United States District Court,
S.D. New York.

PROCESS RESOURCES CORP. and Peter J. Dronzek, Jr,
Plaintiffs.
v.
DELTA AIR LINES, INC,
Defendant.

No. 98 Civ. 5648(JGK)

Feb. 3, 2000.

Timothy X. Gibson, Hedman, Gibson & Costigan, PC, New York, NY, for the plaintiffs.

Lawrence B. Goodwin, Orrick, Herrington & Sutcliffe, LLP, New York, NY, for the defendant.

OPINION AND ORDER

KOELTL**, J.**

The plaintiffs, Process Resources Corp. ("Process Resources") and Peter J. Dronzek, Jr. ("Dronzek"), bring this action alleging that the defendant, Delta Air Lines, Inc. ("Delta"), has infringed two patents filed by Dronzek and currently assigned to Process Resources. The patents relate to curl resistant sheets for printing in hot laser or thermal transfer printers. The defendant has now moved for summary judgment dismissing the complaint.

The defendant asserts three bases for granting summary judgment: first, the patents-in-suit are allegedly invalid for indefiniteness under 35 U.S.C. s. 112; second, the patents-in-suit are allegedly invalid under 35 U.S.C. s. 102(b) because the claimed invention was actually "on sale" for more than one year prior to the filing of the relevant patent application; and, third, Delta's baggage tags allegedly do not infringe the patents-in-suit. For the reasons explained below, the motion for summary judgment is denied.

I.

A.

The plaintiffs allege that the defendant has infringed U.S. Patent No. 5,418,026 ("the '026 patent") and U.S. Patent No. 5,543,191 ("the '191 patent"). The '191 patent is a continuation of the '026 patent, which was filed on October 10, 1991. A principal object of each claimed invention is "to provide laser printable sheets of labels or tags mounted on backing sheets without the curling problem" associated with prior art. U.S. Patent Nos. 5,418,026, col. 2:18-21; 5,543,191, col. 2:15-17. The plaintiffs allege that the defendant has infringed the second claim of each patent-in-suit.

The '026 patent is entitled "Curl-Resistant Printing Sheet for Labels and Tags." Claim 2 of the '026 patent reads as follows:

A durable sheet adapted for use as a lable which does not curl when heated to temperatures normally encountered in laser or thermal transfer printing, the sheet including at least three layers comprised of:

layer A, which consists essentially of at least one base layer consisting of comprising [sic] a paper, a synthetic paper or a coated film;

layer B, which consists essentially of at least one print receiving layer consisting of a paper, a synthetic paper or a coated film, wherein layer B is adhered to the top face of layer A; and

layer C, which consists essentially of at least one backing layer consisting of a paper, a synthetic paper or a coated film, wherein layer C is adhered to the bottom face of layer A; and wherein

layer B and layer C have the same or substantially the same thermal elongation or contraction characteristics; and wherein

the top surface of layer C comprises a release agent, the bottom surface of layer A comprises a pressure sensitive adhesive and layer B is permanently adhered to layer A.

U.S. Patent No. 5,418,026, col. 7:5-27.

The '191 patent is entitled "Durable Sheets for Printing." Claim 2 of the '191 patent reads as follows:

A durable sheet for printing, the sheet including at least three layers comprised of:

layer A, which consists essentially of at least one base layer consisting of a paper, a synthetic paper or a coated film;

layer B, which consists essentially of at least one print receiving layer consisting of a paper, a synthetic paper or a coated film, wherein layer C [sic; B] is adhered to the top face of layer A; and

layer C, which consists essentially of at least one backing layer consisting of a paper, a synthetic paper or a coated film, wherein layer C is adhered to the bottom face of layer A; and wherein

layer B and the backing C have the same or substantially the same thermal elongation or contraction characteristics; and

wherein the top surface of layer C comprises a release agent, the bottom surface of layer A comprises a pressure sensitive adhesive and layer B is permanently adhered to layer A.

U.S. Patent No. 5,543,191, cols. 6:61-7:13.

The patent specification of each patent also reveals that "[t]hermal elongation and/or contraction characteristics are measured by standard test methods" and that "[i]t is important that the relative values rather than their magnitude receive the most attention." U.S. Patent Nos. 5,418,026, col. 5:36-40; 5,543,191,

col. 5:29-33. The parties agree that the patents-in-suit do not specify the conditions under which the "standard" tests are to be conducted. *See* Local Rule 56.1 Statement of Undisputed Material Facts ("Def. 56.1 St."), para. 17; Plaintiffs' Responses to Defendant[']s Local Civil Rule 56.1 Statement of Undisputed Material Facts ("Pl. 56.1 Resp."), para. 17. The parties also agree that the thermal elongation and contraction characteristics of layers depend upon the conditions under which the layers are tested, and that layers may exhibit different relative thermal elongation and contraction characteristics under different test conditions. *See* Def. 56.1 St., para.para. 9-13; Pl. 56.1 Resp., para.para. 9-13; Deposition of Peter J. Dronzek, Jr. ("Dronzek Depo."), attached as Ex. F to Declaration of Victor G. Hardy, dated May 27, 1999 ("Hardy Decl."), at 126-27, 131-32.

B.

Delta attaches baggage tags to its customers' checked luggage in order that the luggage may be properly routed. The plaintiffs allege that the baggage tags used by Delta infringe the '026 and '191 patents. The parties do not dispute the nature of Delta's baggage tags.

Delta's baggage tags are a three-layer product. The bottom layer is a "release backing layer," that is to say, a backing that can be peeled away although it is adhered to the bottom of the middle layer. *See* Affidavit of Peter J. Dronzek, Jr., dated August 6, 1998 ("Dronzek Aff."), para. 7. The middle layer is a polyethylene cross laminate. *See* id. The top layer, which is permanently adhered to the top of the middle layer and is designed for use in direct thermal printing, FN1 is itself a composite structure: It comprises an overcoat, a thermal coat, an undercoat, and a base paper. *See* Declaration of John R. Fickenscher, dated May 5, 1999 ("Fickenscher Decl."), para. 3; Dronzek Decl., para. 7; Dronzek Depo., at 247-51; Hardy Decl., Ex. AA. The words "Delta Air Lines" are printed in ink on that layer. *See* Dronzek Aff., para. 7, Ex. 2.

FN1. A direct thermal printer prints by selectively applying localized heat, by way of metal pins, to specialized print stock in the configuration of the desired image. When the heat sensitive chemical contained in the print stock is exposed to the heat from the selected pins, it changes shade and the desired image becomes visible on the print stock. By contrast, in laser printing and thermal transfer printing, print, in the form of ink or toner, is physically transferred from the printer to the print stock.

II.

Summary judgment may not be granted unless "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 a judgment as a matter of law." Fed.R.Civ.P. 56(c); *see also* Celotex Corp. v. Catrett, 477 U.S. 317, 322 (1986); Anderson v. Liberty Lobby, Inc., 477 U.S. 242, 247-48 (1986); University of Colorado Foundation, Inc. v. American Cyanamid Co., Nos. 97-1468, 98-1113, 1999 WL 1045095, at *3 (Fed.Cir.1999); Gallo v. Prudential Residential Servs., Ltd. Partnership, 22 F.3d 1219, 1223 (2d Cir.1994). In determining whether summary judgment is appropriate, a court must resolve all ambiguities and draw all reasonable inferences against the moving party. *See* Matsushita Elec. Antis. Co., Ltd. v. Zenith Radio Corp., 475 U.S. 574, 587 (1986) (citing United States v. Diebold, Inc., 369 U.S. 654, 655 (1962)); *see also* University of Colorado Foundation, 1999 WL 1045095, at *3; Gallo, 22 F.3d at 1223. Summary judgment is improper if there is any evidence in the record from any source from which a reasonable inference could be drawn in favor of the nonmoving party. *See* Chambers v. TRM Copy Ctrs. Corp., 43 F.3d 29, 37 (2d Cir.1994). "In considering the motion, the court's responsibility is not to resolve disputed issues of fact but to assess whether there are factual issues to be tried." Knight v. U.S. Fire Ins.

Co., 804 F.2d 9, 11 (2d Cir.1986).

On a motion for summary judgment, once the moving party meets its initial burden of demonstrating the absence of a genuine issue of material fact, the nonmoving party must come forward with specific facts to show there is a factual question that must be resolved at trial. *See* Fed.R.Civ.P. 56(e); *see also* Cornett v. Sheldon, 894 F.Supp. 715, 724 (S.D.N.Y.1995) ("[T]he plaintiff, to avoid summary judgment, must show a genuine issue by presenting evidence that would be sufficient, if all reasonable inferences were drawn in his favor, to establish the existence of that element at trial.") (citing Celotex, 477 U.S. at 322-23). The non-moving party must produce evidence in the record and "may not rely simply on conclusory statements or on contentions that the affidavits supporting the motion are not credible." Ying Jing Gan v. City of New York, 996 F.2d 522, 532 (2d Cir.1993). *See also* Applied Companies v. United States, 144 F.3d 1470, 1475 (Fed.Cir.1998) ("It is well settled that 'a conclusory statement on the ultimate issue does not create a genuine issue of fact." ') (quoting Imperial Tobacco Ltd. v. Philip Morris, Inc., 899 F.2d 1575, 1581 (Fed.Cir.1990)); Scotto v. Almenas, 143 F.3d 105, 114-15 (2d Cir.1998) (collecting cases).

III.

Delta asserts that the patents-in-suit are invalid for failure to comply with the definiteness requirement of 35 U.S.C. s. 112, para. 2. To be valid, a patent must include a specification that concludes "with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention." 35 U.S.C. s. 112, para. 2. Determining whether a claim satisifies this "definiteness requirement" is a question of law. *See* Personalized Media Communications, LLC v. International Trade Commission, 161 F.3d 696, 705 (Fed.Cir.1998); North American Vaccine, Inc. v. American Cyanamid Co., 7 F.3d 1571, 1579 (Fed.Cir.1993).

A patent satisfies the definiteness requirement if "those skilled in the art would understand what is claimed when the claim is read in light of the specification." Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1576 (Fed.Cir.1986); *see also* Personalized Media Communications, 161 F.3d at 705; North American Vaccine, 7 F.3d at 1579. "Every patent is presumed valid. The presumption of validity includes a presumption that the patent complies with s. 112." National Recovery Technologies, Inc. v. Magnetic Separation Systems, Inc., 166 F.3d 1190, 1195 (Fed.Cir.1999) (referring to s. 112, para. 1). *See also* North American Vaccine, 7 F.3d at 1579 (referring to s. 112, para. 2). To overcome the presumption of validity, the party challenging a patent's validity must demonstrate its invalidity by clear and convincing evidence. *See* United States v. Telectronics, 857 F.2d 778, 785 (Fed.Cir.1988) ("A patent is presumed valid, and the burden of proving invalidity, whether under section 112 or otherwise, rests with the challenger. Invalidity must be proven by facts supported by clear and convincing evidence.")); *See also* North American Vaccine, 7 F.3d at 1579.

Each patent discloses a construction of three or more layers in which the top and bottom layers "have the same or substantially the same thermal elongation or contraction characteristics." U.S. Patent Nos. 5,418,026, col. 7:20-22; 5,543,191, col. 7:7-9. Each patent teaches that the "[t]hermal elongation and/or contraction characteristics are measured by standard test methods," but neither patent specifies the conditions under which the "standard" tests are to be conducted. U.S. Patent Nos. 5,418,026, col. 5:36-37; 5,543,191, col. 5:29-30. Delta argues that the failure to specify the relevant test parameters renders the patents indefinite.

There is no dispute that thermal elongation and contraction characteristics vary depending upon test

conditions, and that a pair of layers might fall within the asserted claims when tested under one set of conditions and fall outside the asserted claims when tested under another set of conditions. *See* Def. 56.1 St., para. 10; Pl. 56.1 Resp., para. 10; Dronzek Depo., at 126-27; Deposition of Cortland Burt ("Burt Depo."), attached as Ex. HH to Hardy Decl., at 91, 116, 202. Nor is there any genuine dispute as to the fact that the temperatures encountered in laser and direct thermal printing may range from 150 (deg.)F to 400 (deg.)F or more. *See* Dronzek Depo ., at 295.

Nonetheless, at this stage of the proceedings, Delta has failed to present clear and convincing evidence that those skilled in the art would be unable to understand what is claimed when the claim is read in light of the specification. *See* Orthokinetics, 806 F .2d at 1576. Although Delta has presented evidence that different printers expose printing stock to different temperatures for different lengths of time, Delta has not presented clear and convincing evidence that one skilled in the art could not determine whether the top and bottom layers of a particular three-layer construction had the same or substantially the same thermal elongation or contraction characteristics using standard test methods. Indeed, while Delta has questioned the expert testimony proffered by the plaintiffs, it has failed to present any evidence from an expert or other person skilled in the art to support its contention that the claim lacks definiteness. The plaintiffs, by contrast, have presented expert testimony that "[t]he 'conditions under which testing should take place' are obvious." Rebuttal Expert Report of Cortland Burt ("Burt Report"), attached as Ex. GG to Hardy Decl., at 3. As the plaintiffs' expert explains: "Since the patents clearly instruct one skilled in the art to select materials having 'the same or substantially the same thermal elongation or contraction characteristics' to achieve the invention, and it is well known in the art how to determine these characteristics, the claims are definite...." *Id.,* at 5-6. It cannot be said that Delta has thus far produced clear and convincing evidence that the patents-in-suit are indefinite and therefore invalid under 35 U.S.C. s. 112, para. 2.

IV.

Delta also claims that the patents-in-suit are invalid under the "on sale" bar. A patent is invalid if the patented invention was on sale in the United States more than a year before the relevant patent application was filed. *See* 35 U.S.C. s. 102(b) ("A person shall be entitled to a patent unless ... the invention was ... on sale in this country[ ] more than one year prior to the date of the application for patent in the United States."). Thus, the date one year prior to the date on which the patent application was filed is the "critical date" for purposes of analyzing patent validity under s. 102(b).

Whether the so-called on-sale bar applies in a particular case is a question for the Court: "The ultimate determination that a product was placed on sale under [35 U.S.C. s. 102(b)] is a question of law, based on underlying facts." Tec Air, Inc. v. Denso Mfg. Michigan Inc., 192 F.3d 1353, 1358 (Fed.Cir.1999) (quoting Ferag AG v. Quipp Inc., 45 F.3d 1562, 1566 (Fed.Cir.1995)). *See also* Pfaff v. Wells Electronics, Inc., 119 S.Ct. 304, 311-12 (1998).

A product that is offered for sale can invalidate a particular patent under 35 U.S.C. s. 102(b) only if the product falls within the scope of the challenged patent. *See* Scaltech Inc. v. Retec/Tetra, L.L.C., 178 F.3d 1378, 1383 (Fed.Cir.1999). "Hence, the first determination in the s. 102(b) analysis must be whether the subject of the barring activity met each of the limitations of the claim, and thus was an embodiment of the claimed invention." *Id.*

The party challenging the validity of a patent on on-sale grounds must demonstrate the applicability of the on-sale bar by clear and convincing evidence. *See* Tec Air, 192 F.3d at 1358. The Court of Appeals for the

Federal Circuit has recently held that, as a matter of law, uncorroborated testimonial evidence standing alone cannot constitute clear and convincing evidence sufficient to invalidate a patent under 35 U.S.C. s. 102. *See* Finnigan Corp. v. International Trade Comm., 180 F.3d 1354, 1367 (Fed.Cir.1999). According to the Court of Appeals, "the need for corroboration exists regardless whether the party testifying concerning the invalidating activity is interested in the outcome of the litigation (e.g., because that party is the accused infringer) or is uninterested but testifying on behalf of an interested party." *Id* .

Delta relies on alleged offers for sale by Avery Dennison, Inc. ("Avery") and Print-O-Tape that allegedly occurred prior to October 10, 1990, the critical date for on-sale purposes because the relevant filing date for the patents-in-suit is October 10, 1991. However, there is neither documentary nor physical evidence to support the inference, which Delta seeks to draw from the testimony of the witnesses, that the products that were allegedly offered for sale met each of the limitations of the claims at issue in the patents. The testimony upon which Delta relies falls far short of clear and convincing evidence. FN2

FN2. The plaintiffs also allege that there are material issues of fact as to whether the products at issue from Avery and Print-O-Tape were in fact "on sale" prior to October 10, 1990. It is unnecessary to resolve this dispute for purposes of this motion.

In October and December 1989, Avery, a manufacturer of printing stock, allegedly sent Data Documents, Inc. ("Data Documents"), a company that converts printing stock into finished products, samples of three-layer constructions that were designed to be converted into baggage tags. Each sample construction was meant to be suitable for direct thermal printing. *See* Hardy Decl., Exs. I, J, M, P. In November 1989 and again in March 1990, Avery allegedly offered to sell Data Documents various quantities of the three-layer constructions at various prices. *See* Certification of Timothy X. Gibson, dated May 21, 1999 ("Gibson Cert."), Exs. 9, 11; Hardy Decl., Exs. G, at 153-57, J, K, N, O, P. According to the deposition testimony of two witnesses-Scott Mingus ("Mingus"), a research and development manager for paper-based stock at Avery, and Dennis Francis ("Francis"), an employee of Data Documents-the samples were sent through printers without visible curling. *See* Hardy Decl., Exs. L, at 7, 13-14, Q, at 5, 55-56; *see also* Hardy Decl., Ex. P.

The defendant points to Mr. Dronzek's testimony that if the samples could be run through a printer without curling, they would satisfy the limitations of the asserted claims in the patents-in-suit. *See* Dronzek Depo., at 226-27, 470. There is, however, no documentary evidence to substantiate the witnesses' testimony on this point, and the witnesses acknowledge that curling was, at most, a secondary concern during the testing of the samples. *See* Hardy Decl., Ex. Q, at 134-36. The samples were not retained.

In early 1990, another converter, Print-O-Tape, allegedly offered to sell a three-layer baggage tag to American Airlines. *See* Hardy Decl., Exs. W, Z, at 31, 37-38. In connection with the offer, Print-O-Tape allegedly sent American Airlines sample baggage tags. *See* Hardy Decl., Exs. X, Y. Like the Avery product that was allegedly sent to Data Documents, the Print-O-Tape product was designed for use in direct thermal printing. According to the deposition testimony of Print-O-Tape's president, Carl J. Walliser ("Walliser"), the samples were sent through a printer without visible signs of curling. *See* Hardy Decl., Ex. Z, at 79-80. But, as with the testimony relating to the Avery product, there is no documentary corroboration as to this point and the samples were not retained.

Moreover, the deponents upon whom the defendant relies work for firms that are at least indirectly

interested in the outcome of this case. Mr. Mingus is a senior employee of Avery; Mr. Francis is an employee of Data Documents; and, Mr. Walliser is the president of Print-O-Tape. Using paper stock purchased from Avery, Data Documents currently manufactures baggage tags under a license of the patents-in-suit; in the last half of 1998 alone, Data Documents paid the plaintiff Process Resources over $100,000 in royalties under the license. *See* Hardy Decl., Exs. S, T, U, CC. By the terms of the licensing agreement, however, Data Documents would be relieved of its obligation to pay royalties should this or any other court hold the patents-in-suit to be invalid. *See* Hardy Decl., Ex. S, at para. 3(a). Print-O-Tape, as a potential manufacturer of three-layer baggage tags, has a similar, if less immediate, interest in this litigation.

The testimony of Messrs. Francis, Mingus and Walliser is the only evidence that the samples offered for sale by Avery and Print-O-Tape met every limitation of the asserted claims. Delta has produced no documentary or other evidence to substantiate their testimony that the samples printed without curling. Even if they were not interested in the outcome of the pending litigation, but especially because they are, the uncorroborated testimony of Messrs. Francis, Mingus and Walliser cannot, as a matter of law, constitute the clear and convincing evidence that would have to be presented before the patents-in-suit could be invalidated under 35 U.S.C. s. 102(b). *See* Finnigan, 180 F.3d at 1367; Tec Air, 192 F.3d at 1358; Scaltech, 178 F.3d at 1383.

At oral argument, Delta argued for the first time that the plaintiffs are "estopped" from denying that the samples allegedly offered for sale by Avery did not meet every limitation in the asserted claims. Prior to granting Data Documents a license under the patents-in-suit, the plaintiff Process Resources filed suit against U.S. Airways, a customer of Data Documents. That suit was eventually settled. But, in its complaint, Process Resources alleged that the baggage tags sold by Data Documents to U.S. Airways infringed the same patents as are at issue here. The allegedly infringing baggage tags that Data Documents sold to U.S. Airways were, Delta asserts, constructed from Avery stock substantially similar to the samples that Avery allegedly offered to sell Data Documents in late 1989 and early 1990. Citing Evans Cooling Systems, Inc. v. General Motors Corp., 125 F.3d 1448 (Fed.Cir.1997), Delta argues that, having previously claimed that the patents-in-suit are infringed by baggage tags constructed from printing stock substantially similar to the samples offered for sale prior to the critical date, Process Resources is now precluded from denying that the samples embodied the asserted invention.

The fact that the argument of estoppel was raised for the first time at oral argument would be reason enough to dismiss it. *See* United States v. Barnes, 158 F.3d 662, 672 (2d Cir.1998) ("Normally, we will not consider arguments raised for the first time in a reply brief, let alone [at or] after oral argument.") (quoting with alternation Keefe v. Shalala, 71 F.3d 1060, 1066 n .2 (2d Cir.1995)). In any event, Delta's reliance on *Evans Cooling* is misplaced. In *Evans Cooling,* the product that allegedly triggered the on-sale bar, an automobile engine with a particular cooling system, was precisely the same product that was alleged by the plaintiff to infringe the patent-in-suit. As the court observed, "the entire basis of the lawsuit is ... the patentee's ... contention that the LT1 engine-the device that was put on sale-contains a cooling system that infringes." *Id.,* at 1451. Hence, in *Evans Cooling,* unlike here, the product offered for sale prior to the critical date was, without any deviation, identical to that alleged by the plaintiff to infringe. It was an essential element of the plaintiff's lawsuit to show that the very engine that was on sale more than one year prior to the patent filing was an infringing product. The plaintiffs' suit here, unlike that of the plaintiff in *Evans Cooling,* does not rest upon the allegation that the product allegedly offered for sale infringes. Moreover, in this case, unlike in *Evans Cooling,* the prior allegation that the defendant asserts has preclusive effect was made by the plaintiff in the course of an entirely different litigation, one that was, moreover, settled prior to trial. The fact that Process Resources, in an entirely separate complaint, alleged that a certain product infringed the patents-in-

suit does not preclude Process Resources from now asserting that a distinct, although similar product did not embody the claimed invention.

V.

Finally, Delta argues that even if the patents-in-suit are valid it is entitled to summary judgment on the grounds of non-infringement. Infringement analysis is a two-step process: "The first step is determining the meaning and scope of the patent claims asserted to be infringed. The second step is comparing the properly construed claims to the device accused of infringing." Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed.Cir.1995) (en banc) (citation omitted), *aff'd* 517 U.S. 370 (1996).

Claim construction, the first step in infringement analysis, is a matter of law. "The interpretation and construction of patent claims, which define the scope of the patentee's rights under the patent, is a matter of law exclusively for the court." Id., at 970-71. When the court interprets a patent, "[c]laims are to be read and construed in light of the specification and the prosecution history of the patent." ACS Hosp. Systems, Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577 (Fed.Cir.1984). *See also* Markman, 52 F.3d at 980. Moreover, when possible, claims should be construed in a manner that sustains their validity. *See* ACS Hosp. Systems, 732 F.2d at 1577.

"Absent a special and particular definition created by the patent applicant, terms in a claim are to be given their ordinary and accustomed meaning." Renishaw PLC v. Marposs Societa' Per Azioni, 158 F.3d 1243, 1249 (Fed.Cir.1998). Where a claim includes an unrestricted general term, a court construing the claim should not limit the scope of that term. *See* Johnson Worldwide Assocs., Inc. v. Zebco Corp., 175 F.3d 985, 989 (Fed.Cir.1999) ("General descriptive terms will ordinarily be given their full meaning; modifiers will not be added to broad terms standing alone."); Renishaw, 158 F.3d at 1249 (stating that court should not "add a narrowing modifier before an otherwise general term that stands unmodified in a claim").

Where an analysis of the claims, specification, and file history are sufficient to resolve any ambiguity in a disputed claim term, "it is improper to rely on extrinsic evidence." Vitronics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1583 (Fed.Cir.1996). Where an analysis of the intrinsic evidence does not resolve ambiguity in a claim term, however, a court may consider extrinsic evidence, including "expert and inventor testimony, dictionaries, and learned treatises," so that the court may come " 'to a correct conclusion' as to the 'true meaning of the language employed' in the patent." Markman, 52 F.3d at 980 (quoting Seymour v. Osborne, 78 U.S. (11 Wall.) 516, 546 (1871)).

Delta's non-infringement argument centers on the claim language requiring "at least one print receiving layer consisting of a paper, a synthetic paper or a coated film." U.S. Patent Nos. 5,418,026, col. 7:12-14; 5,543,191, cols. 6:66-7:1.

Delta first argues that its baggage tags cannot infringe because they do not possess "at least one print receiving layer." Delta's baggage tags are designed for use in direct thermal printing. Direct thermal printing uses neither ink nor toner to produce an image, but instead creates an image by causing a chemical reaction to occur within the top layer of the print stock. Delta argues that because direct thermal printing, for which its baggage tags are designed, transfers neither ink nor toner to the printed sheet, its baggage tags do not have a "print receiving layer." This argument is without merit. The top layer of Delta's baggage tags bear the words "Delta Air Lines." These words are printed in ink. Thus, whatever else it may be, the top layer of Delta's baggage tags is a print receiving layer. Moreover, the image that appears on the top layer as a result

of the heat-induced chemical reaction is print and is received as a result of the printing process. That layer is thus accurately described as the "print receiving layer."

Delta also argues that its baggage tags do not infringe because, so Delta argues, the top layer of its tags does not "consist of" "a paper, a synthetic paper or a coated film." The phrase "consisting of" is a term of art in patent law. The phrase is a restrictive one, "closing the claim to the inclusion of materials other than those recited except for impurities ordinarily associated therewith." *Ex parte* Davis and Tuukkanen, 80 U.S.P.Q. 448, 450 (Pat. & Tr. Off. Bd.App.1948). *See also* PPG Industries v. Guardian Industries Corp., 156 F.3d 1351, 1354 (Fed.Cir.1998) (describing claims written in "consisting of" format as "closed"). In light of the claim language, the claim encompasses a baggage tag only if the top layer of the tag is made from "a paper, a synthetic paper or a coated film" and nothing else.

Delta asserts that its baggage tag does not infringe because its top layer, which is designed for use in direct thermal printing, is not "a paper, a synthetic paper or a coated film." Delta maintains that the top layer of its baggage tag is a coated paper, and that coated paper is not included within the meaning of "paper" as that term is used in the asserted claims. Relying heavily on the fact that the adjective "coated" is specifically used elsewhere in the asserted claims to modify the term film, Delta argues that the claims' failure to use "coated" in connection with paper precludes construing the claim to include coated paper.

Delta's argument, however, is contrary to well-established principles of patent construction. Patent claims are to be read in light of the patent specification. *See* Markman, 52 F.3d at 979; ACS Hosp. Systems, 732 F.2d at 1577. Here, the specification of each patent-in-suit states that a "laser or thermal transfer printing enhancing coating ... can be spread on the print receiving face of the top sheet." U.S. Patent Nos. 5,418,026, col. 6:43-47; 5,543,191, col. 6:33-36. Thus, because the patent specification of each patent-in-suit clearly contemplates the use of a coated paper for the top layer, the term "paper" is properly construed to include coated paper.FN3 This result is strengthened by the principle that a court should not "add a narrowing modifier before an otherwise general term that stands unmodified in a claim." Johnson Worldwide Assocs., 175 F.3d at 989. *See also* Renishaw, 158 F.3d at 1249. Here, the term "paper" stands unmodified. It would be improper for this Court to impute a limiting modifier that would exclude coated paper from the scope of the general term "paper."

FN3. The patent prosecution history does not dictate otherwise. While it is true that the patent examiner required the plaintiff Mr. Dronzek to change the claim language from the open phrasing "comprising a paper, synthetic paper or a coated film" to the closed phrasing "consisting of a paper, synthetic paper or a coated film," *see* Hardy Decl., Ex. II, that says nothing about the scope of the term "paper."

Delta further contends that even if coated paper falls within the meaning of "paper," the top layer of Delta's baggage tags is, strictly speaking, not coated paper. Delta points to the fact that the thermal coat found within the top layer of its baggage tag contains developer and dye. The plaintiff Mr. Dronzek conceded at his deposition that "the dye and developer part of the thermal coat layer are not normally parts of coated paper." Dronzek Depo., at 325. But, Mr. Dronzek also pointed out that an Avery product catalog lists direct thermal facestock, such as that used in the top layer of the Delta baggage tags, under the general heading of "paper pricing." *See id.,* at 319-20. Indeed, in his deposition, Mr. Mingus, the research and development manager for paper-based stock at Avery, referred to direct thermal facestock as a "paper construction." Hardy Decl., Ex. Q, at 50. Thus, there is conflicting evidence in the record as to whether direct thermal facestock is a coated paper. Resolving all ambiguities and drawing all reasonable inferences in favor of the

plaintiffs, it cannot be said that Delta has demonstrated that it is entitled to summary judgment of non-infringement as a matter of law.

CONCLUSION

For all of the foregoing reasons, the defendant's motion for summary judgment is denied.

SO ORDERED.

S.D.N.Y.,2000.
Process Resources Corp. v. Delta Air Lines, Inc.

Produced by Sans Paper, LLC.