Federal Circuit

05-1020

J. OLE SORENSEN and JENS E. SORENSEN  
(as Trustee of the Sorensen Research and Development Trust),

Appellants,

v.

INTERNATIONAL TRADE COMMISSION,

Appellee,

and

MERCEDES-BENZ USA, LLC,

Intervenor.

Boris Zelkind, Zelkind & Shackelford LLP, of San Diego, California, argued for appellants. With him on the brief was Patricia A. Shackelford.

Michael K. Haldenstein, Attorney, Office of General Counsel, United States International Trade Commission, of Washington, DC, argued for appellee. With him on the brief were James M. Lyons, General Counsel, Andrea C. Casson, Acting Assistant General Counsel, and Irene H. Chen, Attorney.

David M. Schnorrenberg, Crowell & Moring LLP, of Washington, DC, argued for intervenor. With him on the brief were Donald D. Evenson and Amy B. Newman.

Appealed from: United States International Trade Commission

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DECIDED: October 31, 2005

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Before MICHEL, Chief Judge, RADER, and LINN, Circuit Judges.

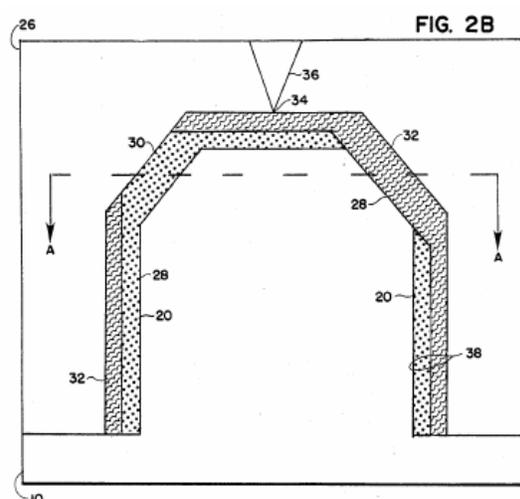
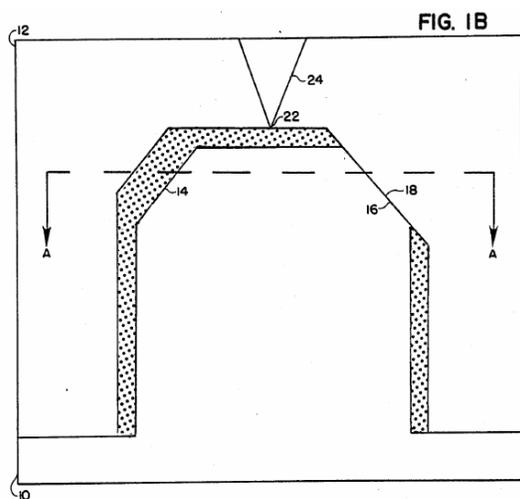
RADER, Circuit Judge.

Following an investigation under 19 U.S.C. § 1337, the United States International Trade Commission found no infringement of United States Patent No. 4,935,184 (filed July 27, 1989) ('184 patent), which covers injection molded products. In the Matter of Certain Auto. Tail Light Lenses and Prods., Inv. No. 337-TA-502, Notice of Final Initial Determination (July 9, 2004) (Initial Determination); Notice of Final Determination (Aug. 20, 2004) (Final Determination). Ole Sorensen had alleged that certain models of imported Mercedes-Benz automobiles contained injection-molded laminated tail lights that

were made by a process that infringed the '184 patent. The Commission found no infringement because under its interpretation of one limitation present in all the claims of that patent, the molded materials must differ in some characteristic other than color. The accused infringer, however, used materials that differed only in color. Therefore, and without analysis of whether other limitations of relevant claims of the '184 patent were met by the accused products, the Commission found no domestic injury. Because the Commission erred in its interpretation of the relevant limitation, this court reverses the determination of that limitation, vacates the judgment of non-infringement, and remands for further proceedings on infringement and injury.

I.

The '184 patent, "Stabilized Injection Molding When Using a Common Mold Part with Separate Complimentary [sic] Mold Parts," claims a method of spacing mold sections during sequential steps of plastic injection molding. These figures from the patent illustrate a two-step sequential molding process.



In Fig. 1B, plastic material 14 is first injected through a nozzle and aperture 24

and 22, and solidifies between the common mold part 10 and a first mold cavity 12. Then, in Fig. 2B, the solidified plastic 20, together with the common mold part 10, is placed into a second mold cavity 26. In a second molding step, as shown in Fig. 2B, material 32 is injected through 36 and 34. In this step, surfaces 30 of the first molded plastic bear against complementary surfaces of the new mold cavity. The unique geometry of the inventive method aligns the first casting with the second mold and stabilizes both. When the second injection solidifies, the finished part is a solid lamination of the second and first plastic materials, 20 and 32 in Fig. 2B.

Sorensen asserted that Mercedes infringed claims 1, 6, 8, and 10 of the '184 patent. Claim 1--an independent claim upon which claims 6, 8, and 10 depend--recites in pertinent part:

1. A method of cyclic injection molding in thin-walled hollow, plastic product having a closed end and an open end with laminated walls terminating in a rim at the open end, utilizing a first mold cavity and a second mold cavity, the first mold cavity being defined by a first common mold part and a first complementary mold part, and the second mold cavity being defined by the first common mold part and a second complementary mold part, the method comprising the steps of

. . . .

(e) injecting a second plastic material having different characteristics than the first plastic material into the second mold cavity while the first plastic material component is contained therein . . . .

('184 patent, col. 9, ll. 30-68; col. 10, ll. 1-13) (underlined text shows disputed claim language). When originally filed, the language of step (e) provided: "injecting a second plastic material into the second mold cavity while the first

plastic material component is contained therein.” The applicant added the disputed claim language involving “different characteristics” to step (e) during prosecution. Mercedes and Sorensen differ on the interpretation of this phrase.

The Commission’s administrative judge found that the term “different characteristics” refers to plastics that have different molecular properties, but could not refer to different colors of the same material. Mercedes’ accused product is an automobile tail light lens that is a lamination of two plastics that are different only in color. Hence, under this claim construction, the administrative judge found that this accused product did not satisfy the “different characteristics” limitation.

## II.

This court reviews legal determinations in section 337 investigations, such as claim construction, without deference. Checkpoint Sys., Inc. v. U.S. Int’l Trade Comm’n, 54 F.3d 756, 760 (Fed. Cir. 1995). This court reviews the factual determination of infringement by the International Trade Commission for substantial evidence. 19 U.S.C. § 1337(c) (2000); 5 U.S.C. § 706(2)(E) (2000); Tandon Corp. v. U.S. Int’l Trade Comm’n, 831 F.2d 1017, 1019 (Fed. Cir. 1987). Substantial evidence is “such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.” Enercon GmbH v. Int’l Trade Comm’n, 151 F.3d 1376, 1381 (Fed. Cir. 1998).

### Claim Interpretation

In construing the claims of a patent, “[t]he inquiry into how a person of ordinary skill in the art understands a claim term provides an objective baseline

from which to begin claim interpretation.” Phillips v. AWH Corp., 415 F.3d 1303, 1313 (Fed. Cir. 2005) (en banc). “[T]he person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” Id.

During prosecution, a patent applicant may consistently and clearly use a term in a manner either more or less expansive than it is used in the relevant art, thereby expanding or limiting the scope of the term in the context of the patent claims. However, in order to disavow claim scope, a patent applicant must clearly and unambiguously express surrender of subject matter during prosecution. Middleton, Inc. v. Minn. Mining & Mfg. Co., 311 F.3d 1384, 1388 (Fed. Cir. 2002).

In construing patent claims, a court should consult the patent’s prosecution history so that the court can exclude any interpretation that was disclaimed during prosecution. Phillips, 415 F.3d at 1317. Disclaimers based on disavowing actions or statements during prosecution, however, must be both clear and unmistakable. Omega Eng’g, Inc. v. Raytek Corp., 334 F.3d 1314, 1326 (Fed. Cir. 2003). Moreover, “it is the applicant, not the examiner, who must give up or disclaim subject matter that would otherwise fall within the scope of the claims.” Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc., 381 F.3d 1111, 1124 (Fed. Cir. 2004); see also Bell Atl. Network Servs., Inc. v. Covad Comm’c’ns Group, Inc., 262 F.3d 1258, 1273 (Fed. Cir. 2001) (Holding that,

unlike the statement of an applicant, the statements of an examiner will not necessarily limit a claim.)

In this case, the language in claim 1(e) requires that the first and second materials have “different characteristics.” The claim does not limit these differences to any particular sub-set of the broad term “characteristics.” In other words, according to the claim language any difference in characteristics between the two injected materials would satisfy the claim language. Thus, a difference in color alone would satisfy the “different characteristics” limitation. The color would be the characteristic that differs.

In the context of the invention, the primary point of a sequential molding method would seem to call for some differences in the separately molded materials. Obviously a product made of a single uniform material could be produced in a single molding step. As long as the sequential materials differ in some respect, however, the patent does not specify any particular characteristic that must differ to satisfy the “different characteristics” limitation. The breadth of the claim language suggests that any difference in characteristics justifies the sequential molding process. As long as the characteristics differ, the patent does not specify further the nature of the difference.

To reinforce this interpretation of the claim language, the specification of the '184 patent states: “The first and second plastic materials may be either the same material or different materials.” '184 patent, col. 9, ll. 17-18. This passage emphasizes that the material injected into the molds may be “the same.” This reference suggests again that the first and second injection could use plastic with

the same molecular structure. In that case, the “different characteristics” limitation would require some difference other than molecular structure, such as color.

In the specification the inventor also offers examples of a number of characteristic differences in materials that would justify separate molding steps. One of these is transparency. See '184 patent, col. 3, ll. 11-43. Differences in transparency, like differences in color, are differences that may or may not be associated with molecular structure. Thus, the inventor made clear in the examples as well that a difference characterizable in terms other than molecular structure would satisfy the “different characteristics” limitation. However, the inventor does not limit the invention to these examples. In other words, the inventor does not disclaim, in the specification or claims, any particular difference in characteristics of the materials used in the sequential molding steps. In sum, the claim language and the specification show that color differences would suffice to satisfy the broad “different characteristics” limitation.

The prosecution history of the '184 patent similarly shows no disavowal of claim scope in relation to material characteristics. The inventor amended claim 1 a number of times in response to rejections for obviousness over prior art. In the original application, claim 1(b) specified “injecting a first plastic material into the first mold cavity,” and claim 1(e) specified “injecting a second plastic material into the second mold cavity while the first plastic material component is contained therein.” The examiner rejected claim 1 under 35 U.S.C. § 103 as obvious, citing U.S. Patent Nos. 4,422,995 (filed Dec. 7, 1981); 3,543,338 (filed Nov. 6, 1969);

3,832,110 (filed June 16, 1972); and 4,459,256 (filed March 22, 1982). To the examiner, these references would have made it obvious at the time of invention to use “the concept of a stabilizing region” in a multi-step molding process. In the rejection, the examiner noted that “the particular materials selected to be molded are a mere matter of choice depending on the product desired and are of no patentable consequence to the claimed process.” This comment showed that the examiner based the obviousness rejection upon stabilization in a multi-step process, not on the characteristics of the materials used in the injections.

On January 11, 1989, the inventor attempted to overcome the obviousness rejection by amending claim 1 to specify that the final product would require laminated walls. The inventor also modified steps 1(b) and 1(c) to specify that the first or second plastic material would be injected until it reaches the parting line between the common mold part and the complementary mold part. On April 27, 1989, the examiner again rejected the amended claims for obviousness over the same prior art.

On July 11, 1989, the examiner had a telephone interview with the inventor concerning the amended (and rejected) claim 1. The examiner’s record of this interview, in its entirety, is:

Discussed meaning of parting line and fact that two different materials with different properties are used. An amendment changing these limitations may not be entered.

Two weeks later the inventor filed a continuing application, amending claim 1 to include a requirement, in the preamble, that the molded product contain “a closed end and an open end terminating in a rim at the open end,”

and adding the phrase “having different characteristics than the first plastic material” to claim 1(e).<sup>1</sup> The inventor also amended the abstract with the addition: “A second plastic material having different characteristics than the first plastic material is injected until it reaches the portion of the second mold cavity that defines the rim of the product to form a laminated wall.” The inventor explained these changes as:

better distinguish[ing] the present invention over the art of record by defining a rim of the molded product, pointing out that both the injection of the first plastic material and the injection of the second plastic material reach the respective portions of the first and second mold cavities that define the rim of the product, and further pointing out that the first and second plastic materials have different characteristics.

The examiner then allowed the claims.

This final exchange between the inventor and the examiner during prosecution appears to have misled the administrative judge. Nevertheless, the exchange in no way shows a clear and unambiguous disavowal of the broad scope of the claim language. In other words, the prosecution history does not disavow the broad scope of the claim language and specification that permit any difference in characteristics, including color. See Omega Eng'g, Inc., 334 F.3d at 1324. On this record, this court perceives no disavowal of scope. The claim thus excludes no specific differences in characteristics, and in particular differences in color, in the molded materials.

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<sup>1</sup> The inventor also changed claims 1(h) and 1(i) to point out that the first and second plastic materials reached the portion of the relevant mold cavity that defines the rim of the product.

## B. Summary Judgment of Infringement

Mercedes conceded, for purposes of the motion for summary determination, that the plastic materials in the accused sequential molding steps for the accused products differ only in color. With this concession, under the correct interpretation of claim 1 of the '184 patent, the molding method used by Mercedes infringe that claim. However, a more complete consideration of the infringement issue is now necessary, so that the district court's summary determination of non-infringement must be vacated.

### CONCLUSION

Because the Commission erred in its interpretation of one limitation of claim 1 of the '184 patent, this court reverses the Commission's interpretation of the relevant claim element, vacates its summary determination of noninfringement, and remands for further proceedings consistent with this action.

### COSTS

Each party shall bear its own costs.

REVERSED-IN-PART, VACATED, and REMANDED